
CATALOGUE - 2017

Solutions for electrical installation in buildings



Solutions for electrical installation in buildings

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Two volumes, one objective: to always find the best solution
From a single catalogue with two complementary volumes:
streamline to simplify, analyse to choose.

The catalog Solutions for electrical installation in buildings comes in two separate but integrated volumes: one dedicated to the description and easy selection of products code and one for professionals searching for in-depth details and specifications, installation examples and special technical solutions.

Solutions for electrical installation in buildings

An indispensable tool for those who are looking for easy selection of a completely reliable range of products



The main catalogue summarizes all the technical-commercial characteristics of the products, allows one to navigate between the main characteristics, descriptions, specifications, accessories, product pictures, illustrations and information about the individual codes. The catalogue is a helpful product guide, which makes easier the orientation in a very complex product range of ABB products for electrical installation in buildings.

Solutions for electrical installation in buildings - Technical details

Technical details and information, application examples, installation solutions: the complete ABB know how at the service of professionals

The technical addendum dedicated to technical-applicative details provides professionals with a series of specialized information such as the operating curve, selectivity tables, connection diagrams, etc. The numbers of chapters in the technical addendum match with the same chapters in the main catalog.



Two volumes that reference each other, which are manageable and easily consultable, designed for those who wish to find the clearest solution in the least possible time.



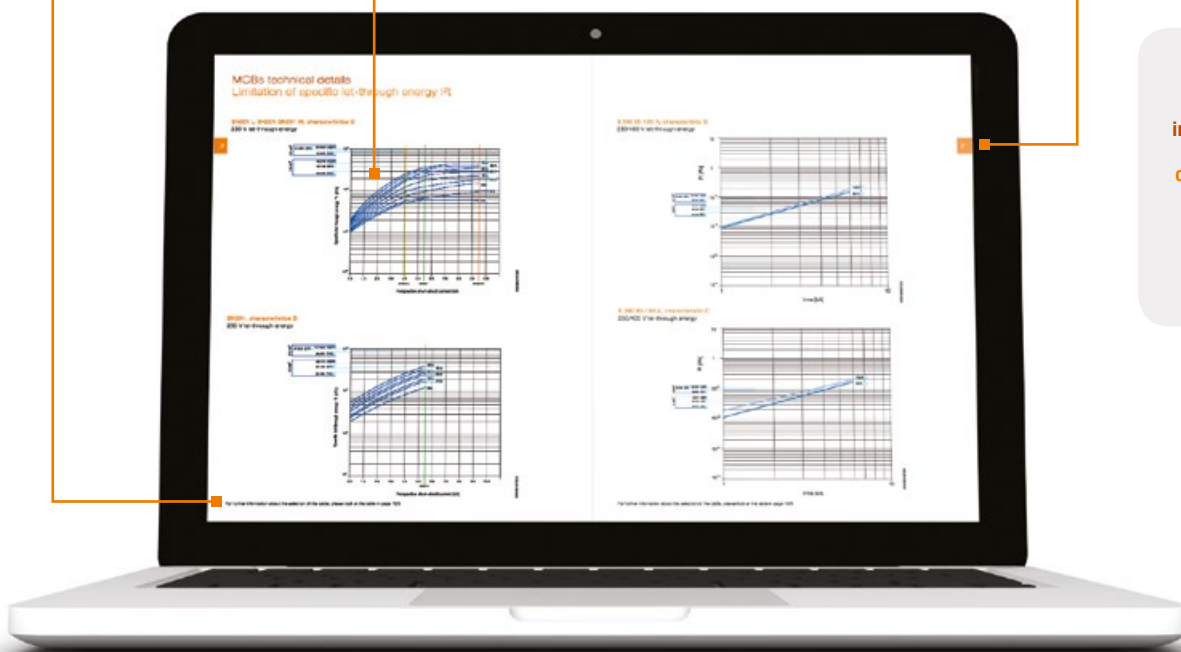
The volume Solutions for electrical installation in buildings can be downloaded or requested in printed form



Cross reference of information between the two volumes

Arguments developed in the same logical sequence

Same reference heading

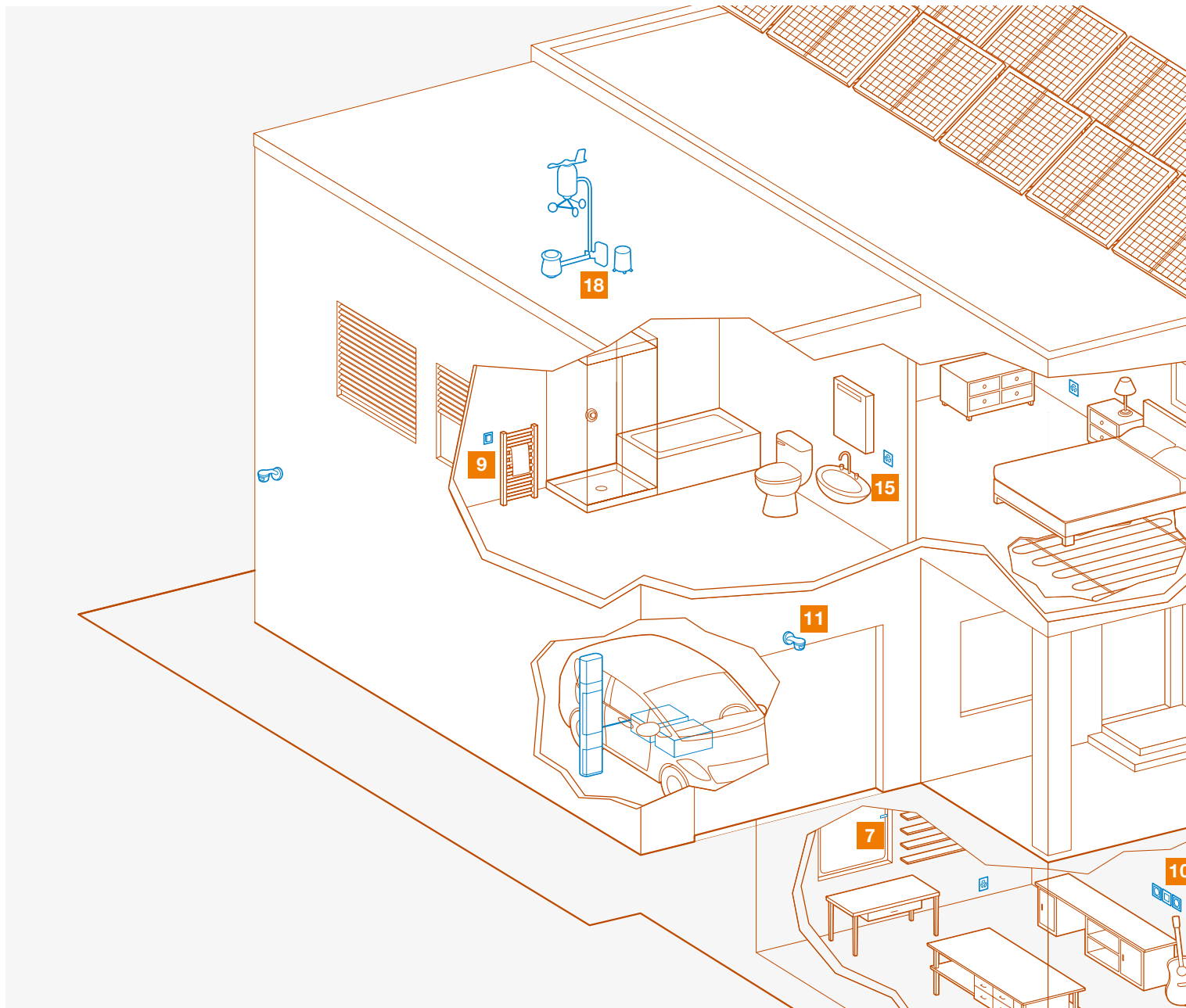


The volume Solutions for electrical installation in buildings - Technical details can be downloaded here

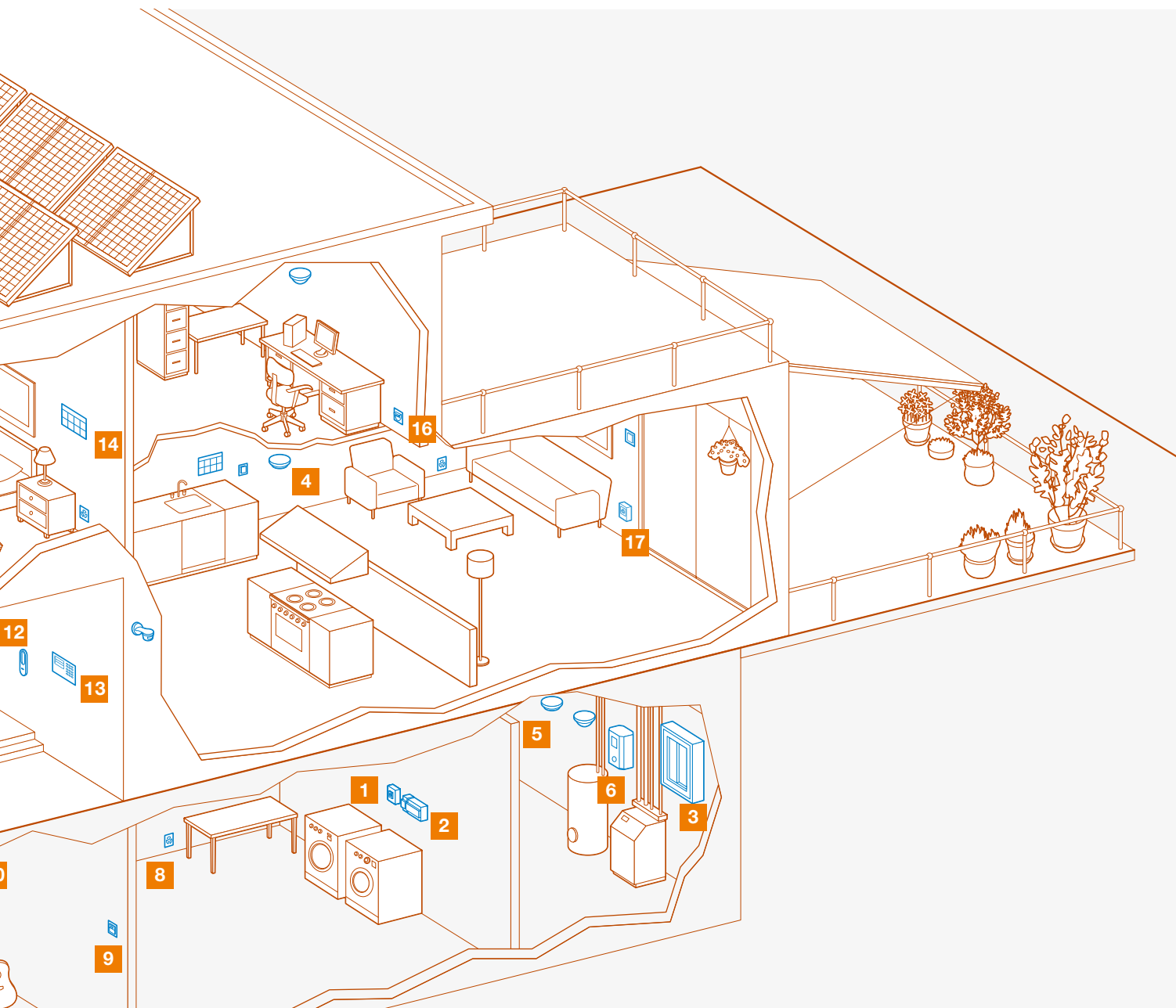


Solutions for electrical installation in buildings

Quality of life, living comfort and safety



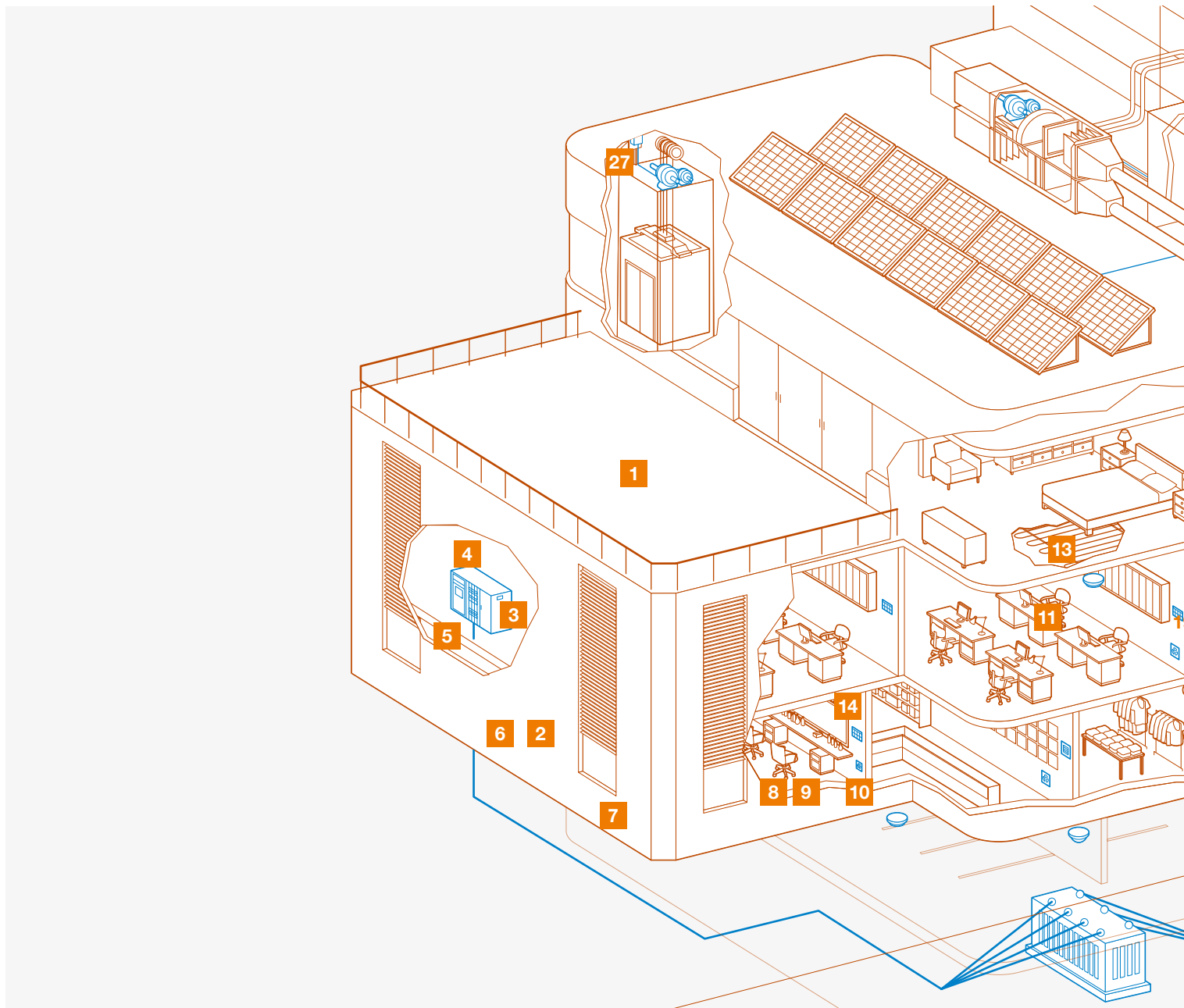
1. Safety switch
2. Energy meter
3. Small and home distributor
4. Smoke detectors
5. Movement detectors
6. Photovoltaic inverter
7. CO₂ indoor air sensor
8. Switches and socket outlets
9. Room temperature controller with venetian blind control unit
10. Busch-DigitalRadio



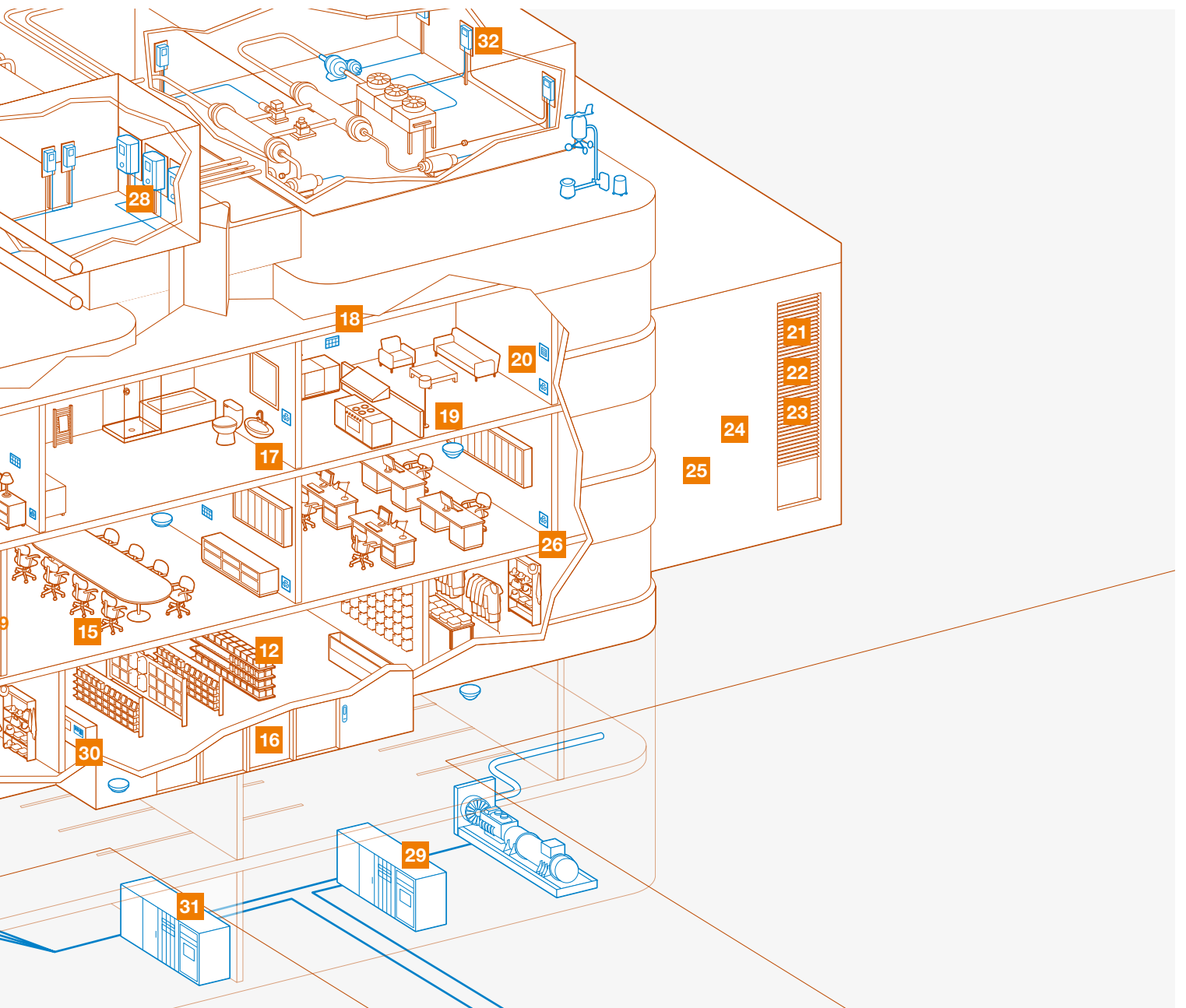
- | | |
|--------------------------------|---|
| 11. Movement detector | 16. Communications socket outlets |
| 12. Access control systems | 17. Switches and socket outlets for outdoor and wet areas |
| 13. Burglar alarm systems | 18. Weather sensor unit |
| 14. ABB i-bus® KNX touch panel | |
| 15. Safety socket outlets | |

Solutions for electrical installation in buildings

Solutions for commercial and industrial buildings



1. Lightning protection
2. Circuit breakers
3. Central battery systems
4. Cable ties and accessories
5. Cable connections
6. Distributors
7. Energy meter
8. Industrial connectors
9. Terminal blocks
10. Push-button
11. Non-metallic, flexible cable ducts
12. Cable duct, cable ties
13. Protection relay
14. AC & DC switches in housing
15. Bus modules
16. Overvoltage protection devices



- | | |
|---|--|
| 17. Earth-fault relay | 25. Energy distribution unit |
| 18. Door communication | 26. Cable connections & accessories |
| 19. Emergency lighting | 27. EMC safety switch |
| 20. Timers | 28. DC load-break switches |
| 21. Electrical and grounding connections | 29. Tmax XT power circuit breaker |
| 22. Safety components | 30. OT load-break switches |
| 23. Electrical distribution systems | 31. XLP safety load-break switch |
| 24. Motor starter combinations, soft starters | 32. Safety switches for aeration or air-conditioning systems |

Solutions for electrical installation in buildings

Product highlights for 2017



S-ARC1

The S-ARC1 is the new 1P+N Arc Fault Detection Device (AFDD) with an integrated Miniature Circuit Breaker (MCB). Besides the overcurrent protection of the MCB, the S-ARC1 provides additional protection against parallel and series arc faults. It fulfills the requirements of the IEC Standard. In only two module width, the S-ARC1 series is perfectly integrated with ABB's System pro M compact® range. Combined with a Residual Current Circuit Breaker (RCCB) as upstream device, the S-ARC1 provides the best solution for complete protection in the switchboard.



New generation of SMISLINE devices

For the SMISLINE system a new generation of Miniature circuit breakers (MCB) and a new Residual current operated circuit breaker with overcurrent protection (RCBO) have been launched. The new generation brings several new features like higher rated short-circuit breaking capacity for some RCBO or a higher rated voltage for the DC MCB. The design of the new devices did not change, enabling full compatibility with existing installations.



E 90 30/60 J

E 90 J range has been designed to comply with North American market regulations. The E 90 J fuse carriers are the ideal solution for industrial installation, motors and transformers protection, heating systems and control circuits. In accordance with the reference standard UL 4248-8, they come in voltage and current ratings up to 600V and 30/60 A. The breaking capacity reaches 200 kA. They are available in 1P, 2P and 3P versions. The versions with blown fuse indicator light provide a visual signal of the fuse break condition. They can be padlocked open and sealed closed to ensure operator safety during maintenance operations.



CO₂ Sensor

The room temperature controller with CO₂/moisture sensor controls all components that define a room atmosphere: Temperature, humidity and the amount of fresh air. Everything in one device.



Busch-SmartTouch

The Busch-SmartTouch is a free programmable KNX touch display with a 7" touch screen. It controls various KNX functions and can be used as an indoor video station for the door communication system ABB-Welcome.



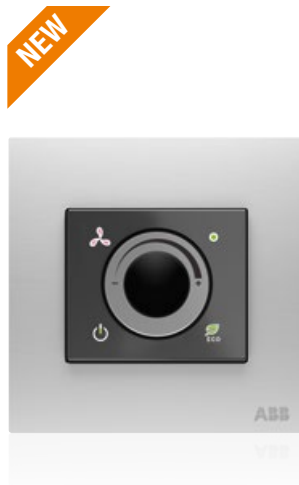
ABB-free@homeTouch 4.3"

The ABB-free@homeTouch 4.3" is a compact touch display with a 4.3" screen diagonal. It can control up to 16 different functions and has an integrated room temperature controller.



Logic Controller ABA/S 1.2.1

With the new ABB Logic Controller ABA/S 1.2.1 system integrators can quickly and flexibly deal with the most challenging project requirements – with a maximum of design freedom. That is because the logic controller can easily and reliably accommodate altered or extended functionality requests during construction or usage of buildings.



Millenium Room thermostat

The controller is a thermostat for Fan Coil units in 2 - and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. The Millenium Room thermostat excels with its design and its intuitive operation thanks to its rotary knob.



New Easy & Safe industrial plugs and sockets

ABB offers a complete range of IP 44 and IP 67 industrial plugs, connectors, socket outlets and inlets in a new attractive and functional design. The new IP 67 products are perfect for the application when you need to protect contacts from water and dust. Robust design and unique self-cleaning calibrated contacts bring reliability, prevent arcing, reduce downtime and thus lower maintenance costs. Products are easy to install. Perfect for all industrial applications, food and beverage industries, construction sites, infrastructure applications, mines, reefer containers connection and marine applications.

Solutions for electrical installation in buildings

A world of advantages

Residential, tertiary and industrial sector

Our extensive range of modular DIN Rail components, with protection, command, control and measurement functions, is perfect for meeting all the current requirements of electrical installations, in residential, tertiary and industrial sector. The wide range of metallic and plastic enclosures complete the ABB offer.



Railways

The breadth of our product portfolio has allowed us to become leader in the railway sector. This is thanks to the high-performance S200M-UC AC and DC circuit breaker, as well as the S200MT series, particularly suitable for conditions of fire and smoke, in compliance with the French NF F 16-101/102 standard.



Solutions for solar energy

At ABB we provide products specifically designed for protection and operation of AC and DC circuits in solar power plants. These include circuit breakers and switch disconnectors such as S800PV up to 1,200 V DC, E90PV fuseholders, E9F PV fuses, OVR-PV surge protective devices, etc. They can be perfectly housed inside enclosures suitable for outdoors and PV installation, such the GEMINI switchboards. ABB offers also PV combiners „ready-to-install“ and designed for various number of strings with or without monitoring system.



Wind power

The outstanding performance of our high voltages devices and our constant innovation have allowed us to become world leader in electrical switchgear for wind-energy sector. The high performance of our S800 circuit breaker series, characterized by the high breaking capacity of 690 V AC, and their combination with the new S800-SCL-SR self-resetting short-circuit current limiter make our range of modular DIN Rail components perfect for the needs of the sector.



Critical Power/Data Centres

In electrical installations such as data centres, banks, hospitals and airports where service continuity is critical, a system that allows the switchgear to connect and disconnect voltages in a totally safe manner is required. The SMISLINE Touch Proof pluggable socket system ensures an installation safe, flexible and without interruptions.



UL/CSA standards for US and Canada

In order to meet international certification requirements, our modular DIN Rail product portfolio is compliant with a large number of standards from all over the world, with the highly sought-after UL certification met by the S200U, S200UP and S800U circuit breakers and the F200 residual current devices. Furthermore the portfolio is widened by the metallic SR2 switchboard and now, by the new thermoplastic switchboard GEMINI UL.



Solutions for electrical installation in buildings

A world of advantages

Miniature circuit-breakers

1 S200 Series

Circuit breakers up to 63 A
S200, S200M and S200P:
For residential, commercial
and industrial use up to 25
kA.
S200U, S200UP and SU-
200PR with certification acc.
to: Certification UL489/CSA
22.2 No. 5 (US and Canada).

2 SN201 Series

SN201 series circuit breakers including one pole and neutral in one
module width up to 40A specific for household applications and
tertiary sector.

3 S800 Series

S800 circuit breakers
with high breaking capacity up to
125A
S800B : 16 kA breaking capacity.
S800C : 25 kA breaking capacity.
S800N : 36 kA breaking capacity.
S800S : 50 kA breaking capacity.

Residual current protection

4 F200 Series

Residual current devices up to 125 A
F200: Residential, tertiary and indus-
trial.

5 DDA200 and DDA800 Series

RCD blocks adaptable to the S200 and
S800 circuit-breaker series up to 63A and
100A respectively.



Increased terminal opening for higher wire
gauges up to 35mm².
For conductors with or without connector
sleeves.
Fulfills still the requirements for protection de-
gree IP20 (finger safe) acc. to IEC/EN 60529.
Integrated plate protecting flexible cables from
damage and homogenous pressure in the termi-
nal opening.



Switch with intermediate trip
position (TRIP).
S800 circuit breakers diffe-
rentiate manual actuation
from over-current trip.



Terminal on the front face
for fail-safe function.



Multiple certification marks visible on the
upper and lower face of the S200 circuit
breakers.
Laser marking for reliable readability.
Real contact position indication, directly
connected to the moving contact, for more
comfort and safety. Individual identification
code for each MCB on the front.



Label-holder built into SN200
circuit breakers.
Easy identification of protected
circuits.
One pole plus neutral in a width of
just 17.6 mm.



The green/red switch co-
lour clearly indicates the
connected/disconnected
status.



Failsafe bi-directional cylinder-
lift terminal at top and bottom
(available for the entire System
pro M compact® range). Ideal for
connection of cables and busbars
simultaneously.

Other protection devices

6 DS200 Series

Overcurrent and residual current protection in a single device, just two modules width. Suitable for residential, tertiary and industrial applications.

7 RD3 residual current relays

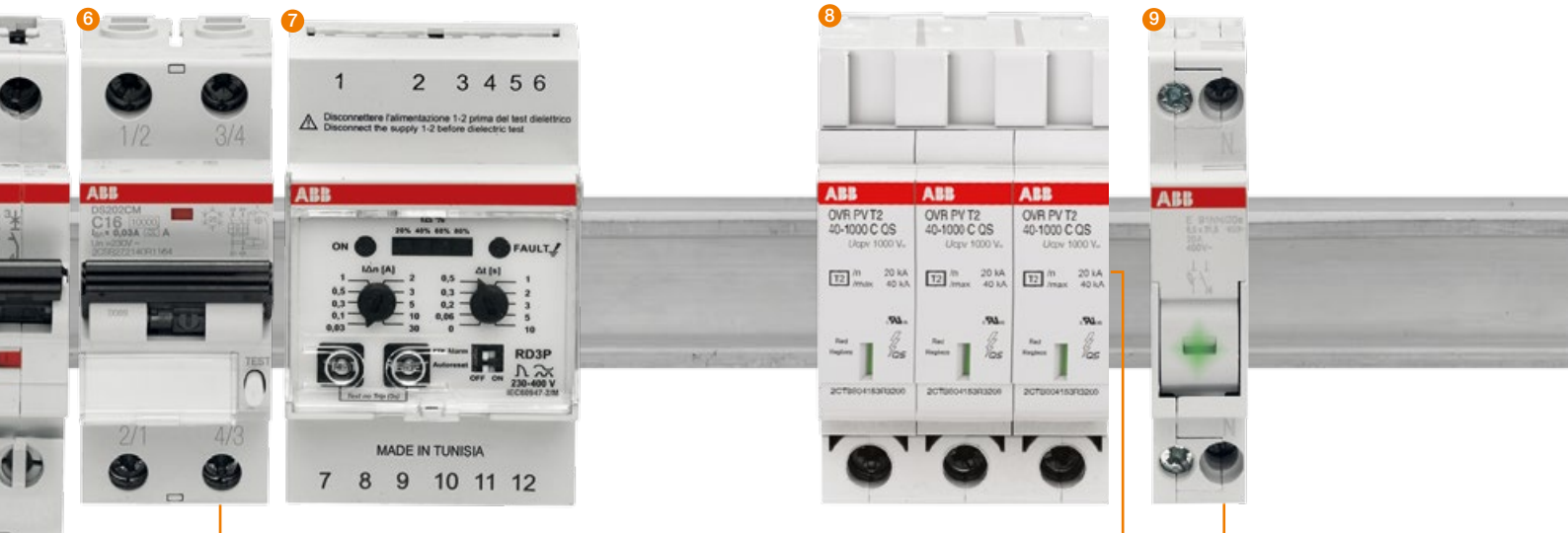
Residual current relays with the possibility to set sensitivity and intervention time. Ideal to obtain time and sensitivity combinations and to achieve selectivity with other residual current devices.

8 OVR series surge protective devices

Protection of electrical equipment against surges caused by lightning or other grid disruptions.

9 E90 fuseholders and fuse disconnectors

E90: Disconnector series up to 32A.
E90h: Compact series up to 32A.
E90 50/125: Series up to 125A.



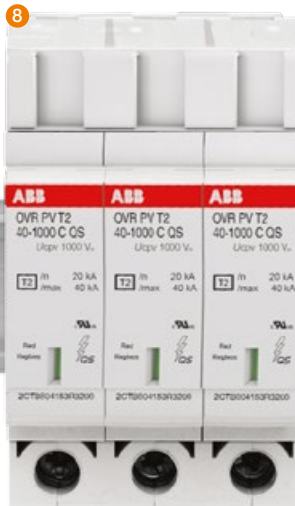
Displays the cause of the trip of the DS200 residual current breaker. Blue (residual current trip) or black (over-current trip indications).



Includes RFID label. Prevents forgeries through the inclusion of a serial number in compliance with the ISO/IEC FCD 15693-3 standard.



Contact position indicator visible on the front of the DS200 residual current breaker.



Visual indicator of the remaining life of the OVR surge protective device. Option to include remote signalling contacts of the OVR status.



Blown fuse indicator light on the front part of the E90 fuseholder.

Solutions for electrical installation in buildings

A world of advantages

Command and control

10 Contactors, latching relays and installation relays

ESB and EN series contactors.
E259 series installation relays.
E250 and E260 series latching relays.

11 Switch disconnectors

E200 series
switch disconnectors
From 1 to 4 poles.
Up to 125 A.

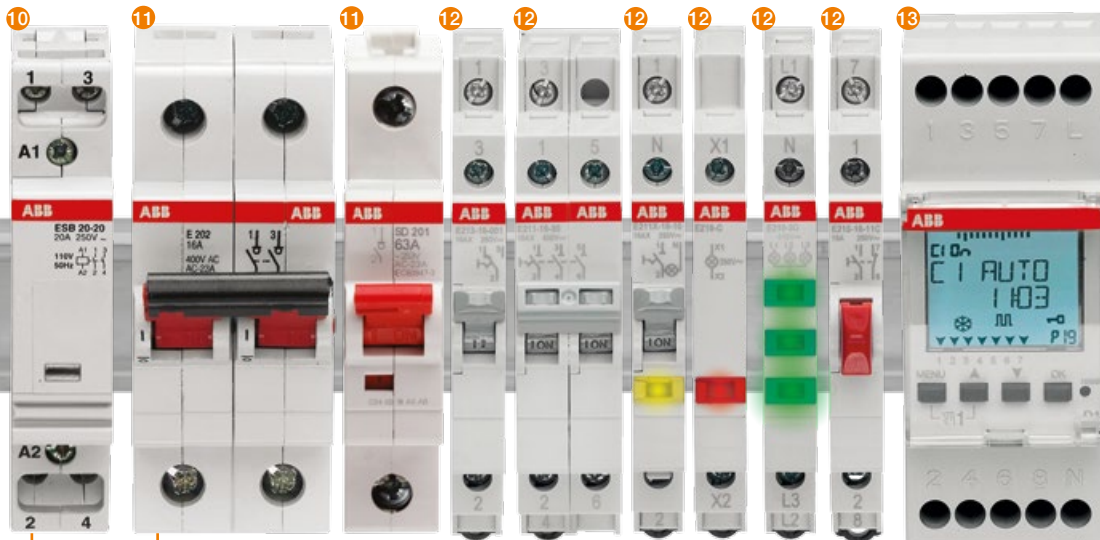
SD200 switch disconnectors
From 1 to 4 poles.
Up to 63 A.
Fully compatible with MCB
accessories.

12 E210 series on-off switches, push buttons and indicator lamps

E211 and E218 series on-off switches.
E213 series change over switches.
E214 series group switches.
E215 and E217 series push buttons.
E219 series single, double and triple indicator lights.

13 D-Line digital and AT analogue time switches

D1 and D2 weekly digital time switches.
D365 yearly digital time switches.
AT analogue time switches.



Currents up to 125A.
From 1 to 4 poles.
Option to include an add-on of
up to 3 auxiliary contacts.

Extremely quiet.
Variety of control voltages.
Multiple combinations of NO and NC con-
tacts.
Function modes selector:
Automatic/Manual/Disconnected (EN
series).

Multiple command and control
functions in the ultra-compact
design (9mm width) of the E210
series.



Up to 3 E219 LED indicator
lights in a width of just 9 mm.
LED indicators guarantee an
optimal illumination with very
low consumption.

**14 TWA astronomical switches
and TW twilight switches**

TWA astronomical switches to activate lighting systems according to the rising and setting of the sun.

TW twilight switches to control lighting devices according to the level of the ambient light.

**15 E234 series electronic timers
and E232 series staircase switches**

Wide range of E234.

E232 staircase timers for household applications.



D-Line series weekly and annual digital time switches.
Multiple communication options.
Wide range of programs: standard, cyclic, casual and holiday.
White backlit LCD display.

Easy to program.
Ideal for public lighting, stores lighting, monuments, etc.

Connection and disconnection time delays.
Continuous and impulse signals among multiple options.

Solutions for electrical installation in buildings

A world of advantages

Measurement

16 EQ digital electricity meters

C series, extremely compact meters.
B series, compact with communication features.
A series, functionality beyond comparison.
Functionalities associated to a "metal scale" assigned to each model (steel, bronze, silver, gold and platinum).

17 Digital and analogue measuring instruments

AMTD and AMT ammeters.
VLMD and VLM voltmeters.
FRZ frequency meters.
DMTME multimeters.
E233 and HTM hour counters.
Current and voltage transformers.



Single-phase and three-phase metering.
Direct reading up to 80A or indirect reading through current and/or voltage transformers.
High precision with an accuracy class up to 0.5 S.
Reading of generated/consumed and active/reactive energy.
Up to four tariffs.
Up to eight channels of load profiles.
Previous values for several quantities.
Possibility of built-in serial communication interfaces, Modbus and M-Bus.
Connect up to 32 meters to Ethernet gateway, JSON protocol, including inbuilt webserver. Possibility of internal clock for advanced functionalities.

C11 single-phase digital electricity meter with ultra-compact design just one module wide.
C13 three-phase digital meter with ultra-compact design just three modules wide.
Both unique on the market.

Other functions

18 Extensive range of other modular devices

Modular sockets.
Light dimmers.
Priority switches and overload relays.
Control, isolating and safety transformers.
etc.



The range includes products complying with the most widespread standards (German, Italian, French...).
Safety shutters and optional cover.

Solutions for electrical installation in buildings

A world of advantages

Intelligent Building Solutions

ABB i-bus® KNX

ABB i-bus® KNX is the intelligent building solution that meets the highest requirements for applications in modern home and building control. It is based on the simple, yet proven KNX technology which is accepted as the world's first open standard for the control of all types of intelligent buildings - industrial, commercial or residential.

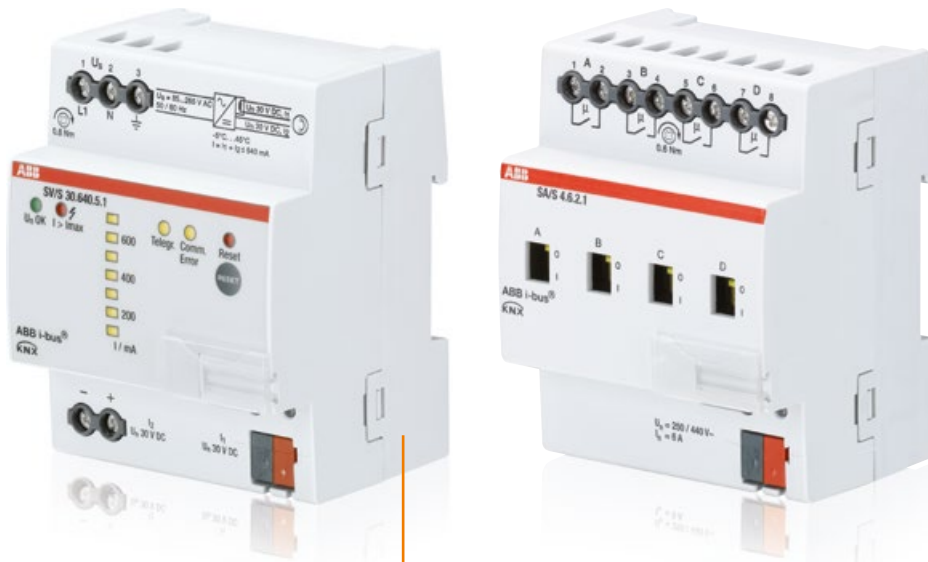


ABB i-bus® KNX offers a complete product range for automation and control in today's modern buildings:

- Lighting control and regulation
- Heating, ventilation, cooling
- Blinds and shutter control
- Security and monitoring
- Energy and load management
- Visualization and operation
- Central automation and control
- Remote control / maintenance



Consumer units

Mistral

The new MISTRAL® series of consumer units offers ample internal space and high flexibility in term of possible internal configurations, making your job quicker and easier. Flush-fit and wall-mounted versions offer elegant design. And with IP41 and IP65 ratings, you can install the units in any kind of environment of residential and commercial building

UK500

UK500 is the range of flush-mounting consumer units that, thanks to the several internal configurations and to a wide choice of doors, accessories and finishing, is able to fulfill any decorative requirements. Furthermore starting out from the flush mounting base version, UK500 series consumer units can be installed on surface, as well as semirecessed mounting or in hollow wall, simply by means of accessories.



The new MISTRAL® series come in three versions:

System pro E comfort MISTRAL41F

Elegant flush-mounting consumer unit that includes an elegant and thin frontal cover, ample internal space and unique features such as the innovative cable entry flanges.

System pro E comfort MISTRAL41W

IP41 rated consumer unit for wall mounting installation, conceived to be installed in commercial buildings, but extremely versatile thanks to the smart features and to a perfect balance between internal space and overall dimensions.

System pro E comfort MISTRAL65

IP65 rated consumer unit designed for harsh environments, where high performances are required.



Solutions for electrical installation in buildings

A world of advantages

Sub distribution boards

TwinLine wall-mounting and floor-standing cabinets

With the TwinLine system, STRIEBEL & JOHN has set another milestone in the field of modern power distribution. TwinLine has been tested according to IEC 61439, DIN EN 61439-1/-2/-3.

Continuity is the guiding principle for these new wall-mounting and floor-standing cabinets for distribution board assembly – from their different degrees of protection and their ease of installation to a portfolio which can meet all requirements in the field.

The benefits: comprehensive product selection, high quality, quick and easy internal configuration. A simplified accessories concept guarantees full flexibility while reducing inventory levels. Are you looking for a modern, user-optimised and future-proof cabinet for distribution board assembly? Then you will surely find it with TwinLine. System intelligence comes standard with the new wall-mounting and floor-standing cabinets because in combination with CombiLine modules, TwinLine offers you unlimited possibilities for the internal configuration.

Compact distribution boards

The compact distribution boards, which have been developed in close cooperation with technicians from the field, stand out by total solutions. Flexibility and speed will support the users in their daily tasks.

Be it for commercial, industrial or domestic uses - this broad range of products offers a solution to any type of mounting - from flush-mounting and wall-mounting up to hollow-wall mounting applications. All enclosures are double insulated. An earthing set is available as accessory. Depending on the version, degrees of protection between IP31 and IP43 are available.



TwinLine N 55

TwinLine the welded wall-mounting and floor-standing cabinets IP55

The TwinLine N 55 system is a fully comprehensive welded product range, available in both protection classes and three cabinet depths, and all with the high IP55 degree of protection.

Continuity is the guiding principle for these new wall-mounting and floor-standing cabinets for distribution board assembly – from their high degree of protection and their ease of installation to a portfolio which can meet all requirements in the field.



TwinLine S 43

The complete modular cabinet system in all sizes

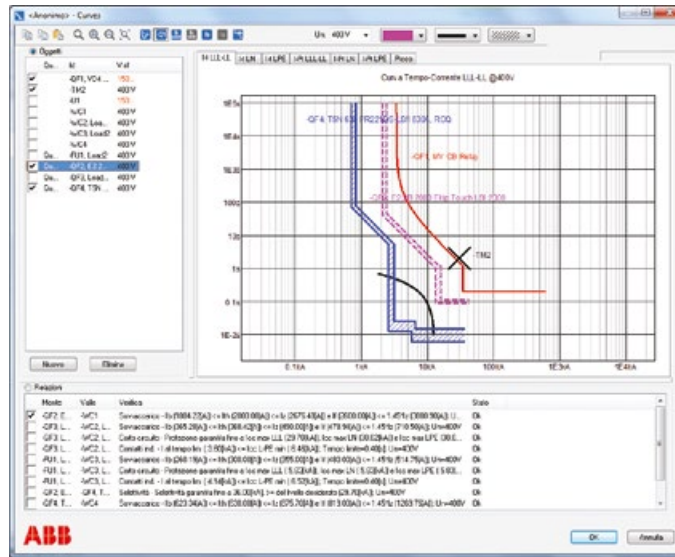
With the new TwinLine S 43 system, ABB offers a tailored and future-proof concept of modular wall-mounting and floor-standing cabinets. This fully comprehensive product range includes two cabinet types TwinLine-G (depth of 225 mm) and TwinLine-L (depth of 275 mm) and provides a solution for every application.



A brief introduction to... Enclosures, Sub distribution boards

E-Design software

ABB presents e-Design, the new engineering software suite launched as a tool to meet the needs of electrical sector professionals working in a constantly changing market. e-Design makes it possible to design an electrical system, optimizing production times to the maximum, thanks to the ability to access a product portfolio to be used in synergy through intuitive and simple functionalities. The suite's appealing and brand-new look, combined with a general optimization of the functionalities that have always characterised ABB software, make it an innovative tool in step with the technologies currently available in the sector.



ABB's experience in a single suite

ABB's commitment in developing engineering software has always been driven by the rigorous preparation of its engineers and its sharp focus on the needs of professionals working in the sector. In such a rapidly changing context as exists today, it is essential to support the supply of increasingly technologically complex equipment with solutions that ensure that such equipment is simple to use. Conscious of market requirements, ABB is capitalizing on its own experience and presents the new e-Design suite as a practical response to every critical aspect of the design process.

The screenshot shows the ABB e-Design software interface displaying a detailed view of a component selection table. The table has columns for 'Standard', 'Tensione (V)', 'Poli', 'Taglia', 'Versione', 'Isc (kA)', 'In (A)', 'Spiegazione', 'Post. Spec.', 'Power Controller', and 'Terminali'. Below the table, there are sections for 'Novi codici rilevanti non disponibili' and 'Categorie (2)', each with a list of components and their associated prices and quantities.

Standard	Tensione (V)	Poli	Taglia	Versione	Isc (kA)	In (A)	Spiegazione	Post. Spec.	Power Controller	Terminali
800	690	3P	250	Fixed	42	250	800 Dip LI	None		F
		4P	650	Extracable	50	650	800 Dip LI-B		Can	FP
			800		66	800	800 Dip LI-B-9			69
			1200		85	1000	800 Dip LI			FL
			1200		100	1250	800 Dip LI-B			HR
			1600		100	1600	800 Dip LI-B-9			HR
			2000		200	2000	800 Dip LI-B-9			HR
			2500		200	2500	800 Dip LI-B-9			HR

Descrizione	Codice Articolo	Prezzo	Quantità
81.2N 1250 Dip Dip LI 4p HR HR	18DA072031R1	12.230,93 €	1
81.2N 1250 Dip Dip LI 4p WMP	18DA072031R1	10.562,33 €	1
81.2 W PP Lu-1000 4p HR HR	18DA072008R1	1.628,57 €	1
82.2N 1250 Dip Dip LI 4p HR HR	18DA072031R1	14.366,52 €	1
82.2N 1250 Dip Dip LI 4p WMP	18DA072031R1	11.800,23 €	1
82.2 W PP Lu-2000 4p HR HR	18DA072010R1	2.556,25 €	1

Products from other catalogues You may also be interested in...

The ABB range of products
doesn't fit in only one catalogue.

System pro *E* power Main distribution switchgear

The ABB's new System pro *E* Power switchboard provides a complete solution for electric power main distribution in infrastructures and industries that complies with the latest international standards and guarantees perfect synergy with all the other ABB low voltage apparatus, such as Tmax T and XT moulded-case circuit-breakers, Emax 2 air circuit-breakers and of course, all the DIN rail components of System pro *M* compact® range. These and many other ABB's devices can be installed in this innovative switchboard since, a wide range of accessories, ensures that all components are perfectly compatible with each other, with extremely easy assembly and wiring operations.



Products from other catalogues You may also be interested in...

System pro *E* control Enclosure for automation and control

With SR2, AM2 and IS2, ABB proposes a wide range of enclosures extremely versatile and performing that fit all the requirements in automation applications: on-board machine switchboards, automated production lines, control and operation panel boards for industrial plant.

The System pro *E* control series includes EMC versions (ElectroMagnetic Compatibility) and enclosures made in stainless steel AISI304 to be used outdoor and in applications where high standards of hygiene resistance are required such as food industries, chemical and pharmaceutical sectors. Thanks to the availability of a wide range of accessories, the System pro *E* control allows the easy installation of front panel devices and the DIN rail components of the System pro *M* compact® range.

Gemini

Gemini is the ABB range of switchboards in thermoplastic, made with innovative co-injection molding technique that gives to this product robustness and high mechanical performances. Furthermore Gemini has a IP66 degree of protection and a very high resistance to chemical and atmospheric agents. This is the reason why Gemini guarantees excellent performances even in particularly severe operating conditions both in indoor and outdoor installations.

The Gemini switchboard is designed to be fitted with all the System pro *M* compact® devices and the ABB moulded-case circuit breakers.

Gemini switchboards are also perfectly compatible with other ABB low voltage components for control, monitoring and signaling devices, thereby creating a truly integrated automation system.



SACE Tmax T

The SACE Tmax T range consists of 9 circuit breaker sizes, all available in 3-pole and 4-pole versions, in fixed execution from T1 to T9, plug-in from T2 to T5 and extractable from T4 to T7. The following ranges are designed to meet all the various application requirements: circuit breakers for power distribution in alternating and direct current, circuit breakers for advanced zone selectivity, circuit breakers for motor protection, circuit breakers for applications up to 1150V in alternating current and 1000 V in direct current, PV switchdis-connectors for photovoltaic systems.

SACE Tmax XT

The SACE Tmax XT range fully meets all system needs, from the most basic to the most advanced, thanks also to its completeness (offering four sizes from 160 A to 250 A).

These items are distinguished by their excellent capacity to limit peak currents and specific let-through energy, thereby ensuring optimum sizing of the circuits and the devices downstream. The SACE Tmax XT circuit breakers are fitted with thermomagnetic and electronic releases to guarantee protection against both overloads and short-circuiting, and against earth faults and indirect contact in the low voltage distribution network.

The SACE Tmax XT moulded-case circuit breakers can be equipped with thermomagnetic releases to offer protection for networks in direct and alternating current (by exploiting the physical properties of a bimetal and an electromagnet, they can detect overloads and short-circuits), or electronic releases to protect alternating current networks. These releases use microprocessor technology to obtain highly reliable protection functions with accurate intervention.



Solutions for electrical installation in buildings

Miniature circuit-breakers

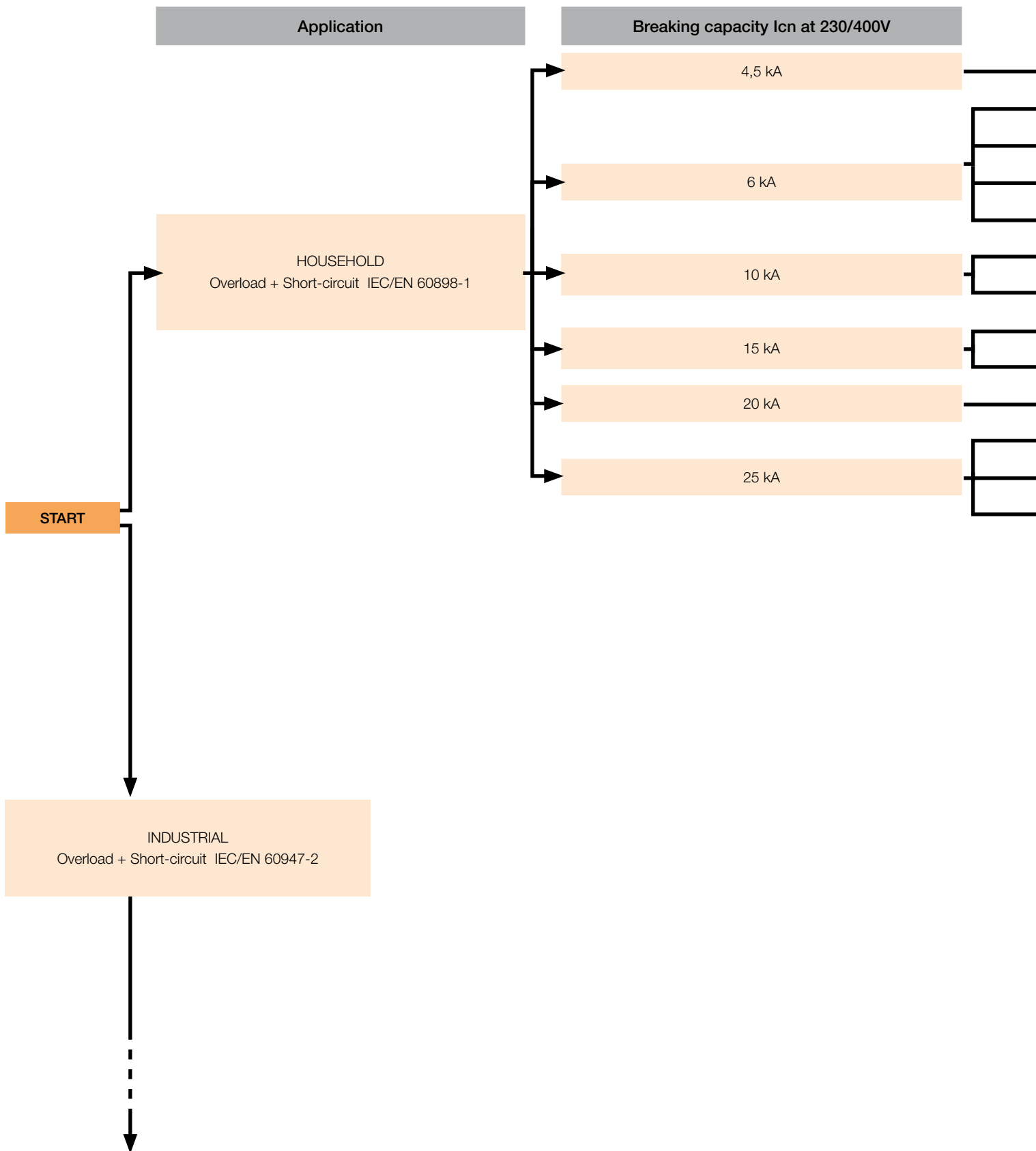
Quick selection of MCBs	1/2
MCBs S 200	
S 200 technical features	1/18
S 200 series, 6 kA	1/24
S 200 M series, 10 kA	1/38
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S800B series, 16 kA	1/173
S800HV series, 4 kA	1/177
S800U series, 50 kA	1/180
S804U-UCZ series, 10 kA	1/188
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System pro M compact®

Quick selection of MCBs for household and industrial applications

1

Easy! Find the right range and the corresponding catalogue page at a glance using this selection chart.



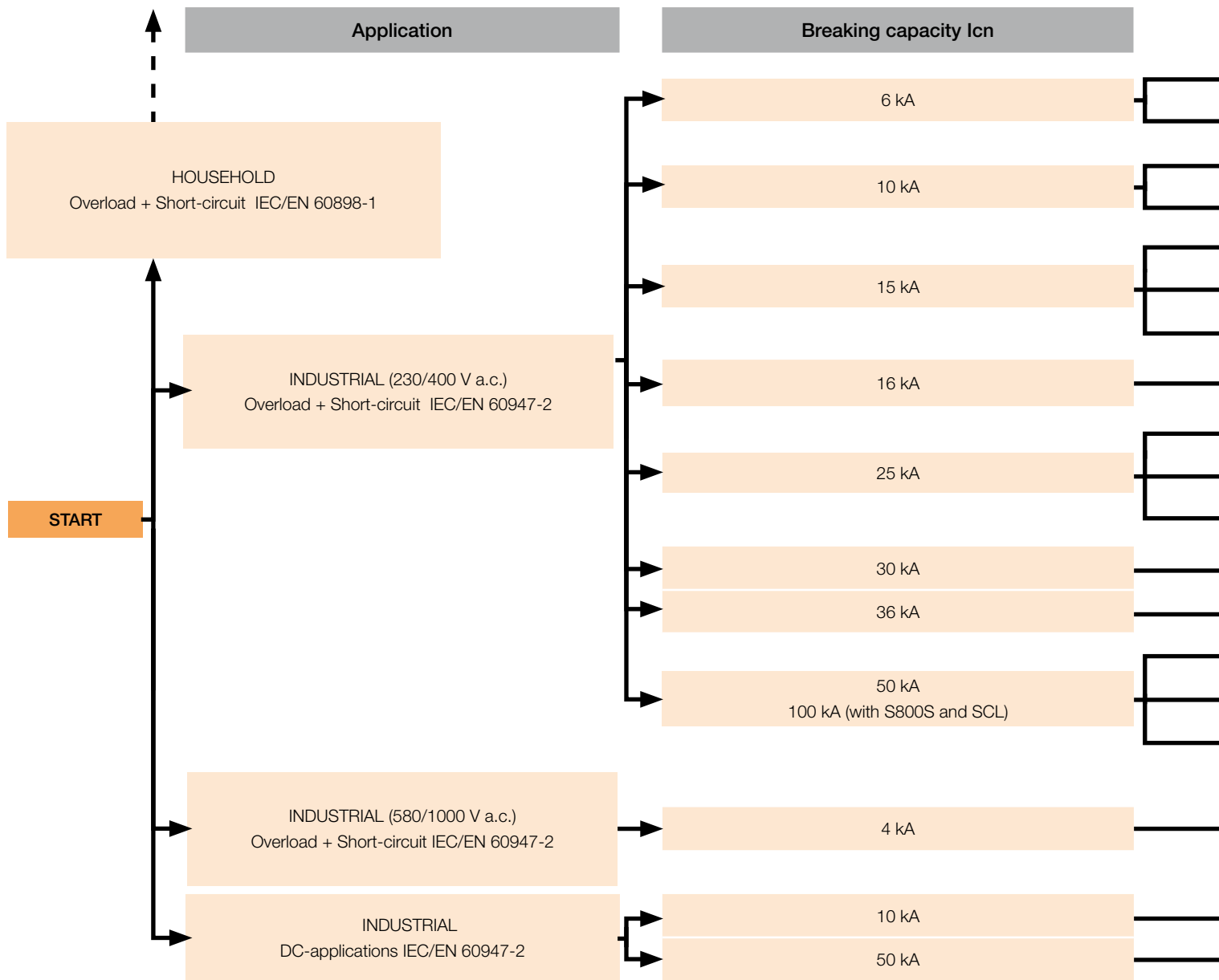
	Rated current	Poles	Solution	Page
→	Up to 40 A	1P+N	SN 201 L	1/106
→	Up to 40 A	1P+N	SN 201	1/107
→	Up to 20 A	1P, 3P	S 200 S	1/81
→	Up to 63 A	All poles	S 200	1/24
→	Up to 100 A	All poles	S 200	1/106
→	Up to 40 A	1P+N	SN 201 M	1/109
→	Up to 63 A	All poles	S 200 M	1/38
→	Up to 63 A	All poles	S 200 P	1/63
→	Up to 125 A	All poles	S800C	1/165
→	Up to 80 A	All poles	S800N	1/159
→	Up to 25 A	All poles	S 200 P	1/63
→	Up to 63 A/100 A	All poles	S 750 DR/S 700 ①	1/118, 1/122
→	Up to 80 A	All poles	S800S	1/134

① with specific short-circuit selectivity function

System pro M compact®

Quick selection of MCBs for household and industrial applications

1

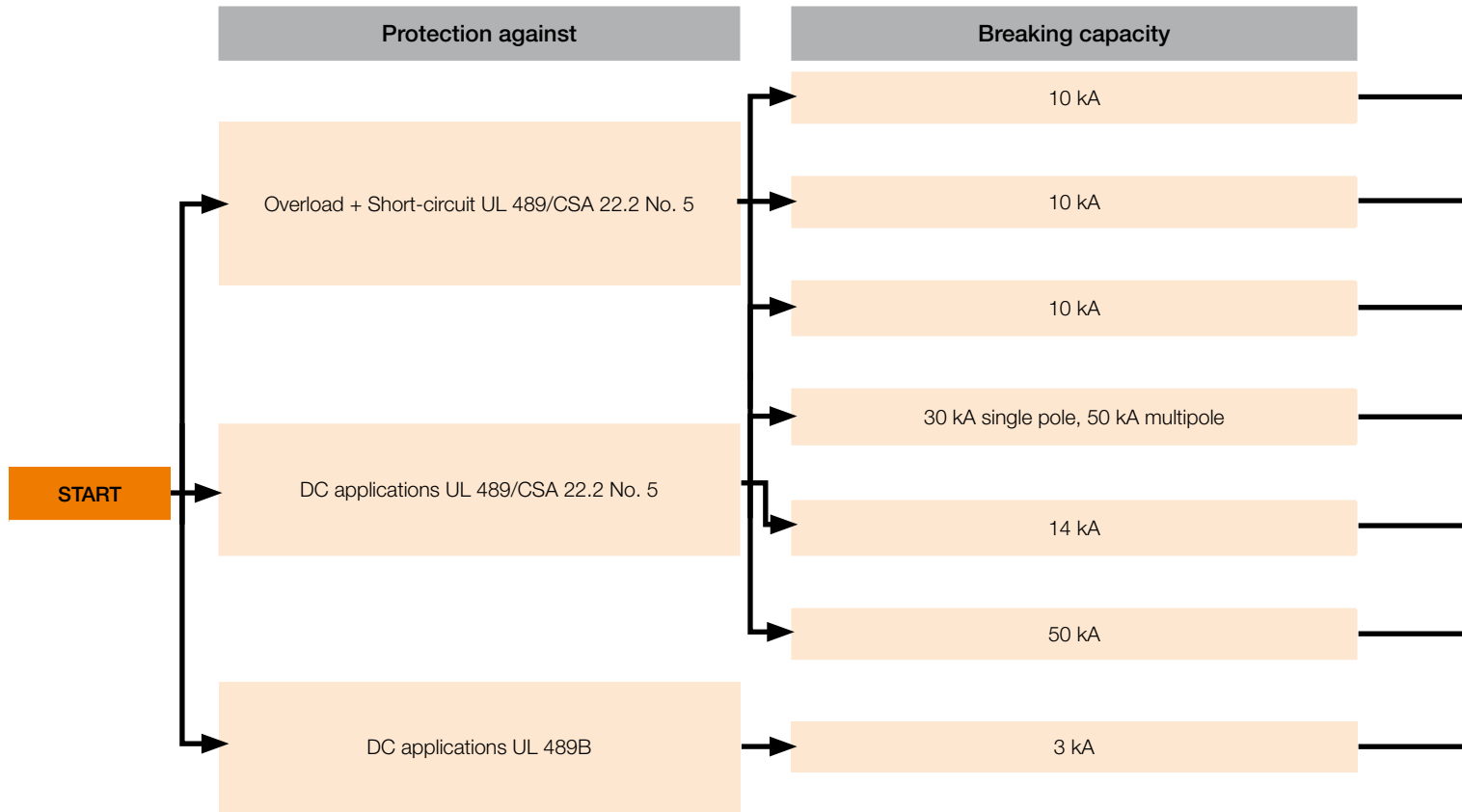


Rated current	Poles	Solution	Page
Up to 40 A	1P+N	SN 201 L	1/106
Up to 100 A	All poles	S 200	1/106
Up to 40 A	1P+N	SN 201, SN 201 M	1/107, 2/109
Up to 63 A	All poles	S 200, S 200 M	1/24, 1/38
Up to 40 A	All poles	S 200 M	1/38
Up to 63 A	All poles	S 200 P	1/63
Up to 63 A	1P, 2P, 3P, 4P	S 200 PR	1/78
Up to 125 A	All poles	S800B	1/173
Up to 25 A	All poles	S 200 P	1/63
Up to 63 A/100 A	All poles	S 750 DR/S 700 Ⓞ	1/118, 1/122
Up to 125 A	All poles	S800C	1/165
Up to 45 A	All poles	S500	1/200
Up to 125 A	All poles	S800N	1/159
Up to 125 A	All poles	S800S	1/134
Up to 125 A	All poles	S800SCL + S800S	3/61, 1/134
Up to 11 A	All poles	S500	1/200
Up to 125 A	1P, 2P, 3P	S800HV	1/177
Up to 63 A	1P, 2P, 3P, 4P	S 200 M UC	1/54
Up to 125 A	All poles	S800S-UC	1/159

System pro M compact®

Quick selection of MCBs for UL applications (UL 489/CSA 22.2 No. 5)

1



	Rated current	Remark	Poles	Solution	Page
→	Up to 63 A	→	1P, 2P, 3P, 4P	SU 200 M	1/84
→	Up to 40 (35) A	→	1P, 2P, 3P, 4P	SU 200 M	1/84
→	Up to 63 A	Ring Tongue	1P, 2P, 3P, 4P	SU 200 PR	1/96
→	Up to 100 A	→	All poles	S 800 U	1/184
→	Up to 63 A	→	1P, 2P	S 200 UDC	1/186
→	Up to 100 A	→	1P, 2P, 3P, 4P	S 800 U	1/184
→	5 A	→	4P	S804U-PVS5	1/189

Miniature circuit-breakers

Selection table

1



Series			S 200	S 200 M	S 200 M UC	S 200 P	S 200 PR	S 200 S		
Characteristics			B,C,D, K,Z	B,C,D, K,Z	B,C, K, Z	B,C,D, K,Z	B,C,D, K,Z	K	B,C	
Rated current	[A]		0.5 ≤ In ≤ 63	0.5 ≤ In ≤ 63	0.2 ≤ In ≤ 63	0.2 ≤ In ≤ 25	32 ≤ In ≤ 40	50 ≤ In ≤ 63	0.2 ≤ In ≤ 63	6 ≤ In ≤ 20
Breaking capacity: [kA]										
Reference standard	Nr. poles	Ue[V]								
IEC/EN 60898	Icn	230/400	6	10	10	25	15	15		6
IEC/EN 60947-2 Alternating current	Icu	1, 1P+N	133	20	25		40	25	25	
			230	10	15		25	15	15	15
			253							
		2, 3, 4	230	20	25	10 ⑦/6 ⑩	40	25	25	
			400	10	15		25	15	15	15
			440	10	15	10 ⑦/6 ⑩				
	Ics	1, 1P+N	133	15	18.7 ⑧		20	18.7	18.7	
			230	7.5	11.2 ⑧		12.5	11.2	7.5	
			253			7.5 ⑦/6 ⑩				7.5 ⑧ 11.2 ⑦
		2, 3, 4	230	15	18.7 ⑧		20	18.7	18.7	
			400	7.5	11.2 ⑧		12.5	11.2	7.5	
			440	7.5	11.2 ⑧	7.5 ⑦/6 ⑩				7.5 ⑧ 11.2 ⑦
IEC/EN 60947-2 Direct current T=I/R≤5ms for all series, except S280 UC and S800S-UC, where T=I/R<15ms	Icu	1, 1P+N	24	20						
			60	10	10		15	10	10	
			125							
			220			10				
		250								
		2	48	20						
	125		10	10		15	10	10		
	3,4	250								
		440			10					
		500								
		800								
		375								
500										
	750									
	1200									

- ① only up to 40 A; 10 kA up to 50/63 A
- ② only for "D" characteristic
- ③ values are not for all rated currents
- ④ 600 V DC for 100, 125 A
- ⑤ 1000 V DC for 100, 125 A
- ⑥ 3 poles
- ⑦ 4 poles
- ⑧ max. values. Detailed values on page 2/12

- ⑨ relevant product standard: E DIN VDE 0645 (based on IEC/EN 60898-1 and IEC/EN 60947-2)
- ⑩ by 250 V DC 1-pole, 600 V 3- and 4-pole
- ⑪ by 600 V DC 2-pole
- ⑫ ≤ 25 A
- ⑬ > 25 A
- ⑭ char. B, C
- ⑮ only 2 poles (connection in series)

- ⑯ UL 1077 only
- ⑰ ≤ 40 A
- ⑱ > 40 A
- ⑲ ≤ 35 A
- ⑳ 10-80 A



		SU 200 M		SU 200 PR	S 200 UDC	SN 201 L	SN 201	SN 201 M	S200 80-100A
C,Z	K	C,Z	K	K	K,Z	B,C	B,C,D	B,C	B,C
$0.2 \leq I_n \leq 40$	$0.2 \leq I_n \leq 35$	$50 \leq I_n \leq 63$	$40 \leq I_n \leq 63$	$0.2 \leq I_n \leq 63$	$1 \leq I_n \leq 63$	$2 \leq I_n \leq 40$	$2 \leq I_n \leq 40$	$2 \leq I_n \leq 40$	$80 \leq I_n \leq 100$
						4.5	6	10	6
						10	15	20	20
15	15	15	15	15		6	10	10	6
									20
15	15	15	15	15					6
						6	10	10	10
11.25	11.25	7.5	7.5			4.5	6	7.5	6
									10
11.25	11.25	7.5	7.5						6
15	15	10	10			10	15	15	
15	15	10	10			10	15	15	

Miniature circuit-breakers

Selection table

1



Series			S 200	S 200 M	S 200 M UC	S 200 P	S 200 PR	S 200 S			
Characteristics			B,C,D, K,Z	B,C,D, K,Z	B,C, K, Z	B,C,D, K,Z	B,C,D, K,Z	K	B,C		
Rated current [A]			0.5 ≤ In ≤ 63	0.5 ≤ In ≤ 63	0.2 ≤ In ≤ 63	0.2 ≤ In ≤ 25	32 ≤ In ≤ 40	50 ≤ In ≤ 63	0.2 ≤ In ≤ 63	6 ≤ In ≤ 20	
IEC/EN 60947-2 Direct current T=I/R ≤ 5ms for all series, except S280 UC and S800S-UC, where T=I/R < 15ms	Ics	1, 1P+N	24	20							
			60	10	10		15	10	10		
			125			10					
		2	220								
			250								
			48	20							
	3,4	125	10	10			15	10	10		
			250								
			440			10					
		500	800								
			375								
			500								
UL 1077/ C22.2 No 235 Alternating current	Int. cap.	1, 1P+N	120	10 ⑩		10	6	6			
			240								
			277	6 ⑩	6	6	10	6	6	10	
		2, 3, 4	240	10 ⑩			10	6	6		
			480								
			Y/277	6 ⑩	6	6	10	6	6	10	
	Int. cap.	1, 1P+N	60	10 ⑩	10						
			125								
			250			10					
		2, 3, 4	125		10						
			250								
			500			10					
UL 489/ C22.2 No 5 Alternating current	Int. cap.	1	240								
			277								
		2, 3, 4	240								
	480										
	Y/277										
	UL 489/ C22.2 No 5 Direct current	Int. cap.	1	48							
60											
2			96								
		125									

① only up to 40 A; 10 kA up to 50/63 A
 ② only for "D" characteristic
 ③ values are not for all rated currents
 ④ 600 V DC for 100, 125 A
 ⑤ 1000 V DC for 100, 125 A
 ⑥ 3 poles
 ⑦ 4 poles
 ⑧ max. values. Detailed values on page 2/12

⑨ relevant product standard: E DIN VDE 0645 (based on IEC/EN 60898-1 and IEC/EN 60947-2)
 ⑩ by 250 V DC 1-pole, 600 V 3- and 4-pole
 ⑪ by 600 V DC 2-pole
 ⑫ ≤ 25 A
 ⑬ > 25 A
 ⑭ char. B, C
 ⑮ only 2 poles (connection in series)

⑯ UL 1077 only
 ⑰ ≤ 40 A
 ⑱ > 40 A
 ⑲ ≤ 35 A
 ⑳ 10-80 A

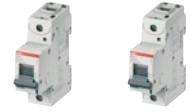


		SU 200 M		SU 200 PR	S 200 UDC	SN 201 L	SN 201	SN 201 M	S200 80-100A		
		C,Z	K	C,Z	K	K,Z	B,C	B,C,D	B,C	B,C	
		$0.2 \leq I_n \leq 40$	$0.2 \leq I_n \leq 35$	$50 \leq I_n \leq 63$	$40 \leq I_n \leq 63$	$0.2 \leq I_n \leq 63$	$1 \leq I_n \leq 63$	$2 \leq I_n \leq 40$	$2 \leq I_n \leq 40$	$2 \leq I_n \leq 40$	$80 \leq I_n \leq 100$
		15	15	10	10		10	15	15		
		15	15	10	10		10	15	15		
				10	10	10					
	10	10	10	10	10	10 [Ⓟ]					
				10	10	10					
	10	10	10			10 [Ⓟ]					
	10	10	10	10	10						
	10	10	10	10	10		14				
	10	10	10	10	10		14 [Ⓟ]				

High performance circuit-breakers

Selection table

1



Series			S750 DR	S700	S800S				S800N	S800C		
Characteristics			E selective, K selective	E selective, K selective	B,C,D	K	KM	UCB	UCK	B,C,D	B,C,D,K	
Rated current	[A]		16 ≤ In ≤ 63	10 ≤ In ≤ 100	6 ≤ In ≤ 125	6 ≤ In ≤ 125	20 ≤ In ≤ 80	10 ≤ In ≤ 125	10 ≤ In ≤ 125	6 ≤ In ≤ 125	10 ≤ In ≤ 125	
Breaking capacity: [kA]												
Reference standard	Nr. poles	Ue[V]										
IEC/EN 60898	Icn	230/400		25 ⑨	25 ⑩					20 ⑩	15	
IEC/EN 60947-2 Alternating current	Icu	1, 1P+N	133									
			230	25		50	50	50 ④		36	25	
		2, 3, 4	230			50	50	50 ④			36	25
			400	25		50	50	50 ④			36	25
	Ics	1, 1P+N	253									
			580									
		2, 3, 4	230			50	50	50 ④			36	25
			400	25		50	50	50 ④			36	25
	2, 3, 4	500	440									
			690			6 ③	6 ③			4.5		
		1000	500									
			690									
IEC/EN 60947-2 Direct current T=I/R≤5ms for all series, except S280 UC and S800S-UC, where T=I/R<15ms	Icu	1, 1P+N	133	12.5	12.5 ⑨	40	40			30	18	
			230			40	40	40 ④		30	18	
		2, 3, 4	230	12.5	12.5 ⑨	40	40	40 ④		30	18	
			400			40	40	40 ④		30	18	
	2, 3, 4	500	440									
			690			4 ③	4 ③			3		
		1200	500									
			690									
	3, 4	500	24									
			60									
			125			30	30			20	10	
			220									
2		250						50	50			
		48										
3, 4		125			30	30				20	10	
		250										
750	440											
	500						50	50				
	800											
	1200											
750	375	30 ⑥			30 ⑥	30 ⑥	30 ⑥	50	50	20 ⑥	10 ⑥	
		500			30 ⑦	30 ⑦		50	50	20 ⑦	10 ⑦	
	750	30 ⑦						50	50			
		1200						50	50			

① only up to 40 A; 10 kA up to 50/63 A
 ② only for "D" characteristic
 ③ values are not for all rated currents
 ④ 600 V DC for 100, 125 A
 ⑤ 1000 V DC for 100, 125 A
 ⑥ 3 poles
 ⑦ 4 poles
 ⑧ max. values. Detailed values on page 2/12

⑨ relevant product standard: E DIN VDE 0645 (based on IEC/EN 60898-1 and IEC/EN 60947-2)
 ⑩ by 250 V DC 1-pole, 600 V 3- and 4-pole
 ⑪ by 600 V DC 2-pole
 ⑫ ≤ 25 A
 ⑬ > 25 A
 ⑭ char. B, C
 ⑮ only 2 poles (connection in series)

⑯ UL 1077 only
 ⑰ ≤ 40 A
 ⑱ > 40 A
 ⑲ ≤ 35 A
 ⑳ 10-80 A
 ㉑ for S804U-UCZ only
 ㉒ for S804U-PVS only



S800B	S800HV	S800U	S804U-UCZ	S804U-PVS	S800PV-S	S500		S500UC
B,C,D,K	K	Z,K, UCZ, PVS			PV-S	K adjustable		K adjustable
$32 \leq I_n \leq 100/125$	6...125	$5 \leq I_n \leq 100$	10-80	5	$10 \leq I_n \leq 125$	$0.1 \leq I_n \leq 11$	$10 \leq I_n \leq 45$	$0.1 \leq I_n \leq 45$
10								
16		30				50	30	
16	4	50						
16		50				50	30	
						20	15	
	4					6	6	
10		25						
10		40				30	25	
10						30	25	
						15	11	
						3	3	
								30
								30
					5 ④			
								30
					5 ⑤			

High performance circuit-breakers

Selection table

1



Series			S 750 DR	S 700	S 800S				S 800N	S 800C		
Characteristics			E selective, K selective	E selective, K selective ⑨	B,C,D	K	KM	UCB	UCK	B,C,D	B,C,D,K	
Rated current	[A]		16 ≤ In ≤ 63	10 ≤ In ≤ 100	6 ≤ In ≤ 125	6 ≤ In ≤ 125	20 ≤ In ≤ 80	10 ≤ In ≤ 125	10 ≤ In ≤ 125	6 ≤ In ≤ 125	10 ≤ In ≤ 125	
IEC/EN 60947-2 Direct current T=I/R≤5ms for all series, except S280 UC and S800S-UC, where T=I/R<15ms	1cs	1, 1P+N	24									
			60									
			125			30	30			20	10	
			220									
	2	2	250						50	50		
			48									
			125									
			250			30	30			20	10	
	3,4	3,4	440									
			500						50	50		
			800									
			375			30 ④	30 ④	30 ④	50	50	20 ④	10 ④
UL 1077/ C22.2 No 235 Alternating current	Int. cap.	1, 1P+N	240									
			277									
			240									
		2, 3, 4	2, 3, 4	480								
Y/277												
UL 1077/ C22.2 No 235 Direct current	Int. cap.	1, 1P+N	60									
			125									
			250									
		2, 3, 4	2, 3, 4	125								
250												
UL 489/ C22.2 No 5 Alternating current	Int. cap.	1	240									
			277									
		2, 3, 4	2, 3, 4	240								
				480								
UL 489/ C22.2 No 5 Direct current	Int. cap.	1	60									
			125									
		2	125									
UL 498B	4	4	600									
			1000									

① only up to 40 A; 10 kA up to 50/63 A
 ② only for "D" characteristic
 ③ values are not for all rated currents
 ④ 600 V DC for 100, 125 A
 ⑤ 1000 V DC for 100, 125 A
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 E DIN VDE 0645 (based on IEC/EN 60898-1 and IEC/EN 60947-2)
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 ⑭ only 2 poles (connection in series)

⑮ UL 1077 only
 ⑯ ≤ 40 A
 ⑰ > 40 A
 ⑱ ≤ 35 A
 ⑲ 10-80 A
 ⑳ for S804U-UCZ only
 ㉑ for S804U-PVS only
 ㉒ by 75V DC 1-pole

㉓ by 150V DC 2-pole
 ㉔ by 225V DC 3-pole
 ㉕ by 300V DC 4-pole



S800B	S800HV	S800U	S804U-UCZ	S804U-PVS	S800PV-S	S500	S500UC	
B,C,D,K	K	Z,K			PV-S	K adjustable	K adjustable	
32 ≤ In ≤ 100/ 125	6...125	10 ≤ In ≤ 100	10-80	5	10 ≤ In ≤ 125	0.1 ≤ In ≤ 11	10 ≤ In ≤ 45	0.1 ≤ In ≤ 45
10 ②								
10 ②								
10 ② 10 ②					5 ④			
					5 ④			
						30 ②	18 ③	
						14 ②	14 ③	
						30 ②	18 ③	
						14 ②	14 ③	
								30 ⑩
								30 ⑩
		30						
		50						
			10 ②					
				3 ②				

MCB S 200. The details make the difference

A range designed to ensure efficiency and protection

1

Twin terminal for separate feeding of busbar and conductor

IP20 - finger safety.

Easy identification of the product and highly resistant laser marking.

Safe your time – all important data available right away.

Easy product name, easy identification, easy life.

Quick identification thanks to laser printed EAN marking.

Contact position indication

Captive screws: don't loose what's important for you.

Whatever your application need is applicable with a wide range of accessories.





Contact position indication

All System pro M compact® MCBs are suited with a contact position indication (CPI) on the toggle. You can easily identify, if the MCB is in the ON or the OFF position – easy and safe maintenance work is possible.



Approvals printed on the dome

S 200 MCBs comply to IEC/EN 60898-1 and IEC/EN 60947-2 and carry all relevant approval marks for each market and segment they are destined to. The certification markings are also printed on the dome of the MCB. Thus make it possible to see the markings also in the mounted position. For control and acceptance procedure – certification marks visible on fitted devices on the dome.



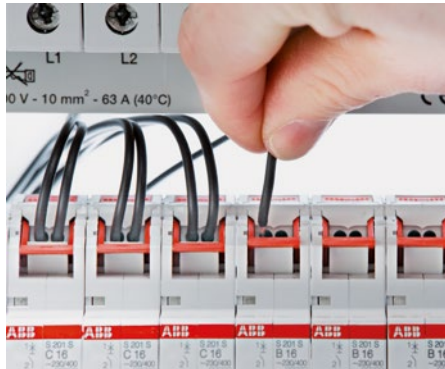
Housing material

By using the state-of-the-art housing material, ABB is taking care of the environment. With the latest generation of thermoplastics it's possible to recycle the MCBs – especially the thermoplastic housing-material can be re-used. By using the latest generation of thermoplastics the material stability of all System pro M compact® MCBs is improved. S200 are 100% free of halogens – no environmental pollution.



Laser printing

All printings of the S 200 and S 200 M MCBs, like the approvals on the dome and the product identification, are printed by a laser. The laser printing ensures a friction, scratch and solvent resistant marking on the MCBs. Easy identification of the products in case of maintenance or replacements due to safe laser printing.



Screwless terminals

With its unique terminal screwless technology the S 200 S provides maximum flexibility in usage of cables. The screwless load side terminal enables fast installation. High forces in the screwless terminal safe time for retightening after transport of the assembled enclosure. If the wiring has to be changed only a soft push on the lever is required. S 200 S provides the highest standard of safety for installer. IP20 / IPXXB (finger safe) highest standard of touch protection.



IP 20 - finger safe terminals

The System pro M compact® MCB's are equipped with 35 mm² + 10 mm² cylinder lift twin terminals, a well proven and reliable technology - designed for sophisticated industrial use. The cross wiring can easily be done by inserting the System pro M compact® busbars into the rear terminal part and then the incoming wires into the front part of the terminal.

MCBs

S 200 technical features

1



S 200

2CDC021.03950012

		S 200	S 200 M	
General Data	Standards	IEC/EN 60898-1, IEC/EN 60947-2 UL 1077	IEC/EN 60898-1, IEC/EN 60947-2 UL 1077, CSA 22.2 No. 235	
	Poles	1P, 2P, 3P, 4P, 1P+N, 3P+N		
	Tripping characteristics	B, C, D, K, Z		
	Rated current I_n	A	0.5...63 A	
	Rated frequency f	Hz	50 / 60 Hz	
	Rated insulation voltage U_i acc. to IEC/EN 60664-1	V	440 V AC (phase to phase)	
	Overvoltage category	III		
	Pollution degree	3		
	Data acc. to IEC/EN 60898-1 (except S 200 M UC data acc. to IEC/EN 60898-2)	Rated operational voltage U_n	V	1P: 230/400 V AC; 1P+N: 230 V AC ; 2...4P: 400 V AC; 3P+N: 400 V AC
Max. power frequency recovery voltage (U_{max})		V	1P: 253 V AC; 1P+N: 253 V AC; 2P: 440 V AC; 3...4P: 440 V AC; 3P+N: 440 V AC; 1P: 72 V DC; 2P: 125 V DC	
Min. operating voltage		V	12 V AC - 12 V DC	
Rated short-circuit capacity I_{cn}		kA	6 kA	10 kA
Energy limiting class (B, C up to 40 A)		3		
Rated impulse withstand voltage U_{imp} . (1.2/50 μ s)		kV	4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m)	
Dielectric test voltage		kV	2 kV (50 / 60Hz, 1 min.)	
Reference temperature for tripping characteristics		°C	B, C, D: 30°C	
Electrical endurance		ops.	$I_n < 32A$: 20,000 ops (AC), $I_n \geq 32A$: 10,000 ops. (AC); 1,000 ops. (DC); (1 cycle 2s - ON, 13s - OFF, $I_n \leq 32A$), (1 cycle 2s - ON, 28s - OFF, $I_n > 32A$)	
Data acc. to IEC/EN 60947-2		Rated operational voltage U_e	V	1P: 230 V AC; 1P+N: 230 V AC; 2...4P: 440 V AC; 3P+N: 440 V AC
	Max. power frequency recovery voltage (U_{max})	V	1P: 253 V AC; 1P+N: 253 V AC; 2P...4P: 462 V AC; 3P+N: 462 V AC; 1P: 72 V DC; 2P: 125 V DC	
	Min. operating voltage	V	12 V AC - 12 V DC	
	Rated ultimate short-circuit breaking capacity I_{cu}	kA	10 kA	15 kA
	Rated service short-circuit breaking capacity I_{cs}	kA	7.5 kA	$\leq 40 A$: 11.2 kA 50, 63 A: 7.5 kA
	Rated impulse withstand voltage U_{imp} . (1.2/50 μ s)	kV	4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m)	
	Dielectric test voltage	kV	2 kV (50 / 60Hz, 1 min.)	
	Reference temperature for tripping characteristics	°C	B, C, D: 55°C; K, Z: 20°C	
	Electrical endurance	ops.	$I_n < 32A$: 20,000 ops (AC), $I_n \geq 32A$: 10,000 ops. (AC); 1,000 ops. (DC); (1 cycle 2s - ON, 13s - OFF, $I_n \leq 32A$), (1 cycle 2s - ON, 28s - OFF, $I_n > 32A$)	

Note:
* Only acc. to IEC/EN 60898-1

S 200 M UC	S 200 P	S 200 PR	S 200 S	SU 200 M	SU 200 PR	S 200 UDC
IEC/EN 60898-2, IEC/EN 60947-2	IEC/EN 60898-1, IEC/EN 60947-2	IEC/EN 60947-2	IEC/EN 60898-1	IEC/EN 60947-2	IEC/EN 60947-2	
	UL 1077, CSA 22.2 No. 235	UL 1077, CSA 22.2 No. 235		UL 489, CSA22.2 No.5	UL 489, CSA22.2 No.5	UL 489
1P, 2P, 3P, 4P	1P, 2P, 3P, 4P, 1P+N, 3P+N	1P, 2P, 3P, 4P	1P, 3P	1P, 2P, 3P, 4P	1P, 2P, 3P, 4P	1P, 2P
B, C, K, Z	B, C, D, K, Z	K	B, C	C, K, Z	K	
0.2...63 A			6...20 A	0.2...63 A	0.2...25 A	0.2...63 A
0 / 50 / 60 Hz	50 / 60 Hz	50 / 60 Hz				DC
253 V AC (phase to ground), 440 V AC (phase to phase)	250 V AC (phase to ground), 500 V AC (phase to phase)		250 V AC (phase to ground), 440 V AC (phase to phase)			
						--
2						--
1P: 230 V AC, 220 V DC 2P: 400 V AC, 440 V DC 3...4P: 400 V AC*			1P: 230 V AC, 3P: 440 V AC	--		
1P: 253 V AC, 250 V DC 2P: 440 V AC, 500 V DC 3...4P:440 V AC*			1P: 253 V AC, 3P: 440 V AC	--		
			12 V AC	--		
10 kA	≤ 25 A: 25 kA > 25 A: 15 kA		6 kA	--		
				--		
				--		
				--		
30 °C			B, C: 30 °C 20,000 ops.	--		
				--		
1P: 253 V AC, 220 V DC 2...4P: 440 V AC, 440 V DC	1P: 230 V AC; 1P+N: 230 V AC; 2...4P: 400 V AC; 3P+N: 400 V AC	1P: 230 V AC 2...4P: 400 V AC		1P: 230 V AC 2...4P: 400 V AC	1P: 230 V AC 2...4P: 400 V AC	--
1P: 266 V AC, 250 V DC 2...4P: 462 V AC, 500 V DC	1P: 253 V AC; 1P+N: 253 V AC; 2P...4P: 440 V AC; 3P+N: 440 V AC; 1P: 72 V DC; 2P: 125 V DC	1P: 253 V AC 2...4P: 440 V AC		1P: 253/440 V AC; 2...4P: 440 V AC	1P: 253 V AC 2...4P: 440 V AC	--
		12 V AC		12 V AC		--
≤ 40 A: 10 kA AC; 10 kA DC > 40 A: 6 kA AC; 10 kA DC	≤ 25 A: 25 kA ≥ 32 A: 15 kA	15 kA		10 kA	15 kA	--
≤ 40 A: 7.5 kA AC; 10 kA DC > 40 A: 6 kA(AC; 10 kA DC	≤ 25 A: 12.5 kA ≤ 32...40 A: 11.2 kA 50, 63 A: 7.5 kA	≤ 40 A: 11.2 kA; > 40 A: 7.5 kA AC;		7.5 kA	≤ 40 A: 11.2 kA; > 40 A: 7.5 kA (AC);	--
						--
						--
B, C: 55 °C; K, Z: 20 °C		20 °C		C, K, Z: 20°C	20 °C	--
In < 32A: 20,000 ops (AC), In ≥ 32A: 10,000 ops. (AC); 1,500 ops. (DC);	In < 32A: 20,000 ops (AC), In ≥ 32A: 10,000 ops. (AC); 1,000 ops. (DC); (1 cycle 2s - ON, 13s - OFF, In ≤ 32A), (1 cyle 2s - ON, 28s - OFF, In ≥ 32A)	In < 25A: 20,000 ops (AC), In ≥ 25A: 10,000 ops. (AC);			In < 25A: 20,000 ops (AC), In ≥ 25A: 10,000 ops. (AC);	--

MCBs

S 200 technical features

1



S 200



			S 200	S 200 M
Data acc. to UL / CSA	Rated voltage	V	480Y / 277 V AC;	480Y / 277 V AC;
			1P: 60 V DC; 2P...4P: 110 V DC	1P: 60 V DC; 2P...4P: 125 V DC
	Rated interrupting capacity acc. to UL 1077	kA	6 kA AC; 10 kA DC	
	Short-circuit current rating acc. to UL 489		--	
	Application		Suppl. prot. for general use. Application Codes: TC2, OL0, SC: U1	
	Reference temperature for tripping characteristics	°C	B, C, D, K, Z: 25°C	
	Electrical endurance	ops.	6,000 ops (AC), 6,000 ops. (DC); 1 cycle (1s - ON, 9s - OFF)	
Mechanical Data	Housing		Insulation group II, RAL 7035	
	Toggle		Insulation group II, black, sealable	
	Contact position indication		Marking on toggle (I ON / 0 OFF), Real CPI (red ON / green OFF)	
	Protection degree acc. to EN 60529		IP20*, IP40 in enclosure with cover	
	Mechanical endurance	ops.	20,000 ops.	
	Shock resistance acc. to IEC/EN 60068-2-27		25 g - 2 shocks - 13 ms	
	Vibration resistance acc. to IEC/EN 60068-2-6		5g - 20 cycles at 5...150...5 Hz with load 0.8In	
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	°C/ RH	28 cycles with 55°C/90-96% and 25°C/95-100%	
	Ambient temperature	°C	-25 ... +55°C	
Storage temperature	°C	-40 ... +70°C		



Note:

* Also fulfilling the requirement acc. to the protection degree IPXXB

** Only with accessory: IP20 terminal clip

S 200 M UC	S 200 P	S 200 PR	S 200 S	SU 200 M	SU 200 PR	S 200 UDC
480Y / 277 V AC	480Y / 277 V AC	480Y / 277 V AC		240 V AC	480 Y / 277 V AC	1P: ≤ 35 A: 277 V AC; > 35 A: 240 V AC 2...4P: ≤ 35 A: 480 / 277 V AC; > 35 A: 240 V AC
1P: 250 V DC 2...4P: 500 V DC		480 / 277 V AC				1P: 60 V DC 2P: 125 V DC
	≤ 25 A: 10 kA > 25 A: 6 kA	10 kA		--		
				10 kA	10 kA	14 kA (UL)
TC1, 0L0, SC: U1	TC2, 0L0, SC: U1	Ring tongue terminal, not for general use			Ring tongue terminal, not for general use	
		25 °C		C, K, Z: 25 °C	25 °C	
					6,000 ops. (1 cycle 1s - ON, 9s - OFF)	
Insulation group I, RAL 7035			Insulation group II, RAL 7035		Insulation group I, RAL 7035	
				IP20**, IP40 in enclosure with cover		
	30 g - 3 shocks - 11 ms	25 g - 2 shocks - 13 ms	25 g - 2 shocks - 13 ms	30 g - 3 shocks - 11 ms	25 g - 2 shocks - 13 ms	

MCBs

S 200 technical features

1



		S 200	S 200 M	
Installation	Terminal	Failsafe bi-directional cylinder-lift terminal		
	Cross-section of conductors ① (top / bottom)	Solid / Stranded	mm ² 35 mm ² / 35 mm ²	
		Flexible	mm ² 25 mm ² / 25 mm ²	
	Cross-section of busbars (top / bottom)	AWG	18 - 4 AWG	14 - 4 AWG
		mm ²	10 mm ² / 10 mm ²	
	Tightening Torque ②	Nm	2.8 Nm	
		in-lbs.	18 in-lbs.	
	Screwdriver	No. 2 Pozidrive		
Mounting	On DIN rail 35 mm acc. to EN 60715 by fast clip			
Mounting position	any			
Supply	optional			
Dimensions and weight	Mounting dimensions acc. to DIN 43880	Mounting dimension 1		
	Pole dimensions (H x D x W)	mm	88 x 69 x 17.5 mm	
	Pole weight	g	approx. 115 g	
Combination with aux. elements	Auxiliary contact	Yes		
	Signal contact	Yes		
	Shunt trip	Yes		
	Undervoltage release	Yes		
	Motor Operating Device	Yes		
	Integrated auxiliary switch	Yes		

① Prior to connection of aluminium conductors ($\geq 4\text{mm}^2$) ensure that their contact points are cleaned, brushed and coated with grease. Connection of aluminium conductors is not specifically approved by third party. All approvals according to the product standards are carried out with copper conductors.

② Nm-values acc. IEC / in-lbs.-values acc. UL

S 200 M UC	S 200 P	S 200 PR	S 200 S	SU 200 M	SU 200 PR	S 200 UDC	
		Ring Tongue Terminal	Failsafe bi-directional cylinder-lift terminal		Ring Tongue Terminal	--	
	25 mm ² / 25 mm ²		35 mm ² / 35 mm ²			--	
	16 mm ² / 16 mm ²	25 mm ² / 25 mm ²	25 mm ² / 25 mm ²			--	
	18 - 4 AWG				18 - 4 AWG	--	
	18 - 8 AWG					--	
	2.8 Nm					--	
	25 in-lbs.					--	
Please note polarity of device	optional		bottom	optional	top or bottom	Please note polarity of device	
				--	Mounting dimension 1		
85 x 69 x 17.5 mm	88 x 69 x 17.5 mm	100 x 69 x 17.5 mm	89 x 69 x 17.5 mm	92 x 71 x 17.5 mm	100 x 71 x 17.5 mm	115 x 69 x 17.5 mm	92 x 71 x 17.5 mm
approx. 125 g	approx. 140 g	approx. 125 g	approx. 100 g	approx. 140g	approx. 140g	approx. 125 g	
		No	No	Yes	No	No	
		No	Yes	No			

MCBs

S 200 series 6000 B characteristic

1



S 201



S 202



S 203

S 200 B characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and large length of cables in TN and IT systems.

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898-1, IEC/EN 60947-2

Icn=6 kA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	6	464901	S201-B6	2CDS251001R0065		0.125	10
	10	463805	S201-B10	2CDS251001R0105		0.125	10
	13	465007	S201-B13	2CDS251001R0135		0.125	10
	16	578639	S201-B16	2CDS251001R1165		0.125	10
	20 ①	465106	S201-B20	2CDS251001R0205		0.125	10
	25	465205	S201-B25	2CDS251001R0255		0.125	10
	32 ②	465304	S201-B32	2CDS251001R0325		0.125	10
	40 ③	465403	S201-B40	2CDS251001R0405		0.125	10
	50	550925	S201-B50	2CDS251001R0505		0.125	10
	63	550932	S201-B63	2CDS251001R0635		0.125	10

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	6	466400	S202-B6	2CDS252001R0065		0.250	5
	10	466608	S202-B10	2CDS252001R0105		0.250	5
	13	466707	S202-B13	2CDS252001R0135		0.250	5
	16	466905	S202-B16	2CDS252001R0165		0.250	5
	20	467001	S202-B20	2CDS252001R0205		0.250	5
	25	467100	S202-B25	2CDS252001R0255		0.250	5
	32	467209	S202-B32	2CDS252001R0325		0.250	5
	40	467407	S202-B40	2CDS252001R0405		0.250	5
	50	550949	S202-B50	2CDS252001R0505		0.250	5
	63	550956	S202-B63	2CDS252001R0635		0.250	5

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	468602	S203-B6	2CDS253001R0065		0.375	1
	10	468701	S203-B10	2CDS253001R0105		0.375	1
	13	468909	S203-B13	2CDS253001R0135		0.375	1
	16	469005	S203-B16	2CDS253001R0165		0.375	1
	20 ①	469104	S203-B20	2CDS253001R0205		0.375	1
	25	469203	S203-B25	2CDS253001R0255		0.375	1
	32 ②	469302	S203-B32	2CDS253001R0325		0.375	1
	40 ③	469401	S203-B40	2CDS253001R0405		0.375	1
	50	550963	S203-B50	2CDS253001R0505		0.375	1
	63	550970	S203-B63	2CDS253001R0635		0.375	1

Where to find more:

Coordination tables for S 200 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Frequently asked question - FAQ:

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① suitable for flow-type heaters 12 kW
② suitable for flow-type heaters 18 kW

③ suitable for flow-type heaters 21, 24 and 27 kW



S 204

2CDD021176S0010



S 201 NA

2CDD021018S0013



S 203 NA

2CDD021013S0013

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	6	528955	S204-B6	2CDS254001R0065		0.500	1
	10	528962	S204-B10	2CDS254001R0105		0.500	1
	13	528979	S204-B13	2CDS254001R0135		0.500	1
	16	528986	S204-B16	2CDS254001R0165		0.500	1
	20	528993	S204-B20	2CDS254001R0205		0.500	1
	25	529006	S204-B25	2CDS254001R0255		0.500	1
	32	529013	S204-B32	2CDS254001R0325		0.500	1
	40	529020	S204-B40	2CDS254001R0405		0.500	1
	50	550987	S204-B50	2CDS254001R0505		0.500	1
	63	550994	S204-B63	2CDS254001R0635		0.500	1

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+NA	6	531580	S201-B6NA	2CDS251103R0065		0.250	5
	10	531597	S201-B10NA	2CDS251103R0105		0.250	5
	13	531603	S201-B13NA	2CDS251103R0135		0.250	5
	16	531610	S201-B16NA	2CDS251103R0165		0.250	5
	20 ①	531627	S201-B20NA	2CDS251103R0205		0.250	5
	25	531634	S201-B25NA	2CDS251103R0255		0.250	5
	32 ②	531641	S201-B32NA	2CDS251103R0325		0.250	5
	40 ③	531658	S201-B40NA	2CDS251103R0405		0.250	5
	50	536158	S201-B50NA	2CDS251103R0505		0.250	5
	63	536141	S201-B63NA	2CDS251103R0635		0.250	5

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3+NA	6	532280	S203-B6NA	2CDS253103R0065		0.500	1
	10	532297	S203-B10NA	2CDS253103R0105		0.500	1
	13	532303	S203-B13NA	2CDS253103R0135		0.500	1
	16	532310	S203-B16NA	2CDS253103R0165		0.500	1
	20 ①	532327	S203-B20NA	2CDS253103R0205		0.500	1
	25	532334	S203-B25NA	2CDS253103R0255		0.500	1
	32 ②	532341	S203-B32NA	2CDS253103R0325		0.500	1
	40 ③	532358	S203-B40NA	2CDS253103R0405		0.500	1
	50	536165	S203-B50NA	2CDS253103R0505		0.580	1
	63	536172	S203-B63NA	2CDS253103R0635		0.580	1

① suitable for flow-type heaters 12 kW
 ② suitable for flow-type heaters 18 kW

③ suitable for flow-type heaters 21, 24 and 27 kW

MCBs

S 200 series 6000 C characteristic

1



S 201



S 202

S 200 C characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898-1, IEC/EN 60947-2

Icn=6 kA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	0.5	523295	S201-C0.5	2CDS251001R0984		0.125	10
	1	523318	S201-C1	2CDS251001R0014		0.125	10
	1.6	523301	S201-C1.6	2CDS251001R0974		0.125	10
	2	523325	S201-C2	2CDS251001R0024		0.125	10
	3	523332	S201-C3	2CDS251001R0034		0.125	10
	4	523349	S201-C4	2CDS251001R0044		0.125	10
	6	464000	S201-C6	2CDS251001R0064		0.125	10
	8	464109	S201-C8	2CDS251001R0084		0.125	10
	10	464208	S201-C10	2CDS251001R0104		0.125	10
	13	464307	S201-C13	2CDS251001R0134		0.125	10
	16	464406	S201-C16	2CDS251001R0164		0.125	10
	20 ①	464505	S201-C20	2CDS251001R0204		0.125	10
	25	464604	S201-C25	2CDS251001R0254		0.125	10
	32 ②	464703	S201-C32	2CDS251001R0324		0.125	10
	40 ③	464802	S201-C40	2CDS251001R0404		0.125	10
	50	551007	S201-C50	2CDS251001R0504		0.125	10
63	551014	S201-C63	2CDS251001R0634		0.125	10	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	0.5	523356	S202-C0.5	2CDS252001R0984		0.250	5
	1	523363	S202-C1	2CDS252001R0014		0.250	5
	1.6	523370	S202-C1.6	2CDS252001R0974		0.250	5
	2	523387	S202-C2	2CDS252001R0024		0.250	5
	3	523394	S202-C3	2CDS252001R0034		0.250	5
	4	523400	S202-C4	2CDS252001R0044		0.250	5
	6	465502	S202-C6	2CDS252001R0064		0.250	5
	8	465601	S202-C8	2CDS252001R0084		0.250	5
	10	465700	S202-C10	2CDS252001R0104		0.250	5
	13	465809	S202-C13	2CDS252001R0134		0.250	5
	16	465908	S202-C16	2CDS252001R0164		0.250	5
	20 ①	466004	S202-C20	2CDS252001R0204		0.250	5
	25	466103	S202-C25	2CDS252001R0254		0.250	5
	32 ②	466202	S202-C32	2CDS252001R0324		0.250	5
	40 ③	466301	S202-C40	2CDS252001R0404		0.250	5
	50	551045	S202-C50	2CDS252001R0504		0.250	5
63	551052	S202-C63	2CDS252001R0634		0.250	5	

Where to find more:

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① suitable for flow-type heaters 12 kW
② suitable for flow-type heaters 18 kW

③ suitable for flow-type heaters 21, 24 and 27 kW



S 203

2CDD021066S0012



S 204

2CDD021057S0012

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	1	523424	S203-C1	2CDS253001R0014		0.375	1
	1.6	523431	S203-C1.6	2CDS253001R0974		0.375	1
	2	523448	S203-C2	2CDS253001R0024		0.375	1
	3	523455	S203-C3	2CDS253001R0034		0.375	1
	4	523462	S203-C4	2CDS253001R0044		0.375	1
	6	467506	S203-C6	2CDS253001R0064		0.375	1
	8	467605	S203-C8	2CDS253001R0084		0.375	1
	10	467803	S203-C10	2CDS253001R0104		0.375	1
	13	467902	S203-C13	2CDS253001R0134		0.375	1
	16	468008	S203-C16	2CDS253001R0164		0.375	1
	20 ①	468107	S203-C20	2CDS253001R0204		0.375	1
	25	468206	S203-C25	2CDS253001R0254		0.375	1
	32 ②	468305	S203-C32	2CDS253001R0324		0.375	1
	40 ③	468404	S203-C40	2CDS253001R0404		0.375	1
50	551069	S203-C50	2CDS253001R0504		0.375	1	
63	551076	S203-C63	2CDS253001R0634		0.375	1	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.5	529112	S204-C0.5	2CDS254001R0984		0.500	1
	1	529129	S204-C1	2CDS254001R0014		0.500	1
	1.6	529136	S204-C1.6	2CDS254001R0974		0.500	1
	2	529143	S204-C2	2CDS254001R0024		0.500	1
	3	529150	S204-C3	2CDS254001R0034		0.500	1
	4	529167	S204-C4	2CDS254001R0044		0.500	1
	6	529174	S204-C6	2CDS254001R0064		0.500	1
	8	529181	S204-C8	2CDS254001R0084		0.500	1
	10	529198	S204-C10	2CDS254001R0104		0.500	1
	13	529204	S204-C13	2CDS254001R0134		0.500	1
	16	529211	S204-C16	2CDS254001R0164		0.500	1
	20 ①	529228	S204-C20	2CDS254001R0204		0.500	1
	25	529235	S204-C25	2CDS254001R0254		0.500	1
	32 ②	529242	S204-C32	2CDS254001R0324		0.500	1
	40 ③	529259	S204-C40	2CDS254001R0404		0.500	1
	50	551106	S204-C50	2CDS254001R0504		0.500	1
	63	551113	S204-C63	2CDS254001R0634		0.500	1

① suitable for flow-type heaters 12 kW
 ② suitable for flow-type heaters 18 kW

③ suitable for flow-type heaters 21, 24 and 27 kW

MCBs

S 200 series 6000 C characteristic

1



S 201 NA



S 203 NA

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1+NA	0.5	531665	S201-C0.5NA	2CDS251103R0984		0.250	5
	1	531672	S201-C1NA	2CDS251103R0014		0.250	5
	1.6	531689	S201-C1.6NA	2CDS251103R0974		0.250	5
	2	531696	S201-C2NA	2CDS251103R0024		0.250	5
	3	531702	S201-C3NA	2CDS251103R0034		0.250	5
	4	531726	S201-C4NA	2CDS251103R0044		0.250	5
	6	531733	S201-C6NA	2CDS251103R0064		0.250	5
	8	531740	S201-C8NA	2CDS251103R0084		0.250	5
	10	531757	S201-C10NA	2CDS251103R0104		0.250	5
	13	531764	S201-C13NA	2CDS251103R0134		0.250	5
	16	531771	S201-C16NA	2CDS251103R0164		0.250	5
	20 ①	531788	S201-C20NA	2CDS251103R0204		0.250	5
	25	531795	S201-C25NA	2CDS251103R0254		0.250	5
	32 ②	531801	S201-C32NA	2CDS251103R0324		0.250	5
	40 ③	531818	S201-C40NA	2CDS251103R0404		0.250	5
	50	551021	S201-C50NA	2CDS251103R0504		0.290	5
	63	551038	S201-C63NA	2CDS251103R0634		0.290	5

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3+NA	0.5	532365	S203-C0.5NA	2CDS253103R0984		0.500	1
	1	532372	S203-C1NA	2CDS253103R0014		0.500	1
	1.6	532389	S203-C1.6NA	2CDS253103R0974		0.500	1
	2	532402	S203-C2NA	2CDS253103R0024		0.500	1
	3	532419	S203-C3NA	2CDS253103R0034		0.500	1
	4	532426	S203-C4NA	2CDS253103R0044		0.500	1
	6	532433	S203-C6NA	2CDS253103R0064		0.500	1
	8	532440	S203-C8NA	2CDS253103R0084		0.500	1
	10	532457	S203-C10NA	2CDS253103R0104		0.500	1
	13	532464	S203-C13NA	2CDS253103R0134		0.500	1
	16	532471	S203-C16NA	2CDS253103R0164		0.500	1
	20 ①	532488	S203-C20NA	2CDS253103R0204		0.500	1
	25	532495	S203-C25NA	2CDS253103R0254		0.500	1
	32 ②	532501	S203-C32NA	2CDS253103R0324		0.500	1
	40 ①	532518	S203-C40NA	2CDS253103R0404		0.500	1
	50	551083	S203-C50NA	2CDS253103R0504		0.580	1
	63	551090	S203-C63NA	2CDS253103R0634		0.580	1

① suitable for flow-type heaters 12 kW
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MCBs

S 200 series 6000 D characteristic



S 201



S 202

S 200 D characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, breakdown lamps).

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898-1, IEC/EN 60947-2

Icn=6 kA

Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
1	0.5	529938	S201-D0.5	2CDS251001R0981		0.125	10
	1	529945	S201-D1	2CDS251001R0011		0.125	10
	1.6	529952	S201-D1.6	2CDS251001R0971		0.125	10
	2	529969	S201-D2	2CDS251001R0021		0.125	10
	3	529976	S201-D3	2CDS251001R0031		0.125	10
	4	529983	S201-D4	2CDS251001R0041		0.125	10
	6	529990	S201-D6	2CDS251001R0061		0.125	10
	8	530002	S201-D8	2CDS251001R0081		0.125	10
	10	530019	S201-D10	2CDS251001R0101		0.125	10
	13	530026	S201-D13	2CDS251001R0131		0.125	10
	16	530033	S201-D16	2CDS251001R0161		0.125	10
	20 ①	530040	S201-D20	2CDS251001R0201		0.125	10
	25	530057	S201-D25	2CDS251001R0251		0.125	10
	32 ②	530064	S201-D32	2CDS251001R0321		0.125	10
	40 ③	530071	S201-D40	2CDS251001R0401		0.125	10
	50	551991	S201-D50	2CDS251001R0501		0.125	10
63	552004	S201-D63	2CDS251001R0631		0.125	10	

Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
2	0.5	530484	S202-D0.5	2CDS252001R0981		0.250	5
	1	530491	S202-D1	2CDS252001R0011		0.250	5
	1.6	530507	S202-D1.6	2CDS252001R0971		0.250	5
	2	530514	S202-D2	2CDS252001R0021		0.250	5
	3	530521	S202-D3	2CDS252001R0031		0.250	5
	4	530538	S202-D4	2CDS252001R0041		0.250	5
	6	530545	S202-D6	2CDS252001R0061		0.250	5
	8	530552	S202-D8	2CDS252001R0081		0.250	5
	10	530583	S202-D10	2CDS252001R0101		0.250	5
	13	530606	S202-D13	2CDS252001R0131		0.250	5
	16	530613	S202-D16	2CDS252001R0161		0.250	5
	20	530637	S202-D20	2CDS252001R0201		0.250	5
	25	530644	S202-D25	2CDS252001R0251		0.250	5
	32	530651	S202-D32	2CDS252001R0321		0.250	5
	40	530668	S202-D40	2CDS252001R0401		0.250	5
	50	552035	S202-D50	2CDS252001R0501		0.250	5
63	552042	S202-D63	2CDS252001R0631		0.250	5	

① suitable for flow-type heaters 12 kW
② suitable for flow-type heaters 18 kW

③ suitable for flow-type heaters 21, 24 and 27 kW

MCBs

S 200 series 6000 D characteristic

1



S 203



S 204

Number of poles	Rated current In A	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
3	0.5	530811	S203-D0.5	2CDS253001R0981		0.375	1
	1	530828	S203-D1	2CDS253001R0011		0.375	1
	1.6	530835	S203-D1.6	2CDS253001R0971		0.375	1
	2	530842	S203-D2	2CDS253001R0021		0.375	1
	3	530859	S203-D3	2CDS253001R0031		0.375	1
	4	530866	S203-D4	2CDS253001R0041		0.375	1
	6	530880	S203-D6	2CDS253001R0061		0.375	1
	8	530897	S203-D8	2CDS253001R0081		0.375	1
	10	530903	S203-D10	2CDS253001R0101		0.375	1
	13	530910	S203-D13	2CDS253001R0131		0.375	1
	16	530927	S203-D16	2CDS253001R0161		0.375	1
	20 ①	530934	S203-D20	2CDS253001R0201		0.375	1
	25	530941	S203-D25	2CDS253001R0251		0.375	1
	32 ②	530958	S203-D32	2CDS253001R0321		0.375	1
	40 ③	530965	S203-D40	2CDS253001R0401		0.375	1
	50	552059	S203-D50	2CDS253001R0501		0.375	1
63	552066	S203-D63	2CDS253001R0631		0.375	1	

Number of poles	Rated current In A	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
4	0.5	531122	S204-D0.5	2CDS254001R0981		0.500	1
	1	531139	S204-D1	2CDS254001R0011		0.500	1
	1.6	531146	S204-D1.6	2CDS254001R0971		0.500	1
	2	531153	S204-D2	2CDS254001R0021		0.500	1
	3	531160	S204-D3	2CDS254001R0031		0.500	1
	4	531177	S204-D4	2CDS254001R0041		0.500	1
	6	531184	S204-D6	2CDS254001R0061		0.500	1
	8	531191	S204-D8	2CDS254001R0081		0.500	1
	10	531207	S204-D10	2CDS254001R0101		0.500	1
	13	531214	S204-D13	2CDS254001R0131		0.500	1
	16	531221	S204-D16	2CDS254001R0161		0.500	1
	20	531238	S204-D20	2CDS254001R0201		0.500	1
	25	531290	S204-D25	2CDS254001R0251		0.500	1
	32	531306	S204-D32	2CDS254001R0321		0.500	1
	40	531313	S204-D40	2CDS254001R0401		0.500	1
	50	552097	S204-D50	2CDS254001R0501		0.500	1
63	552103	S204-D63	2CDS254001R0631		0.500	1	

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② suitable for flow-type heaters 18 kW

③ suitable for flow-type heaters 21, 24 and 27 kW



S 201 NA

2CDC02102CS0013



S 203 NA

2CDC021012S0013

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+NA	0.5	531979	S201-D0.5NA	2CDS251103R0981		0.250	5
	1	531986	S201-D1NA	2CDS251103R0011		0.250	5
	1.6	531993	S201-D1.6NA	2CDS251103R0971		0.250	5
	2	532006	S201-D2NA	2CDS251103R0021		0.250	5
	3	532013	S201-D3NA	2CDS251103R0031		0.250	5
	4	532020	S201-D4NA	2CDS251103R0041		0.250	5
	6	532037	S201-D6NA	2CDS251103R0061		0.250	5
	8	532044	S201-D8NA	2CDS251103R0081		0.250	5
	10	532051	S201-D10NA	2CDS251103R0101		0.250	5
	13	532068	S201-D13NA	2CDS251103R0131		0.250	5
	16	532099	S201-D16NA	2CDS251103R0161		0.250	5
	20 ①	532105	S201-D20NA	2CDS251103R0201		0.250	5
	25	532112	S201-D25NA	2CDS251103R0251		0.250	5
	32 ②	532129	S201-D32NA	2CDS251103R0321		0.250	5
	40 ③	532136	S201-D40NA	2CDS251103R0401		0.250	5
	50	552011	S201-D50NA	2CDS251103R0501		0.290	5
63	552028	S201-D63NA	2CDS251103R0631		0.290	5	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3+NA	0.5	532761	S203-D0.5NA	2CDS253103R0981		0.500	2
	1	532778	S203-D1NA	2CDS253103R0011		0.500	2
	1.6	532785	S203-D1.6NA	2CDS253103R0971		0.500	2
	2	532792	S203-D2NA	2CDS253103R0021		0.500	2
	3	532808	S203-D3NA	2CDS253103R0031		0.500	2
	4	532815	S203-D4NA	2CDS253103R0041		0.500	2
	6	532822	S203-D6NA	2CDS253103R0061		0.500	2
	8	532839	S203-D8NA	2CDS253103R0081		0.500	2
	10	532846	S203-D10NA	2CDS253103R0101		0.500	2
	13	532860	S203-D13NA	2CDS253103R0131		0.500	2
	16	532877	S203-D16NA	2CDS253103R0161		0.500	2
	20 ①	532884	S203-D20NA	2CDS253103R0201		0.500	2
	25	532891	S203-D25NA	2CDS253103R0251		0.500	2
	32 ②	532907	S203-D32NA	2CDS253103R0321		0.500	2
	40 ③	532914	S203-D40NA	2CDS253103R0401		0.500	2
	50	552073	S203-D50NA	2CDS253103R0501		0.580	2
63	552080	S203-D63NA	2CDS253103R0631		0.580	2	

① suitable for flow-type heaters 12 kW
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③ suitable for flow-type heaters 21, 24 and 27 kW

MCBs

S 200 series 6000 K characteristic

1



S 201

2CDC021002S0013



S 202

2CDC021001S0013

S 200 K (power) characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to 10xI_n, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=10 kA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code		kg	pc.
1	0.5	507196	S201-K0.5	2CDS251001R0157		0.125	10
	1	507202	S201-K1	2CDS251001R0217		0.125	10
	1.6	507219	S201-K1.6	2CDS251001R0257		0.125	10
	2	507226	S201-K2	2CDS251001R0277		0.125	10
	3	507233	S201-K3	2CDS251001R0317		0.125	10
	4	507240	S201-K4	2CDS251001R0337		0.125	10
	6	507257	S201-K6	2CDS251001R0377		0.125	10
	8	507264	S201-K8	2CDS251001R0407		0.125	10
	10	496117	S201-K10	2CDS251001R0427		0.125	10
	13	507271	S201-K13	2CDS251001R0447		0.125	10
	16	496124	S201-K16	2CDS251001R0467		0.125	10
	20	507288	S201-K20	2CDS251001R0487		0.125	10
	25	507295	S201-K25	2CDS251001R0517		0.125	10
	32	496131	S201-K32	2CDS251001R0537		0.125	10
	40	507301	S201-K40	2CDS251001R0557		0.125	10
50	551120	S201-K50	2CDS251001R0577		0.125	10	
63	551137	S201-K63	2CDS251001R0607		0.125	10	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code		kg	pc.
2	0.5	507318	S202-K0.5	2CDS252001R0157		0.250	5
	1	507325	S202-K1	2CDS252001R0217		0.250	5
	1.6	507332	S202-K1.6	2CDS252001R0257		0.250	5
	2	507349	S202-K2	2CDS252001R0277		0.250	5
	3	507356	S202-K3	2CDS252001R0317		0.250	5
	4	507363	S202-K4	2CDS252001R0337		0.250	5
	6	507370	S202-K6	2CDS252001R0377		0.250	5
	8	507387	S202-K8	2CDS252001R0407		0.250	5
	10	507394	S202-K10	2CDS252001R0427		0.250	5
	13	507400	S202-K13	2CDS252001R0447		0.250	5
	16	507417	S202-K16	2CDS252001R0467		0.250	5
	20	507424	S202-K20	2CDS252001R0487		0.250	5
	25	507431	S202-K25	2CDS252001R0517		0.250	5
	32	507448	S202-K32	2CDS252001R0537		0.250	5
	40	507455	S202-K40	2CDS252001R0557		0.250	5
50	551168	S202-K50	2CDS252001R0577		0.250	5	
63	551175	S202-K63	2CDS252001R0607		0.250	5	

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② suitable for flow-type heaters 18 kW

③ suitable for flow-type heaters 21, 24 and 27 kW



S 203

2CDD021003S0013



S 204

2CDD021004S0013

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.5	507462	S203-K0.5	2CDS253001R0157		0.375	1
	1	507479	S203-K1	2CDS253001R0217		0.375	1
	1.6	507486	S203-K1.6	2CDS253001R0257		0.375	1
	2	507493	S203-K2	2CDS253001R0277		0.375	1
	3	507509	S203-K3	2CDS253001R0317		0.375	1
	4	507516	S203-K4	2CDS253001R0337		0.375	1
	6	507523	S203-K6	2CDS253001R0377		0.375	1
	8	507530	S203-K8	2CDS253001R0407		0.375	1
	10	496148	S203-K10	2CDS253001R0427		0.375	1
	13	507547	S203-K13	2CDS253001R0447		0.375	1
	16	496155	S203-K16	2CDS253001R0467		0.375	1
	20	507554	S203-K20	2CDS253001R0487		0.375	1
	25	507561	S203-K25	2CDS253001R0517		0.375	1
	32	496162	S203-K32	2CDS253001R0537		0.375	1
	40	507578	S203-K40	2CDS253001R0557		0.375	1
50	551182	S203-K50	2CDS253001R0577		0.375	1	
63	551199	S203-K63	2CDS253001R0607		0.375	1	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.5	529266	S204-K0.5	2CDS254001R0157		0.500	1
	1	529273	S204-K1	2CDS254001R0217		0.500	1
	1.6	529280	S204-K1.6	2CDS254001R0257		0.500	1
	2	529297	S204-K2	2CDS254001R0277		0.500	1
	3	529303	S204-K3	2CDS254001R0317		0.500	1
	4	529310	S204-K4	2CDS254001R0337		0.500	1
	6	529327	S204-K6	2CDS254001R0377		0.500	1
	8	529334	S204-K8	2CDS254001R0407		0.500	1
	10	529341	S204-K10	2CDS254001R0427		0.500	1
	13	529358	S204-K13	2CDS254001R0447		0.500	1
	16	529365	S204-K16	2CDS254001R0467		0.500	1
	20	529372	S204-K20	2CDS254001R0487		0.500	1
	25	529389	S204-K25	2CDS254001R0517		0.500	1
	32	529396	S204-K32	2CDS254001R0537		0.500	1
	40	529402	S204-K40	2CDS254001R0557		0.500	1
50	551229	S204-K50	2CDS254001R0577		0.500	1	
63	551236	S204-K63	2CDS254001R0607		0.500	1	

MCBs

S 200 series 6000 K characteristic

1



S 201 NA

2CDD02101750013



S 203 NA

2CDD02101550013

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+NA	0.5	531825	S201-K0.5NA	2CDS251103R0157		0.250	5
	1	531832	S201-K1NA	2CDS251103R0217		0.250	5
	1.6	531849	S201-K1.6NA	2CDS251103R0257		0.250	5
	2	531856	S201-K2NA	2CDS251103R0277		0.250	5
	3	531863	S201-K3NA	2CDS251103R0317		0.250	5
	4	531870	S201-K4NA	2CDS251103R0337		0.250	5
	6	531887	S201-K6NA	2CDS251103R0377		0.250	5
	8	531894	S201-K8NA	2CDS251103R0407		0.250	5
	10	531900	S201-K10NA	2CDS251103R0427		0.250	5
	13	531917	S201-K13NA	2CDS251103R0447		0.250	5
	16	531924	S201-K16NA	2CDS251103R0467		0.250	5
	20	531931	S201-K20NA	2CDS251103R0487		0.250	5
	25	531948	S201-K25NA	2CDS251103R0517		0.250	5
	32	531955	S201-K32NA	2CDS251103R0537		0.250	5
	40	531962	S201-K40NA	2CDS251103R0557		0.250	5
	50	551144	S201-K50NA	2CDS251103R0577		0.250	5
63	551151	S201-K63NA	2CDS251103R0607		0.250	5	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3+NA	0.5	532617	S203-K0.5NA	2CDS253103R0157		0.500	1
	1	532624	S203-K1NA	2CDS253103R0217		0.500	1
	1.6	532631	S203-K1.6NA	2CDS253103R0257		0.500	1
	2	532648	S203-K2NA	2CDS253103R0277		0.500	1
	3	532655	S203-K3NA	2CDS253103R0317		0.500	1
	4	532662	S203-K4NA	2CDS253103R0337		0.500	1
	6	532679	S203-K6NA	2CDS253103R0377		0.500	1
	8	532686	S203-K8NA	2CDS253103R0407		0.500	1
	10	532693	S203-K10NA	2CDS253103R0427		0.500	1
	13	532709	S203-K13NA	2CDS253103R0447		0.500	1
	16	532716	S203-K16NA	2CDS253103R0467		0.500	1
	20	532723	S203-K20NA	2CDS253103R0487		0.500	1
	25	532730	S203-K25NA	2CDS253103R0517		0.500	1
	32	532747	S203-K32NA	2CDS253103R0537		0.500	1
	40	532754	S203-K40NA	2CDS253103R0557		0.500	1
	50	551205	S203-K50NA	2CDS253103R0577		0.500	1
63	551212	S203-K63NA	2CDS253103R0607		0.500	1	

Where to find more:

Coordination tables for S 200 MCBs:
Chapter 1 of
Solutions for electrical installation in
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Worldwide marks and approvals of
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Busbar systems - chapter 3

MCBs

S 200 series 6000 Z characteristic



S 201



S 202

S 200 Z characteristic

Function: protection and control of the electronic circuits against lower and long duration overloads and short-circuits.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=10 kA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.5	530309	S201-Z0.5	2CDS251001R0158		0.125	10
	1	530330	S201-Z1	2CDS251001R0218		0.125	10
	1.6	530347	S201-Z1.6	2CDS251001R0258		0.125	10
	2	530354	S201-Z2	2CDS251001R0278		0.125	10
	3	530361	S201-Z3	2CDS251001R0318		0.125	10
	4	530378	S201-Z4	2CDS251001R0338		0.125	10
	6	530408	S201-Z6	2CDS251001R0378		0.125	10
	8	530415	S201-Z8	2CDS251001R0408		0.125	10
	10	530422	S201-Z10	2CDS251001R0428		0.125	10
	16	530439	S201-Z16	2CDS251001R0468		0.125	10
	20	530446	S201-Z20	2CDS251001R0488		0.125	10
	25	530453	S201-Z25	2CDS251001R0518		0.125	10
	32	530460	S201-Z32	2CDS251001R0538		0.125	10
	40	530477	S201-Z40	2CDS251001R0558		0.125	10
	50	551915	S201-Z50	2CDS251001R0578		0.125	10
63	551922	S201-Z63	2CDS251001R0608		0.125	10	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	0.5	530682	S202-Z0.5	2CDS252001R0158		0.250	5
	1	530675	S202-Z1	2CDS252001R0218		0.250	5
	1.6	530699	S202-Z1.6	2CDS252001R0258		0.250	5
	2	530705	S202-Z2	2CDS252001R0278		0.250	5
	3	530712	S202-Z3	2CDS252001R0318		0.250	5
	4	530729	S202-Z4	2CDS252001R0338		0.250	5
	6	530736	S202-Z6	2CDS252001R0378		0.250	5
	8	530743	S202-Z8	2CDS252001R0408		0.250	5
	10	530750	S202-Z10	2CDS252001R0428		0.250	5
	16	530767	S202-Z16	2CDS252001R0468		0.250	5
	20	530774	S202-Z20	2CDS252001R0488		0.250	5
	25	530781	S202-Z25	2CDS252001R0518		0.250	5
	32	530798	S202-Z32	2CDS252001R0538		0.250	5
	40	530804	S202-Z40	2CDS252001R0558		0.250	5
	50	551939	S202-Z50	2CDS252001R0578		0.250	5
63	551946	S202-Z63	2CDS252001R0608		0.250	5	

MCBs

S 200 series 6000 Z characteristic

1



S 203



S 204

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.5	530972	S203-Z0.5	2CDS253001R0158		0.375	1
	1	530989	S203-Z1	2CDS253001R0218		0.375	1
	1.6	530996	S203-Z1.6	2CDS253001R0258		0.375	1
	2	531009	S203-Z2	2CDS253001R0278		0.375	1
	3	531016	S203-Z3	2CDS253001R0318		0.375	1
	4	531023	S203-Z4	2CDS253001R0338		0.375	1
	6	531030	S203-Z6	2CDS253001R0378		0.375	1
	8	531047	S203-Z8	2CDS253001R0408		0.375	1
	10	531054	S203-Z10	2CDS253001R0428		0.375	1
	16	531061	S203-Z16	2CDS253001R0468		0.375	1
	20	531078	S203-Z20	2CDS253001R0488		0.375	1
	25	531085	S203-Z25	2CDS253001R0518		0.375	1
	32	531092	S203-Z32	2CDS253001R0538		0.375	1
	40	531108	S203-Z40	2CDS253001R0558		0.375	1
	50	551953	S203-Z50	2CDS253001R0578		0.375	1
63	551960	S203-Z63	2CDS253001R0608		0.375	1	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.5	530248	S204-Z0.5	2CDS254001R0158		0.500	1
	1	531320	S204-Z1	2CDS254001R0218		0.500	1
	1.6	531443	S204-Z1.6	2CDS254001R0258		0.500	1
	2	531436	S204-Z2	2CDS254001R0278		0.500	1
	3	531337	S204-Z3	2CDS254001R0318		0.500	1
	4	531344	S204-Z4	2CDS254001R0338		0.500	1
	6	531351	S204-Z6	2CDS254001R0378		0.500	1
	8	531368	S204-Z8	2CDS254001R0408		0.500	1
	10	531375	S204-Z10	2CDS254001R0428		0.500	1
	16	531382	S204-Z16	2CDS254001R0468		0.500	1
	20	531399	S204-Z20	2CDS254001R0488		0.500	1
	25	531405	S204-Z25	2CDS254001R0518		0.500	1
	32	531412	S204-Z32	2CDS254001R0538		0.500	1
	40	531429	S204-Z40	2CDS254001R0558		0.500	1
	50	551977	S204-Z50	2CDS254001R0578		0.500	1
63	551984	S204-Z63	2CDS254001R0608		0.500	1	

Where to find more:

Coordination tables for S 200 MCBs:
Chapter 1 of
Solutions for electrical installation in
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MCBs - chapter 15

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Accessories for MCBs - chapter 3
Busbar systems - chapter 3



S 201 NA

2CDD02102180013



S 203 NA

2CDD02101680013

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+NA	0.5	532143	S201-Z0.5NA	2CDS251103R0158		0.260	5
	1	532150	S201-Z1NA	2CDS251103R0218		0.260	5
	1.6	532167	S201-Z1.6NA	2CDS251103R0258		0.260	5
	2	532174	S201-Z2NA	2CDS251103R0278		0.260	5
	3	532181	S201-Z3NA	2CDS251103R0318		0.260	5
	4	532198	S201-Z4NA	2CDS251103R0338		0.260	5
	6	532204	S201-Z6NA	2CDS251103R0378		0.260	5
	8	532211	S201-Z8NA	2CDS251103R0408		0.260	5
	10	532228	S201-Z10NA	2CDS251103R0428		0.260	5
	16	532235	S201-Z16NA	2CDS251103R0468		0.260	5
	20	532242	S201-Z20NA	2CDS251103R0488		0.260	5
	25	532259	S201-Z25NA	2CDS251103R0518		0.260	5
	32	532266	S201-Z32NA	2CDS251103R0538		0.260	5
	40	532273	S201-Z40NA	2CDS251103R0558		0.260	5
	50	552127	S201-Z50NA	2CDS251103R0578		0.320	5
	63	552134	S201-Z63NA	2CDS251103R0608		0.320	5

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3+NA	0.5	53292 1	S203-Z0.5NA	2CDS253103R0158		0.520	1
	1	53293 8	S203-Z1NA	2CDS253103R0218		0.520	1
	1.6	53294 5	S203-Z1.6NA	2CDS253103R0258		0.520	1
	2	53295 2	S203-Z2NA	2CDS253103R0278		0.520	1
	3	53297 6	S203-Z3NA	2CDS253103R0318		0.520	1
	4	53298 3	S203-Z4NA	2CDS253103R0338		0.520	1
	6	53299 0	S203-Z6NA	2CDS253103R0378		0.520	1
	8	53300 3	S203-Z8NA	2CDS253103R0408		0.520	1
	10	53301 0	S203-Z10NA	2CDS253103R0428		0.520	1
	16	53302 7	S203-Z16NA	2CDS253103R0468		0.520	1
	20	53305 8	S203-Z20NA	2CDS253103R0488		0.520	1
	25	53306 5	S203-Z25NA	2CDS253103R0518		0.520	1
	32	53307 2	S203-Z32NA	2CDS253103R0538		0.520	1
	40	53308 9	S203-Z40NA	2CDS253103R0558		0.520	1
	50	55214 1	S203-Z50NA	2CDS253103R0578		0.640	1
	63	55216 5	S203-Z63NA	2CDS253103R0608		0.640	1

MCBs

S 200 series M 10000 B characteristic

1



S 201 M



S 202 M



S 203 M



S 204 M

S 200 M-B characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and large length of cables in TN and IT systems.

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898-1, IEC/EN 60947-2

Icn=10 kA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	6	549424	S201M-B6	2CDS271001R0065		0.125	10
	10	549431	S201M-B10	2CDS271001R0105		0.125	10
	13	549448	S201M-B13	2CDS271001R0135		0.125	10
	16	549455	S201M-B16	2CDS271001R0165		0.125	10
	20 ①	549462	S201M-B20	2CDS271001R0205		0.125	10
	25	549479	S201M-B25	2CDS271001R0255		0.125	10
	32 ②	549486	S201M-B32	2CDS271001R0325		0.125	10
	40 ③	549493	S201M-B40	2CDS271001R0405		0.125	10
	50	543811	S201M-B50	2CDS271001R0505		0.125	10
	63	543828	S201M-B63	2CDS271001R0635		0.125	10

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	6	549585	S202M-B6	2CDS272001R0065		0.250	5
	10	549592	S202M-B10	2CDS272001R0105		0.250	5
	13	549608	S202M-B13	2CDS272001R0135		0.250	5
	16	549615	S202M-B16	2CDS272001R0165		0.250	5
	20	549622	S202M-B20	2CDS272001R0205		0.250	5
	25	549639	S202M-B25	2CDS272001R0255		0.250	5
	32	549646	S202M-B32	2CDS272001R0325		0.250	5
	40	549653	S202M-B40	2CDS272001R0405		0.250	5
	50	543859	S202M-B50	2CDS272001R0505		0.250	5
	63	543866	S202M-B63	2CDS272001R0635		0.250	5

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	549660	S203M-B 6	2CDS273001R0065		0.375	1
	10	549677	S203M-B10	2CDS273001R0105		0.375	1
	13	549684	S203M-B13	2CDS273001R0135		0.375	1
	16	549691	S203M-B16	2CDS273001R0165		0.375	1
	20 ①	549707	S203M-B20	2CDS273001R0205		0.375	1
	25	549714	S203M-B25	2CDS273001R0255		0.375	1
	32 ②	549721	S203M-B32	2CDS273001R0325		0.375	1
	40 ③	549738	S203M-B40	2CDS273001R0405		0.375	1
	50	543873	S203M-B50	2CDS273001R0505		0.375	1
	63	543880	S203M-B63	2CDS273001R0635		0.375	1

① suitable for flow-type heaters 12 kW
 ② suitable for flow-type heaters 18 kW

③ suitable for flow-type heaters 21, 24 and 27 kW

Where to find more:

Coordination tables for S 200 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

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S 201 M NA

2CDD2101IS0013



S 203 M NA

2CDD2101IS0013

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	6	549820	S204M-B 6	2CDS274001R0065		0.500	1
	10	549837	S204M-B10	2CDS274001R0105		0.500	1
	13	549844	S204M-B13	2CDS274001R0135		0.500	1
	16	549851	S204M-B16	2CDS274001R0165		0.500	1
	20	549868	S204M-B20	2CDS274001R0205		0.500	1
	25	549875	S204M-B25	2CDS274001R0255		0.500	1
	32	549882	S204M-B32	2CDS274001R0325		0.500	1
	40	549899	S204M-B40	2CDS274001R0405		0.500	1
	50	543910	S204M-B50	2CDS274001R0505		0.500	1
	63	543927	S204M-B63	2CDS274001R0635		0.500	1

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+NA	6	549509	S201M-B6NA	2CDS271103R0065		0.250	5
	10	549516	S201M-B10NA	2CDS271103R0105		0.250	5
	13	549523	S201M-B13NA	2CDS271103R0135		0.250	5
	16	549530	S201M-B16NA	2CDS271103R0165		0.250	5
	20 ①	549547	S201M-B20NA	2CDS271103R0205		0.250	5
	25	549554	S201M-B25NA	2CDS271103R0255		0.250	5
	32 ②	549561	S201M-B32NA	2CDS271103R0325		0.250	5
	40 ③	549578	S201M-B40NA	2CDS271103R0405		0.250	5
	50	543835	S201M-B50NA	2CDS271103R0505		0.250	5
	63	543842	S201M-B63NA	2CDS271103R0635		0.250	5

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3+NA	6	549745	S203M-B6NA	2CDS273103R0065		0.500	1
	10	549752	S203M-B10NA	2CDS273103R0105		0.500	1
	13	549769	S203M-B13NA	2CDS273103R0135		0.500	1
	16	549776	S203M-B16NA	2CDS273103R0165		0.500	1
	20 ①	549783	S203M-B20NA	2CDS273103R0205		0.500	1
	25	549790	S203M-B25NA	2CDS273103R0255		0.500	1
	32 ②	549806	S203M-B32NA	2CDS273103R0325		0.500	1
	40 ③	549813	S203M-B40NA	2CDS273103R0405		0.500	1
	50	543897	S203M-B50NA	2CDS273103R0505		0.500	1
	63	543903	S203M-B63NA	2CDS273103R0635		0.580	1

- ① suitable for flow-type heaters 12 kW
- ② suitable for flow-type heaters 18 kW
- ③ suitable for flow-type heaters 21, 24 and 27 kW

MCBs

S 200 series M 10000 C characteristic

1



S 201 M



S 202 M

S 200 M-C characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898-1, IEC/EN 60947-2

Icn=10 kA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	0.5	549905	S201M-C0.5	2CDS271001R0984		0.125	10
	1	549929	S201M-C1	2CDS271001R0014		0.125	10
	1.6	549912	S201M-C1.6	2CDS271001R0974		0.125	10
	2	549936	S201M-C2	2CDS271001R0024		0.125	10
	3	549943	S201M-C3	2CDS271001R0034		0.125	10
	4	549950	S201M-C4	2CDS271001R0044		0.125	10
	6	549967	S201M-C6	2CDS271001R0064		0.125	10
	8	549974	S201M-C8	2CDS271001R0084		0.125	10
	10	549981	S201M-C10	2CDS271001R0104		0.125	10
	13	549998	S201M-C13	2CDS271001R0134		0.125	10
	16	550000	S201M-C16	2CDS271001R0164		0.125	10
	20 ①	550017	S201M-C20	2CDS271001R0204		0.125	10
	25	550024	S201M-C25	2CDS271001R0254		0.125	10
	32 ②	550031	S201M-C32	2CDS271001R0324		0.125	10
	40 ③	550048	S201M-C40	2CDS271001R0404		0.125	10
	50	543934	S201M-C50	2CDS271001R0504		0.125	10
63	543941	S201M-C63	2CDS271001R0634		0.125	10	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	0.5	550208	S202M-C0.5	2CDS272001R0984		0.250	5
	1	550222	S202M-C1	2CDS272001R0014		0.250	5
	1.6	550215	S202M-C1.6	2CDS272001R0974		0.250	5
	2	550239	S202M-C2	2CDS272001R0024		0.250	5
	3	550246	S202M-C3	2CDS272001R0034		0.250	5
	4	550253	S202M-C4	2CDS272001R0044		0.250	5
	6	550260	S202M-C6	2CDS272001R0064		0.250	5
	8	550277	S202M-C8	2CDS272001R0084		0.250	5
	10	550284	S202M-C10	2CDS272001R0104		0.250	5
	13	550291	S202M-C13	2CDS272001R0134		0.250	5
	16	550307	S202M-C16	2CDS272001R0164		0.250	5
	20	550314	S202M-C20	2CDS272001R0204		0.250	5
	25	550321	S202M-C25	2CDS272001R0254		0.250	5
	32	550338	S202M-C32	2CDS272001R0324		0.250	5
	40	550345	S202M-C40	2CDS272001R0404		0.250	5
	50	543972	S202M-C50	2CDS272001R0504		0.250	5
63	543989	S202M-C63	2CDS272001R0634		0.250	5	

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① suitable for flow-type heaters 12 kW
② suitable for flow-type heaters 18 kW

③ suitable for flow-type heaters 21, 24 and 27 kW



S 203 M

2CDC021023S0013



S 204 M

2CDC021023S0013

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.5	550352	S203M-C0.5	2CDS273001R0984		0.375	1
	1	550376	S203M-C1	2CDS273001R0014		0.375	1
	1.6	550369	S203M-C1.6	2CDS273001R0974		0.375	1
	2	550383	S203M-C2	2CDS273001R0024		0.375	1
	3	550390	S203M-C3	2CDS273001R0034		0.375	1
	4	550406	S203M-C4	2CDS273001R0044		0.375	1
	6	550413	S203M-C6	2CDS273001R0064		0.375	1
	8	550420	S203M-C8	2CDS273001R0084		0.375	1
	10	550437	S203M-C10	2CDS273001R0104		0.375	1
	13	550444	S203M-C13	2CDS273001R0134		0.375	1
	16	550451	S203M-C16	2CDS273001R0164		0.375	1
	20 ①	550468	S203M-C20	2CDS273001R0204		0.375	1
	25	550475	S203M-C25	2CDS273001R0254		0.375	1
	32 ②	550482	S203M-C32	2CDS273001R0324		0.375	1
	40 ③	550499	S203M-C40	2CDS273001R0404		0.375	1
50	543996	S203M-C50	2CDS273001R0504		0.375	1	
63	544009	S203M-C63	2CDS273001R0634		0.375	1	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.5	550659	S204M-C0.5	2CDS274001R0984		0.500	1
	1	550673	S204M-C1	2CDS274001R0014		0.500	1
	1.6	550666	S204M-C1.6	2CDS274001R0974		0.500	1
	2	550680	S204M-C2	2CDS274001R0024		0.500	1
	3	550697	S204M-C3	2CDS274001R0034		0.500	1
	4	550703	S204M-C4	2CDS274001R0044		0.500	1
	6	550710	S204M-C6	2CDS274001R0064		0.500	1
	8	550727	S204M-C8	2CDS274001R0084		0.500	1
	10	550734	S204M-C10	2CDS274001R0104		0.500	1
	13	550741	S204M-C13	2CDS274001R0134		0.500	1
	16	550758	S204M-C16	2CDS274001R0164		0.500	1
	20	550765	S204M-C20	2CDS274001R0204		0.500	1
	25	550772	S204M-C25	2CDS274001R0254		0.500	1
	32	550789	S204M-C32	2CDS274001R0324		0.500	1
	40	550796	S204M-C40	2CDS274001R0404		0.500	1
50	544030	S204M-C50	2CDS274001R0504		0.500	1	
63	544047	S204M-C63	2CDS274001R0634		0.500	1	

① suitable for flow-type heaters 12 kW ③ suitable for flow-type heaters 21, 24 and 27 kW
 ② suitable for flow-type heaters 18 kW

MCBs

S 200 series M 10000 C characteristic

1



S 201 M NA



S 203 M NA

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1+NA	0.5	550055	S201M-C0.5NA	2CDS271103R0984		0.250	5
	1	550079	S201M-C1NA	2CDS271103R0014		0.250	5
	1.6	550062	S201M-C1.6NA	2CDS271103R0974		0.250	5
	2	550086	S201M-C2NA	2CDS271103R0024		0.250	5
	3	550093	S201M-C3NA	2CDS271103R0034		0.250	5
	4	550109	S201M-C4NA	2CDS271103R0044		0.250	5
	6	550116	S201M-C6NA	2CDS271103R0064		0.250	5
	8	550123	S201M-C8NA	2CDS271103R0084		0.250	5
	10	550130	S201M-C10NA	2CDS271103R0104		0.250	5
	13	550147	S201M-C13NA	2CDS271103R0134		0.250	5
	16	550154	S201M-C16NA	2CDS271103R0164		0.250	5
	20 ①	550161	S201M-C20NA	2CDS271103R0204		0.250	5
	25	550178	S201M-C25NA	2CDS271103R0254		0.250	5
	32 ②	550185	S201M-C32NA	2CDS271103R0324		0.250	5
40 ③	550192	S201M-C40NA	2CDS271103R0404		0.250	5	
50	543958	S201M-C50NA	2CDS271103R0504		0.250	5	
63	543965	S201M-C63NA	2CDS271103R0634		0.250	5	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3+NA	0.5	550512	S203M-C0.5NA	2CDS273103R0984		0.500	1
	1	550529	S203M-C1NA	2CDS273103R0014		0.500	1
	1.6	550505	S203M-C1.6NA	2CDS273103R0974		0.500	1
	2	550536	S203M-C2NA	2CDS273103R0024		0.500	1
	3	550543	S203M-C3NA	2CDS273103R0034		0.500	1
	4	550550	S203M-C4NA	2CDS273103R0044		0.500	1
	6	550567	S203M-C6NA	2CDS273103R0064		0.500	1
	8	550574	S203M-C8NA	2CDS273103R0084		0.500	1
	10	550581	S203M-C10NA	2CDS273103R0104		0.500	1
	13	550598	S203M-C13NA	2CDS273103R0134		0.500	1
	16	550604	S203M-C16NA	2CDS273103R0164		0.500	1
	20 ①	550611	S203M-C20NA	2CDS273103R0204		0.500	1
	25	550628	S203M-C25NA	2CDS273103R0254		0.500	1
	32 ②	550635	S203M-C32NA	2CDS273103R0324		0.500	1
	40 ③	550642	S203M-C40NA	2CDS273103R0404		0.500	1
	50	544016	S203M-C50NA	2CDS273103R0504		0.580	1
63	544023	S203M-C63NA	2CDS273103R0634		0.580	1	

① suitable for flow-type heaters 12 kW
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MCBs

S 200 series M 10000 D characteristic



S 201 M



S 202 M

S 200 M-D characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, breakdown lamps).

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898-1, IEC/EN 60947-2

Icn=10 kA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.5	599832	S201M-D0.5	2CDS271001R0981		0.125	10
	1	500313	S201M-D1	2CDS271001R0011		0.125	10
	1.6	599825	S201M-D1.6	2CDS271001R0971		0.125	10
	2	599337	S201M-D2	2CDS271001R0021		0.125	10
	3	599351	S201M-D3	2CDS271001R0031		0.125	10
	4	599357	S201M-D4	2CDS271001R0041		0.125	10
	6	599399	S201M-D6	2CDS271001R0061		0.125	10
	8	599405	S201M-D8	2CDS271001R0081		0.125	10
	10	599429	S201M-D10	2CDS271001R0101		0.125	10
	13	663267	S201M-D13	2CDS271001R0131		0.125	10
	16	599450	S201M-D16	2CDS271001R0161		0.125	10
	20 ①	500467	S201M-D20	2CDS271001R0201		0.125	10
	25	599498	S201M-D25	2CDS271001R0251		0.125	10
	32 ②	599566	S201M-D32	2CDS271001R0321		0.125	10
	40 ③	599610	S201M-D40	2CDS271001R0401		0.125	10
	50	599702	S201M-D50	2CDS271001R0501		0.125	10
63	599818	S201M-D63	2CDS271001R0631		0.125	10	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	0.5	600880	S202M-D0.5	2CDS272001R0981		0.250	5
	1	600361	S202M-D1	2CDS272001R0011		0.250	5
	1.6	600873	S202M-D1.6	2CDS272001R0971		0.250	5
	2	600385	S202M-D2	2CDS272001R0021		0.250	5
	3	600408	S202M-D3	2CDS272001R0031		0.250	5
	4	600422	S202M-D4	2CDS272001R0041		0.250	5
	6	600446	S202M-D6	2CDS272001R0061		0.250	5
	8	600453	S202M-D8	2CDS272001R0081		0.250	5
	10	600477	S202M-D10	2CDS272001R0101		0.250	5
	13	663274	S202M-D13	2CDS272001R0131		0.250	5
	16	600507	S202M-D16	2CDS272001R0161		0.250	5
	20	600514	S202M-D20	2CDS272001R0201		0.250	5
	25	600545	S202M-D25	2CDS272001R0251		0.250	5
	32	600613	S202M-D32	2CDS272001R0321		0.250	5
	40	600668	S202M-D40	2CDS272001R0401		0.250	5
	50	600750	S202M-D50	2CDS272001R0501		0.250	5
63	600866	S202M-D63	2CDS272001R0631		0.250	5	

① suitable for flow-type heaters 12 kW

② suitable for flow-type heaters 18 kW

③ suitable for flow-type heaters 21, 24 and 27 kW

MCBs

S 200 series M 10000 D characteristic

1



S 203 M



S 204 M

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.5	601412	S203M-D0.5	2CDS273001R0981		0.375	1
	1	600897	S203M-D1	2CDS273001R0011		0.375	1
	1.6	601405	S203M-D1.6	2CDS273001R0971		0.375	1
	2	600910	S203M-D2	2CDS273001R0021		0.375	1
	3	600934	S203M-D3	2CDS273001R0031		0.375	1
	4	600958	S203M-D4	2CDS273001R0041		0.375	1
	6	600972	S203M-D6	2CDS273001R0061		0.375	1
	8	600989	S203M-D8	2CDS273001R0081		0.375	1
	10	601009	S203M-D10	2CDS273001R0101		0.375	1
	13	663281	S203M-D13	2CDS273001R0131		0.375	1
	16	601030	S203M-D16	2CDS273001R0161		0.375	1
	20 ①	601047	S203M-D20	2CDS273001R0201		0.375	1
	25	601078	S203M-D25	2CDS273001R0251		0.375	1
	32 ②	601146	S203M-D32	2CDS273001R0321		0.375	1
	40 ③	601191	S203M-D40	2CDS273001R0401		0.375	1
	50	601283	S203M-D50	2CDS273001R0501		0.375	1
63	601399	S203M-D63	2CDS273001R0631		0.375	1	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.5	602143	S204M-D0.5	2CDS274001R0981		0.500	1
	1	601634	S204M-D1	2CDS274001R0011		0.500	1
	1.6	602136	S204M-D1.6	2CDS274001R0971		0.500	1
	2	601658	S204M-D2	2CDS274001R0021		0.500	1
	3	601672	S204M-D3	2CDS274001R0031		0.500	1
	4	601696	S204M-D4	2CDS274001R0041		0.500	1
	6	601719	S204M-D6	2CDS274001R0061		0.500	1
	8	601726	S204M-D8	2CDS274001R0081		0.500	1
	10	601740	S204M-D10	2CDS274001R0101		0.500	1
	13	663298	S204M-D13	2CDS274001R0131		0.500	1
	16	601771	S204M-D16	2CDS274001R0161		0.500	1
	20	601788	S204M-D20	2CDS274001R0201		0.500	1
	25	601818	S204M-D25	2CDS274001R0251		0.500	1
	32	601887	S204M-D32	2CDS274001R0321		0.500	1
	40	601931	S204M-D40	2CDS274001R0401		0.500	1
	50	602013	S204M-D50	2CDS274001R0501		0.500	1
63	602129	S204M-D63	2CDS274001R0631		0.500	1	

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② suitable for flow-type heaters 18 kW

③ suitable for flow-type heaters 21, 24 and 27 kW



S 201 M NA

2CDS27103R0013



S 203 M NA

2CDS27103R0013

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+NA	0.5	600354	S201M-D0.5NA	2CDS271103R0981		0.250	5
	1	599849	S201M-D1NA	2CDS271103R0011		0.250	5
	1.6	600347	S201-MD1.6NA	2CDS271103R0971		0.250	5
	2	599863	S201M-D2NA	2CDS271103R0021		0.250	5
	3	599887	S201M-D3NA	2CDS271103R0031		0.250	5
	4	599900	S201M-D4NA	2CDS271103R0041		0.250	5
	6	599924	S201M-D6NA	2CDS271103R0061		0.250	5
	8	599931	S201M-D8NA	2CDS271103R0081		0.250	5
	10	599948	S201M-D10NA	2CDS271103R0101		0.250	5
	13	663304	S201M-D13NA	2CDS271103R0131		0.250	5
	16	599979	S201M-D16NA	2CDS271103R0161		0.250	5
	20 ①	599986	S201M-D20NA	2CDS271103R0201		0.250	5
	25	600019	S201M-D25NA	2CDS271103R0251		0.250	5
	32 ②	600088	S201M-D32NA	2CDS271103R0321		0.250	5
	40 ③	600132	S201M-D40NA	2CDS271103R0401		0.250	5
50	600224	S201M-D50NA	2CDS271103R0501		0.290	5	
63	600330	S201M-D63NA	2CDS271103R0631		0.290	5	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3+NA	0.5	663311	S203M-D0.5NA	2CDS273103R0981		0.500	1
	1	663328	S203M-D1NA	2CDS273103R0011		0.500	1
	1.6	663335	S203M-D1.6NA	2CDS273103R0971		0.500	1
	2	663342	S203M-D2NA	2CDS273103R0021		0.500	1
	3	663359	S203M-D3NA	2CDS273103R0031		0.500	1
	4	663366	S203M-D4NA	2CDS273103R0041		0.500	1
	6	663373	S203M-D6NA	2CDS273103R0061		0.500	1
	8	663380	S203M-D8NA	2CDS273103R0081		0.500	1
	10	663397	S203M-D10NA	2CDS273103R0101		0.500	1
	13	663403	S203M-D13NA	2CDS273103R0131		0.500	1
	16	663410	S203M-D16NA	2CDS273103R0161		0.500	1
	20 ①	663427	S203M-D20NA	2CDS273103R0201		0.500	1
	25	663434	S203M-D25NA	2CDS273103R0251		0.500	1
	32 ②	663441	S203M-D32NA	2CDS273103R0321		0.500	1
	40 ③	663458	S203M-D40NA	2CDS273103R0401		0.500	1
	50	663465	S203M-D50NA	2CDS273103R0501		0.580	1
	63	663472	S203M-D63NA	2CDS273103R0631		0.580	1

① suitable for flow-type heaters 12 kW ③ suitable for flow-type heaters 21, 24 and 27 kW
 ② suitable for flow-type heaters 18 kW

MCBs

S 200 series M 10000 K characteristic

1



S 201 M



S 202 M

S 200 M-K (power) characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to $10 \times I_n$, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=15 kA for $0.5 \text{ A} \leq I_n \leq 40 \text{ A}$

Icu=10 kA for $50 \text{ A} \leq I_n \leq 63 \text{ A}$

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	0.5	599436	S201M-K0.5	2CDS271001R0157		0.125	10
	1	599474	S201M-K1	2CDS271001R0217		0.125	10
	1.6	599504	S201M-K1.6	2CDS271001R0257		0.125	10
	2	599528	S201M-K2	2CDS271001R0277		0.125	10
	3	599542	S201M-K3	2CDS271001R0317		0.125	10
	4	599573	S201M-K4	2CDS271001R0337		0.125	10
	6	599597	S201M-K6	2CDS271001R0377		0.125	10
	8	599627	S201M-K8	2CDS271001R0407		0.125	10
	10	599641	S201M-K10	2CDS271001R0427		0.125	10
	13	659390	S201M-K13	2CDS271001R0447		0.125	10
	16	599665	S201M-K16	2CDS271001R0467		0.125	10
	20	599689	S201M-K20	2CDS271001R0487		0.125	10
	25	599719	S201M-K25	2CDS271001R0517		0.125	10
	32	599733	S201M-K32	2CDS271001R0537		0.125	10
	40	599757	S201M-K40	2CDS271001R0557		0.125	10
	50	599771	S201M-K50	2CDS271001R0577		0.125	10
63	599795	S201M-K63	2CDS271001R0607		0.125	10	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	0.5	600484	S202M-K0.5	2CDS272001R0157		0.250	5
	1	600521	S202M-K1	2CDS272001R0217		0.250	5
	1.6	600552	S202M-K1.6	2CDS272001R0257		0.250	5
	2	600576	S202M-K2	2CDS272001R0277		0.250	5
	3	600590	S202M-K3	2CDS272001R0317		0.250	5
	4	600620	S202M-K4	2CDS272001R0337		0.250	5
	6	600644	S202M-K6	2CDS272001R0377		0.250	5
	8	600675	S202M-K8	2CDS272001R0407		0.250	5
	10	600699	S202M-K10	2CDS272001R0427		0.250	5
	13	659406	S202M-K13	2CDS272001R0447		0.250	5
	16	600712	S202M-K16	2CDS272001R0467		0.250	5
	20	600736	S202M-K20	2CDS272001R0487		0.250	5
	25	600767	S202M-K25	2CDS272001R0517		0.250	5
	32	600781	S202M-K32	2CDS272001R0537		0.250	5
	40	600804	S202M-K40	2CDS272001R0557		0.250	5
	50	600828	S202M-K50	2CDS272001R0577		0.250	5
63	600842	S202M-K63	2CDS272001R0607		0.250	5	

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S 203 M

2CDC02102350013



S 204 M

2CDC02102250013

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.5	601016	S203M-K0.5	2CDS273001R0157		0.375	1
	1	601054	S203M-K1	2CDS273001R0217		0.375	1
	1.6	601085	S203M-K1.6	2CDS273001R0257		0.375	1
	2	601108	S203M-K2	2CDS273001R0277		0.375	1
	3	601122	S203M-K3	2CDS273001R0317		0.375	1
	4	601153	S203M-K4	2CDS273001R0337		0.375	1
	6	601177	S203M-K6	2CDS273001R0377		0.375	1
	8	601207	S203M-K8	2CDS273001R0407		0.375	1
	10	601221	S203M-K10	2CDS273001R0427		0.375	1
	13	659413	S203M-K13	2CDS273001R0447		0.375	1
	16	601245	S203M-K16	2CDS273001R0467		0.375	1
	20	601269	S203M-K20	2CDS273001R0487		0.375	1
	25	601290	S203M-K25	2CDS273001R0517		0.375	1
	32	601313	S203M-K32	2CDS273001R0537		0.375	1
	40	601337	S203M-K40	2CDS273001R0557		0.375	1
	50	601351	S203M-K50	2CDS273001R0577		0.375	1
63	601375	S203M-K63	2CDS273001R0607		0.375	1	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.5	601757	S204M-K0.5	2CDS274001R0157		0.500	1
	1	601795	S204M-K1	2CDS274001R0217		0.500	1
	1.6	601825	S204M-K1.6	2CDS274001R0257		0.500	1
	2	601849	S204M-K2	2CDS274001R0277		0.500	1
	3	601863	S204M-K3	2CDS274001R0317		0.500	1
	4	601894	S204M-K4	2CDS274001R0337		0.500	1
	6	601917	S204M-K6	2CDS274001R0377		0.500	1
	8	601948	S204M-K8	2CDS274001R0407		0.500	1
	10	601962	S204M-K10	2CDS274001R0427		0.500	1
	13	659420	S204M-K13	2CDS274001R0447		0.500	1
	16	601986	S204M-K16	2CDS274001R0467		0.500	1
	20	602006	S204M-K20	2CDS274001R0487		0.500	1
	25	602020	S204M-K25	2CDS274001R0517		0.500	1
	32	602044	S204M-K32	2CDS274001R0537		0.500	1
	40	602068	S204M-K40	2CDS274001R0557		0.500	1
	50	602082	S204M-K50	2CDS274001R0577		0.500	1
63	602105	S204M-K63	2CDS274001R0607		0.500	1	

MCBs

S 200 series M 10000 K characteristic

1



S 201 M NA



S 203 M NA

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+NA	0.5	599955	S201M-K0.5NA	2CDS271103R0157		0.250	5
	1	599993	S201M-K1NA	2CDS271103R0217		0.250	5
	1.6	600026	S201M-K1.6NA	2CDS271103R0257		0.250	5
	2	600040	S201M-K2NA	2CDS271103R0277		0.250	5
	3	600064	S201M-K3NA	2CDS271103R0317		0.250	5
	4	600095	S201M-K4NA	2CDS271103R0337		0.250	5
	6	600118	S201M-K6NA	2CDS271103R0377		0.250	5
	8	600149	S201M-K8NA	2CDS271103R0407		0.250	5
	10	600163	S201M-K10NA	2CDS271103R0427		0.250	5
	13	659437	S201M-K13NA	2CDS271103R0447		0.250	5
	16	600187	S201M-K16NA	2CDS271103R0467		0.250	5
	20	600200	S201M-K20NA	2CDS271103R0487		0.250	5
	25	600231	S201M-K25NA	2CDS271103R0517		0.250	5
	32	600255	S201M-K32NA	2CDS271103R0537		0.250	5
40	600279	S201M-K40NA	2CDS271103R0557		0.250	5	
50	600293	S201M-K50NA	2CDS271103R0577		0.250	5	
63	600316	S201M-K63NA	2CDS271103R0607		0.250	5	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3+NA	0.5	659444	S203M-K0.5NA	2CDS273103R0157		0.500	1
	1	650451	S203M-K1NA	2CDS273103R0217		0.500	1
	1.6	659468	S203M-K1.6NA	2CDS273103R0257		0.500	1
	2	659475	S203M-K2NA	2CDS273103R0277		0.500	1
	3	659482	S203M-K3NA	2CDS273103R0317		0.500	1
	4	659499	S203M-K4NA	2CDS273103R0337		0.500	1
	6	659505	S203M-K6NA	2CDS273103R0377		0.500	1
	8	659512	S203M-K8NA	2CDS273103R0407		0.500	1
	10	659529	S203M-K10NA	2CDS273103R0427		0.500	1
	13	659536	S203M-K13NA	2CDS273103R0447		0.500	1
	16	659543	S203M-K16NA	2CDS273103R0467		0.500	1
	20	659550	S203M-K20NA	2CDS273103R0487		0.500	1
	25	659567	S203M-K25NA	2CDS273103R0517		0.500	1
	32	659574	S203M-K32NA	2CDS273103R0537		0.500	1
	40	659581	S203M-K40NA	2CDS273103R0557		0.500	1
	50	659604	S203M-K50NA	2CDS273103R0577		0.500	1
63	659611	S203M-K63NA	2CDS273103R0607		0.500	1	

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MCBs

S 200 series M 10000 Z characteristic



S 201 M



S 202 M

S 200 M-Z characteristic

Function: protection and control of the electronic circuits against lower and long duration overloads and short-circuits.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, VDE 0660 Part 101

Icu=10 kA (acc. to VDE 0660 Part 101)

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.5	599443	S201M-Z0.5	2CDS271001R0158		0.125	10
	1	599481	S201M-Z1	2CDS271001R0218		0.125	10
	1.6	599511	S201M-Z1.6	2CDS271001R0258		0.125	10
	2	599535	S201M-Z2	2CDS271001R0278		0.125	10
	3	599559	S201M-Z3	2CDS271001R0318		0.125	10
	4	599580	S201M-Z4	2CDS271001R0338		0.125	10
	6	599603	S201M-Z6	2CDS271001R0378		0.125	10
	8	599634	S201M-Z8	2CDS271001R0408		0.125	10
	10	599658	S201M-Z10	2CDS271001R0428		0.125	10
	16	599672	S201M-Z16	2CDS271001R0468		0.125	10
	20	599696	S201M-Z20	2CDS271001R0488		0.125	10
	25	599726	S201M-Z25	2CDS271001R0518		0.125	10
	32	599740	S201M-Z32	2CDS271001R0538		0.125	10
	40	599764	S201M-Z40	2CDS271001R0558		0.125	10
	50	599788	S201M-Z50	2CDS271001R0578		0.125	10
	63	599801	S201M-Z63	2CDS271001R0608		0.125	10

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	0.5	600491	S202M-Z0.5	2CDS272001R0158		0.250	5
	1	600538	S202M-Z1	2CDS272001R0218		0.250	5
	1.6	600569	S202M-Z1.6	2CDS272001R0258		0.250	5
	2	600583	S202M-Z2	2CDS272001R0278		0.250	5
	3	600606	S202M-Z3	2CDS272001R0318		0.250	5
	4	600637	S202M-Z4	2CDS272001R0338		0.250	5
	6	600651	S202M-Z6	2CDS272001R0378		0.250	5
	8	600682	S202M-Z8	2CDS272001R0408		0.250	5
	10	600705	S202M-Z10	2CDS272001R0428		0.250	5
	16	600729	S202M-Z16	2CDS272001R0468		0.250	5
	20	600743	S202M-Z20	2CDS272001R0488		0.250	5
	25	600774	S202M-Z25	2CDS272001R0518		0.250	5
	32	600798	S202M-Z32	2CDS272001R0538		0.250	5
	40	600811	S202M-Z40	2CDS272001R0558		0.250	5
	50	600835	S202-MZ50	2CDS272001R0578		0.250	5
	63	600859	S202M-Z63	2CDS272001R0608		0.250	5

MCBs

S 200 series M 10000 Z characteristic

1



S 203 M

2CDC021022S0013



S 204 M

2CDC021022S0013

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A		EAN	Type code			
3	0.5	601023	S203M-Z0.5	2CDS273001R0158		0.375	1
	1	601061	S203M-Z1	2CDS273001R0218		0.375	1
	1.6	601092	S203M-Z1.6	2CDS273001R0258		0.375	1
	2	601115	S203M-Z2	2CDS273001R0278		0.375	1
	3	601139	S203M-Z3	2CDS273001R0318		0.375	1
	4	601160	S203M-Z4	2CDS273001R0338		0.375	1
	6	601184	S203M-Z6	2CDS273001R0378		0.375	1
	8	601214	S203M-Z8	2CDS273001R0408		0.375	1
	10	601238	S203M-Z10	2CDS273001R0428		0.375	1
	16	601252	S203M-Z16	2CDS273001R0468		0.375	1
	20	601276	S203M-Z20	2CDS273001R0488		0.375	1
	25	601306	S203M-Z25	2CDS273001R0518		0.375	1
	32	601320	S203M-Z32	2CDS273001R0538		0.375	1
	40	601344	S203M-Z40	2CDS273001R0558		0.375	1
50	601368	S203M-Z50	2CDS273001R0578		0.375	1	
63	601382	S203M-Z63	2CDS273001R0608		0.375	1	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A		EAN	Type code			
4	0.5	601764	S204M-Z0.5	2CDS274001R0158		0.500	1
	1	601810	S204M-Z1	2CDS274001R0218		0.500	1
	1.6	601832	S204M-Z1.6	2CDS274001R0258		0.500	1
	2	601856	S204M-Z2	2CDS274001R0278		0.500	1
	3	601870	S204M-Z3	2CDS274001R0318		0.500	1
	4	601900	S204M-Z4	2CDS274001R0338		0.500	1
	6	601924	S204M-Z6	2CDS274001R0378		0.500	1
	8	601955	S204M-Z8	2CDS274001R0408		0.500	1
	10	601979	S204M-Z10	2CDS274001R0428		0.500	1
	16	601993	S204M-Z16	2CDS274001R0468		0.500	1
	20	659628	S204M-Z20	2CDS274001R0488		0.500	1
	25	602037	S204M-Z25	2CDS274001R0518		0.500	1
	32	602051	S204M-Z32	2CDS274001R0538		0.500	1
	40	602075	S204M-Z40	2CDS274001R0558		0.500	1
	50	602099	S204M-Z50	2CDS274001R0578		0.500	1
	63	602112	S204M-Z63	2CDS274001R0608		0.500	1

① U_{Bmax} 125 V ... with 2 poles connected in series

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S 201 M NA

2CDS2101RS0013



S 203 M NA

2CDS2101RS0013

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+NA	0.5	599962	S201M-Z0.5NA	2CDS271103R0158		0.260	5
	1	600002	S201M-Z1NA	2CDS271103R0218		0.260	5
	1.6	600033	S201M-Z1.6NA	2CDS271103R0258		0.260	5
	2	600057	S201M-Z2NA	2CDS271103R0278		0.260	5
	3	600071	S201M-Z3NA	2CDS271103R0318		0.260	5
	4	600101	S201M-Z4NA	2CDS271103R0338		0.260	5
	6	600125	S201M-Z6NA	2CDS271103R0378		0.260	5
	8	600156	S201M-Z8NA	2CDS271103R0408		0.260	5
	10	600170	S201M-Z10NA	2CDS271103R0428		0.260	5
	16	600194	S201M-Z16NA	2CDS271103R0468		0.260	5
	20	600217	S201M-Z20NA	2CDS271103R0488		0.260	5
	25	600248	S201M-Z25NA	2CDS271103R0518		0.260	5
	32	600262	S201M-Z32NA	2CDS271103R0538		0.260	5
	40	600286	S201M-Z40NA	2CDS271103R0558		0.260	5
50	600309	S201M-Z50NA	2CDS271103R0578		0.320	5	
63	600323	S201M-Z63NA	2CDS271103R0608		0.320	5	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3+NA	0.5	601474	S203M-Z0.5NA	2CDS273103R0158		0.520	1
	1	601481	S203M-Z1NA	2CDS273103R0218		0.520	1
	1.6	601498	S203M-Z1.6NA	2CDS273103R0258		0.520	1
	2	601504	S203M-Z2NA	2CDS273103R0278		0.520	1
	3	601511	S203M-Z3NA	2CDS273103R0318		0.520	1
	4	601528	S203M-Z4NA	2CDS273103R0338		0.520	1
	6	601535	S203M-Z6NA	2CDS273103R0378		0.520	1
	8	601542	S203M-Z8NA	2CDS273103R0408		0.520	1
	10	601559	S203M-Z10NA	2CDS273103R0428		0.520	1
	16	601566	S203M-Z16NA	2CDS273103R0468		0.520	1
	20	601573	S203M-Z20NA	2CDS273103R0488		0.520	1
	25	601580	S203M-Z25NA	2CDS273103R0518		0.520	1
	32	601597	S203M-Z32NA	2CDS273103R0538		0.520	1
	40	601603	S203M-Z40NA	2CDS273103R0558		0.520	1
50	601610	S203M-Z50NA	2CDS273103R0578		0.640	1	
63	601627	S203M-Z63NA	2CDS273103R0608		0.640	1	

MCBs

Supplementary protector S200 MR

1

The S200 MR is a high-performance supplementary protector with ring cable lug connections conforming to UL 1077; CSA 22.2. No. 235 and IEC/EN 60947-2 standards. The integrated captive connecting screws simplify the connection of electric lines, provides extra protection and saves time.



2CDC021 006S0015



2CDC021 006S0015

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.2	954181	S201MR-K0.2	2CDS271437R0087		0.140	10
	0.3	956697	S201MR-K0.3	2CDS271437R0117		0.140	10
	0.5	956710	S201MR-K0.5	2CDS271437R0157		0.140	10
	0.75	956734	S201MR-K0.75	2CDS271437R0187		0.140	10
	1	956758	S201MR-K1	2CDS271437R0217		0.140	10
	1.6	956772	S201MR-K1.6	2CDS271437R0257		0.140	10
	2	956796	S201MR-K2	2CDS271437R0277		0.140	10
	3	956819	S201MR-K3	2CDS271437R0317		0.140	10
	4	956833	S201MR-K4	2CDS271437R0337		0.140	10
	5	956857	S201MR-K5	2CDS271437R0357		0.140	10
	6	956871	S201MR-K6	2CDS271437R0377		0.140	10
	8	956895	S201MR-K8	2CDS271437R0407		0.140	10
	10	956918	S201MR-K10	2CDS271437R0427		0.140	10
	13	956932	S201MR-K13	2CDS271437R0447		0.140	10
	15	956956	S201MR-K15	2CDS271437R0457		0.140	10
	16	956970	S201MR-K16	2CDS271437R0467		0.140	10
	20	956994	S201MR-K20	2CDS271437R0487		0.140	10
	25	957014	S201MR-K25	2CDS271437R0517		0.140	10
	30	957038	S201MR-K30	2CDS271437R0527		0.140	10
	32	957052	S201MR-K32	2CDS271437R0537		0.140	10
35	957076	S201MR-K35	2CDS271437R0547		0.140	10	
40	957090	S201MR-K40	2CDS271437R0557		0.140	10	
50	957113	S201MR-K50	2CDS271437R0577		0.140	10	
60	957137	S201MR-K60	2CDS271437R0587		0.140	10	
63	957151	S201MR-K63	2CDS271437R0607		0.140	10	
2	0.2	957670	S202MR-K0.2	2CDS272437R0087		0.280	5
	0.3	957694	S202MR-K0.3	2CDS272437R0117		0.280	5
	0.5	957717	S202MR-K0.5	2CDS272437R0157		0.280	5
	0.75	957731	S202MR-K0.75	2CDS272437R0187		0.280	5
	1	957755	S202MR-K1	2CDS272437R0217		0.280	5
	1.6	957779	S202MR-K1.6	2CDS272437R0257		0.280	5
	2	957793	S202MR-K2	2CDS272437R0277		0.280	5
	3	957816	S202MR-K3	2CDS272437R0317		0.280	5
	4	957830	S202MR-K4	2CDS272437R0337		0.280	5
	5	957854	S202MR-K5	2CDS272437R0357		0.280	5
	6	957878	S202MR-K6	2CDS272437R0377		0.280	5
	8	957892	S202MR-K8	2CDS272437R0407		0.280	5
	10	957915	S202MR-K10	2CDS272437R0427		0.280	5
	13	957939	S202MR-K13	2CDS272437R0447		0.280	5
	15	957953	S202MR-K15	2CDS272437R0457		0.280	5
	16	957977	S202MR-K16	2CDS272437R0467		0.280	5
	20	957991	S202MR-K20	2CDS272437R0487		0.280	5
	25	958011	S202MR-K25	2CDS272437R0517		0.280	5
	30	958035	S202MR-K30	2CDS272437R0527		0.280	5
	32	958059	S202MR-K32	2CDS272437R0537		0.280	5
35	958073	S202MR-K35	2CDS272437R0547		0.280	5	
40	958097	S202MR-K40	2CDS272437R0557		0.280	5	
50	958110	S202MR-K50	2CDS272437R0577		0.280	5	
60	958134	S202MR-K60	2CDS272437R0587		0.280	5	
63	958158	S202MR-K63	2CDS272437R0607		0.280	5	



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Number of poles	Rated current In A	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
3	0.2	958677	S203MR-K0.2	2CDS273437R0087		0.420	3
	0.3	958691	S203MR-K0.3	2CDS273437R0117		0.420	3
	0.5	958714	S203MR-K0.5	2CDS273437R0157		0.420	3
	0.75	958738	S203MR-K0.75	2CDS273437R0187		0.420	3
	1	958752	S203MR-K1	2CDS273437R0217		0.420	3
	1.6	958776	S203MR-K1.6	2CDS273437R0257		0.420	3
	2	958790	S203MR-K2	2CDS273437R0277		0.420	3
	3	958813	S203MR-K3	2CDS273437R0317		0.420	3
	4	958837	S203MR-K4	2CDS273437R0337		0.420	3
	5	958851	S203MR-K5	2CDS273437R0357		0.420	3
	6	958875	S203MR-K6	2CDS273437R0377		0.420	3
	8	958899	S203MR-K8	2CDS273437R0407		0.420	3
	10	958912	S203MR-K10	2CDS273437R0427		0.420	3
	13	958936	S203MR-K13	2CDS273437R0447		0.420	3
	15	958950	S203MR-K15	2CDS273437R0457		0.420	3
	16	958974	S203MR-K16	2CDS273437R0467		0.420	3
	20	958998	S203MR-K20	2CDS273437R0487		0.420	3
	25	959018	S203MR-K25	2CDS273437R0517		0.420	3
	30	959032	S203MR-K30	2CDS273437R0527		0.420	3
	32	959056	S203MR-K32	2CDS273437R0537		0.420	3
35	959070	S203MR-K35	2CDS273437R0547		0.420	3	
40	959094	S203MR-K40	2CDS273437R0557		0.420	3	
50	959117	S203MR-K50	2CDS273437R0577		0.420	3	
60	959131	S203MR-K60	2CDS273437R0587		0.420	3	
63	959155	S203MR-K63	2CDS273437R0607		0.420	3	
4	0.2	959674	S204MR-K0.2	2CDS274437R0087		0.560	2
	0.3	959698	S204MR-K0.3	2CDS274437R0117		0.560	2
	0.5	959711	S204MR-K0.5	2CDS274437R0157		0.560	2
	0.75	959735	S204MR-K0.75	2CDS274437R0187		0.560	2
	1	959759	S204MR-K1	2CDS274437R0217		0.560	2
	1.6	959773	S204MR-K1.6	2CDS274437R0257		0.560	2
	2	959797	S204MR-K2	2CDS274437R0277		0.560	2
	3	959810	S204MR-K3	2CDS274437R0317		0.560	2
	4	959834	S204MR-K4	2CDS274437R0337		0.560	2
	5	959858	S204MR-K5	2CDS274437R0357		0.560	2
	6	959872	S204MR-K6	2CDS274437R0377		0.560	2
	8	959896	S204MR-K8	2CDS274437R0407		0.560	2
	10	959919	S204MR-K10	2CDS274437R0427		0.560	2
	13	959933	S204MR-K13	2CDS274437R0447		0.560	2
	15	959957	S204MR-K15	2CDS274437R0457		0.560	2
	16	959971	S204MR-K16	2CDS274437R0467		0.560	2
	20	959995	S204MR-K20	2CDS274437R0487		0.560	2
	25	960014	S204MR-K25	2CDS274437R0517		0.560	2
	30	960038	S204MR-K30	2CDS274437R0527		0.560	2
	32	960052	S204MR-K32	2CDS274437R0537		0.560	2
35	960076	S204MR-K35	2CDS274437R0547		0.560	2	
40	960090	S204MR-K40	2CDS274437R0557		0.560	2	
50	960113	S204MR-K50	2CDS274437R0577		0.560	2	
60	960137	S204MR-K60	2CDS274437R0587		0.560	2	
63	960151	S204MR-K63	2CDS274437R0607		0.560	2	

MCBs

S 200 series M UC 10000 B characteristic

Universal current range

1



S 201 M UC



S 202 M UC

S 200 M UC B characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems; version dedicated to application in direct current circuits for voltages up to 220 V DC 1 pole and 440 V DC 2, 3 and 4 poles.

Applications: Industrial.

Standard: IEC/EN 60898-2, IEC/EN 60947-2, UL1077, CSA 22.2 No. 235

(for DC applications, please note polarity of device)

Icu=10 kA

Number of poles	Rated current	Bbn 401361	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	6	4430596	S201M-B6UC	2CDS271061R0065		0.125	10
	10	4430602	S201M-B10UC	2CDS271061R0105		0.125	10
	13	4430619	S201M-B13UC	2CDS271061R0135		0.125	10
	16	4430626	S201M-B16UC	2CDS271061R0165		0.125	10
	20	4430633	S201M-B20UC	2CDS271061R0205		0.125	10
	25	4430640	S201M-B25UC	2CDS271061R0255		0.125	10
	32	4430657	S201M-B32UC	2CDS271061R0325		0.125	10
	40	4430664	S201M-B40UC	2CDS271061R0405		0.125	10
	50	4430671	S201M-B50UC	2CDS271061R0505		0.125	10
	63	4430688	S201M-B63UC	2CDS271061R0635		0.125	10

Number of poles	Rated current	Bbn 401361	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	6	4432811	S202M-B6UC	2CDS272061R0065		0.250	5
	10	4432828	S202M-B10UC	2CDS272061R0105		0.250	5
	13	4432835	S202M-B13UC	2CDS272061R0135		0.250	5
	16	4432842	S202M-B16UC	2CDS272061R0165		0.250	5
	20	4432859	S202M-B20UC	2CDS272061R0205		0.250	5
	25	4432866	S202M-B25UC	2CDS272061R0255		0.250	5
	32	4432873	S202M-B32UC	2CDS272061R0325		0.250	5
	40	4432880	S202M-B40UC	2CDS272061R0405		0.250	5
	50	4432897	S202M-B50UC	2CDS272061R0505		0.250	5
	63	4432903	S202M-B63UC	2CDS272061R0635		0.250	5

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S 203 M UC

2CDC021034S0011



S 204 M UC

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Number of poles	Rated current	Bbn 401361	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	4435034	S203M-B6UC	2CDS273061R0065		0.375	1
	10	4435041	S203M-B10UC	2CDS273061R0105		0.375	1
	13	4435058	S203M-B13UC	2CDS273061R0135		0.375	1
	16	4435065	S203M-B16UC	2CDS273061R0165		0.375	1
	20	4435072	S203M-B20UC	2CDS273061R0205		0.375	1
	25	4435089	S203M-B25UC	2CDS273061R0255		0.375	1
	32	4435096	S203M-B32UC	2CDS273061R0325		0.375	1
	40	4435102	S203M-B40UC	2CDS273061R0405		0.375	1
	50	4435119	S203M-B50UC	2CDS273061R0505		0.375	1
	63	4435126	S203M-B63UC	2CDS273061R0635		0.375	1

Number of poles	Rated current	Bbn 401361	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	6	4437250	S204M-B6UC	2CDS274061R0065		0.500	1
	10	4437267	S204M-B10UC	2CDS274061R0105		0.500	1
	13	4437274	S204M-B13UC	2CDS274061R0135		0.500	1
	16	4437281	S204M-B16UC	2CDS274061R0165		0.500	1
	20	4437298	S204M-B20UC	2CDS274061R0205		0.500	1
	25	4437304	S204M-B25UC	2CDS274061R0255		0.500	1
	32	4437311	S204M-B32UC	2CDS274061R0325		0.500	1
	40	4437328	S204M-B40UC	2CDS274061R0405		0.500	1
	50	4437335	S204M-B50UC	2CDS274061R0505		0.500	1
	63	4437342	S204M-B63UC	2CDS274061R0635		0.500	1

MCBs

S 200 series M UC 10000 C characteristic

Universal current range

1



S 201 M UC

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S 202 M UC

2CDD021035S0011

S 200 M UC C characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems; version dedicated to application in direct current circuits for voltages up to 220 V DC 1 pole and 440 V DC 2, 3 and 4 poles.

Applications: Industrial.

Standard: IEC/EN 60898-2, IEC/EN 60947-2, UL1077, CSA 22.2 No. 235

(for DC applications, please note polarity of device)

Icu=10 kA

Number of poles	Rated current	Bbn 401361	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	0.5	4430695	S201M-C0.5UC	2CDS271061R0984		0.125	10
	1	4430701	S201M-C1UC	2CDS271061R0014		0.125	10
	1.6	4430718	S201M-C1.6UC	2CDS271061R0974		0.125	10
	2	4430725	S201M-C2UC	2CDS271061R0024		0.125	10
	3	4430732	S201M-C3UC	2CDS271061R0034		0.125	10
	4	4430749	S201M-C4UC	2CDS271061R0044		0.125	10
	6	4430756	S201M-C6UC	2CDS271061R0064		0.125	10
	8	4430763	S201M-C8UC	2CDS271061R0084		0.125	10
	10	4430770	S201M-C10UC	2CDS271061R0104		0.125	10
	13	4430787	S201M-C13UC	2CDS271061R0134		0.125	10
	16	4430794	S201M-C16UC	2CDS271061R0164		0.125	10
	20	4430800	S201M-C20UC	2CDS271061R0204		0.125	10
	25	4430817	S201M-C25UC	2CDS271061R0254		0.125	10
	32	4430824	S201M-C32UC	2CDS271061R0324		0.125	10
	40	4430831	S201M-C40UC	2CDS271061R0404		0.125	10
	50	4430848	S201M-C50UC	2CDS271061R0504		0.125	10
63	4430855	S201M-C63UC	2CDS271061R0634		0.125	10	

Number of poles	Rated current	Bbn 401361	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	0.5	4432910	S202M-C0.5UC	2CDS272061R0984		0.250	5
	1	4432927	S202M-C1UC	2CDS272061R0014		0.250	5
	1.6	4432934	S202M-C1.6UC	2CDS272061R0974		0.250	5
	2	4432941	S202M-C2UC	2CDS272061R0024		0.250	5
	3	4432958	S202M-C3UC	2CDS272061R0034		0.250	5
	4	4432965	S202M-C4UC	2CDS272061R0044		0.250	5
	6	4432972	S202M-C6UC	2CDS272061R0064		0.250	5
	8	4432989	S202M-C8UC	2CDS272061R0084		0.250	5
	10	4432996	S202M-C10UC	2CDS272061R0104		0.250	5
	13	4433009	S202M-C13UC	2CDS272061R0134		0.250	5
	16	4433016	S202M-C16UC	2CDS272061R0164		0.250	5
	20	4433023	S202M-C20UC	2CDS272061R0204		0.250	5
	25	4433030	S202M-C25UC	2CDS272061R0254		0.250	5
	32	4433047	S202M-C32UC	2CDS272061R0324		0.250	5
	40	4433054	S202M-C40UC	2CDS272061R0404		0.250	5
	50	4433061	S202M-C50UC	2CDS272061R0504		0.250	5
63	4433078	S202M-C63UC	2CDS272061R0634		0.250	5	

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S 203 M UC

2CDC021034S0011



S 204 M UC

2CDC021038S0011

Number of poles	Rated current	Bbn 401361	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.5	4435133	S203M-C0.5UC	2CDS273061R0984		0.375	1
	1	4435140	S203M-C1UC	2CDS273061R0014		0.375	1
	1.6	4435157	S203M-C1.6UC	2CDS273061R0974		0.375	1
	2	4435164	S203M-C2UC	2CDS273061R0024		0.375	1
	3	4435171	S203M-C3UC	2CDS273061R0034		0.375	1
	4	4435188	S203M-C4UC	2CDS273061R0044		0.375	1
	6	4435195	S203M-C6UC	2CDS273061R0064		0.375	1
	8	4435201	S203M-C8UC	2CDS273061R0084		0.375	1
	10	4435218	S203M-C10UC	2CDS273061R0104		0.375	1
	13	4435225	S203M-C13UC	2CDS273061R0134		0.375	1
	16	4435232	S203M-C16UC	2CDS273061R0164		0.375	1
	20	4435249	S203M-C20UC	2CDS273061R0204		0.375	1
	25	4435256	S203M-C25UC	2CDS273061R0254		0.375	1
	32	4435263	S203M-C32UC	2CDS273061R0324		0.375	1
40	4435270	S203M-C40UC	2CDS273061R0404		0.375	1	
50	4435287	S203M-C50UC	2CDS273061R0504		0.375	1	
63	4435294	S203M-C63UC	2CDS273061R0634		0.375	1	

Number of poles	Rated current	Bbn 401361	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.5	4437359	S204M-C0.5UC	2CDS274061R0984		0.500	1
	1	4437366	S204M-C1UC	2CDS274061R0014		0.500	1
	1.6	4437373	S204M-C1.6UC	2CDS274061R0974		0.500	1
	2	4437380	S204M-C2UC	2CDS274061R0024		0.500	1
	3	4437397	S204M-C3UC	2CDS274061R0034		0.500	1
	4	4437403	S204M-C4UC	2CDS274061R0044		0.500	1
	6	4437410	S204M-C6UC	2CDS274061R0064		0.500	1
	8	4437427	S204M-C8UC	2CDS274061R0084		0.500	1
	10	4437434	S204M-C10UC	2CDS274061R0104		0.500	1
	13	4437441	S204M-C13UC	2CDS274061R0134		0.500	1
	16	4437458	S204M-C16UC	2CDS274061R0164		0.500	1
	20	4437465	S204M-C20UC	2CDS274061R0204		0.500	1
	25	4437472	S204M-C25UC	2CDS274061R0254		0.500	1
	32	4437489	S204M-C32UC	2CDS274061R0324		0.500	1
40	4437496	S204M-C40UC	2CDS274061R0404		0.500	1	
50	4437502	S204M-C50UC	2CDS274061R0504		0.500	1	
63	4437519	S204M-C63UC	2CDS274061R0634		0.500	1	

MCBs

S 200 series M UC – Universal current range K characteristic

1



S 201 M UC

S 200 M UC K characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems; version dedicated to application in direct current circuits for voltages up to 220 V DC 1 pole and 440 V DC 2, 3 and 4 poles.

Applications: Industrial.

Standard: IEC/EN 60898-2, IEC/EN 60947-2, UL1077, CSA 22.2 No. 235

(for DC applications, please note polarity of device)

Icu=10 kA

Number of poles	Rated current In A	Bbn 401361 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
1	0.2	4430862	S201M-K0.2UC	2CDS271061R0087		0.125	10
	0.3	4430879	S201M-K0.3UC	2CDS271061R0117		0.125	10
	0.5	4430886	S201M-K0.5UC	2CDS271061R0157		0.125	10
	0.75	4430893	S201M-K0.75UC	2CDS271061R0187		0.125	10
	1	4430909	S201M-K1UC	2CDS271061R0217		0.125	10
	1.6	4430916	S201M-K1.6UC	2CDS271061R0257		0.125	10
	2	4430923	S201M-K2UC	2CDS271061R0277		0.125	10
	3	4430930	S201M-K3UC	2CDS271061R0317		0.125	10
	4	4430947	S201M-K4UC	2CDS271061R0337		0.125	10
	5	4430954	S201M-K5UC	2CDS271061R0357		0.125	10
	6	4430961	S201M-K6UC	2CDS271061R0377		0.125	10
	8	4430978	S201M-K8UC	2CDS271061R0407		0.125	10
	10	4430985	S201M-K10UC	2CDS271061R0427		0.125	10
	13	4430992	S201M-K13UC	2CDS271061R0447		0.125	10
	15	4431005	S201M-K15UC	2CDS271061R0457		0.125	10
	16	4431012	S201M-K16UC	2CDS271061R0467		0.125	10
	20	4431029	S201M-K20UC	2CDS271061R0487		0.125	10
	25	4431036	S201M-K25UC	2CDS271061R0517		0.125	10
	30	4431043	S201M-K30UC	2CDS271061R0527		0.125	10
	32	4431050	S201M-K32UC	2CDS271061R0537		0.125	10
	35	4431067	S201M-K35UC	2CDS271061R0547		0.125	10
40	4431074	S201M-K40UC	2CDS271061R0557		0.125	10	
50	4431081	S201M-K50UC	2CDS271061R0577		0.125	10	
60	4431098	S201M-K60UC	2CDS271061R0587		0.125	10	
63	4431104	S201M-K63UC	2CDS271061R0607		0.125	10	

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S 202 M UC

2CDC0210345S0011

Number of poles	Rated current	Bbn 401361	Order details		Price 1 piece	Weight 1 piece kg	Pack unit
	In A	EAN	Type code	Order code			
2	0.2	4433085	S202M-K0.2UC	2CDS272061R0087		0.250	5
	0.3	4433092	S202M-K0.3UC	2CDS272061R0117		0.250	5
	0.5	4433108	S202M-K0.5UC	2CDS272061R0157		0.250	5
	0.75	4433115	S202M-K0.75UC	2CDS272061R0187		0.250	5
	1	4433122	S202M-K1UC	2CDS272061R0217		0.250	5
	1.6	4433139	S202M-K1.6UC	2CDS272061R0257		0.250	5
	2	4433146	S202M-K2UC	2CDS272061R0277		0.250	5
	3	4433153	S202M-K3UC	2CDS272061R0317		0.250	5
	4	4433160	S202M-K4UC	2CDS272061R0337		0.250	5
	5	4433177	S202M-K5UC	2CDS272061R0357		0.250	5
	6	4433184	S202M-K6UC	2CDS272061R0377		0.250	5
	8	4433191	S202M-K8UC	2CDS272061R0407		0.250	5
	10	4433207	S202M-K10UC	2CDS272061R0427		0.250	5
	13	4433214	S202M-K13UC	2CDS272061R0447		0.250	5
	15	4433221	S202M-K15UC	2CDS272061R0457		0.250	5
	16	4433238	S202M-K16UC	2CDS272061R0467		0.250	5
	20	4433245	S202M-K20UC	2CDS272061R0487		0.250	5
	25	4433252	S202M-K25UC	2CDS272061R0517		0.250	5
	30	4433269	S202M-K30UC	2CDS272061R0527		0.250	5
	32	4433276	S202M-K32UC	2CDS272061R0537		0.250	5
	35	4433283	S202M-K35UC	2CDS272061R0547		0.250	5
40	4433290	S202M-K40UC	2CDS272061R0557		0.250	5	
50	4433306	S202M-K50UC	2CDS272061R0577		0.250	5	
60	4433313	S202M-K60UC	2CDS272061R0587		0.250	5	
63	4433320	S202M-K63UC	2CDS272061R0607		0.250	5	



S 203 M UC

2CDC0210346S0011

Number of poles	Rated current	Bbn 401361	Order details		Price 1 piece	Weight 1 piece kg	Pack unit
	In A	EAN	Type code	Order code			
3	0.2	4435300	S203M-K0.2UC	2CDS273061R0087		0.375	1
	0.3	4435317	S203M-K0.3UC	2CDS273061R0117		0.375	1
	0.5	4435324	S203M-K0.5UC	2CDS273061R0157		0.375	1
	0.75	4435331	S203M-K0.75UC	2CDS273061R0187		0.375	1
	1	4435348	S203M-K1UC	2CDS273061R0217		0.375	1
	1.6	4435355	S203M-K1.6UC	2CDS273061R0257		0.375	1
	2	4435362	S203M-K2UC	2CDS273061R0277		0.375	1
	3	4435379	S203M-K3UC	2CDS273061R0317		0.375	1
	4	4435386	S203M-K4UC	2CDS273061R0337		0.375	1
	5	4435393	S203M-K5UC	2CDS273061R0357		0.375	1
	6	4435409	S203M-K6UC	2CDS273061R0377		0.375	1
	8	4435416	S203M-K8UC	2CDS273061R0407		0.375	1
	10	4435423	S203M-K10UC	2CDS273061R0427		0.375	1
	13	4435430	S203M-K13UC	2CDS273061R0447		0.375	1
	15	4435447	S203M-K15UC	2CDS273061R0457		0.375	1
	16	4435454	S203M-K16UC	2CDS273061R0467		0.375	1
	20	4435461	S203M-K20UC	2CDS273061R0487		0.375	1
	25	4435478	S203M-K25UC	2CDS273061R0517		0.375	1
	30	4435485	S203M-K30UC	2CDS273061R0527		0.375	1
	32	4435492	S203M-K32UC	2CDS273061R0537		0.375	1
	35	4435508	S203M-K35UC	2CDS273061R0547		0.375	1
40	4435515	S203M-K40UC	2CDS273061R0557		0.375	1	
50	4435522	S203M-K50UC	2CDS273061R0577		0.375	1	
60	4435539	S203M-K60UC	2CDS273061R0587		0.375	1	
63	4435546	S203M-K63UC	2CDS273061R0607		0.375	1	

MCBs

S 200 series M UC – Universal current range K characteristic

1



S 204 M UC

2CDS274061R03S0011

Number of poles	Rated current In A	Bbn 401361 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
4	0.2	4437526	S204M-K0.2UC	2CDS274061R0087		0.500	1
	0.3	4437533	S204M-K0.3UC	2CDS274061R0117		0.500	1
	0.5	4437540	S204M-K0.5UC	2CDS274061R0157		0.500	1
	0.75	4437557	S204M-K0.75UC	2CDS274061R0187		0.500	1
	1	4437564	S204M-K1UC	2CDS274061R0217		0.500	1
	1.6	4437571	S204M-K1.6UC	2CDS274061R0257		0.500	1
	2	4437588	S204M-K2UC	2CDS274061R0277		0.500	1
	3	4437595	S204M-K3UC	2CDS274061R0317		0.500	1
	4	4437601	S204M-K4UC	2CDS274061R0337		0.500	1
	5	4437618	S204M-K5UC	2CDS274061R0357		0.500	1
	6	4437625	S204M-K6UC	2CDS274061R0377		0.500	1
	8	4437632	S204M-K8UC	2CDS274061R0407		0.500	1
	10	4437649	S204M-K10UC	2CDS274061R0427		0.500	1
	13	4437656	S204M-K13UC	2CDS274061R0447		0.500	1
	15	4437663	S204M-K15UC	2CDS274061R0457		0.500	1
	16	4437670	S204M-K16UC	2CDS274061R0467		0.500	1
	20	4437687	S204M-K20UC	2CDS274061R0487		0.500	1
	25	4437694	S204M-K25UC	2CDS274061R0517		0.500	1
	30	4437700	S204M-K30UC	2CDS274061R0527		0.500	1
	32	4437717	S204M-K32UC	2CDS274061R0537		0.500	1
35	4437724	S204M-K35UC	2CDS274061R0547		0.500	1	
40	4437731	S204M-K40UC	2CDS274061R0557		0.500	1	
50	4437748	S204M-K50UC	2CDS274061R0577		0.500	1	
60	4437755	S204M-K60UC	2CDS274061R0587		0.500	1	
63	4437762	S204M-K63UC	2CDS274061R0607		0.500	1	

Where to find more:

Coordination tables for S 200 MCBs:
Chapter 1 of
Solutions for electrical installation in
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Worldwide marks and approvals of
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Busbar systems - chapter 3

MCBs

S 200 series M UC – Universal current range Z characteristic



S 201 M UC



S 202 M UC

S 200 M UC Z characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems; version dedicated to application in direct current circuits for voltages up to 220 V DC 1 pole and 440 V DC 2, 3 and 4 poles.

Applications: Industrial.

Standard: IEC/EN 60898-2, IEC/EN 60947-2, UL1077, CSA 22.2 No. 235

(for DC applications, please note polarity of device)

Icu=10 kA

Number of poles	Rated current In A	Bbn 401361 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
1	0.5	4431111	S201M-Z0.5UC	2CDS271061R0158		0.125	1
	1	4431128	S201M-Z1UC	2CDS271061R0218		0.125	1
	1.6	4431135	S201M-Z1.6UC	2CDS271061R0258		0.125	1
	2	4431142	S201M-Z2UC	2CDS271061R0278		0.125	1
	3	4431159	S201M-Z3UC	2CDS271061R0318		0.125	1
	4	4431166	S201M-Z4UC	2CDS271061R0338		0.125	1
	5	4431173	S201M-Z5UC	2CDS271061R0358		0.125	1
	6	4431180	S201M-Z6UC	2CDS271061R0378		0.125	1
	8	4431197	S201M-Z8UC	2CDS271061R0408		0.125	1
	10	4431203	S201M-Z10UC	2CDS271061R0428		0.125	1
	15	4431227	S201M-Z15UC	2CDS271061R0458		0.125	1
	16	4431234	S201M-Z16UC	2CDS271061R0468		0.125	1
	20	4431241	S201M-Z20UC	2CDS271061R0488		0.125	1
	25	4431258	S201M-Z25UC	2CDS271061R0518		0.125	1
	30	4431265	S201M-Z30UC	2CDS271061R0528		0.125	1
	32	4431272	S201M-Z32UC	2CDS271061R0538		0.125	1
	35	4431289	S201M-Z35UC	2CDS271061R0548		0.125	1
	40	4431296	S201M-Z40UC	2CDS271061R0558		0.125	1
	50	4431302	S201M-Z50UC	2CDS271061R0578		0.125	1
	60	4431319	S201M-Z60UC	2CDS271061R0588		0.125	1
63	4431326	S201M-Z63UC	2CDS271061R0608		0.125	1	
2	0.5	4433337	S202M-Z0.5UC	2CDS272061R0158		0.250	5
	1	4433344	S202M-Z1UC	2CDS272061R0218		0.250	5
	1.6	4433351	S202M-Z1.6UC	2CDS272061R0258		0.250	5
	2	4433368	S202M-Z2UC	2CDS272061R0278		0.250	5
	3	4433375	S202M-Z3UC	2CDS272061R0318		0.250	5
	4	4433382	S202M-Z4UC	2CDS272061R0338		0.250	5
	5	4433399	S202M-Z5UC	2CDS272061R0358		0.250	5
	6	4433405	S202M-Z6UC	2CDS272061R0378		0.250	5
	8	4433412	S202M-Z8UC	2CDS272061R0408		0.250	5
	10	4433429	S202M-Z10UC	2CDS272061R0428		0.250	5
	15	4433443	S202M-Z15UC	2CDS272061R0458		0.250	5
	16	4433450	S202M-Z16UC	2CDS272061R0468		0.250	5
	20	4433467	S202M-Z20UC	2CDS272061R0488		0.250	5
	25	4433474	S202M-Z25UC	2CDS272061R0518		0.250	5
	30	4433481	S202M-Z30UC	2CDS272061R0528		0.250	5
	32	4433498	S202M-Z32UC	2CDS272061R0538		0.250	5
	35	4433504	S202M-Z35UC	2CDS272061R0548		0.250	5
	40	4433511	S202M-Z40UC	2CDS272061R0558		0.250	5
	50	4433528	S202M-Z50UC	2CDS272061R0578		0.250	5
	60	4433535	S202M-Z60UC	2CDS272061R0588		0.250	5
63	4433542	S202M-Z63UC	2CDS272061R0608		0.250	5	

MCBs

S 200 series M UC – Universal current range Z characteristic

1



S 203 M UC

2CDC02103490011



S 204 M UC

2CDC02103950011

Number of poles	Rated current In A	Bbn 401361 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
3	0.5	4435553	S203M-Z0.5UC	2CDS273061R0158		0.375	1
	1	4435560	S203M-Z1UC	2CDS273061R0218		0.375	1
	1.6	4435577	S203M-Z1.6UC	2CDS273061R0258		0.375	1
	2	4435584	S203M-Z2UC	2CDS273061R0278		0.375	1
	3	4435591	S203M-Z3UC	2CDS273061R0318		0.375	1
	4	4435607	S203M-Z4UC	2CDS273061R0338		0.375	1
	5	4435614	S203M-Z5UC	2CDS273061R0358		0.375	1
	6	4435621	S203M-Z6UC	2CDS273061R0378		0.375	1
	8	4435638	S203M-Z8UC	2CDS273061R0408		0.375	1
	10	4435645	S203M-Z10UC	2CDS273061R0428		0.375	1
	15	4435669	S203M-Z15UC	2CDS273061R0458		0.375	1
	16	4435676	S203M-Z16UC	2CDS273061R0468		0.375	1
	20	4435683	S203M-Z20UC	2CDS273061R0488		0.375	1
	25	4435690	S203M-Z25UC	2CDS273061R0518		0.375	1
	30	4435706	S203M-Z30UC	2CDS273061R0528		0.375	1
	32	4435713	S203M-Z32UC	2CDS273061R0538		0.375	1
35	4435720	S203M-Z35UC	2CDS273061R0548		0.375	1	
40	4435737	S203M-Z40UC	2CDS273061R0558		0.375	1	
50	4435744	S203M-Z50UC	2CDS273061R0578		0.375	1	
60	4435751	S203M-Z60UC	2CDS273061R0588		0.375	1	
63	4435768	S203M-Z63UC	2CDS273061R0608		0.375	1	

Number of poles	Rated current In A	Bbn 401361 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
4	0.5	4437779	S204M-Z0.5UC	2CDS274061R0158		0.500	1
	1	4437786	S204M-Z1UC	2CDS274061R0218		0.500	1
	1.6	4437793	S204M-Z1.6UC	2CDS274061R0258		0.500	1
	2	4437809	S204M-Z2UC	2CDS274061R0278		0.500	1
	3	4437816	S204M-Z3UC	2CDS274061R0318		0.500	1
	4	4437823	S204M-Z4UC	2CDS274061R0338		0.500	1
	5	4437830	S204M-Z5UC	2CDS274061R0358		0.500	1
	6	4437847	S204M-Z6UC	2CDS274061R0378		0.500	1
	8	4437854	S204M-Z8UC	2CDS274061R0408		0.500	1
	10	4437861	S204M-Z10UC	2CDS274061R0428		0.500	1
	15	4437885	S204M-Z15UC	2CDS274061R0458		0.500	1
	16	4437892	S204M-Z16UC	2CDS274061R0468		0.500	1
	20	4437908	S204M-Z20UC	2CDS274061R0488		0.500	1
	25	4437915	S204M-Z25UC	2CDS274061R0518		0.500	1
	30	4437922	S204M-Z30UC	2CDS274061R0528		0.500	1
	32	4437939	S204M-Z32UC	2CDS274061R0538		0.500	1
35	4437946	S204M-Z35UC	2CDS274061R0548		0.500	1	
40	4437953	S204M-Z40UC	2CDS274061R0558		0.500	1	
50	4437960	S204M-Z50UC	2CDS274061R0578		0.500	1	
60	4437977	S204M-Z60UC	2CDS274061R0588		0.500	1	
63	4437984	S204M-Z63UC	2CDS274061R0608		0.500	1	

Where to find more:

Coordination tables for S 200 MCBs:
Chapter 1 of
Solutions for electrical installation in
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MCBs

S 200 series P 25000 - 15000 B characteristic



S 201 P



S 202 P



S 203 P

S 200 P-B characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for people and large length of cables in TN and IT systems.

Applications: commercial and industrial.

Standard: IEC/EN 60898-1

I_{cn}=25 kA for 0.5 A ≤ I_n ≤ 25 A

I_{cn}=15 kA for 32 A ≤ I_n ≤ 63 A

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	6	589574	S201P-B6	2CDS281001R0065		0.14	10
	10	589581	S201P-B10	2CDS281001R0105		0.14	10
	13	589598	S201P-B13	2CDS281001R0135		0.14	10
	16	589260	S201P-B16	2CDS281001R0165		0.14	10
	20	589604	S201P-B20	2CDS281001R0205		0.14	10
	25	589611	S201P-B25	2CDS281001R0255		0.14	10
	32	589628	S201P-B32	2CDS281001R0325		0.14	10
	40	589635	S201P-B40	2CDS281001R0405		0.14	10
	50	589659	S201P-B50	2CDS281001R0505		0.14	10
	63	589666	S201P-B63	2CDS281001R0635		0.14	10

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	6	589673	S202P-B6	2CDS282001R0065		0.28	5
	10	589680	S202P-B10	2CDS282001R0105		0.28	5
	13	589697	S202P-B13	2CDS282001R0135		0.28	5
	16	589703	S202P-B16	2CDS282001R0165		0.28	5
	20	589710	S202P-B20	2CDS282001R0205		0.28	5
	25	589727	S202P-B25	2CDS282001R0255		0.28	5
	32	589734	S202P-B32	2CDS282001R0325		0.28	5
	40	589741	S202P-B40	2CDS282001R0405		0.28	5
	50	589758	S202P-B50	2CDS282001R0505		0.28	5
	63	589765	S202P-B63	2CDS282001R0635		0.28	5

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	589772	S203P-B6	2CDS283001R0065		0.42	1
	10	589789	S203P-B10	2CDS283001R0105		0.42	1
	13	589796	S203P-B13	2CDS283001R0135		0.42	1
	16	589802	S203P-B16	2CDS283001R0165		0.42	1
	20	589819	S203P-B20	2CDS283001R0205		0.42	1
	25	589826	S203P-B25	2CDS283001R0255		0.42	1
	32	589833	S203P-B32	2CDS283001R0325		0.42	1
	40	589840	S203P-B40	2CDS283001R0405		0.42	1
	50	589857	S203P-B50	2CDS283001R0505		0.42	1
	63	589864	S203P-B63	2CDS283001R0635		0.42	1

Where to find more:

Coordination tables for S 200 MCBs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

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Busbar systems p.4/25

MCBs

S 200 series P 25000 - 15000 B characteristic

1



S 204 P

2CSC400089F0201



S 201 P NA

2CSC400089F0201



S 203 P NA

2CSC400089F0201

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	6	589871	S204P-B6	2CDS284001R0065	0.56	kg	1 pc.
	10	589888	S204P-B10	2CDS284001R0105			
	13	589895	S204P-B13	2CDS284001R0135			
	16	589901	S204P-B16	2CDS284001R0165			
	20	589918	S204P-B20	2CDS284001R0205			
	25	589925	S204P-B25	2CDS284001R0255			
	32	589932	S204P-B32	2CDS284001R0325			
	40	589949	S204P-B40	2CDS284001R0405			
	50	589956	S204P-B50	2CDS284001R0505			
	63	589963	S204P-B63	2CDS284001R0635	0.56	1	

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1+NA	6	589970	S201P-B6NA	2CDS281103R0065	0.28	kg	5 pc.
	10	589987	S201P-B10NA	2CDS281103R0105			
	13	589994	S201P-B13NA	2CDS281103R0135			
	16	590006	S201P-B16NA	2CDS281103R0165			
	20	590013	S201P-B20NA	2CDS281103R0205			
	25	590020	S201P-B25NA	2CDS281103R0255			
	32	590037	S201P-B32NA	2CDS281103R0325			
	40	590044	S201P-B40NA	2CDS281103R0405			
	50	590051	S201P-B50NA	2CDS281103R0505			
	63	590068	S201P-B63NA	2CDS281103R0635	0.28	5	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3+NA	6	590075	S203P-B6NA	2CDS283103R0065	0.56	kg	1 pc.
	10	590082	S203P-B10NA	2CDS283103R0105			
	13	590099	S203P-B13NA	2CDS283103R0135			
	16	590105	S203P-B16NA	2CDS283103R0165			
	20	590112	S203P-B20NA	2CDS283103R0205			
	25	590129	S203P-B25NA	2CDS283103R0255			
	32	590136	S203P-B32NA	2CDS283103R0325			
	40	590143	S203P-B40NA	2CDS283103R0405			
	50	590150	S203P-B50NA	2CDS283103R0505			
	63	590167	S203P-B63NA	2CDS283103R0635	0.56	1	

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MCBs

S 200 series P 25000 - 15000 C characteristic



S 201 P



S 202 P

S 200 P-C characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

Applications: commercial and industrial.

Standard: IEC/EN 60898-1

I_{cn}=25 kA for 0.5 A ≤ I_n ≤ 25 A

I_{cn}=15 kA for 32 A ≤ I_n ≤ 63 A

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.5	590174	S201P-C0.5	2CDS281001R0984		0.14	10
	1	590181	S201P-C1	2CDS281001R0014		0.14	10
	1.6	590198	S201P-C1.6	2CDS281001R0974		0.14	10
	2	590204	S201P-C2	2CDS281001R0024		0.14	10
	3	590211	S201P-C3	2CDS281001R0034		0.14	10
	4	590228	S201P-C4	2CDS281001R0044		0.14	10
	6	590235	S201P-C6	2CDS281001R0064		0.14	10
	8	590242	S201P-C8	2CDS281001R0084		0.14	10
	10	590259	S201P-C10	2CDS281001R0104		0.14	10
	13	590266	S201P-C13	2CDS281001R0134		0.14	10
	16	590273	S201P-C16	2CDS281001R0164		0.14	10
	20	590280	S201P-C20	2CDS281001R0204		0.14	10
	25	590297	S201P-C25	2CDS281001R0254		0.14	10
	32	590303	S201P-C32	2CDS281001R0324		0.14	10
	40	590310	S201P-C40	2CDS281001R0404		0.14	10
	50	590327	S201P-C50	2CDS281001R0504		0.14	10
63	590334	S201P-C63	2CDS281001R0634		0.14	10	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	0.5	590341	S202P-C0.5	2CDS282001R0984		0.28	5
	1	590358	S202P-C1	2CDS282001R0014		0.28	5
	1.6	590365	S202P-C1.6	2CDS282001R0974		0.28	5
	2	590372	S202P-C2	2CDS282001R0024		0.28	5
	3	590389	S202P-C3	2CDS282001R0034		0.28	5
	4	590396	S202P-C4	2CDS282001R0044		0.28	5
	6	590402	S202P-C6	2CDS282001R0064		0.28	5
	8	590419	S202P-C8	2CDS282001R0084		0.28	5
	10	590426	S202P-C10	2CDS282001R0104		0.28	5
	13	590433	S202P-C13	2CDS282001R0134		0.28	5
	16	590440	S202P-C16	2CDS282001R0164		0.28	5
	20	590457	S202P-C20	2CDS282001R0204		0.28	5
	25	590464	S202P-C25	2CDS282001R0254		0.28	5
	32	590471	S202P-C32	2CDS282001R0324		0.28	5
	40	590488	S202P-C40	2CDS282001R0404		0.28	5
	50	590495	S202P-C50	2CDS282001R0504		0.28	5
63	590501	S202P-C63	2CDS 282 001 R0634		0.28	5	

MCBs

S 200 series P 25000 - 15000 C characteristic

1



S 203 P



S 204 P

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.5	590518	S203P-C0.5	2CDS283001R0984		0.42	1
	1	590525	S203P-C1	2CDS283001R0014		0.42	1
	1.6	590532	S203P-C1.6	2CDS283001R0974		0.42	1
	2	590549	S203P-C2	2CDS283001R0024		0.42	1
	3	590556	S203P-C3	2CDS283001R0034		0.42	1
	4	590563	S203P-C4	2CDS283001R0044		0.42	1
	6	590570	S203P-C6	2CDS283001R0064		0.42	1
	8	590587	S203P-C8	2CDS283001R0084		0.42	1
	10	590594	S203P-C10	2CDS283001R0104		0.42	1
	13	590600	S203P-C13	2CDS283001R0134		0.42	1
	16	590617	S203P-C16	2CDS283001R0164		0.42	1
	20	590624	S203P-C20	2CDS283001R0204		0.42	1
	25	590631	S203P-C25	2CDS283001R0254		0.42	1
	32	590648	S203P-C32	2CDS283001R0324		0.42	1
	40	590655	S203P-C40	2CDS283001R0404		0.42	1
	50	590662	S203P-C50	2CDS283001R0504		0.42	1
63	590679	S203P-C63	2CDS283001R0634		0.42	1	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.5	590686	S204P-C0.5	2CDS284001R0984		0.56	1
	1	590693	S204P-C1	2CDS284001R0014		0.56	1
	1.6	590709	S204P-C1.6	2CDS284001R0974		0.56	1
	2	590716	S204P-C2	2CDS284001R0024		0.56	1
	3	590723	S204P-C3	2CDS284001R0034		0.56	1
	4	590730	S204P-C4	2CDS284001R0044		0.56	1
	6	590747	S204P-C6	2CDS284001R0064		0.56	1
	8	590754	S204P-C8	2CDS284001R0084		0.56	1
	10	590761	S204P-C10	2CDS284001R0104		0.56	1
	13	590778	S204P-C13	2CDS284001R0134		0.56	1
	16	590785	S204P-C16	2CDS284001R0164		0.56	1
	20	590792	S204P-C20	2CDS284001R0204		0.56	1
	25	590808	S204P-C25	2CDS284001R0254		0.56	1
	32	590815	S204P-C32	2CDS284001R0324		0.56	1
	40	590822	S204P-C40	2CDS284001R0404		0.56	1
	50	590839	S204P-C50	2CDS284001R0504		0.56	1
63	590846	S204P-C63	2CDS284001R0634		0.56	1	

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With disconnecting neutral NA



2CSC40006R0201

S 201 P NA



2CSC40006R0201

S 203 P NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+NA	0.5	590853	S201P-C0.5NA	2CDS281103R0984		0.28	5
	1	590860	S201P-C1NA	2CDS281103R0014		0.28	5
	1.6	590877	S201P-C1.6NA	2CDS281103R0974		0.28	5
	2	590884	S201P-C2NA	2CDS281103R0024		0.28	5
	3	590891	S201P-C3NA	2CDS281103R0034		0.28	5
	4	590907	S201P-C4NA	2CDS281103R0044		0.28	5
	6	590914	S201P-C6NA	2CDS281103R0064		0.28	5
	8	590921	S201P-C8NA	2CDS281103R0084		0.28	5
	10	590938	S201P-C10NA	2CDS281103R0104		0.28	5
	13	590945	S201P-C13NA	2CDS281103R0134		0.28	5
	16	590952	S201P-C16NA	2CDS281103R0164		0.28	5
	20	590969	S201P-C20NA	2CDS281103R0204		0.28	5
	25	590976	S201P-C25NA	2CDS281103R0254		0.28	5
	32	590983	S201P-C32NA	2CDS281103R0324		0.28	5
	40	590990	S201P-C40NA	2CDS281103R0404		0.28	5
50	591003	S201P-C50NA	2CDS281103R0504		0.28	5	
63	591010	S201P-C63NA	2CDS281103R0634		0.28	5	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3+NA	0.5	591027	S203P-C0.5NA	2CDS283103R0984		0.56	1
	1	591034	S203P-C1NA	2CDS283103R0014		0.56	1
	1.6	591041	S203P-C1.6NA	2CDS283103R0974		0.56	1
	2	591058	S203P-C2NA	2CDS283103R0024		0.56	1
	3	591065	S203P-C3NA	2CDS283103R0034		0.56	1
	4	591072	S203P-C4NA	2CDS283103R0044		0.56	1
	6	591089	S203P-C6NA	2CDS283103R0064		0.56	1
	8	591096	S203P-C8NA	2CDS283103R0084		0.56	1
	10	591102	S203P-C10NA	2CDS283103R0104		0.56	1
	13	591119	S203P-C13NA	2CDS283103R0134		0.56	1
	16	591126	S203P-C16NA	2CDS283103R0164		0.56	1
	20	591133	S203P-C20NA	2CDS283103R0204		0.56	1
	25	591140	S203P-C25NA	2CDS283103R0254		0.56	1
	32	591157	S203P-C32NA	2CDS283103R0324		0.56	1
	40	591164	S203P-C40NA	2CDS283103R0404		0.56	1
50	591171	S203P-C50NA	2CDS283103R0504		0.56	1	
63	591188	S203P-C63NA	2CDS283103R0634		0.56	1	

MCBs

S 200 series P 25000 - 15000 D characteristic

1



S 201 P



S 202 P

S 200 P-D characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, breakdown lamps).

Applications: commercial and industrial.

Standard: IEC/EN 60898-1

Icn=25 kA for 0.5 A ≤ In ≤ 25 A

Icn=15 kA for 32 A ≤ In ≤ 63 A

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	0.5	591195	S201P-D0.5	2CDS281001R0981		0.14	10
	1	591201	S201P-D1	2CDS281001R0011		0.14	10
	1.6	591218	S201P-D1.6	2CDS281001R0971		0.14	10
	2	591225	S201P-D2	2CDS281001R0021		0.14	10
	3	591232	S201P-D3	2CDS281001R0031		0.14	10
	4	591249	S201P-D4	2CDS281001R0041		0.14	10
	6	591256	S201P-D6	2CDS281001R0061		0.14	10
	8	591263	S201P-D8	2CDS281001R0081		0.14	10
	10	591270	S201P-D10	2CDS281001R0101		0.14	10
	13	591287	S201P-D13	2CDS281001R0131		0.14	10
	16	591294	S201P-D16	2CDS281001R0161		0.14	10
	20	591300	S201P-D20	2CDS281001R0201		0.14	10
	25	591317	S201P-D25	2CDS281001R0251		0.14	10
	32	591324	S201P-D32	2CDS281001R0321		0.14	10
	40	591331	S201P-D40	2CDS281001R0401		0.14	10
50	591348	S201P-D50	2CDS281001R0501		0.14	10	
63	591355	S201P-D63	2CDS281001R0631		0.14	10	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	0.5	591362	S202P-D0.5	2CDS282001R0981		0.28	5
	1	591379	S202P-D1	2CDS282001R0011		0.28	5
	1.6	591386	S202P-D1.6	2CDS282001R0971		0.28	5
	2	591393	S202P-D2	2CDS282001R0021		0.28	5
	3	591409	S202P-D3	2CDS282001R0031		0.28	5
	4	591416	S202P-D4	2CDS282001R0041		0.28	5
	6	591423	S202P-D6	2CDS282001R0061		0.28	5
	8	591430	S202P-D8	2CDS282001R0081		0.28	5
	10	591447	S202P-D10	2CDS282001R0101		0.28	5
	13	591454	S202P-D13	2CDS282001R0131		0.28	5
	16	591461	S202P-D16	2CDS282001R0161		0.28	5
	20	591478	S202P-D20	2CDS282001R0201		0.28	5
	25	591485	S202P-D25	2CDS282001R0251		0.28	5
	32	591492	S202P-D32	2CDS282001R0321		0.28	5
	40	591508	S202P-D40	2CDS282001R0401		0.28	5
50	591515	S202P-D50	2CDS282001R0501		0.28	5	
63	591522	S202P-D63	2CDS282001R0631		0.28	5	

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MCBs

S 200 series P 25000 - 15000 D characteristic



S 203 P

2CSC400058F0201



S 204 P

2CSC400058F0201

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.5	591539	S203P-D0.5	2CDS283001R0981		0.42	1
	1	591546	S203P-D1	2CDS283001R0011		0.42	1
	1.6	591553	S203P-D1.6	2CDS283001R0971		0.42	1
	2	591560	S203P-D2	2CDS283001R0021		0.42	1
	3	591577	S203P-D3	2CDS283001R0031		0.42	1
	4	591584	S203P-D4	2CDS283001R0041		0.42	1
	6	591591	S203P-D6	2CDS283001R0061		0.42	1
	8	591607	S203P-D8	2CDS283001R0081		0.42	1
	10	591614	S203P-D10	2CDS283001R0101		0.42	1
	13	591621	S203P-D13	2CDS283001R0131		0.42	1
	16	591638	S203P-D16	2CDS283001R0161		0.42	1
	20	591645	S203P-D20	2CDS283001R0201		0.42	1
	25	591652	S203P-D25	2CDS283001R0251		0.42	1
	32	591669	S203P-D32	2CDS283001R0321		0.42	1
	40	591676	S203P-D40	2CDS283001R0401		0.42	1
50	591683	S203P-D50	2CDS283001R0501		0.42	1	
63	591690	S203P-D63	2CDS283001R0631		0.42	1	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.5	591706	S204P-D0.5	2CDS284001R0981		0.56	1
	1	591713	S204P-D1	2CDS284001R0011		0.56	1
	1.6	591720	S204P-D1.6	2CDS284001R0971		0.56	1
	2	591737	S204P-D2	2CDS284001R0021		0.56	1
	3	591744	S204P-D3	2CDS284001R0031		0.56	1
	4	591751	S204P-D4	2CDS284001R0041		0.56	1
	6	591768	S204P-D6	2CDS284001R0061		0.56	1
	8	591775	S204P-D8	2CDS284001R0081		0.56	1
	10	591782	S204P-D10	2CDS284001R0101		0.56	1
	13	591799	S204P-D13	2CDS284001R0131		0.56	1
	16	591805	S204P-D16	2CDS284001R0161		0.56	1
	20	591812	S204P-D20	2CDS284001R0201		0.56	1
	25	591829	S204P-D25	2CDS284001R0251		0.56	1
	32	591836	S204P-D32	2CDS284001R0321		0.56	1
	40	591843	S204P-D40	2CDS284001R0401		0.56	1
50	591850	S204P-D50	2CDS284001R0501		0.56	1	
63	591867	S204P-D63	2CDS284001R0631		0.56	1	

MCBs

S 200 series P 25000 - 15000 D characteristic

1



S 201 P NA



S 203 P NA

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1+NA	0.5	591874	S201P-D0.5NA	2CDS281103R0981	0.28	kg	5
	1	591881	S201P-D1NA	2CDS281103R0011			
	1.6	591898	S201P-D1.6NA	2CDS281103R0971			
	2	591904	S201P-D2NA	2CDS281103R0021			
	3	591911	S201P-D3NA	2CDS281103R0031			
	4	591928	S201P-D4NA	2CDS281103R0041			
	6	591935	S201P-D6NA	2CDS281103R0061			
	8	591942	S201P-D8NA	2CDS281103R0081			
	10	591959	S201P-D10NA	2CDS281103R0101			
	13	591966	S201P-D13NA	2CDS281103R0131			
	16	591973	S201P-D16NA	2CDS281103R0161			
	20	591980	S201P-D20NA	2CDS281103R0201			
	25	591997	S201P-D25NA	2CDS281103R0251			
	32	592000	S201P-D32NA	2CDS281103R0321			
	40	592017	S201P-D40NA	2CDS281103R0401			
50	592024	S201P-D50NA	2CDS281103R0501				
63	592031	S201P-D63NA	2CDS281103R0631				

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3+NA	0.5	592048	S203P-D0.5NA	2CDS283103R0981	0.56	kg	1
	1	592055	S203P-D1NA	2CDS283103R0011			
	1.6	592062	S203P-D1.6NA	2CDS283103R0971			
	2	592079	S203P-D2NA	2CDS283103R0021			
	3	592086	S203P-D3NA	2CDS283103R0031			
	4	592093	S203P-D4NA	2CDS283103R0041			
	6	592109	S203P-D6NA	2CDS283103R0061			
	8	592116	S203P-D8NA	2CDS283103R0081			
	10	592123	S203P-D10NA	2CDS283103R0101			
	13	592130	S203P-D13NA	2CDS283103R0131			
	16	592147	S203P-D16NA	2CDS283103R0161			
	20	592154	S203P-D20NA	2CDS283103R0201			
	25	592161	S203P-D25NA	2CDS283103R0251			
	32	592178	S203P-D32NA	2CDS283103R0321			
	40	592185	S203P-D40NA	2CDS283103R0401			
50	592192	S203P-D50NA	2CDS283103R0501				
63	592208	S203P-D63NA	2CDS283103R0631				

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MCBs

S 200 series P K characteristic



S 201 P

S 200 P-K (power) characteristic

Function: protection and control of the circuits like motors, transformers and auxiliary circuits, against overloads and short-circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to $10 \times I_n$, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

$I_{cu}=25 \text{ kA}$ for $0.5 \text{ A} \leq I_n \leq 25 \text{ A}$; $I_{cu}=15 \text{ kA}$ for $32 \text{ A} \leq I_n \leq 63 \text{ A}$

Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
1	0.2	592215	S201P-K0.2	2CDS281001R0087		0.14	10
	0.3	592222	S201P-K0.3	2CDS281001R0117		0.14	10
	0.5	592239	S201P-K0.5	2CDS281001R0157		0.14	10
	0.75	592246	S201P-K0.75	2CDS281001R0187		0.14	10
	1	592253	S201P-K1	2CDS281001R0217		0.14	10
	1.6	592260	S201P-K1.6	2CDS281001R0257		0.14	10
	2	592277	S201P-K2	2CDS281001R0277		0.14	10
	3	592284	S201P-K3	2CDS281001R0317		0.14	10
	4	592291	S201P-K4	2CDS281001R0337		0.14	10
	6	592307	S201P-K6	2CDS281001R0377		0.14	10
	8	592314	S201P-K8	2CDS281001R0407		0.14	10
	10	592321	S201P-K10	2CDS281001R0427		0.14	10
	13	592338	S201P-K13	2CDS281001R0447		0.14	10
	16	592345	S201P-K16	2CDS281001R0467		0.14	10
	20	592352	S201P-K20	2CDS281001R0487		0.14	10
	25	592369	S201P-K25	2CDS281001R0517		0.14	10
	32	592376	S201P-K32	2CDS281001R0537		0.14	10
40	592383	S201P-K40	2CDS281001R0557		0.14	10	
50	592390	S201P-K50	2CDS281001R0577		0.14	10	
63	592406	S201P-K63	2CDS281001R0607		0.14	10	

MCBs

S 200 series P K characteristic

1



S 202 P

2CSC40004RF001



S 203 P

2CSC400128RF001

Number of poles	Rated current In A	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
2	0.2	592413	S202P-K0.2	2CDS282001R0087		0.28	5
	0.3	592420	S202P-K0.3	2CDS282001R0117		0.28	5
	0.5	592437	S202P-K0.5	2CDS282001R0157		0.28	5
	0.75	592444	S202P-K0.75	2CDS282001R0187		0.28	5
	1	592451	S202P-K1	2CDS282001R0217		0.28	5
	1.6	592468	S202P-K1.6	2CDS282001R0257		0.28	5
	2	592475	S202P-K2	2CDS282001R0277		0.28	5
	3	592482	S202P-K3	2CDS282001R0317		0.28	5
	4	592499	S202P-K4	2CDS282001R0337		0.28	5
	6	592505	S202P-K6	2CDS282001R0377		0.28	5
	8	592512	S202P-K8	2CDS282001R0407		0.28	5
	10	592529	S202P-K10	2CDS282001R0427		0.28	5
	13	592536	S202P-K13	2CDS282001R0447		0.28	5
	16	592543	S202P-K16	2CDS282001R0467		0.28	5
	20	592550	S202P-K20	2CDS282001R0487		0.28	5
	25	592567	S202P-K25	2CDS282001R0517		0.28	5
	32	592574	S202P-K32	2CDS282001R0537		0.28	5
	40	592581	S202P-K40	2CDS282001R0557		0.28	5
	50	592598	S202P-K50	2CDS282001R0577		0.28	5
63	592604	S202P-K63	2CDS282001R0607		0.28	5	

Number of poles	Rated current In A	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
3	0.2	592611	S203P-K0.2	2CDS283001R0087		0.42	1
	0.3	592628	S203P-K0.3	2CDS283001R0117		0.42	1
	0.5	592635	S203P-K0.5	2CDS283001R0157		0.42	1
	0.75	592642	S203P-K0.75	2CDS283001R0187		0.42	1
	1	592659	S203P-K1	2CDS283001R0217		0.42	1
	1.6	592666	S203P-K1.6	2CDS283001R0257		0.42	1
	2	592673	S203P-K2	2CDS283001R0277		0.42	1
	3	592680	S203P-K3	2CDS283001R0317		0.42	1
	4	592697	S203P-K4	2CDS283001R0337		0.42	1
	6	592703	S203P-K6	2CDS283001R0377		0.42	1
	8	592710	S203P-K8	2CDS283001R0407		0.42	1
	10	592727	S203P-K10	2CDS283001R0427		0.42	1
	13	592734	S203P-K13	2CDS283001R0447		0.42	1
	16	592741	S203P-K16	2CDS283001R0467		0.42	1
	20	592758	S203P-K20	2CDS283001R0487		0.42	1
	25	592765	S203P-K25	2CDS283001R0517		0.42	1
	32	592772	S203P-K32	2CDS283001R0537		0.42	1
	40	592789	S203P-K40	2CDS283001R0557		0.42	1
	50	592796	S203P-K50	2CDS283001R0577		0.42	1
63	592802	S203P-K63	2CDS283001R0607		0.42	1	

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S 204 P

2CSC400039R0201



S 201 P NA

2CSC400039R0201

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.2	592819	S204P-K0.2	2CDS284001R0087		0.56	1
	0.3	592826	S204P-K0.3	2CDS284001R0117		0.56	1
	0.5	592833	S204P-K0.5	2CDS284001R0157		0.56	1
	0.75	592840	S204P-K0.75	2CDS284001R0187		0.56	1
	1	592857	S204P-K1	2CDS284001R0217		0.56	1
	1.6	592864	S204P-K1.6	2CDS284001R0257		0.56	1
	2	592871	S204P-K2	2CDS284001R0277		0.56	1
	3	592888	S204P-K3	2CDS284001R0317		0.56	1
	4	592895	S204P-K4	2CDS284001R0337		0.56	1
	6	592901	S204P-K6	2CDS284001R0377		0.56	1
	8	592918	S204P-K8	2CDS284001R0407		0.56	1
	10	592925	S204P-K10	2CDS284001R0427		0.56	1
	13	592932	S204P-K13	2CDS284001R0447		0.56	1
	16	592949	S204P-K16	2CDS284001R0467		0.56	1
	20	592956	S204P-K20	2CDS284001R0487		0.56	1
	25	592963	S204P-K25	2CDS284001R0517		0.56	1
	32	592970	S204P-K32	2CDS284001R0537		0.56	1
40	592987	S204P-K40	2CDS284001R0557		0.56	1	
50	592994	S204P-K50	2CDS284001R0577		0.56	1	
63	593007	S204P-K63	2CDS284001R0607		0.56	1	

With disconnecting neutral NA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+NA	0.2	593014	S201P-K0.2NA	2CDS281103R0087		0.28	5
	0.3	593021	S201P-K0.3NA	2CDS281103R0117		0.28	5
	0.5	593038	S201P-K0.5NA	2CDS281103R0157		0.28	5
	0.75	593045	S201P-K0.75NA	2CDS281103R0187		0.28	5
	1	593052	S201P-K1NA	2CDS281103R0217		0.28	5
	1.6	593069	S201P-K1.6NA	2CDS281103R0257		0.28	5
	2	593076	S201P-K2NA	2CDS281103R0277		0.28	5
	3	593083	S201P-K3NA	2CDS281103R0317		0.28	5
	4	593090	S201P-K4NA	2CDS281103R0337		0.28	5
	6	593106	S201P-K6NA	2CDS281103R0377		0.28	5
	8	593113	S201P-K8NA	2CDS281103R0407		0.28	5
	10	593120	S201P-K10NA	2CDS281103R0427		0.28	5
	13	593137	S201P-K13NA	2CDS281103R0447		0.28	5
	16	593144	S201P-K16NA	2CDS281103R0467		0.28	5
	20	593151	S201P-K20NA	2CDS281103R0487		0.28	5
	25	593168	S201P-K25NA	2CDS281103R0517		0.28	5
	32	593175	S201P-K32NA	2CDS281103R0537		0.28	5
40	593182	S201P-K40NA	2CDS281103R0557		0.28	5	
50	593199	S201P-K50NA	2CDS281103R0577		0.28	5	
63	593205	S201P-K63NA	2CDS281103R0607		0.28	5	

MCBs

S 200 series P K characteristic

1



S 203 P NA

Number of poles	Rated current In A	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
3+NA	0.2	593212	S203P-K0.2NA	2CDS283103R0087		0.56	2
	0.3	593229	S203P-K0.3NA	2CDS283103R0117		0.56	2
	0.5	593236	S203P-K0.5NA	2CDS283103R0157		0.56	2
	0.75	593243	S203P-K0.75NA	2CDS283103R0187		0.56	2
	1	593250	S203P-K1NA	2CDS283103R0217		0.56	2
	1.6	593267	S203P-K1.6NA	2CDS283103R0257		0.56	2
	2	593274	S203P-K2NA	2CDS283103R0277		0.56	2
	3	593281	S203P-K3NA	2CDS283103R0317		0.56	2
	4	593298	S203P-K4NA	2CDS283103R0337		0.56	2
	6	593304	S203P-K6NA	2CDS283103R0377		0.56	2
	8	593311	S203P-K8NA	2CDS283103R0407		0.56	2
	10	593328	S203P-K10NA	2CDS283103R0427		0.56	2
	13	593335	S203P-K13NA	2CDS283103R0447		0.56	2
	16	593342	S203P-K16NA	2CDS283103R0467		0.56	2
	20	593359	S203P-K20NA	2CDS283103R0487		0.56	2
	25	593366	S203P-K25NA	2CDS283103R0517		0.56	2
	32	593373	S203P-K32NA	2CDS283103R0537		0.56	2
40	593380	S203P-K40NA	2CDS283103R0557		0.56	2	
50	593397	S203P-K50NA	2CDS283103R0577		0.56	2	
63	593403	S203P-K63NA	2CDS283103R0607		0.56	2	

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MCBs

S 200 series P Z characteristic



S 201 P



S 202 P

S 200 P-Z characteristic

Function: protection and control of the electronic circuits against lower and long duration overloads and short-circuits.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=25 kA for 0.5 A ≤ In ≤ 25 A; Icu=15 kA for 32 A ≤ In ≤ 63 A

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.5	593410	S201P-Z0.5	2CDS281001R0158		0.14	10
	1	593427	S201P-Z1	2CDS281001R0218		0.14	10
	1.6	593434	S201P-Z1.6	2CDS281001R0258		0.14	10
	2	593441	S201P-Z2	2CDS281001R0278		0.14	10
	3	593458	S201P-Z3	2CDS281001R0318		0.14	10
	4	593465	S201P-Z4	2CDS281001R0338		0.14	10
	6	593472	S201P-Z6	2CDS281001R0378		0.14	10
	8	593489	S201P-Z8	2CDS281001R0408		0.14	10
	10	593496	S201P-Z10	2CDS281001R0428		0.14	10
	16	593502	S201P-Z16	2CDS281001R0468		0.14	10
	20	593519	S201P-Z20	2CDS281001R0488		0.14	10
	25	593526	S201P-Z25	2CDS281001R0518		0.14	10
	32	593533	S201P-Z32	2CDS281001R0538		0.14	10
	40	593540	S201P-Z40	2CDS281001R0558		0.14	10
	50	593557	S201P-Z50	2CDS281001R0578		0.14	10
	63	593564	S201P-Z63	2CDS281001R0608		0.14	10

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	0.5	593571	S202P-Z0.5	2CDS282001R0158		0.28	5
	1	593588	S202P-Z1	2CDS282001R0218		0.28	5
	1.6	593595	S202P-Z1.6	2CDS282001R0258		0.28	5
	2	593601	S202P-Z2	2CDS282001R0278		0.28	5
	3	593618	S202P-Z3	2CDS282001R0318		0.28	5
	4	593625	S202P-Z4	2CDS282001R0338		0.28	5
	6	593632	S202P-Z6	2CDS282001R0378		0.28	5
	8	593649	S202P-Z8	2CDS282001R0408		0.28	5
	10	593656	S202P-Z10	2CDS282001R0428		0.28	5
	16	593663	S202P-Z16	2CDS282001R0468		0.28	5
	20	593670	S202P-Z20	2CDS282001R0488		0.28	5
	25	593687	S202P-Z25	2CDS282001R0518		0.28	5
	32	593694	S202P-Z32	2CDS282001R0538		0.28	5
	40	593700	S202P-Z40	2CDS282001R0558		0.28	5
	50	593717	S202P-Z50	2CDS282001R0578		0.28	5
	63	593724	S202P-Z63	2CDS282001R0608		0.28	5

MCBs

S 200 series P Z characteristic

1



S 203 P

2CSC400128F0201



S 204 P

2CSC400138F0201

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	0.5	593731	S203P-Z0.5	2CDS283001R0158		0.42	1
	1	593748	S203P-Z1	2CDS283001R0218		0.42	1
	1.6	593755	S203P-Z1.6	2CDS283001R0258		0.42	1
	2	593762	S203P-Z2	2CDS283001R0278		0.42	1
	3	593779	S203P-Z3	2CDS283001R0318		0.42	1
	4	593786	S203P-Z4	2CDS283001R0338		0.42	1
	6	593793	S203P-Z6	2CDS283001R0378		0.42	1
	8	593809	S203P-Z8	2CDS283001R0408		0.42	1
	10	593816	S203P-Z10	2CDS283001R0428		0.42	1
	16	593823	S203P-Z16	2CDS283001R0468		0.42	1
	20	593830	S203P-Z20	2CDS283001R0488		0.42	1
	25	593847	S203P-Z25	2CDS283001R0518		0.42	1
	32	593854	S203P-Z32	2CDS283001R0538		0.42	1
	40	593861	S203P-Z40	2CDS283001R0558		0.42	1
	50	593878	S203P-Z50	2CDS283001R0578		0.42	1
63	593885	S203P-Z63	2CDS283001R0608		0.42	1	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	0.5	593892	S204P-Z0.5	2CDS284001R0158		0.56	1
	1	593908	S204P-Z1	2CDS284001R0218		0.56	1
	1.6	593915	S204P-Z1.6	2CDS284001R0258		0.56	1
	2	593922	S204P-Z2	2CDS284001R0278		0.56	1
	3	593939	S204P-Z3	2CDS284001R0318		0.56	1
	4	593946	S204P-Z4	2CDS284001R0338		0.56	1
	6	593953	S204P-Z6	2CDS284001R0378		0.56	1
	8	593960	S204P-Z8	2CDS284001R0408		0.56	1
	10	593977	S204P-Z10	2CDS284001R0428		0.56	1
	16	593984	S204P-Z16	2CDS284001R0468		0.56	1
	20	593991	S204P-Z20	2CDS284001R0488		0.56	1
	25	594004	S204P-Z25	2CDS284001R0518		0.56	1
	32	594011	S204P-Z32	2CDS284001R0538		0.56	1
	40	594028	S204P-Z40	2CDS284001R0558		0.56	1
	50	594035	S204P-Z50	2CDS284001R0578		0.56	1
63	594042	S204P-Z63	2CDS284001R0608		0.56	1	

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With disconnecting neutral NA



S 201 P NA

2CSC400003F0201



S 203 P NA

2CSC400132F0201

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1+NA	0.5	594059	S201P-Z0.5NA	2CDS281103R0158		0.28	5
	1	594066	S201P-Z1NA	2CDS281103R0218		0.28	5
	1.6	594073	S201P-Z1.6NA	2CDS281103R0258		0.28	5
	2	594080	S201P-Z2NA	2CDS281103R0278		0.28	5
	3	594097	S201P-Z3NA	2CDS281103R0318		0.28	5
	4	594103	S201P-Z4NA	2CDS281103R0338		0.28	5
	6	594110	S201P-Z6NA	2CDS281103R0378		0.28	5
	8	594127	S201P-Z8NA	2CDS281103R0408		0.28	5
	10	594134	S201P-Z10NA	2CDS281103R0428		0.28	5
	16	594141	S201P-Z16NA	2CDS281103R0468		0.28	5
	20	594158	S201P-Z20NA	2CDS281103R0488		0.28	5
	25	594165	S201P-Z25NA	2CDS281103R0518		0.28	5
	32	594172	S201P-Z32NA	2CDS281103R0538		0.28	5
	40	594189	S201P-Z40NA	2CDS281103R0558		0.28	5
50	594196	S201P-Z50NA	2CDS281103R0578		0.28	5	
63	594202	S201P-Z63NA	2CDS281103R0608		0.28	5	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3+NA	0.5	594219	S203P-Z0.5NA	2CDS283103R0158		0.56	1
	1	594226	S203P-Z1NA	2CDS283103R0218		0.56	1
	1.6	594233	S203P-Z1.6NA	2CDS283103R0258		0.56	1
	2	594240	S203P-Z2NA	2CDS283103R0278		0.56	1
	3	594257	S203P-Z3NA	2CDS283103R0318		0.56	1
	4	594264	S203P-Z4NA	2CDS283103R0338		0.56	1
	6	594271	S203P-Z6NA	2CDS283103R0378		0.56	1
	8	594288	S203P-Z8NA	2CDS283103R0408		0.56	1
	10	594295	S203P-Z10NA	2CDS283103R0428		0.56	1
	16	594301	S203P-Z16NA	2CDS283103R0468		0.56	1
	20	594318	S203P-Z20NA	2CDS283103R0488		0.56	1
	25	594325	S203P-Z25NA	2CDS283103R0518		0.56	1
	32	594332	S203P-Z32NA	2CDS283103R0538		0.56	1
	40	594349	S203P-Z40NA	2CDS283103R0558		0.56	1
50	594356	S203P-Z50NA	2CDS283103R0578		0.56	1	
63	594363	S203P-Z63NA	2CDS283103R0608		0.56	1	

MCBs

S 200 series PR - UL range K characteristic

1



200002102650011

S 201 PR

S 200 PR-K characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current. The integrated captive connecting screws simplify the connection of electric lines, provides extra protection and saves time.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, UL1077, CSA 22.2 No. 235

Rated interrupting capacity 10 kA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.2	9846868	S201PR-K0.2	2CDS271427R0087		0.140	10
	0.3	9846875	S201PR-K0.3	2CDS271427R0117		0.140	10
	0.5	9846882	S201PR-K0.5	2CDS271427R0157		0.140	10
	0.75	9846899	S201PR-K0.75	2CDS271427R0187		0.140	10
	1	9846905	S201PR-K1	2CDS271427R0217		0.140	10
	1.6	9846912	S201PR-K1.6	2CDS271427R0257		0.140	10
	2	9846929	S201PR-K2	2CDS271427R0277		0.140	10
	3	9846936	S201PR-K3	2CDS271427R0317		0.140	10
	4	9846943	S201PR-K4	2CDS271427R0337		0.140	10
	5	9846950	S201PR-K5	2CDS271427R0357		0.140	10
	6	9846967	S201PR-K6	2CDS271427R0377		0.140	10
	8	9846974	S201PR-K8	2CDS271427R0407		0.140	10
	10	9846981	S201PR-K10	2CDS271427R0427		0.140	10
	13	9846998	S201PR-K13	2CDS271427R0447		0.140	10
	15	9847001	S201PR-K15	2CDS271427R0457		0.140	10
	16	9847018	S201PR-K16	2CDS271427R0467		0.140	10
	20	9847025	S201PR-K20	2CDS271427R0487		0.140	10
	25	9847032	S201PR-K25	2CDS271427R0517		0.140	10
	30	9847049	S201PR-K30	2CDS271427R0527		0.140	10
	32	9847056	S201PR-K32	2CDS271427R0537		0.140	10
35	9847063	S201PR-K35	2CDS271427R0547		0.140	10	
40	9847070	S201PR-K40	2CDS271427R0557		0.140	10	
50	9847087	S201PR-K50	2CDS271427R0577		0.140	10	
60	9847094	S201PR-K60	2CDS271427R0587		0.140	10	
63	9847100	S201PR-K63	2CDS271427R0607		0.140	10	

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S 202 PR

2CDS272427R0150012

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	0.2	9847117	S202PR-K0.2	2CDS272427R0087		0.280	5
	0.3	9847124	S202PR-K0.3	2CDS272427R0117		0.280	5
	0.5	9847131	S202PR-K0.5	2CDS272427R0157		0.280	5
	0.75	9847148	S202PR-K0.75	2CDS272427R0187		0.280	5
	1	9847155	S202PR-K1	2CDS272427R0217		0.280	5
	1.6	9847162	S202PR-K1.6	2CDS272427R0257		0.280	5
	2	9847179	S202PR-K2	2CDS272427R0277		0.280	5
	3	9847186	S202PR-K3	2CDS272427R0317		0.280	5
	4	9847193	S202PR-K4	2CDS272427R0337		0.280	5
	5	9847209	S202PR-K5	2CDS272427R0357		0.280	5
	6	9847216	S202PR-K6	2CDS272427R0377		0.280	5
	8	9847223	S202PR-K8	2CDS272427R0407		0.280	5
	10	9847230	S202PR-K10	2CDS272427R0427		0.280	5
	13	9847247	S202PR-K13	2CDS272427R0447		0.280	5
	15	9847254	S202PR-K15	2CDS272427R0457		0.280	5
	16	9847261	S202PR-K16	2CDS272427R0467		0.280	5
	20	9847278	S202PR-K20	2CDS272427R0487		0.280	5
	25	9847285	S202PR-K25	2CDS272427R0517		0.280	5
	30	9847292	S202PR-K30	2CDS272427R0527		0.280	5
	32	9847308	S202PR-K32	2CDS272427R0537		0.280	5
	35	9847315	S202PR-K35	2CDS272427R0547		0.280	5
	40	9847322	S202PR-K40	2CDS272427R0557		0.280	5
	50	9847339	S202PR-K50	2CDS272427R0577		0.280	5
	60	9847346	S202PR-K60	2CDS272427R0587		0.280	5
	63	9847353	S202PR-K63	2CDS272427R0607		0.280	5

MCBs

S 200 series PR - UL range K characteristic

1



S 203 PR



S 204 PR

Number of poles	Rated current In A	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
3	0.2	9847360	S203PR-K0.2	2CDS273427R0087		0.420	3
	0.3	9847377	S203PR-K0.3	2CDS273427R0117		0.420	3
	0.5	9847384	S203PR-K0.5	2CDS273427R0157		0.420	3
	0.75	9847391	S203PR-K0.75	2CDS273427R0187		0.420	3
	1	9847407	S203PR-K1	2CDS273427R0217		0.420	3
	1.6	9847414	S203PR-K1.6	2CDS273427R0257		0.420	3
	2	9847421	S203PR-K2	2CDS273427R0277		0.420	3
	3	9847438	S203PR-K3	2CDS273427R0317		0.420	3
	4	9847445	S203PR-K4	2CDS273427R0337		0.420	3
	5	9847452	S203PR-K5	2CDS273427R0357		0.420	3
	6	9847469	S203PR-K6	2CDS273427R0377		0.420	3
	8	9847476	S203PR-K8	2CDS273427R0407		0.420	3
	10	9847483	S203PR-K10	2CDS273427R0427		0.420	3
	13	9847490	S203PR-K13	2CDS273427R0447		0.420	3
	15	9847506	S203PR-K15	2CDS273427R0457		0.420	3
	16	9847513	S203PR-K16	2CDS273427R0467		0.420	3
	20	9847520	S203PR-K20	2CDS273427R0487		0.420	3
	25	9847537	S203PR-K25	2CDS273427R0517		0.420	3
	30	9847544	S203PR-K30	2CDS273427R0527		0.420	3
	32	9847551	S203PR-K32	2CDS273427R0537		0.420	3
35	9847568	S203PR-K35	2CDS273427R0547		0.420	3	
40	9847575	S203PR-K40	2CDS273427R0557		0.420	3	
50	9847582	S203PR-K50	2CDS273427R0577		0.420	3	
60	9847599	S203PR-K60	2CDS273427R0587		0.420	3	
63	9847605	S203PR-K63	2CDS273427R0607		0.420	3	
4	0.2	9847612	S204PR-K0.2	2CDS274427R0087		0.560	2
	0.3	9847629	S204PR-K0.3	2CDS274427R0117		0.560	2
	0.5	9847636	S204PR-K0.5	2CDS274427R0157		0.560	2
	0.75	9847643	S204PR-K0.75	2CDS274427R0187		0.560	2
	1	9847650	S204PR-K1	2CDS274427R0217		0.560	2
	1.6	9847667	S204PR-K1.6	2CDS274427R0257		0.560	2
	2	9847674	S204PR-K2	2CDS274427R0277		0.560	2
	3	9847681	S204PR-K3	2CDS274427R0317		0.560	2
	4	9847698	S204PR-K4	2CDS274427R0337		0.560	2
	5	9847704	S204PR-K5	2CDS274427R0357		0.560	2
	6	9847711	S204PR-K6	2CDS274427R0377		0.560	2
	8	9847728	S204PR-K8	2CDS274427R0407		0.560	2
	10	9847735	S204PR-K10	2CDS274427R0427		0.560	2
	13	9847742	S204PR-K13	2CDS274427R0447		0.560	2
	15	9847759	S204PR-K15	2CDS274427R0457		0.560	2
	16	9847766	S204PR-K16	2CDS274427R0467		0.560	2
	20	9847773	S204PR-K20	2CDS274427R0487		0.560	2
	25	9847780	S204PR-K25	2CDS274427R0517		0.560	2
	30	9847797	S204PR-K30	2CDS274427R0527		0.560	2
	32	9847803	S204PR-K32	2CDS274427R0537		0.560	2
35	9847810	S204PR-K35	2CDS274427R0547		0.560	2	
40	9847827	S204PR-K40	2CDS274427R0557		0.560	2	
50	9847834	S204PR-K50	2CDS274427R0577		0.560	2	
60	9847841	S204PR-K60	2CDS274427R0587		0.560	2	
63	9847858	S204PR-K63	2CDS274427R0607		0.560	2	

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MCBs

S 200 series S - screwless range 6000 B and C characteristics



S 201 S



S 203 S

S 200 S-B and S 200 S-C characteristic

Function: protection and control of the circuits against overloads and short-circuits.

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898-1

Icn=6 kA

S 200 S-B characteristic

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	6	709385	S201S-B6	2CDS251002R0065		0.100	10
	10	709415	S201S-B10	2CDS251002R0105		0.100	10
	13	709439	S201S-B13	2CDS251002R0135		0.100	10
	16	709453	S201S-B16	2CDS251002R0165		0.100	10
	20	709477	S201S-B20	2CDS251002R0205		0.100	10

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	6	709484	S203S-B6	2CDS253002R0065		0.300	1
	10	709514	S203S-B10	2CDS253002R0105		0.300	1
	13	709538	S203S-B13	2CDS253002R0135		0.300	1
	16	709552	S203S-B16	2CDS253002R0165		0.300	1
	20	709576	S203S-B20	2CDS253002R0205		0.300	1

S 200 S-C characteristic

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	6	756891	S201S-C6	2CDS251002R0064		100	10
	8	709392	S201S-C8	2CDS251002R0084		100	10
	10	709408	S201S-C10	2CDS251002R0104		100	10
	13	709422	S201S-C13	2CDS251002R0134		100	10
	16	709446	S201S-C16	2CDS251002R0164		100	10
	20	709460	S201S-C20	2CDS251002R0204		100	10

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	6	709378	S203S-C6	2CDS253002R0064		300	1
	8	709491	S203S-C8	2CDS253002R0084		300	1
	10	709507	S203S-C10	2CDS253002R0104		300	1
	13	709521	S203S-C13	2CDS253002R0134		300	1
	16	709545	S203S-C16	2CDS253002R0164		300	1
	20	709569	S203S-C20	2CDS253002R0204		300	1

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MCBs

SU 200 M series technical characteristic

1

General Data		
Standards	UL 489, CSA 22.2 No. 5, IEC/EN 60947-2	
Poles	1P, 2P, 3P, 4P	
Tripping characteristics	C, K, Z	
Rated current I _n	0.2 - 63 A	
Rated frequency f	50 / 60 Hz, DC (0 Hz)	
Rated insulation voltage U _i acc. to IEC/EN 60664-1	250 V AC (phase to ground), 440 V AC (phase to phase)	
Overtoltage category	III	
Pollution degree	3	
IEC/EN 60947-2		
Rated operational voltage U _e	1P: 230 V AC; 2P, 3P, 4P: 400 V AC	
Max. power frequency recovery voltage U _{max} AC	1P: 253 V AC; 2P, 3P, 4P: 440 V AC	
Min. operating voltage	12 V AC, 12 V DC	
Rated ultimate short-circuit breaking capacity I _{cu}	15 kA	
Rated service short-circuit breaking capacity I _{cs}	≤ 40 A: 11.25 kA > 40 A: 7.5 kA	
Rated impulse withstand voltage U _{imp} (1.2/50μs)	4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m)	
Dielectric test voltage	2 kV (50 / 60Hz, 1 min.)	
Reference temperature for tripping characteristics	30 °C	
Electrical endurance	I _n < 30 A: 20,000 ops (AC), I _n ≥ 30 A: 10,000 ops. (AC); 1 cycle (2 s - ON, 13 s - OFF, I _n ≤ 32 A), 1 cycle (2 s - ON, 28 s - OFF, I _n > 32 A)	
UL / CSA		
Rated voltage	AC	1P: 277 V AC up to 40 A for C, Z char.,
	AC	277 V AC up to 35 A for K char., 240 V AC
	AC	2P, 3P, 4P: 480 Y / 277 V AC up to 40 A for C, Z char.,
	AC	480 Y / 277 V AC up to 35 A for K char., 240 V AC
	DC	1P: 48 V DC; 2P: 96 V DC (2p in series)
Rated interrupting capacity acc. to UL 1077	-	
Short-circuit current rating acc. to UL 489	10 kA	
Application	-	
Reference temperature for tripping characteristics	40 °C	
Electrical endurance	6,000 ops (AC), 6,000 ops. (DC); 1 cycle (1 s - ON, 9 s - OFF)	
Mechanical data		
Housing	Insulation group II, RAL 7035	
Toggle	Insulation group II, black, sealable	
Contact position indication	Real CPI (green OFF / red ON)	
Protection degree acc. to DIN EN 60529	IP20*, IP40 in enclosure with cover	
Mechanical endurance	20,000 ops.	
Shock resistance acc. to IEC/EN 60068-2-27	25 g - 2 shocks - 13 ms	
Vibration resistance acc. to IEC/EN 60068-2-6	5g - 20 cycles at 5...150...5 Hz with load 0.8 I _n	
Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30	28 cycles with 55°C/90-96% and 25°C/95-100%	
Ambient temperature	-25 ... +55°C	
Storage temperature	-40 ... +70 °C	

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Accessories for MCBs - chapter 3
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Installation	
Terminal	Failsafe bi-directional cylinder-lift terminal
Cross-section of conductors (top/bottom)	solid, stranded: 35 mm ² / 35 mm ² flexible: 25 mm ² / 25 mm ² 18 – 4 AWG
Cross-section of busbars (top/bottom)	10 mm ² / 10 mm ² 18 – 8 AWG
Torque	2.8 Nm AWG 18-16: 13.3 in-lbs. AWG 14-10: 17.7 in-lbs. AWG 8-4: 39.8 in-lbs.
Screwdriver	No. 2 Pozidrive
Mounting	On DIN rail 35 mm acc. to EN 60715 by fast clip
Mounting position	any
Supply	optional
Dimensions and weight	
Mounting dimensions acc. to DIN 43880	Mounting dimension 3
Pole dimensions (H x D x W)	111 x 69 x 17.5 mm
Pole weight approx.	125 g
Combination with auxiliary elements	
Auxiliary contact	Yes
Signal contact	Yes
Shunt trip	Yes

* Also fulfilling the requirements acc. to the protection degree IPXXB

MCBs

SU 200 M series C characteristic

1

SU 200 M-C characteristic

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.5		SU201M-C0,5	2CDS271337R0984		0.125	10
	1		SU201M-C1	2CDS271337R0014		0.125	10
	1.6		SU201M-C1,6	2CDS271337R0974		0.125	10
	2		SU201M-C2	2CDS271337R0024		0.125	10
	3		SU201M-C3	2CDS271337R0034		0.125	10
	4		SU201M-C4	2CDS271337R0044		0.125	10
	5		SU201M-C5	2CDS271337R0054		0.125	10
	6		SU201M-C6	2CDS271337R0064		0.125	10
	8		SU201M-C8	2CDS271337R0084		0.125	10
	10		SU201M-C10	2CDS271337R0104		0.125	10
	13		SU201M-C13	2CDS271337R0134		0.125	10
	15		SU201M-C15	2CDS271337R0154		0.125	10
	16		SU201M-C16	2CDS271337R0164		0.125	10
	20		SU201M-C20	2CDS271337R0204		0.125	10
	25		SU201M-C25	2CDS271337R0254		0.125	10
	30		SU201M-C30	2CDS271337R0304		0.125	10
	32		SU201M-C32	2CDS271337R0324		0.125	10
	35		SU201M-C35	2CDS271337R0354		0.125	10
	40		SU201M-C40	2CDS271337R0404		0.125	10
	50		SU201M-C50	2CDS271337R0504		0.125	10
60		SU201M-C60	2CDS271337R0604		0.125	10	
63		SU201M-C63	2CDS271337R0634		0.125	10	

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Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
2	0.5		SU202M-C0,5	2CDS272337R0984		0.250	5
	1		SU202M-C1	2CDS272337R0014		0.250	5
	1.6		SU202M-C1,6	2CDS272337R0974		0.250	5
	2		SU202M-C2	2CDS272337R0024		0.250	5
	3		SU202M-C3	2CDS272337R0034		0.250	5
	4		SU202M-C4	2CDS272337R0044		0.250	5
	5		SU202M-C5	2CDS272337R0054		0.250	5
	6		SU202M-C6	2CDS272337R0064		0.250	5
	8		SU202M-C8	2CDS272337R0084		0.250	5
	10		SU202M-C10	2CDS272337R0104		0.250	5
	13		SU202M-C13	2CDS272337R0134		0.250	5
	15		SU202M-C15	2CDS272337R0154		0.250	5
	16		SU202M-C16	2CDS272337R0164		0.250	5
	20		SU202M-C20	2CDS272337R0204		0.250	5
	25		SU202M-C25	2CDS272337R0254		0.250	5
	30		SU202M-C30	2CDS272337R0304		0.250	5
	32		SU202M-C32	2CDS272337R0324		0.250	5
	35		SU202M-C35	2CDS272337R0354		0.250	5
	40		SU202M-C40	2CDS272337R0404		0.250	5
	50		SU202M-C50	2CDS272337R0504		0.250	5
60		SU202M-C60	2CDS272337R0604		0.250	5	
63		SU202M-C63	2CDS272337R0634		0.250	5	

Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
3	0.5		SU203M-C0,5	2CDS273337R0984		0.375	3
	1		SU203M-C1	2CDS273337R0014		0.375	3
	1.6		SU203M-C1,6	2CDS273337R0974		0.375	3
	2		SU203M-C2	2CDS273337R0024		0.375	3
	3		SU203M-C3	2CDS273337R0034		0.375	3
	4		SU203M-C4	2CDS273337R0044		0.375	3
	5		SU203M-C5	2CDS273337R0054		0.375	3
	6		SU203M-C6	2CDS273337R0064		0.375	3
	8		SU203M-C8	2CDS273337R0084		0.375	3
	10		SU203M-C10	2CDS273337R0104		0.375	3
	13		SU203M-C13	2CDS273337R0134		0.375	3
	15		SU203M-C15	2CDS273337R0154		0.375	3
	16		SU203M-C16	2CDS273337R0164		0.375	3
	20		SU203M-C20	2CDS273337R0204		0.375	3
	25		SU203M-C25	2CDS273337R0254		0.375	3
	30		SU203M-C30	2CDS273337R0304		0.375	3
	32		SU203M-C32	2CDS273337R0324		0.375	3
	35		SU203M-C35	2CDS273337R0354		0.375	3
	40		SU203M-C40	2CDS273337R0404		0.375	3
	50		SU203M-C50	2CDS273337R0504		0.375	3
60		SU203M-C60	2CDS273337R0604		0.375	3	
63		SU203M-C63	2CDS273337R0634		0.375	3	

MCBs

SU 200 M series C characteristic

1

Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
4	0.5		SU204M-C0,5	2CDS274337R0984		0.500	2
	1		SU204M-C1	2CDS274337R0014		0.500	2
	1.6		SU204M-C1,6	2CDS274337R0974		0.500	2
	2		SU204M-C2	2CDS274337R0024		0.500	2
	3		SU204M-C3	2CDS274337R0034		0.500	2
	4		SU204M-C4	2CDS274337R0044		0.500	2
	5		SU204M-C5	2CDS274337R0054		0.500	2
	6		SU204M-C6	2CDS274337R0064		0.500	2
	8		SU204M-C8	2CDS274337R0084		0.500	2
	10		SU204M-C10	2CDS274337R0104		0.500	2
	13		SU204M-C13	2CDS274337R0134		0.500	2
	15		SU204M-C15	2CDS274337R0154		0.500	2
	16		SU204M-C16	2CDS274337R0164		0.500	2
	20		SU204M-C20	2CDS274337R0204		0.500	2
	25		SU204M-C25	2CDS274337R0254		0.500	2
	30		SU204M-C30	2CDS274337R0304		0.500	2
	32		SU204M-C32	2CDS274337R0324		0.500	2
	35		SU204M-C35	2CDS274337R0354		0.500	2
	40		SU204M-C40	2CDS274337R0404		0.500	2
	50		SU204M-C50	2CDS274337R0504		0.500	2
60		SU204M-C60	2CDS274337R0604		0.500	2	
63		SU204M-C63	2CDS274337R0634		0.500	2	

MCBs

SU 200 M series K characteristic

SU 200 M-K characteristic

1

Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
1	0.2		SU201M-K0,2	2CDS271337R0087		0.125	10
	0.3		SU201M-K0,3	2CDS271337R0117		0.125	10
	0.5		SU201M-K0,5	2CDS271337R0157		0.125	10
	0.75		SU201M-K0,75	2CDS271337R0187		0.125	10
	1		SU201M-K1	2CDS271337R0217		0.125	10
	1.6		SU201M-K1,6	2CDS271337R0257		0.125	10
	2		SU201M-K2	2CDS271337R0277		0.125	10
	3		SU201M-K3	2CDS271337R0317		0.125	10
	4		SU201M-K4	2CDS271337R0337		0.125	10
	5		SU201M-K5	2CDS271337R0357		0.125	10
	6		SU201M-K6	2CDS271337R0377		0.125	10
	8		SU201M-K8	2CDS271337R0407		0.125	10
	10		SU201M-K10	2CDS271337R0427		0.125	10
	13		SU201M-K13	2CDS271337R0447		0.125	10
	15		SU201M-K15	2CDS271337R0457		0.125	10
	16		SU201M-K16	2CDS271337R0467		0.125	10
	20		SU201M-K20	2CDS271337R0487		0.125	10
	25		SU201M-K25	2CDS271337R0517		0.125	10
	30		SU201M-K30	2CDS271337R0527		0.125	10
	32		SU201M-K32	2CDS271337R0537		0.125	10
35		SU201M-K35	2CDS271337R0547		0.125	10	
40		SU201M-K40	2CDS271337R0557		0.125	10	
50		SU201M-K50	2CDS271337R0577		0.125	10	
60		SU201M-K60	2CDS271337R0587		0.125	10	
63		SU201M-K63	2CDS271337R0607		0.125	10	

MCBs

SU 200 M series K characteristic

1

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	0.2		SU202M-K0,2	2CDS272337R0087		0.250	5
	0.3		SU202M-K0,3	2CDS272337R0117		0.250	5
	0.5		SU202M-K0,5	2CDS272337R0157		0.250	5
	0.75		SU202M-K0,75	2CDS272337R0187		0.250	5
	1		SU202M-K1	2CDS272337R0217		0.250	5
	1.6		SU202M-K1,6	2CDS272337R0257		0.250	5
	2		SU202M-K2	2CDS272337R0277		0.250	5
	3		SU202M-K3	2CDS272337R0317		0.250	5
	4		SU202M-K4	2CDS272337R0337		0.250	5
	5		SU202M-K5	2CDS272337R0357		0.250	5
	6		SU202M-K6	2CDS272337R0377		0.250	5
	8		SU202M-K8	2CDS272337R0407		0.250	5
	10		SU202M-K10	2CDS272337R0427		0.250	5
	13		SU202M-K13	2CDS272337R0447		0.250	5
	15		SU202M-K15	2CDS272337R0457		0.250	5
	16		SU202M-K16	2CDS272337R0467		0.250	5
	20		SU202M-K20	2CDS272337R0487		0.250	5
	25		SU202M-K25	2CDS272337R0517		0.250	5
	30		SU202M-K30	2CDS272337R0527		0.250	5
	32		SU202M-K32	2CDS272337R0537		0.250	5
	35		SU202M-K35	2CDS272337R0547		0.250	5
40		SU202M-K40	2CDS272337R0557		0.250	5	
50		SU202M-K50	2CDS272337R0577		0.250	5	
60		SU202M-K60	2CDS272337R0587		0.250	5	
63		SU202M-K63	2CDS272337R0607		0.250	5	

Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
3	0.2		SU203M-K0,2	2CDS273337R0087		0.375	3
	0.3		SU203M-K0,3	2CDS273337R0117		0.375	3
	0.5		SU203M-K0,5	2CDS273337R0157		0.375	3
	0.75		SU203M-K0,75	2CDS273337R0187		0.375	3
	1		SU203M-K1	2CDS273337R0217		0.375	3
	1.6		SU203M-K1,6	2CDS273337R0257		0.375	3
	2		SU203M-K2	2CDS273337R0277		0.375	3
	3		SU203M-K3	2CDS273337R0317		0.375	3
	4		SU203M-K4	2CDS273337R0337		0.375	3
	5		SU203M-K5	2CDS273337R0357		0.375	3
	6		SU203M-K6	2CDS273337R0377		0.375	3
	8		SU203M-K8	2CDS273337R0407		0.375	3
	10		SU203M-K10	2CDS273337R0427		0.375	3
	13		SU203M-K13	2CDS273337R0447		0.375	3
	15		SU203M-K15	2CDS273337R0457		0.375	3
	16		SU203M-K16	2CDS273337R0467		0.375	3
	20		SU203M-K20	2CDS273337R0487		0.375	3
	25		SU203M-K25	2CDS273337R0517		0.375	3
	30		SU203M-K30	2CDS273337R0527		0.375	3
	32		SU203M-K32	2CDS273337R0537		0.375	3
35		SU203M-K35	2CDS273337R0547		0.375	3	
40		SU203M-K40	2CDS273337R0557		0.375	3	
50		SU203M-K50	2CDS273337R0577		0.375	3	
60		SU203M-K60	2CDS273337R0587		0.375	3	
63		SU203M-K63	2CDS273337R0607		0.375	3	

MCBs

SU 200 M series K characteristic

1

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.2		SU204M-K0,2	2CDS274337R0087		0.500	2
	0.3		SU204M-K0,3	2CDS274337R0117		0.500	2
	0.5		SU204M-K0,5	2CDS274337R0157		0.500	2
	0.75		SU204M-K0,75	2CDS274337R0187		0.500	2
	1		SU204M-K1	2CDS274337R0217		0.500	2
	1.6		SU204M-K1,6	2CDS274337R0257		0.500	2
	2		SU204M-K2	2CDS274337R0277		0.500	2
	3		SU204M-K3	2CDS274337R0317		0.500	2
	4		SU204M-K4	2CDS274337R0337		0.500	2
	5		SU204M-K5	2CDS274337R0357		0.500	2
	6		SU204M-K6	2CDS274337R0377		0.500	2
	8		SU204M-K8	2CDS274337R0407		0.500	2
	10		SU204M-K10	2CDS274337R0427		0.500	2
	13		SU204M-K13	2CDS274337R0447		0.500	2
	15		SU204M-K15	2CDS274337R0457		0.500	2
	16		SU204M-K16	2CDS274337R0467		0.500	2
	20		SU204M-K20	2CDS274337R0487		0.500	2
	25		SU204M-K25	2CDS274337R0517		0.500	2
	30		SU204M-K30	2CDS274337R0527		0.500	2
	32		SU204M-K32	2CDS274337R0537		0.500	2
35		SU204M-K35	2CDS274337R0547		0.500	2	
40		SU204M-K40	2CDS274337R0557		0.500	2	
50		SU204M-K50	2CDS274337R0577		0.500	2	
60		SU204M-K60	2CDS274337R0587		0.500	2	
63		SU204M-K63	2CDS274337R0607		0.500	2	

Where to find more:

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Auxiliary elements for S 200 MCBs according to UL - chapter 3
Accessories for MCBs - chapter 3
Busbar systems - chapter 3

MCBs

SU 200 M series Z characteristic

SU 200 M-Z characteristic

1

Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
1	0.5		SU201M-Z0,5	2CDS271337R0158		0.125	10
	1		SU201M-Z1	2CDS271337R0218		0.125	10
	1.6		SU201M-Z1,6	2CDS271337R0258		0.125	10
	2		SU201M-Z2	2CDS271337R0278		0.125	10
	3		SU201M-Z3	2CDS271337R0318		0.125	10
	4		SU201M-Z4	2CDS271337R0338		0.125	10
	5		SU201M-Z5	2CDS271337R0358		0.125	10
	6		SU201M-Z6	2CDS271337R0378		0.125	10
	8		SU201M-Z8	2CDS271337R0408		0.125	10
	10		SU201M-Z10	2CDS271337R0428		0.125	10
	13		SU201M-Z13	2CDS271337R0448		0.125	10
	15		SU201M-Z15	2CDS271337R0458		0.125	10
	16		SU201M-Z16	2CDS271337R0468		0.125	10
	20		SU201M-Z20	2CDS271337R0488		0.125	10
	25		SU201M-Z25	2CDS271337R0518		0.125	10
	30		SU201M-Z30	2CDS271337R0528		0.125	10
	32		SU201M-Z32	2CDS271337R0538		0.125	10
	35		SU201M-Z35	2CDS271337R0548		0.125	10
	40		SU201M-Z40	2CDS271337R0558		0.125	10
	50		SU201M-Z50	2CDS271337R0578		0.125	10
60		SU201M-Z60	2CDS271337R0588		0.125	10	
63		SU201M-Z63	2CDS271337R0608		0.125	10	

MCBs

SU 200 M series Z characteristic

1

Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
2	0.5		SU202M-Z0,5	2CDS272337R0158		0.250	5
	1		SU202M-Z1	2CDS272337R0218		0.250	5
	1.6		SU202M-Z1,6	2CDS272337R0258		0.250	5
	2		SU202M-Z2	2CDS272337R0278		0.250	5
	3		SU202M-Z3	2CDS272337R0318		0.250	5
	4		SU202M-Z4	2CDS272337R0338		0.250	5
	5		SU202M-Z5	2CDS272337R0358		0.250	5
	6		SU202M-Z6	2CDS272337R0378		0.250	5
	8		SU202M-Z8	2CDS272337R0408		0.250	5
	10		SU202M-Z10	2CDS272337R0428		0.250	5
	13		SU202M-Z13	2CDS272337R0448		0.250	5
	15		SU202M-Z15	2CDS272337R0458		0.250	5
	16		SU202M-Z16	2CDS272337R0468		0.250	5
	20		SU202M-Z20	2CDS272337R0488		0.250	5
	25		SU202M-Z25	2CDS272337R0518		0.250	5
	30		SU202M-Z30	2CDS272337R0528		0.250	5
	32		SU202M-Z32	2CDS272337R0538		0.250	5
	35		SU202M-Z35	2CDS272337R0548		0.250	5
	40		SU202M-Z40	2CDS272337R0558		0.250	5
	50		SU202M-Z50	2CDS272337R0578		0.250	5
60		SU202M-Z60	2CDS272337R0588		0.250	5	
63		SU202M-Z63	2CDS272337R0608		0.250	5	

Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
3	0.5		SU203M-Z0,5	2CDS273337R0158		0.375	3
	1		SU203M-Z1	2CDS273337R0218		0.375	3
	1.6		SU203M-Z1,6	2CDS273337R0258		0.375	3
	2		SU203M-Z2	2CDS273337R0278		0.375	3
	3		SU203M-Z3	2CDS273337R0318		0.375	3
	4		SU203M-Z4	2CDS273337R0338		0.375	3
	5		SU203M-Z5	2CDS273337R0358		0.375	3
	6		SU203M-Z6	2CDS273337R0378		0.375	3
	8		SU203M-Z8	2CDS273337R0408		0.375	3
	10		SU203M-Z10	2CDS273337R0428		0.375	3
	13		SU203M-Z13	2CDS273337R0448		0.375	3
	15		SU203M-Z15	2CDS273337R0458		0.375	3
	16		SU203M-Z16	2CDS273337R0468		0.375	3
	20		SU203M-Z20	2CDS273337R0488		0.375	3
	25		SU203M-Z25	2CDS273337R0518		0.375	3
	30		SU203M-Z30	2CDS273337R0528		0.375	3
	32		SU203M-Z32	2CDS273337R0538		0.375	3
	35		SU203M-Z35	2CDS273337R0548		0.375	3
	40		SU203M-Z40	2CDS273337R0558		0.375	3
	50		SU203M-Z50	2CDS273337R0578		0.375	3
60		SU203M-Z60	2CDS273337R0588		0.375	3	
63		SU203M-Z63	2CDS273337R0608		0.375	3	

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Number of poles	Rated current	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A		Type code	Order code			
4	0.5		SU204M-Z0,5	2CDS274337R0158		0.500	2
	1		SU204M-Z1	2CDS274337R0218		0.500	2
	1.6		SU204M-Z1,6	2CDS274337R0258		0.500	2
	2		SU204M-Z2	2CDS274337R0278		0.500	2
	3		SU204M-Z3	2CDS274337R0318		0.500	2
	4		SU204M-Z4	2CDS274337R0338		0.500	2
	5		SU204M-Z5	2CDS274337R0358		0.500	2
	6		SU204M-Z6	2CDS274337R0378		0.500	2
	8		SU204M-Z8	2CDS274337R0408		0.500	2
	10		SU204M-Z10	2CDS274337R0428		0.500	2
	13		SU204M-Z13	2CDS274337R0448		0.500	2
	15		SU204M-Z15	2CDS274337R0458		0.500	2
	16		SU204M-Z16	2CDS274337R0468		0.500	2
	20		SU204M-Z20	2CDS274337R0488		0.500	2
	25		SU204M-Z25	2CDS274337R0518		0.500	2
	30		SU204M-Z30	2CDS274337R0528		0.500	2
	32		SU204M-Z32	2CDS274337R0538		0.500	2
	35		SU204M-Z35	2CDS274337R0548		0.500	2
	40		SU204M-Z40	2CDS274337R0558		0.500	2
	50		SU204M-Z50	2CDS274337R0578		0.500	2
60		SU204M-Z60	2CDS274337R0588		0.500	2	
63		SU204M-Z63	2CDS274337R0608		0.500	2	

MCBs

Circuit breaker SU200 MR

1

The SU200 MR is a high-performance circuit breaker with ring cable lug connections conforming to UL 489; CSA 22.2. No. 5 and IEC/EN 60947-2 standards. The integrated captive connecting screws simplify the connection of electric lines, provides extra protection and saves time.



2CDD00210015S0015



2CDD0021002S0015

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.2	956192	SU201MR-K0.2	2CDS271347R0087		0.140	10
	0.3	956215	SU201MR-K0.3	2CDS271347R0117		0.140	10
	0.5	956239	SU201MR-K0.5	2CDS271347R0157		0.140	10
	0.75	956253	SU201MR-K0.75	2CDS271347R0187		0.140	10
	1	956277	SU201MR-K1	2CDS271347R0217		0.140	10
	1.6	956291	SU201MR-K1.6	2CDS271347R0257		0.140	10
	2	956314	SU201MR-K2	2CDS271347R0277		0.140	10
	3	956338	SU201MR-K3	2CDS271347R0317		0.140	10
	4	956352	SU201MR-K4	2CDS271347R0337		0.140	10
	5	956376	SU201MR-K5	2CDS271347R0357		0.140	10
	6	956390	SU201MR-K6	2CDS271347R0377		0.140	10
	8	956413	SU201MR-K8	2CDS271347R0407		0.140	10
	10	956437	SU201MR-K10	2CDS271347R0427		0.140	10
	13	956451	SU201MR-K13	2CDS271347R0447		0.140	10
	15	956475	SU201MR-K15	2CDS271347R0457		0.140	10
	16	956499	SU201MR-K16	2CDS271347R0467		0.140	10
	20	956512	SU201MR-K20	2CDS271347R0487		0.140	10
	25	956536	SU201MR-K25	2CDS271347R0517		0.140	10
	30	956550	SU201MR-K30	2CDS271347R0527		0.140	10
	32	956574	SU201MR-K32	2CDS271347R0537		0.140	10
	35	956598	SU201MR-K35	2CDS271347R0547		0.140	10
40	956611	SU201MR-K40	2CDS271347R0557		0.140	10	
50	956635	SU201MR-K50	2CDS271347R0577		0.140	10	
60	956659	SU201MR-K60	2CDS271347R0587		0.140	10	
63	956673	SU201MR-K63	2CDS271347R0607		0.140	10	
2	0.2	957175	SU202MR-K0.2	2CDS272347R0087		0.280	5
	0.3	957199	SU202MR-K0.3	2CDS272347R0117		0.280	5
	0.5	957212	SU202MR-K0.5	2CDS272347R0157		0.280	5
	0.75	957236	SU202MR-K0.75	2CDS272347R0187		0.280	5
	1	957250	SU202MR-K1	2CDS272347R0217		0.280	5
	1.6	957274	SU202MR-K1.6	2CDS272347R0257		0.280	5
	2	957298	SU202MR-K2	2CDS272347R0277		0.280	5
	3	957311	SU202MR-K3	2CDS272347R0317		0.280	5
	4	957335	SU202MR-K4	2CDS272347R0337		0.280	5
	5	957359	SU202MR-K5	2CDS272347R0357		0.280	5
	6	957373	SU202MR-K6	2CDS272347R0377		0.280	5
	8	957397	SU202MR-K8	2CDS272347R0407		0.280	5
	10	957410	SU202MR-K10	2CDS272347R0427		0.280	5
	13	957434	SU202MR-K13	2CDS272347R0447		0.280	5
	15	957458	SU202MR-K15	2CDS272347R0457		0.280	5
	16	957472	SU202MR-K16	2CDS272347R0467		0.280	5
	20	957496	SU202MR-K20	2CDS272347R0487		0.280	5
	25	957519	SU202MR-K25	2CDS272347R0517		0.280	5
	30	957533	SU202MR-K30	2CDS272347R0527		0.280	5
	32	957557	SU202MR-K32	2CDS272347R0537		0.280	5
	35	957571	SU202MR-K35	2CDS272347R0547		0.280	5
40	957595	SU202MR-K40	2CDS272347R0557		0.280	5	
50	957618	SU202MR-K50	2CDS272347R0577		0.280	5	
60	957632	SU202MR-K60	2CDS272347R0587		0.280	5	
63	957656	SU202MR-K63	2CDS272347R0607		0.280	5	



2CDS021003S0015



2CDS021004S0015

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.2	958172	SU203MR-K0.2	2CDS273347R0087		0.420	3
	0.3	958196	SU203MR-K0.3	2CDS273347R0117		0.420	3
	0.5	958219	SU203MR-K0.5	2CDS273347R0157		0.420	3
	0.75	958233	SU203MR-K0.75	2CDS273347R0187		0.420	3
	1	958257	SU203MR-K1	2CDS273347R0217		0.420	3
	1.6	958271	SU203MR-K1.6	2CDS273347R0257		0.420	3
	2	958295	SU203MR-K2	2CDS273347R0277		0.420	3
	3	958318	SU203MR-K3	2CDS273347R0317		0.420	3
	4	958332	SU203MR-K4	2CDS273347R0337		0.420	3
	5	958356	SU203MR-K5	2CDS273347R0357		0.420	3
	6	958370	SU203MR-K6	2CDS273347R0377		0.420	3
	8	958394	SU203MR-K8	2CDS273347R0407		0.420	3
	10	958417	SU203MR-K10	2CDS273347R0427		0.420	3
	13	958431	SU203MR-K13	2CDS273347R0447		0.420	3
	15	958455	SU203MR-K15	2CDS273347R0457		0.420	3
	16	958479	SU203MR-K16	2CDS273347R0467		0.420	3
	20	958493	SU203MR-K20	2CDS273347R0487		0.420	3
	25	958516	SU203MR-K25	2CDS273347R0517		0.420	3
	30	958530	SU203MR-K30	2CDS273347R0527		0.420	3
	32	958554	SU203MR-K32	2CDS273347R0537		0.420	3
	35	958578	SU203MR-K35	2CDS273347R0547		0.420	3
	40	958592	SU203MR-K40	2CDS273347R0557		0.420	3
	50	958615	SU203MR-K50	2CDS273347R0577		0.420	3
	60	958639	SU203MR-K60	2CDS273347R0587		0.420	3
63	958653	SU203MR-K63	2CDS273347R0607		0.420	3	
4	0.2	959179	SU204MR-K0.2	2CDS274347R0087		0.560	2
	0.3	959193	SU204MR-K0.3	2CDS274347R0117		0.560	2
	0.5	959216	SU204MR-K0.5	2CDS274347R0157		0.560	2
	0.75	959230	SU204MR-K0.75	2CDS274347R0187		0.560	2
	1	959254	SU204MR-K1	2CDS274347R0217		0.560	2
	1.6	959278	SU204MR-K1.6	2CDS274347R0257		0.560	2
	2	959292	SU204MR-K2	2CDS274347R0277		0.560	2
	3	959315	SU204MR-K3	2CDS274347R0317		0.560	2
	4	959339	SU204MR-K4	2CDS274347R0337		0.560	2
	5	959353	SU204MR-K5	2CDS274347R0357		0.560	2
	6	959377	SU204MR-K6	2CDS274347R0377		0.560	2
	8	959391	SU204MR-K8	2CDS274347R0407		0.560	2
	10	959414	SU204MR-K10	2CDS274347R0427		0.560	2
	13	959438	SU204MR-K13	2CDS274347R0447		0.560	2
	15	959452	SU204MR-K15	2CDS274347R0457		0.560	2
	16	959476	SU204MR-K16	2CDS274347R0467		0.560	2
	20	959490	SU204MR-K20	2CDS274347R0487		0.560	2
	25	959513	SU204MR-K25	2CDS274347R0517		0.560	2
	30	959537	SU204MR-K30	2CDS274347R0527		0.560	2
	32	959551	SU204MR-K32	2CDS274347R0537		0.560	2
	35	959575	SU204MR-K35	2CDS274347R0547		0.560	2
	40	959599	SU204MR-K40	2CDS274347R0557		0.560	2
	50	959612	SU204MR-K50	2CDS274347R0577		0.560	2
	60	959636	SU204MR-K60	2CDS274347R0587		0.560	2
63	959650	SU204MR-K63	2CDS274347R0607		0.560	2	

MCBs

SU 200 series PR - UL range K characteristic

1



SU 201 PR

SU 200 PR-K characteristic

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current. The integrated captive connecting screws simplify the connection of electric lines, provides extra protection and saves time.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, UL489, CSA 22.2 No. 5

SCCR: 10 kA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.2	9847865	SU201PR-K0.2	2CDS271327R0087		0.140	10
	0.3	9847872	SU201PR-K0.3	2CDS271327R0117		0.140	10
	0.5	9847889	SU201PR-K0.5	2CDS271327R0157		0.140	10
	0.75	9847896	SU201PR-K0.75	2CDS271327R0187		0.140	10
	1	9847902	SU201PR-K1	2CDS271327R0217		0.140	10
	1.6	9847919	SU201PR-K1.6	2CDS271327R0257		0.140	10
	2	9847926	SU201PR-K2	2CDS271327R0277		0.140	10
	3	9847933	SU201PR-K3	2CDS271327R0317		0.140	10
	4	9847940	SU201PR-K4	2CDS271327R0337		0.140	10
	5	9847957	SU201PR-K5	2CDS271327R0357		0.140	10
	6	9847964	SU201PR-K6	2CDS271327R0377		0.140	10
	8	9847971	SU201PR-K8	2CDS271327R0407		0.140	10
	10	9847988	SU201PR-K10	2CDS271327R0427		0.140	10
	13	9847995	SU201PR-K13	2CDS271327R0447		0.140	10
	15	9848008	SU201PR-K15	2CDS271327R0457		0.140	10
	16	9848015	SU201PR-K16	2CDS271327R0467		0.140	10
	20	9848022	SU201PR-K20	2CDS271327R0487		0.140	10
	25	9848039	SU201PR-K25	2CDS271327R0517		0.140	10
	30	9848046	SU201PR-K30	2CDS271327R0527		0.140	10
	32	9848053	SU201PR-K32	2CDS271327R0537		0.140	10
	35	9848060	SU201PR-K35	2CDS271327R0547		0.140	10
40	9848077	SU201PR-K40	2CDS271327R0557		0.140	10	
50	9848084	SU201PR-K50	2CDS271327R0577		0.140	10	
60	9848091	SU201PR-K60	2CDS271327R0587		0.140	10	
63	9848107	SU201PR-K63	2CDS271327R0607		0.140	10	

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MCBs

SU 200 series PR - UL range K characteristic



SU 202 PR

2CDS272327R0607

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	0.2	9848114	SU202PR-K0.2	2CDS272327R0087		0.280	5
	0.3	9848121	SU202PR-K0.3	2CDS272327R0117		0.280	5
	0.5	9848138	SU202PR-K0.5	2CDS272327R0157		0.280	5
	0.75	9848145	SU202PR-K0.75	2CDS272327R0187		0.280	5
	1	9848152	SU202PR-K1	2CDS272327R0217		0.280	5
	1.6	9848169	SU202PR-K1.6	2CDS272327R0257		0.280	5
	2	9848176	SU202PR-K2	2CDS272327R0277		0.280	5
	3	9848183	SU202PR-K3	2CDS272327R0317		0.280	5
	4	9848190	SU202PR-K4	2CDS272327R0337		0.280	5
	5	9848206	SU202PR-K5	2CDS272327R0357		0.280	5
	6	9848213	SU202PR-K6	2CDS272327R0377		0.280	5
	8	9848220	SU202PR-K8	2CDS272327R0407		0.280	5
	10	9848237	SU202PR-K10	2CDS272327R0427		0.280	5
	13	9848244	SU202PR-K13	2CDS272327R0447		0.280	5
	15	9848251	SU202PR-K15	2CDS272327R0457		0.280	5
	16	9848268	SU202PR-K16	2CDS272327R0467		0.280	5
	20	9848275	SU202PR-K20	2CDS272327R0487		0.280	5
	25	9848282	SU202PR-K25	2CDS272327R0517		0.280	5
	30	9848299	SU202PR-K30	2CDS272327R0527		0.280	5
	32	9848305	SU202PR-K32	2CDS272327R0537		0.280	5
35	9848312	SU202PR-K35	2CDS272327R0547		0.280	5	
40	9848329	SU202PR-K40	2CDS272327R0557		0.280	5	
50	9848336	SU202PR-K50	2CDS272327R0577		0.280	5	
60	9848343	SU202PR-K60	2CDS272327R0587		0.280	5	
63	9848350	SU202PR-K63	2CDS272327R0607		0.280	5	

MCBs

SU 200 series PR - UL range K characteristic

1



SU 203 PR



SU 204 PR

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.2	9848367	SU203PR-K0.2	2CDS273327R0087	0.420	3	
	0.3	9848374	SU203PR-K0.3	2CDS273327R0117			
	0.5	9848381	SU203PR-K0.5	2CDS273327R0157			
	0.75	9848398	SU203PR-K0.75	2CDS273327R0187			
	1	9848404	SU203PR-K1	2CDS273327R0217			
	1.6	9848411	SU203PR-K1.6	2CDS273327R0257			
	2	9848428	SU203PR-K2	2CDS273327R0277			
	3	9848435	SU203PR-K3	2CDS273327R0317			
	4	9848442	SU203PR-K4	2CDS273327R0337			
	5	9848459	SU203PR-K5	2CDS273327R0357			
	6	9848466	SU203PR-K6	2CDS273327R0377			
	8	9848473	SU203PR-K8	2CDS273327R0407			
	10	9848480	SU203PR-K10	2CDS273327R0427			
	13	9848497	SU203PR-K13	2CDS273327R0447			
	15	9848503	SU203PR-K15	2CDS273327R0457			
	16	9848510	SU203PR-K16	2CDS273327R0467			
	20	9848527	SU203PR-K20	2CDS273327R0487			
	25	9848534	SU203PR-K25	2CDS273327R0517			
	30	9848541	SU203PR-K30	2CDS273327R0527			
	32	9848558	SU203PR-K32	2CDS273327R0537			
	35	9848565	SU203PR-K35	2CDS273327R0547			
40	9848572	SU203PR-K40	2CDS273327R0557				
50	9848589	SU203PR-K50	2CDS273327R0577				
60	9848596	SU203PR-K60	2CDS273327R0587				
63	9848602	SU203PR-K63	2CDS273327R0607				
4	0.2	9848619	SU204PR-K0.2	2CDS274327R0087	0.560	2	
	0.3	9848626	SU204PR-K0.3	2CDS274327R0117			
	0.5	9848633	SU204PR-K0.5	2CDS274327R0157			
	0.75	9848640	SU204PR-K0.75	2CDS274327R0187			
	1	9848657	SU204PR-K1	2CDS274327R0217			
	1.6	9848664	SU204PR-K1.6	2CDS274327R0257			
	2	9848671	SU204PR-K2	2CDS274327R0277			
	3	9848688	SU204PR-K3	2CDS274327R0317			
	4	9848695	SU204PR-K4	2CDS274327R0337			
	5	9848701	SU204PR-K5	2CDS274327R0357			
	6	9848718	SU204PR-K6	2CDS274327R0377			
	8	9848725	SU204PR-K8	2CDS274327R0407			
	10	9848732	SU204PR-K10	2CDS274327R0427			
	13	9848749	SU204PR-K13	2CDS274327R0447			
	15	9848756	SU204PR-K15	2CDS274327R0457			
	16	9848763	SU204PR-K16	2CDS274327R0467			
	20	9848770	SU204PR-K20	2CDS274327R0487			
	25	9848787	SU204PR-K25	2CDS274327R0517			
	30	9848794	SU204PR-K30	2CDS274327R0527			
	32	9848800	SU204PR-K32	2CDS274327R0537			
	35	9848817	SU204PR-K35	2CDS274327R0547			
40	9848824	SU204PR-K40	2CDS274327R0557				
50	9848831	SU204PR-K50	2CDS274327R0577				
60	9848848	SU204PR-K60	2CDS274327R0587				
63	9848855	SU204PR-K63	2CDS274327R0607				

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MCBs

S 200 series UDC - Universal current range, UL, K characteristic



2CDC 021 126 F0010

S 201 UDC

S 200 UDC-K characteristic

Function: protection and control of the circuits like motors, transformers and auxiliary circuits, against overloads and short-circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to $10I_n$, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

Applications: commercial and industrial.

Standard: UL 489, CSA 22.2 No. 5

(only DC, please note polarity of device)

Short-circuit current rating (SCCR acc. to UL 489): 14 kA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code		kg	pc.
1	1	825924	S201UDC-K1	2CDS271517R0217		0.150	10
	1,6	825948	S201UDC-K1.6	2CDS271517R0257		0.150	10
	2	825955	S201UDC-K2	2CDS271517R0277		0.150	10
	3	825962	S201UDC-K3	2CDS271517R0317		0.150	10
	4	825979	S201UDC-K4	2CDS271517R0337		0.150	10
	5	825986	S201UDC-K5	2CDS271517R0357		0.150	10
	6	825993	S201UDC-K6	2CDS271517R0377		0.150	10
	8	826006	S201UDC-K8	2CDS271517R0407		0.150	10
	10	826013	S201UDC-K10	2CDS271517R0427		0.150	10
	13	826020	S201UDC-K13	2CDS271517R0447		0.150	10
	15	826037	S201UDC-K15	2CDS271517R0457		0.150	10
	16	826044	S201UDC-K16	2CDS271517R0467		0.150	10
	20	826051	S201UDC-K20	2CDS271517R0487		0.150	10
	25	826068	S201UDC-K25	2CDS271517R0517		0.150	10
	30	826075	S201UDC-K30	2CDS271517R0527		0.150	10
	32	826082	S201UDC-K32	2CDS271517R0537		0.150	10
	40	826099	S201UDC-K40	2CDS271517R0557		0.150	10
50	826105	S201UDC-K50	2CDS271517R0577		0.150	10	
60	826112	S201UDC-K60	2CDS271517R0587		0.150	10	
63	826129	S201UDC-K63	2CDS271517R0607		0.150	10	

MCBs

S 200 series UDC - Universal current range, UL, K characteristic

1



S 202 UDC

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	1	825061	S202UDC-K1	2CDS272517R0217		0.300	5
	1,6	825160	S202UDC-K1.6	2CDS272517R0257		0.300	5
	2	825177	S202UDC-K2	2CDS272517R0277		0.300	5
	3	825184	S202UDC-K3	2CDS272517R0317		0.300	5
	4	825191	S202UDC-K4	2CDS272517R0337		0.300	5
	5	825207	S202UDC-K5	2CDS272517R0357		0.300	5
	6	825214	S202UDC-K6	2CDS272517R0377		0.300	5
	8	825221	S202UDC-K8	2CDS272517R0407		0.300	5
	10	825238	S202UDC-K10	2CDS272517R0427		0.300	5
	13	825245	S202UDC-K13	2CDS272517R0447		0.300	5
	15	825252	S202UDC-K15	2CDS272517R0457		0.300	5
	16	825269	S202UDC-K16	2CDS272517R0467		0.300	5
	20	825276	S202UDC-K20	2CDS272517R0487		0.300	5
	25	825283	S202UDC-K25	2CDS272517R0517		0.300	5
	30	825290	S202UDC-K30	2CDS272517R0527		0.300	5
	32	825306	S202UDC-K32	2CDS272517R0537		0.300	5
	40	825313	S202UDC-K40	2CDS272517R0557		0.300	5
	50	825320	S202UDC-K50	2CDS272517R0577		0.300	5
	60	825337	S202UDC-K60	2CDS272517R0587		0.300	5
	63	825344	S202UDC-K63	2CDS272517R0607		0.300	5

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MCBs

S 200 series UDC - Universal current range, UL, Z characteristic



2CDC 021 128 F0010

S 201 UDC



2CDC 021 129 F0010

S 202 UDC

S 200 UDC-Z characteristic

Function: protection and control of the electronic circuits against lower and long duration overloads and short-circuits.

Applications: commercial and industrial.

Standard: UL 489, CSA 22.2 No. 5

(only DC, please note polarity of device)

Short-circuit current rating (SCCR acc. to UL 489): 14 kA

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	1	826136	S201UDC-Z1	2CDS271517R0218		0.150	10
	1,6	826143	S201UDC-Z1.6	2CDS271517R0258		0.150	10
	2	826150	S201UDC-Z2	2CDS271517R0278		0.150	10
	3	826167	S201UDC-Z3	2CDS271517R0318		0.150	10
	4	826174	S201UDC-Z4	2CDS271517R0338		0.150	10
	5	826181	S201UDC-Z5	2CDS271517R0358		0.150	10
	6	826198	S201UDC-Z6	2CDS271517R0378		0.150	10
	8	826204	S201UDC-Z8	2CDS271517R0408		0.150	10
	10	826211	S201UDC-Z10	2CDS271517R0428		0.150	10
	15	826228	S201UDC-Z15	2CDS271517R0458		0.150	10
	16	826235	S201UDC-Z16	2CDS271517R0468		0.150	10
	20	826242	S201UDC-Z20	2CDS271517R0488		0.150	10
	25	826259	S201UDC-Z25	2CDS271517R0518		0.150	10
	30	826266	S201UDC-Z30	2CDS271517R0528		0.150	10
	32	826273	S201UDC-Z32	2CDS271517R0538		0.150	10
	40	826280	S201UDC-Z40	2CDS271517R0558		0.150	10
	50	826297	S201UDC-Z50	2CDS271517R0578		0.150	10
60	826303	S201UDC-Z60	2CDS271517R0588		0.150	10	
63	826310	S201UDC-Z63	2CDS271517R0608		0.150	10	

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	1	825351	S202UDC-Z1	2CDS272517R0218		0.300	5
	1,6	825368	S202UDC-Z1.6	2CDS272517R0258		0.300	5
	2	825375	S202UDC-Z2	2CDS272517R0278		0.300	5
	3	825382	S202UDC-Z3	2CDS272517R0318		0.300	5
	4	825399	S202UDC-Z4	2CDS272517R0338		0.300	5
	5	825405	S202UDC-Z5	2CDS272517R0358		0.300	5
	6	825412	S202UDC-Z6	2CDS272517R0378		0.300	5
	8	825429	S202UDC-Z8	2CDS272517R0408		0.300	5
	10	825436	S202UDC-Z10	2CDS272517R0428		0.300	5
	15	825443	S202UDC-Z15	2CDS272517R0458		0.300	5
	16	825450	S202UDC-Z16	2CDS272517R0468		0.300	5
	20	825467	S202UDC-Z20	2CDS272517R0488		0.300	5
	25	825474	S202UDC-Z25	2CDS272517R0518		0.300	5
	30	825481	S202UDC-Z30	2CDS272517R0528		0.300	5
	32	825498	S202UDC-Z32	2CDS272517R0538		0.300	5
	40	825504	S202UDC-Z40	2CDS272517R0558		0.300	5
	50	825511	S202UDC-Z50	2CDS272517R0578		0.300	5
60	825528	S202UDC-Z60	2CDS272517R0588		0.300	5	
63	825535	S202UDC-Z63	2CDS272517R0608		0.300	5	

MCB SN 201. The details make the difference

A range designed to ensure efficiency and protection

1 Easy wiring with 1P+N busbars

Quick identification thanks to laser printed EAN marking.

A wide range of accessories is available

1P+N protection in only one module



Easy identification of the product and highly resistant laser marking.

Contact position indicator on the level, with Green/Red indicator

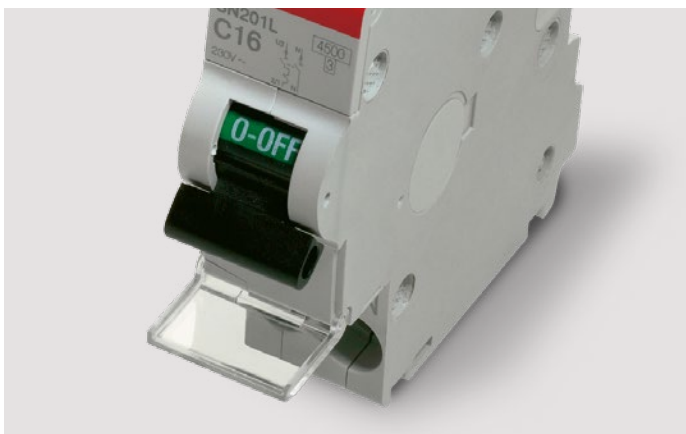
Label carrier for easy identification



Space for insulated screwdrivers: the larger neutral hole allows the use of an insulated screwdriver to tighten the screws of both wire terminals, ensuring maximum safety of the operation.



Two bistable fixing devices for maximum ease of use: due to larger size of the DIN rail fixing system, made with 2 bistable fixing devices, the same screwdriver used for tightening the terminals can also be used for assembling and disassembling the device.



With the practical label carrier fitted in the new SN201 circuit-breakers you can give maximum visibility to the information relating to the protected loads.



The SN201 fully integrates with the range of System pro M compact® miniature circuit-breakers, sharing the wide selection of accessories available through a dedicated interface (half module), which also can be used as auxiliary contact.

Miniature circuit-breakers

SN 201 series - 1P+N in one module housing

1



2CSC40068F0001

SN 201

General Data	Standards			
	Poles			
	Tripping characteristics			
	Rated current I_n	A		
	Rated frequency f	Hz		
	Rated insulation voltage U_i acc. to DIN EN 60664-1	V		
	Overvoltage category			
Data acc. to IEC/EN 60898-1	Pollution degree			
	Rated operational voltage U_n	V		
	Max. power frequency recovery voltage (U_{rec})	V		
	Min. operating voltage	V		
	Rated short-circuit capacity I_{cs}	kA		
	Rated making and breaking capacity of one individual pole I_{cm}	kA		
	Energy limiting class (B, C up to 40A)			
	Rated impulse withstand voltage U_{imp} (1.2/50 μ s)	kV		
	Dielectric test voltage	kV		
	Reference temperature for tripping characteristics	°C		
	Electrical endurance	operations		
	Data acc. to IEC/EN 60947-2	Rated ultimate short-circuit breaking capacity I_{cu}	kA	
		Rated service short-circuit breaking capacity I_{cs}	kA	
Mechanical Data	Housing			
	Toggle			
	Contact position indication			
	Protection degree acc. to EN 60529			
	Mechanical endurance	operations		
	Shock resistance acc. to IEC/EN 60068-2-27			
	Vibration resistance acc. to IEC/EN 60068-2-6			
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	°C/RH		
	Ambient temperature (with daily average $\leq +35^\circ\text{C}$)	°C		
Storage temperature	°C			
Installation	Cross-section of conductors (top/bottom) Stranded / Solid	mm ²		
	Cross-section of conductors (top/bottom) Flexible	mm ²		
	Tightening Torque	Nm		
	Mounting			
	Mounting Position			
Dimensions and weight	Supply			
	Pole dimensions (H x D x W)	mm		
	Pole weight	g		
Combination with aux. elements	Auxiliary contact			
	Signal contact/auxiliary switch			
	Shunt trip			
	Undervoltage release			

① SN201 and SN201M series in B and D characteristic are available for rated current $I_n \geq 6$ A

SN 201 L	SN 201	SN 201 M
IEC/EN 60898		
1P + N		
B, C	B, C, D	B, C
2...40 A ①		
50 / 60 Hz		
500 V AC		
III		
2		
230 V AC		
254 V AC 1P: 60 V DC 1P+N: 125 V DC		
12 V AC - 12 V DC		
4.5 kA	6 kA	10 kA
4.5 kA	6 kA	6 kA
3		
4 kV (test voltage 6,2kV at sea level, 5kV at 2000m)		
2.5 kV (50 / 60Hz, 1 min.)		
30°C		
10.000 operations		
6 kA	10 kA	10 kA
4.5 kA	6 kA	7.5 kA
Insulation group II, RAL 7035		
Insulation group IIIA, black, sealable in ON/OFF positions		
Marking on toggle (I ON / 0 OFF)		
Housing: IP4X; Terminals: IP2X		
20.000 operations		
30 g - 2 shocks - 13 ms		
0,35mm or 5g - 20 cycles at 5...150...5 Hz without load		
28 cycles with 55°C/90-96% and 25°C/95-100%		
-25 ... +55°C		
-40 ... +70°C		
16 mm ² / 16 mm ²		
10 mm ² / 10 mm ²		
1.2 Nm		
On DIN rail 35 mm acc. to EN 60715 by fast clip		
any		
optional (supply from top/bottom)		
85 x 68.9 x 17.6 mm		
ca. 110 g		
Yes		
Yes		
Yes (with coupling interface)		
Yes (with coupling interface)		

MCBs

SN 201 L series 4500 B and C characteristic

1



2CSS40068FF001

SN 201 L

SN 201 L - B characteristic

Function: overload and short-circuit protection of circuits in final distribution; protection of long cable lengths in TN and IT systems.

Applications: residential.

Standard: IEC/EN 60898

Icn: 4.5 kA

Number of poles	Rated current	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+N	2	087366	SN201LB2	2CSS245101R0025		0.110	6
	4	087465	SN201LB4	2CSS245101R0045		0.110	6
	6	087564	SN201LB6	2CSS245101R0065		0.110	6
	10	087663	SN201LB10	2CSS245101R0105		0.110	6
	16	087762	SN201LB16	2CSS245101R0165		0.110	6
	20	087861	SN201LB20	2CSS245101R0205		0.110	6
	25	087960	SN201LB25	2CSS245101R0255		0.110	6
	32	088066	SN201LB32	2CSS245101R0325		0.110	6
	40	088165	SN201LB40	2CSS245101R0405		0.110	6

SN 201 L - C characteristic

Function: overload and short-circuit protection of circuits in final distribution; protection of resistive and inductive loads with low inrush current.

Applications: residential.

Standard: IEC/EN 60898

Icn: 4.5 kA

Number of poles	Rated current	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+N	2	088264	SN201LC2	2CSS245101R0024		0.110	6
	4	088363	SN201LC4	2CSS245101R0044		0.110	6
	6	088462	SN201LC6	2CSS245101R0064		0.110	6
	10	088561	SN201LC10	2CSS245101R0104		0.110	6
	16	088660	SN201LC16	2CSS245101R0164		0.110	6
	20	088769	SN201LC20	2CSS245101R0204		0.110	6
	25	088868	SN201LC25	2CSS245101R0254		0.110	6
	32	088967	SN201LC32	2CSS245101R0324		0.110	6
	40	089063	SN201LC40	2CSS245101R0404		0.110	6

Where to find more:

Coordination tables for SN 201
MCBs: Chapter 1 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals of
MCBs - chapter 15

Maybe you are also interested in:

Auxiliary elements for SN 201 MCBs -
chapter 3
Accessories for SN 201 MCBs -
chapter 3
Busbar systems - chapter 3

MCBs

SN 201 series 6000 B and C characteristic



SN 201

SN 201 - B characteristic

Function: overload and short-circuits protection of circuits in final distribution; protection of long cable lengths in TN and IT systems.

Applications: residential and commercial.

Standard: IEC/EN 60898

Icn: 6 kA

Number of poles	Rated current	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+N	6	090762	SN201B6	2CSS255101R0065		0.110	6
	10	090861	SN201B10	2CSS255101R0105		0.110	6
	16	090960	SN201B16	2CSS255101R0165		0.110	6
	20	091066	SN201B20	2CSS255101R0205		0.110	6
	25	091165	SN201B25	2CSS255101R0255		0.110	6
	32	091264	SN201B32	2CSS255101R0325		0.110	6
	40	091363	SN201B40	2CSS255101R0405		0.110	6

SN 201 - C characteristic

Function: overload and short-circuit protection of circuits in final distribution; protection of resistive and inductive loads with low inrush current.

Applications: residential and commercial.

Standard: IEC/EN 60898

Icn: 6 kA

Number of poles	Rated current	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+N	2	091462	SN201C2	2CSS255101R0024		0.110	6
	4	091561	SN201C4	2CSS255101R0044		0.110	6
	6	091660	SN201C6	2CSS255101R0064		0.110	6
	10	091769	SN201C10	2CSS255101R0104		0.110	6
	13	091868	SN201C13	2CSS255101R0134		0.110	6
	16	091967	SN201C16	2CSS255101R0164		0.110	6
	20	092063	SN201C20	2CSS255101R0204		0.110	6
	25	092162	SN201C25	2CSS255101R0254		0.110	6
	32	092261	SN201C32	2CSS255101R0324		0.110	6
	40	092360	SN201C40	2CSS255101R0404		0.110	6

MCBs

SN 201 series 6000 D characteristic

1



SN 201

SN 201 - D characteristic

Function: protection and control of the circuits against overloads and short-circuits in final distribution; protection for circuits which supply loads with high inrush current at the circuit closing.

Applications: residential and commercial.

Standard: IEC/EN 60898

Icn: 6 kA

Number of poles	Rated current	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+N	6	092469	SN201D6	2CSS255101R0061		0,110	6
	10	092568	SN201D10	2CSS255101R0101		0,110	6
	16	092667	SN201D16	2CSS255101R0161		0,110	6
	20	092766	SN201D20	2CSS255101R0201		0,110	6
	25	092865	SN201D25	2CSS255101R0251		0,110	6
	32	092964	SN201D32	2CSS255101R0321		0,110	6
	40	093060	SN201D40	2CSS255101R0401		0,110	6

Where to find more:

Coordination tables for SN 201
 MCBs: Chapter 1 of
 Solutions for electrical installation in
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Maybe you are also interested in:

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 Accessories for SN 201 MCBs -
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 Busbar systems - chapter 3

MCBs

SN 201 M series 10000 B and C characteristic



SN 201 M

SN 201 M - B characteristic

Function: overloads and short-circuit protection of circuits in final distribution; protection of long cable lengths in TN and IT systems.

Applications: residential and commercial.

Standard: IEC/EN 60898

Icn: 10 kA

Number of poles	Rated current	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+N	6	093152	SN201MB6	2CSS275101R0065		0.110	6
	10	093251	SN201MB10	2CSS275101R0105		0.110	6
	16	093350	SN201MB16	2CSS275101R0165		0.110	6
	20	093459	SN201MB20	2CSS275101R0205		0.110	6
	25	093558	SN201MB25	2CSS275101R0255		0.110	6
	32	093657	SN201MB32	2CSS275101R0325		0.110	6
	40	093756	SN201MB40	2CSS275101R0405		0.110	6

SN 201 M - C characteristic

Function: overload and short-circuit protection of circuits in final distribution; protection of resistive and inductive loads with low inrush current.

Applications: residential and commercial.

Standard: IEC/EN 60898

Icn: 10 kA

Number of poles	Rated current	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1+N	2	093862	SN201MC2	2CSS275101R0024		0.110	6
	4	093961	SN201MC4	2CSS275101R0044		0.110	6
	6	094067	SN201MC6	2CSS275101R0064		0.110	6
	10	094166	SN201MC10	2CSS275101R0104		0.110	6
	16	094265	SN201MC16	2CSS275101R0164		0.110	6
	20	094364	SN201MC20	2CSS275101R0204		0.110	6
	25	094463	SN201MC25	2CSS275101R0254		0.110	6
	32	094562	SN201MC32	2CSS275101R0324		0.110	6
	40	094661	SN201MC40	2CSS275101R0404		0.110	6

MCBs

S 200 80A-100A series technical features

1



2C00021037/S0013

S 200 80-100A

S 200 80A-100A	
General Data	
Standards	IEC/EN 60898-1, IEC/EN 60947-2
Poles	1P, 2P, 3P, 4P, 1P+N, 3P+N
Tripping characteristics	B, C
Rated current I_n	80 A, 100 A
Rated frequency f	50/60 Hz
Rated insulation voltage U_i acc. to IEC/EN 60664-1 (VDE 0110-1)	440 V AC
Overvoltage category	III
Pollution degree	2
IEC/EN 60898-1 (VDE 0641-11)	
Rated operational voltage U_n	1P: 230/400 V AC; 1P+N: 230 V AC; 2P, 3P, 4P, 3P+N: 400 V AC
Max. power frequency recovery voltage U_{max}	1P: 253/440 V AC; 1P+N: 253 V AC; 2P, 3P, 4P, 3P+N: 440 V AC
Min. operating voltage	12 V AC
Rated short-circuit capacity I_{cn}	6 kA
Rated impulse withstand voltage U_{imp} (1.2/50 μ s)	4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m)
Dielectrical test voltage	2 kV (50/60 Hz, 1 min.)
Reference temperature for tripping characteristics	B, C: 30 °C
Electrical endurance	10,000 ops. (AC); one cycle 2 s - ON, 28 s - OFF
IEC/EN 60947-2 (VDE 0660-101)	
Rated operational voltage U_p	1P, 1P+N: 230 V AC; 2P, 3P, 4P, 3P+N: 400 V AC
Max. power frequency recovery voltage U_{max}	1P, 1P+N: 253 V AC; 2P, 3P, 4P, 3P+N: 440 V AC
Min. operating voltage	12 V AC
Rated ultimate short-circuit breaking capacity I_{cu}	6 kA
Rated service short-circuit breaking capacity I_{cs}	6 kA
Rated impulse withstand voltage U_{imp} (1.2/50 μ s)	4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m)
Dielectrical test voltage	2 kV (50/60 Hz, 1 min.)
Reference temperature for tripping characteristics	B, C: 55 °C
Electrical endurance	10,000 ops. (AC); one cycle 2 s - ON, 28 s - OFF
Mechanical data	
Housing	Insulation group I, RAL 7035
Toggle	Insulation group II, black, sealable
Contact position indication	Real CPI (red ON/green OFF)
Protection degree acc. to DIN EN 60529	IP20 ¹⁾ , IP40 in enclosure with cover
Mechanical endurance	20,000 ops.
Shock resistance acc. to DIN EN 60068-2-27	25 g, 2 shocks, 13 ms
Vibration resistance acc. to DIN EN 60068-2-6	5 g, 20 cycles at 5...150...5 Hz at 0.8 I_n
Environmental conditions (Damp heat cyclic) acc. to DIN EN 60068-2-30	28 cycles with 55 °C/90-96 % and 25 °C/95-100 %
Ambient temperature	-25 ... +55 °C
Storage temperature	-40 ... +70 °C

Where to find more:

Coordination tables for SN 201
 MCBs: Chapter 1 of
 Solutions for electrical installation in
 buildings - technical details

Worldwide marks and approvals of
 MCBs - chapter 15

Maybe you are also interested in:

Auxiliary elements for S 280 MCBs -
 chapter 3

S 200 80A-100A	
Installation	
Terminal	Failsafe bi-directional cache clamp
Cross-section of conductors (top/bottom)	solid, stranded: 50 mm ² / 50 mm ² flexible: 50 mm ² / 50 mm ²
Cross-section of busbars (top/bottom)	16 mm ² / 16 mm ²
Torque	3.0 Nm
Screwdriver	Nr. 2 Pozidriv
Mounting	On DIN rail 35 mm acc. to EN 60715 by fast clip
Mounting position	any
Supply	any
Dimensions and weight	
Mounting dimensions acc. to DIN 43880	Mounting dimension 1
Pole dimensions (H x T x B)	88.8 x 69 x 17.5
Pole weight	approx. 126 g
Combination with auxiliary elements	
Auxiliary contact	Yes
Signal/auxiliary contact	Yes
Shunt trip	Yes
Unervoltage release	Yes
Motor Operating Device	Yes

MCBs

S 200 80A-100A

1



2CD0021037S0013

S 201 80-100A



2CD0021047S0013

S 202 80-100A



2CD0021060S0013

S 203 80-100A



2CD0021058S0013

S 204 80-100A



2CD0021056S0014

S 201 80-100A NA



2CD0021057S0014

S 203 80-100A NA

The miniature circuit breakers of the System pro *M compact*[®] series S 200 provide state-of-the-art safety and comfort. They stand out due to their high performance and the wide range of accessories and approvals.

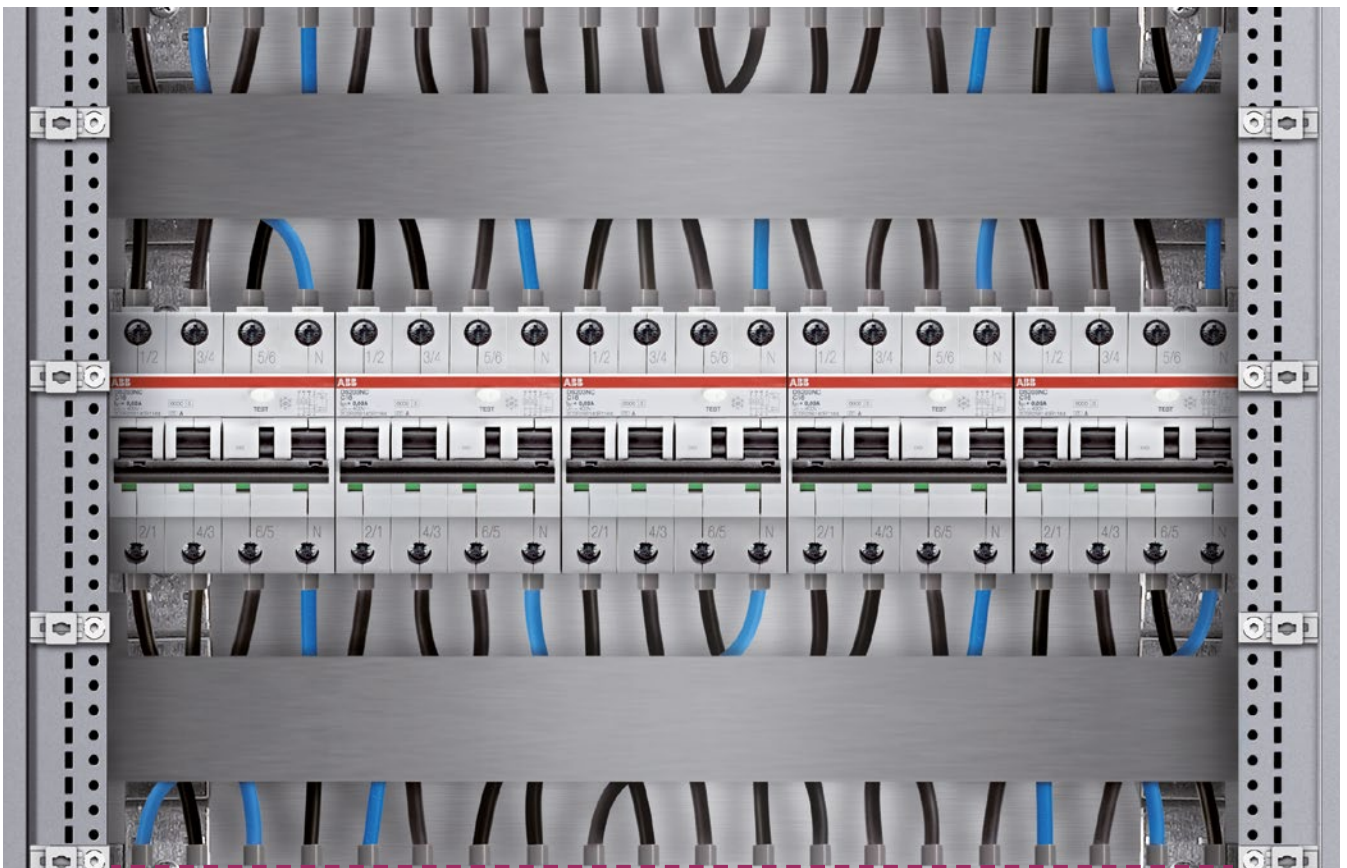
The additional electrical currents 80 A and 100 A complement the current portfolio of the System pro *M compact*[®] and offer maximum performance in a single module width.

- Clear contact position indication in red/green (“real CPI”)
- Unique, patented twin terminal with captive screws and an increased opening for cables up to max. 50 mm², finger-proof (IP20)
- Busbar slot in the back for best visibility during installation
- High performance in building installations and industrial applications up to 6 kA at U_e = 400 V AC acc. to IEC/EN 60947-2 and IEC/EN 60898-1
- Individual product identification code
- Approved acc. to IEC/EN 60898-1 and IEC/EN 60947-2 for global use

Number of poles	Rated current In A	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
B characteristic							
1	80	916516	S201-B80	2CDS251001R0805		0.128	10
	100	916530	S201-B100	2CDS251001R0825		0.128	10
2	80	916677	S202-B80	2CDS252001R0805		0.256	5
	100	916691	S202-B100	2CDS252001R0825		0.256	5
3	80	916271	S203-B80	2CDS253001R0805		0.384	1
	100	916295	S203-B100	2CDS253001R0825		0.384	1
4	80	916431	S204-B80	2CDS254001R0805		0.512	1
	100	916455	S204-B100	2CDS254001R0825		0.512	1
1+NA	80	916592	S201-B80NA	2CDS251103R0805		0.256	5
	100	916615	S201-B100NA	2CDS251103R0825		0.256	5
3+NA	80	916356	S203-B80NA	2CDS253103R0805		0.512	1
	100	916370	S203-B100NA	2CDS253103R0825		0.512	1
C characteristic							
1	80	916509	S201-C80	2CDS251001R0804		0.128	10
	100	916523	S201-C100	2CDS251001R0824		0.128	10
2	80	916660	S202-C80	2CDS252001R0804		0.256	5
	100	916684	S202-C100	2CDS252001R0824		0.256	5
3	80	916264	S203-C80	2CDS253001R0804		0.384	1
	100	916288	S203-C100	2CDS253001R0824		0.384	1
4	80	916424	S204-C80	2CDS254001R0804		0.512	1
	100	916448	S204-C100	2CDS254001R0824		0.512	1
1+NA	80	916585	S201-C80NA	2CDS251103R0804		0.256	5
	100	916608	S201-C100NA	2CDS251103R0824		0.256	5
3+NA	80	916349	S203-C80NA	2CDS253103R0804		0.512	1
	100	916363	S203-C100NA	2CDS253103R0824		0.512	1

Minimum space, maximum protection. DS203NC: 3P+NRCBOs in 4 modules.

Designed to be compact, DS203NC SP+N RCBOs are suitable in all those applications where size can be an obstacle. They provide reliable and complete protection from overcurrent and earth fault currents. DS203NC RCBOs are available in two ranges with different breaking capacities to cover all the applications in commercial and industrial installations; DSZOSNC L with 4.5kA and DSZOSNC with 6kA breaking capacity according to IEC/EN 61009. The range includes types AC, A, APR and S and tripping curves B, C or K. www.abb.com/lowvoltage



SMCBs

S750 series DR technical features

1



S750 DR

		S 750 DR	
General Data	Standards	IEC/EN 60947-2	
	Poles	1P, 2P, 3P, 4P	
	Tripping characteristics	E _{selective} , K _{selective}	
	Rated current I _n	A	16...63
	Rated frequency f	Hz	50/60
Electrical Data acc. to IEC/EN 60947-2	Rated operational voltage U _e	V AC	230 (1-pole), 400 (2-, 3-, 4-pole)
	Rated breaking capacity I _{cu}	kA	25
	Rated service breaking capacity I _{cs}	kA	12.5
	Rated insulation voltage U _i	V	690
	Selectivity limit current Is1		rated breaking capacity of downstream breaker (min.) – see selectivity tables
	Overvoltage category		IV
	Pollution degree		3
	Rated impulse withstand voltage U _{imp}	kV	6
	Impulse withstand voltage acc. to IEC 60364-5-53 (at 2000m above sea level)	kV	8
	Impulse withstand test voltage (1.2/50µs)	kV	9.8
	Isolation function acc. to IEC 60364-5-53		yes
	Dielectric test voltage (50/60 Hz, 1 min.)	kV	2 (50/60 Hz, 1 min.)
	Mechanical Data	Contact position indication	via toggle (I-ON / O-OFF), via trip indicator (red-ON / green-OFF)
IP protection degree acc. to IEC/EN 60529		IP40 (when protected by cabinet cover)	
Shock resistance acc. to IEC / EN 60068-2-27		25 g, min. 3 shocks, duration 13 ms	
Vibration resistance acc. to IEC/EN 60068-2-6		2 g, 20 cycles 5...150...5 Hz	
Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles: 55 / 90...96 – 25 / 95...100
Ambient temperature		°C	-25 ... +55
Storage temperature		°C	-40 ... +70
Installation		Wire connection (Top)	frame terminal to connect solid and rigid stranded conductors incl. flexible conductors 2.5...50 mm ²
	Wire connection (Bottom)	frame terminal to connect solid and rigid stranded conductors incl. flexible conductors 2.5...50 mm ²	
	Max. torque	Nm	2.5...3
	Recommended Screwdriver	slotted: 1 x 5.5, Pozidrive: PZ 2	
	Mounting	DIN rail 35 mm acc. to EN 60715	
	Locking	integrated blocking device, additional locking by 3 mm padlock, 1mm seal wire or cable binder	
	Mounting position	any	
Dimensions and weight	Supply	any	
	Size acc. to DIN 43880	3	
	Width	mm	27 (per pole)
	Pole dimensions (H x D x W)	mm	see drawings
Accessories	Pole weight	g	see order tables
			3 mm padlock

Where to find more:

Worldwide marks and approvals of
MCBs - chapter 15

SMCBs

S750 series DR- selective main circuit-breakers, E_{selective} characteristic



S751 DR



S752 DR



S753 DR



S754 DR

S750 series DR

Selective main circuit-breakers of the S 750 DR series are SMCBs based on DIN VDE 0641-21 with voltage-independent operating principle. This means that they do not rely on a control circuit to make or break contact (SHU) and are therefore particularly suitable for use in energy distribution systems with maximum availability requirements. They offer total selectivity to downstream MCB's and outstanding selectivity to upstream protective devices due to unique current limiting selectivity.

Number of poles	Rated current In A	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
1	16	4016779878968	S751 DR-E16	2CDH781010R0162		0.35	3
	20	4016779878975	S751 DR-E20	2CDH781010R0202		0.35	3
	25	4016779878982	S751 DR-E25	2CDH781010R0252		0.35	3
	32	4016779878999	S751 DR-E32	2CDH781010R0322		0.35	3
	40	4016779879019	S751 DR-E40	2CDH781010R0402		0.35	3
	50	4016779879026	S751 DR-E50	2CDH781010R0502		0.35	3
	63	4016779879033	S751 DR-E63	2CDH781010R0632		0.35	3
2	16	4016779879361	S752 DR-E16	2CDH782010R0162		0.7	2
	20	4016779879378	S752 DR-E20	2CDH782010R0202		0.7	2
	25	4016779879385	S752 DR-E25	2CDH782010R0252		0.7	2
	32	4016779879392	S752 DR-E32	2CDH782010R0322		0.7	2
	40	4016779879415	S752 DR-E40	2CDH782010R0402		0.7	2
	50	4016779879422	S752 DR-E50	2CDH782010R0502		0.7	2
	63	4016779879439	S752 DR-E63	2CDH782010R0632		0.7	2
3	16	4016779879569	S753 DR-E16	2CDH783010R0162		1.05	1
	20	4016779879576	S753 DR-E20	2CDH783010R0202		1.05	1
	25	4016779879583	S753 DR-E25	2CDH783010R0252		1.05	1
	32	4016779879590	S753 DR-E32	2CDH783010R0322		1.05	1
	40	4016779879613	S753 DR-E40	2CDH783010R0402		1.05	1
	50	4016779879620	S753 DR-E50	2CDH783010R0502		1.05	1
	63	4016779879637	S753 DR-E63	2CDH783010R0632		1.05	1
4	16	4016779879767	S754 DR-E16	2CDH784010R0162		1.4	1
	20	4016779879774	S754 DR-E20	2CDH784010R0202		1.4	1
	25	4016779879781	S754 DR-E25	2CDH784010R0252		1.4	1
	32	4016779879798	S754 DR-E32	2CDH784010R0322		1.4	1
	40	4016779879811	S754 DR-E40	2CDH784010R0402		1.4	1
	50	4016779879828	S754 DR-E50	2CDH784010R0502		1.4	1
	63	4016779879835	S754 DR-E63	2CDH784010R0632		1.4	1

Due to the lack of international product standards for SMCB, S750DR products as given in this catalogue are certified acc. to IEC/EN 60947-2. If requested, S750 (for 40mm busbar systems) and S750DR (for DIN rail mounting) are also available with certification based on a German SMCB standard. Please contact your ABB office for further information .

SMCBs

S750 DR series - selective main circuit-breakers, K_{selective} characteristic

1



S751 DR



S752 DR



S753 DR



S754 DR

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	16	4016779879064	S751 DR-K16	2CDH781010R0467		0.35	3
	20	4016779879071	S751 DR-K20	2CDH781010R0487		0.35	3
	25	4016779879088	S751 DR-K25	2CDH781010R0517		0.35	3
	32	4016779879095	S751 DR-K32	2CDH781010R0537		0.35	3
	40	4016779879118	S751 DR-K40	2CDH781010R0557		0.35	3
	50	4016779879125	S751 DR-K50	2CDH781010R0577		0.35	3
	63	4016779879132	S751 DR-K63	2CDH781010R0607		0.35	3
2	16	4016779879460	S752 DR-K16	2CDH782010R0467		0.7	2
	20	4016779879477	S752 DR-K20	2CDH782010R0487		0.7	2
	25	4016779879484	S752 DR-K25	2CDH782010R0517		0.7	2
	32	4016779879491	S752 DR-K32	2CDH782010R0537		0.7	2
	40	4016779879514	S752 DR-K40	2CDH782010R0557		0.7	2
	50	4016779879521	S752 DR-K50	2CDH782010R0577		0.7	2
	63	4016779879538	S752 DR-K63	2CDH782010R0607		0.7	2
3	16	4016779879668	S753 DR-K16	2CDH783010R0467		1.05	1
	20	4016779879675	S753 DR-K20	2CDH783010R0487		1.05	1
	25	4016779879682	S753 DR-K25	2CDH783010R0517		1.05	1
	32	4016779879699	S753 DR-K32	2CDH783010R0537		1.05	1
	40	4016779879712	S753 DR-K40	2CDH783010R0557		1.05	1
	50	4016779879729	S753 DR-K50	2CDH783010R0577		1.05	1
	63	4016779879736	S753 DR-K63	2CDH783010R0607		1.05	1
4	16	4016779879866	S754 DR-K16	2CDH784010R0467		1.4	1
	20	4016779879873	S754 DR-K20	2CDH784010R0487		1.4	1
	25	4016779879880	S754 DR-K25	2CDH784010R0517		1.4	1
	32	4016779879897	S754 DR-K32	2CDH784010R0537		1.4	1
	40	4016779879910	S754 DR-K40	2CDH784010R0557		1.4	1
	50	4016779879927	S754 DR-K50	2CDH784010R0577		1.4	1
	63	4016779879934	S754 DR-K63	2CDH784010R0607		1.4	1

Where to find more:

Worldwide marks and approvals of
MCBs - chapter 15

SMCBs

S700 series technical features



S700

		S 700		
General Data	Standards	E DIN VDE 0645:2003-09, partly acc. to IEC EN 60947-2		
	Poles	1P, 2P, 3P, 4P		
	Tripping characteristics	E _{selective} , K _{selective}		
	thermal tripping	1.05 ... 1.2 x I _n		
	short-time delayed tripping	E: 5 ... 6.25 x I _n		
	minimum tripping delay	ms	10	
	Rated insulation voltage U _i acc. to IEC/EN 60664-1	V AC	690	
Rated current I _n	A	E: 10...100; K: 16...100		
Rated frequency f	Hz	50 / 60		
Electrical Data	Rated operational voltage U ⁿ	V AC	1P: 230 / 400; 2...4P: 400	
	Rated breaking capacity I ^{cn}	kA	25	
	Selectivity limit current I _{s1}	Rated breaking capacity of the downstream MCB (see selectivity tables)		
	Overvoltage category	IV		
	Pollution degree	3		
	Rated impulse withstand voltage U _{imp}	kV	6	
	Impulse withstand voltage acc. to IEC 60364-5-53, clause 536.2 (at 2000m over sea level)	kV	8	
	Impulse withstand test voltage (1.2/50µs) at sea level			
	new condition	kV	12.3	
	after use	kV	9.8	
	Isolation function acc. to IEC 60364-5-53	yes		
Dielectric test voltage (50/60 Hz, 1 min.)	kV	2		
Mechanical Data	Contact position indication	Toggle (I ON / 0 OFF); Real CPI (red ON / green OFF)		
	IP protection degree acc. to IEC/EN 60529	IP40 (in enclosure with cover, cut-out dimension 46mm)		
	Mechanical switching cycles			
	without load	ops.	1000	
	with rated current	ops.	1000	
	Shock resistance acc. to IEC/EN 60068-2-27	25 g - 3 shocks - 13 ms		
	Vibration resistance acc. to IEC/EN 60068-2-6	2 g, 20 cycles 5...150...5Hz		
	Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30	°C/RH	28 cycles: 55°C/90...96% - 25°C/95...100%	
	Ambient temperature	°C	-25 ... +55	
	Storage temperature	°C	-40 ... +70	
Installation	Terminal type	Saddle terminal		
	Terminal size top / bottom	mm ²	Capable to connect solid and rigid stranded conductors incl. flexible conductors 2.5...50 / 70	
	Terminal screws tightening torque	Nm	3...3.5	
	Max. torque for surface mounting	Nm	2.5...3 (only fl at-headed screws, no circlips)	
	Recommended screwdriver	Slot: 1 x 5.5, cross slot: PZ 2		
	Mounting	Surface mounting with 2 screws, DIN rail mounting (35 mm DIN rail acc. to EN 60715, 40 mm busbar systems 4/5-pole, 5/10 mm x 12 mm)		
	Mounting position	any		
	Supply side/load side	any		
Dimensions and weight	Size acc. to DIN 43880	5 (mounting on DIN-Rail); 6 (mounting on busbar)		
	Width	2 modules / pole		
	Pole dimensions (H x D x W)	see drawings		
	Pole weight	see order tables		
Accessories	Optional: version with factory assembled auxiliary switch (2 change-over contacts) Terminal covers Handle covers Busbar adapters DIN rail adapters Locking devices			

SMCBs

S700 series 25000 - selective main circuit-breakers, E_{selective} characteristic

1



S701

S700 E characteristic

Breakers of the S700 series are selective main circuit-breakers (SMCB) for overcurrent protection in electrical installations. They have total selectivity to downstream mcb's and outstanding selectivity to upstream protective devices due to unique current limiting selectivity. Since S700 breakers are designed for overvoltage category IV and incorporate isolation function, they are predestinated for the use in any main distribution cabinet or meter board.

The S700 product range is completed by a broad range of accessories. With dedicated adapters, S700 products can be assembled on flat surfaces, on DIN rails or 40 mm busbar systems. To adapt S700 to different installations, they are available 1- to 4-pole with tripping characteristic E and K - optional with factory assembled auxiliary switch.



S702

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	10	522507	S701-E10	GHS7015001R0449	0.55	kg	3 pc.
	16	522705	S701-E16	GHS7015001R0469			
	20	522903	S701-E20	GHS7015001R0489			
	25	523108	S701-E25	GHS7015001R0519			
	32	523207	S701-E32	GHS7015001R0529			
	35	523405	S701-E35	GHS7015001R0539			
	40	523603	S701-E40	GHS7015001R0559			
	50	523801	S701-E50	GHS7015001R0579			
	63	524006	S701-E63	GHS7015001R0599			
	80	524204	S701-E80	GHS7015001R0629			
	100	524402	S701-E100	GHS7015001R0639			

Number of poles	Rated current	Bbn 40 16779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	16	105200	S702-E16	GHS7025001R0469	1.1	kg	2 pc.
	20	949007 ①	S702-E20	GHS7025001R0489			
	25	104005	S702-E25	GHS7025001R0519			
	32	105408	S702-E32	GHS7025001R0529			
	35	105309	S702-E35	GHS7025001R0539			
	40	105507	S702-E40	GHS7025001R0559			
	50	105606	S702-E50	GHS7025001R0579			
	63	052009	S702-E63	GHS7025001R0599			
	80	109604	S702-E80	GHS7025001R0629			
		100	062503	S702-E100			

① bbn-Nr. 40 12233

Where to find more:

Selectivity coordination tables for S 700 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

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Maybe you are also interested in:

Auxiliary elements for S 700 MCBs - chapter 3

SMCBs

S700 series 25000 - selective main circuit-breakers, E_{selective} characteristic



S703

S0001B96



S704

S0012695

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	16	865703	S703-E16	GHS7035001R0469	1.65	kg	1 pc.
	20	526307	S703-E20	GHS7035001R0489			
	25	526505	S703-E25	GHS7035001R0519			
	32	526604	S703-E32	GHS7035001R0529			
	35	526802	S703-E35	GHS7035001R0539			
	40	527007	S703-E40	GHS7035001R0559			
	50	527205	S703-E50	GHS7035001R0579			
	63	527403	S703-E63	GHS7035001R0599			
	80	527601	S703-E80	GHS7035001R0629			
	100	527809	S703-E100	GHS7035001R0639			

Number of poles	Rated current	Bbn 40 16779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	16	110600	S704-E16	GHS7045001R0469	2.2	kg	1 pc.
	20	110709	S704-E20	GHS7045001R0489			
	25	104104	S704-E25	GHS7045001R0519			
	32	110808	S704-E32	GHS7045001R0529			
	35	104203	S704-E35	GHS7045001R0539			
	40	110907	S704-E40	GHS7045001R0559			
	50	111003	S704-E50	GHS7045001R0579			
	63	111102	S704-E63	GHS7045001R0599			
	80	111201	S704-E80	GHS7045001R0629			
	100	062602	S704-E100	GHS7045001R0639			

SMCBs

S700 series 25000 - selective main circuit-breakers, K_{selective} characteristic

1



S701



S702

S700 K characteristic

Breakers of the S700 series are selective main circuit-breakers (SMCB) for overcurrent protection in electrical installations. They have total selectivity to downstream mcb's and outstanding selectivity to upstream protective devices due to unique current limiting selectivity. Since S700 breakers are designed for overvoltage category IV and incorporate isolation function, they are predestinated for the use in any main distribution cabinet or meter board.

The S700 product range is completed by a broad range of accessories. With dedicated adapters, S700 products can be assembled on flat surfaces, on DIN rails or 40 mm busbar systems. To adapt S700 to different installations, they are available 1- to 4-pole with tripping characteristic E and K - optional with factory assembled auxiliary switch.

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	16	522606	S701-K16	GHS7015001R0467	0.55	kg	3
	20	522804	S701-K20	GHS7015001R0487			
	25	523009	S701-K25	GHS7015001R0517			
	35	523306	S701-K35	GHS7015001R0537			
	40	523504	S701-K40	GHS7015001R0557			
	50	523702	S701-K50	GHS7015001R0577			
	63	523900	S701-K63	GHS7015001R0597			
	80	524105	S701-K80	GHS7015001R0627			
	100	524303	S701-K100	GHS7015001R0637			

Number of poles	Rated current	Bbn 40 16779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	16	109802	S702-K16	GHS7025001R0467	1.1	kg	2
	20	109703	S702-K20	GHS7025001R0487			
	25	109901	S702-K25	GHS7025001R0517			
	35	110006	S702-K35	GHS7025001R0537			
	40	110105	S702-K40	GHS7025001R0557			
	50	110204	S702-K50	GHS7025001R0577			
	63	110303	S702-K63	GHS7025001R0597			
	80	110402	S702-K80	GHS7025001R0627			
	100	110501	S702-K100	GHS7025001R0637			

Where to find more:

Selectivity coordination tables for S 700 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

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Maybe you are also interested in:

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SMCBs

S700 series 25000 - selective main circuit-breakers, K_{selective} characteristic



S703

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	16	526109	S703-K16	GHS7035001R0467		1.65	1
	20	526208	S703-K20	GHS7035001R0487		1.65	1
	25	526406	S703-K25	GHS7035001R0517		1.65	1
	35	526703	S703-K35	GHS7035001R0537		1.65	1
	40	526901	S703-K40	GHS7035001R0557		1.65	1
	50	527106	S703-K50	GHS7035001R0577		1.65	1
	63	527304	S703-K63	GHS7035001R0597		1.65	1
	80	527502	S703-K80	GHS7035001R0627		1.65	1
	100	527700	S703-K100	GHS7035001R0637		1.65	1



S704

Number of poles	Rated current	Bbn 40 16779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	16	111300	S704-K16	GHS7045001R0467		2.2	1
	20	111409	S704-K20	GHS7045001R0487		2.2	1
	25	111508	S704-K25	GHS7045001R0517		2.2	1
	35	111607	S704-K35	GHS7045001R0537		2.2	1
	40	111706	S704-K40	GHS7045001R0557		2.2	1
	50	965205 ①	S704-K50	GHS7045001R0577		2.2	1
	63	955503 ①	S704-K63	GHS7045001R0597		2.2	1
	80	111805	S704-K80	GHS7045001R0627		2.2	1
	100	111904	S704-K100	GHS7045001R0637		2.2	1

① bbn-Nr. 40 12233

SMCBs

S700 series 25000 - selective main circuit-breakers, E_{selective} characteristic + H2WR

1



S701 + H2WR

S700 E characteristic

Breakers of the S700 series are selective main circuit-breakers (SMCB) for overcurrent protection in electrical installations. They have total selectivity to downstream mcb's and outstanding selectivity to upstream protective devices due to unique current limiting selectivity. Since S700 breakers are designed for overvoltage category IV and incorporate isolation function, they are predestinated for the use in any main distribution cabinet or meter board.

The S700 product range is completed by a broad range of accessories. With dedicated adapters, S700 products can be assembled on flat surfaces, on DIN rails or 40 mm busbar systems. To adapt S700 to different installations, they are available 1- to 4-pole with tripping characteristic E and K - optional with factory assembled auxiliary switch (H2WR).



S702 + H2WR

With factory assembled auxiliary switch (2 change-over contacts)

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	16	456609	S701-E16+H2WR	GHS7010316R0469		0.65	3
	20	456708	S701-E20+H2WR	GHS7010316R0489		0.65	3
	25	456807	S701-E25+H2WR	GHS7010316R0519		0.65	3
	32	456906	S701-E32+H2WR	GHS7010316R0529		0.65	3
	35	457002	S701-E35+H2WR	GHS7010316R0539		0.65	3
	40	457101	S701-E40+H2WR	GHS7010316R0559		0.65	3
	50	457200	S701-E50+H2WR	GHS7010316R0579		0.65	3
	63	457309	S701-E63+H2WR	GHS7010316R0599		0.65	3
	80	457408	S701-E80+H2WR	GHS7010316R0629		0.65	3
	100	457507	S701-E100+H2WR	GHS7010316R0639		0.65	3

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	16	458405	S702-E16+H2WR	GHS7020316R0469		1.2	2
	20	458504	S702-E20+H2WR	GHS7020316R0489		1.2	2
	25	458603	S702-E25+H2WR	GHS7020316R0519		1.2	2
	32	458702	S702-E32+H2WR	GHS7020316R0529		1.2	2
	35	458801	S702-E35+H2WR	GHS7020316R0539		1.2	2
	40	458900	S702-E40+H2WR	GHS7020316R0559		1.2	2
	50	459006	S702-E50+H2WR	GHS7020316R0579		1.2	2
	63	459105	S702-E63+H2WR	GHS7020316R0599		1.2	2
	80	459204	S702-E80+H2WR	GHS7020316R0629		1.2	2
	100	459303	S702-E100+H2WR	GHS7020316R0639		1.2	2

Where to find more:

Selectivity coordination tables for S 700 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

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SMCBs

S700 series 25000 - selective main circuit-breakers, E_{selective} characteristic + H2WR



S703 + H2WR

S0001B96



S704 + H2WR

S0012696

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	16	460200	S703-E16+H2WR	GHS7030316R0469		1.75	1
	20	460309	S703-E20+H2WR	GHS7030316R0489		1.75	1
	25	460408	S703-E25+H2WR	GHS7030316R0519		1.75	1
	32	460507	S703-E32+H2WR	GHS7030316R0529		1.75	1
	35	460606	S703-E35+H2WR	GHS7030316R0539		1.75	1
	40	460705	S703-E40+H2WR	GHS7030316R0559		1.75	1
	50	460804	S703-E50+H2WR	GHS7030316R0579		1.75	1
	63	460903	S703-E63+H2WR	GHS7030316R0599		1.75	1
	80	461009	S703-E80+H2WR	GHS7030316R0629		1.75	1
	100	461108	S703-E100+H2WR	GHS7030316R0639		1.75	1

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	16	462006	S704-E16+H2WR	GHS7040316R0469		2.3	1
	20	462105	S704-E20+H2WR	GHS7040316R0489		2.3	1
	25	462204	S704-E25+H2WR	GHS7040316R0519		2.3	1
	32	462303	S704-E32+H2WR	GHS7040316R0529		2.3	1
	35	462402	S704-E35+H2WR	GHS7040316R0539		2.3	1
	40	462501	S704-E40+H2WR	GHS7040316R0559		2.3	1
	50	462600	S704-E50+H2WR	GHS7040316R0579		2.3	1
	63	462709	S704-E63+H2WR	GHS7040316R0599		2.3	1
	80	462808	S704-E80+H2WR	GHS7040316R0629		2.3	1
	100	462907	S704-E100+H2WR	GHS7040316R0639		2.3	1

SMCBs

S700 series 25000 - selective main circuit-breakers, K_{selective} characteristic + H2WR

1



S701 + H2WR

S700 K characteristic

Breakers of the S700 series are selective main circuit-breakers (SMCB) for overcurrent protection in electrical installations. They have total selectivity to downstream mcb's and outstanding selectivity to upstream protective devices due to unique current limiting selectivity. Since S700 breakers are designed for overvoltage category IV and incorporate isolation function, they are predestinated for the use in any main distribution cabinet or meter board.

The S700 product range is completed by a broad range of accessories. With dedicated adapters, S700 products can be assembled on flat surfaces, on DIN rails or 40 mm busbar systems. To adapt S700 to different installations, they are available 1- to 4-pole with tripping characteristic E and K - optional with factory assembled auxiliary switch (H2WR).



S702 + H2WR

With factory assembled auxiliary switch (2 change-over contacts)

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	16	455800	S701-K16+H2WR	GHS7010316R0467	0.65	kg	3 pc.
	20	455909	S701-K20+H2WR	GHS7010316R0487			
	25	456005	S701-K25+H2WR	GHS7010316R0517			
	35	456104	S701-K35+H2WR	GHS7010316R0537			
	40	456203	S701-K40+H2WR	GHS7010316R0557			
	50	456302	S701-K50+H2WR	GHS7010316R0577			
	63	456401	S701-K63+H2WR	GHS7010316R0597			
	80	499651	S701-K80+H2WR	GHS7010316R0627			
	100	499729	S701-K100+H2WR	GHS7010316R0637			

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	16	457606	S702-K16+H2WR	GHS7020316R0467	1.2	kg	2 pc.
	20	457705	S702-K20+H2WR	GHS7020316R0487			
	25	457804	S702-K25+H2WR	GHS7020316R0517			
	35	457903	S702-K35+H2WR	GHS7020316R0537			
	40	458009	S702-K40+H2WR	GHS7020316R0557			
	50	458108	S702-K50+H2WR	GHS7020316R0577			
	63	458207	S702-K63+H2WR	GHS7020316R0597			
	80	499750	S702-K80+H2WR	GHS7020316R0627			
	100	499767	S702-K100+H2WR	GHS7020316R0637			

Where to find more:

Selectivity coordination tables for S 700 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Maybe you are also interested in:

Auxiliary elements for S 700 MCBs - chapter 3

SMCBs

S700 series 25000 - selective main circuit-breakers, K_{selective} characteristic + H2WR



S703 + H2WR

S0001B95



S704 + H2WR

S0012985

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	16	459402	S703-K16+H2WR	GHS7030316R0467		1.75	1
	20	459501	S703-K20+H2WR	GHS7030316R0487		1.75	1
	25	459600	S703-K25+H2WR	GHS7030316R0517		1.75	1
	35	459709	S703-K35+H2WR	GHS7030316R0537		1.75	1
	40	459808	S703-K40+H2WR	GHS7030316R0557		1.75	1
	50	459907	S703-K50+H2WR	GHS7030316R0577		1.75	1
	63	460002	S703-K63+H2WR	GHS7030316R0597		1.75	1
	80	499774	S703-K80+H2WR	GHS7030316R0627		1.75	1
	100	499781	S703-K100+H2WR	GHS7030316R0637		1.75	1

Number of poles	Rated current	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	16	461207	S704-K16+H2WR	GHS7040316R0467		2.3	1
	20	461306	S704-K20+H2WR	GHS7040316R0487		2.3	1
	25	461405	S704-K25+H2WR	GHS7040316R0517		2.3	1
	35	461504	S704-K35+H2WR	GHS7040316R0537		2.3	1
	40	461603	S704-K40+H2WR	GHS7040316R0557		2.3	1
	50	461702	S704-K50+H2WR	GHS7040316R0577		2.3	1
	63	461801	S704-K63+H2WR	GHS7040316R0597		2.3	1
	80	499798	S704-K80+H2WR	GHS7040316R0627		2.3	1
	100	499804	S704-K100+H2WR	GHS7040316R0637		2.3	1

SMCBs

Selective short-circuit current limiter WT63

1



WT63



WT63-3 HS

WT63 characteristic

WT63 is a short-circuit current limiter for 690 V AC applications.

In combination with other ABB devices WT63 offers smart solutions for coordinated motor protection according to IEC/EN 60947-4-1. As a main limiting device, WT63 can increase the short-circuit breaking capability for several groups of motor circuits to high values at 690 V AC. For further information according to selection and installation see the coordination table.

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	63	510677	WT63-3	2CDH103012R0599		1.65	1

with factory assembled auxiliary switch (2 change-over contacts)

Number of poles	Rated current	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	63	510684	WT63-3HS	2CDH103816R0599		1.75	1

New DS202C. Protection with unrivalled compactness.

With only 2 modules, the DS202C series of 2P residual current circuit-breakers with overcurrent protection (RCBOs) enables to save 50% of switchboard space compared to the conventional 4-modules solution. Available in a technologically advanced and comprehensive range, the DS202C can be applied in the tertiary sector, in large-sized industrial plants and in naval applications. The new series perfectly integrates with the System pro *M* compact® range, starting from the same profile, ensuring a nice and functional design in the installation. The maximum protection in only 2 modules.

www.abb.com



High Performance MCB S800

Incomparable performances

1

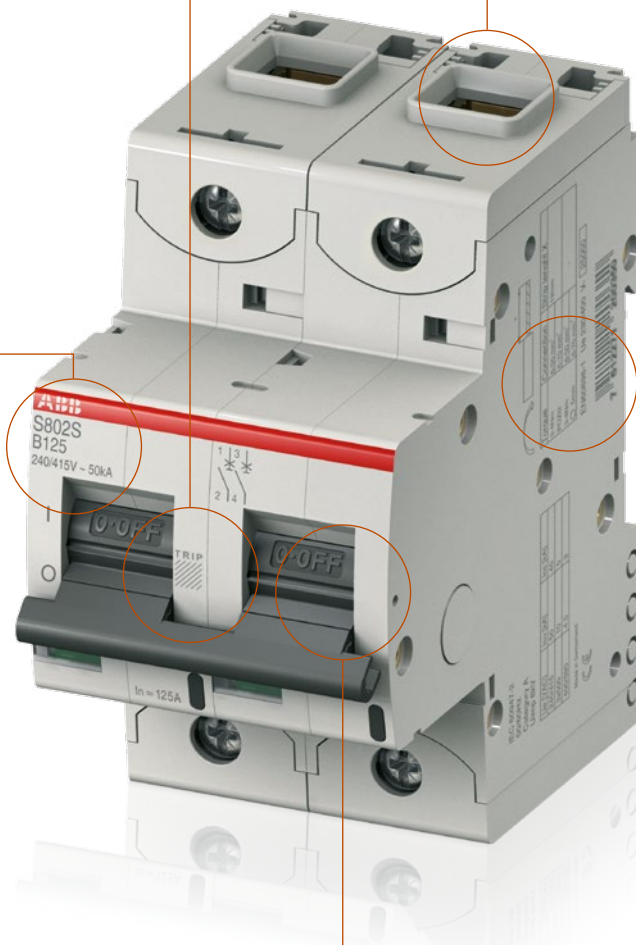
Clear identification of the reason of cut-off thanks to TRIP position of the toggle

Easy product name, easy identification, easy life.

Interchangeable terminal, failsafe cage or ring lug terminal

Quick identification of technical characteristics thanks to laser-printing of all data

Clear identification of the moving contact position thanks to toggle identification ON, OFF and TRIP position





Housing materials

In the S800 range of MCBs for traction, specific materials are used that are classified with an hazard level R26/HL3 according to EN 45545-2. Plastic materials are also classified I2-F3 according the NF F 16-101/102 (“Railway Rolling Stock Fire Behavior- Choice of Materials, and “Railway Rolling Stock Fire Behavior- Choice of Materials, Application to Electrical Equipment,”) thus responding to exigency 3.

Shock and vibration resistance

Additionally to the high quality standards and the flammability requirements, rail applications have specific demands that have to be fulfilled like resistance to shocks and vibrations. The resistance to vibrations and shocks of S800 has been positively tested according to: IEC 61373 – 2010 – 05 Edition 2.0 Rolling stock equipment – Shock and vibration tests considering Category 1, Class A and Class B.

Play it safe: display the operational state

The mechanical drive of the S800 high performance MCB is equipped with a trip-free release. The trip position display thereby always reliably displays the exact position of the moving contact. The trip position provides additional trip detection allowing to easily identify the reason for the cut-off. The switch lever moves to the middle position in case of thermal or magnetic tripping.



Cage and ring terminals

The S800 standard equipment with interchangeable terminal adapter for wires, cables and rigid conductors guarantees a high level of flexibility and comfort. Fast and safe connection of the conductors is ensured by the “onboard terminal shutter” integrated into the body of the terminal, thereby preventing incorrect underclamping of the connections.

Reliable: the disconnecter properties

In OFF position (0 position), the S800 high performance MCB guarantees safe electrical isolation of the circuit compliant to IEC 60947-2.

Wide range of accessories

S800 MCB range is completed with a wide range of accessories that enlarge the functions of the MCB not only as a protection devices, but even for control and monitor remotely the installation. The range of accessories include auxiliary contacts, aux/signal contacts, remote switching unit, short circuit limiter, shunt operation releases, undervoltage releases and busbars.

MCBs

S800 series technical features

1



S800

2CHC0119001F0002

		S800S B, C, D, K	S803S-KM KM
Tripping characteristics			
Standards		IEC/EN 60947-2, IEC/EN 60898-1	IEC/EN 60947-2
Poles		1 ... 4	3
Rated current I_n	A	6 ... 125	20 ... 80
Rated frequency f	Hz	50/60	50/60
Rated insulation voltage U_i acc. to IEC/EN 60664-1	V	AC 690	AC 690
Rated impulse withstand voltage U_{imp} (1.2/50µs)	kV	8	8
Overvoltage category		IV	IV
Pollution degree		3	3
Suitability for isolation		yes	yes
Data acc. to IEC/EN 60898-1			
Rated operational voltage U_e	V	AC 230/400	–
Rated short-circuit capacity I_{cn}	kA	Char. B, C, D: 230/400 V (10 ... 80 A) = 25 kA	–
Service short-circuit capacity I_{cs}	kA	Char. B, C, D: 230/400 V (10 ... 80 A) = 12.5 kA	–
Data acc. to IEC/EN 60947-2			
Rated operational voltage U_e	V	AC 400/690 1-pole: DC 125 2-pole: DC 250 3-pole: DC 375 4-pole: DC 500	AC 690
Rated ultimate short-circuit capacity I_{cu}	kA	AC 220 ... 240 V = 50 kA AC 240/415 V = 50 kA AC 254/440 V = 30 kA AC 400/690 V (up to 80 A) = 6 kA AC 400/690 V (100 ... 125 A) = 4.5 kA DC 125 V (1-pole) = 30 kA DC 250 V (2-pole) = 30 kA DC 375 V (3-pole) = 30 kA DC 500 V (4-pole) = 30 kA	AC 220 ... 240 V = 50 kA AC 240/415 V = 50 kA AC 254/440 V = 30 kA AC 400/690 V = 6 kA DC 375 V = 30 kA
Rated service short-circuit capacity I_{cs}	kA	AC 220 ... 240 = 40 kA AC 240/415 V = 40 kA AC 254/440 V (up to 80 A) = 22.5 kA AC 254/440 V (100 ... 125 A) = 15 kA AC 400/690 V (up to 80 A) = 4 kA AC 400/690 V (100 ... 125 A) = 3 kA DC 125 V (1-pole) = 30 kA DC 250 V (2-pole) = 30 kA DC 500 V (4-pole) = 30 kA	AC 220 ... 240 = 40 kA AC 240/415 V = 40 kA AC 254/440 V = 22.5 kA AC 400/690 V = 4 kA DC 375 V = 30 kA

Note: The minimum operating voltage for S800 is 12 VAC/VDC.

S800S-UC UCB, UCK	S800N B, C, D	S800C B, C, D, K
IEC/EN 60947-2	IEC/EN 60947-2, IEC/EN 60898-1	IEC/EN 60947-2, EN 60898-1
1 ... 4	1 ... 4	1 ... 4
10 ... 125	6 ... 125	10 ... 125
50/60	50/60	50/60
DC 1000	AC 690	AC 500
8	8	8
IV	IV	IV
1- and 2-pole: 3 3- and 4-pole: 2	3	3
yes	yes	yes
–	AC 230/400	AC 230/400
–	230/400V (10 ... 80A) = 20kA	Char. B, C, D: 230/400V = 15kA
–	230/400V (10 ... 80A) = 10kA	Char. B, C, D: 230/400V = 7.5kA
1-pole: DC 250 2-pole: DC 500 3-pole: DC 750 4-pole (63 ... 125A): DC 750 4-pole (10 ... 50A): DC 1000	AC 400/690 1-pole: DC 125 2-pole: DC 250 3-pole: DC 375 4-pole: DC 500	AC 254/440 1-pole: DC 125 2-pole: DC 250 3-pole: DC 375 4-pole: DC 500
DC 250V (1-pole) = 50kA DC 500V (2-pole) = 50kA DC 750V (3-pole) = 50kA DC 750V (4-pole) = 50kA	AC 220 ... 240V = 36kA AC 240/415V = 36kA AC 254/440V = 20kA AC 400/690V = 4.5kA DC 125V (1-pole) = 20kA DC 250V (2-pole) = 20kA DC 375V (3-pole) = 20kA DC 500V (4-pole) = 20kA	AC 220 ... 240V = 25kA AC 240/415V = 25kA AC 254/440V = 15kA DC 125V (1-pole) = 10kA DC 250V (2-pole) = 10kA DC 375V (3-pole) = 10kA
DC 250V (1-pole) = 50kA DC 500V (2-pole) = 50kA DC 750V (3-pole) = 50kA DC 750V (4-pole) = 50kA	AC 220 ... 240 = 30kA AC 240/415V = 30kA AC 254/440V (up to 80A) = 15kA AC 254/440V (100 ... 125A) = 10kA AC 400/690V = 3kA DC 125V (1-pole) = 20kA DC 250V (2-pole) = 20kA DC 375V (3-pole) = 20kA DC 500V (4-pole) = 20kA DC 375V (3-pole) = 30kA	AC 240/415V = 18kA AC 254/440V = 10kA DC 125V (1-pole) = 10kA DC 250V (2-pole) = 10kA DC 375V (3-pole) = 10kA DC 500V (4-pole) = 10kA

MCBs

S800 series technical features

1



S800

		S800B B, C, D, K
Tripping characteristics		
Standards		IEC 60947-2 EN 60898-1
Poles		1 ... 4
Rated current I_n	A	Char. B, C: 32 ... 125 Char. D, K: 32 ... 125
Rated frequency f	Hz	50/60
Rated insulation voltage U_i acc. to IEC/EN 60664-1	V	AC 500
Rated impulse withstand voltage U_{imp} (1.2/50 μ s)	kV	6
Overvoltage category		III
Pollution degree		3
Suitability for isolation		yes
Data acc. to IEC/EN 60898-1		
Rated operational voltage U_e	V	AC 230/400
Rated short-circuit capacity I_{cn}	kA	230/400V = 10 kA
Service short-circuit capacity I_{cs}	kA	230/400V = 7.5 kA
Data acc. to IEC/EN 60947-3		
Rated operational voltage U_e	V	–
Min. operating voltage	V	–
Rated short-term withstand current I_{cw}	kA	–
Rated short-circuit making capacity I_{cm}	kA	–
Utilisation category		–
Data acc. to IEC/EN 60947-2		
Rated operational voltage U_e	V	AC 230/400
Rated ultimate short-circuit capacity I_{cu}	kA	AC 230V = 16 kA AC 230/400V = 16 kA DC 75V (1-pole) = 10 kA DC 150V (2-pole) = 10 kA DC 225V (3-pole) = 10 kA DC 300V (4-pole) = 10 kA
Rated service short-circuit capacity I_{cs}	kA	AC 230V = 10 kA AC 230/400V = 10 kA
Data acc. to UL / CSA		
Rated voltage	V	
Short-circuit current rating acc. to UL 489	kA	
Short-circuit current rating acc. to UL 489B	kA	

S800HV K	S800U K, Z	S804U-UCZ UCZ
IEC/EN 60947-2	UL489 IEC 60947-2	UL489
1 ... 3	1 ... 4	4
6 ... 125	10 – 100	10 – 80
50/60	50/60	–
AC 1000	AC 690	DC 1500
8	8	8
III	IV	IV
2	3	3
yes	yes	yes
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
AC 580/1000	AC 240/415	DC 600
AC 580/1000	1-pole: AC 240V 30 kA	–
(6 ... 63 A) = 4kA	multipole: AC 415V 50kA	–
(80 ... 125 A) = 3kA		
2.5 (6 ... 63 A)	1-pole: AC 240V 25 kA	–
2 (80 ... 125 A)	multipole: AC 415V 40kA	–
	AC 240	DC 600
	1-pole 30 kA	10 kA
	multipole: 50 kA	

High performance MCBs

S800S series 50000 with cage terminal, B characteristic

1



S801S

S800S-B characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60898, IEC/EN 60947-2

Icn=25kA (10 ... 80A)

Icu=50 kA



S802S

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	6	408107	S801S-B6	2CCS861001R0065	0.245	kg	1 pc.
	8	411329	S801S-B8	2CCS861001R0085			
	10	200008	S801S-B10	2CCS861001R0105			
	13	200015	S801S-B13	2CCS861001R0135			
	16	200022	S801S-B16	2CCS861001R0165			
	20	200039	S801S-B20	2CCS861001R0205			
	25	200046	S801S-B25	2CCS861001R0255			
	32	200053	S801S-B32	2CCS861001R0325			
	40	200060	S801S-B40	2CCS861001R0405			
	50	200077	S801S-B50	2CCS861001R0505			
	63	200084	S801S-B63	2CCS861001R0635			
	80	200091	S801S-B80	2CCS861001R0805			
	100	200107	S801S-B100	2CCS861001R0825			
	125	200114	S801S-B125	2CCS861001R0845			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	6	408114	S802S-B6	2CCS862001R0065	0.49	kg	1 pc.
	8	411336	S802S-B8	2CCS862001R0085			
	10	200121	S802S-B10	2CCS862001R0105			
	13	200138	S802S-B13	2CCS862001R0135			
	16	200145	S802S-B16	2CCS862001R0165			
	20	200152	S802S-B20	2CCS862001R0205			
	25	200169	S802S-B25	2CCS862001R0255			
	32	200176	S802S-B32	2CCS862001R0325			
	40	200183	S802S-B40	2CCS862001R0405			
	50	200190	S802S-B50	2CCS862001R0505			
	63	200206	S802S-B63	2CCS862001R0635			
	80	200213	S802S-B80	2CCS862001R0805			
	100	200220	S802S-B100	2CCS862001R0825			
	125	200237	S802S-B125	2CCS862001R0845			

Where to find more:

Coordination tables for S 800N
MCBs: Chapter 1 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals of
MCBs - chapter 15

Frequently asked question - FAQ:

Where can I get certificates and
declaration?
You can find all of them on
www.abb.com

Maybe you are also interested in:

Auxiliary elements for S 800 MCBs -
chapter 3



S803S

2CCS413003F0002



S804S

2CCS413004F0002

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	408121	S803S-B6	2CCS863001R0065		0.735	1
	8	411343	S803S-B8	2CCS863001R0085		0.735	1
	10	200244	S803S-B10	2CCS863001R0105		0.735	1
	13	200251	S803S-B13	2CCS863001R0135		0.735	1
	16	200268	S803S-B16	2CCS863001R0165		0.735	1
	20	200275	S803S-B20	2CCS863001R0205		0.735	1
	25	200282	S803S-B25	2CCS863001R0255		0.735	1
	32	200299	S803S-B32	2CCS863001R0325		0.735	1
	40	200305	S803S-B40	2CCS863001R0405		0.735	1
	50	200312	S803S-B50	2CCS863001R0505		0.735	1
	63	200329	S803S-B63	2CCS863001R0635		0.735	1
	80	200336	S803S-B80	2CCS863001R0805		0.735	1
	100	200343	S803S-B100	2CCS863001R0825		0.735	1
	125	200350	S803S-B125	2CCS863001R0845		0.735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	6	408138	S804S-B6	2CCS864001R0065		0.98	1
	8	411350	S804S-B8	2CCS864001R0085		0.98	1
	10	200367	S804S-B10	2CCS864001R0105		0.98	1
	13	200374	S804S-B13	2CCS864001R0135		0.98	1
	16	200381	S804S-B16	2CCS864001R0165		0.98	1
	20	200398	S804S-B20	2CCS864001R0205		0.98	1
	25	200404	S804S-B25	2CCS864001R0255		0.98	1
	32	200411	S804S-B32	2CCS864001R0325		0.98	1
	40	200428	S804S-B40	2CCS864001R0405		0.98	1
	50	200435	S804S-B50	2CCS864001R0505		0.98	1
	63	200442	S804S-B63	2CCS864001R0635		0.98	1
	80	200459	S804S-B80	2CCS864001R0805		0.98	1
	100	200466	S804S-B100	2CCS864001R0825		0.98	1
	125	200473	S804S-B125	2CCS864001R0845		0.98	1

High performance MCBs

S800S series 50000 with ring terminal connection, B characteristic

1



S801S

2CCCS413078F0003



S802S

2CCCS413078F0003

S800S-B characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60898, IEC/EN 60947-2

Icn=25kA (10 ... 80A)

Icu=50 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	6	408268	S801S-B6-R	2CCS861002R0065	0,245	kg	1 pc.
	8	411480	S801S-B8-R	2CCS861002R0085			
	10	209636	S801S-B10-R	2CCS861002R0105			
	13	209643	S801S-B13-R	2CCS861002R0135			
	16	209650	S801S-B16-R	2CCS861002R0165			
	20	209667	S801S-B20-R	2CCS861002R0205			
	25	209674	S801S-B25-R	2CCS861002R0255			
	32	209681	S801S-B32-R	2CCS861002R0325			
	40	206826	S801S-B40-R	2CCS861002R0405			
	50	206833	S801S-B50-R	2CCS861002R0505			
	63	206840	S801S-B63-R	2CCS861002R0635			
	80	206857	S801S-B80-R	2CCS861002R0805			
	100	206864	S801S-B100-R	2CCS861002R0825			
125	206871	S801S-B125-R	2CCS861002R0845				

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	6	408275	S802S-B6-R	2CCS862002R0065	0,49	kg	1 pc.
	8	411497	S802S-B8-R	2CCS862002R0085			
	10	209698	S802S-B10-R	2CCS862002R0105			
	13	209704	S802S-B13-R	2CCS862002R0135			
	16	209711	S802S-B16-R	2CCS862002R0165			
	20	209728	S802S-B20-R	2CCS862002R0205			
	25	209735	S802S-B25-R	2CCS862002R0255			
	32	209742	S802S-B32-R	2CCS862002R0325			
	40	206888	S802S-B40-R	2CCS862002R0405			
	50	206895	S802S-B50-R	2CCS862002R0505			
	63	206901	S802S-B63-R	2CCS862002R0635			
	80	206918	S802S-B80-R	2CCS862002R0805			
	100	206925	S802S-B100-R	2CCS862002R0825			
125	206932	S802S-B125-R	2CCS862002R0845				

Where to find more:

Coordination tables for S 800 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Frequently asked question - FAQ:

Where can I get certificates and declaration?

You can find all of them on www.abb.com

Maybe you are also interested in:

Auxiliary elements for S 800 MCBs - chapter 3



S803S

2CCCH13080F0003



S804S

2CCCH13081F0003

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	408282	S803S-B6-R	2CCS863002R0065		0,735	1
	8	411503	S803S-B8-R	2CCS863002R0085		0,735	1
	10	209759	S803S-B10-R	2CCS863002R0105		0,735	1
	13	209766	S803S-B13-R	2CCS863002R0135		0,735	1
	16	209773	S803S-B16-R	2CCS863002R0165		0,735	1
	20	209780	S803S-B20-R	2CCS863002R0205		0,735	1
	25	209797	S803S-B25-R	2CCS863002R0255		0,735	1
	32	209803	S803S-B32-R	2CCS863002R0325		0,735	1
	40	206949	S803S-B40-R	2CCS863002R0405		0,735	1
	50	206956	S803S-B50-R	2CCS863002R0505		0,735	1
	63	206963	S803S-B63-R	2CCS863002R0635		0,735	1
	80	206970	S803S-B80-R	2CCS863002R0805		0,735	1
	100	206987	S803S-B100-R	2CCS863002R0825		0,735	1
	125	206994	S803S-B125-R	2CCS863002R0845		0,735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	6	408299	S804S-B6-R	2CCS864002R0065		0,98	1
	8	411510	S804S-B8-R	2CCS864002R0085		0,98	1
	10	209810	S804S-B10-R	2CCS864002R0105		0,98	1
	13	209827	S804S-B13-R	2CCS864002R0135		0,98	1
	16	209834	S804S-B16-R	2CCS864002R0165		0,98	1
	20	209841	S804S-B20-R	2CCS864002R0205		0,98	1
	25	209858	S804S-B25-R	2CCS864002R0255		0,98	1
	32	209865	S804S-B32-R	2CCS864002R0325		0,98	1
	40	207007	S804S-B40-R	2CCS864002R0405		0,98	1
	50	207014	S804S-B50-R	2CCS864002R0505		0,98	1
	63	207021	S804S-B63-R	2CCS864002R0635		0,98	1
	80	207038	S804S-B80-R	2CCS864002R0805		0,98	1
	100	207045	S804S-B100-R	2CCS864002R0825		0,98	1
	125	207052	S804S-B125-R	2CCS864002R0845		0,98	1

High performance MCBs

S800S series 50000 with cage terminal, C characteristic

1



S801S

S800S-C characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for resistive and inductive loads with low inrush current; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60898, IEC/EN 60947-2

Icn=25kA (10 ... 80A)

Icu=50 kA



S802S

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	6	408145	S801S-C6	2CCS861001R0064		0.245	1
	8	411367	S801S-C8	2CCS861001R0084		0.245	1
	10	200480	S801S-C10	2CCS861001R0104		0.245	1
	13	200497	S801S-C13	2CCS861001R0134		0.245	1
	16	200503	S801S-C16	2CCS861001R0164		0.245	1
	20	200510	S801S-C20	2CCS861001R0204		0.245	1
	25	200527	S801S-C25	2CCS861001R0254		0.245	1
	32	200534	S801S-C32	2CCS861001R0324		0.245	1
	40	200541	S801S-C40	2CCS861001R0404		0.245	1
	50	200558	S801S-C50	2CCS861001R0504		0.245	1
	63	200565	S801S-C63	2CCS861001R0634		0.245	1
	80	200572	S801S-C80	2CCS861001R0804		0.245	1
	100	200589	S801S-C100	2CCS861001R0824		0.245	1
	125	200596	S801S-C125	2CCS861001R0844		0.245	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	6	408152	S802S-C6	2CCS862001R0064		0.49	1
	8	411374	S802S-C8	2CCS862001R0084		0.49	1
	10	200602	S802S-C10	2CCS862001R0104		0.49	1
	13	200619	S802S-C13	2CCS862001R0134		0.49	1
	16	200626	S802S-C16	2CCS862001R0164		0.49	1
	20	200633	S802S-C20	2CCS862001R0204		0.49	1
	25	200640	S802S-C25	2CCS862001R0254		0.49	1
	32	200657	S802S-C32	2CCS862001R0324		0.49	1
	40	200664	S802S-C40	2CCS862001R0404		0.49	1
	50	200671	S802S-C50	2CCS862001R0504		0.49	1
	63	200688	S802S-C63	2CCS862001R0634		0.49	1
	80	200695	S802S-C80	2CCS862001R0804		0.49	1
	100	200701	S802S-C100	2CCS862001R0824		0.49	1
	125	200718	S802S-C125	2CCS862001R0844		0.49	1

Where to find more:

Coordination tables for S 800 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Frequently asked question - FAQ:

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S803S

2CCS413003F0002



S804S

2CCS413004F0002

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	408169	S803S-C6	2CCS863001R0064		0.735	1
	8	411381	S803S-C8	2CCS863001R0084		0.735	1
	10	200725	S803S-C10	2CCS863001R0104		0.735	1
	13	200732	S803S-C13	2CCS863001R0134		0.735	1
	16	200749	S803S-C16	2CCS863001R0164		0.735	1
	20	200756	S803S-C20	2CCS863001R0204		0.735	1
	25	200763	S803S-C25	2CCS863001R0254		0.735	1
	32	200770	S803S-C32	2CCS863001R0324		0.735	1
	40	200787	S803S-C40	2CCS863001R0404		0.735	1
	50	200794	S803S-C50	2CCS863001R0504		0.735	1
	63	200800	S803S-C63	2CCS863001R0634		0.735	1
	80	200817	S803S-C80	2CCS863001R0804		0.735	1
	100	200824	S803S-C100	2CCS863001R0824		0.735	1
	125	200831	S803S-C125	2CCS863001R0844		0.735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	6	408176	S804S-C6	2CCS864001R0064		0.98	1
	8	411398	S804S-C8	2CCS864001R0084		0.98	1
	10	200848	S804S-C10	2CCS864001R0104		0.98	1
	13	200855	S804S-C13	2CCS864001R0134		0.98	1
	16	200862	S804S-C16	2CCS864001R0164		0.98	1
	20	200879	S804S-C20	2CCS864001R0204		0.98	1
	25	200886	S804S-C25	2CCS864001R0254		0.98	1
	32	200893	S804S-C32	2CCS864001R0324		0.98	1
	40	200909	S804S-C40	2CCS864001R0404		0.98	1
	50	200916	S804S-C50	2CCS864001R0504		0.98	1
	63	200923	S804S-C63	2CCS864001R0634		0.98	1
	80	200930	S804S-C80	2CCS864001R0804		0.98	1
	100	200947	S804S-C100	2CCS864001R0824		0.98	1
	125	200954	S804S-C125	2CCS864001R0844		0.98	1

High performance MCBs

S800S series 50000 with ring terminal connection, C characteristic

1



S801S



S802S

S800S-C characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for resistive and inductive loads with low inrush current; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, IEC/EN 60898

Icn=25kA (10 ... 80A)

Icu=50 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	6	408305	S801S-C6-R	2CCS861002R0064	0,245	1	
	8	411527	S801S-C8-R	2CCS861002R0084			
	10	209872	S801S-C10-R	2CCS861002R0104			
	13	209889	S801S-C13-R	2CCS861002R0134			
	16	209896	S801S-C16-R	2CCS861002R0164			
	20	209902	S801S-C20-R	2CCS861002R0204			
	25	209919	S801S-C25-R	2CCS861002R0254			
	32	209926	S801S-C32-R	2CCS861002R0324			
	40	207069	S801S-C40-R	2CCS861002R0404			
	50	207076	S801S-C50-R	2CCS861002R0504			
	63	207083	S801S-C63-R	2CCS861002R0634			
	80	207090	S801S-C80-R	2CCS861002R0804			
	100	207106	S801S-C100-R	2CCS861002R0824			
	125	207113	S801S-C125-R	2CCS861002R0844			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	6	408312	S802S-C6-R	2CCS862002R0064	0,49	1	
	8	411534	S802S-C8-R	2CCS862001R0084			
	10	209933	S802S-C10-R	2CCS862002R0104			
	13	209940	S802S-C13-R	2CCS862002R0134			
	16	209957	S802S-C16-R	2CCS862002R0164			
	20	209964	S802S-C20-R	2CCS862002R0204			
	25	209971	S802S-C25-R	2CCS862002R0254			
	32	209988	S802S-C32-R	2CCS862002R0324			
	40	207120	S802S-C40-R	2CCS862002R0404			
	50	207137	S802S-C50-R	2CCS862002R0504			
	63	207144	S802S-C63-R	2CCS862002R0634			
	80	207151	S802S-C80-R	2CCS862002R0804			
	100	207168	S802S-C100-R	2CCS862002R0824			
	125	207175	S802S-C125-R	2CCS862002R0844			

Where to find more:

Coordination tables for S 800 MCBs:
Chapter 1 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals of
MCBs - chapter 15

Frequently asked question - FAQ:

Where can I get certificates and
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You can find all of them on
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chapter 3



S803S

2CCCA13084F003



S804S

2CCCA13085F003

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	408329	S803S-C6-R	2CCS863002R0064		0,735	1
	8	411541	S803S-C8-R	2CCS863002R0084		0,735	1
	10	209995	S803S-C10-R	2CCS863002R0104		0,735	1
	13	210007	S803S-C13-R	2CCS863002R0134		0,735	1
	16	210014	S803S-C16-R	2CCS863002R0164		0,735	1
	20	210021	S803S-C20-R	2CCS863002R0204		0,735	1
	25	210038	S803S-C25-R	2CCS863002R0254		0,735	1
	32	210045	S803S-C32-R	2CCS863002R0324		0,735	1
	40	207182	S803S-C40-R	2CCS863002R0404		0,735	1
	50	207199	S803S-C50-R	2CCS863002R0504		0,735	1
	63	207205	S803S-C63-R	2CCS863002R0634		0,735	1
	80	207212	S803S-C80-R	2CCS863002R0804		0,735	1
	100	207229	S803S-C100-R	2CCS863002R0824		0,735	1
	125	207236	S803S-C125-R	2CCS863002R0844		0,735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	6	408336	S804S-C6-R	2CCS864002R0064		0,98	1
	8	411558	S804S-C8-R	2CCS864002R0084		0,98	1
	10	210052	S804S-C10-R	2CCS864002R0104		0,98	1
	13	210069	S804S-C13-R	2CCS864002R0134		0,98	1
	16	210076	S804S-C16-R	2CCS864002R0164		0,98	1
	20	210083	S804S-C20-R	2CCS864002R0204		0,98	1
	25	210090	S804S-C25-R	2CCS864002R0254		0,98	1
	32	210106	S804S-C32-R	2CCS864002R0324		0,98	1
	40	207243	S804S-C40-R	2CCS864002R0404		0,98	1
	50	207250	S804S-C50-R	2CCS864002R0504		0,98	1
	63	207267	S804S-C63-R	2CCS864002R0634		0,98	1
	80	207274	S804S-C80-R	2CCS864002R0804		0,98	1
	100	207281	S804S-C100-R	2CCS864002R0824		0,98	1
	125	207298	S804S-C125-R	2CCS864002R0844		0,98	1

High performance MCBs

S800S series 50000 with cage terminal, D characteristic

1



S801S

S800S-D characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for circuits which supply loads with high inrush current at the circuit closing (motors, LV / LV transformers, breakdown lamps); very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60898, IEC/EN 60947-2

Icn=25kA (10 ... 80A)

Icu=50 kA



S802S

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	6	408183	S801S-D6	2CCS861001R0061		0.245	1
	8	411404	S801S-D8	2CCS861001R0081		0.245	1
	10	200961	S801S-D10	2CCS861001R0101		0.245	1
	13	200978	S801S-D13	2CCS861001R0131		0.245	1
	16	200985	S801S-D16	2CCS861001R0161		0.245	1
	20	200992	S801S-D20	2CCS861001R0201		0.245	1
	25	201005	S801S-D25	2CCS861001R0251		0.245	1
	32	201012	S801S-D32	2CCS861001R0321		0.245	1
	40	201029	S801S-D40	2CCS861001R0401		0.245	1
	50	201036	S801S-D50	2CCS861001R0501		0.245	1
	63	201043	S801S-D63	2CCS861001R0631		0.245	1
	80	201050	S801S-D80	2CCS861001R0801		0.245	1
	100	201067	S801S-D100	2CCS861001R0821		0.245	1
	125	201074	S801S-D125	2CCS861001R0841		0.245	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	6	408190	S802S-D6	2CCS862001R0061		0.49	1
	8	411411	S802S-D8	2CCS862001R0081		0.49	1
	10	201081	S802S-D10	2CCS862001R0101		0.49	1
	13	201098	S802S-D13	2CCS862001R0131		0.49	1
	16	201104	S802S-D16	2CCS862001R0161		0.49	1
	20	201111	S802S-D20	2CCS862001R0201		0.49	1
	25	201128	S802S-D25	2CCS862001R0251		0.49	1
	32	201135	S802S-D32	2CCS862001R0321		0.49	1
	40	201142	S802S-D40	2CCS862001R0401		0.49	1
	50	201159	S802S-D50	2CCS862001R0501		0.49	1
	63	201166	S802S-D63	2CCS862001R0631		0.49	1
	80	201173	S802S-D80	2CCS862001R0801		0.49	1
	100	201180	S802S-D100	2CCS862001R0821		0.49	1
	125	201197	S802S-D125	2CCS862001R0841		0.49	1

Where to find more:

Coordination tables for S 800 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

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Frequently asked question - FAQ:

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S803S

2CCS41303R0002



S804S

2CCS41304R0002

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	408206	S803S-D6	2CCS863001R0061		0.735	1
	8	411428	S803S-D8	2CCS863001R0081		0.735	1
	10	201203	S803S-D10	2CCS863001R0101		0.735	1
	13	201210	S803S-D13	2CCS863001R0131		0.735	1
	16	201227	S803S-D16	2CCS863001R0161		0.735	1
	20	201234	S803S-D20	2CCS863001R0201		0.735	1
	25	201241	S803S-D25	2CCS863001R0251		0.735	1
	32	201258	S803S-D32	2CCS863001R0321		0.735	1
	40	201265	S803S-D40	2CCS863001R0401		0.735	1
	50	201272	S803S-D50	2CCS863001R0501		0.735	1
	63	201289	S803S-D63	2CCS863001R0631		0.735	1
	80	201296	S803S-D80	2CCS863001R0801		0.735	1
	100	201302	S803S-D100	2CCS863001R0821		0.735	1
	125	201319	S803S-D125	2CCS863001R0841		0.735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	6	408213	S804S-D6	2CCS864001R0061		0.98	1
	8	411435	S804S-D8	2CCS864001R0081		0.98	1
	10	201326	S804S-D10	2CCS864001R0101		0.98	1
	13	201333	S804S-D13	2CCS864001R0131		0.98	1
	16	201340	S804S-D16	2CCS864001R0161		0.98	1
	20	201357	S804S-D20	2CCS864001R0201		0.98	1
	25	201364	S804S-D25	2CCS864001R0251		0.98	1
	32	201371	S804S-D32	2CCS864001R0321		0.98	1
	40	201388	S804S-D40	2CCS864001R0401		0.98	1
	50	201395	S804S-D50	2CCS864001R0501		0.98	1
	63	201401	S804S-D63	2CCS864001R0631		0.98	1
	80	201418	S804S-D80	2CCS864001R0801		0.98	1
	100	201425	S804S-D100	2CCS864001R0821		0.98	1
	125	201432	S804S-D125	2CCS864001R0841		0.98	1

High performance MCBs

S800S series 50000 with ring terminal connection, D characteristic

1



2CCS041308BF0003

S801S



2CCS041308BF0003

S802S

S800S-D characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for circuits which supply loads with high inrush current at the circuit closing (motors, LV / LV transformers, breakdown lamps); very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, IEC/EN 60898

Icn=25kA (10 ... 80A)

Icu=50 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	6	408343	S801S-D6-R	2CCS861002R0061	0,245	1	
	8	411565	S801S-D8-R	2CCS861002R0081			
	10	210113	S801S-D10-R	2CCS861002R0101			
	13	210120	S801S-D13-R	2CCS861002R0131			
	16	210137	S801S-D16-R	2CCS861002R0161			
	20	210144	S801S-D20-R	2CCS861002R0201			
	25	210151	S801S-D25-R	2CCS861002R0251			
	32	210168	S801S-D32-R	2CCS861002R0321			
	40	207304	S801S-D40-R	2CCS861002R0401			
	50	207311	S801S-D50-R	2CCS861002R0501			
	63	207328	S801S-D63-R	2CCS861002R0631			
	80	207335	S801S-D80-R	2CCS861002R0801			
	100	207342	S801S-D100-R	2CCS861002R0821			
	125	207359	S801S-D125-R	2CCS861002R0841			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	6	408350	S802S-D6-R	2CCS862002R0061	0,49	1	
	8	411572	S802S-D8-R	2CCS862002R0081			
	10	210175	S802S-D10-R	2CCS862002R0101			
	13	210182	S802S-D13-R	2CCS862002R0131			
	16	210199	S802S-D16-R	2CCS862002R0161			
	20	210205	S802S-D20-R	2CCS862002R0201			
	25	210212	S802S-D25-R	2CCS862002R0251			
	32	210229	S802S-D32-R	2CCS862002R0321			
	40	207366	S802S-D40-R	2CCS862002R0401			
	50	207373	S802S-D50-R	2CCS862002R0501			
	63	207380	S802S-D63-R	2CCS862002R0631			
	80	207397	S802S-D80-R	2CCS862002R0801			
	100	207403	S802S-D100-R	2CCS862002R0821			
	125	207410	S802S-D125-R	2CCS862002R0841			

Where to find more:

Coordination tables for S 800 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Frequently asked question - FAQ:

Where can I get certificates and declaration?
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Maybe you are also interested in:

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S803S

2CCCA13088F0003



S804S

2CCCA13089F0003

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	408367	S803S-D6-R	2CCS863002R0061		0,735	1
	8	411589	S803S-D8-R	2CCS863002R0081		0,735	1
	10	210236	S803S-D10-R	2CCS863002R0101		0,735	1
	13	210243	S803S-D13-R	2CCS863002R0131		0,735	1
	16	210250	S803S-D16-R	2CCS863002R0161		0,735	1
	20	210267	S803S-D20-R	2CCS863002R0201		0,735	1
	25	210274	S803S-D25-R	2CCS863002R0251		0,735	1
	32	210281	S803S-D32-R	2CCS863002R0321		0,735	1
	40	207427	S803S-D40-R	2CCS863002R0401		0,735	1
	50	207434	S803S-D50-R	2CCS863002R0501		0,735	1
	63	207441	S803S-D63-R	2CCS863002R0631		0,735	1
	80	207458	S803S-D80-R	2CCS863002R0801		0,735	1
	100	207465	S803S-D100-R	2CCS863002R0821		0,735	1
	125	207472	S803S-D125-R	2CCS863002R0841		0,735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	6	408374	S804S-D6-R	2CCS864002R0061		0,98	1
	8	411596	S804S-D8-R	2CCS864002R0081		0,98	1
	10	210298	S804S-D10-R	2CCS864002R0101		0,98	1
	13	210304	S804S-D13-R	2CCS864002R0131		0,98	1
	16	210311	S804S-D16-R	2CCS864002R0161		0,98	1
	20	210328	S804S-D20-R	2CCS864002R0201		0,98	1
	25	210335	S804S-D25-R	2CCS864002R0251		0,98	1
	32	210342	S804S-D32-R	2CCS864002R0321		0,98	1
	40	207489	S804S-D40-R	2CCS864002R0401		0,98	1
	50	207496	S804S-D50-R	2CCS864002R0501		0,98	1
	63	207502	S804S-D63-R	2CCS864002R0631		0,98	1
	80	207519	S804S-D80-R	2CCS864002R0801		0,98	1
	100	207526	S804S-D100-R	2CCS864002R0821		0,98	1
	125	207533	S804S-D125-R	2CCS864002R0841		0,98	1

High performance MCBs

S800S series 50000 with cage terminal, K characteristic

1



S801S

2CCCA13015F0001

S800S-K characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when a high breaking capacity is required; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Advantages: no nuisance tripping in the case of functional peak currents up to $10 \times I_n$, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=50 kA



S802S

2CCCA13002F0002

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	6	408220	S801S-K6	2CCS861001R0067		0.245	1
	8	411442	S801S-K8	2CCS861001R0407		0.245	1
	10	201449	S801S-K10	2CCS861001R0427		0.245	1
	13	201456	S801S-K13	2CCS861001R0447		0.245	1
	16	201463	S801S-K16	2CCS861001R0467		0.245	1
	20	201470	S801S-K20	2CCS861001R0487		0.245	1
	25	201487	S801S-K25	2CCS861001R0517		0.245	1
	32	201494	S801S-K32	2CCS861001R0537		0.245	1
	40	201500	S801S-K40	2CCS861001R0557		0.245	1
	50	201517	S801S-K50	2CCS861001R0577		0.245	1
	63	201524	S801S-K63	2CCS861001R0597		0.245	1
	80	201531	S801S-K80	2CCS861001R0627		0.245	1
	100	201548	S801S-K100	2CCS861001R0637		0.245	1
	125	201555	S801S-K125	2CCS861001R0647		0.245	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	6	408237	S802S-K6	2CCS862001R0067		0.49	1
	8	411459	S802S-K8	2CCS862001R0407		0.49	1
	10	201562	S802S-K10	2CCS862001R0427		0.49	1
	13	201579	S802S-K13	2CCS862001R0447		0.49	1
	16	201586	S802S-K16	2CCS862001R0467		0.49	1
	20	201593	S802S-K20	2CCS862001R0487		0.49	1
	25	201609	S802S-K25	2CCS862001R0517		0.49	1
	32	201616	S802S-K32	2CCS862001R0537		0.49	1
	40	201623	S802S-K40	2CCS862001R0557		0.49	1
	50	201630	S802S-K50	2CCS862001R0577		0.49	1
	63	201647	S802S-K63	2CCS862001R0597		0.49	1
	80	201654	S802S-K80	2CCS862001R0627		0.49	1
	100	201661	S802S-K100	2CCS862001R0637		0.49	1
	125	201678	S802S-K125	2CCS862001R0647		0.49	1

Where to find more:

Coordination tables for S 800 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Frequently asked question - FAQ:

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Maybe you are also interested in:

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S803S

2CCC413003F0002



S804S

2CCC413004F0002

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	408244	S803S-K6	2CCS863001R0067		0.735	1
	8	411466	S803S-K8	2CCS863001R0407		0.735	1
	10	201685	S803S-K10	2CCS863001R0427		0.735	1
	13	201692	S803S-K13	2CCS863001R0447		0.735	1
	16	201708	S803S-K16	2CCS863001R0467		0.735	1
	20	201715	S803S-K20	2CCS863001R0487		0.735	1
	25	201722	S803S-K25	2CCS863001R0517		0.735	1
	32	201739	S803S-K32	2CCS863001R0537		0.735	1
	40	201746	S803S-K40	2CCS863001R0557		0.735	1
	50	201753	S803S-K50	2CCS863001R0577		0.735	1
	63	201760	S803S-K63	2CCS863001R0597		0.735	1
	80	201777	S803S-K80	2CCS863001R0627		0.735	1
	100	201784	S803S-K100	2CCS863001R0637		0.735	1
	125	201791	S803S-K125	2CCS863001R0647		0.735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	6	408251	S804S-K6	2CCS864001R0067		0.98	1
	8	411473	S804S-K8	2CCS864001R0407		0.98	1
	10	201807	S804S-K10	2CCS864001R0427		0.98	1
	13	201814	S804S-K13	2CCS864001R0447		0.98	1
	16	201821	S804S-K16	2CCS864001R0467		0.98	1
	20	201838	S804S-K20	2CCS864001R0487		0.98	1
	25	201845	S804S-K25	2CCS864001R0517		0.98	1
	32	201852	S804S-K32	2CCS864001R0537		0.98	1
	40	201869	S804S-K40	2CCS864001R0557		0.98	1
	50	201876	S804S-K50	2CCS864001R0577		0.98	1
	63	201883	S804S-K63	2CCS864001R0597		0.98	1
	80	201890	S804S-K80	2CCS864001R0627		0.98	1
	100	201906	S804S-K100	2CCS864001R0637		0.98	1
	125	201913	S804S-K125	2CCS864001R0647		0.98	1

High performance MCBs

S800S series 50000 with ring terminal connection, K characteristic

1



2CCCH13090F0003

S801S



2CCCH13091F0003

S802S

S800S-K characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when a high breaking capacity is required; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.
Advantages: no nuisance tripping in the case of functional peak currents up to $10 \times I_n$, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=50 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	6	408381	S801S-K6-R	2CCS861002R0067		0,245	1
	8	411602	S801S-K8-R	2CCS861002R0407		0,245	1
	10	209391	S801S-K10-R	2CCS861002R0427		0,245	1
	13	209407	S801S-K13-R	2CCS861002R0447		0,245	1
	16	209414	S801S-K16-R	2CCS861002R0467		0,245	1
	20	209421	S801S-K20-R	2CCS861002R0487		0,245	1
	25	209438	S801S-K25-R	2CCS861002R0517		0,245	1
	32	209445	S801S-K32-R	2CCS861002R0537		0,245	1
	40	207540	S801S-K40-R	2CCS861002R0557		0,245	1
	50	207557	S801S-K50-R	2CCS861002R0577		0,245	1
	63	207564	S801S-K63-R	2CCS861002R0597		0,245	1
	80	207571	S801S-K80-R	2CCS861002R0627		0,245	1
	100	207588	S801S-K100-R	2CCS861002R0637		0,245	1
125	207595	S801S-K125-R	2CCS861002R0647		0,245	1	

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	6	408398	S802S-K6-R	2CCS862002R0067		0,49	1
	8	411619	S802S-K8-R	2CCS862002R0407		0,49	1
	10	209452	S802S-K10-R	2CCS862002R0427		0,49	1
	13	209469	S802S-K13-R	2CCS862002R0447		0,49	1
	16	209476	S802S-K16-R	2CCS862002R0467		0,49	1
	20	209483	S802S-K20-R	2CCS862002R0487		0,49	1
	25	209490	S802S-K25-R	2CCS862002R0517		0,49	1
	32	209506	S802S-K32-R	2CCS862002R0537		0,49	1
	40	207601	S802S-K40-R	2CCS862002R0557		0,49	1
	50	207618	S802S-K50-R	2CCS862002R0577		0,49	1
	63	207625	S802S-K63-R	2CCS862002R0597		0,49	1
	80	207632	S802S-K80-R	2CCS862002R0627		0,49	1
	100	207649	S802S-K100-R	2CCS862002R0637		0,49	1
125	207656	S802S-K125-R	2CCS862002R0647		0,49	1	

Where to find more:

Coordination tables for S 800 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

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Frequently asked question - FAQ:

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S803S

2CCS413092F003



S804S

2CCS413065F003

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	6	408404	S803S-K6-R	2CCS863002R0067		0,735	1
	8	411626	S803S-K8-R	2CCS863002R0407		0,735	1
	10	209513	S803S-K10-R	2CCS863002R0427		0,735	1
	13	209520	S803S-K13-R	2CCS863002R0447		0,735	1
	16	209537	S803S-K16-R	2CCS863002R0467		0,735	1
	20	209544	S803S-K20-R	2CCS863002R0487		0,735	1
	25	209551	S803S-K25-R	2CCS863002R0517		0,735	1
	32	209568	S803S-K32-R	2CCS863002R0537		0,735	1
	40	207663	S803S-K40-R	2CCS863002R0557		0,735	1
	50	207670	S803S-K50-R	2CCS863002R0577		0,735	1
	63	207687	S803S-K63-R	2CCS863002R0597		0,735	1
	80	207694	S803S-K80-R	2CCS863002R0627		0,735	1
	100	207700	S803S-K100-R	2CCS863002R0637		0,735	1
	125	207717	S803S-K125-R	2CCS863002R0647		0,735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	6	408411	S804S-K6-R	2CCS864002R0067		0,98	1
	8	411633	S804S-K8-R	2CCS864002R0407		0,98	1
	10	209575	S804S-K10-R	2CCS864002R0427		0,98	1
	13	209582	S804S-K13-R	2CCS864002R0447		0,98	1
	16	209599	S804S-K16-R	2CCS864002R0467		0,98	1
	20	209605	S804S-K20-R	2CCS864002R0487		0,98	1
	25	209612	S804S-K25-R	2CCS864002R0517		0,98	1
	32	209629	S804S-K32-R	2CCS864002R0537		0,98	1
	40	207724	S804S-K40-R	2CCS864002R0557		0,98	1
	50	207731	S804S-K50-R	2CCS864002R0577		0,98	1
	63	207748	S804S-K63-R	2CCS864002R0597		0,98	1
	80	207755	S804S-K80-R	2CCS864002R0627		0,98	1
	100	207762	S804S-K100-R	2CCS864002R0637		0,98	1
	125	207779	S804S-K125-R	2CCS864002R0647		0,98	1

High performance MCBs

S800S series 50000 with cage terminal, KM and KM-R characteristic

1



S803S

2CCCS86300R0002

S800S-KM characteristic with cage terminal

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; only magnetic version dedicated to protect motors; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=50 kA



S804S

2CCCS86300R0001

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	20	202194	S803S-KM20	2CCS863001R0486	0,735	1	1
	25	202200	S803S-KM25	2CCS863001R0516			
	32	202217	S803S-KM32	2CCS863001R0536			
	40	202224	S803S-KM40	2CCS863001R0556			
	50	202231	S803S-KM50	2CCS863001R0576			
	63	202248	S803S-KM63	2CCS863001R0596			
	80	202255	S803S-KM80	2CCS863001R0626			

S800S-KM-R characteristic with ring terminal connection

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; only magnetic version dedicated to protect motors; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=50 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	20	210830	S803S-KM20-R	2CCS863002R0486	0,735	1	1
	25	210847	S803S-KM25-R	2CCS863002R0516			
	32	210854	S803S-KM32-R	2CCS863002R0536			
	40	207786	S803S-KM40-R	2CCS863002R0556			
	50	207793	S803S-KM50-R	2CCS863002R0576			
	63	207809	S803S-KM63-R	2CCS863002R0596			
	80	207816	S803S-KM80-R	2CCS863002R0626			

Where to find more:

Coordination tables for S 800 MCBs:
Chapter 1 of
Solutions for electrical installation in
buildings - technical details

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Where can I get certificates and
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High performance MCBs

S800S series 50000 DC range with cage terminal, UC-B characteristic



2CC0C413223F0001

S801S



2CC0C413002F0002

S802S

S800S-UCB characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=50 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	10	202842	S801S-UCB10	2CCS861001R1105		0.245	1
	13	202859	S801S-UCB13	2CCS861001R1135		0.245	1
	16	202866	S801S-UCB16	2CCS861001R1165		0.245	1
	20	202873	S801S-UCB20	2CCS861001R1205		0.245	1
	25	202880	S801S-UCB25	2CCS861001R1255		0.245	1
	32	202897	S801S-UCB32	2CCS861001R1325		0.245	1
	40	202903	S801S-UCB40	2CCS861001R1405		0.245	1
	50	202910	S801S-UCB50	2CCS861001R1505		0.245	1
	63	202927	S801S-UCB63	2CCS861001R1635		0.245	1
	80	202934	S801S-UCB80	2CCS861001R1805		0.245	1
	100	202941	S801S-UCB100	2CCS861001R1825		0.245	1
	125	202958	S801S-UCB125	2CCS861001R1845		0.245	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	10	202965	S802S-UCB10	2CCS862001R1105		0.49	1
	13	202972	S802S-UCB13	2CCS862001R1135		0.49	1
	16	202989	S802S-UCB16	2CCS862001R1165		0.49	1
	20	202996	S802S-UCB20	2CCS862001R1205		0.49	1
	25	203009	S802S-UCB25	2CCS862001R1255		0.49	1
	32	203016	S802S-UCB32	2CCS862001R1325		0.49	1
	40	203023	S802S-UCB40	2CCS862001R1405		0.49	1
	50	203030	S802S-UCB50	2CCS862001R1505		0.49	1
	63	203047	S802S-UCB63	2CCS862001R1635		0.49	1
	80	203054	S802S-UCB80	2CCS862001R1805		0.49	1
	100	203061	S802S-UCB100	2CCS862001R1825		0.49	1
	125	203078	S802S-UCB125	2CCS862001R1845		0.49	1

High performance MCBs

S800S series 50000 DC range with cage terminal, UC-B characteristic

1



20CC413004F0002

S803S



20CC413004F0002

S804S

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	10	203085	S803S-UCB10	2CCS863001R1105		0.735	1
	13	203092	S803S-UCB13	2CCS863001R1135		0.735	1
	16	203108	S803S-UCB16	2CCS863001R1165		0.735	1
	20	203115	S803S-UCB20	2CCS863001R1205		0.735	1
	25	203122	S803S-UCB25	2CCS863001R1255		0.735	1
	32	203139	S803S-UCB32	2CCS863001R1325		0.735	1
	40	203146	S803S-UCB40	2CCS863001R1405		0.735	1
	50	203153	S803S-UCB50	2CCS863001R1505		0.735	1
	63	203160	S803S-UCB63	2CCS863001R1635		0.735	1
	80	203177	S803S-UCB80	2CCS863001R1805		0.735	1
	100	203184	S803S-UCB100	2CCS863001R1825		0.735	1
	125	203191	S803S-UCB125	2CCS863001R1845		0.735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	203207	S804S-UCB10	2CCS864001R1105		0.98	1
	13	203214	S804S-UCB13	2CCS864001R1135		0.98	1
	16	203221	S804S-UCB16	2CCS864001R1165		0.98	1
	20	203238	S804S-UCB20	2CCS864001R1205		0.98	1
	25	203245	S804S-UCB25	2CCS864001R1255		0.98	1
	32	203252	S804S-UCB32	2CCS864001R1325		0.98	1
	40	203269	S804S-UCB40	2CCS864001R1405		0.98	1
	50	203276	S804S-UCB50	2CCS864001R1505		0.98	1
	63	203283	S804S-UCB63	2CCS864001R1635		0.98	1
	80	203290	S804S-UCB80	2CCS864001R1805		0.98	1
	100	203306	S804S-UCB100	2CCS864001R1825		0.98	1
	125	203313	S804S-UCB125	2CCS864001R1845		0.98	1

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S800S series 50000 DC range with ring terminal connection, UC-B characteristic



20CC413231F0001

S801S



20CC413232F0001

S802S

S800S-UCB characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=50 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	10	210359	S801S-UCB10-R	2CCS861002R1105		0,245	1
	13	210366	S801S-UCB13-R	2CCS861002R1135		0,245	1
	16	210373	S801S-UCB16-R	2CCS861002R1165		0,245	1
	20	210380	S801S-UCB20-R	2CCS861002R1205		0,245	1
	25	210397	S801S-UCB25-R	2CCS861002R1255		0,245	1
	32	210403	S801S-UCB32-R	2CCS861002R1325		0,245	1
	40	208424	S801S-UCB40-R	2CCS861002R1405		0,245	1
	50	208431	S801S-UCB50-R	2CCS861002R1505		0,245	1
	63	208448	S801S-UCB63-R	2CCS861002R1635		0,245	1
	80	208455	S801S-UCB80-R	2CCS861002R1805		0,245	1
	100	208462	S801S-UCB100-R	2CCS861002R1825		0,245	1
	125	208479	S801S-UCB125-R	2CCS861002R1845		0,245	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	10	210410	S802S-UCB10-R	2CCS862002R1105		0,49	1
	13	210427	S802S-UCB13-R	2CCS862002R1135		0,49	1
	16	210434	S802S-UCB16-R	2CCS862002R1165		0,49	1
	20	210441	S802S-UCB20-R	2CCS862002R1205		0,49	1
	25	210458	S802S-UCB25-R	2CCS862002R1255		0,49	1
	32	210465	S802S-UCB32-R	2CCS862002R1325		0,49	1
	40	208486	S802S-UCB40-R	2CCS862002R1405		0,49	1
	50	208493	S802S-UCB50-R	2CCS862002R1505		0,49	1
	63	208509	S802S-UCB63-R	2CCS862002R1635		0,49	1
	80	208516	S802S-UCB80-R	2CCS862002R1805		0,49	1
	100	208523	S802S-UCB100-R	2CCS862002R1825		0,49	1
	125	208530	S802S-UCB125-R	2CCS862002R1845		0,49	1

High performance MCBs

S800S series 50000 DC range with ring terminal connection, UC-B characteristic

1



S803S

20CC413233F0001



S804S

20CC413234F0001

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	10	210472	S803S-UCB10-R	2CCS863002R1105	0,735	kg	1 pc.
	13	210489	S803S-UCB13-R	2CCS863002R1135			
	16	210496	S803S-UCB16-R	2CCS863002R1165			
	20	210502	S803S-UCB20-R	2CCS863002R1205			
	25	210519	S803S-UCB25-R	2CCS863002R1255			
	32	210526	S803S-UCB32-R	2CCS863002R1325			
	40	208547	S803S-UCB40-R	2CCS863002R1405			
	50	208554	S803S-UCB50-R	2CCS863002R1505			
	63	208561	S803S-UCB63-R	2CCS863002R1635			
	80	208578	S803S-UCB80-R	2CCS863002R1805			
	100	208585	S803S-UCB100-R	2CCS863002R1825			
	125	208592	S803S-UCB125-R	2CCS863002R1845			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	210533	S804S-UCB10-R	2CCS864002R1105	0,98	kg	1 pc.
	13	210540	S804S-UCB13-R	2CCS864002R1135			
	16	210557	S804S-UCB16-R	2CCS864002R1165			
	20	210564	S804S-UCB20-R	2CCS864002R1205			
	25	210571	S804S-UCB25-R	2CCS864002R1255			
	32	210588	S804S-UCB32-R	2CCS864002R1325			
	40	208608	S804S-UCB40-R	2CCS864002R1405			
	50	208615	S804S-UCB50-R	2CCS864002R1505			
	63	208622	S804S-UCB63-R	2CCS864002R1635			
	80	208639	S804S-UCB80-R	2CCS864002R1805			
	100	208646	S804S-UCB100-R	2CCS864002R1825			
	125	208653	S804S-UCB125-R	2CCS864002R1845			

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High performance MCBs

S800S series 50000 DC range with cage terminal, UC-K characteristic



2CCCA13223F0001

S801S



2CCCA13009F0002

S802S

S800S-UCK characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when a high breaking capacity is required; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to $10I_n$, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=50 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	10	203320	S801S-UCK10	2CCS861001R1427		0.245	1
	13	203337	S801S-UCK13	2CCS861001R1447		0.245	1
	16	203344	S801S-UCK16	2CCS861001R1467		0.245	1
	20	203351	S801S-UCK20	2CCS861001R1487		0.245	1
	25	203368	S801S-UCK25	2CCS861001R1517		0.245	1
	32	203375	S801S-UCK32	2CCS861001R1537		0.245	1
	40	203382	S801S-UCK40	2CCS861001R1557		0.245	1
	50	203399	S801S-UCK50	2CCS861001R1577		0.245	1
	63	203405	S801S-UCK63	2CCS861001R1597		0.245	1
	80	203412	S801S-UCK80	2CCS861001R1627		0.245	1
	100	203429	S801S-UCK100	2CCS861001R1637		0.245	1
	125	203436	S801S-UCK125	2CCS861001R1647		0.245	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	10	203443	S802S-UCK10	2CCS862001R1427		0.49	1
	13	203450	S802S-UCK13	2CCS862001R1447		0.49	1
	16	203467	S802S-UCK16	2CCS862001R1467		0.49	1
	20	203474	S802S-UCK20	2CCS862001R1487		0.49	1
	25	203481	S802S-UCK25	2CCS862001R1517		0.49	1
	32	203498	S802S-UCK32	2CCS862001R1537		0.49	1
	40	203504	S802S-UCK40	2CCS862001R1557		0.49	1
	50	203511	S802S-UCK50	2CCS862001R1577		0.49	1
	63	203528	S802S-UCK63	2CCS862001R1597		0.49	1
	80	203535	S802S-UCK80	2CCS862001R1627		0.49	1
	100	203542	S802S-UCK100	2CCS862001R1637		0.49	1
	125	203559	S802S-UCK125	2CCS862001R1647		0.49	1

High performance MCBs

S800S series 50000 DC range with cage terminal, UC-K characteristic

1



S803S



S804S

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	10	203566	S803S-UCK10	2CCS863001R1427	0.735	kg	1 pc.
	13	203573	S803S-UCK13	2CCS863001R1447			
	16	203580	S803S-UCK16	2CCS863001R1467			
	20	203597	S803S-UCK20	2CCS863001R1487			
	25	203603	S803S-UCK25	2CCS863001R1517			
	32	203610	S803S-UCK32	2CCS863001R1537			
	40	203627	S803S-UCK40	2CCS863001R1557			
	50	203634	S803S-UCK50	2CCS863001R1577			
	63	203641	S803S-UCK63	2CCS863001R1597			
	80	203658	S803S-UCK80	2CCS863001R1627			
	100	203665	S803S-UCK100	2CCS863001R1637			
	125	203672	S803S-UCK125	2CCS863001R1647			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	203689	S804S-UCK10	2CCS864001R1427	0.98	kg	1 pc.
	13	203696	S804S-UCK13	2CCS864001R1447			
	16	203702	S804S-UCK16	2CCS864001R1467			
	20	203719	S804S-UCK20	2CCS864001R1487			
	25	203726	S804S-UCK25	2CCS864001R1517			
	32	203733	S804S-UCK32	2CCS864001R1537			
	40	203740	S804S-UCK40	2CCS864001R1557			
	50	203757	S804S-UCK50	2CCS864001R1577			
	63	203764	S804S-UCK63	2CCS864001R1597			
	80	203771	S804S-UCK80	2CCS864001R1627			
	100	203788	S804S-UCK100	2CCS864001R1637			
	125	203795	S804S-UCK125	2CCS864001R1647			

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S800S series 50000 DC range with ring terminal connection, UC-K characteristic



S801S



S802S

S800S-UCK characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when a high breaking capacity is required; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream; version dedicated to application in direct current circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to $10xI_n$, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=50 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	10	210595	S801S-UCK10-R	2CCS861002R1427	0,245	kg	1 pc.
	13	210601	S801S-UCK13-R	2CCS861002R1447			
	16	210618	S801S-UCK16-R	2CCS861002R1467			
	20	210625	S801S-UCK20-R	2CCS861002R1487			
	25	210632	S801S-UCK25-R	2CCS861002R1517			
	32	210649	S801S-UCK32-R	2CCS861002R1537			
	40	208660	S801S-UCK40-R	2CCS861002R1557			
	50	208677	S801S-UCK50-R	2CCS861002R1577			
	63	208684	S801S-UCK63-R	2CCS861002R1597			
	80	208691	S801S-UCK80-R	2CCS861002R1627			
	100	208707	S801S-UCK100-R	2CCS861002R1637			
	125	208714	S801S-UCK125-R	2CCS861002R1647			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	10	210656	S802S-UCK10-R	2CCS862002R1427	0,490	kg	1 pc.
	13	210663	S802S-UCK13-R	2CCS862002R1447			
	16	210670	S802S-UCK16-R	2CCS862002R1467			
	20	210687	S802S-UCK20-R	2CCS862002R1487			
	25	210694	S802S-UCK25-R	2CCS862002R1517			
	32	210700	S802S-UCK32-R	2CCS862002R1537			
	40	208721	S802S-UCK40-R	2CCS862002R1557			
	50	208738	S802S-UCK50-R	2CCS862002R1577			
	63	208745	S802S-UCK63-R	2CCS862002R1597			
	80	208752	S802S-UCK80-R	2CCS862002R1627			
	100	208769	S802S-UCK100-R	2CCS862002R1637			
	125	208776	S802S-UCK125-R	2CCS862002R1647			

High performance MCBs

S800S series 50000 DC range with ring terminal connection, UC-K characteristic

1



S803S



S804S

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	10	210717	S803S-UCK10-R	2CCS863002R1427		0,735	1
	13	210724	S803S-UCK13-R	2CCS863002R1447		0,735	1
	16	210731	S803S-UCK16-R	2CCS863002R1467		0,735	1
	20	210748	S803S-UCK20-R	2CCS863002R1487		0,735	1
	25	210755	S803S-UCK25-R	2CCS863002R1517		0,735	1
	32	210762	S803S-UCK32-R	2CCS863002R1537		0,735	1
	40	208783	S803S-UCK40-R	2CCS863002R1557		0,735	1
	50	208790	S803S-UCK50-R	2CCS863002R1577		0,735	1
	63	208806	S803S-UCK63-R	2CCS863002R1597		0,735	1
	80	208813	S803S-UCK80-R	2CCS863002R1627		0,735	1
	100	208820	S803S-UCK100-R	2CCS863002R1637		0,735	1
	125	208837	S803S-UCK125-R	2CCS863002R1647		0,735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	210779	S804S-UCK10-R	2CCS864002R1427		0,98	1
	13	210786	S804S-UCK13-R	2CCS864002R1447		0,98	1
	16	210793	S804S-UCK16-R	2CCS864002R1467		0,98	1
	20	210809	S804S-UCK20-R	2CCS864002R1487		0,98	1
	25	210816	S804S-UCK25-R	2CCS864002R1517		0,98	1
	32	210823	S804S-UCK32-R	2CCS864002R1537		0,98	1
	40	208844	S804S-UCK40-R	2CCS864002R1557		0,98	1
	50	208851	S804S-UCK50-R	2CCS864002R1577		0,98	1
	63	208868	S804S-UCK63-R	2CCS864002R1597		0,98	1
	80	208875	S804S-UCK80-R	2CCS864002R1627		0,98	1
	100	208882	S804S-UCK100-R	2CCS864002R1637		0,98	1
	125	208899	S804S-UCK125-R	2CCS864002R1647		0,98	1

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High performance MCBs

S800N series 36000 with cage terminal, B characteristic



S801N



S802N

S800N-B characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60898, IEC/EN 60947-2

Icn=20 kA (10 ... 80 A)

Icu=36 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	10	203801	S801N-B10	2CCS891001R0105		0.24	1
	13	203818	S801N-B13	2CCS891001R0135		0.24	1
	16	203825	S801N-B16	2CCS891001R0165		0.24	1
	20	203832	S801N-B20	2CCS891001R0205		0.24	1
	25	203849	S801N-B25	2CCS891001R0255		0.24	1
	32	203856	S801N-B32	2CCS891001R0325		0.24	1
	40	203863	S801N-B40	2CCS891001R0405		0.24	1
	50	203870	S801N-B50	2CCS891001R0505		0.24	1
	63	203887	S801N-B63	2CCS891001R0635		0.24	1
	80	203894	S801N-B80	2CCS891001R0805		0.24	1
	100	203900	S801N-B100	2CCS891001R0825		0.24	1
	125	203917	S801N-B125	2CCS891001R0845		0.24	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	10	203924	S802N-B10	2CCS892001R0105		0.48	1
	13	203931	S802N-B13	2CCS892001R0135		0.48	1
	16	203948	S802N-B16	2CCS892001R0165		0.48	1
	20	203955	S802N-B20	2CCS892001R0205		0.48	1
	25	203962	S802N-B25	2CCS892001R0255		0.48	1
	32	203979	S802N-B32	2CCS892001R0325		0.48	1
	40	203986	S802N-B40	2CCS892001R0405		0.48	1
	50	203993	S802N-B50	2CCS892001R0505		0.48	1
	63	204006	S802N-B63	2CCS892001R0635		0.48	1
	80	204013	S802N-B80	2CCS892001R0805		0.48	1
	100	204020	S802N-B100	2CCS892001R0825		0.48	1
	125	204037	S802N-B125	2CCS892001R0845		0.48	1

Where to find more:

Coordination tables for S 800N MCBs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs p.12/162

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High performance MCBs

S800N series 36000 with cage terminal, B characteristic

1



2CCC4132Z8F001

S803N



2CCC4132Z8F001

S804N

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	10	204044	S803N-B10	2CCS893001R0105	0.72	kg	1 pc.
	13	204051	S803N-B13	2CCS893001R0135			
	16	204068	S803N-B16	2CCS893001R0165			
	20	204075	S803N-B20	2CCS893001R0205			
	25	204082	S803N-B25	2CCS893001R0255			
	32	204099	S803N-B32	2CCS893001R0325			
	40	204105	S803N-B40	2CCS893001R0405			
	50	204112	S803N-B50	2CCS893001R0505			
	63	204129	S803N-B63	2CCS893001R0635			
	80	204136	S803N-B80	2CCS893001R0805			
	100	204143	S803N-B100	2CCS893001R0825			
	125	204150	S803N-B125	2CCS893001R0845			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	204167	S804N-B10	2CCS894001R0105	0.96	kg	1 pc.
	13	204174	S804N-B13	2CCS894001R0135			
	16	204181	S804N-B16	2CCS894001R0165			
	20	204198	S804N-B20	2CCS894001R0205			
	25	204204	S804N-B25	2CCS894001R0255			
	32	204211	S804N-B32	2CCS894001R0325			
	40	204228	S804N-B40	2CCS894001R0405			
	50	204235	S804N-B50	2CCS894001R0505			
	63	204242	S804N-B63	2CCS894001R0635			
	80	204259	S804N-B80	2CCS894001R0805			
	100	204266	S804N-B100	2CCS894001R0825			
	125	204273	S804N-B125	2CCS894001R0845			

Where to find more:

Coordination tables for S 800 MCBs:
Chapter 1 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals of
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High performance MCBs

S800N series 36000 with cage terminal, C characteristic



2CC0413223F0001

S801N



2CC0413224F0001

S802N

S800N-C characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for resistive and inductive loads with low inrush current; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60898, IEC/EN 60947-2

Icn=20 kA (10 ... 80 A)

Icu=36 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	10	204280	S801N-C10	2CCS891001R0104		0.24	1
	13	204297	S801N-C13	2CCS891001R0134		0.24	1
	16	204303	S801N-C16	2CCS891001R0164		0.24	1
	20	204310	S801N-C20	2CCS891001R0204		0.24	1
	25	204327	S801N-C25	2CCS891001R0254		0.24	1
	32	204334	S801N-C32	2CCS891001R0324		0.24	1
	40	204341	S801N-C40	2CCS891001R0404		0.24	1
	50	204358	S801N-C50	2CCS891001R0504		0.24	1
	63	204365	S801N-C63	2CCS891001R0634		0.24	1
	80	204372	S801N-C80	2CCS891001R0804		0.24	1
	100	204389	S801N-C100	2CCS891001R0824		0.24	1
	125	204396	S801N-C125	2CCS891001R0844		0.24	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	10	204402	S802N-C10	2CCS892001R0104		0.48	1
	13	204419	S802N-C13	2CCS892001R0134		0.48	1
	16	204426	S802N-C16	2CCS892001R0164		0.48	1
	20	204433	S802N-C20	2CCS892001R0204		0.48	1
	25	204440	S802N-C25	2CCS892001R0254		0.48	1
	32	204457	S802N-C32	2CCS892001R0324		0.48	1
	40	204464	S802N-C40	2CCS892001R0404		0.48	1
	50	204471	S802N-C50	2CCS892001R0504		0.48	1
	63	204488	S802N-C63	2CCS892001R0634		0.48	1
	80	204495	S802N-C80	2CCS892001R0804		0.48	1
	100	204501	S802N-C100	2CCS892001R0824		0.48	1
	125	204518	S802N-C125	2CCS892001R0844		0.48	1

High performance MCBs

S800N series 36000 with cage terminal, C characteristic

1



2CC04132Z5P0001

S803N



2CC04132Z5P0001

S804N

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	10	204525	S803N-C10	2CCS893001R0104	0.72	kg	1 pc.
	13	204532	S803N-C13	2CCS893001R0134			
	16	204549	S803N-C16	2CCS893001R0164			
	20	204556	S803N-C20	2CCS893001R0204			
	25	204563	S803N-C25	2CCS893001R0254			
	32	204570	S803N-C32	2CCS893001R0324			
	40	204587	S803N-C40	2CCS893001R0404			
	50	204594	S803N-C50	2CCS893001R0504			
	63	204600	S803N-C63	2CCS893001R0634			
	80	204617	S803N-C80	2CCS893001R0804			
	100	204624	S803N-C100	2CCS893001R0824			
	125	204631	S803N-C125	2CCS893001R0844			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	204648	S804N-C10	2CCS894001R0104	0.96	kg	1 pc.
	13	204655	S804N-C13	2CCS894001R0134			
	16	204662	S804N-C16	2CCS894001R0164			
	20	204679	S804N-C20	2CCS894001R0204			
	25	204686	S804N-C25	2CCS894001R0254			
	32	204693	S804N-C32	2CCS894001R0324			
	40	204709	S804N-C40	2CCS894001R0404			
	50	204716	S804N-C50	2CCS894001R0504			
	63	204723	S804N-C63	2CCS894001R0634			
	80	204730	S804N-C80	2CCS894001R0804			
	100	204747	S804N-C100	2CCS894001R0824			
	125	204754	S804N-C125	2CCS894001R0844			

Where to find more:

Coordination tables for S 800 MCBs:
Chapter 1 of
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High performance MCBs

S800N series 36000 with cage terminal, D characteristic



S801N



S802N

S800N-D characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for circuits which supply loads with high inrush current at the circuit closing (motors, LV / LV transformers, breakdown lamps); very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60898, IEC/EN 60947-2

I_{cn}=20 kA (10 ... 80 A)

I_{cu}=36 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	10	204761	S801N-D10	2CCS891001R0101		0.245	1
	13	204778	S801N-D13	2CCS891001R0131		0.245	1
	16	204785	S801N-D16	2CCS891001R0161		0.245	1
	20	204792	S801N-D20	2CCS891001R0201		0.245	1
	25	204808	S801N-D25	2CCS891001R0251		0.245	1
	32	204815	S801N-D32	2CCS891001R0321		0.245	1
	40	204822	S801N-D40	2CCS891001R0401		0.245	1
	50	204839	S801N-D50	2CCS891001R0501		0.245	1
	63	204846	S801N-D63	2CCS891001R0631		0.245	1
	80	204853	S801N-D80	2CCS891001R0801		0.245	1
	100	204860	S801N-D100	2CCS891001R0821		0.245	1
	125	204877	S801N-D125	2CCS891001R0841		0.245	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	10	204884	S802N-D10	2CCS892001R0101		0.49	1
	13	204891	S802N-D13	2CCS892001R0131		0.49	1
	16	204907	S802N-D16	2CCS892001R0161		0.49	1
	20	204914	S802N-D20	2CCS892001R0201		0.49	1
	25	204921	S802N-D25	2CCS892001R0251		0.49	1
	32	204938	S802N-D32	2CCS892001R0321		0.49	1
	40	204945	S802N-D40	2CCS892001R0401		0.49	1
	50	204952	S802N-D50	2CCS892001R0501		0.49	1
	63	204969	S802N-D63	2CCS892001R0631		0.49	1
	80	204976	S802N-D80	2CCS892001R0801		0.49	1
	100	204983	S802N-D100	2CCS892001R0821		0.49	1
	125	204990	S802N-D125	2CCS892001R0841		0.49	1

High performance MCBs

S800N series 36000 with cage terminal, D characteristic

1



2CCCH13225F0001

S803N



2CCCH13228F0001

S804N

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	10	205003	S803N-D10	2CCS893001R0101	0.735	kg	1 pc.
	13	205010	S803N-D13	2CCS893001R0131			
	16	205027	S803N-D16	2CCS893001R0161			
	20	205034	S803N-D20	2CCS893001R0201			
	25	205041	S803N-D25	2CCS893001R0251			
	32	205058	S803N-D32	2CCS893001R0321			
	40	205065	S803N-D40	2CCS893001R0401			
	50	205072	S803N-D50	2CCS893001R0501			
	63	205089	S803N-D63	2CCS893001R0631			
	80	205096	S803N-D80	2CCS893001R0801			
	100	205102	S803N-D100	2CCS893001R0821			
	125	205119	S803N-D125	2CCS893001R0841			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	205126	S804N-D10	2CCS894001R0101	0.98	kg	1 pc.
	13	205133	S804N-D13	2CCS894001R0131			
	16	205140	S804N-D16	2CCS894001R0161			
	20	205157	S804N-D20	2CCS894001R0201			
	25	205164	S804N-D25	2CCS894001R0251			
	32	205171	S804N-D32	2CCS894001R0321			
	40	205188	S804N-D40	2CCS894001R0401			
	50	205195	S804N-D50	2CCS894001R0501			
	63	205201	S804N-D63	2CCS894001R0631			
	80	205218	S804N-D80	2CCS894001R0801			
	100	205225	S804N-D100	2CCS894001R0821			
	125	205232	S804N-D125	2CCS894001R0841			

Where to find more:

Coordination tables for S 800 MCBs:
Chapter 1 of
Solutions for electrical installation in
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Worldwide marks and approvals of
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High performance MCBs

S800C series [25000] with cage terminal, B characteristic



S801C



S802C

S800C-B characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, IEC/EN 60898

Icn=15 kA

Icu=25 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	10	212087	S801C-B10	2CCS881001R0105		0.245	1
	13	212247	S801C-B13	2CCS881001R0135		0.245	1
	16	212407	S801C-B16	2CCS881001R0165		0.245	1
	20	212568	S801C-B20	2CCS881001R0205		0.245	1
	25	212728	S801C-B25	2CCS881001R0255		0.245	1
	32	212889	S801C-B32	2CCS881001R0325		0.245	1
	40	213046	S801C-B40	2CCS881001R0405		0.245	1
	50	213206	S801C-B50	2CCS881001R0505		0.245	1
	63	213367	S801C-B63	2CCS881001R0635		0.245	1
	80	213527	S801C-B80	2CCS881001R0805		0.245	1
	100	213688	S801C-B100	2CCS881001R0825		0.245	1
	125	213848	S801C-B125	2CCS881001R0845		0.245	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	10	212094	S802C-B10	2CCS882001R0105		0.49	1
	13	212254	S802C-B13	2CCS882001R0135		0.49	1
	16	212414	S802C-B16	2CCS882001R0165		0.49	1
	20	212575	S802C-B20	2CCS882001R0205		0.49	1
	25	212735	S802C-B25	2CCS882001R0255		0.49	1
	32	212896	S802C-B32	2CCS882001R0325		0.49	1
	40	213053	S802C-B40	2CCS882001R0405		0.49	1
	50	213213	S802C-B50	2CCS882001R0505		0.49	1
	63	213374	S802C-B63	2CCS882001R0635		0.49	1
	80	213534	S802C-B80	2CCS882001R0805		0.49	1
	100	213695	S802C-B100	2CCS882001R0825		0.49	1
	125	213855	S802C-B125	2CCS882001R0845		0.49	1

Where to find more:

Coordination tables for S 800 MCBs:
Chapter 2 of
Solutions for electrical installation in
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p.4/56

High performance MCBs

S800C series 25000 with cage terminal, B characteristic

1



S803C

2CCSC413003HF0021



S804C

2CCSC413004HF0021

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	10	212100	S803C-B10	2CCS883001R0105	0.735	kg	1 pc.
	13	212261	S803C-B13	2CCS883001R0135			
	16	212421	S803C-B16	2CCS883001R0165			
	20	212582	S803C-B20	2CCS883001R0205			
	25	212742	S803C-B25	2CCS883001R0255			
	32	212902	S803C-B32	2CCS883001R0325			
	40	213060	S803C-B40	2CCS883001R0405			
	50	213220	S803C-B50	2CCS883001R0505			
	63	213381	S803C-B63	2CCS883001R0635			
	80	213541	S803C-B80	2CCS883001R0805			
	100	213701	S803C-B100	2CCS883001R0825			
	125	213862	S803C-B125	2CCS883001R0845			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	212117	S804C-B10	2CCS884001R0105	0.98	kg	1 pc.
	13	212278	S804C-B13	2CCS884001R0135			
	16	212438	S804C-B16	2CCS884001R0165			
	20	212599	S804C-B20	2CCS884001R0205			
	25	212759	S804C-B25	2CCS884001R0255			
	32	212919	S804C-B32	2CCS884001R0325			
	40	213077	S804C-B40	2CCS884001R0405			
	50	213237	S804C-B50	2CCS884001R0505			
	63	213398	S804C-B63	2CCS884001R0635			
	80	213558	S804C-B80	2CCS884001R0805			
	100	213718	S804C-B100	2CCS884001R0825			
	125	213879	S804C-B125	2CCS884001R0845			

Where to find more:

Back-up coordination tables for S 800C MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Frequently asked question - FAQ:

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Maybe you are also interested in:

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High performance MCBs

S800C series 25000 with cage terminal, C characteristic



S801C

2CCS413001F021



S802C

2CCS413002F021

S800C-C characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, IEC/EN 60898

Icn=15 kA

Icu=25 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	10	212124	S801C-C10	2CCS881001R0104		0.245	1
	13	212285	S801C-C13	2CCS881001R0134		0.245	1
	16	212445	S801C-C16	2CCS881001R0164		0.245	1
	20	212605	S801C-C20	2CCS881001R0204		0.245	1
	25	212766	S801C-C25	2CCS881001R0254		0.245	1
	32	212926	S801C-C32	2CCS881001R0324		0.245	1
	40	213084	S801C-C40	2CCS881001R0404		0.245	1
	50	213244	S801C-C50	2CCS881001R0504		0.245	1
	63	213404	S801C-C63	2CCS881001R0634		0.245	1
	80	213565	S801C-C80	2CCS881001R0804		0.245	1
	100	213725	S801C-C100	2CCS881001R0824		0.245	1
	125	213886	S801C-C125	2CCS881001R0844		0.245	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	10	212131	S802C-C10	2CCS882001R0104		0.49	1
	13	212292	S802C-C13	2CCS882001R0134		0.49	1
	16	212452	S802C-C16	2CCS882001R0164		0.49	1
	20	212612	S802C-C20	2CCS882001R0204		0.49	1
	25	212773	S802C-C25	2CCS882001R0254		0.49	1
	32	212933	S802C-C32	2CCS882001R0324		0.49	1
	40	213091	S802C-C40	2CCS882001R0404		0.49	1
	50	213251	S802C-C50	2CCS882001R0504		0.49	1
	63	213411	S802C-C63	2CCS882001R0634		0.49	1
	80	213572	S802C-C80	2CCS882001R0804		0.49	1
	100	213732	S802C-C100	2CCS882001R0824		0.49	1
	125	213893	S802C-C125	2CCS882001R0844		0.49	1

High performance MCBs

S800C series 25000 with cage terminal, C characteristic

1



2CCS413003F021

S803C



2CCS413004F021

S804C

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	10	212148	S803C-C10	2CCS883001R0104	0.735	kg	1 pc.
	13	212308	S803C-C13	2CCS883001R0134			
	16	212469	S803C-C16	2CCS883001R0164			
	20	212629	S803C-C20	2CCS883001R0204			
	25	212780	S803C-C25	2CCS883001R0254			
	32	212940	S803C-C32	2CCS883001R0324			
	40	213107	S803C-C40	2CCS883001R0404			
	50	213268	S803C-C50	2CCS883001R0504			
	63	213428	S803C-C63	2CCS883001R0634			
	80	213589	S803C-C80	2CCS883001R0804			
	100	213749	S803C-C100	2CCS883001R0824			
	125	213909	S803C-C125	2CCS883001R0844			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	212155	S804C-C10	2CCS884001R0104	0.98	kg	1 pc.
	13	212315	S804C-C13	2CCS884001R0134			
	16	212476	S804C-C16	2CCS884001R0164			
	20	212636	S804C-C20	2CCS884001R0204			
	25	212797	S804C-C25	2CCS884001R0254			
	32	212957	S804C-C32	2CCS884001R0324			
	40	213114	S804C-C40	2CCS884001R0404			
	50	213275	S804C-C50	2CCS884001R0504			
	63	213435	S804C-C63	2CCS884001R0634			
	80	213596	S804C-C80	2CCS884001R0804			
	100	213756	S804C-C100	2CCS884001R0824			
	125	213916	S804C-C125	2CCS884001R0844			

Where to find more:

Back-up coordination tables for S 800C MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Frequently asked question - FAQ:

Where can I get certificates and declaration?
You can find all of them on www.abb.com

Maybe you are also interested in:

Auxiliary elements for S 800 MCBs - chapter 3

High performance MCBs

S800C series 25000 with cage terminal, D characteristic



S801C

S800C-D characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, IEC/EN 60898

Icn=15kA

Icu=25 kA



S802C

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	10	212162	S801C-D10	2CCS881001R0101		0.245	1
	13	212322	S801C-D13	2CCS881001R0131		0.245	1
	16	212483	S801C-D16	2CCS881001R0161		0.245	1
	20	212643	S801C-D20	2CCS881001R0201		0.245	1
	25	212803	S801C-D25	2CCS881001R0251		0.245	1
	32	212964	S801C-D32	2CCS881001R0321		0.245	1
	40	213121	S801C-D40	2CCS881001R0401		0.245	1
	50	213282	S801C-D50	2CCS881001R0501		0.245	1
	63	213442	S801C-D63	2CCS881001R0631		0.245	1
	80	213602	S801C-D80	2CCS881001R0801		0.245	1
	100	213763	S801C-D100	2CCS881001R0821		0.245	1
	125	213923	S801C-D125	2CCS881001R0841		0.245	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	10	212179	S802C-D10	2CCS882001R0101		0.49	1
	13	212339	S802C-D13	2CCS882001R0131		0.49	1
	16	212490	S802C-D16	2CCS882001R0161		0.49	1
	20	212650	S802C-D20	2CCS882001R0201		0.49	1
	25	212810	S802C-D25	2CCS882001R0251		0.49	1
	32	212971	S802C-D32	2CCS882001R0321		0.49	1
	40	213138	S802C-D40	2CCS882001R0401		0.49	1
	50	213299	S802C-D50	2CCS882001R0501		0.49	1
	63	213459	S802C-D63	2CCS882001R0631		0.49	1
	80	213619	S802C-D80	2CCS882001R0801		0.49	1
	100	213770	S802C-D100	2CCS882001R0821		0.49	1
	125	213930	S802C-D125	2CCS882001R0841		0.49	1

High performance MCBs

S800C series 25000 with cage terminal, D characteristic

1



S803C



S804C

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	10	212186	S803C-D10	2CCS883001R0101	0.735	kg	1 pc.
	13	212346	S803C-D13	2CCS883001R0131			
	16	212506	S803C-D16	2CCS883001R0161			
	20	212667	S803C-D20	2CCS883001R0201			
	25	212827	S803C-D25	2CCS883001R0251			
	32	212988	S803C-D32	2CCS883001R0321			
	40	213145	S803C-D40	2CCS883001R0401			
	50	213305	S803C-D50	2CCS883001R0501			
	63	213466	S803C-D63	2CCS883001R0631			
	80	213626	S803C-D80	2CCS883001R0801			
	100	213787	S803C-D100	2CCS883001R0821			
	125	213947	S803C-D125	2CCS883001R0841			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	212193	S804C-D10	2CCS884001R0101	0.98	kg	1 pc.
	13	212353	S804C-D13	2CCS884001R0131			
	16	212513	S804C-D16	2CCS884001R0161			
	20	212674	S804C-D20	2CCS884001R0201			
	25	212834	S804C-D25	2CCS884001R0251			
	32	212995	S804C-D32	2CCS884001R0321			
	40	213152	S804C-D40	2CCS884001R0401			
	50	213312	S804C-D50	2CCS884001R0501			
	63	213473	S804C-D63	2CCS884001R0631			
	80	213633	S804C-D80	2CCS884001R0801			
	100	213794	S804C-D100	2CCS884001R0821			
	125	213954	S804C-D125	2CCS884001R0841			

Where to find more:

Back-up coordination tables for S 800C MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Frequently asked question - FAQ:

Where can I get certificates and declaration?
You can find all of them on www.abb.com

Maybe you are also interested in:

Auxiliary elements for S 800 MCBs - chapter 3

High performance MCBs

S800C series [25000] with cage terminal, K characteristic



S801C

2CCS413001R0021



S802C

2CCS413002F0021

S800C-K characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu=25 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	10	212209	S801C-K10	2CCS881001R0427		0.245	1
	13	212360	S801C-K13	2CCS881001R0447		0.245	1
	16	212520	S801C-K16	2CCS881001R0467		0.245	1
	20	212681	S801C-K20	2CCS881001R0487		0.245	1
	25	212841	S801C-K25	2CCS881001R0517		0.245	1
	32	213008	S801C-K32	2CCS881001R0537		0.245	1
	40	213169	S801C-K40	2CCS881001R0557		0.245	1
	50	213329	S801C-K50	2CCS881001R0577		0.245	1
	63	213480	S801C-K63	2CCS881001R0597		0.245	1
	80	213640	S801C-K80	2CCS881001R0627		0.245	1
	100	213800	S801C-K100	2CCS881001R0637		0.245	1
	125	213961	S801C-K125	2CCS881001R0647		0.245	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	10	212216	S802C-K10	2CCS882001R0427		0.49	1
	13	212377	S802C-K13	2CCS882001R0447		0.49	1
	16	212537	S802C-K16	2CCS882001R0467		0.49	1
	20	212698	S802C-K20	2CCS882001R0487		0.49	1
	25	212858	S802C-K25	2CCS882001R0517		0.49	1
	32	213015	S802C-K32	2CCS882001R0537		0.49	1
	40	213176	S802C-K40	2CCS882001R0557		0.49	1
	50	213336	S802C-K50	2CCS882001R0577		0.49	1
	63	213497	S802C-K63	2CCS882001R0597		0.49	1
	80	213657	S802C-K80	2CCS882001R0627		0.49	1
	100	213817	S802C-K100	2CCS882001R0637		0.49	1
	125	213978	S802C-K125	2CCS882001R0647		0.49	1

High performance MCBs

S800C series 25000 with cage terminal, K characteristic

1



2CCS413003F0021

S803C



2CCS413004F0021

S804C

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	10	212223	S803C-K10	2CCS883001R0427		0.735	1
	13	212384	S803C-K13	2CCS883001R0447		0.735	1
	16	212544	S803C-K16	2CCS883001R0467		0.735	1
	20	212704	S803C-K20	2CCS883001R0487		0.735	1
	25	212865	S803C-K25	2CCS883001R0517		0.735	1
	32	213022	S803C-K32	2CCS883001R0537		0.735	1
	40	213183	S803C-K40	2CCS883001R0557		0.735	1
	50	213343	S803C-K50	2CCS883001R0577		0.735	1
	63	213503	S803C-K63	2CCS883001R0597		0.735	1
	80	213664	S803C-K80	2CCS883001R0627		0.735	1
	100	213824	S803C-K100	2CCS883001R0637		0.735	1
	125	213985	S803C-K125	2CCS883001R0647		0.735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	212230	S804C-K10	2CCS884001R0427		0.98	1
	13	212391	S804C-K13	2CCS884001R0447		0.98	1
	16	212551	S804C-K16	2CCS884001R0467		0.98	1
	20	212711	S804C-K20	2CCS884001R0487		0.98	1
	25	212872	S804C-K25	2CCS884001R0517		0.98	1
	32	213039	S804C-K32	2CCS884001R0537		0.98	1
	40	213190	S804C-K40	2CCS884001R0557		0.98	1
	50	213350	S804C-K50	2CCS884001R0577		0.98	1
	63	213510	S804C-K63	2CCS884001R0597		0.98	1
	80	213671	S804C-K80	2CCS884001R0627		0.98	1
	100	213831	S804C-K100	2CCS884001R0637		0.98	1
	125	213992	S804C-K125	2CCS884001R0647		0.98	1

Where to find more:

Back-up coordination tables for S 800C MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Frequently asked question - FAQ:

Where can I get certificates and declaration?
You can find all of them on www.abb.com

Maybe you are also interested in:

Auxiliary elements for S 800 MCBs - chapter 3

High performance MCBs

S800B series 16000 with cage terminal, B characteristic



S801B

S800B-B characteristic

Function: protection and control of the circuits against overloads and short-circuits. With its lower breaking capacity it is designed to meet the needs of the sub-distributions.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, EN 60898

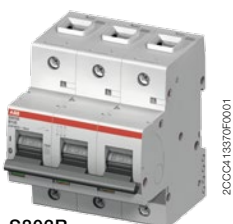
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Icu=16 kA



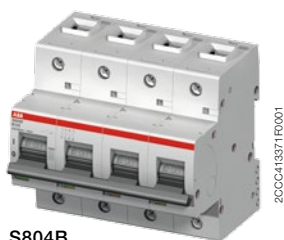
S802B

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	32	415303	S801B-B32	2CCS811001R0325		0.24	1
	40	416539	S801B-B40	2CCS811001R0405		0.24	1
	50	416577	S801B-B50	2CCS811001R0505		0.24	1
	63	416614	S801B-B63	2CCS811001R0635		0.24	1
	80	416652	S801B-B80	2CCS811001R0805		0.24	1
	100	416690	S801B-B100	2CCS811001R0825		0.24	1
	125	416737	S801B-B125	2CCS811001R0845		0.24	1



S803B

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	32	416508	S802B-B32	2CCS812001R0325		0.49	1
	40	416546	S802B-B40	2CCS812001R0405		0.49	1
	50	416584	S802B-B50	2CCS812001R0505		0.49	1
	63	416621	S802B-B63	2CCS812001R0635		0.49	1
	80	416669	S802B-B80	2CCS812001R0805		0.49	1
	100	416706	S802B-B100	2CCS812001R0825		0.49	1
	125	416744	S802B-B125	2CCS812001R0845		0.49	1



S804B

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	32	416515	S803B-B32	2CCS813001R0325		0.74	1
	40	416553	S803B-B40	2CCS813001R0405		0.74	1
	50	416591	S803B-B50	2CCS813001R0505		0.74	1
	63	416638	S803B-B63	2CCS813001R0635		0.74	1
	80	416676	S803B-B80	2CCS813001R0805		0.74	1
	100	416713	S803B-B100	2CCS813001R0825		0.74	1
	125	416751	S803B-B125	2CCS813001R0845		0.74	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	32	416522	S804B-B32	2CCS814001R0325		0.98	1
	40	416560	S804B-B40	2CCS814001R0405		0.98	1
	50	416607	S804B-B50	2CCS814001R0505		0.98	1
	63	416645	S804B-B63	2CCS814001R0635		0.98	1
	80	416683	S804B-B80	2CCS814001R0805		0.98	1
	100	416720	S804B-B100	2CCS814001R0825		0.98	1
	125	416768	S804B-B125	2CCS814001R0845		0.98	1

Where to find more:

Back-up coordination tables for S 800B MCBs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs p.15/162

Frequently asked question - FAQ:

Where can I get certificates and declaration? You can find all of them on www.abb.com

Maybe you are also interested in:

Auxiliary elements for S 800 MCBs p.4/56

High performance MCBs

S800B series [16000] with cage terminal, C characteristic

1



S801B

S800B-C characteristic

Function: protection and control of the circuits against overloads and short-circuits. With its lower breaking capacity it is designed to meet the needs of the sub-distributions.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, EN 60898

Icn=10kA

Icu=16 kA



S802B



S803B



S804B

Where to find more:

Back-up coordination tables for S 800B MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Frequently asked question - FAQ:

Where can I get certificates and declaration? You can find all of them on www.abb.com

Maybe you are also interested in:

Auxiliary elements for S 800 MCBs - chapter 3

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	32	16225	S801B-C32	2CCS811001R0324	0.24	kg	1 pc.
	40	16263	S801B-C40	2CCS811001R0404			
	50	16300	S801B-C50	2CCS811001R0504			
	63	16348	S801B-C63	2CCS811001R0634			
	80	16386	S801B-C80	2CCS811001R0804			
	100	16423	S801B-C100	2CCS811001R0824			
	125	16461	S801B-C125	2CCS811001R0844			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	32	16232	S802B-C32	2CCS812001R0324	0.49	kg	1 pc.
	40	16270	S802B-C40	2CCS812001R0404			
	50	16317	S802B-C50	2CCS812001R0504			
	63	16355	S802B-C63	2CCS812001R0634			
	80	16393	S802B-C80	2CCS812001R0804			
	100	16430	S802B-C100	2CCS812001R0824			
	125	16478	S802B-C125	2CCS812001R0844			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	32	16249	S803B-C32	2CCS813001R0324	0.74	kg	1 pc.
	40	16287	S803B-C40	2CCS813001R0404			
	50	16324	S803B-C50	2CCS813001R0504			
	63	16362	S803B-C63	2CCS813001R0634			
	80	16409	S803B-C80	2CCS813001R0804			
	100	16447	S803B-C100	2CCS813001R0824			
	125	16485	S803B-C125	2CCS813001R0844			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	32	16256	S804B-C32	2CCS814001R0324	0.98	kg	1 pc.
	40	16294	S804B-C40	2CCS814001R0404			
	50	16331	S804B-C50	2CCS814001R0504			
	63	16379	S804B-C63	2CCS814001R0634			
	80	16416	S804B-C80	2CCS814001R0804			
	100	16454	S804B-C100	2CCS814001R0824			
	125	16492	S804B-C125	2CCS814001R0844			

High performance MCBs

S800B series 16000 with cage terminal, D characteristic



S801B

S800B-D characteristic

Function: protection and control of the circuits against overloads and short-circuits. With its lower breaking capacity it is designed to meet the needs of the sub-distributions.

Applications: commercial and industrial.

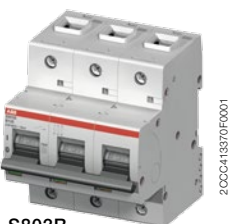
Standard: IEC/EN 60947-2, EN 60898

Icn=10kA

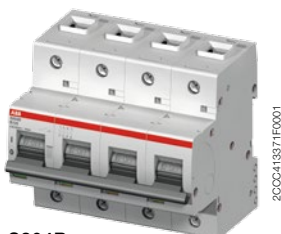
Icu=16 kA



S802B



S803B



S804B

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	32	15945	S801B-D32	2CCS811001R0321		0.24	1
	40	15983	S801B-D40	2CCS811001R0401		0.24	1
	50	16027	S801B-D50	2CCS811001R0501		0.24	1
	63	16065	S801B-D63	2CCS811001R0631		0.24	1
	80	16102	S801B-D80	2CCS811001R0801		0.24	1
	100	16140	S801B-D100	2CCS811001R0821		0.24	1
	125	16188	S801B-D125	2CCS811001R0841		0.24	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	32	15952	S802B-D32	2CCS812001R0321		0.49	1
	40	15990	S802B-D40	2CCS812001R0401		0.49	1
	50	16034	S802B-D50	2CCS812001R0501		0.49	1
	63	16072	S802B-D63	2CCS812001R0631		0.49	1
	80	16119	S802B-D80	2CCS812001R0801		0.49	1
	100	16157	S802B-D100	2CCS812001R0821		0.49	1
	125	16195	S802B-D125	2CCS812001R0841		0.49	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	32	15969	S803B-D32	2CCS813001R0321		0.74	1
	40	16003	S803B-D40	2CCS813001R0401		0.74	1
	50	16041	S803B-D50	2CCS813001R0501		0.74	1
	63	16089	S803B-D63	2CCS813001R0631		0.74	1
	80	16126	S803B-D80	2CCS813001R0801		0.74	1
	100	16164	S803B-D100	2CCS813001R0821		0.74	1
	125	16201	S803B-D125	2CCS813001R0841		0.74	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	32	15976	S804B-D32	2CCS814001R0321		0.98	1
	40	16010	S804B-D40	2CCS814001R0401		0.98	1
	50	16058	S804B-D50	2CCS814001R0501		0.98	1
	63	16096	S804B-D63	2CCS814001R0631		0.98	1
	80	16133	S804B-D80	2CCS814001R0801		0.98	1
	100	16171	S804B-D100	2CCS814001R0821		0.98	1
	125	16218	S804B-D125	2CCS814001R0841		0.98	1

High performance MCBs

S800B series [16000] with cage terminal, K characteristic

1



S801B

S800B-K characteristic

Function: protection and control of the circuits against overloads and short-circuits. With its lower breaking capacity it is designed to meet the needs of the sub-distributions.

Applications: commercial and industrial.

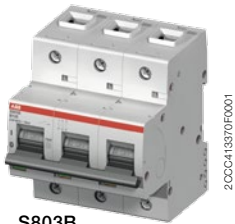
Standard: IEC/EN 60947-2, EN 60898

Icn=10kA

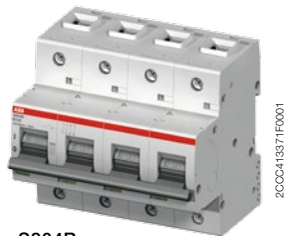
Icu=16 kA



S802B



S803B



S804B

Where to find more:

Back-up coordination tables for S 800B MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Frequently asked question - FAQ:

Where can I get certificates and declaration? You can find all of them on www.abb.com

Maybe you are also interested in:

Auxiliary elements for S 800 MCBs - chapter 3

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	32	15600	S801B-K32	2CCS811001R0537	0.24	kg	1 pc.
	40	15723	S801B-K40	2CCS811001R0557			
	50	15730	S801B-K50	2CCS811001R0577			
	63	15778	S801B-K63	2CCS811001R0597			
	80	15815	S801B-K80	2CCS811001R0627			
	100	15860	S801B-K100	2CCS811001R0637			
	125	15907	S801B-K125	2CCS811001R0647			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	32	15709	S802B-K32	2CCS812001R0537	0.49	kg	1 pc.
	40	16775	S802B-K40	2CCS812001R0557			
	50	15747	S802B-K50	2CCS812001R0577			
	63	15785	S802B-K63	2CCS812001R0597			
	80	15822	S802B-K80	2CCS812001R0627			
	100	15877	S802B-K100	2CCS812001R0637			
	125	15914	S802B-K125	2CCS812001R0647			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	32	15716	S803B-K32	2CCS813001R0537	0.74	kg	1 pc.
	40	16799	S803B-K40	2CCS813001R0557			
	50	15754	S803B-K50	2CCS813001R0577			
	63	15792	S803B-K63	2CCS813001R0597			
	80	15846	S803B-K80	2CCS813001R0627			
	100	15884	S803B-K100	2CCS813001R0637			
	125	15921	S803B-K125	2CCS813001R0647			

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	32	16805	S804B-K32	2CCS814001R0537	0.98	kg	1 pc.
	40	16812	S804B-K40	2CCS814001R0557			
	50	15761	S804B-K50	2CCS814001R0577			
	63	15808	S804B-K63	2CCS814001R0597			
	80	15853	S804B-K80	2CCS814001R0627			
	100	15891	S804B-K100	2CCS814001R0637			
125	15938	S804B-K125	2CCS814001R0647				

High performance MCBs

S800HV series for application up to 1000V AC, K characteristics



S801HV



S802HV



S803HV

S800HV-K characteristics

Function: protection and control of the circuits against overloads and short-circuits. With its Function: S800HV is designed for voltages up to 580/1000 V AC. Due to the high rated operational voltage, the field of application is wide – from underground mining to distributions on high altitudes.

Applications: Industrial

Standard: IEC/EN 60947-2

Icu 4 kA (6 ... 63 A); 3 kA (80 ... 125 A)

Icu	Rated current	Bbn 76122714	Order details		Price 1 piece	Weight 1 piece	Pack unit
[kA]	[A]	EAN	Type code	Order code		kg	pc.
4	6	36445	S801HV-K6	2CCF019005R0001		0.27	1
4	8	36964	S801HV-K8	2CCF019006R0001		0.27	1
4	10	36452	S801HV-K10	2CCF019007R0001		0.27	1
4	13	36469	S801HV-K13	2CCF019008R0001		0.27	1
4	16	36476	S801HV-K16	2CCF019009R0001		0.27	1
4	20	36483	S801HV-K20	2CCF019010R0001		0.27	1
4	25	36490	S801HV-K25	2CCF019011R0001		0.27	1
4	32	36605	S801HV-K32	2CCF019012R0001		0.27	1
4	40	36612	S801HV-K40	2CCF019013R0001		0.27	1
4	50	36629	S801HV-K50	2CCF019014R0001		0.27	1
4	63	36636	S801HV-K63	2CCF019015R0001		0.27	1
3	80	36643	S801HV-K80	2CCF019016R0001		0.27	1
3	100	36650	S801HV-K100	2CCF019017R0001		0.27	1
3	125	36667	S801HV-K125	2CCF019018R0001		0.27	1

Icu	Rated current	Bbn 76122714	Order details		Price 1 piece	Weight 1 piece	Pack unit
[kA]	[A]	EAN	Type code	Order code		kg	pc.
4	6	36674	S802HV-K6	2CCF019019R0001		0.54	1
4	8	36681	S802HV-K8	2CCF019020R0001		0.54	1
4	10	36698	S802HV-K10	2CCF019021R0001		0.54	1
4	13	36704	S802HV-K13	2CCF019022R0001		0.54	1
4	16	36711	S802HV-K16	2CCF019023R0001		0.54	1
4	20	36728	S802HV-K20	2CCF019024R0001		0.54	1
4	25	36742	S802HV-K25	2CCF019025R0001		0.54	1
4	32	36759	S802HV-K32	2CCF019026R0001		0.54	1
4	40	36766	S802HV-K40	2CCF019027R0001		0.54	1
4	50	36773	S802HV-K50	2CCF019028R0001		0.54	1
4	63	36780	S802HV-K63	2CCF019029R0001		0.54	1
3	80	36797	S802HV-K80	2CCF019030R0001		0.54	1
3	100	36803	S802HV-K100	2CCF019031R0001		0.54	1
3	125	36810	S802HV-K125	2CCF019032R0001		0.54	1

Where to find more:

Worldwide marks and approvals of MCBs p.15/162

Frequently asked question - FAQ:

Where can I get certificates and declaration?

You can find all of them on www.abb.com

Maybe you are also interested in:

Auxiliary elements for S 800 MCBs p.4/56

High performance MCBs

S800HV series for application up to 1000V AC, K characteristics

1



S801HV



S802HV



S803HV

Icu	Rated current	Bbn 76122714	Order details		Price 1 piece	Weight 1 piece	Pack unit
[kA]	[A]	EAN	Type code	Order code		kg	pc.
4	6	36827	S803HV-K6	2CCF019033R0001		0.81	1
4	8	36834	S803HV-K8	2CCF019034R0001		0.81	1
4	10	36841	S803HV-K10	2CCF019035R0001		0.81	1
4	13	36858	S803HV-K13	2CCF019036R0001		0.81	1
4	16	36865	S803HV-K16	2CCF019037R0001		0.81	1
4	20	36872	S803HV-K20	2CCF019038R0001		0.81	1
4	25	36889	S803HV-K25	2CCF019039R0001		0.81	1
4	32	36896	S803HV-K32	2CCF019040R0001		0.81	1
4	40	36902	S803HV-K40	2CCF019041R0001		0.81	1
4	50	36919	S803HV-K50	2CCF019042R0001		0.81	1
4	63	36926	S803HV-K63	2CCF019043R0001		0.81	1
3	80	36933	S803HV-K80	2CCF019044R0001		0.81	1
3	100	36940	S803HV-K100	2CCF019045R0001		0.81	1
3	125	36957	S803HV-K125	2CCF019046R0001		0.81	1

Where to find more:

Worldwide marks and approvals of MCBs - chapter 15

Frequently asked question - FAQ:

Where can I get certificates and declaration?

You can find all of them on www.abb.com

Maybe you are also interested in:

Auxiliary elements for S 800 MCBs - chapter 3

S800 B. High performance miniature circuit-breakers. Simply innovative. Safety has never been easier.

Limit downtime in industrial electrical systems while ensuring maximum safety for operators and ease of access to devices: S800 B high performance circuit-breakers are efficient products at a reasonable cost and designed for overload and short-circuit protection in distribution systems with 16 kA breaking capacity. They comply with Standard CEI EN 60947-2, 60898-1 and feature 80 to 125 A rated current values with B, C, D and K characteristic curves. Thanks to a red/green signal, showing the position of internal moving contacts, and to a switch lever, that stops in the middle position in case of thermal or magnetic tripping, they show why tripping occurred at a glance, enabling prompt maintenance. Performance similar to moulded case circuit-breakers but with the advantage of the compact dimension, S800 B are available from 1 to 4 poles versions. www.abb.com/lowvoltage



High performance MCBs

S800U series technical features

1



General Data	Standards		
	Poles		
	Tripping characteristics		
	Rated current I _e		A
	Rated frequency f		Hz
	Rated insulation voltage U _i acc. to IEC/EN 60664-1		V
	Rated impulse withstand voltage U _{imp} . (1.2/50μs)		kV
	Overvoltage category		
	Pollution degree		
	Suitability for isolation		
Data acc. to IEC/EN 60947-2	Rated operational voltage U _e		V
	Min. operating voltage		V
	Rated ultimate short-circuit capacity I _{cu}		kA
	Rated service short-circuit capacity I _{cs}		kA
	Reference temperature for tripping characteristics		°C
	Electrical and Mechanical Endurance		ops.
Data acc. to UL / CSA	Rated voltage		V
	Rated interrupting capacity acc. to UL 1077		kA
	Short-circuit current rating acc. to UL 489		kA
	Short-circuit current rating acc. to UL 489B		kA
	Application		
	Reference temperature for tripping characteristics		°C
Mechanical Data	Electrical and Mechanical endurance		ops.
	Housing		
	Toggle		
	Classification acc. To NF F 126-101, NF F 16-102		
	Protection degree acc. to EN 60529		
	Mechanical endurance		ops.
	Shock resistance acc. to IEC/EN 60068-2-30		
	Vibration resistance acc. to IEC/EN 60068-2-6		
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH
	Environmental conditions (dry heat) acc. to IEC/EN 60068-2-2 Test B		°C/RH
Ambient temperature		°C	
Storage temperature		°C	

S800U	S804U-UCZ	S804U-PVS
UL489	UL489	UL489B (Photovoltaic)
1 ... 4	4	4
K, Z	UCZ	PVS
10 - 100	10 - 80	5
50 / 60 Hz	-	-
690 V AC	DC 1500	DC 1500
8	8	8
IV	IV	IV
3	3	3
yes	yes	yes
AC 240/415		
AC 12	-	-
1-pole: AC 240V 30kA	-	-
multipole: AC 415V 50kA	-	-
1-pole: AC 240V 25kA	-	-
multipole: AC 415V 40kA	-	-
K, Z: 25°C	-	-
10 ... 32A: 10'000 electrical / mechanical 40 ... 100A: 6'000 electrical / 4'000 mechanical 125A: 4'000 electrical / 6'000 mechanical	-	-
AC 240	DC 600	DC 1000
1-pole 30kA multipole: 50kA	10kA	1.5kA
Building installation	Datacenter, Critical power	GFDI in PV-applicatoin
25°C	25°C	50°C
acc. to UL489 6000 electric; 4000 mechanic	acc. to UL489 6000 electric; 4000 mechanic	acc. to UL489B 1000 with current; 1000 without current
Material group I, RAL 7035	Material group I, RAL 7035	Material group I, RAL 7035
black, lockable	black, lockable	black, lockable
IP20; IP40 (actuating end only)		
-25 ... + 60	-25 ... + 60	-25 ... + 60
-40 ... +70	-40 ... +70	-40 ... +70

High performance MCBs

S800U series technical features

1



Installation	Terminal			
	Stranded Cross-section of conductors (top / bottom)	mm ² AWG		
	Flexible Cross-section of conductors (top/bottom)	mm ² AWG		
	Tightening torque	Nm in-lbs.		
	Screwdriver			
	Mounting			
	Mounting position			
	Supply			
	Dimensions and weight	Pole dimensions (H x L x W)	mm	
		Pole weight	g	
Combination with aux. elements	Auxiliary contact			
	Combined auxiliary- / signal contact			
	Undervoltage release			
	Shunt open release			
	Motor Operating Device			

S800U	S804U-UCZ	S804U-PVS
Failsafe cage or ringlug terminal	Failsafe cage terminal	Failsafe cage terminal
Cu only 10 - 30A:14-2 AWG 40 - 100A: 1-8 AWG	Cu only 10 - 32A:14-2 AWG 40 - 80A: 1/0 - 8 AWG	14 AWG – 2 AWG Single conductor per terminal – copper only, 75C wire
10 - 30A:14-2 AWG 40 - 100A: 1-8 AWG	Cu only 10 - 32A:14-2 AWG 40 - 80A: 1/0 - 8 AWG	14 AWG – 2 AWG Single conductor per terminal – copper only, 75C wire
3,5	3,5	3,5
31	31	31
POZI 2	POZI 2	POZI 2
any	any	any
any	any	any
any	any	any
95 x 26.5 x 82.5	142 x 26.5 x 82.5	142 x 26.5 x 82.5
240	240	240
yes	yes	yes
yes	yes	yes
yes	yes	yes
yes	yes	yes
yes	yes	yes

High performance MCBs

S800U series 25000 with cage terminal, Z characteristic

1



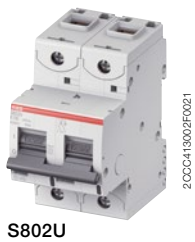
S800U-Z characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: UL489, CSA 22.2 NO.5-02, IEC/EN 60947-2

Icu=30 kA (1 pole), 50 kA (2...4 poles)



Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	10	214487	S801U-Z10	2CCS881017R0105		0.245	1
	15	214524	S801U-Z15	2CCS881017R0155		0.245	1
	20	214562	S801U-Z20	2CCS881017R0205		0.245	1
	25	214609	S801U-Z25	2CCS881017R0255		0.245	1
	30	214647	S801U-Z30	2CCS881017R0305		0.245	1
	40	214685	S801U-Z40	2CCS881017R0405		0.245	1
	50	214722	S801U-Z50	2CCS881017R0505		0.245	1
	60	214760	S801U-Z60	2CCS881017R0605		0.245	1
	70	214807	S801U-Z70	2CCS881017R0705		0.245	1
	80	214845	S801U-Z80	2CCS881017R0805		0.245	1
	90	214883	S801U-Z90	2CCS881017R0905		0.245	1
100	214920	S801U-Z100	2CCS881017R0825		0.245	1	

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	10	214494	S802U-Z10	2CCS862017R0105		0.49	1
	15	214531	S802U-Z15	2CCS862017R0155		0.49	1
	20	214579	S802U-Z20	2CCS862017R0205		0.49	1
	25	214616	S802U-Z25	2CCS862017R0255		0.49	1
	30	214654	S802U-Z30	2CCS862017R0305		0.49	1
	40	214692	S802U-Z40	2CCS862017R0405		0.49	1
	50	214739	S802U-Z50	2CCS862017R0505		0.49	1
	60	214777	S802U-Z60	2CCS862017R0605		0.49	1
	70	214814	S802U-Z70	2CCS862017R0705		0.49	1
	80	214852	S802U-Z80	2CCS862017R0805		0.49	1
	90	214890	S802U-Z90	2CCS862017R0905		0.49	1
100	214937	S802U-Z100	2CCS862017R0825		0.49	1	

Where to find more:

Back-up coordination tables for S 800U MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Frequently asked question - FAQ:

Where can I get certificates and declaration?
You can find all of them on www.abb.com



S803U

2CCCA13003F0021



S804U

2CCCA13004F0021

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	10	214500	S803U-Z10	2CCS863017R0105		0.735	1
	15	214548	S803U-Z15	2CCS863017R0155		0.735	1
	20	214586	S803U-Z20	2CCS863017R0205		0.735	1
	25	214623	S803U-Z25	2CCS863017R0255		0.735	1
	30	214661	S803U-Z30	2CCS863017R0305		0.735	1
	40	214708	S803U-Z40	2CCS863017R0405		0.735	1
	50	214746	S803U-Z50	2CCS863017R0505		0.735	1
	60	214784	S803U-Z60	2CCS863017R0605		0.735	1
	70	214821	S803U-Z70	2CCS863017R0705		0.735	1
	80	214869	S803U-Z80	2CCS863017R0805		0.735	1
	90	214906	S803U-Z90	2CCS863017R0905		0.735	1
	100	214944	S803U-Z100	2CCS863017R0825		0.735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	10	214517	S804U-Z10	2CCS864017R0105		0.98	1
	15	214555	S804U-Z15	2CCS864017R0155		0.98	1
	20	214593	S804U-Z20	2CCS864017R0205		0.98	1
	25	214630	S804U-Z25	2CCS864017R0255		0.98	1
	30	214678	S804U-Z30	2CCS864017R0305		0.98	1
	40	214715	S804U-Z40	2CCS864017R0405		0.98	1
	50	214753	S804U-Z50	2CCS864017R0505		0.98	1
	60	214791	S804U-Z60	2CCS864017R0605		0.98	1
	70	214838	S804U-Z70	2CCS864017R0705		0.98	1
	80	214876	S804U-Z80	2CCS864017R0805		0.98	1
	90	214913	S804U-Z90	2CCS864017R0905		0.98	1
	100	214951	S804U-Z100	2CCS864017R0825		0.98	1

High performance MCBs

S800U series 25000 with cage terminal, K characteristic

1



S801U

S800U-K characteristic

Function: protection and control of the circuits against overloads and short-circuits when a high breaking capacity is required; protection for people and big length cables in TN and IT systems; very useful when selectivity is needed vs an MCCB or back-up vs other MCBs wired downstream.

Applications: commercial and industrial.

Standard: UL489, CSA 22.2 NO.5-02, IEC/EN 60947-2

Icu=30 kA (1-pole), 50 kA (2...4-pole)



S802U

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	10	214005	S801U-K10	2CCS881017R0427		0.245	1
	15	214043	S801U-K15	2CCS881017R0457		0.245	1
	20	214081	S801U-K20	2CCS881017R0487		0.245	1
	25	214128	S801U-K25	2CCS881017R0517		0.245	1
	30	214166	S801U-K30	2CCS881017R0527		0.245	1
	40	214203	S801U-K40	2CCS881017R0557		0.245	1
	50	214241	S801U-K50	2CCS881017R0577		0.245	1
	60	214289	S801U-K60	2CCS881017R0587		0.245	1
	70	214326	S801U-K70	2CCS881017R0707		0.245	1
	80	214364	S801U-K80	2CCS881017R0627		0.245	1
	90	214401	S801U-K90	2CCS881017R0907		0.245	1
100	214449	S801U-K100	2CCS881017R0637		0.245	1	

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	10	214012	S802U-K10	2CCS862017R0427		0.49	1
	15	214050	S802U-K15	2CCS862017R0457		0.49	1
	20	214098	S802U-K20	2CCS862017R0487		0.49	1
	25	214135	S802U-K25	2CCS862017R0517		0.49	1
	30	214173	S802U-K30	2CCS862017R0527		0.49	1
	40	214210	S802U-K40	2CCS862017R0557		0.49	1
	50	214258	S802U-K50	2CCS862017R0577		0.49	1
	60	214296	S802U-K60	2CCS862017R0587		0.49	1
	70	214333	S802U-K70	2CCS862017R0707		0.49	1
	80	214371	S802U-K80	2CCS862017R0627		0.49	1
	90	214418	S802U-K90	2CCS862017R0907		0.49	1
100	214456	S802U-K100	2CCS862017R0637		0.49	1	

Where to find more:

Back-up coordination tables for S 800U MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Frequently asked question - FAQ:

Where can I get certificates and declaration?
You can find all of them on www.abb.com



S803U

2CC0413003F0021



S804U

2CC0413004F0021

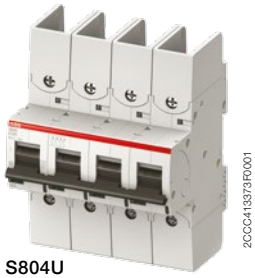
Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	10	214029	S803U-K10	2CCS863017R0427		0.735	1
	15	214067	S803U-K15	2CCS863017R0457		0.735	1
	20	214104	S803U-K20	2CCS863017R0487		0.735	1
	25	214142	S803U-K25	2CCS863017R0517		0.735	1
	30	214180	S803U-K30	2CCS863017R0527		0.735	1
	40	214227	S803U-K40	2CCS863017R0557		0.735	1
	50	214265	S803U-K50	2CCS863017R0577		0.735	1
	60	214302	S803U-K60	2CCS863017R0587		0.735	1
	70	214340	S803U-K70	2CCS863017R0707		0.735	1
	80	214388	S803U-K80	2CCS863017R0627		0.735	1
	90	214425	S803U-K90	2CCS863017R0907		0.735	1
	100	214463	S803U-K100	2CCS863017R0637		0.735	1

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	10	214036	S804U-K10	2CCS864017R0427		0.98	1
	15	214074	S804U-K15	2CCS864017R0457		0.98	1
	20	214111	S804U-K20	2CCS864017R0487		0.98	1
	25	214159	S804U-K25	2CCS864017R0517		0.98	1
	30	214197	S804U-K30	2CCS864017R0527		0.98	1
	40	214234	S804U-K40	2CCS864017R0557		0.98	1
	50	214272	S804U-K50	2CCS864017R0577		0.98	1
	60	214319	S804U-K60	2CCS864017R0587		0.98	1
	70	214357	S804U-K70	2CCS864017R0707		0.98	1
	80	214395	S804U-K80	2CCS864017R0627		0.98	1
	90	214432	S804U-K90	2CCS864017R0907		0.98	1
	100	214470	S804U-K100	2CCS864017R0637		0.98	1

High performance MCBs

S800U series 10000 UCZ characteristic

1



S804U

S800 UCZ characteristic

Function: this breaker is specially designed for networks up to 600 V d.c., e.g. datacenter. With its short-circuit current rating of 10 kA you will get a good solution regarding safety and reliability. This breaker is tested acc to UL489 (cIUSus).

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	10	420703	S804U-UCZ10	2CCS248356		0.98	1
	15	420710	S804U-UCZ15	2CCS248357		0.98	1
	20	420727	S804U-UCZ20	2CCS248358		0.98	1
	25	420734	S804U-UCZ25	2CCS248359		0.98	1
	30	420741	S804U-UCZ30	2CCS248360		0.98	1
	40	420758	S804U-UCZ40	2CCS248361		0.98	1
	50	420765	S804U-UCZ50	2CCS248362		0.98	1
	60	420772	S804U-UCZ60	2CCS248363		0.98	1
	70	420789	S804U-UCZ70	2CCS248364		0.98	1
	80	420796	S804U-UCZ80	2CCS248365		0.98	1

Where to find more:

Back-up coordination tables for S 800U MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

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High performance MCBs

S800U series 3000 B characteristic



S804U

S800U B characteristic

Function: string protection.

The new S804U-PVS5 is for string protection in photovoltaic systems.

In case of reverse currents, the breaker will trip. Thus the PV generator will not be damaged.

The breaker is tested acc. to UL489B for 1000 V d.c.

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	5	419929	S804U-PVS5	2CCP824017R1159		0.98	1

High performance MCBs

S800PV series technical features

1



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S800PV

		S800PV-SP	
General Data	Standards	IEC / EN 60947-2 and Annex P	
	Poles	2 ... 4	
	Tripping characteristics	B	
	Rated current I _e	A 5 ... 125	
	Rated frequency f	Hz -	
	Rated insulation voltage U _i acc. to IEC/EN 60664-1	V DC 1500	
	Rated impulse withstand voltage U _{imp} (1.2/50μs)	kV 8	
	Overvoltage category	III	
	Pollution degree	2	
	Suitability for isolation	yes	
Data acc. to IEC/EN 60947-2	Rated operational voltage U _e	V 2-pole DC 800V: 5 ... 125A 3-pole DC 1200V: 5 ... 125A 4-pole DC 1500V: 5 ... 125A	
	Min. operating voltage	V -	
	Rated ultimate short-circuit capacity I _{cu}	kA 5 ... 16A acc. IEC 60947-2 Annex P , I _{cu} 5 kA 20 ... 125A acc. IEC 60947-2 , I _{cu} 5 kA 5 ... 125A acc. IEC 60947-2 Annex P , I _{cu} 3 kA	
	Rated service short-circuit capacity I _{cs}	kA I _{cs} = I _{cu}	
	Reference temperature for tripping characteristics	°C 40°C	
	Electrical and Mechanical Endurance	ops.	acc. to Annex P: 5 ... 16A: 300 electrical cycles 9700 mechanical cycles
			acc. to IEC 60947-2 (general part): 20 ... 100A: 1500 electrical cycles 8500 mechanical cycles 125A: 1000 electrical cycles 9000 mechanical cycles
Mechanical Data	Housing	Material group I, RAL 7035	
	Toggle	black, lockable	
	Classification acc. To NF F 126-101, NF F 16-102	-	
	Protection degree acc. to EN 60529	IP20; IP40 (actuating end only)	
	Shock resistance acc. to IEC/EN 60068-2-30	IEC 61373 Cat. 1 Class B, 5g / 30ms acc. to IEC 60068-27 Test Ea	
	Vibration resistance acc. to IEC/EN 60068-2-6	IEC 60068-2-6 Test Fc; 2 - 13.2Hz /1mm 13.2 - 100Hz / 0.7g with load 100% x I _e	
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	°C/RH 12 + 12 cycle with 55°C / 90-96% and 25% / 95-100%	
	Environmental conditions (dry heat) acc. to IEC/EN 60068-2-2 Test B	°C/RH 16 hours 55°C / 2 hours 70°C with damp heat 55%	
	Ambient temperature	°C -25... + 60	
	Storage temperature	°C -25 ... +70	
Installation	Terminal	Failsafe cage or ringlug terminal	
	Stranded Cross-section of conductors (top / bottom)	mm ² 1 ... 50	
	Flexible Cross-section of conductors (top/bottom)	mm ² 1 ... 70	
	Tightening torque	Nm 3,5	
		in-lbs. 31	
	Screwdriver	POZI 2	
	Mounting	any	
	Mounting position	any	
Supply	any		
Dimensions and weight	Pole dimensions (H x L x W)	mm 95 x 26.5 x 82.5	
	Pole weight	g 240	
Combination with aux. elements	Auxiliary contact	yes	
	Combined auxiliary- / signal contact	yes	
	Shunt trip	yes	
	Undervoltage release	yes	
	Shunt open release	yes	
	Motor Operating Device	yes	

High performance MCBs

S800PV series with cage terminal, B characteristic



S802PV



S803PV

S800PV-SP

Function: protection and control of photovoltaic strings against overloads, short-circuits and reverse currents. Ideal replacement for fuses due to comfortable string failure identification and signalisation.

Applications: Photovoltaic systems. Standard: IEC 60947-2 and Annex P

5 ... 16A acc. IEC 60947-2 Annex P, Icu 5 kA

20 ... 125A acc. IEC 60947-2, Icu 5 kA

5 ... 125A acc. IEC 60947-2 Annex P, Icu 3 kA

Number of poles	Rated current	Bbn 76122714	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	5	71170	S802PV-SP5	2CCF019596R0001		0.49	1
	6	72115	S802PV-SP6	2CCF019643R0001		0.49	1
	8	72139	S802PV-SP8	2CCF019644R0001		0.49	1
	10	71194	S802PV-SP10	2CCF019597R0001		0.49	1
	13	71217	S802PV-SP13	2CCF019598R0001		0.49	1
	16	71231	S802PV-SP16	2CCF019599R0001		0.49	1
	20	71255	S802PV-SP20	2CCF019600R0001		0.49	1
	25	71279	S802PV-SP25	2CCF019601R0001		0.49	1
	32	71293	S802PV-SP32	2CCF019602R0001		0.49	1
	40	71316	S802PV-SP40	2CCF019603R0001		0.49	1
	50	71330	S802PV-SP50	2CCF019604R0001		0.49	1
	63	71354	S802PV-SP63	2CCF019605R0001		0.49	1
	80	71378	S802PV-SP80	2CCF019606R0001		0.49	1
	100	71392	S802PV-SP100	2CCF019607R0001		0.49	1
125	71415	S802PV-SP125	2CCF019608R0001		0.49	1	

Number of poles	Rated current	Bbn 76122714	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	5	71439	S803PV-SP5	2CCF019609R0001		0.74	1
	6	72153	S803PV-SP6	2CCF019645R0001		0.74	1
	8	72177	S803PV-SP8	2CCF019646R0001		0.74	1
	10	71453	S803PV-SP10	2CCF019610R0001		0.74	1
	13	71477	S803PV-SP13	2CCF019611R0001		0.74	1
	16	71491	S803PV-SP16	2CCF019612R0001		0.74	1
	20	71514	S803PV-SP20	2CCF019613R0001		0.74	1
	25	71538	S803PV-SP25	2CCF019614R0001		0.74	1
	32	71552	S803PV-SP32	2CCF019615R0001		0.74	1
	40	71576	S803PV-SP40	2CCF019616R0001		0.74	1
	50	71590	S803PV-SP50	2CCF019617R0001		0.74	1
	63	71613	S803PV-SP63	2CCF019618R0001		0.74	1
	80	71637	S803PV-SP80	2CCF019619R0001		0.74	1
	100	71651	S803PV-SP100	2CCF019620R0001		0.74	1
125	71675	S803PV-SP125	2CCF019621R0001		0.74	1	

Where to find more:

Worldwide marks and approvals of MCBs p.15/162

Frequently asked question - FAQ:

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Maybe you are also interested in:

Auxiliary elements for S 800 MCBs p.4/56

S800PV switch disconnecter p.6/15

High performance MCBs

S800PV series with cage terminal, B characteristic

1



S804PV

S800PV-SP characteristic

Function: protection and control of photovoltaic strings against overloads, short-circuits and reverse currents. Ideal replacement for fuses due to comfortable string failure identification and signalisation.

Applications: Photovoltaic systems. Standard: IEC 60947-2 and Annex P

5 ... 16A acc. IEC 60947-2 Annex P., Icu 5 kA

20 ... 125A acc. IEC 60947-2, Icu 5 kA

5 ... 125A acc. IEC 60947-2 Annex P., Icu 3 kA

Number of poles	Rated current	Bbn 76122714	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	5	52124	S804PV-SP5	2CCF019586R0001		0.98	1
	6	72191	S804PV-SP6	2CCF019647R0001		0.98	1
	8	72214	S804PV-SP8	2CCF019648R0001		0.98	1
	10	71699	S804PV-SP10	2CCF019622R0001		0.98	1
	13	71712	S804PV-SP13	2CCF019623R0001		0.98	1
	16	71736	S804PV-SP16	2CCF019624R0001		0.98	1
	20	71750	S804PV-SP20	2CCF019625R0001		0.98	1
	25	71774	S804PV-SP25	2CCF019626R0001		0.98	1
	32	71798	S804PV-SP32	2CCF019627R0001		0.98	1
	40	71811	S804PV-SP40	2CCF019628R0001		0.98	1
	50	71835	S804PV-SP50	2CCF019629R0001		0.98	1
	63	71859	S804PV-SP63	2CCF019630R0001		0.98	1
	80	71873	S804PV-SP80	2CCF019631R0001		0.98	1
	100	71897	S804PV-SP100	2CCF019632R0001		0.98	1
125	71910	S804PV-SP125	2CCF019633R0001		0.98	1	

S800PV-SD characteristic

Function: switch disconnecter for DC side isolation of PV systems.

Designed for PV installations of 1500 V DC.

Applications: Photovoltaic systems.

Rated short-term withstand current, I_{cw} 1,5 kA

I _{cw} kA	Rated current	Bbn 76122714	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	A	EAN	Type code	Order code			
1.5	32	72054	S804PV-SD32	2CCF019640R0001		0.86	1
1.5	63	72078	S804PV-SD63	2CCF019641R0001		0.86	1
1.5	125	72092	S804PV-SD125	2CCF019642R0001		0.86	1

Where to find more:

Worldwide marks and approvals of MCBs - chapter 15

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Maybe you are also interested in:

Auxiliary elements for S 800 MCBs - chapter 3

S800PV switch disconnecter - chapter 5

Technical Data

S804PV-SP		S804PV-SD	
Standards	IEC 60947-2 and Annex P	Standards	IEC 60947-3 and Annex D
Number of poles	4	Number of poles	4
Rated current [A]	5 ... 125	Rated current [A]	32, 63, 125
Rated insulation voltage U_i acc. IEC/EN 60664-1	DC 1500	Rated insulation voltage U_i acc. IEC/EN 60664-1	DC 1500
Rated impulse withstand voltage U_{imp} (1.2/50 μ s)	8 kV	Rated impulse withstand voltage U_{imp} (1.2/50 μ s)	8 kV
Overvoltage category	III	Overvoltage category	III
Pollution degree	2	Pollution degree	2
Suitability for isolation	yes	Suitability for isolation	yes
Rated operational voltage [VDC]	1500	Rated operational voltage [VDC]	1500
Rated ultimate short-circuit capacity $I_{cu} = I_{cs}$ [kA]	5...16 A, acc. IEC 60947-2 Annex P , $I_{cu} = 5$ kA 20...125 A, acc. IEC 60947-2 , $I_{cu} = 5$ kA 20...125 A, acc. IEC 60947-2 Annex P , $I_{cu} = 3$ kA	Rated short-term withstand current I_{cw} [kA]	1.5
Reference temperature for tripping characteristic [°C]	40	Rated short-circuit making capacity I_{cm} [kA]	0.5
Electrical and mechanical endurance	acc. to Annex P: 5...16 A: 300 electrical cycles 9700 mechanical cycles acc. to IEC 60947-2 (general part): 20 A...100 A: 1500 electrical cycles 8500 mechanical cycles 125 A: 1000 electrical cycles 9000 mechanical cycles	utilisation category	DC-21A, DC-PV2
Connections Cu	1... 50 mm ²	Reference temperature for tripping characteristic [°C]	40
Tightening torque [Nm]	3.5 (31 in. lb.)	Electrical and mechanical endurance	acc. to IEC 60947-3: 32, 63 A: 1500 electrical cycles 8500 mechanical cycles 125 A: 1000 electrical cycles 7000 mechanical cycles
Protection category	IP40 (actuating end only)	Connections Cu	1... 50 mm ²
Mounting position	any	Tightening torque [Nm]	3.5 (31 in. lb.)
Ambient temperature [°C]	-25 ... +70	Protection category	IP40 (actuating end only)
Supply	any	Mounting position	any
		Ambient temperature [°C]	-25 ... +70
		Supply	any

MCBs

S500 series technical features

1



S500

20SCA0001F0013

		S500-K	
General Data	Tripping characteristics		K
	Standards		IEC 60947-2
	Poles		1 ... 3
	Rated current I _e	A	0.1 ... 45
	Rated frequency f	Hz	50/60
	Rated insulation voltage U _i acc. to IEC/EN 60664-1	V	AC 690 V
	Rated impulse withstand voltage U _{imp} . (1.2/50 μs)	kV	6
	Overvoltage category	II	
	Pollution degree	3	
	Suitability for isolation	yes	
Data acc. to IEC/EN 60898-1	Rated operational voltage U _e	V	–
	Min. operating voltage	V	–
	Rated short-circuit capacity I _{cn}	kA	–
	Reference temperature for tripping characteristics	°C	–
	Electrical and Mechanical Endurance	ops.	–
	Service short-circuit capacity I _{cs}	kA	–
Data acc. to IEC/EN 60947-2	Rated operational voltage U _e	V	400/690 V AC
	Min. operating voltage	V	12 V AC
	Rated ultimate short-circuit capacity I _{cu}		
	AC 230/400V	kA	0.1–11 A: 50 kA; 10–45 A: 30 kA
	AC 250/440V		0.1–11 A: 30 kA; 10–45 A: 25 kA
	AC 3 x 500V		0.1–11 A: 20 kA; 10–45 A: 15 kA
	AC 400/690V		0.1–45 A: 6 kA
	Rated service short-circuit capacity I _{cs}		
	AC 230/400V	kA	0.1–11 A: 30 kA; 10–45 A: 25 kA
	AC 250/440V		0.1–45 A: 22 kA
	AC 3 x 500V		0.1–11 A: 15 kA; 10–45 A: 11 kA
	AC 400/690V		0.1–45 A: 3 kA
	Reference temperature for tripping characteristics	°C	40
	Electrical and Mechanical Endurance	ops.	0.1 ... 45 A: 1500 electric; 8500 mechanic
Data acc. to UL/CSA	Rated voltage	V	AC 600
	Rated interrupting capacity acc. to UL 1077	kA	
	AC 240/415V kA		<25A: 30kA; >25: 18kA
	AC 277/480V		14
	AC 346/600		6
	Reference temperature for tripping characteristics	°C	25
	Electrical and Mechanical endurance	ops.	acc. to UL1077. 6000 electric; 8500 mechanic

		S500-K	
Mechanical Data	Housing		Material group I, RAL 7035
	Toggle		black, lockable
	Classification acc. to NF F 16-101, NF F 16-102		I2, F1
	Protection degree acc. to EN 60529		IP20; IP40 (actuating end only)
	Vibration resistance acc. to IEC/EN 60068-2-30		IEC 61373 Cat. 1 Class B, 5 g/30 ms acc. to IEC 60068-27 Test Ea
	Vibration resistance acc. to IEC/EN 60068-2-6		IEC 60068-2-6 Test Fc; 2–13.2 Hz/1 mm 13.2–100 Hz/0.7 g with load 100 % x 1e
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 test Db		12 + 12 cycle with 55 °C/90–96 % r.g. and 25 %/95–100 % r.f.
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-2 Test B		16 hours 55 °C/2 hours 70 °C with damp heat 55 %
	Ambient temperature	°C	–25 ... +55
	Storage temperature	°C	–40 ... +70
	Terminal		Cage terminal
	Connections (top/bottom) – CU only	mm ²	1 ... 25
	Installation	Tightening torque	Nm
Screwdriver			POZI 2
Mounting			EN 60715
Mounting position			any
Supply			any
Dimensions and weight	Pole dimensions (H x L x W)	mm	91 x 92 x 25
	Pole weight	g	ca. 250
Combination with aux. elements	Auxiliary contact		Yes
	Signal contact		Yes
	Shunt trip		Yes
	Undervoltage release		Yes
	Shunt open release		Yes
	Motor Operating Device		Yes

MCBs

S500 series technical features

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S500

20SCA0001F0013

		S500UC-K	
General Data	Tripping characteristics		K
	Standards		IEC 60947-2
	Poles		1 ... 4
	Rated current I _e	A	0.1 ... 45
	Rated frequency f	Hz	–
	Rated insulation voltage U _i acc. to IEC/EN 60664-1	V	1000V DC
	Rated impulse withstand voltage U _{imp} . (1.2/50µs)	kV	6
	Overvoltage category		II
	Pollution degree		2
	Suitability for isolation		yes
Data acc. to IEC/EN 60898-1	Rated operational voltage U _e	V	–
	Min. operating voltage	V	–
	Rated short-circuit capacity I _{cn}	kA	–
	Reference temperature for tripping characteristics	°C	–
	Electrical and Mechanical Endurance	ops.	–
	Service short-circuit capacity I _{cs}	kA	–
Data acc. to IEC/EN 60947-2	Rated operational voltage U _e	V	DC 250 V/pol, max. DC 750 V
	Min. operating voltage	V	–
	Rated ultimate short-circuit capacity I _{cu}		
	DC 250 V L/R 15 ms (1-pole)	kA	30 kA
	DC 500 V L/R 15 ms (2-pole in series)		30 kA
	DC 750 V L/R 15 ms (3- and 4-pole in series)		30 kA
	Rated service short-circuit capacity I _{cs}		
	DC 250 V L/R 15 ms (1-pole)	kA	30 kA
	DC 500 V L/R 15 ms (2-pole)		30 kA
	DC 750 V L/R 15 ms (3- and 4-pole)		30 kA
Reference temperature for tripping characteristics	°C	40	
Electrical and Mechanical Endurance	ops.	0.1 ... 45 A: 1500 electric; 8500 mechanic	
Data acc. to UL/CSA	Rated voltage	V	DC 250 V/pol, max. 600 V
	Rated interrupting capacity acc. to UL 1077 kA		
	DC 250V (1-pole)	kA	30 kA
	DC 500V (2-pole in series)		30 kA
	DC 750V (3- and 4-pole in series)		30 kA
	Reference temperature for tripping characteristics	°C	25
Electrical and Mechanical endurance	ops.	acc. to UL1077. 6000 electric, 4000 mechanic	

		S500UC-K	
Mechanical Data	Housing		Material group I, RAL 7035
	Toggle		black, lockable
	Classification acc. to NF F 16-101, NF F 16-102		I2, F1
	Protection degree acc. to EN 60529		IP20; IP40 (actuating end only)
	Vibration resistance acc. to IEC/EN 60068-2-6		IEC 61373 Cat. 1 Class B, 5 g/30 ms acc. to IEC 60068-27 Test Ea
	Vibration resistance acc. to IEC/EN 60068-2-6		IEC 60068-2-6 Test Fc; 2–13.2 Hz/1 mm 13.2–100 Hz/0.7 g with load 100 % x le
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 test Db		12 + 12 cycle with 55 °C/90 –96 % r.g. and 25 %/95 –100 % r.f.
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-2 Test B		16 hours 55 °C/2 hours 70 °C with damp heat 55 %
	Ambient temperature	°C	–25 ... +55
	Storage temperature	°C	–40 ... +70
	Terminal		Cage terminal
Connections (top/bottom) – CU only	mm ²	1 ... 25	
Installation	Tightening torque	Nm	2.5
	Screwdriver		POZI 2
	Mounting		EN 60715
	Mounting position		any
	Supply		any
Dimensions and weight	Pole dimensions (H x L x W)	mm	91 x 92 x 25
	Pole weight	g	ca. 250
Combination with aux. elements	Auxiliary contact		Yes
	Signal contact		Yes
	Shunt trip		Yes
	Undervoltage release		Yes
	Shunt open release		Yes
	Motor Operating Device		Yes

MCBs

S500 series technical features

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S500

2CHC0001F0013

		S500HV-K	
General Data	Tripping characteristics		K
	Standards		IEC 60947-2
	Poles		1 ... 3
	Rated current I _e	A	1 ... 45
	Rated frequency f	Hz	50/60
	Rated insulation voltage U _i acc. to IEC/EN 60664-1	V	AC 1000 V
	Rated impulse withstand voltage U _{imp} . (1.2/50 μs)	kV	6
	Overvoltage category		II
	Pollution degree		2
	Suitability for isolation		yes
Data acc. to IEC/EN 60898-1	Rated operational voltage U _e	V	–
	Min. operating voltage	V	–
	Rated short-circuit capacity I _{cn}	kA	–
	Reference temperature for tripping characteristics	°C	–
	Electrical and Mechanical Endurance	ops.	–
	Service short-circuit capacity I _{cs}	kA	–
Data acc. to IEC/EN 60947-2	Rated operational voltage U _e	V	AC 580/1000 V
	Min. operating voltage	V	12 V AC
	Rated ultimate short-circuit capacity I _{cu}		
	AC 580/1000V	kA	1.5
	Rated service short-circuit capacity I _{cs}		
	AC 580/1000V	kA	1.5
	Reference temperature for tripping characteristics	°C	40
Data acc. to UL/CSA	Electrical and Mechanical Endurance	ops.	–
	Rated voltage	V	–
	Rated interrupting capacity acc. to UL 1077	kA	–
	AC 240/415V	kA	–
	AC 277/480V		–
	AC 346/600		–
Mechanical Data	Reference temperature for tripping characteristics		–
	Electrical and Mechanical endurance	ops.	–
	Housing		Material group I, RAL 7035
	Toggle		black, lockable
	Classification acc. to NFF 16-101, NFF 16-102		I2, F1
	Protection degree acc. to EN 60529		IP20; IP40 (actuating end only)
	Vibration resistance acc. to IEC/EN 60068-2-6		w
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 test Db		12 + 12 cycle with 55 °C/90 –96 % r.g. and 25 %/95 –100 % r.f.
	Environmental conditions (dry heat) acc. to IEC/EN 60068-2-2 Test B		16 hours 55 °C/2 hours 70 °C with damp heat 55 %
	Ambient temperature	°C	–25 ... +55
	Storage temperature	°C	–40 ... +70
	Terminal		Cage terminal
	Connections (top/bottom) – CU only	mm ²	1 ... 25

			S500HV-K
Installation	Tightening torque	Nm	2.5
	Screwdriver		POZI 2
	Mounting		EN 60715
	Mounting position		any
	Supply		any
Dimensions and weight	Pole dimensions (H x L x W)	mm	91 x 92 x 25
	Pole weight	g	ca. 250
Combination with aux. elements	Auxiliary contact		Yes
	Signal contact		Yes
	Shunt trip		Yes
	Undervoltage release		Yes
	Shunt open release		Yes
	Motor Operating Device		Yes

MCBs

S500 series with adjustable thermal release for motor protection, K characteristic

1



S501

S500-K (power) characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when an high breaking capacity is required; very useful when it is needed selectivity vs an MCCB or back-up vs other MCBs wired downstream; version with adjustable thermal release, dedicated to protect motors.

Advantages: No nuisance tripping in the case of functional peak currents up to $8xI_n$, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, UL 1077

Icu up to 50 kA

Number of poles	Rated current	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.1-0.15	303007	S501K0.1-0.15	2CCF008856R0001		0.250	1
	0.14-0.21	303014	S501K0.14-0.21	2CCF008857R0001		0.250	1
	0.2-0.3	303021	S501K0.2-0.3	2CCF008858R0001		0.250	1
	0.28-0.42	303038	S501K0.28-0.42	2CCF008859R0001		0.250	1
	0.38-0.58	303045	S501K0.38-0.58	2CCF008860R0001		0.250	1
	0.53-0.8	303052	S501K0.53-0.8	2CCF008861R0001		0.250	1
	0.73-1.1	303069	S501K0.73-1.1	2CCF008862R0001		0.250	1
	1-1.5	303076	S501K1-1.5	2CCF008863R0001		0.250	1
	1.4-2.1	303083	S501K1.4-2.1	2CCF008864R0001		0.250	1
	2-3	303090	S501K2-3	2CCF008865R0001		0.250	1
	2.8-4.2	303106	S501K2.8-4.2	2CCF008866R0001		0.250	1
	3.8-5.8	303113	S501K3.8-5.8	2CCF008867R0001		0.250	1
	5.3-8	303120	S501K5.3-8	2CCF008868R0001		0.250	1
	7.3-11	303137	S501K7.3-11	2CCF008869R0001		0.250	1
	10-15	303144	S501K10-15	2CCF008870R0001		0.250	1
	14-20	303151	S501K14-20	2CCF008871R0001		0.250	1
	18-26	303168	S501K18-26	2CCF008872R0001		0.250	1
	23-32	303175	S501K23-32	2CCF008873R0001		0.250	1
	29-37	303182	S501K29-37	2CCF008874R0001		0.250	1
	34-41	303199	S501K34-41	2CCF008877R0001		0.250	1
38-45	303205	S501K38-45	2CCF008888R0001		0.250	1	

Where to find more:

Back-up coordination tables for S500 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Maybe you are also interested in: Auxiliary elements for S500 MCBs - chapter 3

MCBs

S500 series with adjustable thermal release for motor protection, K characteristic



S502



S503

Number of poles	Rated current	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	0.1-0.15	303250	S502K0.1-0.15	2CCF008894R0001		0.500	1
	0.14-0.21	303267	S502K0.14-0.21	2CCF008895R0001		0.500	1
	0.2-0.3	303274	S502K0.2-0.3	2CCF008896R0001		0.500	1
	0.28-0.42	303281	S502K0.28-0.42	2CCF008897R0001		0.500	1
	0.38-0.58	303298	S502K0.38-0.58	2CCF008898R0001		0.500	1
	0.53-0.8	303304	S502K0.53-0.8	2CCF008899R0001		0.500	1
	0.73-1.1	303311	S502K0.73-1.1	2CCF008900R0001		0.500	1
	1-1.5	303328	S502K1-1.5	2CCF008901R0001		0.500	1
	1.4-2.1	303335	S502K1.4-2.1	2CCF008902R0001		0.500	1
	2-3	303342	S502K2-3	2CCF008903R0001		0.500	1
	2.8-4.2	303359	S502K2.8-4.2	2CCF008904R0001		0.500	1
	3.8-5.8	303366	S502K3.8-5.8	2CCF008905R0001		0.500	1
	5.3-8	303373	S502K5.3-8	2CCF008906R0001		0.500	1
	7.3-11	303380	S502K7.3-11	2CCF008907R0001		0.500	1
	10-15	303397	S502K10-15	2CCF008908R0001		0.500	1
	14-20	303403	S502K14-20	2CCF008909R0001		0.500	1
	18-26	303410	S502K18-26	2CCF008910R0001		0.500	1
	23-32	303427	S502K23-32	2CCF008911R0001		0.500	1
29-37	303434	S502K29-37	2CCF008912R0001		0.500	1	
34-41	303441	S502K34-41	2CCF008913R0001		0.500	1	
38-4	303458	S502K38-45	2CCF008926R0001		0.500	1	

Number of poles	Rated current	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.1-0.15	303502	S503K0.1-0.15	2CCF008932R0001		0.750	1
	0.14-0.21	303519	S503K0.14-0.21	2CCF008933R0001		0.750	1
	0.2-0.3	303526	S503K0.2-0.3	2CCF008934R0001		0.750	1
	0.28-0.42	303533	S503K0.28-0.42	2CCF008935R0001		0.750	1
	0.38-0.58	303540	S503K0.38-0.58	2CCF008936R0001		0.750	1
	0.53-0.8	303557	S503K0.53-0.8	2CCF008937R0001		0.750	1
	0.73-1.1	303564	S503K0.73-1.1	2CCF008938R0001		0.750	1
	1-1.5	303571	S503K1-1.5	2CCF008939R0001		0.750	1
	1.4-2.1	303588	S503K1.4-2.1	2CCF008940R0001		0.750	1
	2-3	303595	S503K2-3	2CCF008941R0001		0.750	1
	2.8-4.2	303601	S503K2.8-4.2	2CCF008942R0001		0.750	1
	3.8-5.8	303618	S503K3.8-5.8	2CCF008943R0001		0.750	1
	5.3-8	303625	S503K5.3-8	2CCF008944R0001		0.750	1
	7.3-11	303632	S503K7.3-11	2CCF008945R0001		0.750	1
	10-15	303649	S503K10-15	2CCF008946R0001		0.750	1
	14-20	303656	S503K14-20	2CCF008947R0001		0.750	1
	18-26	303663	S503K18-26	2CCF008948R0001		0.750	1
	23-32	303670	S503K23-32	2CCF008949R0001		0.750	1
	29-37	303687	S503K29-37	2CCF008950R0001		0.750	1
	34-41	303694	S503K34-41	2CCF008951R0001		0.750	1
	38-45	303700	S503K38-45	2CCF008964R0001		0.750	1

MCBs

S500UC series technical features

1



S501UC

			S500UC-K
Standards			IEC/EN 60947-2, UL 1077 a, CAN/CSA-C22.2 a No. 35
Rated current I _n			A adjustable 0.1 ≤ I _n ≤ 3 / 2.8 ≤ I _n ≤ 11 / 10 ≤ I _n ≤ 45
Poles			1 ... 4
Rated voltage U _e	DC	V	250 per pole (4P 750V)
Insulation voltage U _i			V 1000 VDC
Max. operating voltage U _b max.	DC	V	250 per pole (4P 750V)
Rated breaking capacity	ultimate I _{cu}	kA	30
acc. to IEC/EN 60947-2 1P@ 250 VDC 2P@500 VDC 3P, 4P@ 750 VDC			
Rated interrupting capacity acc. to	IR	kA	30
UL1077, CSA22.2 No.235 1P@60 VDC 2P, 3P, 4P@125 VDC			
Rated impulse withstand voltage U _{imp}			kV 6
Overvoltage category			
Thermomagnetic release characteristic	K: 8 I _n ≤ I _m ≤ 14 I _n		
Toggle			grey sealable in ON-OFF position
Protection degree			
housing			IP4X
terminals			IP2X
Tropicalization acc. to IEC/EN 60068-2	humid heat	°C/RH	DIN 50016
Reference temperature for setting of thermal element			°C 40
Ambient temperature (with daily average ≤ +35 °C)			°C -25...+55
Terminal type			cage (shock protected)
Terminal size top/bottom for cable			
IEC			mm ² 1 ... 25
UL/CSA			AWG 17-4
Tightening torque			Nm 2.5
IEC			
Tool			Nr. 2 Posidriv
Mounting			on DIN rail EN 60715
Connection			from top and bottom
Pole dimensions (H x D x W)			mm 91 x 92 x 25
Pole weight			g 250
Combinable with:			
signal contact/auxiliary switch			yes
shunt trip			yes
undervoltage release			yes (factory fitted)
mechanical interlock			no
motor operating device			no

① supplementary protection

Where to find more:

Back-up coordination tables for S500 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Maybe you are also interested in:

Auxiliary elements for S500 MCBs - chapter 3

MCBs

S500UC series DC range, K characteristic



S501UC

S500UC series K (power) characteristic

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits when an high breaking capacity is required; very useful when it is needed selectivity vs an MCCB or back-up vs other MCBs wired downstream; version with adjustable thermal release, dedicated to protect motors; version dedicated to application in direct current circuits.

Advantages: No nuisance tripping in the case of functional peak currents up to $8I_n$, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2, UL1077

Icu up to 30 kA

Number of poles	Rated current	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.1-0.15	302000	S501UC-K0.1-0.15	2CCF008988R0001		0.250	1
	0.14-0.21	302017	S501UC-K0.14-0.21	2CCF008991R0001		0.250	1
	0.2-0.3	302024	S501UC-K0.2-0.3	2CCF008994R0001		0.250	1
	0.28-0.42	302031	S501UC-K0.28-0.42	2CCF008997R0001		0.250	1
	0.38-0.58	302048	S501UC-K0.38-0.58	2CCF009000R0001		0.250	1
	0.53-0.8	302055	S501UC-K0.53-0.8	2CCF009003R0001		0.250	1
	0.73-1.1	302062	S501UC-K0.73-1.1	2CCF009006R0001		0.250	1
	1-1.5	302079	S501UC-K1-1.5	2CCF009009R0001		0.250	1
	1.4-2.1	302086	S501UC-K1.4-2.1	2CCF009012R0001		0.250	1
	2-3	302093	S501UC-K2-3	2CCF009015R0001		0.250	1
	2.8-4.2	302109	S501UC-K2.8-4.2	2CCF009018R0001		0.250	1
	3.8-5.8	302116	S501UC-K3.8-5.8	2CCF009021R0001		0.250	1
	5.3-8	302123	S501UC-K5.3-8	2CCF009024R0001		0.250	1
	7.3-11	302130	S501UC-K7.3-11	2CCF009027R0001		0.250	1
	10-15	302147	S501UC-K10-15	2CCF009030R0001		0.250	1
	14-20	302154	S501UC-K14-20	2CCF009033R0001		0.250	1
	18-26	302161	S501UC-K18-26	2CCF009036R0001		0.250	1
	23-32	302178	S501UC-K23-32	2CCF009039R0001		0.250	1
	29-37	302185	S501UC-K29-37	2CCF009042R0001		0.250	1
34-41	302192	S501UC-K34-41	2CCF009045R0001		0.250	1	
38-45	302208	S501UC-K38-45	2CCF009048R0001		0.250	8	

MCBs

S500UC series DC range, K characteristic

1



S502UC

2CSC400006F0013



S503UC

2CSC400006F0013

Number of poles	Rated current	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	0.1-0.15	302253	S502UC-K0.1-0.15	2CCF008989R0001		0.500	1
	0.14-0.21	302260	S502UC-K0.14-0.21	2CCF008992R0001		0.500	1
	0.2-0.3	302277	S502UC-K0.2-0.3	2CCF008995R0001		0.500	1
	0.28-0.42	302284	S502UC-K0.28-0.42	2CCF008998R0001		0.500	1
	0.38-0.58	302291	S502UC-K0.38-0.58	2CCF009001R0001		0.500	1
	0.53-0.8	302307	S502UC-K0.53-0.8	2CCF009004R0001		0.500	1
	0.73-1.1	302314	S502UC-K0.73-1.1	2CCF009007R0001		0.500	1
	1-1.5	302321	S502UC-K1-1.5	2CCF009010R0001		0.500	1
	1.4-2.1	302338	S502UC-K1.4-2.1	2CCF009013R0001		0.500	1
	2-3	302345	S502UC-K2-3	2CCF009016R0001		0.500	1
	2.8-4.2	302352	S502UC-K2.8-4.2	2CCF009019R0001		0.500	1
	3.8-5.8	302369	S502UC-K3.8-5.8	2CCF009022R0001		0.500	1
	5.3-8	302376	S502UC-K5.3-8	2CCF009025R0001		0.500	1
	7.3-11	302383	S502UC-K7.3-11	2CCF009028R0001		0.500	1
	10-15	302390	S502UC-K10-15	2CCF009031R0001		0.500	1
	14-20	302406	S502UC-K14-20	2CCF009034R0001		0.500	1
	18-26	302413	S502UC-K18-26	2CCF009037R0001		0.500	1
	23-32	302420	S502UC-K23-32	2CCF009040R0001		0.500	1
29-37	302437	S502UC-K29-37	2CCF009043R0001		0.500	1	
34-41	302444	S502UC-K34-41	2CCF009046R0001		0.500	1	
38-45	302451	S502UC-K38-45	2CCF009049R0001		0.500	1	

Number of poles	Rated current	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
3	0.1-0.15	302505	S503UC-K0.1-0.15	2CCF008990R0001		0.750	1
	0.14-0.21	302512	S503UC-K0.14-0.21	2CCF008993R0001		0.750	1
	0.2-0.3	302529	S503UC-K0.2-0.3	2CCF008996R0001		0.750	1
	0.28-0.42	302536	S503UC-K0.28-0.42	2CCF008999R0001		0.750	1
	0.38-0.58	302543	S503UC-K0.38-0.58	2CCF009002R0001		0.750	1
	0.53-0.8	302550	S503UC-K0.53-0.8	2CCF009005R0001		0.750	1
	0.73-1.1	302567	S503UC-K0.73-1.1	2CCF009008R0001		0.750	1
	1-1.5	302574	S503UC-K1-1.5	2CCF009011R0001		0.750	1
	1.4-2.1	302581	S503UC-K1.4-2.1	2CCF009014R0001		0.750	1
	2-3	302598	S503UC-K2-3	2CCF009017R0001		0.750	1
	2.8-4.2	302604	S503UC-K2.8-4.2	2CCF009020R0001		0.750	1
	3.8-5.8	302611	S503UC-K3.8-5.8	2CCF009023R0001		0.750	1
	5.3-8	302628	S503UC-K5.3-8	2CCF009026R0001		0.750	1
	7.3-11	302635	S503UC-K7.3-11	2CCF009029R0001		0.750	1
	10-15	302642	S503UC-K10-15	2CCF009032R0001		0.750	1
	14-20	302659	S503UC-K14-20	2CCF009035R0001		0.750	1
	18-26	302666	S503UC-K18-26	2CCF009038R0001		0.750	1
	23-32	302673	S503UC-K23-32	2CCF009041R0001		0.750	1
29-37	302680	S503UC-K29-37	2CCF009044R0001		0.750	1	
34-41	302697	S503UC-K34-41	2CCF009047R0001		0.750	1	
38-45	302703	S503UC-K38-45	2CCF009050R0001		0.750	1	

Where to find more:

Back-up coordination tables for S500 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Maybe you are also interested in:

Auxiliary elements for S500 MCBs - chapter 3

Number of poles	Rated current	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
4	0.1-0.15	302758	S504UC-K0,15	2CCF011771R0001		0,92	1
	0.14-0.21	302765	S504UC-K0,21	2CCF011772R0001		0,92	1
	0.2-0.3	302772	S504UC-K0,3	2CCF011576R0001		0,92	1
	0.28-0.42	302789	S504UC-K0,42	2CCF011773R0001		0,92	1
	0.38-0.58	302796	S504UC-K0,58	2CCF011774R0001		0,92	1
	0.53-0.8	302802	S504UC-K0,8	2CCF011775R0001		0,92	1
	0.73-1.1	302819	S504UC-K1,1	2CCF011776R0001		0,92	1
	1-1.5	302826	S504UC-K1,5	2CCF011777R0001		0,92	1
	1.4-2.1	302833	S504UC-K2,1	2CCF011778R0001		0,92	1
	2-3	302840	S504UC-K3	2CCF011779R0001		0,92	1
	2.8-4.2	302857	S504UC-K4,2	2CCF011780R0001		0,92	1
	3.8-5.8	302864	S504UC-K5,8	2CCF011781R0001		0,92	1
	5.3-8	302871	S504UC-K8	2CCF011782R0001		0,92	1
	7.3-11	302888	S504UC-K11	2CCF011509R0001		0,92	1
	10-15	302895	S504UC-K15	2CCF011783R0001		0,92	1
	14-20	302901	S504UC-K20	2CCF011784R0001		0,92	1
	18-26	302918	S504UC-K26	2CCF011785R0001		0,92	1
	23-32	302925	S504UC-K32	2CCF011786R0001		0,92	1
	29-37	302932	S504UC-K37	2CCF011787R0001		0,92	1
	34-41	302949	S504UC-K41	2CCF011788R0001		0,92	1
38-45	302956	S504UC-K45	2CCF011789R0001		0,92	1	

MCBs

S500HV series for applications up to 1000 VAC, K characteristic

1



S501HV



S502HV



S503HV

Icu = 1.5 kA

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
1	1	0403454	S501HV-K1-580V	2CCF017747R0001		0.25 kg	1 pc.
	3	0424160	S501HV-K3-580V	2CCF015787R0001			
	4	0424184	S501HV-K4-580V	2CCF015790R0001			
	6	0424214	S501HV-K6-580V	2CCF015793R0001			
	8	0424245	S501HV-K8-580V	2CCF015796R0001			
	10	0424276	S501HV-K10-580V	2CCF015799R0001			
	13	0424306	S501HV-K13-580V	2CCF015802R0001			
	16	0424337	S501HV-K16-580V	2CCF015805R0001			
	20	0424368	S501HV-K20-580V	2CCF015808R0001			
	25	0424399	S501HV-K25-580V	2CCF015811R0001			
	32	0424429	S501HV-K32-580V	2CCF015814R0001			
	40	0424450	S501HV-K40-580V	2CCF015817R0001			
	45	0424481	S501HV-K45-580V	2CCF015820R0001			

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	1	1407810	S502HV-K1-1000V	2CCF017961R0001		0.50 kg	1 pc.
	3	0424177	S502HV-K3-1000V	2CCF015788R0001			
	4	0424191	S502HV-K4-1000V	2CCF015791R0001			
	6	0424221	S502HV-K6-1000V	2CCF015794R0001			
	8	0424252	S502HV-K8-1000V	2CCF015797R0001			
	10	0424283	S502HV-K10-1000V	2CCF015800R0001			
	13	0424313	S502HV-K13-1000V	2CCF015803R0001			
	16	0424344	S502HV-K16-1000V	2CCF015806R0001			
	20	0424375	S502HV-K20-1000V	2CCF015809R0001			
	25	0424405	S502HV-K25-1000V	2CCF015812R0001			
	32	0424436	S502HV-K32-1000V	2CCF015815R0001			
	40	0424467	S502HV-K40-1000V	2CCF015818R0001			
	45	0424498	S502HV-K45-1000V	2CCF015821R0001			

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	1	0403461	S503HV-K1-1000V	2CCF017748R0001		0.71 kg	1 pc.
	3	0500499	S503HV-K3-1000V	2CCF015827R0001			
	4	0424207	S503HV-K4-1000V	2CCF015792R0001			
	6	0424238	S503HV-K6-1000V	2CCF015795R0001			
	8	0424269	S503HV-K8-1000V	2CCF015798R0001			
	10	0424290	S503HV-K10-1000V	2CCF015801R0001			
	13	0424320	S503HV-K13-1000V	2CCF015804R0001			
	16	0424351	S503HV-K16-1000V	2CCF015807R0001			
	20	0424382	S503HV-K20-1000V	2CCF015810R0001			
	25	0424412	S503HV-K25-1000V	2CCF015813R0001			
	32	0424443	S503HV-K32-1000V	2CCF015816R0001			
	40	0424474	S503HV-K40-1000V	2CCF015819R0001			
	45	0424504	S503HV-K45-1000V	2CCF015822R0001			

Where to find more:

Back-up coordination tables for S500 MCBs: Chapter 1 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MCBs - chapter 15

Maybe you are also interested in:
Auxiliary elements for S500 MCBs - chapter 3

Solutions for electrical installation in buildings

Residual current devices

Quick selection of RCDs for household and industrial applications 2/2

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AFDD

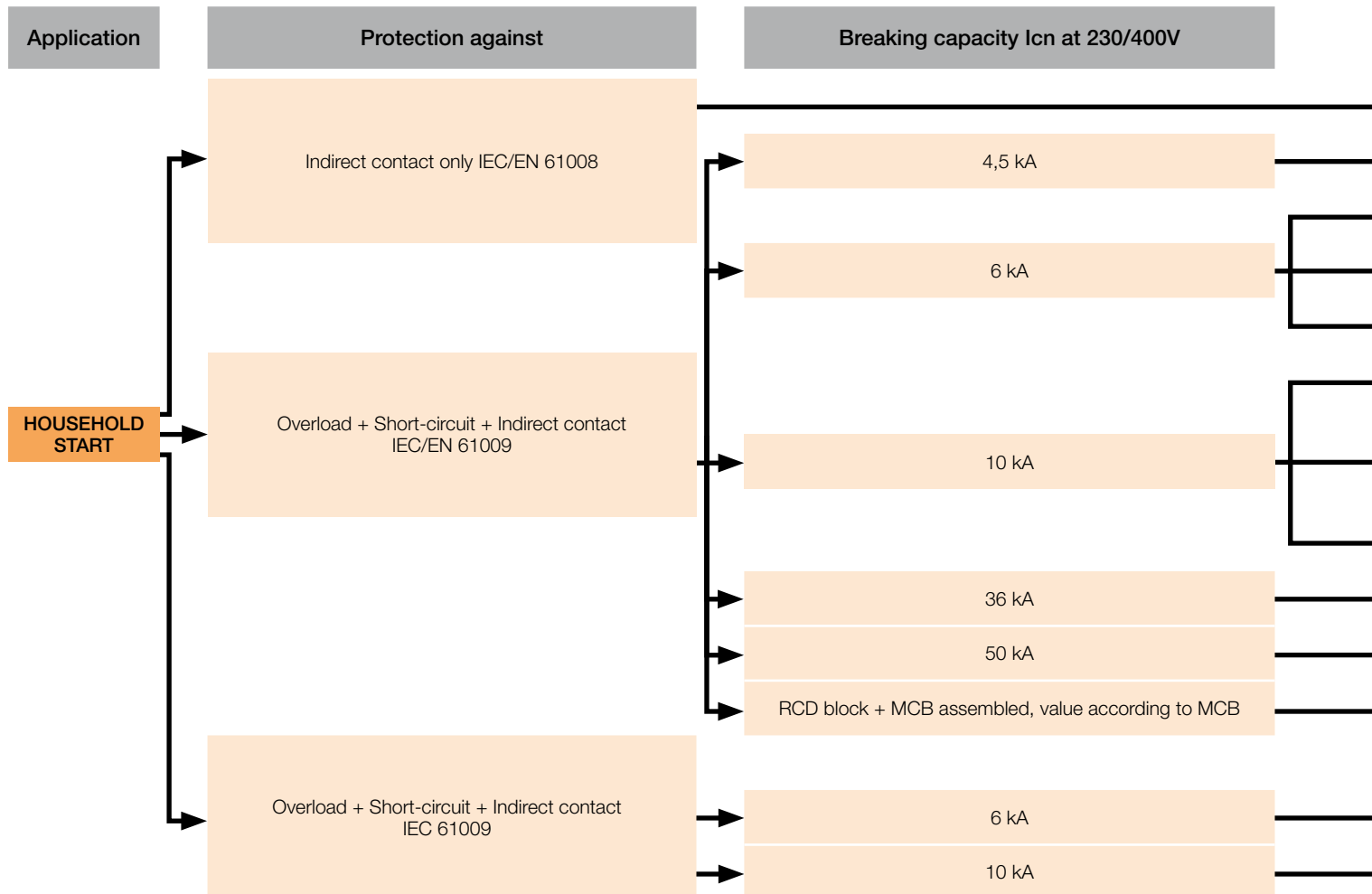
S-ARC1	2/135
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System pro M compact®

Quick selection of RCDs for household and industrial applications

Easy! Find the right range and the corresponding catalogue page at a glance using this selection chart.

2



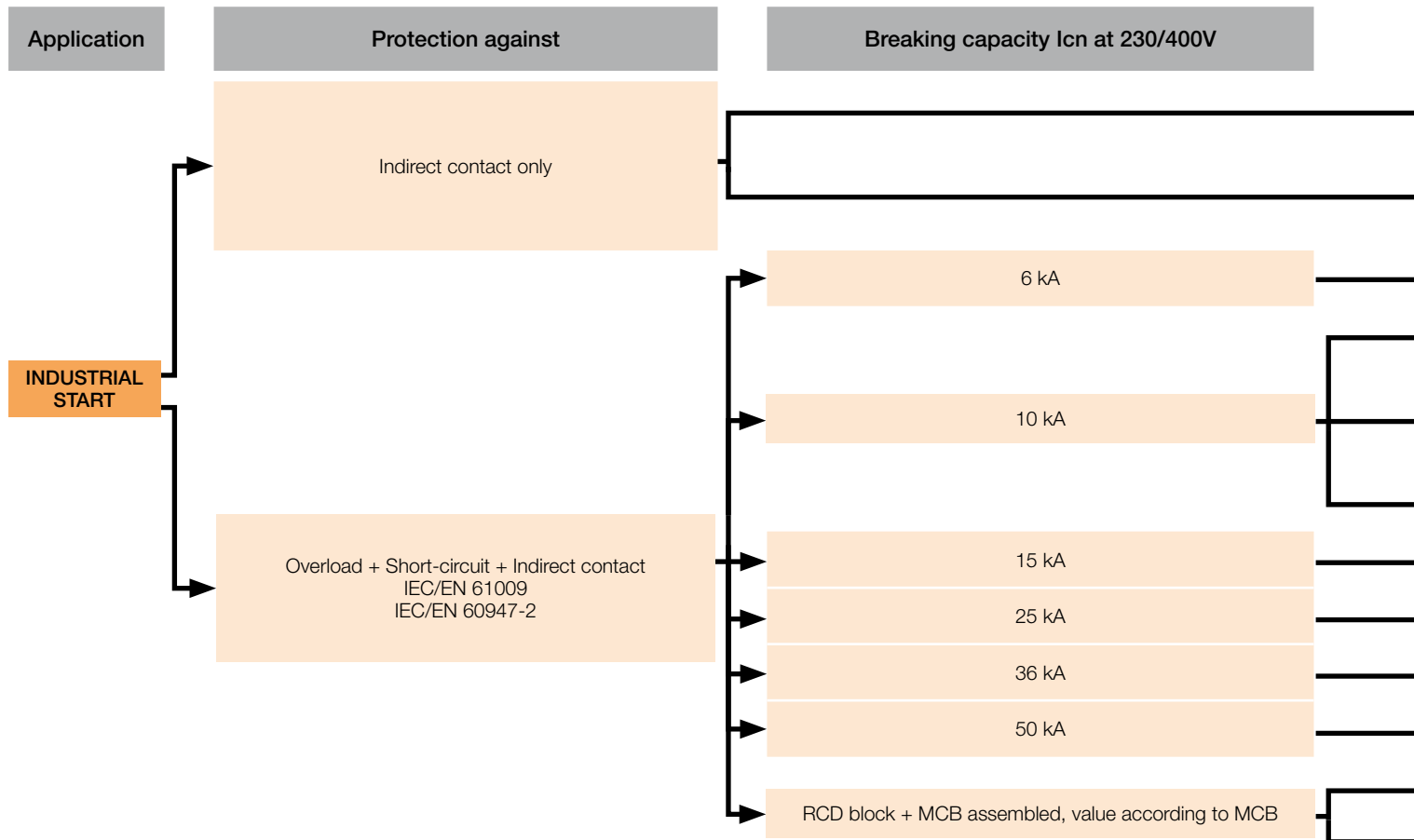
Rated current	Remark	Poles	Solution	Page
Up to 125 A		All poles	F200	2/10
Up to 32 A		1P+N	DS201 L	2/46
Up to 32 A	Reduced size	2P	DS202C	2/66
Up to 40 A	Reduced size	1P+N	DS201	2/49
Up to 63 A	Standard size	All poles	DS 200	2/92
Up to 32 A	Reduced size	2P	DS202C M	2/68
Up to 40 A	Reduced size	1P+N	DS201 M	2/56
Up to 63 A	Standard size	All poles	DS 200 M	2/97
Up to 125 A		All poles	DS800N	2/124
Up to 125 A		All poles	DS800S	2/124
Up to 63 A	RCD: IEC/EN 61009 Ann. G	All poles	DDA 200 + S200	2/32 + 1/12
Up to 50 A	Voltage dependent	1P+N	DSE201	2/102
Up to 50 A	Voltage dependent	1P+N	DSE201 M	2/108

System pro M compact®

Quick selection of RCDs for household and industrial applications

Easy! Find the right range and the corresponding catalogue page at a glance using this selection chart.

2



Rated current	Remark	Poles	Solution	Page
Up to 125 A	IEC/EN 61008	All poles	F200	2/10
According to MCB	IEC/EN 62020	All poles	RD2	2/130
	IEC/EN 60947-2 Ann. M	All poles	RD3	2/131
Up to 32 A		1P+N	DS201 L	2/46
Up to 32 A		2P	DS202C, DS202C M	2/66, 2/68
Up to 40 A		1P+N	DS201, DS201 M	2/49, 2/56
Up to 63 A		All poles	DS 200	2/92
Up to 63 A		All poles	DS 200 M	2/97
Up to 100 A		All poles	DDA800 + S800C	2/118 + 1/110
Up to 125 A		All poles	DS800N	2/124
Up to 125 A		All poles	DS800S	2/124
Up to 63 A	RCD: IEC/EN 61009 Ann. G	All poles	DDA 200 + S200	2/32 + 1/12
Up to 100 A	RCD: IEC/EN 60947-2 Ann. B	All poles	DDA 800 + S800	2/118 + 1/86

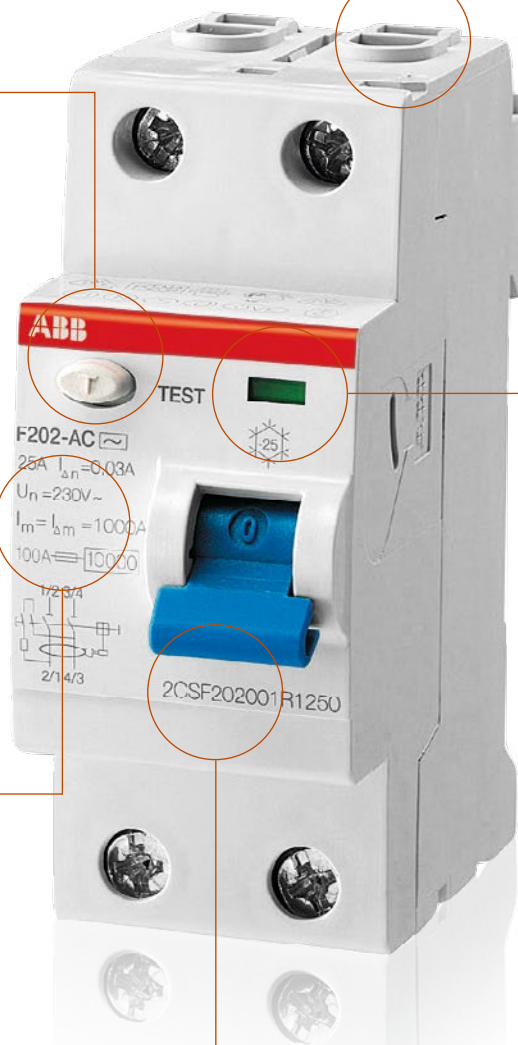
RCCB F 200. The details make the difference

A range designed to ensure efficiency and protection

2

Test pushbutton to verify the correct functioning of the device.

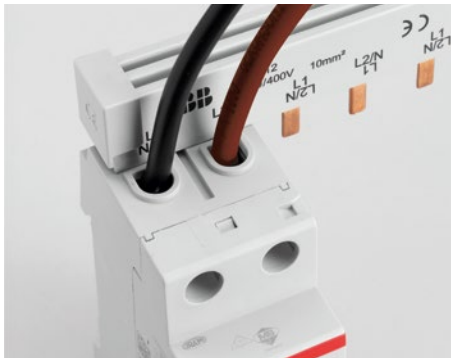
Bi-directional cylindrical terminal ensure higher safety of connecting operations, making them easier.



Information on the device are laser printed to make them clearly visible and long lasting.

Contact position indicator (CPI): to always know the status of the contacts (red: closed contacts; green: open contacts) independently on the toggle position

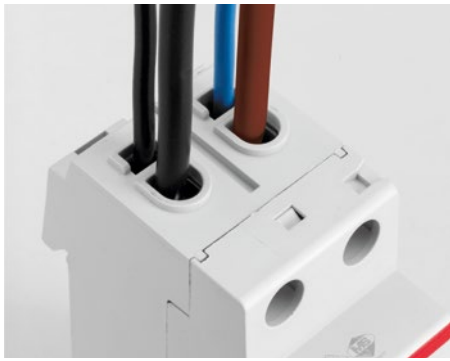
Laser-marked order code on the front to make easier future orders.



Two terminals are available, the fore one for cables up to 25 mm², the back one for cables up to 10 mm² or for busbars.



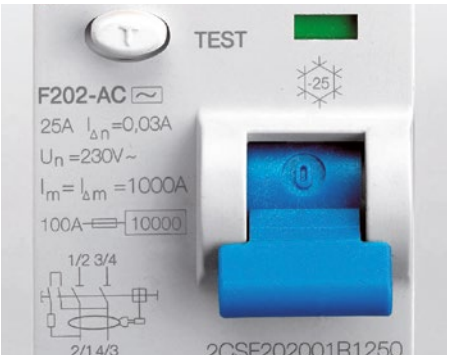
RCCBs F200 can be used in ambient conditions where the temperature of the surrounding atmosphere has values between -25°C (snowflake laser printed on the front of the device) and +55°C.



The availability of two terminals offers different connection solutions thanks to the possibility to connect two independent cables in the same device: the second terminal can be used for an auxiliary circuit or for the supply of devices with small section cables without connecting them together with the main circuit.



All the safety ensured by the international marks: approvals' marking in a visible area, even if RCDs is installed and with the panel-door closed.



High performances:

- rated breaking capacity and rated residual breaking capacity laser printed on the device: $I_m=I_{\Delta m}= 1000 \text{ A}$
- coordination with a 100 A rated current SCPD (short-circuit protective device) = 10000 A.



The F 202 can be coupled with the autoreclosing unit F2C-ARH in order to ensure continuity of service for the whole installation of your home avo ding lack of supply.

RCCBs

F200 technical features

2



	Standards		
Electrical features	Type (wave form of the earth leakage sensed)		
	Poles		
	Rated current I _n		A
	Rated sensitivity I _{Δn}		A
	Rated voltage U _e	IEC	V
		UL/CSA	V
	Insulation voltage U _i		V
	Max. operating voltage of circuit test	IEC	V
		UL/CSA	V
	Min. operating voltage of circuit test		V
	Rated frequency		Hz
	Rated conditional short-circuit current I _{nc} =I _{Δn} ①	SCPD - fuse gG 100 A	kA
	Rated residual breaking capacity I _{Δm} =I _m		kA
	Rated impulse withstand voltage (1.2/50) U _{imp}		kV
	Dielectric test voltage at ind. freq. for 1 min.		kV
Overvoltage category			
Surge current resistance (wave 8/20)		A	
Mechanical features	Toggle		
	Contact position indicator (CPI)		
	Electrical life		
	Mechanical life		
	Protection degree	housing	
		terminals	
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH
Ambient temperature (with daily average ≤ +35 °C)	IEC	°C	
Storage temperature		°C	
Installation	Terminal type		
	Terminal size top/bottom for cable	IEC	mm ²
		UL/CSA	AWG
	Terminal size top/bottom for busbar	IEC	mm ²
		UL/CSA	AWG
	Tightening torque	IEC	Nm
		UL/CSA	in-lbs.
	Tool		
	Mounting		
	Connection		
Withdrawal from busbar			
Dimensions and weight	Dimensions (H x D x W)	2P	mm
		4P	mm
	Weight	2P	g
4P		g	
Combination with auxiliary elements	Combinable with:	auxiliary contact	
		signal contact/auxiliary switch	
		shunt trip	
		undervoltage release	

① Ground-fault sensing and relaying equipment-component (up to 63 A)

② prior to connection of aluminium conductors (≥ 4 mm²) ensure that their contact points are cleaned, brushed and coated with grease

③ for S700-E/K 100A, S750-E 63A, S750DR-E/K 63A and other SCPD coordination values see Chapter 3 of Solutions for electrical distribution in buildings - technical details

④ F200 left neutral has not the UL certification and the UL mark

⑤ Only for versions with marking according to EN 61008-1; EN 61008-2-1

F200 AC	F200 A	F200 A AP-R	F200 A S	F200 A 110V	F200 A 400 Hz	F200 A 16 2/3 Hz
IEC/EN 61008-1; IEC/EN 61008-2-1, UL 1053 ①				IEC 61008-1; IEC 61008-2-1; UL 1053	IEC/EN 61008-1; IEC/EN 61008-2-1	IEC/EN 61008-1; IEC/EN 61008-2-1
AC	A	A	A	A	A	A
2P, 4P (for 125 A only 4P)				2P, 4P	4P	2P, 4P
16, 25, 40, 63, 80, 100, 125		25, 40, 63, 80, 100, 125	40, 63, 80, 100, 125	25, 40, 63, 80, 100	25, 40	63
0.01-0.03-0.1-0.3-0.5		0.03	0.1-0.3-0.5-1	0.03	0.03	0.03-0.3-0.5
230/400 - 240/415						
480Y/277 (up to 100 A)				-	-	
500						
254 (440 for 125 A); 440 for F 200 left neutral				254	254	254
254 (250 for 125 A); 440 for F 200 left neutral for IΔn = 30 mA ②						
277 (up to 100 A); 480 for F 200 left neutral ④				-	-	
110 (185 for 125 A); 195 for F 200 left neutral				110	170	110, 170 for IΔn=30mA
170 (150 for 125 A); 300 for F 200 left neutral for IΔn = 30 mA ⑤						
50...60					50...400	16 2/3
10 (for 125 A fuse is gG 125 A)						
1 (1.25 for 125 A)						
4						
2.5						
III, disconnecter abilities						
250		3000	5000	250	250	250
blue sealable in ON-OFF position						
yes						
10000 (2000 for 125 A)				10000	10000	10000
20000 (5000 for 125 A)				20000	20000	20000
IP4X						
IP2X						
28 cycles with 55°C/90-96% and 25°C/95-100%						
-25...+55 (-25...+40 for 125 A)				-25...+55	-25...+55	-25...+55
-40...+70						
failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected) (cage for In > 63 A) ⑥						
25/25 (35/35 single slot terminal for In > 63 A)					25/25	25/25
18-4 (up to 63 A)				-	-	
10/10 (not for In = 80-100 A)					10/10	10/10
18-8 (up to 63 A)				-	-	
2.8 (3 for In = 125 A)				2.8	2.8	2.8
25 (up to 63 A)				-	-	
Nr. 2 Pozidriv						
on DIN rail EN 60715 (35 mm) by means of fast clip device						
from top and bottom						
it is possible without using any tools only from the bottom (not for 125 A)						
85 x 69 x 35					-	
85 x 69 x 70 (85 x 69.5 x 72 for 125 A)					85 x 69 x 70	85 x 69 x 70
200					-	
350 (380 for In = 80 and 100 A and 460 for In = 125A)					350	350
yes (no for 125 A)					yes	yes
yes					yes	yes
yes (no for 125 A)					yes	yes
yes (no for 125 A)					yes	yes

RCCBs

F 200 series AC type



F202

F 200 AC type

Function: protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61008-1; IEC/EN 61008-2-1

Marking: according to EN 61008-1; EN 61008-2-1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	10	16	779902	F202 AC-16/0.01	2CSF202001R0160		0.225	1/6
		25	738022	F202 AC-25/0.01	2CSF202001R0250		0.225	1/6
	30	25	780007	F202 AC-25/0.03	2CSF202001R1250		0.225	1/6
		40	780106	F202 AC-40/0.03	2CSF202001R1400		0.225	1/6
		63	780205	F202 AC-63/0.03	2CSF202001R1630		0.225	1/6
		80	914204	F202 AC-80/0.03	2CSF202001R1800		0.225	1/6
		100	914303	F202 AC-100/0.03	2CSF202001R1900		0.225	1/6
	100	25	780304	F202 AC-25/0.1	2CSF202001R2250		0.225	1/6
		40	780403	F202 AC-40/0.1	2CSF202001R2400		0.225	1/6
		63	780502	F202 AC-63/0.1	2CSF202001R2630		0.225	1/6
		80	914402	F202 AC-80/0.1	2CSF202001R2800		0.225	1/6
		100	914501	F202 AC-100/0.1	2CSF202001R2900		0.225	1/6
	300	25	780601	F202 AC-25/0.3	2CSF202001R3250		0.225	1/6
		40	780700	F202 AC-40/0.3	2CSF202001R3400		0.225	1/6
		63	780809	F202 AC-63/0.3	2CSF202001R3630		0.225	1/6
		80	914600	F202 AC-80/0.3	2CSF202001R3800		0.225	1/6
		100	914709	F202 AC-100/0.3	2CSF202001R3900		0.225	1/6
	500	25	780908	F202 AC-25/0.5	2CSF202001R4250		0.225	1/6
		40	781004	F202 AC-40/0.5	2CSF202001R4400		0.225	1/6
		63	781103	F202 AC-63/0.5	2CSF202001R4630		0.225	1/6
80		914808	F202 AC-80/0.5	2CSF202001R4800		0.225	1/6	
100		914907	F202 AC-100/0.5	2CSF202001R4900		0.225	1/6	

Where to find more:

Coordination tables for F 200
RCCBs: Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Worldwide Marks and Approvals -
chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3



F204

2CSF204001R1250



F204 125 A

2CSF204001R2950

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	25	781202	F204 AC-25/0.03	2CSF204001R1250		0.375	1/3
		40	781301	F204 AC-40/0.03	2CSF204001R1400		0.375	1/3
		63	781400	F204 AC-63/0.03	2CSF204001R1630		0.375	1/3
		80	916604	F204 AC-80/0.03	2CSF204001R1800		0.405	1/3
		100	916703	F204 AC-100/0.03	2CSF204001R1900		0.405	1/3
		125	941507	F204 AC-125/0.03	2CSF204001R1950		0.500	1
	100	25	781509	F204 AC-25/0.1	2CSF204001R2250		0.375	1/3
		40	781608	F204 AC-40/0.1	2CSF204001R2400		0.375	1/3
		63	781707	F204 AC-63/0.1	2CSF204001R2630		0.375	1/3
		80	916802	F204 AC-80/0.1	2CSF204001R2800		0.405	1/3
		100	916901	F204 AC-100/0.1	2CSF204001R2900		0.405	1/3
		125	941606	F204 AC-125/0.1	2CSF204001R2950		0.500	1
	300	25	781806	F204 AC-25/0.3	2CSF204001R3250		0.375	1/3
		40	781905	F204 AC-40/0.3	2CSF204001R3400		0.375	1/3
		63	782001	F204 AC-63/0.3	2CSF204001R3630		0.375	1/3
		80	917007	F204 AC-80/0.3	2CSF204001R3800		0.405	1/3
		100	917106	F204 AC-100/0.3	2CSF204001R3900		0.405	1/3
		125	941705	F204 AC-125/0.3	2CSF204001R3950		0.500	1
500	25	782100	F204 AC-25/0.5	2CSF204001R4250		0.375	1/3	
	40	782209	F204 AC-40/0.5	2CSF204001R4400		0.375	1/3	
	63	782308	F204 AC-63/0.5	2CSF204001R4630		0.375	1/3	
	80	917205	F204 AC-80/0.5	2CSF204001R4800		0.405	1/3	
	100	917304	F204 AC-100/0.5	2CSF204001R4900		0.405	1/3	
	125	941804	F204 AC-125/0.5	2CSF204001R4950		0.500	1	

RCCBs

F 200 series AC type, for overseas markets

2



F202



F204

F 200 AC type (for overseas markets)

Function: protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61008-1; IEC/EN 61008-2-1

Marking: according to IEC 61008-1; IEC 61008-2-1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
2	10	16	814603	F202 AC-16/0.01	2CSF202005R0160		0.225	1/6	
		30	25	814702	F202 AC-25/0.03	2CSF202005R1250		0.225	1/6
			40	814801	F202 AC-40/0.03	2CSF202005R1400		0.225	1/6
			63	814900	F202 AC-63/0.03	2CSF202005R1630		0.225	1/6
			80	935902	F202 AC-80/0.03	2CSF202005R1800		0.225	1/6
	100	936008	F202 AC-100/0.03	2CSF202005R1900		0.225	1/6		
	100	25	815006	F202 AC-25/0.1	2CSF202005R2250		0.225	1/6	
		40	815105	F202 AC-40/0.1	2CSF202005R2400		0.225	1/6	
		63	815204	F202 AC-63/0.1	2CSF202005R2630		0.225	1/6	
		80	936107	F202 AC-80/0.1	2CSF202005R2800		0.225	1/6	
		100	936206	F202 AC-100/0.1	2CSF202005R2900		0.225	1/6	
	300	25	815303	F202 AC-25/0.3	2CSF202005R3250		0.225	1/6	
		40	815402	F202 AC-40/0.3	2CSF202005R3400		0.225	1/6	
		63	815501	F202 AC-63/0.3	2CSF202005R3630		0.225	1/6	
		80	936305	F202 AC-80/0.3	2CSF202005R3800		0.225	1/6	
		100	936404	F202 AC-100/0.3	2CSF202005R3900		0.225	1/6	
	500	80	936503	F202 AC-80/0.5	2CSF202005R4800		0.225	1/6	
		100	936602	F202 AC-100/0.5	2CSF202005R4900		0.225	1/6	

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	25	817109	F204 AC-25/0.03	2CSF204005R1250		0.375	1/3
		40	817208	F204 AC-40/0.03	2CSF204005R1400		0.375	1/3
		63	817307	F204 AC-63/0.03	2CSF204005R1630		0.375	1/3
		80	936701	F204 AC-80/0.03	2CSF204005R1800		0.405	1/3
		100	936800	F204 AC-100/0.03	2CSF204005R1900		0.405	1/3
	100	25	817406	F204 AC-25/0.1	2CSF204005R2250		0.375	1/3
		40	817505	F204 AC-40/0.1	2CSF204005R2400		0.375	1/3
		63	817604	F204 AC-63/0.1	2CSF204005R2630		0.375	1/3
		80	936909	F204 AC-80/0.1	2CSF204005R2800		0.405	1/3
		100	937005	F204 AC-100/0.1	2CSF204005R2900		0.405	1/3
	300	25	817703	F204 AC-25/0.3	2CSF204005R3250		0.375	1/3
		40	817802	F204 AC-40/0.3	2CSF204005R3400		0.375	1/3
		63	817901	F204 AC-63/0.3	2CSF204005R3630		0.375	1/3
		80	937104	F204 AC-80/0.3	2CSF204005R3800		0.405	1/3
		100	937203	F204 AC-100/0.3	2CSF204005R3900		0.405	1/3
	500	80	937302	F204 AC-80/0.5	2CSF204005R4800		0.405	1/3
		100	937401	F204 AC-100/0.5	2CSF204005R4900		0.405	1/3

Where to find more:
 Coordination tables for F 200 RCCBs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide Marks and Approvals - chapter 15

Maybe you are also interested in:
 Auxiliary elements for RCDs - chapter 3
 Accessories for RCDs - chapter 3
 Busbar systems - chapter 3

RCCBs

F 200 series AC type left neutral



F204 left neutral

2CSC400197F0201



F204 left neutral 125 A

2CSC400197F0201

F 200 AC type with neutral pole on the left

Function: protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_n=30$ mA). Product helpful where for installation habits, for wiring with busbars or cables, for special needs neutral on the left is needed.

Application: residential, commercial, industrial.

Standard: IEC/EN 61008-1; IEC/EN 61008-2-1

Marking: according to EN 61008-1; EN 61008-2-1

Number of poles	Rated residual current in mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
4	30	25	815907	F204 AC-25/0.03	2CSF204023R1250		0.375	1/3	
		40	816003	F204 AC-40/0.03	2CSF204023R1400		0.375	1/3	
		63	816102	F204 AC-63/0.03	2CSF204023R1630		0.375	1/3	
		80	917403	F204 AC-80/0.03	2CSF204023R1800		0.405	1/3	
		100	917502	F204 AC-100/0.03	2CSF204023R1900		0.405	1/3	
		125	975106	F204 AC-125/0.03	2CSF204023R1950		0.500	1	
	100	30	25	816201	F204 AC-25/0.1	2CSF204023R2250		0.375	1/3
			40	816300	F204 AC-40/0.1	2CSF204023R2400		0.375	1/3
			63	816409	F204 AC-63/0.1	2CSF204023R2630		0.375	1/3
	300	30	25	816508	F204 AC-25/0.3	2CSF204023R3250		0.375	1/3
			40	816607	F204 AC-40/0.3	2CSF204023R3400		0.375	1/3
			63	816706	F204 AC-63/0.3	2CSF204023R3630		0.375	1/3
			80	917601	F204 AC-80/0.3	2CSF204023R3800		0.405	1/3
			100	917700	F204 AC-100/0.3	2CSF204023R3900		0.405	1/3
			125	975304	F204 AC-125/0.3	2CSF204023R3950		0.500	1
	500	30	25	816805	F204 AC-25/0.5	2CSF204023R4250		0.375	1/3
			40	816904	F204 AC-40/0.5	2CSF204023R4400		0.375	1/3
			63	817000	F204 AC-63/0.5	2CSF204023R4630		0.375	1/3

RCCBs

F 200 series A type



2

F202

F 200 A type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61008-1; IEC/EN 61008-2-1

Marking: according to EN 61008-1; EN 61008-2-1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	10	16	782407	F202 A-16/0.01	2CSF202101R0160		0.225	1/6
	30	25	782506	F202 A-25/0.03	2CSF202101R1250		0.225	1/6
		40	782605	F202 A-40/0.03	2CSF202101R1400		0.225	1/6
		63	782704	F202 A-63/0.03	2CSF202101R1630		0.225	1/6
		80	915201	F202 A-80/0.03	2CSF202101R1800		0.225	1/6
		100	915300	F202 A-100/0.03	2CSF202101R1900		0.225	1/6
	100	25	786900	F202 A-25/0.1	2CSF202101R2250		0.225	1/6
		40	787006	F202 A-40/0.1	2CSF202101R2400		0.225	1/6
		63	787105	F202 A-63/0.1	2CSF202101R2630		0.225	1/6
		80	915409	F202 A-80/0.1	2CSF202101R2800		0.225	1/6
		100	915508	F202 A-100/0.1	2CSF202101R2900		0.225	1/6
	300	25	782803	F202 A-25/0.3	2CSF202101R3250		0.225	1/6
		40	782902	F202 A-40/0.3	2CSF202101R3400		0.225	1/6
		63	783008	F202 A-63/0.3	2CSF202101R3630		0.225	1/6
		80	915607	F202 A-80/0.3	2CSF202101R3800		0.225	1/6
		100	915706	F202 A-100/0.3	2CSF202101R3900		0.225	1/6
	500	25	783107	F202 A-25/0.5	2CSF202101R4250		0.225	1/6
		40	783206	F202 A-40/0.5	2CSF202101R4400		0.225	1/6
		63	783305	F202 A-63/0.5	2CSF202101R4630		0.225	1/6
		80	915805	F202 A-80/0.5	2CSF202101R4800		0.225	1/6
100		915904	F202 A-100/0.5	2CSF202101R4900		0.225	1/6	

Where to find more:

Coordination tables for F 200
RCCBs: Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Worldwide Marks and Approvals -
chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3



F204

2CSC400069F201



F204 125 A

2CSC400197F201

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	25	783404	F204 A-25/0.03	2CSF204101R1250		0.375	1/3
		40	783503	F204 A-40/0.03	2CSF204101R1400		0.375	1/3
		63	783602	F204 A-63/0.03	2CSF204101R1630		0.375	1/3
		80	917809	F204 A-80/0.03	2CSF204101R1800		0.405	1/3
		100	917908	F204 A-100/0.03	2CSF204101R1900		0.405	1/3
		125	941903	F204 A-125/0.03	2CSF204101R1950		0.500	1
	100	25	787204	F204 A-25/0.1	2CSF204101R2250		0.375	1/3
		40	787303	F204 A-40/0.1	2CSF204101R2400		0.375	1/3
		63	787402	F204 A-63/0.1	2CSF204101R2630		0.375	1/3
		80	918004	F204 A-80/0.1	2CSF204101R2800		0.405	1/3
		100	918103	F204 A-100/0.1	2CSF204101R2900		0.405	1/3
		125	942009	F204 A-125/0.1	2CSF204101R2950		0.500	1
	300	25	783701	F204 A-25/0.3	2CSF204101R3250		0.375	1/3
		40	783800	F204 A-40/0.3	2CSF204101R3400		0.375	1/3
		63	783909	F204 A-63/0.3	2CSF204101R3630		0.375	1/3
		80	918202	F204 A-80/0.3	2CSF204101R3800		0.405	1/3
		100	918301	F204 A-100/0.3	2CSF204101R3900		0.405	1/3
		125	942108	F204 A-125/0.3	2CSF204101R3950		0.500	1
500	25	784005	F204 A-25/0.5	2CSF204101R4250		0.375	1/3	
	40	784104	F204 A-40/0.5	2CSF204101R4400		0.375	1/3	
	63	784203	F204 A-63/0.5	2CSF204101R4630		0.375	1/3	
	80	918400	F204 A-80/0.5	2CSF204101R4800		0.405	1/3	
	100	918509	F204 A-100/0.5	2CSF204101R4900		0.405	1/3	
	125	942207	F204 A-125/0.5	2CSF204101R4950		0.500	1	

RCCBs

F 200 series A type left neutral

2



F204 left neutral



F204 left neutral 125 A

F 200 A type with neutral pole on the left

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n}=30$ mA). Product helpful where for installation habits, for wiring with busbars or cables, for special needs neutral on the left is needed.

Application: residential, commercial, industrial.

Standard: IEC/EN 61008-1; IEC/EN 61008-2-1

Marking: according to EN 61008-1; EN 61008-2-1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	25	820109	F204 A-25/0.03	2CSF204123R1250		0.375	1/3
		40	820208	F204 A-40/0.03	2CSF204123R1400		0.375	1/3
		63	820307	F204 A-63/0.03	2CSF204123R1630		0.375	1/3
		80	918608	F204 A-80/0.03	2CSF204123R1800		0.405	1/3
		100	918707	F204 A-100/0.03	2CSF204123R1900		0.405	1/3
		125	967705	F204 A-125/0.03	2CSF204123R1950		0.500	1
	100	25	820406	F204 A-25/0.1	2CSF204123R2250		0.375	1/3
		40	820505	F204 A-40/0.1	2CSF204123R2400		0.375	1/3
		63	820604	F204 A-63/0.1	2CSF204123R2630		0.375	1/3
	300	25	820703	F204 A-25/0.3	2CSF204123R3250		0.375	1/3
		40	820802	F204 A-40/0.3	2CSF204123R3400		0.375	1/3
		63	820901	F204 A-63/0.3	2CSF204123R3630		0.375	1/3
		80	918806	F204 A-80/0.3	2CSF204123R3800		0.405	1/3
		100	918905	F204 A-100/0.3	2CSF204123R3900		0.405	1/3
		125	967804	F204 A-125/0.3	2CSF204123R3950		0.500	1
	500	25	821007	F204 A-25/0.5	2CSF204123R4250		0.375	1/3
		40	821106	F204 A-40/0.5	2CSF204123R4400		0.375	1/3
		63	821205	F204 A-63/0.5	2CSF204123R4630		0.375	1/3

Where to find more:

Coordination tables for F 200
RCCBs: Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Worldwide Marks and Approvals -
chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCCBs

F 200 series A type, AP-R (high immunity)



F202

F 200 AP-R, A type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct contacts ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61008-1; IEC/EN 61008-2-1

Surge current resistance (wave 8/20)=3000 A

Marking: according to EN 61008-1; EN 61008-2-1



F204



F204 125 A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	25	785101	F202 A-25/0.03 AP-R	2CSF202401R1250		0.225	1/6
		40	785200	F202 A-40/0.03 AP-R	2CSF202401R1400		0.225	1/6
		63	785309	F202 A-63/0.03 AP-R	2CSF202401R1630		0.225	1/6
		80	916406	F202 A-80/0.03 AP-R	2CSF202401R1800		0.225	1/6
		100	916505	F202 A-100/0.03 AP-R	2CSF202401R1900		0.225	1/6

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	25	785408	F204 A-25/0.03 AP-R	2CSF204401R1250		0.375	1/3
		40	785507	F204 A-40/0.03 AP-R	2CSF204401R1400		0.375	1/3
		63	785606	F204 A-63/0.03 AP-R	2CSF204401R1630		0.375	1/3
		80	919407	F204 A-80/0.03 AP-R	2CSF204401R1800		0.405	1/3
		100	919506	F204 A-100/0.03 AP-R	2CSF204401R1900		0.405	1/3
		125	967903	F204 A-125/0.03 AP-R	2CSF204401R1950		0.500	1

RCCBs

F 200 series A type, selective

2



F202



F204



F204 125 A

F 200 A selective type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents with an intentional tripping delay, which permits to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide); protection against indirect contacts.

Application: commercial, industrial.

Standard: IEC/EN 61008-1; IEC/EN 61008-2-1

Surge current resistance (wave 8/20)=5000 A

Marking: according to EN 61008-1; EN 61008-2-1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	100	40	822905	F202 A S-40/0.1	2CSF202201R2400		0.225	1/6
		63	823001	F202 A S-63/0.1	2CSF202201R2630		0.225	1/6
		100	916000	F202 A S-100/0.1	2CSF202201R2900		0.225	1/6
	300	40	784302	F202 A S-40/0.3	2CSF202201R3400		0.225	1/6
		63	784401	F202 A S-63/0.3	2CSF202201R3630		0.225	1/6
		100	916109	F202 A S-100/0.3	2CSF202201R3900		0.225	1/6
	500	40	784500	F202 A S-40/0.5	2CSF202201R4400		0.225	1/6
		63	784609	F202 A S-63/0.5	2CSF202201R4630		0.225	1/6
		100	916208	F202 A S-100/0.5	2CSF202201R4900		0.225	1/6
1000	40	823100	F202 A S-40/1	2CSF202201R5400		0.225	1/6	
	63	823209	F202 A S-63/1	2CSF202201R5630		0.225	1/6	
	100	916307	F202 A S-100/1	2CSF202201R5900		0.225	1/6	

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	100	40	823308	F204 A S-40/0.1	2CSF204201R2400		0.375	1/3
		63	823407	F204 A S-63/0.1	2CSF204201R2630		0.375	1/3
		100	919001	F204 A S-100/0.1	2CSF204201R2900		0.405	1/3
	300	40	784708	F204 A S-40/0.3	2CSF204201R3400		0.375	1/3
		63	784807	F204 A S-63/0.3	2CSF204201R3630		0.375	1/3
		100	919100	F204 A S-100/0.3	2CSF204201R3900		0.405	1/3
		125	968207	F204 A S-125/0.3	2CSF204201R3950		0.500	1
	500	40	784906	F204 A S-40/0.5	2CSF204201R4400		0.375	1/3
		63	785002	F204 A S-63/0.5	2CSF204201R4630		0.375	1/3
		100	919209	F204 A S-100/0.5	2CSF204201R4900		0.405	1/3
		125	968405	F204 A S-125/0.5	2CSF204201R4950		0.500	1
	1000	40	823506	F204 A S-40/1	2CSF204201R5400		0.375	1/3
		63	823605	F204 A S-63/1	2CSF204201R5630		0.375	1/3
		100	919308	F204 A S-100/1	2CSF204201R5900		0.405	1/3

Where to find more:

Coordination tables for F 200 RCCBs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide Marks and Approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCCBs

F 200 110V series A type



F202 110V



F204 110V

F 200 110V A type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n}=30$ mA). This particular series of devices has the minimum operating voltage of test button of 110V and it is suitable for 230 V applications. This range is UL approved.

Application: residential, commercial, industrial.

Standard: IEC 61008-1; IEC 61008-2-1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	25	343332	F202 A-25/0.03 110V	2CSF202199R1250		0.225	1/6
		40	343233	F202 A-40/0.03 110V	2CSF202199R1400		0.225	1/6
		63	343134	F202 A-63/0.03 110V	2CSF202199R1630		0.225	1/6
		80	343035	F202 A-80/0.03 110V	2CSF202199R1800		0.225	1/6
		100	342939	F202 A-100/0.03 110V	2CSF202199R1100		0.225	1/6

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	25	776734	F204 A-25/0.03 110V	2CSF204199R1250		0.375	1/3
		40	342830	F204 A-40/0.03 110V	2CSF204199R1400		0.375	1/3
		63	342731	F204 A-63/0.03 110V	2CSF204199R1630		0.375	1/3
		80	358435	F204 A-80/0.03 110V	2CSF204199R1800		0.405	1/3
		100	079132	F204 A-100/0.03 110V	2CSF204199R1100		0.405	1/3

RCCBs

F 200 series A type for high frequency and railways applications

2



F202



F204

F 200 A type for high frequency (400 Hz)

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct (with $I_{\Delta n}=30$ mA) contacts.

Advantages: increasing the frequency generates an increase of the magnetic reluctance of the toroidal transformer of standard RCCB and what follows is the value of the increasing operating residual current at 400 Hz reaching values 3 or more times higher than those of the residual current at 50Hz. The RCCB F 200 400 Hz guarantees protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n}=30$ mA) considering that the operating residual current doesn't increase with the increase of the network frequency.

Application: commercial, industrial.

Standard: IEC/EN 61008-1; IEC/EN 61008-2-1

Marking: according to EN 61008-1; EN 61008-2-1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	25	968603	F204 A-25/0.03 400Hz	2CSF204197R1250		0.375	1/3
		40	968702	F204 A-40/0.03 400Hz	2CSF204197R1400			

F200 A type 16 2/3 Hz

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n}=30$ mA).

The RCCB F200 16 2/3 Hz can work at rated frequency of 16 2/3 Hz which is common in railways applications

Application: railways

Standard: IEC/EN 61008-1; IEC/EN 61008-2-1

Marking: according to EN 61008-1; EN 61008-2-1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	63	734536	F202 A-63/0.03 16-2/3Hz	2CSF202196R1630		0.225	1/6
		300	733638	F202 A-63/0.3 16-2/3Hz	2CSF202196R3630			
		500	734437	F202 A-63/0.5 16-2/3Hz	2CSF202196R4630			
4	30	63	733539	F204 A-63/0.03 16-2/3Hz	2CSF204196R1630		0.375	1/3
		300	734338	F204 A-63/0.3 16-2/3Hz	2CSF204196R3630			
		500	733430	F204 A-63/0.5 16-2/3Hz	2CSF204196R4630			

Where to find more:

Coordination tables for F 200 RCCBs: Chapter 2 of Solutions for electrical installation in buildings - technical details

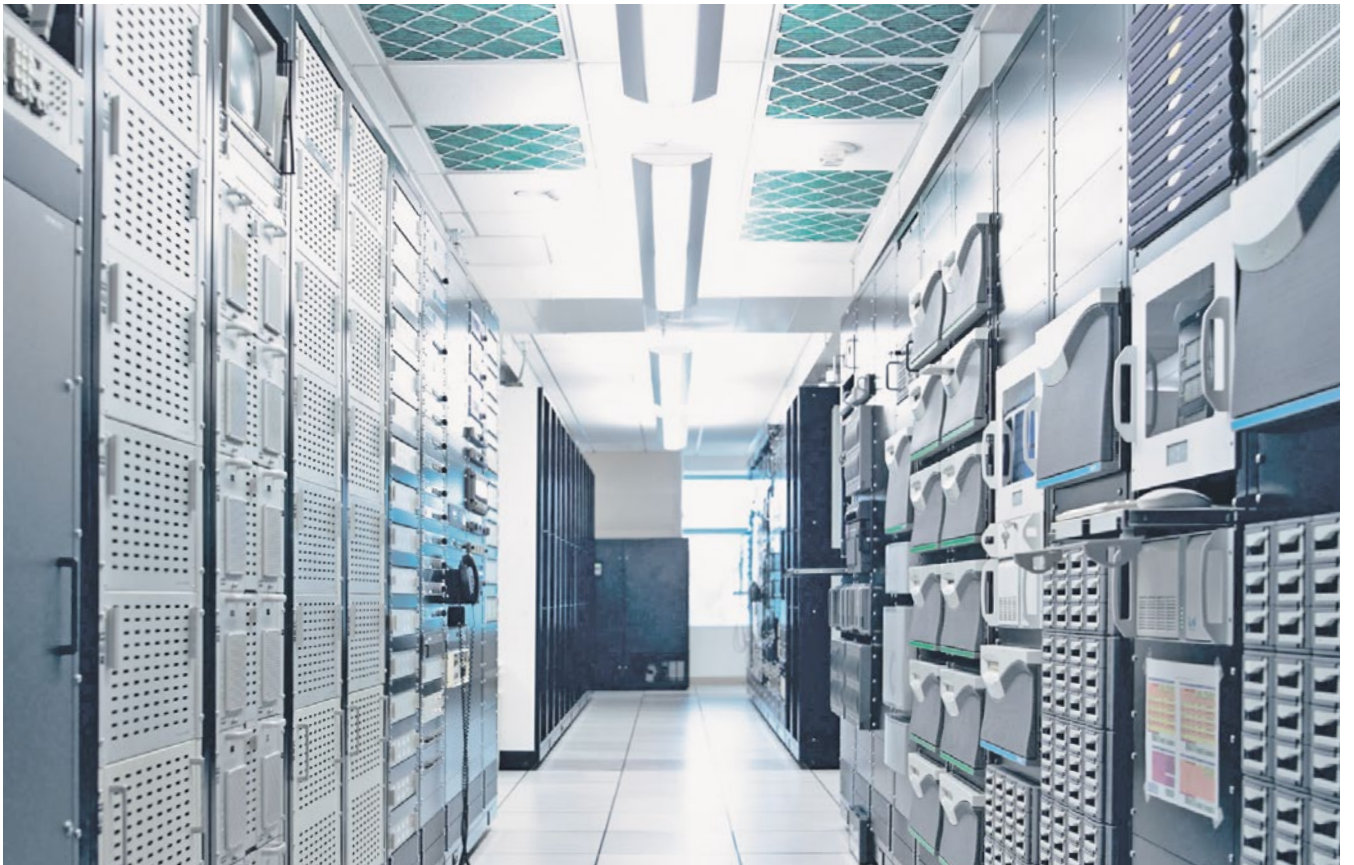
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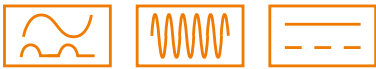


F 200 series - B

Details that make the difference

2

Type B residual current devices are marked according to EN 62423. The marking reminds the different current types that Type B residual current devices are sensitive to



Easy to connect and compatible with busbars thanks to the System pro M compact clamps

Sole two-pole device in only two modules on the market

VDE approved

Green LED to monitor operation of the residual current circuit breaker

Indication of the position of the contacts



Cutting-edge features: safety, service continuity, compactness, integration. These are the characteristics of the new F200 B RCCBs (residual current circuit breakers), the state-of-the-art technology by ABB which has been providing the best solutions for residential, commer-

cial and industrial installations for over 120 years. The F200 B Type is the ultimate novelty of the System pro M compact offering. The most compact device in the market. Type B RCCBs can be adapted perfectly to all types of installation requirements

and application fields. The new F200 B Type can be perfectly integrated with all devices produced by ABB in terms of connection, selectivity data and coordination.

Compatible with all System pro M compact accessories of F200 series. Higher operational continuity thanks to auto-reclosing units and motor operating devices.

Operating temperature from -25 to +60 °C with high immunity for extremely harsh weather conditions. F200 B can be installed either in two-phase and three-phase networks.

A lot of space saving thanks to the two poles device in just two modules. Coordination and back-up with all ABB devices.

RCCBs

F 200 series - B technical features

2

		New F200 B Type			F200 B Type high ratings
			F202 B 16-63 A	F204 B 25-63 A	F204 B 80-125 A
Electrical features	Standards		IEC/EN 61008-1 EN 62423		
	Type (wave form of the earth leakage sensed)		B		
	Poles		2P	4P	4P
	Rated current I_n	A	16, 25, 40, 63		80, 125
	Rated sensitivity $I_{\Delta n}$	A	0,03 - 0,3	0,03 - 0,3 - 0,5	0,03 - 0,3 - 0,5
	Rated voltage U_e	IEC V AC	230	230/400	
	Insulation voltage U_i	V	500		
	Max. operating voltage of circuit test	IEC V	110/253 V AC 170/253 V AC (30 mA)	185/440 V AC 300/440 V AC (30 mA)	
	Min. operating voltage for detecting Type A/ AC residual currents	V AC	0		
	Min. operating voltage for detecting Type B residual currents	V AC	50	50	50
	Rated frequency	Hz	50/60		50
	Frequency range of residual current	kHz	B: 2		B: 100
	Rated conditional short-circuit current $I_{nc}=I_{\Delta}^3$	SCPD - fuse gG 100 A kA	10 (for 125 A fuse is gG 125 A)		
	Rated residual breaking capacity $I_{\Delta n}=I_m$	kA	1		125 A: 1,25
	Rated impulse withstand voltage (1.2/50) U_{imp}	kV	4		
	Dielectric test voltage at ind. freq. for 1 min.	kV	2,5		
	Overvoltage category		III, disconnector abilities		
	Surge current resistance (wave 8/20)	A	3.000	3.000 - 5.000 (B S)	3.000 - 5.000 (B S)
	Maximum electronic consumption	W	1,2	3,5	7,2
	Mechanical features	Toggle		Blue sealable in ON-OFF position	
Contact position indicator (CPI)			yes		
Electrical life			10.000		2.000
Mechanical life			20.000		5.000
Protection degree		housing terminals	IP4X IP2X		
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/ RH	28 cycles with 55°C/90-96% and 25°C/95-100%		
Ambient temperature (with daily average $\leq +35$ °C)		IEC °C	-25...+60		-25...+40
Storage temperature		°C	40...+70		
Installation	Terminal Type		Failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected) (cage for $I_n > 63$ A) ²		
	Min/Max Terminal size top/bottom for cable	IEC Mm ²	1 - 25		
	Terminal size top/bottom for busbar	IEC Mm ²	10/10		
	Tightening torque	IEC Nm	2,8		3
	Tool		Flat tip PZ2		
	Mounting		Any position on DIN rail EN 60715 (35 mm) by means of fast clip device		
	Supply		Top/bottom		
Dimensions and weight	Withdrawal from busbar		It is possible without using any tools only from the bottom		no
	Dimensions (H x D x W)	2P Mm	85 x 69 x 35	85 x 69 x 70	85 x 69,5 x 72
Combination with auxiliary elements	Weight	2P g	200	380	460
	Combinable with:				
	auxiliary contact		yes		no
	signal contact/auxiliary switch		yes		
	motor operating device		yes		no
	shunt trip		yes		no
undervoltage release		yes		no	

¹ "Ground-Fault Sensing and Relaying Equipment" (F200 up to 100 A)

² Prior to connection of aluminium conductors (≥ 4 mm²) ensure that their contact points are cleaned, brushed and coated with grease

³ for S700-E/K 100A, S750-E 63A, S750DR-E/K 63A and other SCPD coordination values are available.

RCCBs

F 200 series - B type for continuous, selective continuous type fault currents technical features



F202 B



F204 B



F204 B 100, 125 A

New F200 B Type from 16 to 63 A

Number of poles	Rated residual current I _{Δn} mA	Rated current I _n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	16	961932	F202 B-16/0,03	2CSF202592R1160	0,220	1	
		25	961734	F202 B-25/0,03	2CSF202592R1250			
		40	960737	F202 B-40/0,03	2CSF202592R1400			
		63	629634	F202 B-63/0,03	2CSF202592R1630			
	300	16	372233	F202 B-16/0,3	2CSF202592R3160	0,220	1	
		25	372738	F202 B-25/0,3	2CSF202592R3250			
		40	372639	F202 B-40/0,3	2CSF202592R3400			
		63	372530	F202 B-63/0,3	2CSF202592R3630			
4	30	25	348139	F204 B-25/0,03	2CSF204592R1250	0,380	1	
		40	358336	F204 B-40/0,03	2CSF204592R1400			
		63	348030	F204 B-63/0,03	2CSF204592R1630			
	300	25	347934	F204 B-25/0,3	2CSF204592R3250	0,380	1	
		40	358138	F204 B-40/0,3	2CSF204592R3400			
		63	347835	F204 B-63/0,3	2CSF204592R3630			
	300 S	40	347736	F204 B S-40/0,3	2CSF204892R3400	0,380	1	
		63	357933	F204 B S-63/0,3	2CSF204892R3630			
	500	40	776932	F204 B-40/0,5	2CSF204592R4400	0,380	1	
		63	347637	F204 B-63/0,5	2CSF204592R4630			
	500 S	40	357834	F204 B S-40/0,5	2CSF204892R4400	0,380	1	
		63	347538	F204 B S-63/0,5	2CSF204892R4630			

F200 B Type high ratings

Number of poles	Rated residual current I _{Δn} mA	Rated current I _n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	80	988601	F204B-80/0,03	2CSF204501R1800	0,500	1	
		125	988700	F204B-125/0,03L ¹	2CSF204523R1950			
	300	80	989103	F204B-80/0,3	2CSF204501R3800	0,500	1	
		125	989202	F204B-125/0,3L ¹	2CSF204523R3950			
	300 S	125	989509	F204BS-125/0,3L ¹	2CSF204823R3950	0,500	1	
	500	125	730439	F204B-125/0,5L ¹	2CSF204523R4950	0,500	1	
	500 S	125	731238	F204BS-125/0,5L ¹	2CSF204823R4950	0,500	1	

¹ Left-sided neutral pole

Where to find more:

Coordination tables for F 200 RCCBs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide Marks and Approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCCBs

F-ATI and F-ARI

2



F-ATI and F-ARI Test are RCCBs equipped with automatic test features. RCCBs are supposed to be checked every six months in order to make sure that the contacts are working properly and the device is able to trip in case of a leakage to earth. This swift operation affects the operational continuity of the circuits downstream and required a lot of man power. F-ATI and F-ARI test ranges push the periodic test to another level as this is run automatically and with no interruption at all of the service. Therefore, also the operations carried out by maintenance personnel are reduced to the very minimum.

In addition to the automatic test, F-ARI Range features a reclosing unit that tries to reclose the RCCB as it trips. The reclosing operations are based on an insulation check to make sure that no permanent fault is present. Moreover, the results coming from each and every circuit are collected at once thanks to ARBus interface.

- Saving: maintenance costs are cut down as the device runs automatically the test monthly in accordance with EN 61008 provisions.
- Uptime: while running the test, no disconnection of the supply occurs like in the traditional RCCB units.
- Time saving: a full array of maximum 99 devices can be commanded and read by remote by the means of the ARBus interface.
- Easy installation: the unit is factory fitted and it needs no coupling
- Quality: F-ATI Test range is approved by VDE while F-ARI Test is approved by IMQ CSV.
- Smart: complete monitoring over the application thanks to a fault check system and a programmable aux contact
- Reliability: Suitable for demanding environments up to 60 °C
- High immunity: RCCBs Type A APR offer the adequate solution according to the type of loads to be protected , the level of safety and the continuity of service. (inserire forme d'onda ammesse per APR)

RCCBs

F-ATI and F-ARI technical features

		F-ATI Test	F-ARI Test
Reference Standards	EN61008-1 , VDE V 0664-120 (annex M)	EN61008-1 , CPT054, EN50557	
Electrical features	Distribution system	TN, TT, IT	TN, TT
	Rated voltage Ue	230-400 V a.c. -15% ÷ 10%	
	Rated frequency	50 Hz	
	Rated current In	25, 40, 63 A	
	Rated sensitivity IΔn	30, 300 mA	
	Type	A AP-R	
	Poles	2P, 4P	
	Insulation voltage Ui	500 V d.c.	
	Minimum test voltage Utmin	195 V a.c.	
	Rated non-operating resistance between live parts and earth Rdo	8 kΩ (30 mA), 2,5 kΩ(300 mA)	
	Rated operating resistance between live parts and earth Rd	16 kΩ (30 mA), 5 kΩ (300 mA)	
	Rated conditional short-circuit Inc	10 kA (SCPD – gL fuse 63 A for In 25, 40 A; gL fuse 80 A for In 63 A)	
	Dielectric test voltage at ind. freq. for 1 min	2,5 kV	
	Rated impulse withstand voltage (1,2/50) Uimp	4 kV	
	Power loss	2P: 3.5, 6, 12 W; 4P: 2.2, 5.4, 6.2 W	
Power consumption during operation	41 VA		
Other features	Test cycle time	< 7 s	
	Reclosing time	< 10 s (6 s check, 3 s reclosing)	
Mechanical features	Protection degree	IP20 (terminals), IP40 (housing)	
	Contact position indicator CPI	yes	
	Mechanical life	4000	
Installation	Tightening torque	2 Nm	
	Ambient temperature	-25...+60 °C	
	Storage temperature	-40...+70 °C	
Auxiliary contact	Type	NO-NC-NO+pulse (100 ms)	
	Operating features	5 ÷ 230 V a.c./d.c. Imax 100 mA	
	Terminals cross section	2,5 mm ²	
	Tightening torque	0,4 Nm	
Dimensions	DIN modules	5, 7	
	Weight	550, 900 g	

		ARBus
Electrical features	Rated voltage Ue	230 V a.c. -15% ÷ 10%
	Rated frequency	50 Hz
	Insulation voltage Ui	500 V d.c.
	Rated conditional short-circuit Inc	10 kA (SCPD – gL fuse 63 A for In 25, 40 A; gL fuse 80 A for In 63 A)
	Rated impulse withstand voltage (1,2/50) Uimp	4 kV
	Power consumption	1 W
Installation	Terminals	2,5 mm ²
	Tightening torque	0,4 Nm
	Ambient temperature	-25...+60 °C
	Storage temperature	-40...+70 °C
Communication	Protocol	Modbus RS485
	Baud rate	38400
	Addresses	1...99
	Tightening torque	0,4 Nm
Dimensions and weight	DIN modules	1
	Weight	180 gr

RCCBs

F-ATI and F-ARI

2



F-ATI 2 Test



F-ARI 4 Test

F-ATI

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1P+N	30	25	288855	F-ATI2Test A-25/0.03	2CSF302130R1250		0.550	5
		40	288954	F-ATI2Test A-40/0.03	2CSF302130R1400		0.550	5
		63	289050	F-ATI2Test A-63/0.03	2CSF302130R1630		0.550	5
3P+N	30	25	289159	F-ATI4Test A-25/0.03	2CSF304130R1250		0.900	7
		40	289258	F-ATI4Test A-40/0.03	2CSF304130R1400		0.900	7
		63	289357	F-ATI4Test A-63/0.03	2CSF304130R1630		0.900	7
	300	25	289456	F-ATI4Test A-25/0.3	2CSF304130R3250		0.900	7
		40	289555	F-ATI4Test A-40/0.3	2CSF304130R3400		0.900	7
		63	289654	F-ATI4Test A-63/0.3	2CSF304130R3630		0.900	7

F-ARI Test

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1P+N	30	25	289753	F-ARI2Test A-25/0.03	2CSF302131R1250		0.550	5
		40	289852	F-ARI2Test A-40/0.03	2CSF302131R1400		0.550	5
		63	293453	F-ARI2Test A-63/0.03	2CSF302131R1630		0.550	5
3P+N	30	25	289951	F-ARI4Test A-25/0.03	2CSF304131R1250		0.900	7
		40	290056	F-ARI4Test A-40/0.03	2CSF304131R1400		0.900	7
		63	290155	F-ARI4Test A-63/0.03	2CSF304131R1630		0.900	7
	300	25	290254	F-ARI4Test A-25/0.3	2CSF304131R3250		0.900	7
		40	290353	F-ARI4Test A-40/0.3	2CSF304131R3400		0.900	7
		63	290452	F-ARI4Test A-63/0.3	2CSF304131R3630		0.900	7



ARBus

Gamma ARBus

	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
ARBus	293354		2CSF300130R1989		0.180	1

RCD-blocks

DDA 200 technical features

2



DDA 200

Standards		
Operating characteristic: type		
Rated current I _n		[A]
Poles		
Rated voltage U _e	2P 3P 4P	[V]
Insulation voltage U _i		[V]
Operating voltage of circuit test U _t	2P 3P 4P	[V]
Rated frequency		Hz
Rated breaking capacity according to	IEC EN 61009	[A]
Rated breaking capacity according to	IEC EN 60947-2	[A]
Rated residual breaking capacity I _{Δm}		[kA]
Rated impulse withstand capacity (1,2/50) U _{imp}		[kV]
Dielectric test voltage at ind. freq. for 1 min.		[kV]
Surge current resistance (wave 8/20)		[A]
Rated sensitivity I _{Δn}		[A]
Toggle		
Electrical life		
Mechanical life		
Protection degree	housing terminals	
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		[°C/RH]
Ambient temperature (with daily average ≤ +35 °C)		[°C]
Storage temperature		[°C]
Terminal type	2P 3P/4P I _n =25 and 40 A 3P/4P I _n =63 A	
Terminal size	2P 3P/4P I _n =25 and 40 A 3P/4P I _n =63 A	[mm ²]
Tightening torque	2P 3P/4P I _n =25 and 40 A 3P/4P I _n =63 A	[Nm]
Mounting		
Dimensions	2P	[mm]
H x P x L	3P/4P I _n =25 and 40 A 3P/4P I _n =63 A	[mm]
Weight	2P 3P/4P I _n =25 and 40 A 3P/4P I _n =63 A	[g]
Combinable with	S 200 L S 200 S 200 M S 200 P	

① All RCD-blocks DDA 200 with rated current 63 A are provided with two additional terminals for remote tripping.

② DDA200 A AE is provided with two additional terminals for remote release in positive safety.

A remote control circuit should be connected to those terminals where circuit breakers or push buttons with normally closed contacts should be inserted.

DDA 200 AC	DDA 200 A	DDA 200 A AP-R	DDA 200 A AE	DDA 200 A S	DDA 200 B
IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1					IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1, IEC EN 62423
AC	A	A	A	A	B
25, 40, 63 ① 2P, 3P, 4P		25, 40, 63 ①	63 ②	63 ①	25-40-63 2P, 3P, 4P
230 (400 for special execution @400 V)			230	230	230
230/400			400	400	400
230/400			230/400	230/400	230/400
500					
110-254 for special execution @110V;			184-264	195-254 (170-254 for 30 mA)	195-254 (170-254 for 30 mA)
195-254 (170-254 for 30 mA; 400 for special execution @400 V)					
195-440 (300-440 for 30 mA; 110-254 for special execution @110 V)			310-440	195-440 (300-440 for 30 mA)	310-440 (300-440 for 30 mA)
195-440 (300-440 for 30 mA; 110-254 for special execution @110 V)			184-264	195-440 (300-440 for 30 mA)	195-254 (300-440 for 30 mA)
50...60					
same of the coupled MCB					
same of the coupled MCB					
same of the coupled MCB					
4					
2,5					
250		3000	250	5000	3000 (5000 for selective types)
0.01-0.03-0.1-0.3-0.5-1		0.03	0.03-0.3-0.5-1	0.1-0.3-0.5-1	0.03 - 0.3 - 0.5
blue					
10000					
20000					
IP4X					
IP2X					
28 cycles with 55°C/90-96% and 25°C/95-100%					
-25...+55					
-40...+70					
bi-directional cylinder-lift					
cage type					-
bi-directional cylinder-lift					
(rigid or flexible) up to 25					
(rigid or flexible) up to 16					-
(rigid or flexible) up to 25					
2.8					
1.2					-
2.8					
on DIN rail EN 60715 (35 mm) by means of fast clip device					
85 x 69 x 35					85 x 69 x 70
85 x 69 x 35					85 x 69 x 70
85 x 69 x 70					85 x 69 x 70
175					350
175					375
325					395
yes					
yes					
yes					
yes					

RCD-blocks

DDA 200 series AC type

2



DDA 202



DDA 203

DDA 200 AC type

Function: RCD-block for assembly on site with MCBs S 200 series. Protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
2	10	25	791003	DDA202 AC-25/0.01	2CSB202001R0250		0.180	1	
		30	791102	DDA202 AC-25/0.03	2CSB202001R1250		0.180	1	
		40	791201	DDA202 AC-40/0.03	2CSB202001R1400		0.180	1	
	30	63 ②	791300	DDA202 AC-63/0.03	2CSB202001R1630		0.180	1	
		100	25	791409	DDA202 AC-25/0.1	2CSB202001R2250		0.180	1
			40	791508	DDA202 AC-40/0.1	2CSB202001R2400		0.180	1
	63 ②		791607	DDA202 AC-63/0.1	2CSB202001R2630		0.180	1	
	300	25	791706	DDA202 AC-25/0.3	2CSB202001R3250		0.180	1	
		40	791805	DDA202 AC-40/0.3	2CSB202001R3400		0.180	1	
		63 ②	791904	DDA202 AC-63/0.3	2CSB202001R3630		0.180	1	
	500	25	792000	DDA202 AC-25/0.5	2CSB202001R4250		0.180	1	
		40	792109	DDA202 AC-40/0.5	2CSB202001R4400		0.180	1	
63 ②		792208	DDA202 AC-63/0.5	2CSB202001R4630		0.180	1		
1000	25	808305	DDA202 AC-25/1	2CSB202001R5250		0.180	1		
	40	808404	DDA202 AC-40/1	2CSB202001R5400		0.180	1		
	63 ②	792307	DDA202 AC-63/1	2CSB202001R5630		0.180	1		
2000	63	792406	DDA202 AC-63/2	2CSB202001R6630		0.180	1		

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	25	792505	DDA203 AC-25/0.03	2CSB203001R1250		0.220	1
		40	792604	DDA203 AC-40/0.03	2CSB203001R1400		0.220	1
		63 ②	792703	DDA203 AC-63/0.03	2CSB203001R1630		0.260	1
	100	25	792802	DDA203 AC-25/0.1	2CSB203001R2250		0.220	1
		40	792901	DDA203 AC-40/0.1	2CSB203001R2400		0.220	1
		63 ②	793007	DDA203 AC-63/0.1	2CSB203001R2630		0.260	1
	300	25	793106	DDA203 AC-25/0.3	2CSB203001R3250		0.220	1
		40	793205	DDA203 AC-40/0.3	2CSB203001R3400		0.220	1
		63 ②	793304	DDA203 AC-63/0.3	2CSB203001R3630		0.260	1
	500	25	793403	DDA203 AC-25/0.5	2CSB203001R4250		0.220	1
		40	793502	DDA203 AC-40/0.5	2CSB203001R4400		0.220	1
		63 ②	793601	DDA203 AC-63/0.5	2CSB203001R4630		0.260	1
	1000	25	808503	DDA203 AC-25/1	2CSB203001R5250		0.220	1
		40	808602	DDA203 AC-40/1	2CSB203001R5400		0.220	1
		63 ②	793700	DDA203 AC-63/1	2CSB203001R5630		0.260	1
	2000	63	793809	DDA203 AC-63/2	2CSB203001R6630		0.260	1

Where to find more:

Technical details for DDA 200:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals -
chapter 15

Maybe you are also interested in:
Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

① version with test button working at 110VAC - 254VAC is available. For selection tables refer to special version paragraph.
② provided with additional terminals for remote tripping



DDA 204

2CSB204001R66F0201

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	25	793908	DDA204 AC-25/0.03	2CSB204001R1250		0.260	1
		40	794004	DDA204 AC-40/0.03	2CSB204001R1400		0.260	1
		63 ①②	794103	DDA204 AC-63/0.03	2CSB204001R1630		0.305	1
	100	25	794202	DDA204 AC-25/0.1	2CSB204001R2250		0.260	1
		40	794301	DDA204 AC-40/0.1	2CSB204001R2400		0.260	1
		63 ②	794400	DDA204 AC-63/0.1	2CSB204001R2630		0.305	1
	300	25	794509	DDA204 AC-25/0.3	2CSB204001R3250		0.260	1
		40	794608	DDA204 AC-40/0.3	2CSB204001R3400		0.260	1
		63 ②	794707	DDA204 AC-63/0.3	2CSB204001R3630		0.305	1
500	25	794806	DDA204 AC-25/0.5	2CSB204001R4250		0.260	1	
	40	794905	DDA204 AC-40/0.5	2CSB204001R4400		0.260	1	
	63 ②	795001	DDA204 AC-63/0.5	2CSB204001R4630		0.305	1	
1000	25	808701	DDA204 AC-25/1	2CSB204001R5250		0.260	1	
	40	808800	DDA204 AC-40/1	2CSB204001R5400		0.260	1	
	63 ②	795100	DDA204 AC-63/1	2CSB204001R5630		0.305	1	
2000	63	795209	DDA204 AC-63/2	2CSB204001R6630		0.305	1	

- ① version with test button working at 110VAC - 254VAC is available. For selection tables refer to special version paragraph.
 ② provided with additional terminals for remote tripping

RCD-blocks

DDA 200 series A type

2



DDA 202



DDA 203

DDA 200 A type

Function: RCD-block for assembly on site with MCBs S 200 series. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
2	10	25	795308	DDA202 A-25/0.01	2CSB202101R0250		0.180	1	
		30	795407	DDA202 A-25/0.03	2CSB202101R1250		0.180	1	
		40	795506	DDA202 A-40/0.03	2CSB202101R1400		0.180	1	
	30	63 ②	795605	DDA202 A-63/0.03	2CSB202101R1630		0.180	1	
		100	25	795704	DDA202 A-25/0.1	2CSB202101R2250		0.180	1
			40	795803	DDA202 A-40/0.1	2CSB202101R2400		0.180	1
	63 ②		795902	DDA202 A-63/0.1	2CSB202101R2630		0.180	1	
	300	25	796008	DDA202 A-25/0.3	2CSB202101R3250		0.180	1	
		40	796107	DDA202 A-40/0.3	2CSB202101R3400		0.180	1	
		63 ②	796206	DDA202 A-63/0.3	2CSB202101R3630		0.180	1	
	500	25	796305	DDA202 A-25/0.5	2CSB202101R4250		0.180	1	
		40	796404	DDA202 A-40/0.5	2CSB202101R4400		0.180	1	
63 ②		796503	DDA202 A-63/0.5	2CSB202101R4630		0.180	1		
1000	25	808909	DDA202 A-25/1	2CSB202101R5250		0.180	1		
	40	809005	DDA202 A-40/1	2CSB202101R5400		0.180	1		
	63 ②	796602	DDA202 A-63/1	2CSB202101R5630		0.180	1		

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	25	796701	DDA203 A-25/0.03	2CSB203101R1250		0.220	1
		40 ①	796800	DDA203 A-40/0.03	2CSB203101R1400		0.220	1
		63 ①②	796909	DDA203 A-63/0.03	2CSB203101R1630		0.260	1
	100	25	797005	DDA203 A-25/0.1	2CSB203101R2250		0.220	1
		40	797104	DDA203 A-40/0.1	2CSB203101R2400		0.220	1
		63 ②	797203	DDA203 A-63/0.1	2CSB203101R2630		0.260	1
	300	25	797302	DDA203 A-25/0.3	2CSB203101R3250		0.220	1
		40	797401	DDA203 A-40/0.3	2CSB203101R3400		0.220	1
		63 ②	797500	DDA203 A-63/0.3	2CSB203101R3630		0.260	1
	500	25	797609	DDA203 A-25/0.5	2CSB203101R4250		0.220	1
		40	797708	DDA203 A-40/0.5	2CSB203101R4400		0.220	1
		63 ②	797807	DDA203 A-63/0.5	2CSB203101R4630		0.260	1
	1000	25	809104	DDA203 A-25/1	2CSB203101R5250		0.220	1
		40	809203	DDA203 A-40/1	2CSB203101R5400		0.220	1
		63 ②	797906	DDA203 A-63/1	2CSB203101R5630		0.260	1

Where to find more:

Technical details for DDA 200:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals -
chapter 15

Maybe you are also interested in:
Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

① version with test button working at 110VAC - 254VAC is available. For selection tables refer to special version paragraph.
② provided with additional terminals for remote tripping



DDA 204

2CSB20401R5FR201

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	25	798002	DDA204 A-25/0.03	2CSB204101R1250		0.260	1
		40	798101	DDA204 A-40/0.03	2CSB204101R1400		0.260	1
		63 ①②	798200	DDA204 A-63/0.03	2CSB204101R1630		0.305	1
	100	25	798309	DDA204 A-25/0.1	2CSB204101R2250		0.260	1
		40	798408	DDA204 A-40/0.1	2CSB204101R2400		0.260	1
		63 ②	798507	DDA204 A-63/0.1	2CSB204101R2630		0.305	1
	300	25	798606	DDA204 A-25/0.3	2CSB204101R3250		0.260	1
		40	798705	DDA204 A-40/0.3	2CSB204101R3400		0.260	1
		63 ②	798804	DDA204 A-63/0.3	2CSB204101R3630		0.305	1
500	25	798903	DDA204 A-25/0.5	2CSB204101R4250		0.260	1	
	40	799009	DDA204 A-40/0.5	2CSB204101R4400		0.260	1	
	63 ②	799108	DDA204 A-63/0.5	2CSB204101R4630		0.305	1	
1000	25	809302	DDA204 A-25/1	2CSB204101R5250		0.260	1	
	40	809401	DDA204 A-40/1	2CSB204101R5400		0.260	1	
	63 ②	799207	DDA204 A-63/1	2CSB204101R5630		0.305	1	

① version with test button working at 110VAC - 254VAC is available. For selection tables refer to special version paragraph.
 ② provided with additional terminals for remote tripping

RCD-blocks

DDA 200 special version 110 V and 400 V

2



DDA 202

2CSB400168FC201

DDA 200 special version 110 V and 400 V

Function: special version of RCD-blocks to assembly on site with MCBs S 200 series. Special version are available with protection against the effects of sinusoidal alternating and/or direct pulsating earth fault currents, protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n}=30$ mA).

DDA200 110 V is a particular RCD-block with voltage range for test button $U_t = 110-254$ V. RCD- blocks work for naval applications where the IT system is typically used and the voltage between the phase and the neutral conductor is 115 - 125 V. DDA200 110 V ($U_t = 110-254$ V) are suitable for naval applications.

Special version is also available for 400 V in the two poles version working in two-phase industrial systems where voltage between phases is 400 V.

Applications: naval, industrial.

Standards: IEC 61009-1 Ann. G; IEC 61009-2-1

110 V version

AC type

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	63 ①	929901	DDA 204 AC-63/0.03 110V	2CSB204099R1630		0.350	1

A type

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	25	079033	DDA202 A-25/0.03 110V	2CSB202199R1250		0.180	1
		40	078937	DDA202 A-40/0.03 110V	2CSB202199R1400		0.180	1
		63 ①	078838	DDA202 A-63/0.03 110V	2CSB202199R1630		0.180	1
3	30	40	811701	DDA 203 A-40/0.03 110V	2CSB203199R1400		0.350	1
		63 ①	811800	DDA 203 A-63/0.03 110V	2CSB203199R1630		0.350	1
4	30	63 ①	812104	DDA 204 A-63/0.03 110V	2CSB204199R1630		0.350	1

400 V version

A type

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	63 ①	954934	DDA 202 A-63/0.03 400V	2CSB202192R1630		0.200	1

① provided with additional terminals for remote tripping

Where to find more:

Technical details for DDA 200:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals -
chapter 15

Maybe you are also interested in:
Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3



DDA 203

2CSB400168FC201



DDA 204

2CSB400168FC201

RCD-blocks

DDA 200 series A type, AP-R (high immunity)



DDA 202

DDA 200 AP-R, A type

Function: RCD-block for assembly on site with MCBs S 200 series. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1

Surge current resistance (wave 8/20)=3000 A



DDA 203



DDA 204

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	25	801108	DDA202 A-25/0.03 AP-R	2CSB202401R1250		0.180	1
		40	801207	DDA202 A-40/0.03 AP-R	2CSB202401R1400		0.180	1
		63 ①	801306	DDA202 A-63/0.03 AP-R	2CSB202401R1630		0.180	1
	300	63	961932	DDA202 A-63/0,3 AP-R	2CSB202401R3630		0,260	1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	25	811008	DDA203 A-25/0.03 AP-R	2CSB203401R1250		0.220	1
		40	811107	DDA203 A-40/0.03 AP-R	2CSB203401R1400		0.220	1
		63 ①	811206	DDA203 A-63/0.03 AP-R	2CSB203401R1630		0.260	1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	25	801405	DDA204 A-25/0.03 AP-R	2CSB204401R1250		0.260	1
		40	801504	DDA204 A-40/0.03 AP-R	2CSB204401R1400		0.260	1
		63 ①	801603	DDA204 A-63/0.03 AP-R	2CSB204401R1630		0.305	1
	300	63	961734	DDA204 A-63/0,3 AP-R	2CSB204401R3630		0,305	1

① provided with additional terminals for remote tripping

RCD-blocks

DDA 200 series A type, AE (for emergency stop)

2



DDA 202

2CSB400168F0201

DDA 200 AE, A type

Function: RCD-block for assembly on site with MCBs S 200 series. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_n=30$ mA).

The RCD-block is provided with two additional terminals to be used in emergency circuits for remote opening in positive safety. A remote control circuit should be connected to those terminals where NC push buttons should be inserted in series.

ATTENTION!

It's allowed to use multiple NC buttons to control one DDA200 AE but it's not permitted to use one button in a control circuit for more RCD-blocks DDA200 AE. DDA200 AE must be supplied by the top side.

Application: commercial, industrial.

Standard: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1



DDA 203

2CSB400168F0201

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	63	801702	DDA202 A-63/0.03 AE	2CSB202701R1630		0.180	1
	300	63	801801	DDA202 A-63/0.3 AE	2CSB202701R3630		0.180	1
	500	63	801900	DDA202 A-63/0.5 AE	2CSB202701R4630		0.180	1
	1000	63	802006	DDA202 A-63/1 AE	2CSB202701R5630		0.180	1



DDA 204

2CSB400168F0201

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	63	802105	DDA203 A-63/0.03 AE	2CSB203701R1630		0.260	1
	300	63	802204	DDA203 A-63/0.3 AE	2CSB203701R3630		0.260	1
	500	63	802303	DDA203 A-63/0.5 AE	2CSB203701R4630		0.260	1
	1000	63	802402	DDA203 A-63/1 AE	2CSB203701R5630		0.260	1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	63	802501	DDA204 A-63/0.03 AE	2CSB204701R1630		0.305	1
	300	63	802600	DDA204 A-63/0.3 AE	2CSB204701R3630		0.305	1
	500	63	802709	DDA204 A-63/0.5 AE	2CSB204701R4630		0.305	1
	1000	63	802808	DDA204 A-63/1 AE	2CSB204701R5630		0.305	1

Where to find more:

Technical details for DDA 200:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Wiring diagrams for DDA 200 AE
series - chapter 15
Worldwide marks and approvals -
chapter 15

Maybe you are also interested in:
Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCD-blocks

DDA 200 series A type, selective



DDA 202



DDA 203



DDA 204

DDA 200 A selective type

Function: RCD-block for assembly on site with MCBs S 200 series. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents with an intentional tripping delay, which permits to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide).

Application: commercial, industrial.

Standard: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1

Surge current resistance (wave 8/20)=5000 A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	100	63	799306	DDA202 A S-63/0.1	2CSB202201R2630		0.180	1
	300	63	799405	DDA202 A S-63/0.3	2CSB202201R3630		0.180	1
	500	63	799504	DDA202 A S-63/0.5	2CSB202201R4630		0.180	1
	1000	63	799603	DDA202 A S-63/1	2CSB202201R5630		0.180	1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	100	63	799702	DDA203 A S-63/0.1	2CSB203201R2630		0.260	1
	300	63	799801	DDA203 A S-63/0.3	2CSB203201R3630		0.260	1
	500	63	799900	DDA203 A S-63/0.5	2CSB203201R4630		0.260	1
	1000	63	800002	DDA203 A S-63/1	2CSB203201R5630		0.260	1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	100	63	800101	DDA204 A S-63/0.1	2CSB204201R2630		0.305	1
	300	63	800200	DDA204 A S-63/0.3	2CSB204201R3630		0.305	1
	500	63	800309	DDA204 A S-63/0.5	2CSB204201R4630		0.305	1
	1000	63	800408	DDA204 A S-63/1	2CSB204201R5630		0.305	1

Attention: All DDA 200 A S are provided with additional terminals for remote tripping

Where to find more:

Technical details for DDA 200:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals -
chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCD-blocks

DDA 200 series B type

2



DDA 202

DDA 200 type B for continuous type fault currents

RCD-blocks type B are also sensitive to continuous or mainly continuous (continuous with weak ondulation) current pulsating earth fault currents. They are also sensitive to alternate sinusoidal and direct pulsating earth fault currents as with type A circuit breakers. They satisfy the requirements of type A devices and thus the requirements for type AC devices which can be considered an extension. For this reason the differential blocks type B are sometimes referred as “universal type”, as sensitive to “all” kind of residual current shape. DDA 200 type B can be coupled with all the S 200 series MCBs. They are used for protection in installations with electronic equipments according to EN 50178.

Applications: tertiary and industrial.

Standards: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1; IEC 62423 ed.2

Surge current resistance (8/20 wave): 3000 A



DDA 203

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	25	748021	DDA202 B APR-25/0,03	2CSB202592R1250	0.350	1	
		40	515128	DDA202 B APR-40/0,03	2CSB202592R1400			
		63	610922	DDA202 B APR-63/0,03	2CSB202592R1630			
	300	25	733324	DDA202 B APR-25/0,3	2CSB202592R3250	0.350	1	
		63	732426	DDA202 B APR-63/0,3	2CSB202592R3630			



DDA 204

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	63	733225	DDA203 B APR-63/0,03	2CSB203592R1630	0.375	1	
	300	63	732327	DDA203 B APR-63/0,3	2CSB203592R3630			

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	25	732228	DDA204 B APR-25/0,03	2CSB204592R1250	0.395	1	
		40	020325	DDA204 B APR-40/0,03	2CSB204592R1400			
		63	733027	DDA204 B APR-63/0,03	2CSB204592R1630			
	300	25	732129	DDA204 B APR-25/0,3	2CSB204592R3250	0.395	1	
		63	732921	DDA204 B APR-63/0,3	2CSB204592R3630			
		500	732020	DDA204 B APR-63/0,5	2CSB204592R4630			

Where to find more:

Technical details for DDA 200:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals -
chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3



DDA 203

2CSB400689F0001

DDA 200 type B for selective continuous type fault currents

Function: protection against the effects of alternate sinusoidal, direct pulsating, continuous current and continuous current pulsating earth fault currents with an intentional trip delay that permits selectivity with instantaneous type devices placed downstream (for further information on selectivity, see Chapter 3 of Solutions for electrical installation in buildings - technical details).

DDA 200 type B can be coupled with all the S 200 series MCBs.

They are used for protection in installations with electronic equipments according to EN 50178.

Applications: tertiary and industrial.

Standards: IEC/EN 61009-1 Ann. G; IEC/EN 61009-2-1; IEC 62423 ed.2

Surge current resistance (8/20 wave): 5000 A



DDA 204

2CSB400125F0001

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	300	63	733126	DDA203 B S-63/0,3	2CSB203892R3630		0.375	1

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	300	63	732822	DDA204 B S-63/0,3	2CSB204892R3630		0.395	1

RCBO DS201 and DS202C. The details make the difference

A range designed to ensure efficiency and protection

2

Information on the device are laser printed to ensure readability over time.

The label carrier to clearly identify the protected circuit.

Test pushbutton to verify the correct functioning of the device

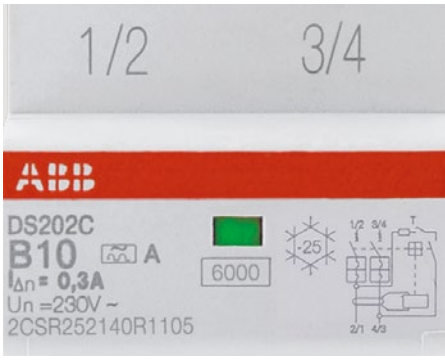


Bi-directional cylindrical terminal ensure higher safety of connecting operations, making them easier.

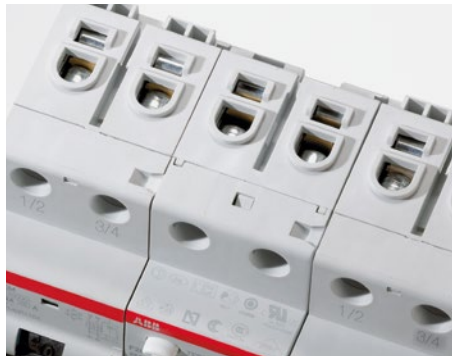
Each RCBO of the DS201-DS202C range is equipped with an RFI tag containing a unique serial number assigned to ABB according to the standard ISO/IEC FCD 15693-3 in order to authenticate the product.



Any earth fault can be immediately identified through the blue indicator, that signals the differential tripping and which cannot be activated in case of manual operation on the toggle. This prevents any misinterpretations of the device and system status.



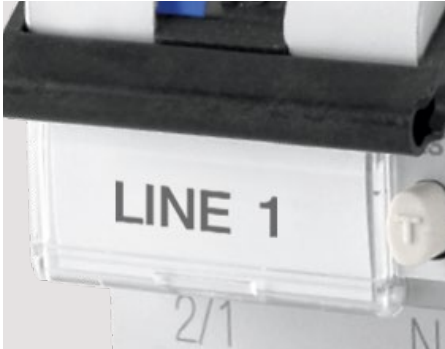
Contact position indicator (CPI): to always know the status of the contacts (red: closed contacts; green: open contacts).



The terminals available on DS201-DS202C make easier the supply operation in parallel with busbars as they are composed by two different seats, a front seat for 25 mm² cables and a back seat for 10 mm² busbars.



All the devices of the DS201 and DS202C series have been tested in a wide range of temperatures: from -25 °C (as indicated by the snowflake marked on the front side) up to +55°C.



Label carrier for clear and reliable identification. With the practical label carrier fitted in the new circuit breakers you can give maximum visibility to the information relating to the protected loads.



All the quality ensured by the main international marks is clearly visible on the device even if installed in the switchboard.



Product description and EAN code laser printed on the lateral side of the device for an easier stock management.

RCBOs

DS201 technical features

2



DS201 L

	Standards		
Electrical features	Type (wave form of the earth leakage sensed)		
	Poles		
	Rated current I_n	A	
	Rated sensitivity Δn	A	
	Rated voltage U_e	V	
	Insulation voltage U_i	V	
	Max. operating voltage of circuit test	V	
	Min. operating voltage of circuit test	V	
	Rated frequency	Hz	
	Rated breaking capacity acc. to IEC/EN 61009	ultimate I_{cn}	A
	Rated breaking capacity acc. to IEC/EN 60947-2	ultimate I_{cu}	kA
	1P+N @230 VAC	service I_{cs}	kA
	Rated residual breaking capacity Δm		kA
	Rated impulse withstand voltage (1.2/50) U_{imp}		kV
	Dielectric test voltage at ind. freq. for 1 min.		kV
	Thermomagnetic release characteristic	B: $3 I_n \leq I_m \leq 5 I_n$ C: $5 I_n \leq I_m \leq 10 I_n$ K: $10 I_n \leq I_m \leq 14 I_n$	
	Surge current resistance (wave 8/20)		A
Mechanical features	Toggle		
	Flag indicators		
	Electrical life		
	Mechanical life		
	Protection degree	housing terminals	
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH
	Reference temperature for setting of thermal element		°C
	Ambient temperature (with daily average $\leq +35$ °C)		°C
	Storage temperature		°C
	Installation	Terminal type	top bottom
Terminal size top/bottom for cables			mm ²
Terminal size top/bottom for busbar			mm ²
Tightening torque top/bottom			Nm
Mounting			
Connection			
Dimensions and weight	Dimensions (H x D x W)		mm
	Weight		g
Combination with auxiliary elements	Combinable with:	auxiliary contact signal contact shunt trip undervoltage release	

DS201 L			DS201			DS201 M			DS201 M 110V
IEC/EN 61009-1; IEC/EN 61009-2-1									IEC 61009-1; IEC 61009-2-1
AC	A	APR	AC	A	APR	AC	A	APR	A
1P+N									
6 ≤ In ≤ 32			1 ≤ In ≤ 40			4 ≤ In ≤ 40			6 ≤ In ≤ 40
0.03-0.3	0.01-0.03-0.3	0.03	0.03-0.1-0.3-1	0.01-0.03-0.1-0.3	0.03-0.1-0.3	0.03-0.1-0.3	0.01-0.03-0.1-0.3	0.03-0.1-0.3	0.03
230-240									
500									
254									
110									110
170 for IΔn = 30 mA									
50...60									
4500			6000			10000			10000
6			10			10			10
4.5			6			7.5			7.5
4.5			6			6			6
4									
2.5									
■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■
250 (3000 for APR versions)									
black sealable in ON-OFF position									
differential trip indicator (blue)									
contact position indicator (green/red)									
10000									
20000									
IP4X									
IP2X									
28 cycles with 55°C/90-96% and 25°C/95-100%									
30									
-25...+55									
-40...+70									
failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected)									
failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected)									
25/25									
10/10									
2.8									
on DIN rail EN 60715 (35 mm) by means of fast clip device									
from top and bottom									
85 x 69 x 35									
239									
yes									
yes									
yes									
yes									

RCBOs

DS201 L series 4500 AC type, C characteristic



DS201 L

DS201 L AC type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 4\ 500$ A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
1+N	30	6	171201	DS201 L C6 AC30	2CSR245040R1064		0.240	5	
		10	171300	DS201 L C10 AC30	2CSR245040R1104		0.240	5	
		16	171409	DS201 L C16 AC30	2CSR245040R1164		0.240	5	
		20	171508	DS201 L C20 AC30	2CSR245040R1204		0.240	5	
		25	171607	DS201 L C25 AC30	2CSR245040R1254		0.240	5	
		32	171706	DS201 L C32 AC30	2CSR245040R1324		0.240	5	
	300	300	6	171805	DS201 L C6 AC300	2CSR245040R3064		0.240	5
			10	171904	DS201 L C10 AC300	2CSR245040R3104		0.240	5
			16	172000	DS201 L C16 AC300	2CSR245040R3164		0.240	5
			20	172109	DS201 L C20 AC300	2CSR245040R3204		0.240	5
			25	172208	DS201 L C25 AC300	2CSR245040R3254		0.240	5
			32	172307	DS201 L C32 AC300	2CSR245040R3324		0.240	5

Where to find more:

Technical details for DS201 RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS201 L series 4500 A type, C characteristic



DS201 L

DS201 L A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I\Delta n=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 4\ 500$ A

Number of poles	Rated residual current $I\Delta n$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	10	6	163404	DS201 L C6 A10	2CSR245140R0064		0.240	5
		10	171003	DS201 L C10 A10	2CSR245140R0104		0.240	5
		16	171102	DS201 L C16 A10	2CSR245140R0164		0.240	5
	30	6	172406	DS201 L C6 A30	2CSR245140R1064		0.240	5
		10	172505	DS201 L C10 A30	2CSR245140R1104		0.240	5
		16	172604	DS201 L C16 A30	2CSR245140R1164		0.240	5
		20	172703	DS201 L C20 A30	2CSR245140R1204		0.240	5
		25	173809	DS201 L C25 A30	2CSR245140R1254		0.240	5
		32	173908	DS201 L C32 A30	2CSR245140R1324		0.240	5
	300	6	174004	DS201 L C6 A300	2CSR245140R3064		0.240	5
		10	174103	DS201 L C10 A300	2CSR245140R3104		0.240	5
		16	174202	DS201 L C16 A300	2CSR245140R3164		0.240	5
		20	174301	DS201 L C20 A300	2CSR245140R3204		0.240	5
		25	174707	DS201 L C25 A300	2CSR245140R3254		0.240	5
		32	174806	DS201 L C32 A300	2CSR245140R3324		0.240	5

RCBOs

DS201 L series 4500 APR type, C characteristic

2



DS201 L

DS201 L APR type, C characteristic

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal trade-off between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30\text{mA}$); protection and isolation of resistive and inductive loads.

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 4\ 500\ \text{A}$

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	30	6	174905	DS201 L C6 APR30	2CSR245440R1064		0.240	5
		10	175001	DS201 L C10 APR30	2CSR245440R1104		0.240	5
		16	175100	DS201 L C16 APR30	2CSR245440R1164		0.240	5
		20	175209	DS201 L C20 APR30	2CSR245440R1204		0.240	5
		25	175605	DS201 L C25 APR30	2CSR245440R1254		0.240	5
		32	175704	DS201 L C32 APR30	2CSR245440R1324		0.240	5

Where to find more:

Technical details for DS201 RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS201 series 6000 AC type, B characteristic



DS201

DS201 AC type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\ 000$ A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
1+N	30	6	279709	DS201 B6 AC30	2CSR255040R1065		0.240	5	
		10	280309	DS201 B10 AC30	2CSR255040R1105		0.240	5	
		13	285205	DS201 B13 AC30	2CSR255040R1135		0.240	5	
		16	285304	DS201 B16 AC30	2CSR255040R1165		0.240	5	
		20	285403	DS201 B20 AC30	2CSR255040R1205		0.240	5	
		25	285502	DS201 B25 AC30	2CSR255040R1255		0.240	5	
		32	285601	DS201 B32 AC30	2CSR255040R1325		0.240	5	
		40	285700	DS201 B40 AC30	2CSR255040R1405		0.240	5	
	100	100	6	285809	DS201 B6 AC100	2CSR255040R2065		0.240	5
			10	285908	DS201 B10 AC100	2CSR255040R2105		0.240	5
			13	286004	DS201 B13 AC100	2CSR255040R2135		0.240	5
			16	286103	DS201 B16 AC100	2CSR255040R2165		0.240	5
			20	286202	DS201 B20 AC100	2CSR255040R2205		0.240	5
			25	286301	DS201 B25 AC100	2CSR255040R2255		0.240	5
			32	286400	DS201 B32 AC100	2CSR255040R2325		0.240	5
			40	286509	DS201 B40 AC100	2CSR255040R2405		0.240	5
	300	300	6	286608	DS201 B6 AC300	2CSR255040R3065		0.240	5
			10	286707	DS201 B10 AC300	2CSR255040R3105		0.240	5
			13	293903	DS201 B13 AC300	2CSR255040R3135		0.240	5
			16	294009	DS201 B16 AC300	2CSR255040R3165		0.240	5
			20	294108	DS201 B20 AC300	2CSR255040R3205		0.240	5
			25	294207	DS201 B25 AC300	2CSR255040R3255		0.240	5
			32	294306	DS201 B32 AC300	2CSR255040R3325		0.240	5
			40	294405	DS201 B40 AC300	2CSR255040R3405		0.240	5

RCBOs

DS201 series 6000 AC type, C characteristic



2CHC000001C0201

DS201

DS201 AC type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\ 000$ A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	30	6	294504	DS201 C6 AC30	2CSR255040R1064		0.240	5
		10	294603	DS201 C10 AC30	2CSR255040R1104		0.240	5
		13	294702	DS201 C13 AC30	2CSR255040R1134		0.240	5
		16	294801	DS201 C16 AC30	2CSR255040R1164		0.240	5
		20	294900	DS201 C20 AC30	2CSR255040R1204		0.240	5
		25	295006	DS201 C25 AC30	2CSR255040R1254		0.240	5
		32	296003	DS201 C32 AC30	2CSR255040R1324		0.240	5
		40	296102	DS201 C40 AC30	2CSR255040R1404		0.240	5
	100	6	296201	DS201 C6 AC100	2CSR255040R2064		0.240	5
		10	296409	DS201 C10 AC100	2CSR255040R2104		0.240	5
		13	370802	DS201 C13 AC100	2CSR255040R2134		0.240	5
		16	370901	DS201 C16 AC100	2CSR255040R2164		0.240	5
		20	371601	DS201 C20 AC100	2CSR255040R2204		0.240	5
		25	371700	DS201 C25 AC100	2CSR255040R2254		0.240	5
		32	371809	DS201 C32 AC100	2CSR255040R2324		0.240	5
		40	498100	DS201 C40 AC100	2CSR255040R2404		0.240	5
	300	6	498209	DS201 C6 AC300	2CSR255040R3064		0.240	5
		10	498308	DS201 C10 AC300	2CSR255040R3104		0.240	5
		13	505907	DS201 C13 AC300	2CSR255040R3134		0.240	5
		16	506003	DS201 C16 AC300	2CSR255040R3164		0.240	5
		20	506102	DS201 C20 AC300	2CSR255040R3204		0.240	5
		25	506201	DS201 C25 AC300	2CSR255040R3254		0.240	5
		32	618300	DS201 C32 AC300	2CSR255040R3324		0.240	5
		40	638407	DS201 C40 AC300	2CSR255040R3404		0.240	5
	1000	6	996606	DS201 C6 AC1000	2CSR255040R5064		0.240	5
		10	996705	DS201 C10 AC1000	2CSR255040R5104		0.240	5
		16	996804	DS201 C16 AC1000	2CSR255040R5164		0.240	5
		20	996903	DS201 C20 AC1000	2CSR255040R5204		0.240	5
25		997009	DS201 C25 AC1000	2CSR255040R5254		0.240	5	
32		997108	DS201 C32 AC1000	2CSR255040R5324		0.240	5	
40		997207	DS201 C40 AC1000	2CSR255040R5404		0.240	5	

Where to find more:

Technical details for DS201 RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS201 series 6000 APR type, C characteristic



DS201

DS201 APR type, C characteristic

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal trade-off between safety and continuity of service thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA); protection and isolation of resistive and inductive loads.

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

I_{cn} = 6 000 A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
1+N	30	6	997306	DS201 C6 APR30	2CSR255440R1064		0.240	5	
		10	997405	DS201 C10 APR30	2CSR255440R1104		0.240	5	
		13	997504	DS201 C13 APR30	2CSR255440R1134		0.240	5	
		16	997603	DS201 C16 APR30	2CSR255440R1164		0.240	5	
		20	997702	DS201 C20 APR30	2CSR255440R1204		0.240	5	
		25	997801	DS201 C25 APR30	2CSR255440R1254		0.240	5	
		32	997900	DS201 C32 APR30	2CSR255440R1324		0.240	5	
		40	998006	DS201 C40 APR30	2CSR255440R1404		0.240	5	
	100	100	6	126454	DS201 C6 APR100	2CSR255440R2064		0.240	5
			10	126553	DS201 C10 APR100	2CSR255440R2104		0.240	5
			13	126652	DS201 C13 APR100	2CSR255440R2134		0.240	5
			16	126751	DS201 C16 APR100	2CSR255440R2164		0.240	5
			20	126850	DS201 C20 APR100	2CSR255440R2204		0.240	5
			25	126959	DS201 C25 APR100	2CSR255440R2254		0.240	5
			32	127055	DS201 C32 APR100	2CSR255440R2324		0.240	5
			40	127154	DS201 C40 APR100	2CSR255440R2404		0.240	5
	300	300	6	998105	DS201 C6 APR300	2CSR255440R3064		0.240	5
			10	998204	DS201 C10 APR300	2CSR255440R3104		0.240	5
			13	998303	DS201 C13 APR300	2CSR255440R3134		0.240	5
			16	998402	DS201 C16 APR300	2CSR255440R3164		0.240	5
			20	998501	DS201 C20 APR300	2CSR255440R3204		0.240	5
			25	998600	DS201 C25 APR300	2CSR255440R3254		0.240	5
			32	998709	DS201 C32 APR300	2CSR255440R3324		0.240	5
			40	998808	DS201 C40 APR300	2CSR255440R3404		0.240	5

RCBOs

DS201 series 6000 A type, B characteristic

2



DS201

DS201 A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I\Delta n=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\ 000$ A

Number of poles	Rated residual current In mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	10	10	995708	DS201 B10 A10	2CSR255140R0105		0.240	5
		13	995807	DS201 B13 A10	2CSR255140R0135		0.240	5
		16	995906	DS201 B16 A10	2CSR255140R0165		0.240	5
	30	6	638506	DS201 B6 A30	2CSR255140R1065		0.240	5
		10	647805	DS201 B10 A30	2CSR255140R1105		0.240	5
		13	655503	DS201 B13 A30	2CSR255140R1135		0.240	5
		16	655602	DS201 B16 A30	2CSR255140R1165		0.240	5
		20	655701	DS201 B20 A30	2CSR255140R1205		0.240	5
		25	766902	DS201 B25 A30	2CSR255140R1255		0.240	5
		32	814504	DS201 B32 A30	2CSR255140R1325		0.240	5
		40	910602	DS201 B40 A30	2CSR255140R1405		0.240	5
	100	6	990307	DS201 B6 A100	2CSR255140R2065		0.240	5
		10	990406	DS201 B10 A100	2CSR255140R2105		0.240	5
		13	990505	DS201 B13 A100	2CSR255140R2135		0.240	5
		16	990604	DS201 B16 A100	2CSR255140R2165		0.240	5
		20	990703	DS201 B20 A100	2CSR255140R2205		0.240	5
		25	990802	DS201 B25 A100	2CSR255140R2255		0.240	5
		32	990901	DS201 B32 A100	2CSR255140R2325		0.240	5
		40	991007	DS201 B40 A100	2CSR255140R2405		0.240	5
	300	6	991908	DS201 B6 A300	2CSR255140R3065		0.240	5
		10	992004	DS201 B10 A300	2CSR255140R3105		0.240	5
		13	992103	DS201 B13 A300	2CSR255140R3135		0.240	5
		16	992202	DS201 B16 A300	2CSR255140R3165		0.240	5
		20	992301	DS201 B20 A300	2CSR255140R3205		0.240	5
25		992400	DS201 B25 A300	2CSR255140R3255		0.240	5	
32		992509	DS201 B32 A300	2CSR255140R3325		0.240	5	
40		992608	DS201 B40 A300	2CSR255140R3405		0.240	5	

Where to find more:

Technical details for DS201 RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS201 series 6000 A type, C characteristic



DS201

DS201 A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\ 000$ A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	10	10	996002	DS201 C10 A10	2CSR255140R0104	0.240	5	
		13	996101	DS201 C13 A10	2CSR255140R0134	0.240	5	
		16	996200	DS201 C16 A10	2CSR255140R0164	0.240	5	
30	30	2	123958	DS201 C2 A30	2CSR255140R1024	0.240	5	
		4	942306	DS201 C4 A30	2CSR255140R1044	0.240	5	
		6	942405	DS201 C6 A30	2CSR255140R1064	0.240	5	
		8	124054	DS201 C8 A30	2CSR255140R1084	0.240	5	
		10	952503	DS201 C10 A30	2CSR255140R1104	0.240	5	
		13	976004	DS201 C13 A30	2CSR255140R1134	0.240	5	
		16	976103	DS201 C16 A30	2CSR255140R1164	0.240	5	
		20	976202	DS201 C20 A30	2CSR255140R1204	0.240	5	
		25	976301	DS201 C25 A30	2CSR255140R1254	0.240	5	
		32	990109	DS201 C32 A30	2CSR255140R1324	0.240	5	
		40	990208	DS201 C40 A30	2CSR255140R1404	0.240	5	
100	100	6	991106	DS201 C6 A100	2CSR255140R2064	0.240	5	
		10	991205	DS201 C10 A100	2CSR255140R2104	0.240	5	
		13	991304	DS201 C13 A100	2CSR255140R2134	0.240	5	
		16	991403	DS201 C16 A100	2CSR255140R2164	0.240	5	
		20	991502	DS201 C20 A100	2CSR255140R2204	0.240	5	
		25	991601	DS201 C25 A100	2CSR255140R2254	0.240	5	
		32	991700	DS201 C32 A100	2CSR255140R2324	0.240	5	
		40	991809	DS201 C40 A100	2CSR255140R2404	0.240	5	
300	300	2	124153	DS201 C2 A300	2CSR255140R3024	0.240	5	
		4	124252	DS201 C4 A300	2CSR255140R3044	0.240	5	
		6	992707	DS201 C6 A300	2CSR255140R3064	0.240	5	
		8	124351	DS201 C8 A300	2CSR255140R3084	0.240	5	
		10	992806	DS201 C10 A300	2CSR255140R3104	0.240	5	
		13	992905	DS201 C13 A300	2CSR255140R3134	0.240	5	
		16	993001	DS201 C16 A300	2CSR255140R3164	0.240	5	
		20	993100	DS201 C20 A300	2CSR255140R3204	0.240	5	
		25	993209	DS201 C25 A300	2CSR255140R3254	0.240	5	
		32	993308	DS201 C32 A300	2CSR255140R3324	0.240	5	
		40	993407	DS201 C40 A300	2CSR255140R3404	0.240	5	

RCBOs

DS201 series 6000 A type, K characteristic



DS201

DS201 A type, K characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\ 000$ A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
1+N	10	10	996309	DS201 K10 A10	2CSR255140R0107		0.240	5
		13	996408	DS201 K13 A10	2CSR255140R0137		0.240	5
		16	996507	DS201 K16 A10	2CSR255140R0167		0.240	5
30	30	1	993506	DS201 K1 A30	2CSR255140R1017		0.240	5
		2	993605	DS201 K2 A30	2CSR255140R1027		0.240	5
		4	993704	DS201 K4 A30	2CSR255140R1047		0.240	5
		6	993803	DS201 K6 A30	2CSR255140R1067		0.240	5
		8	123750	DS201 K8 A30	2CSR255140R1087		0.240	5
		10	993902	DS201 K10 A30	2CSR255140R1107		0.240	5
		13	994008	DS201 K13 A30	2CSR255140R1137		0.240	5
		16	994107	DS201 K16 A30	2CSR255140R1167		0.240	5
		20	994206	DS201 K20 A30	2CSR255140R1207		0.240	5
		25	994305	DS201 K25 A30	2CSR255140R1257		0.240	5
		32	994404	DS201 K32 A30	2CSR255140R1327		0.240	5
		40	994503	DS201 K40 A30	2CSR255140R1407		0.240	5
300	300	1	994602	DS201 K1 A300	2CSR255140R3017		0.240	5
		2	994701	DS201 K2 A300	2CSR255140R3027		0.240	5
		4	994800	DS201 K4 A300	2CSR255140R3047		0.240	5
		6	994909	DS201 K6 A300	2CSR255140R3067		0.240	5
		8	123859	DS201 K8 A300	2CSR255140R3087		0.240	5
		10	995005	DS201 K10 A300	2CSR255140R3107		0.240	5
		13	995104	DS201 K13 A300	2CSR255140R3137		0.240	5
		16	995203	DS201 K16 A300	2CSR255140R3167		0.240	5
		20	995302	DS201 K20 A300	2CSR255140R3207		0.240	5
		25	995401	DS201 K25 A300	2CSR255140R3257		0.240	5
		32	995500	DS201 K32 A300	2CSR255140R3327		0.240	5
		40	995609	DS201 K40 A300	2CSR255140R3407		0.240	5

Where to find more:

Technical details for DS201 RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS201 T series 6000 A type, B, C and K characteristics



DS201 T

DS201 T A type

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$). DS201 T range is able to meet the most strict requirements for railway application in the rolling stock traction business (classification I2-F3 according to NF F 16-101/102 and R26/ HL3 according to EN 45545-1:2013 and EN 45545-2:2013).

Application: railway, rolling stock, traction.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6000 \text{ A}$

B characteristic

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	30	6	002031	DS201T B6 A30	2CSR255148R1065		0.240	1
		10	001935	DS201T B10 A30	2CSR255148R1105			
		13	031437	DS201T B13 A30	2CSR255148R1135			
		16	001836	DS201T B16 A30	2CSR255148R1165			
		20	001737	DS201T B20 A30	2CSR255148R1205			
		25	031338	DS201T B25 A30	2CSR255148R1255			
		32	001638	DS201T B32 A30	2CSR255148R1325			
		40	001539	DS201T B40 A30	2CSR255148R1405			

C characteristic

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	30	6	001430	DS201T C6 A30	2CSR255148R1064		0.240	1
		10	001331	DS201T C10 A30	2CSR255148R1104			
		13	001232	DS201T C13 A30	2CSR255148R1134			
		16	629832	DS201T C16 A30	2CSR255148R1164			
		20	648437	DS201T C20 A30	2CSR255148R1204			
		25	648338	DS201T C25 A30	2CSR255148R1254			
		32	297031	DS201T C32 A30	2CSR255148R1324			
		40	953234	DS201T C40 A30	2CSR255148R1404			

K characteristic

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	30	6	959434	DS201T K6 A30	2CSR255148R1067		0.240	1
		10	959137	DS201T K10 A30	2CSR255148R1107			
		13	958833	DS201T K13 A30	2CSR255148R1137			
		16	958536	DS201T K16 A30	2CSR255148R1167			
		20	960539	DS201T K20 A30	2CSR255148R1207			
		25	960331	DS201T K25 A30	2CSR255148R1257			
		32	960133	DS201T K32 A30	2CSR255148R1327			
		40	959731	DS201T K40 A30	2CSR255148R1407			

RCBOs

DS201 M series 10000 AC type, B characteristic



2

DS201 M

DS201 M AC type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

I_{cn} = 10 000 A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	30	6	998907	DS201 M B6 AC30	2CSR275040R1065		0.240	5
		10	999003	DS201 M B10 AC30	2CSR275040R1105		0.240	5
		13	999102	DS201 M B13 AC30	2CSR275040R1135		0.240	5
		16	999201	DS201 M B16 AC30	2CSR275040R1165		0.240	5
		20	999300	DS201 M B20 AC30	2CSR275040R1205		0.240	5
		25	999409	DS201 M B25 AC30	2CSR275040R1255		0.240	5
		32	999508	DS201 M B32 AC30	2CSR275040R1325		0.240	5
		40	999607	DS201 M B40 AC30	2CSR275040R1405		0.240	5
	100	6	106159	DS201 M B6 AC100	2CSR275040R2065		0.240	5
		10	106258	DS201 M B10 AC100	2CSR275040R2105		0.240	5
		13	106357	DS201 M B13 AC100	2CSR275040R2135		0.240	5
		16	106456	DS201 M B16 AC100	2CSR275040R2165		0.240	5
		20	106555	DS201 M B20 AC100	2CSR275040R2205		0.240	5
		25	106654	DS201 M B25 AC100	2CSR275040R2255		0.240	5
		32	106753	DS201 M B32 AC100	2CSR275040R2325		0.240	5
		40	106852	DS201 M B40 AC100	2CSR275040R2405		0.240	5
	300	6	107750	DS201 M B6 AC300	2CSR275040R3065		0.240	5
		10	107859	DS201 M B10 AC300	2CSR275040R3105		0.240	5
		13	107958	DS201 M B13 AC300	2CSR275040R3135		0.240	5
		16	108054	DS201 M B16 AC300	2CSR275040R3165		0.240	5
		20	108153	DS201 M B20 AC300	2CSR275040R3205		0.240	5
		25	108252	DS201 M B25 AC300	2CSR275040R3255		0.240	5
		32	108351	DS201 M B32 AC300	2CSR275040R3325		0.240	5
		40	108450	DS201 M B40 AC300	2CSR275040R3405		0.240	5

Where to find more:

Technical details for DS201 RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS201 M series 10000 AC type, C characteristic



DS201 M

DS201 M AC type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 10\ 000$ A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
1+N	30	6	999706	DS201 M C6 AC30	2CSR275040R1064		0.240	5	
		10	999805	DS201 M C10 AC30	2CSR275040R1104		0.240	5	
		13	999904	DS201 M C13 AC30	2CSR275040R1134		0.240	5	
		16	105657	DS201 M C16 AC30	2CSR275040R1164		0.240	5	
		20	105756	DS201 M C20 AC30	2CSR275040R1204		0.240	5	
		25	105855	DS201 M C25 AC30	2CSR275040R1254		0.240	5	
		32	105954	DS201 M C32 AC30	2CSR275040R1324		0.240	5	
		40	106050	DS201 M C40 AC30	2CSR275040R1404		0.240	5	
	100	30	6	106951	DS201 M C6 AC100	2CSR275040R2064		0.240	5
			10	107057	DS201 M C10 AC100	2CSR275040R2104		0.240	5
			13	107156	DS201 M C13 AC100	2CSR275040R2134		0.240	5
			16	107255	DS201 M C16 AC100	2CSR275040R2164		0.240	5
			20	107354	DS201 M C20 AC100	2CSR275040R2204		0.240	5
			25	107453	DS201 M C25 AC100	2CSR275040R2254		0.240	5
			32	107552	DS201 M C32 AC100	2CSR275040R2324		0.240	5
			40	107651	DS201 M C40 AC100	2CSR275040R2404		0.240	5
	300	30	6	108559	DS201 M C6 AC300	2CSR275040R3064		0.240	5
			10	108658	DS201 M C10 AC300	2CSR275040R3104		0.240	5
			13	108757	DS201 M C13 AC300	2CSR275040R3134		0.240	5
			16	108856	DS201 M C16 AC300	2CSR275040R3164		0.240	5
			20	108955	DS201 M C20 AC300	2CSR275040R3204		0.240	5
			25	109051	DS201 M C25 AC300	2CSR275040R3254		0.240	5
			32	109150	DS201 M C32 AC300	2CSR275040R3324		0.240	5
			40	109259	DS201 M C40 AC300	2CSR275040R3404		0.240	5

RCBOs

DS201 M series 10000 APR type, C characteristic

2



DS201 M

DS201 M APR type, C characteristic

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal compromise between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact ($\Delta n=30$ mA); protection and isolation of resistive and inductive loads.

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

I_{cn} = 10 000 A

Number of poles	Rated residual current Δn mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	30	6	114154	DS201 M C6 APR30	2CSR275440R1064		0.240	5
		10	114253	DS201 M C10 APR30	2CSR275440R1104		0.240	5
		13	114352	DS201 M C13 APR30	2CSR275440R1134		0.240	5
		16	114451	DS201 M C16 APR30	2CSR275440R1164		0.240	5
		20	114550	DS201 M C20 APR30	2CSR275440R1204		0.240	5
		25	114659	DS201 M C25 APR30	2CSR275440R1254		0.240	5
		32	114758	DS201 M C32 APR30	2CSR275440R1324		0.240	5
		40	114857	DS201 M C40 APR30	2CSR275440R1404		0.240	5
	100	6	127253	DS201 M C6 APR100	2CSR275440R2064		0.240	5
		10	127352	DS201 M C10 APR100	2CSR275440R2104		0.240	5
		13	127451	DS201 M C13 APR100	2CSR275440R2134		0.240	5
		16	127550	DS201 M C16 APR100	2CSR275440R2164		0.240	5
		20	127659	DS201 M C20 APR100	2CSR275440R2204		0.240	5
		25	127758	DS201 M C25 APR100	2CSR275440R2254		0.240	5
		32	127857	DS201 M C32 APR100	2CSR275440R2324		0.240	5
		40	127956	DS201 M C40 APR100	2CSR275440R2404		0.240	5
	300	6	114956	DS201 M C6 APR300	2CSR275440R3064		0.240	5
		10	115052	DS201 M C10 APR300	2CSR275440R3104		0.240	5
		13	115151	DS201 M C13 APR300	2CSR275440R3134		0.240	5
		16	115250	DS201 M C16 APR300	2CSR275440R3164		0.240	5
		20	115359	DS201 M C20 APR300	2CSR275440R3204		0.240	5
		25	115458	DS201 M C25 APR300	2CSR275440R3254		0.240	5
		32	115557	DS201 M C32 APR300	2CSR275440R3324		0.240	5
		40	115656	DS201 M C40 APR300	2CSR275440R3404		0.240	5

Where to find more:

Technical details for DS201 RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS201 M series 10000 A type, B characteristic



DS201 M

DS201 M A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I\Delta n=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 10\ 000$ A

Number of poles	Rated residual current $I\Delta n$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	10	10	124450	DS201 M B10 A10	2CSR275140R0105	0.240	5	
		16	124559	DS201 M B16 A10	2CSR275140R0165	0.240	5	
	30	6	109358	DS201 M B6 A30	2CSR275140R1065	0.240	5	
		10	109457	DS201 M B10 A30	2CSR275140R1105	0.240	5	
		13	109556	DS201 M B13 A30	2CSR275140R1135	0.240	5	
		16	109655	DS201 M B16 A30	2CSR275140R1165	0.240	5	
		20	109754	DS201 M B20 A30	2CSR275140R1205	0.240	5	
		25	109853	DS201 M B25 A30	2CSR275140R1255	0.240	5	
		32	109952	DS201 M B32 A30	2CSR275140R1325	0.240	5	
		40	110057	DS201 M B40 A30	2CSR275140R1405	0.240	5	
	100	6	111054	DS201 M B6 A100	2CSR275140R2065	0.240	5	
		10	111153	DS201 M B10 A100	2CSR275140R2105	0.240	5	
		13	111252	DS201 M B13 A100	2CSR275140R2135	0.240	5	
		16	111351	DS201 M B16 A100	2CSR275140R2165	0.240	5	
		20	111450	DS201 M B20 A100	2CSR275140R2205	0.240	5	
		25	111559	DS201 M B25 A100	2CSR275140R2255	0.240	5	
		32	111658	DS201 M B32 A100	2CSR275140R2325	0.240	5	
		40	111757	DS201 M B40 A100	2CSR275140R2405	0.240	5	
	300	6	112556	DS201 M B6 A300	2CSR275140R3065	0.240	5	
		10	112655	DS201 M B10 A300	2CSR275140R3105	0.240	5	
		13	112754	DS201 M B13 A300	2CSR275140R3135	0.240	5	
		16	112853	DS201 M B16 A300	2CSR275140R3165	0.240	5	
		20	112952	DS201 M B20 A300	2CSR275140R3205	0.240	5	
		25	113058	DS201 M B25 A300	2CSR275140R3255	0.240	5	
32		113157	DS201 M B32 A300	2CSR275140R3325	0.240	5		
40		113256	DS201 M B40 A300	2CSR275140R3405	0.240	5		

RCBOs

DS201 M series 10000 A type, C characteristic



DS201 M

DS201 M A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I\Delta n=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

Icn = 10 000 A

Number of poles	Rated residual current $I\Delta n$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	10	10	124658	DS201 M C10 A10	2CSR275140R0104		0.240	5
		16	124757	DS201 M C16 A10	2CSR275140R0164		0.240	5
	30	4	110156	DS201 M C4 A30	2CSR275140R1044		0.240	5
		6	110255	DS201 M C6 A30	2CSR275140R1064		0.240	5
		10	110354	DS201 M C10 A30	2CSR275140R1104		0.240	5
		13	110453	DS201 M C13 A30	2CSR275140R1134		0.240	5
		16	110552	DS201 M C16 A30	2CSR275140R1164		0.240	5
		20	110651	DS201 M C20 A30	2CSR275140R1204		0.240	5
		25	110750	DS201 M C25 A30	2CSR275140R1254		0.240	5
		32	110859	DS201 M C32 A30	2CSR275140R1324		0.240	5
	40	110958	DS201 M C40 A30	2CSR275140R1404		0.240	5	
	100	6	111856	DS201 M C6 A100	2CSR275140R2064		0.240	5
		10	111955	DS201 M C10 A100	2CSR275140R2104		0.240	5
		16	112051	DS201 M C16 A100	2CSR275140R2164		0.240	5
		20	112150	DS201 M C20 A100	2CSR275140R2204		0.240	5
		25	112259	DS201 M C25 A100	2CSR275140R2254		0.240	5
		32	112358	DS201 M C32 A100	2CSR275140R2324		0.240	5
	300	40	112457	DS201 M C40 A100	2CSR275140R2404		0.240	5
		6	113355	DS201 M C6 A300	2CSR275140R3064		0.240	5
		10	113454	DS201 M C10 A300	2CSR275140R3104		0.240	5
		13	113553	DS201 M C13 A300	2CSR275140R3134		0.240	5
		16	113652	DS201 M C16 A300	2CSR275140R3164		0.240	5
		20	113751	DS201 M C20 A300	2CSR275140R3204		0.240	5
		25	113850	DS201 M C25 A300	2CSR275140R3254		0.240	5
		32	113959	DS201 M C32 A300	2CSR275140R3324		0.240	5
	40	114055	DS201 M C40 A300	2CSR275140R3404		0.240	5	

Where to find more:

Technical details for DS201 RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS201 M series 10000 A type, K characteristic



DS201 M

DS201 M A type, K characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents.

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

Icn = 10 000 A

Number of poles	Rated residual current I _{Δn} mA	Rated current I _n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1P+N	100	6	299455	DS201 M K6 A100	2CSR275140R2067		0.240	5
		10	299554	DS201 M K10 A100	2CSR275140R2107		0.240	5
		13	299653	DS201 M K13 A100	2CSR275140R2137		0.240	5
		16	299752	DS201 M K16 A100	2CSR275140R2167		0.240	5
		20	299851	DS201 M K20 A100	2CSR275140R2207		0.240	5
		25	299950	DS201 M K25 A100	2CSR275140R2257		0.240	5
		32	300052	DS201 M K32 A100	2CSR275140R2327		0.240	5
		40	300151	DS201 M K40 A100	2CSR275140R2407		0.240	5

Where to find more:

Technical details for DS201 RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS201 M 110V series $\boxed{10000}$ A type, B and C characteristic



DS201 M 110V

2

DS201 M 110V A type, B and C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I\Delta n = 30$ mA). This particular series of devices has the minimum operating voltage of test button of 110V and it is suitable for 230 V applications.

Application: residential, commercial, industrial.

Standard: IEC 61009-1; IEC 61009-2-1

$I_{cn} = 10\ 000$ A

B characteristic								
Number of poles	Rated residual current $I\Delta n$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	30	6	077930	DS201 M B6 A30 110V	2CSR275199R1065		0.240	5
		10	077831	DS201 M B10 A30 110V	2CSR275199R1105		0.240	5
		13	077732	DS201 M B13 A30 110V	2CSR275199R1135		0.240	5
		16	077633	DS201 M B16 A30 110V	2CSR275199R1165		0.240	5
		20	080336	DS201 M B20 A30 110V	2CSR275199R1205		0.240	5
		25	080237	DS201 M B25 A30 110V	2CSR275199R1255		0.240	5
		32	080138	DS201 M B32 A30 110V	2CSR275199R1325		0.240	5
		40	080039	DS201 M B40 A30 110V	2CSR275199R1405		0.240	5

C characteristic								
Number of poles	Rated residual current $I\Delta n$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1+N	30	6	078739	DS201 M C6 A30 110V	2CSR275199R1064		0.240	5
		10	078630	DS201 M C10 A30 110V	2CSR275199R1104		0.240	5
		13	078531	DS201 M C13 A30 110V	2CSR275199R1134		0.240	5
		16	078432	DS201 M C16 A30 110V	2CSR275199R1164		0.240	5
		20	078333	DS201 M C20 A30 110V	2CSR275199R1204		0.240	5
		25	078234	DS201 M C25 A30 110V	2CSR275199R1254		0.240	5
		32	078135	DS201 M C32 A30 110V	2CSR275199R1324		0.240	5
		40	078036	DS201 M C40 A30 110V	2CSR275199R1404		0.240	5

S800 B. High performance miniature circuit-breakers. Simply innovative. Safety has never been easier.

Limit downtime in industrial electrical systems while ensuring maximum safety for operators and ease of access to devices: S800 B high performance circuit-breakers are efficient products at a reasonable cost and designed for overload and short-circuit protection in distribution systems with 16 kA breaking capacity. They comply with Standard CEI EN 60947-2, 60898-1 and feature 80 to 125 A rated current values with B, C, D and K characteristic curves. Thanks to a red/green signal, showing the position of internal moving contacts, and to a switch lever, that stops in the middle position in case of thermal or magnetic tripping, they show why tripping occurred at a glance, enabling prompt maintenance. Performance similar to moulded case circuit-breakers but with the advantage of the compact dimension, S800 B are available from 1 to 4 poles versions. www.abb.com/lowvoltage



RCBOs

DS202C technical features

2



DS202 C

	Standards		
Electrical features	Type (wave form of the earth leakage sensed)		
	Poles		
	Rated current I_n		A
	Rated sensitivity ΔI_n		A
	Rated voltage U_e		V
	Insulation voltage U_i		V
	Max. operating voltage of circuit test		V
	Min. operating voltage of circuit test		V
	Rated frequency		Hz
	Rated breaking capacity acc. to IEC/EN 61009	ultimate I_{cn}	A
	Rated breaking capacity acc. to IEC/EN 60947-2 2P @230 VAC	ultimate I_{cu}	kA
		service I_{cs}	kA
	Rated residual breaking capacity ΔI_m		kA
	Rated impulse withstand voltage (1.2/50) U_{imp}		kV
	Dielectric test voltage at ind. freq. for 1 min.		kV
	Thermomagnetic release characteristic	B: $3 I_n \leq I_m \leq 5 I_n$	
		C: $5 I_n \leq I_m \leq 10 I_n$	
	Surge current resistance (wave 8/20)		A
	Mechanical features	Toggle	
Flag indicators			
Electrical life			
Mechanical life			
Protection degree		housing	
		terminals	
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30			°C/RH
Reference temperature for setting of thermal element			°C
Ambient temperature (with daily average $\leq +35$ °C)			°C
Storage temperature			°C
Installation	Terminal type	top	
		bottom	
	Terminal size top/bottom for cables		mm ²
	Terminal size top/bottom for busabar		mm ²
	Tightening torque top/bottom		Nm
Mounting			
Connection			
Dimensions and weight	Dimensions (H x D x W)		mm
	Weight		g
Combination with auxiliary elements	Combinable with:	auxiliary contact	
		signal contact	
		shunt trip	
		undervoltage release	

DS202C	DS202C M	DS202C M 110V
IEC/EN 61009-1; IEC/EN 61009-2-1		IEC 61009-1; IEC 61009-2-1
A	A	APR
2P		A
$6 \leq I_n \leq 32$		
0.03-0.3	0.01-0.03-0.3	0.03-0.3
230-240		
500		
254		
110		110
170 for $I_{\Delta n} = 30 \text{ mA}$		
50...60		
6000	10000	10000
10	10	10
6	7.5	7.5
6	6	6
4		
2.5		
■	■	■
■	■	■
250 (3000 for APR versions)		
black sealable in ON-OFF position		
differential trip indicator (blue)		
contact position indicator (green/red)		
10000		
20000		
IP4X		
IP2X		
28 cycles with 55°C/90-96% and 25°C/95-100%		
30		
-25...+55		
-40...+70		
failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected)		
failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected)		
25/25		
10/10		
2.8		
on DIN rail EN 60715 (35 mm) by means of fast clip device		
from top and bottom		
85 x 69 x 35		
239		
yes		
yes		
yes		
yes		

RCBOs

DS202C series 6000 A type, B characteristic

2



DS202C

DS202C A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\ 000$ A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	6	132257	DS202C B6 A30	2CSR252140R1065		0.240	5
		10	132356	DS202C B10 A30	2CSR252140R1105		0.240	5
		13	132455	DS202C B13 A30	2CSR252140R1135		0.240	5
		16	132554	DS202C B16 A30	2CSR252140R1165		0.240	5
		20	132653	DS202C B20 A30	2CSR252140R1205		0.240	5
		25	132752	DS202C B25 A30	2CSR252140R1255		0.240	5
		32	132851	DS202C B32 A30	2CSR252140R1325		0.240	5
	300	6	132950	DS202C B6 A300	2CSR252140R3065		0.240	5
		10	133056	DS202C B10 A300	2CSR252140R3105		0.240	5
		13	133155	DS202C B13 A300	2CSR252140R3135		0.240	5
		16	133254	DS202C B16 A300	2CSR252140R3165		0.240	5
		20	133353	DS202C B20 A300	2CSR252140R3205		0.240	5
		25	133452	DS202C B25 A300	2CSR252140R3255		0.240	5
		32	133551	DS202C B32 A300	2CSR252140R3325		0.240	5

Where to find more:

Technical details for DS202C RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS202C series 6000 A type, C characteristic



DS202C

DS202C A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I\Delta n=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

Icn = 6 000 A

Number of poles	Rated residual current $I\Delta n$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	6	122357	DS202C C6 A30	2CSR252140R1064		0.240	5
		10	122456	DS202C C10 A30	2CSR252140R1104		0.240	5
		13	122555	DS202C C13 A30	2CSR252140R1134		0.240	5
		16	122654	DS202C C16 A30	2CSR252140R1164		0.240	5
		20	122753	DS202C C20 A30	2CSR252140R1204		0.240	5
		25	122852	DS202C C25 A30	2CSR252140R1254		0.240	5
		32	122951	DS202C C32 A30	2CSR252140R1324		0.240	5
	300	6	123057	DS202C C6 A300	2CSR252140R3064		0.240	5
		10	123156	DS202C C10 A300	2CSR252140R3104		0.240	5
		13	123255	DS202C C13 A300	2CSR252140R3134		0.240	5
		16	123354	DS202C C16 A300	2CSR252140R3164		0.240	5
		20	123453	DS202C C20 A300	2CSR252140R3204		0.240	5
		25	123552	DS202C C25 A300	2CSR252140R3254		0.240	5
		32	123651	DS202C C32 A300	2CSR252140R3324		0.240	5

RCBOs

DS202C M series 10000 A type, B characteristic



DS202C M

DS202C M A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I\Delta n=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 10\ 000$ A

Number of poles	Rated residual current $I\Delta n$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
2	10	10	124856	DS202C M B10 A10	2CSR272140R0105		0.240	5	
		13	117759	DS202C M B13 A10	2CSR272140R0135		0.240	5	
		16	117858	DS202C M B16 A10	2CSR272140R0165		0.240	5	
	30	30	6	118152	DS202C M B6 A30	2CSR272140R1065		0.240	5
			10	118251	DS202C M B10 A30	2CSR272140R1105		0.240	5
			13	118350	DS202C M B13 A30	2CSR272140R1135		0.240	5
			16	118459	DS202C M B16 A30	2CSR272140R1165		0.240	5
			20	118558	DS202C M B20 A30	2CSR272140R1205		0.240	5
			25	118657	DS202C M B25 A30	2CSR272140R1255		0.240	5
			32	118756	DS202C M B32 A30	2CSR272140R1325		0.240	5
	300	300	6	119555	DS202C M B6 A300	2CSR272140R3065		0.240	5
			10	119654	DS202C M B10 A300	2CSR272140R3105		0.240	5
			13	119753	DS202C M B13 A300	2CSR272140R3135		0.240	5
			16	119852	DS202C M B16 A300	2CSR272140R3165		0.240	5
			20	119951	DS202C M B20 A300	2CSR272140R3205		0.240	5
			25	120056	DS202C M B25 A300	2CSR272140R3255		0.240	5
			32	120155	DS202C M B32 A300	2CSR272140R3325		0.240	5

Where to find more:

Technical details for DS202C RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS202C M series $\boxed{10000}$ A type, C characteristic



DS202C M A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($\Delta n=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

Icn = 10 000 A

Number of poles	Rated residual current Δn mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
2	10	13	117957	DS202C M C13 A10	2CSR272140R0134		0.240	5	
		16	118053	DS202C M C16 A10	2CSR272140R0164		0.240	5	
	30	6	118855	DS202C M C6 A30	2CSR272140R1064		0.240	5	
		10	118954	DS202C M C10 A30	2CSR272140R1104		0.240	5	
		13	119050	DS202C M C13 A30	2CSR272140R1134		0.240	5	
		16	119159	DS202C M C16 A30	2CSR272140R1164		0.240	5	
		20	119258	DS202C M C20 A30	2CSR272140R1204		0.240	5	
		25	119357	DS202C M C25 A30	2CSR272140R1254		0.240	5	
		32	119456	DS202C M C32 A30	2CSR272140R1324		0.240	5	
	300	6	120254	DS202C M C6 A300	2CSR272140R3064		0.240	5	
		10	120353	DS202C M C10 A300	2CSR272140R3104		0.240	5	
		13	120452	DS202C M C13 A300	2CSR272140R3134		0.240	5	
		16	120551	DS202C M C16 A300	2CSR272140R3164		0.240	5	
		20	120650	DS202C M C20 A300	2CSR272140R3204		0.240	5	
		25	120759	DS202C M C25 A300	2CSR272140R3254		0.240	5	
			32	120858	DS202C M C32 A300	2CSR272140R3324		0.240	5

RCBOs

DS202C M series 10000 APR type, B characteristic

2



DS202C M

DS202C M APR type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I\Delta n=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

Icn = 10 000 A

Number of poles	Rated residual current $I\Delta n$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	6	120957	DS202C M B6 APR30	2CSR272440R1065		0.240	5
		10	121053	DS202C M B10 APR30	2CSR272440R1105		0.240	5
		13	121152	DS202C M B13 APR30	2CSR272440R1135		0.240	5
		16	121251	DS202C M B16 APR30	2CSR272440R1165		0.240	5
		20	121350	DS202C M B20 APR30	2CSR272440R1205		0.240	5
		25	121459	DS202C M B25 APR30	2CSR272440R1255		0.240	5
		32	121558	DS202C M B32 APR30	2CSR272440R1325		0.240	5
	300	6	124955	DS202C M B6 APR300	2CSR272440R3065		0.240	5
		10	125051	DS202C M B10 APR300	2CSR272440R3105		0.240	5
		13	125150	DS202C M B13 APR300	2CSR272440R3135		0.240	5
		16	125259	DS202C M B16 APR300	2CSR272440R3165		0.240	5
		20	125358	DS202C M B20 APR300	2CSR272440R3205		0.240	5
		25	125457	DS202C M B25 APR300	2CSR272440R3255		0.240	5
		32	125556	DS202C M B32 APR300	2CSR272440R3325		0.240	5

Where to find more:

Technical details for DS202C RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS202C M series 10000 APR type, C characteristic



DS202C M

DS202C M APR type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 10\ 000$ A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	6	121657	DS202C M C6 APR30	2CSR272440R1064		0.240	5
		10	121756	DS202C M C10 APR30	2CSR272440R1104		0.240	5
		13	121855	DS202C M C13 APR30	2CSR272440R1134		0.240	5
		16	121954	DS202C M C16 APR30	2CSR272440R1164		0.240	5
		20	122050	DS202C M C20 APR30	2CSR272440R1204		0.240	5
		25	122159	DS202C M C25 APR30	2CSR272440R1254		0.240	5
		32	122258	DS202C M C32 APR30	2CSR272440R1324		0.240	5

RCBOs

DS202C M 110V series 10000 A type, C characteristic

2



DS202C M 110V

DS202C M 110V A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$). This particular series of devices has the minimum operating voltage of test button of 110V and it is suitable for 230 V applications.

Application: residential, commercial, industrial.

Standard: IEC 61009-1; IEC 61009-2-1

$I_{cn} = 10\ 000 \text{ A}$

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	6	079934	DS202C M C6 A30 110V	2CSR272199R1064		0.240	5
		10	079835	DS202C M C10 A30 110V	2CSR272199R1104		0.240	5
		13	079330	DS202C M C13 A30 110V	2CSR272199R1134		0.240	5
		16	079736	DS202C M C16 A30 110V	2CSR272199R1164		0.240	5
		20	079637	DS202C M C20 A30 110V	2CSR272199R1204		0.240	5
		25	079538	DS202C M C25 A30 110V	2CSR272199R1254		0.240	5
		32	079439	DS202C M C32 A30 110V	2CSR272199R1324		0.240	5

Where to find more:

Technical details for DS202C RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

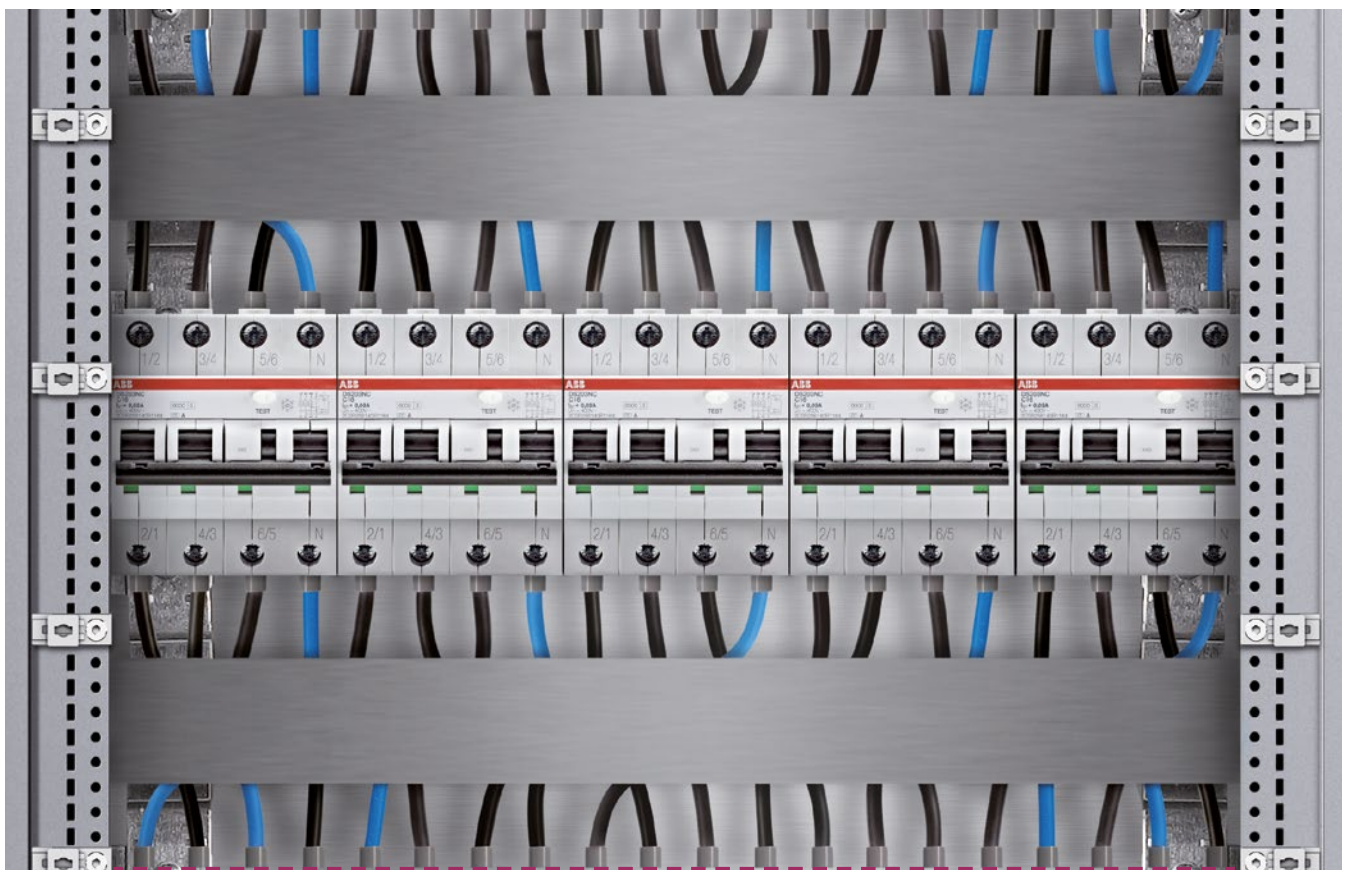
Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

Minimum space, maximum protection. DS203NC: 3P+NRCBOs in 4 modules.

Designed to be compact, DS203NC SP+N RCBOs are suitable in all those applications where size can be an obstacle. They provide reliable and complete protection from overcurrent and earth fault currents. DS203NC RCBOs are available in two ranges with different breaking capacities to cover all the applications in commercial and industrial installations; DSZOSNC L with 4.5kA and DSZOSNC with 6kA breaking capacity according to IEC/EN 61009. The range includes types AC, A, APR and S and tripping curves B, C or K. www.abb.com/lowvoltage



RCBO DS203NC. The effective choice

The benefits of a product with the highest quality standards

2

Compact size for easy installation in small spaces and retrofitting of already existing facilities.

Terminals designed to ease the installation.

Operating toggle can be sealed into on/off position to ensure maintenance in complete safety.

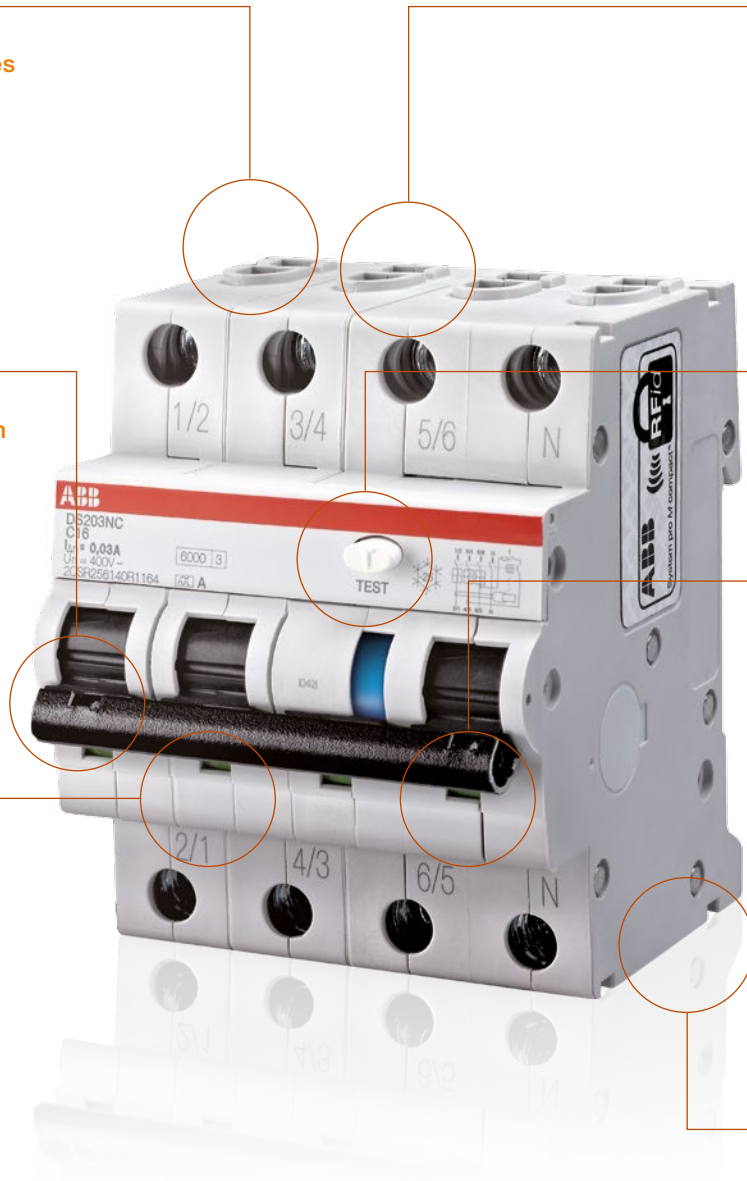
Test pushbutton to verify the correct functioning of the device.

Space for identification labels of the protected line.

The indication of the status of the contacts is done with a mechanical connection to the mobile contacts and independently from the toggle position.

The contacts position indicator (CPI) allows to exactly know the status of the contacts of the device (green: open contacts, red: closed contacts).

Same profile as the System pro *M* compact® range.





Use with cables and with busbars

Terminals with two slots allow to use different types of conductors: one housing is designed for cables up to 25 mm², the other for busbars or cables up to 10 mm².



RFid

Radio frequency tracking via a radio frequency tag to facilitate logistics and to be assured of the originality of the product.



Differential trip indicator

In case of tripping due to earth fault, a blue flag appears on the toggle thus immediately showing the cause of trip of the device. This feature helps in troubleshooting on the network and reduces the downtime for maintenance.



Laser print information

All the necessary technical and installation information are laser printed on the front and side of units ensuring visibility along the time, including order code on front of device for future orders.



Mounting clip

The mounting clip eases the installation and removal from the DIN rail, even when used in a battery of devices with busbars on bottom terminals (without need of remove other devices).



Approval stamps

DS203NC residual current circuit breakers with overcurrent protection can meet the different installation habits in the various countries and are approved by the most important certification bodies like IMQ, VDE, EAC, KEMA.

RCBOs

DS203NC technical features

2

			DS203NC L	DS203NC
Standards			IEC/EN 61009-1; IEC/EN 61009-2-1	IEC/EN 61009-1; IEC/EN 61009-2-1
Electrical features				
Type (wave form of the earth leakage sensed)			AC, A, APR	AC, A, APR, S
Number of poles			3P+N	3P+N
Rated current I_n			$6 \leq I_n \leq 32A$	$6 \leq I_n \leq 32A$
Rated sensitivity $I_{\Delta n}$			30-300 mA	30-100-300
Rated voltage U_e			400-415V	400-415V
Insulation voltage U_i			500 V AC	500 V AC
Overvoltage category			III	III
Pollution degree			2	2
Max operating voltage of circuit			440 V	440
Min. operating voltage of circuit			30mA: 300; 300mA: 195 V	30mA: 300; 100mA, 300mA: 195
Rated frequency			50/60 Hz	50/60
Rated breaking capacity acc. to IEC/ EN 61009			ultimate I_{cn} A	4500
Rated breaking capacity acc. to IEC/EN 60947-2			ultimate I_{cu} kA	6
			service I_{cs} kA	4,5
Rated residual breaking capacity $I_{\Delta m}$ acc. To EN 61009			kA	4,5
Rated impulse withstand voltage (1.2/50) U_{imp}			kV	4
Dielectric test voltage at ind. freq. for 1 min.			kV	2.5
Thermomagnetic release - characteristic			B: $3 I_n \leq I_m \leq 5 I_n$	■
			C: $5 I_n \leq I_m \leq 10 I_n$	■
			K: $10 I_n \leq I_m \leq 14 I_n$	■
Surge current resistance (wave 8/20)			A	250 (3000 for APR versions)
				250 (3000 for APR versions; 5000 for selective type)
Mechanical features				
Housing			Insulation group II, RAL 7035	Insulation group II, RAL 7035
Toggle			black, sealable in ON-OFF positions	black, sealable in ON-OFF positions
Flag indicator			Differential trip indicator: blue on toggle	Differential trip indicator: blue on toggle
Contact position indication			CPI on window	CPI on window
Electrical life			operations	10000
Mechanical life			operations	20000
Protection degree			housing	IP4X
			terminals	IP2X
Shock resistance acc. to IEC/EN 60068-2-27			30g - 2 shocks - 13ms	30g - 2 shocks - 13ms
Vibration resistance acc. to IEC/EN 60068-2-6			0,35mm or 5g - 20 cycles at 5...150...5 Hz without load	0,35mm or 5g - 20 cycles at 5...150...5 Hz without load
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30			°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%
Reference temperature for setting of thermal element			°C	30
Ambient temperature (with daily average $\leq +35$ °C)			°C	-25...+55
Storage temperature			°C	-40...+70

			DS203NC L	DS203NC
Installation				
Terminal type	top/ bottom		failsafe bi-directional cylinder-lift terminal (shock protected)	failsafe bi-directional cylinder-lift terminal (shock protected)
Terminal size for cables	top/ bottom	mm ²	25/25	25/25
Terminal size for busbars	top/ bottom	mm ²	10/10	10/10
Tightening torque	top/ bottom	Nm	2.8	2.8
Mounting			on DIN rail EN 60715 (35 mm) by means of mounting clip	on DIN rail EN 60715 (35 mm) by means of mounting clip
Supply from			Top/bottom terminals	Top/bottom terminals
Dimensions and weight				
Dimensions (H x D x W)		mm	85 x 69 x 70.4	85 x 69 x 70.4
Weight		g	480	480
Combination with auxiliary elements				
Combinable with accessories and auxiliaries, by means of interface contact SN201-IH	Auxiliary contact		yes	yes
	Signal contact		yes	yes
	Shunt trip		yes	yes
	Undervoltage release		yes	yes
	Overvoltage release		yes	yes

RCBOs

DS203NC L AC

2



DS203NC L - AC type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 4\ 500 \text{ A}$

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3P+N	30	6	353928	DS203NC L C6 AC30	2CSR246040R1064		0.480	1
		8	343622	DS203NC L C8 AC30	2CSR246040R1084		0.480	1
		10	353829	DS203NC L C10 AC30	2CSR246040R1104		0.480	1
		13	343523	DS203NC L C13 AC30	2CSR246040R1134		0.480	1
		16	353720	DS203NC L C16 AC30	2CSR246040R1164		0.480	1
		20	343424	DS203NC L C20 AC30	2CSR246040R1204		0.480	1
		25	353621	DS203NC L C25 AC30	2CSR246040R1254		0.480	1
		32	343325	DS203NC L C32 AC30	2CSR246040R1324		0.480	1
	300	6	343226	DS203NC L C6 AC300	2CSR246040R3064		0.480	1
		8	343127	DS203NC L C8 AC300	2CSR246040R3084		0.480	1
		10	343028	DS203NC L C10 AC300	2CSR246040R3104		0.480	1
		13	342922	DS203NC L C13 AC300	2CSR246040R3134		0.480	1
		16	776727	DS203NC L C16 AC300	2CSR246040R3164		0.480	1
		20	342823	DS203NC L C20 AC300	2CSR246040R3204		0.480	1
		25	342724	DS203NC L C25 AC300	2CSR246040R3254		0.480	1
		32	358428	DS203NC L C32 AC300	2CSR246040R3324		0.480	1

Where to find more:

Technical details for DS203NC RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS203NC L A type



DS203NC L - A type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 4\,500 \text{ A}$

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
3P+N	30	6	354628	DS203NC L C6 A30	2CSR246140R1064		0.480	1	
		8	344322	DS203NC L C8 A30	2CSR246140R1084		0.480	1	
		10	354529	DS203NC L C10 A30	2CSR246140R1104		0.480	1	
		13	344223	DS203NC L C13 A30	2CSR246140R1134		0.480	1	
		16	354420	DS203NC L C16 A30	2CSR246140R1164		0.480	1	
		20	344124	DS203NC L C20 A30	2CSR246140R1204		0.480	1	
		25	354321	DS203NC L C25 A30	2CSR246140R1254		0.480	1	
		32	498025	DS203NC L C32 A30	2CSR246140R1324		0.480	1	
	300	300	6	499220	DS203NC L C6 A300	2CSR246140R3064		0.480	1
			8	344025	DS203NC L C8 A300	2CSR246140R3084		0.480	1
			10	354222	DS203NC L C10 A300	2CSR246140R3104		0.480	1
			13	343929	DS203NC L C13 A300	2CSR246140R3134		0.480	1
			16	354123	DS203NC L C16 A300	2CSR246140R3164		0.480	1
			20	343820	DS203NC L C20 A300	2CSR246140R3204		0.480	1
		25	354024	DS203NC L C25 A300	2CSR246140R3254		0.480	1	
		32	343721	DS203NC L C32 A300	2CSR246140R3324		0.480	1	

RCBOs

DS203NC L APR type

2



DS203NC L - APR type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal tripping compromise between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$); protection and isolation of resistive and inductive loads.

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 4\,500 \text{ A}$

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3P+N	30	6	079125	DS203NC L C6 APR30	2CSR246440R1064		0.480	1
		8	079026	DS203NC L C8 APR30	2CSR246440R1084		0.480	1
		10	078920	DS203NC L C10 APR30	2CSR246440R1104		0.480	1
		13	078821	DS203NC L C13 APR30	2CSR246440R1134		0.480	1
		16	078722	DS203NC L C16 APR30	2CSR246440R1164		0.480	1
		20	078623	DS203NC L C20 APR30	2CSR246440R1204		0.480	1
		25	078524	DS203NC L C25 APR30	2CSR246440R1254		0.480	1
		32	078425	DS203NC L C32 APR30	2CSR246440R1324		0.480	1

Where to find more:

Technical details for DS203NC RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS203NC AC type



DS203NC - AC type - B curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\,000 \text{ A}$

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3P+N	30	6	077428	DS203NC B6 AC30	2CSR256040R1065	0.480	1	
		8	077329	DS203NC B8 AC30	2CSR256040R1085	0.480	1	
		10	077220	DS203NC B10 AC30	2CSR256040R1105	0.480	1	
		13	077121	DS203NC B13 AC30	2CSR256040R1135	0.480	1	
		16	077022	DS203NC B16 AC30	2CSR256040R1165	0.480	1	
		20	076926	DS203NC B20 AC30	2CSR256040R1205	0.480	1	
		25	790525	DS203NC B25 AC30	2CSR256040R1255	0.480	1	
		32	076827	DS203NC B32 AC30	2CSR256040R1325	0.480	1	
	100	6	076728	DS203NC B6 AC100	2CSR256040R2065	0.480	1	
		8	076629	DS203NC B8 AC100	2CSR256040R2085	0.480	1	
		10	076520	DS203NC B10 AC100	2CSR256040R2105	0.480	1	
		13	076421	DS203NC B13 AC100	2CSR256040R2135	0.480	1	
		16	076322	DS203NC B16 AC100	2CSR256040R2165	0.480	1	
		20	076223	DS203NC B20 AC100	2CSR256040R2205	0.480	1	
		25	076124	DS203NC B25 AC100	2CSR256040R2255	0.480	1	
		32	076025	DS203NC B32 AC100	2CSR256040R2325	0.480	1	
	300	6	353423	DS203NC B6 AC300	2CSR256040R3065	0.480	1	
		8	353324	DS203NC B8 AC300	2CSR256040R3085	0.480	1	
		10	266327	DS203NC B10 AC300	2CSR256040R3105	0.480	1	
		13	266228	DS203NC B13 AC300	2CSR256040R3135	0.480	1	
		16	266129	DS203NC B16 AC300	2CSR256040R3165	0.480	1	
		20	266020	DS203NC B20 AC300	2CSR256040R3205	0.480	1	
		25	265924	DS203NC B25 AC300	2CSR256040R3255	0.480	1	
		32	790822	DS203NC B32 AC300	2CSR256040R3325	0.480	1	

RCBOs

DS203NC AC type



2

DS203NC - AC type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\ 000 \text{ A}$

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3P+N	30	6	265825	DS203NC C6 AC30	2CSR256040R1064	0.480	1	
		8	353225	DS203NC C8 AC30	2CSR256040R1084	0.480	1	
		10	518228	DS203NC C10 AC30	2CSR256040R1104	0.480	1	
		13	186823	DS203NC C13 AC30	2CSR256040R1134	0.480	1	
		16	352228	DS203NC C16 AC30	2CSR256040R1164	0.480	1	
		20	186724	DS203NC C20 AC30	2CSR256040R1204	0.480	1	
		25	352129	DS203NC C25 AC30	2CSR256040R1254	0.480	1	
		32	263920	DS203NC C32 AC30	2CSR256040R1324	0.480	1	
	100	6	263821	DS203NC C6 AC100	2CSR256040R2064	0.480	1	
		8	263722	DS203NC C8 AC100	2CSR256040R2084	0.480	1	
		10	263623	DS203NC C10 AC100	2CSR256040R2104	0.480	1	
		13	263524	DS203NC C13 AC100	2CSR256040R2134	0.480	1	
		16	518327	DS203NC C16 AC100	2CSR256040R2164	0.480	1	
		20	263425	DS203NC C20 AC100	2CSR256040R2204	0.480	1	
		25	186021	DS203NC C25 AC100	2CSR256040R2254	0.480	1	
		32	352020	DS203NC C32 AC100	2CSR256040R2324	0.480	1	
	300	6	185925	DS203NC C6 AC300	2CSR256040R3064	0.480	1	
		8	185826	DS203NC C8 AC300	2CSR256040R3084	0.480	1	
		10	185727	DS203NC C10 AC300	2CSR256040R3104	0.480	1	
		13	185628	DS203NC C13 AC300	2CSR256040R3134	0.480	1	
		16	185529	DS203NC C16 AC300	2CSR256040R3164	0.480	1	
		20	185420	DS203NC C20 AC300	2CSR256040R3204	0.480	1	
		25	517825	DS203NC C25 AC300	2CSR256040R3254	0.480	1	
		32	180821	DS203NC C32 AC300	2CSR256040R3324	0.480	1	

Where to find more:

Technical details for DS203NC RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS203NC A type



DS203NC - A type - B curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\ 000 \text{ A}$

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3P+N	30	6	078326	DS203NC B6 A30	2CSR256140R1065	0.480	1	
		8	078227	DS203NC B8 A30	2CSR256140R1085	0.480	1	
		10	078128	DS203NC B10 A30	2CSR256140R1105	0.480	1	
		13	078029	DS203NC B13 A30	2CSR256140R1135	0.480	1	
		16	077923	DS203NC B16 A30	2CSR256140R1165	0.480	1	
		20	077824	DS203NC B20 A30	2CSR256140R1205	0.480	1	
		25	077725	DS203NC B25 A30	2CSR256140R1255	0.480	1	
		32	077626	DS203NC B32 A30	2CSR256140R1325	0.480	1	
	100	6	080329	DS203NC B6 A100	2CSR256140R2065	0.480	1	
		8	080220	DS203NC B8 A100	2CSR256140R2085	0.480	1	
		10	080121	DS203NC B10 A100	2CSR256140R2105	0.480	1	
		13	080022	DS203NC B13 A100	2CSR256140R2135	0.480	1	
		16	079927	DS203NC B16 A100	2CSR256140R2165	0.480	1	
		20	079828	DS203NC B20 A100	2CSR256140R2205	0.480	1	
		25	079729	DS203NC B25 A100	2CSR256140R2255	0.480	1	
		32	079620	DS203NC B32 A100	2CSR256140R2325	0.480	1	
	300	6	079521	DS203NC B6 A300	2CSR256140R3065	0.480	1	
		8	079422	DS203NC B8 A300	2CSR256140R3085	0.480	1	
		10	079323	DS203NC B10 A300	2CSR256140R3105	0.480	1	
		13	079224	DS203NC B13 A300	2CSR256140R3135	0.480	1	
		16	305026	DS203NC B16 A300	2CSR256140R3165	0.480	1	
		20	305125	DS203NC B20 A300	2CSR256140R3205	0.480	1	
		25	400226	DS203NC B25 A300	2CSR256140R3255	0.480	1	
		32	400028	DS203NC B32 A300	2CSR256140R3325	0.480	1	

RCBOs

DS203NC A type



2

DS203NC - A type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\,000 \text{ A}$

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3P+N	30	6	400127	DS203NC C6 A30	2CSR256140R1064	0.480	1	
		8	058823	DS203NC C8 A30	2CSR256140R1084	0.480	1	
		10	896524	DS203NC C10 A30	2CSR256140R1104	0.480	1	
		13	768227	DS203NC C13 A30	2CSR256140R1134	0.480	1	
		16	830924	DS203NC C16 A30	2CSR256140R1164	0.480	1	
		20	839927	DS203NC C20 A30	2CSR256140R1204	0.480	1	
		25	768524	DS203NC C25 A30	2CSR256140R1254	0.480	1	
		32	831228	DS203NC C32 A30	2CSR256140R1324	0.480	1	
	100	6	840220	DS203NC C6 A100	2CSR256140R2064	0.480	1	
		8	896425	DS203NC C8 A100	2CSR256140R2084	0.480	1	
		10	768128	DS203NC C10 A100	2CSR256140R2104	0.480	1	
		13	830825	DS203NC C13 A100	2CSR256140R2134	0.480	1	
		16	839828	DS203NC C16 A100	2CSR256140R2164	0.480	1	
		20	896722	DS203NC C20 A100	2CSR256140R2204	0.480	1	
		25	768425	DS203NC C25 A100	2CSR256140R2254	0.480	1	
		32	831129	DS203NC C32 A100	2CSR256140R2324	0.480	1	
	300	6	840121	DS203NC C6 A300	2CSR256140R3064	0.480	1	
		8	830726	DS203NC C8 A300	2CSR256140R3084	0.480	1	
		10	839729	DS203NC C10 A300	2CSR256140R3104	0.480	1	
		13	896623	DS203NC C13 A300	2CSR256140R3134	0.480	1	
		16	768326	DS203NC C16 A300	2CSR256140R3164	0.480	1	
		20	831020	DS203NC C20 A300	2CSR256140R3204	0.480	1	
		25	840022	DS203NC C25 A300	2CSR256140R3254	0.480	1	
		32	631620	DS203NC C32 A300	2CSR256140R3324	0.480	1	

Where to find more:

Technical details for DS203NC RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3



DS203NC - A type - K curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\ 000 \text{ A}$

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
				Type code	Order code				
3P+N	30	6	376026	DS203NC K6 A30	2CSR256140R1067		0.480	1	
		8	629726	DS203NC K8 A30	2CSR256140R1087		0.480	1	
		10	375920	DS203NC K10 A30	2CSR256140R1107		0.480	1	
		13	779322	DS203NC K13 A30	2CSR256140R1137		0.480	1	
		16	769323	DS203NC K16 A30	2CSR256140R1167		0.480	1	
		20	631521	DS203NC K20 A30	2CSR256140R1207		0.480	1	
		25	375821	DS203NC K25 A30	2CSR256140R1257		0.480	1	
		32	779223	DS203NC K32 A30	2CSR256140R1327		0.480	1	
	100	30	6	593423	DS203NC K6 A100	2CSR256140R2067		0.480	1
			8	581628	DS203NC K8 A100	2CSR256140R2087		0.480	1
			10	569824	DS203NC K10 A100	2CSR256140R2107		0.480	1
			13	594727	DS203NC K13 A100	2CSR256140R2137		0.480	1
			16	582922	DS203NC K16 A100	2CSR256140R2167		0.480	1
			20	571124	DS203NC K20 A100	2CSR256140R2207		0.480	1
		25	592426	DS203NC K25 A100	2CSR256140R2257		0.480	1	
		32	580621	DS203NC K32 A100	2CSR256140R2327		0.480	1	

RCBOs

DS203NC APR type

2



DS203NC - APR type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal compromise between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$); protection and isolation of resistive and inductive loads.

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

I_{cn} = 6000 A

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3P+N	30	6	349822	DS203NC C6 APR30	2CSR256440R1064		0.480	1
		8	180722	DS203NC C8 APR30	2CSR256440R1084		0.480	1
		10	349723	DS203NC C10 APR30	2CSR256440R1104		0.480	1
		13	261520	DS203NC C13 APR30	2CSR256440R1134		0.480	1
		16	261421	DS203NC C16 APR30	2CSR256440R1164		0.480	1
		20	261322	DS203NC C20 APR30	2CSR256440R1204		0.480	1
		25	261223	DS203NC C25 APR30	2CSR256440R1254		0.480	1
		32	261124	DS203NC C32 APR30	2CSR256440R1324		0.480	1
	100	6	274223	DS203NC C6 APR100	2CSR256440R2064		0.480	1
		8	517924	DS203NC C8 APR100	2CSR256440R2084		0.480	1
		10	261025	DS203NC C10 APR100	2CSR256440R2104		0.480	1
		13	180029	DS203NC C13 APR100	2CSR256440R2134		0.480	1
		16	349624	DS203NC C16 APR100	2CSR256440R2164		0.480	1
		20	179924	DS203NC C20 APR100	2CSR256440R2204		0.480	1
		25	179825	DS203NC C25 APR100	2CSR256440R2254		0.480	1
		32	179726	DS203NC C32 APR100	2CSR256440R2324		0.480	1
	300	6	179627	DS203NC C6 APR300	2CSR256440R3064		0.480	1
		8	179528	DS203NC C8 APR300	2CSR256440R3084		0.480	1
		10	179429	DS203NC C10 APR300	2CSR256440R3104		0.480	1
		13	518020	DS203NC C13 APR300	2CSR256440R3134		0.480	1
		16	176329	DS203NC C16 APR300	2CSR256440R3164		0.480	1
		20	351023	DS203NC C20 APR300	2CSR256440R3204		0.480	1
		25	176220	DS203NC C25 APR300	2CSR256440R3254		0.480	1
		32	350927	DS203NC C32 APR300	2CSR256440R3324		0.480	1

Where to find more:

Technical details for DS203NC RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS203NC A S type



DS203NC - A S type - C curve

Function: protection of end user three-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$). Selective type.

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6\,000 \text{ A}$

Number of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3P+N	100	16	021827	DS203NC C16 A S100	2CSR256240R2164		0.480	1
		20	021728	DS203NC C20 A S100	2CSR256240R2204		0.480	1
		25	021629	DS203NC C25 A S100	2CSR256240R2254		0.480	1
		32	021520	DS203NC C32 A S100	2CSR256240R2324		0.480	1
	300	16	297727	DS203NC C16 A S300	2CSR256240R3164		0.480	1
		20	373223	DS203NC C20 A S300	2CSR256240R3204		0.480	1
		25	373124	DS203NC C25 A S300	2CSR256240R3254		0.480	1
		32	077527	DS203NC C32 A S300	2CSR256240R3324		0.480	1

RCBOs

DS 200 technical features



2CHC0019-FR0201

DS 200

2

	Standards		
Electrical features	Operating characteristic: type (wave form of the earth leakage sensed)		
	Poles		
	Rated sensitivity $I_{\Delta n}$		A
	Rated current I_n		A
	Rated voltage U_e	2P	V
		3P, 4P	V
	Insulation voltage U_i		V
	Max. operating voltage of circuit test		V
	Min. operating voltage of circuit test		V
	Rated frequency		Hz
	Rated breaking capacity acc. to IEC/EN 61009	ultimate I_{cn}	A
	Rated breaking capacity acc. to IEC/EN 60947-2 1P+N @230 VAC, 2P, 3P, 4P @400 VAC	ultimate I_{cu}	kA
		service I_{cs}	kA
	Rated residual breaking capacity $I_{\Delta m}$		kA
	Rated impulse withstand voltage (1.2/50) U_{imp}		kV
	Dielectric test voltage at ind. freq. for 1 min.		kV
	Overvoltage category		
	Thermomagnetic release characteristic	B: $3 I_n \leq I_m \leq 5 I_n$	
		C: $5 I_n \leq I_m \leq 10 I_n$	
K: $10 I_n \leq I_m \leq 14 I_n$			
Surge current resistance (wave 8/20)		A	
Mechanical features	Toggle	2P, 3P, 4P	
	Contact position indication		
	Electrical life		
	Mechanical life		
	Protection degree	housing	
		terminals	
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH
	Reference temperature for setting of thermal element		°C
	Ambient temperature (with daily average $\leq +35$ °C)		°C
Storage temperature		°C	
Installation	Terminal type	top	
		bottom 2P	
		3P/4P $I_n \leq 40$ A	
		3P/4P $50 A \leq I_n \leq 63 A$	
	Terminal size top/bottom per cable	2P	mm ²
		3P/4P $I_n \leq 40$ A	mm ²
		3P/4P $50 A \leq I_n \leq 63 A$	mm ²
	Tightening torque top/bottom	2P	Nm
		3P/4P $I_n \leq 40$ A	Nm
		3P/4P $50 A \leq I_n \leq 63 A$	Nm
Mounting			
Connection			

① Available depending on type and characteristic curve. For 2P RCBOs A type B-C curves up to 32 A, refer to DS202C 2 protected poles RCBOs in only two modules

② Prior to connection of aluminium conductors (≥ 4 mm²) ensure that their contact points are cleaned, brushed and coated with grease

DS 200 AC	DS 200 A	DS 200 M AC	DS 200 M A
IEC/EN 61009-1; IEC/EN 61009-2-1; IEC/EN 60947-2			
AC	A	AC	A
2P, 3P, 4P			
0.03			
6 ≤ In ≤ 63 Ⓞ			
230-240			
230/400 - 240/415			
500			
254 (440 for 3P and 4P)			
110 (195 for 3P and 4P)			
170 (300 for 3P and 4P) for 30mA			
50...60			
6000	6000	10000	10000
10	10	15	15
7.5	7.5	11.2	11.2
6	6	10	10
6			
2.5			
III, disconnector abilities			
■	■	■	■
■	■	■	■
■	■		
250			
black (MCB) sealable in ON-OFF position + blue (RCD)			
CPI on window			
10000			
20000			
IP4X			
IP2X			
28 cycles with 55°C/90-96% and 25°C/95-100%			
30			
-25...+55			
-40...+70			
failsafe bidirectional cylinder-lift terminal (shock protected) Ⓜ			
failsafe bidirectional cylinder-lift terminal (shock protected) Ⓜ			
cage (shock protected)			
failsafe bidirectional cylinder-lift terminal (shock protected) Ⓜ			
rigid: 35/25 flexible: 25/25			
rigid: 35/25 flexible: 25/16			
rigid : 35/25 flexible : 25/25			
2.8/2.8			
2.8/1.2			
2.8/2.8			
on DIN rail EN 60715 (35 mm) by means of fast clip device			
715 (35 mm) by means of fast clip device from top and bottom			

RCBOs

DS 200 technical features



2CHC0019-F0201

DS 200

2



Dimensions and weight	Dimensions (H x D x W)	2P	mm
		3P $I_n \leq 40$ A	mm
		4P $I_n \leq 40$ A	mm
		3P $50 \text{ A} \leq I_n \leq 63$ A	mm
	Weight	4P $50 \text{ A} \leq I_n \leq 63$ A	mm
		2P	g
		3P $I_n \leq 40$ A	g
		4P $I_n \leq 40$ A	g
Combination with auxiliary elements	Combinable with:	3P $50 \text{ A} \leq I_n \leq 63$ A	g
		4P $50 \text{ A} \leq I_n \leq 63$ A	g
		auxiliary contact	
		signal contact/auxiliary switch	
		shunt trip	
		undervoltage release	

DS 200 AC	DS 200 A	DS 200 M AC	DS 200 M A
85 x 69 x 70			
85 x 69 x 87.5			
85 x 69 x 105			
85 x 69 x 122.5			
85 x 69 x 140			
475			
625			
775			
775			
925			
yes			
yes			
yes			
yes			

RCBOs

DS 200 series 6000 - AC type, B characteristic

2



DS 202

2CSC400191F0201

DS 200 AC type, B characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

Application: commercial, industrial, residential.

Standard: IEC/EN 61009-1, IEC/EN 61009-2-1 and IEC/EN 60947-2

Icn = 6 kA



DS 203

2CSC400193F0201



DS 204

2CSC400194F0201

Number of poles	Rated residual current Δn mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	6	863502	DS202 AC-B6/0.03	2CSR252001R1065	0.440	1	
		10	863601	DS202 AC-B10/0.03	2CSR252001R1105			
		13	863700	DS202 AC-B13/0.03	2CSR252001R1135			
		16	863809	DS202 AC-B16/0.03	2CSR252001R1165			
		20	863908	DS202 AC-B20/0.03	2CSR252001R1205			
		25	864004	DS202 AC-B25/0.03	2CSR252001R1255			
		32	864103	DS202 AC-B32/0.03	2CSR252001R1325			
		40	864202	DS202 AC-B40/0.03	2CSR252001R1405			
		50 ①	864301	DS202 AC-B50/0.03	2CSR252001R1505			
63 ①	864400	DS202 AC-B63/0.03	2CSR252001R1635					

Number of poles	Rated residual current Δn mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	6	865506	DS203 AC-B6/0.03	2CSR253001R1065	0.610	1	
		10	865605	DS203 AC-B10/0.03	2CSR253001R1105			
		13	865704	DS203 AC-B13/0.03	2CSR253001R1135			
		16	865803	DS203 AC-B16/0.03	2CSR253001R1165			
		20	865902	DS203 AC-B20/0.03	2CSR253001R1205			
		25	866008	DS203 AC-B25/0.03	2CSR253001R1255			
		32	866107	DS203 AC-B32/0.03	2CSR253001R1325			
		40	866206	DS203 AC-B40/0.03	2CSR253001R1405			
		50 ①	866305	DS203 AC-B50/0.03	2CSR253001R1505			
63 ①	866404	DS203 AC-B63/0.03	2CSR253001R1635					

Number of poles	Rated residual current Δn mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	6	867500	DS204 AC-B6/0.03	2CSR254001R1065	0.780	1	
		10	867609	DS204 AC-B10/0.03	2CSR254001R1105			
		13	867708	DS204 AC-B13/0.03	2CSR254001R1135			
		16	867807	DS204 AC-B16/0.03	2CSR254001R1165			
		20	867906	DS204 AC-B20/0.03	2CSR254001R1205			
		25	868002	DS204 AC-B25/0.03	2CSR254001R1255			
		32	868101	DS204 AC-B32/0.03	2CSR254001R1325			
		40	868200	DS204 AC-B40/0.03	2CSR254001R1405			
		50 ①	868309	DS204 AC-B50/0.03	2CSR254001R1505			
63 ①	868408	DS204 AC-B63/0.03	2CSR254001R1635					

Where to find more:

Technical details for DSCDs
RCBOs: Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals -
chapter 15

Maybe you are also interested in:
Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

① provided with additional terminals for remote tripping

RCBOs

DS 200 series 6000 - AC type, C characteristic



DS 202

2CSC400194F0201

DS 200 AC type, C characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1 and IEC/EN 60947-2

Icn = 6 kA



DS 203

2CSC400194F0201



DS 204

2CSC400194F0201

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	6	869504	DS202 AC-C6/0.03	2CSR252001R1064	0.440	1	
		10	869603	DS202 AC-C10/0.03	2CSR252001R1104			
		13	869702	DS202 AC-C13/0.03	2CSR252001R1134			
		16	869801	DS202 AC-C16/0.03	2CSR252001R1164			
		20	869900	DS202 AC-C20/0.03	2CSR252001R1204			
		25	870005	DS202 AC-C25/0.03	2CSR252001R1254			
		32	870104	DS202 AC-C32/0.03	2CSR252001R1324			
		40	870203	DS202 AC-C40/0.03	2CSR252001R1404			
		50 ①	870302	DS202 AC-C50/0.03	2CSR252001R1504			
63 ①	870401	DS202 AC-C63/0.03	2CSR252001R1634					

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	6	871507	DS203 AC-C6/0.03	2CSR253001R1064	0.610	1	
		10	871606	DS203 AC-C10/0.03	2CSR253001R1104			
		13	871705	DS203 AC-C13/0.03	2CSR253001R1134			
		16	871804	DS203 AC-C16/0.03	2CSR253001R1164			
		20	871903	DS203 AC-C20/0.03	2CSR253001R1204			
		25	872009	DS203 AC-C25/0.03	2CSR253001R1254			
		32	872108	DS203 AC-C32/0.03	2CSR253001R1324			
		40	872207	DS203 AC-C40/0.03	2CSR253001R1404			
		50 ①	872306	DS203 AC-C50/0.03	2CSR253001R1504			
63 ①	872405	DS203 AC-C63/0.03	2CSR253001R1634					

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	6	873501	DS204 AC-C6/0.03	2CSR254001R1064	0.780	1	
		10	873600	DS204 AC-C10/0.03	2CSR254001R1104			
		13	873709	DS204 AC-C13/0.03	2CSR254001R1134			
		16	873808	DS204 AC-C16/0.03	2CSR254001R1164			
		20	873907	DS204 AC-C20/0.03	2CSR254001R1204			
		25	874003	DS204 AC-C25/0.03	2CSR254001R1254			
		32	874102	DS204 AC-C32/0.03	2CSR254001R1324			
		40	874201	DS204 AC-C40/0.03	2CSR254001R1404			
		50 ①	874300	DS204 AC-C50/0.03	2CSR254001R1504			
63 ①	874409	DS204 AC-C63/0.03	2CSR254001R1634					

① provided with additional terminals for remote tripping

RCBOs

DS 200 series 6000 - A type, B characteristic

2



DS 202



DS 203



DS 204



DS 200 A type, B characteristic



Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts.



Application: commercial, industrial.


Standard: IEC/EN 61009-1; IEC/EN 61009-2-1 and IEC/EN 60947-2

Icn = 6 kA

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	40	858201	DS202 A-B40/0.03	2CSR252101R1405		0.440	1
		50 	858300	DS202 A-B50/0.03	2CSR252101R1505			
		63 	858409	DS202 A-B63/0.03	2CSR252101R1635			

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	6	858508	DS203 A-B6/0.03	2CSR253101R1065		0.610	1
		10	858607	DS203 A-B10/0.03	2CSR253101R1105			
		13	858706	DS203 A-B13/0.03	2CSR253101R1135			
		16	858805	DS203 A-B16/0.03	2CSR253101R1165			
		20	858904	DS203 A-B20/0.03	2CSR253101R1205			
		25	859000	DS203 A-B25/0.03	2CSR253101R1255			
		32	859109	DS203 A-B32/0.03	2CSR253101R1325			
		40	859208	DS203 A-B40/0.03	2CSR253101R1405			
		50 	859307	DS203 A-B50/0.03	2CSR253101R1505			
		63 	859406	DS203 A-B63/0.03	2CSR253101R1635			

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	6	859505	DS204 A-B6/0.03	2CSR254101R1065		0.780	1
		10	859604	DS204 A-B10/0.03	2CSR254101R1105			
		13	859703	DS204 A-B13/0.03	2CSR254101R1135			
		16	859802	DS204 A-B16/0.03	2CSR254101R1165			
		20	859901	DS204 A-B20/0.03	2CSR254101R1205			
		25	860006	DS204 A-B25/0.03	2CSR254101R1255			
		32	860105	DS204 A-B32/0.03	2CSR254101R1325			
		40	860204	DS204 A-B40/0.03	2CSR254101R1405			
		50 	860303	DS204 A-B50/0.03	2CSR254101R1505			
		63 	860402	DS204 A-B63/0.03	2CSR254101R1635			

 provided with additional terminals for remote tripping

Where to find more:

Technical details for DS 200 RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS 200 series 6000 - A type, C characteristic



DS 202

2CSC400191F0201



DS 203

2CSC400193F0201



DS 204

2CSC400194F0201

DS 200 A type, C characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1 and IEC/EN 60947-2

Icn = 6 kA

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	40	861201	DS202 A-C40/0.03	2CSR252101R1404		0.440	1
		50 ^⓪	861300	DS202 A-C50/0.03	2CSR252101R1504			
		63 ^⓪	861409	DS202 A-C63/0.03	2CSR252101R1634			

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	6	861508	DS203 A-C6/0.03	2CSR253101R1064		0.610	1
		10	861607	DS203 A-C10/0.03	2CSR253101R1104			
		13	861706	DS203 A-C13/0.03	2CSR253101R1134			
		16	861805	DS203 A-C16/0.03	2CSR253101R1164			
		20	861904	DS203 A-C20/0.03	2CSR253101R1204			
		25	862000	DS203 A-C25/0.03	2CSR253101R1254			
		32	862109	DS203 A-C32/0.03	2CSR253101R1324			
		40	862208	DS203 A-C40/0.03	2CSR253101R1404			
		50 ^⓪	862307	DS203 A-C50/0.03	2CSR253101R1504			
63 ^⓪	862406	DS203 A-C63/0.03	2CSR253101R1634					

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	6	862505	DS204 A-C6/0.03	2CSR254101R1064		0.780	1
		10	862604	DS204 A-C10/0.03	2CSR254101R1104			
		13	862703	DS204 A-C13/0.03	2CSR254101R1134			
		16	862802	DS204 A-C16/0.03	2CSR254101R1164			
		20	862901	DS204 A-C20/0.03	2CSR254101R1204			
		25	863007	DS204 A-C25/0.03	2CSR254101R1254			
		32	863106	DS204 A-C32/0.03	2CSR254101R1324			
		40	863205	DS204 A-C40/0.03	2CSR254101R1404			
		50 ^⓪	863304	DS204 A-C50/0.03	2CSR254101R1504			
63 ^⓪	863403	DS204 A-C63/0.03	2CSR254101R1634					

^⓪ provided with additional terminals for remote tripping

RCBOs

DS 200 series 6000 - A type, K characteristic

2



DS 202

DS 200 A type, K characteristic

Function: protection and control against overloads and short-circuit in systems where motors, transformers and auxiliary circuits are present. Advantages: no unwanted release in case of currents peak up to 8 x I_n, according to the series; thanks to the high sensibility bimetal, the K curve switches offer protection of the sensible elements from overcurrents; they also allow the best protection of cables and lines.

Application: commercial, industrial.

Standard: IEC/EN 60947-2

I_{cn} = 6 kA



DS 203



DS 204

Number of poles	Rated residual current I _{Δn} mA	Rated current I _n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	6	930303	DS202 A-K6/0.03	2CSR252101R1067		0.475	1
		10	900702	DS202 A-K10/0.03	2CSR252101R1107			
		13	930402	DS202 A-K13/0.03	2CSR252101R1137			
		16	930501	DS202 A-K16/0.03	2CSR252101R1167			
		20	930600	DS202 A-K20/0.03	2CSR252101R1207			
		25	930709	DS202 A-K25/0.03	2CSR252101R1257			
		32	930808	DS202 A-K32/0.03	2CSR252101R1327			
		40	930907	DS202 A-K40/0.03	2CSR252101R1407			
		50 ①	931003	DS202 A-K50/0.03	2CSR252101R1507			
		63 ①	931102	DS202 A-K63/0.03	2CSR252101R1637			

Number of poles	Rated residual current I _{Δn} mA	Rated current I _n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	6	931201	DS204 A-K6/0.03	2CSR254101R1067		0.775	1
		10	931300	DS204 A-K10/0.03	2CSR254101R1107			
		13	931409	DS204 A-K13/0.03	2CSR254101R1137			
		16	931508	DS204 A-K16/0.03	2CSR254101R1167			
		20	931607	DS204 A-K20/0.03	2CSR254101R1207			
		25	931706	DS204 A-K25/0.03	2CSR254101R1257			
		32	931805	DS204 A-K32/0.03	2CSR254101R1327			
		40	931904	DS204 A-K40/0.03	2CSR254101R1407			
		50 ①	932000	DS204 A-K50/0.03	2CSR254101R1507			
		63 ①	932109	DS204 A-K63/0.03	2CSR254101R1637			

① provided with additional terminals for remote tripping

Where to find more:

Technical details for DS 200 RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

RCBOs

DS 200 M series $\boxed{10000}$ - AC $\boxed{\sim}$ type, B characteristic



DS 202 M

2CSC400191F0201



DS 203 M

2CSC400193F0201



DS 204 M

2CSC400194F0201

DS 200 M AC type, B characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

Icn = 10 kA

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	6	932208	DS202 M AC-B6/0.03	2CSR272001R1065		0.440	1
		10	932307	DS202 M AC-B10/0.03	2CSR272001R1105		0.440	1
		13	932406	DS202 M AC-B13/0.03	2CSR272001R1135		0.440	1
		16	932505	DS202 M AC-B16/0.03	2CSR272001R1165		0.440	1
		20	932604	DS202 M AC-B20/0.03	2CSR272001R1205		0.440	1
		25	932703	DS202 M AC-B25/0.03	2CSR272001R1255		0.440	1
		32	932802	DS202 M AC-B32/0.03	2CSR272001R1325		0.440	1
		40	932901	DS202 M AC-B40/0.03	2CSR272001R1405		0.440	1
		50 ①	933007	DS202 M AC-B50/0.03	2CSR272001R1505		0.440	1
63 ①	933106	DS202 M AC-B63/0.03	2CSR272001R1635		0.440	1		

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	6	933205	DS203 M AC-B6/0.03	2CSR273001R1065		0.610	1
		10	933304	DS203 M AC-B10/0.03	2CSR273001R1105		0.610	1
		13	933403	DS203 M AC-B13/0.03	2CSR273001R1135		0.610	1
		16	933502	DS203 M AC-B16/0.03	2CSR273001R1165		0.610	1
		20	933601	DS203 M AC-B20/0.03	2CSR273001R1205		0.610	1
		25	933700	DS203 M AC-B25/0.03	2CSR273001R1255		0.610	1
		32	933809	DS203 M AC-B32/0.03	2CSR273001R1325		0.610	1
		40	933908	DS203 M AC-B40/0.03	2CSR273001R1405		0.610	1
		50 ①	934004	DS203 M AC-B50/0.03	2CSR273001R1505		0.650	1
63 ①	934103	DS203 M AC-B63/0.03	2CSR273001R1635		0.650	1		

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	6	934202	DS204 M AC-B6/0.03	2CSR274001R1065		0.780	1
		10	934301	DS204 M AC-B10/0.03	2CSR274001R1105		0.780	1
		13	934400	DS204 M AC-B13/0.03	2CSR274001R1135		0.780	1
		16	934509	DS204 M AC-B16/0.03	2CSR274001R1165		0.780	1
		20	934608	DS204 M AC-B20/0.03	2CSR274001R1205		0.780	1
		25	934707	DS204 M AC-B25/0.03	2CSR274001R1255		0.780	1
		32	934806	DS204 M AC-B32/0.03	2CSR274001R1325		0.780	1
		40	934905	DS204 M AC-B40/0.03	2CSR274001R1405		0.780	1
		50 ①	935001	DS204 M AC-B50/0.03	2CSR274001R1505		0.825	1
63 ①	935100	DS204 M AC-B63/0.03	2CSR274001R1635		0.825	1		

Where to find more:

Technical details for DSCDs - Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:
 Auxiliary elements for RCDs - chapter 3
 Accessories for RCDs - chapter 3
 Busbar systems - chapter 3

① provided with additional terminals for remote tripping

RCBOs

DS 200 M series 10000 - AC type, C characteristic

2



DS 202 M

DS 200 M AC type, C characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

Icn = 10 kA



DS 203 M



DS 204 M

Number of poles	Rated residual current Δn mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	6	851509	DS202 M AC-C6/0.03	2CSR272001R1064		0.440	1
		10	851608	DS202 M AC-C10/0.03	2CSR272001R1104		0.440	1
		13	851707	DS202 M AC-C13/0.03	2CSR272001R1134		0.440	1
		16	851806	DS202 M AC-C16/0.03	2CSR272001R1164		0.440	1
		20	851905	DS202 M AC-C20/0.03	2CSR272001R1204		0.440	1
		25	852001	DS202 M AC-C25/0.03	2CSR272001R1254		0.440	1
		32	852100	DS202 M AC-C32/0.03	2CSR272001R1324		0.440	1
		40	852209	DS202 M AC-C40/0.03	2CSR272001R1404		0.440	1
		50 ①	852308	DS202 M AC-C50/0.03	2CSR272001R1504		0.440	1
63 ①	852407	DS202 M AC-C63/0.03	2CSR272001R1634		0.440	1		

Number of poles	Rated residual current Δn mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	6	852506	DS203 M AC-C6/0.03	2CSR273001R1064		0.610	1
		10	852605	DS203 M AC-C10/0.03	2CSR273001R1104		0.610	1
		13	852704	DS203 M AC-C13/0.03	2CSR273001R1134		0.610	1
		16	852803	DS203 M AC-C16/0.03	2CSR273001R1164		0.610	1
		20	852902	DS203 M AC-C20/0.03	2CSR273001R1204		0.610	1
		25	853008	DS203 M AC-C25/0.03	2CSR273001R1254		0.610	1
		32	853107	DS203 M AC-C32/0.03	2CSR273001R1324		0.610	1
		40	853206	DS203 M AC-C40/0.03	2CSR273001R1404		0.610	1
		50 ①	853305	DS203 M AC-C50/0.03	2CSR273001R1504		0.650	1
63 ①	853404	DS203 M AC-C63/0.03	2CSR273001R1634		0.650	1		

Number of poles	Rated residual current Δn mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	6	853503	DS204 M AC-C6/0.03	2CSR274001R1064		0.780	1
		10	853602	DS204 M AC-C10/0.03	2CSR274001R1104		0.780	1
		13	853701	DS204 M AC-C13/0.03	2CSR274001R1134		0.780	1
		16	853800	DS204 M AC-C16/0.03	2CSR274001R1164		0.780	1
		20	853909	DS204 M AC-C20/0.03	2CSR274001R1204		0.780	1
		25	854005	DS204 M AC-C25/0.03	2CSR274001R1254		0.780	1
		32	854104	DS204 M AC-C32/0.03	2CSR274001R1324		0.780	1
		40	854203	DS204 M AC-C40/0.03	2CSR274001R1404		0.780	1
		50 ①	854302	DS204 M AC-C50/0.03	2CSR274001R1504		0.825	1
63 ①	854401	DS204 M AC-C63/0.03	2CSR274001R1634		0.825	1		

Where to find more:

Technical details for DS 200 M RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3

Accessories for RCDs - chapter 3

Busbar systems - chapter 3

① provided with additional terminals for remote tripping

RCBOs

DS 200 M series 10000 - A type, B characteristic



DS 202 M

2CSC400191F0201



DS 203 M

2CSC400193F0201



DS 204 M

2CSC400194F0201

DS 200 M A type, B characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

Icn = 10 kA

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	40	846208	DS202 M A-B40/0.03	2CSR272101R1405		0.440	1
		50 $\text{\textcircled{1}}$	846307	DS202 M A-B50/0.03	2CSR272101R1505			
		63 $\text{\textcircled{1}}$	846406	DS202 M A-B63/0.03	2CSR272101R1635			

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	6	846505	DS203 M A-B6/0.03	2CSR273101R1065		0.610	1
		10	846604	DS203 M A-B10/0.03	2CSR273101R1105			
		13	846703	DS203 M A-B13/0.03	2CSR273101R1135			
		16	846802	DS203 M A-B16/0.03	2CSR273101R1165			
		20	846901	DS203 M A-B20/0.03	2CSR273101R1205			
		25	847007	DS203 M A-B25/0.03	2CSR273101R1255			
		32	847106	DS203 M A-B32/0.03	2CSR273101R1325			
		40	847205	DS203 M A-B40/0.03	2CSR273101R1405			
		50 $\text{\textcircled{1}}$	847304	DS203 M A-B50/0.03	2CSR273101R1505			
		63 $\text{\textcircled{1}}$	847403	DS203 M A-B63/0.03	2CSR273101R1635			

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	6	847502	DS204 M A-B6/0.03	2CSR274101R1065		0.780	1
		10	847601	DS204 M A-B10/0.03	2CSR274101R1105			
		13	847700	DS204 M A-B13/0.03	2CSR274101R1135			
		16	847809	DS204 M A-B16/0.03	2CSR274101R1165			
		20	847908	DS204 M A-B20/0.03	2CSR274101R1205			
		25	848004	DS204 M A-B25/0.03	2CSR274101R1255			
		32	848103	DS204 M A-B32/0.03	2CSR274101R1325			
		40	848202	DS204 M A-B40/0.03	2CSR274101R1405			
		50 $\text{\textcircled{1}}$	848301	DS204 M A-B50/0.03	2CSR274101R1505			
		63 $\text{\textcircled{1}}$	848400	DS204 M A-B63/0.03	2CSR274101R1635			

$\text{\textcircled{1}}$ provided with additional terminals for remote tripping

RCBOs

DS 200 M series 10000 - A type, C characteristic

2



DS 202 M



DS 203 M



DS 204 M

DS 200 M A type, C characteristic

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts.

Application: commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

Icn = 10 kA

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	40	849209	DS202 M A-C40/0.03	2CSR272101R1404		0.440	1
		50 $\text{\textcircled{D}}$	849308	DS202 M A-C50/0.03	2CSR272101R1504			
		63 $\text{\textcircled{D}}$	849407	DS202 M A-C63/0.03	2CSR272101R1634			

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	6	849506	DS203 M A-C6/0.03	2CSR273101R1064		0.610	1
		10	849605	DS203 M A-C10/0.03	2CSR273101R1104			
		13	849704	DS203 M A-C13/0.03	2CSR273101R1134			
		16	849803	DS203 M A-C16/0.03	2CSR273101R1164			
		20	849902	DS203 M A-C20/0.03	2CSR273101R1204			
		25	850007	DS203 M A-C25/0.03	2CSR273101R1254			
		32	850106	DS203 M A-C32/0.03	2CSR273101R1324			
		40	850205	DS203 M A-C40/0.03	2CSR273101R1404			
		50 $\text{\textcircled{D}}$	850304	DS203 M A-C50/0.03	2CSR273101R1504			
		63 $\text{\textcircled{D}}$	850403	DS203 M A-C63/0.03	2CSR273101R1634			

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	6	850502	DS204 M A-C6/0.03	2CSR274101R1064		0.780	1
		10	850601	DS204 M A-C10/0.03	2CSR274101R1104			
		13	850700	DS204 M A-C13/0.03	2CSR274101R1134			
		16	850809	DS204 M A-C16/0.03	2CSR274101R1164			
		20	850908	DS204 M A-C20/0.03	2CSR274101R1204			
		25	851004	DS204 M A-C25/0.03	2CSR274101R1254			
		32	851103	DS204 M A-C32/0.03	2CSR274101R1324			
		40	851202	DS204 M A-C40/0.03	2CSR274101R1404			
		50 $\text{\textcircled{D}}$	851301	DS204 M A-C50/0.03	2CSR274101R1504			
		63 $\text{\textcircled{D}}$	851400	DS204 M A-C63/0.03	2CSR274101R1634			

$\text{\textcircled{D}}$ provided with additional terminals for remote tripping

Where to find more:

Technical details for DS 200 M RCBOs: Chapter 2 of Solutions for electrical installation in buildings - technical details

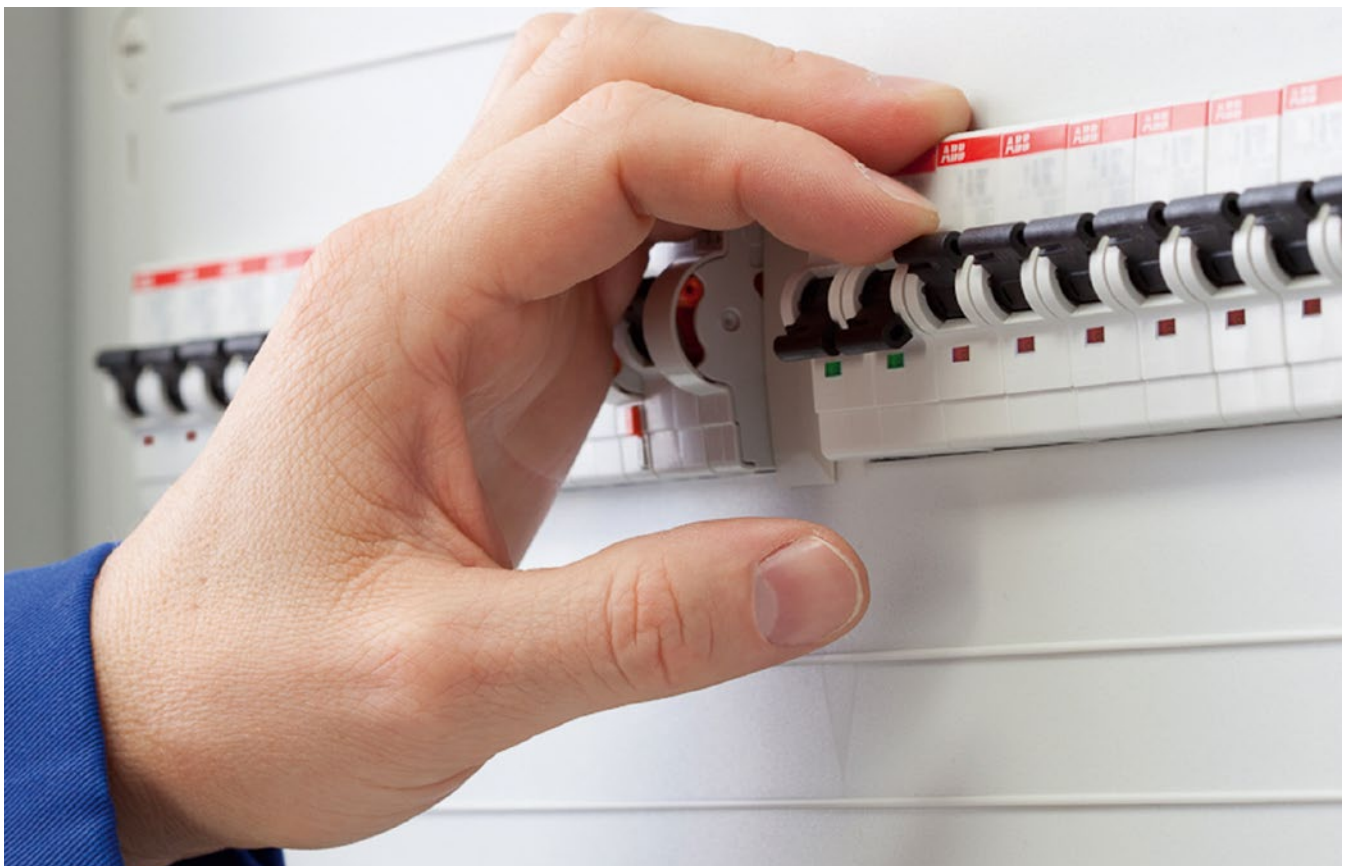
Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Auxiliary elements for RCDs - chapter 3
Accessories for RCDs - chapter 3
Busbar systems - chapter 3

Is it possible to switch off AC/DC? Certainly.

The S 200 M UC impresses with its performance range and the accordingly large amount of approvals. Its high inbuilt short circuit breaking capacity across the entire model line, its flexible application for both direct and alternating currents and its approval and compliance in accordance with all major international and local standards make it truly unique. The miniature circuit breaker is a valuable addition to the existing System pro M compact® range which allows all known components to be combined effortlessly with the new model line. Whether warehousing and project engineering, planning and installation or maintaining your equipment, the S 200 M UC is a simple and flexible solution. For more information, see www.abb.com



eRCBO, the value of quality Made with attention to details

2

Space for insulated screwdrivers

The larger neutral hole allows the use of an insulated screwdriver to tighten the screw of neutral terminals, ensuring maximum operation safety. All versions are equipped with cage type terminals (16mm² load side), with tightening torque of 1.2 Nm.

Product coding

All the necessary technical and installation information can be found directly on the device. Product range, tripping characteristics, rated currents, sensitivity, type, breaking capacity, rated voltage, order code, EAN code, electrical scheme, reference standards and many other specifications are laser printed on the front and side of units.

Real contact position indicator on toggle

Directly connected to the moving contact of the device, it indicates the exact position of the contacts at all times (red: closed contacts, green: open contacts).

Easy to install

Fast installation is supported by the two flying leads for neutral cable and functional earth, each integrated in the device, which can be directly connected to the main neutral bar and main earth bar.

Anti counterfeiting

Each DSE201 is equipped with a RFID tag containing a unique serial number assigned by ABB according to ISO/IEC FCD 15693-3 standard in order to authenticate the product. Through this unique serial number, ABB can easily identify counterfeited products and verify the authenticity of each single device.

In control

Test button allows the regular check of the functionality of the device: to be pushed every six months.

Reduced height

Thanks to its reduced height, only 100 mm, DSE201 makes easier wiring operation inside the consumer unit or the distribution board.



With its breaking capacity of 6kA in only one module width and 100mm height, the DSE201 series is the perfect solution for a complete protection in residential and light commercial applications.

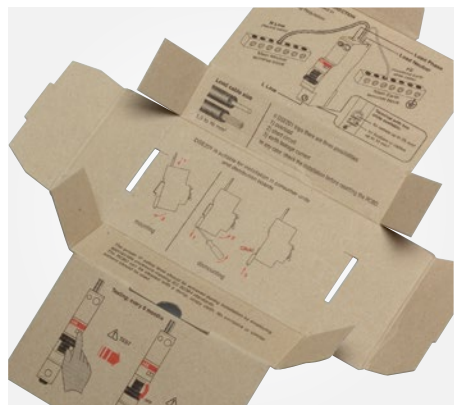
At home, in the office or in a shop, these devices are essential for the safety of people, utilities and equipment, protecting not only against earth fault residual currents - due to loss of isolation or accidental contact with live parts - but also against overcurrents.



Double slot terminal
On the line side, the availability of a terminal with two slots allows to use different types of conductors: one housing is designed for cables up to 25 mm², the other for busbars or cables up to 10 mm².



Easy and flexible
The double clip eases dismantling even when the unit is installed in a high density system. A single device can be removed from the cluster without disconnecting other units. The same screwdriver used to tighten terminals can also be used to unlock the DIN rail fixing device of the unit.



Environmentally friendly
The user manual is an integral part of the package. The information have been printed inside the box to make easy the reading and to reduce consumption of paper.

DSE201

Technical features and overall dimensions

Electrical features

Standards			IEC 61009-1; IEC 61009-2-2; AS/NZS 61009
Type (wave form of the earth leakage sensed)			AC, A
Number of poles			1P+N
Rated current I_n		A	$6 \leq I_n \leq 50$
Rated sensitivity $I_{\Delta n}$		mA	30
Rated voltage U_g		V	230-240
Insulation voltage U_i		V	500 V AC
Overvoltage category			III
Pollution degree			2
Max. operating voltage		V	264
Min. operating voltage for protection against $I\Delta n$ residual sinusoidal alternating currents		V	85
Min. operating voltage of circuit test		V	195
Rated frequency		Hz	50/60
Rated breaking capacity acc. to IEC 61009	ultimate I_{cn}	A	6000
Rated residual breaking capacity $I_{\Delta m}$		kA	6
Rated impulse withstand voltage (1.2/50) U_{imp}		kV	4 kV (test voltage 6.2kV at sea level, 5kV at 2000m)
Dielectric test voltage at ind. freq. for 1 min.		kV	2.5 kV (50 / 60Hz, 1 min.)
Thermomagnetic release - characteristic	B: $3 I_n \leq I_m \leq 5 I_n$ C: $5 I_n \leq I_m \leq 10 I_n$		<input type="checkbox"/> <input type="checkbox"/>
Surge current resistance (wave 8/20)		A	250

Mechanical data

Housing			insulation group II, RAL 7035
Toggle			insulation group IIIA, black, sealable in ON-OFF positions
Contact position indication			CPI on toggle (I ON / 0 OFF)
Electrical life		operations	10000
Mechanical life		operations	20000
Protection degree	housing		IP4X
	terminals		IP2X
Shock resistance acc. to IEC/EN 60068-2-27			30g - 2 shocks - 13ms
Vibration resistance acc. to IEC/EN 60068-2-6			0.35mm or 5g - 20 cycles at 5...150...5 Hz without load
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%
Reference temperature for setting of thermal element		°C	30
Ambient temperature (with daily average $\leq +35$ °C)		°C	-25...+55
Storage temperature		°C	-40...+70

Installation

Terminal type	top (load side)		failsafe cage (shock protected)
	bottom (line side)		failsafe bi-directional cylinder-lift terminal (shock protected)
Terminal size for cables	load side (top)	mm ²	16
	line side (bottom)	mm ²	25
Terminal size for busbars	load side (top)		only for wire connection
	line side (bottom)	mm ²	10 (Standard ABB busbar / distribution board system)
Tightening torque	top (load side)	Nm	1.2
	bottom (line side)	Nm	2.8
Neutral load cable	Type		low smoke halogen free
	Lenght	mm	750
	Section	mm ²	2.5 mm ² up to 20 A; 4 mm ² up to 50 A
	Color		blue
Functional earth cable	Type		low smoke halogen free
	Lenght	mm	750
	Section	mm ²	0.75
	Color		white
Mounting			on DIN rail EN 60715 (35 mm) by means of fast clip device in consumer unit Type A according to IEC 61439-1&3, BS EN 61439-1&3, in distribution board Type B according to IEC 61439-1&3, BS EN 61439-1&3.
Supply from			bottom terminal

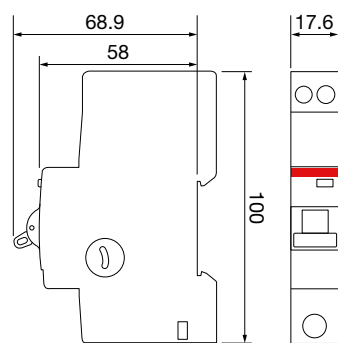
Dimensions and weight

Dimensions (H x D x W)		mm	100 x 68.9 x 17.6
Weight		g	180

Combination with auxiliary elements

Combinable with accessories and auxiliaries	no		
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Dimensions



50A version is 115 mm height

Dimensions in mm

eRCBOs

DSE201 series 6000 A type, B and C characteristic

2



DSE201 ... A30

DSE201 A type, B and C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: residential, light commercial

Standard: IEC 61009-1; IEC 61009-2-2

$I_{cn} = 6\,000 \text{ A}$

N. of poles	Rated residual current $I_{\Delta n}$ [mA]	Rated Current I_n [A]	Bbn 8012542 EAN	Order details		Weight 1 piece [kg]	Pack unit pc.
				Type code	Order code		
B characteristic							
1P+N	30	6	399629	2CSR255151R1065	DSE201 B6 A30	0.180	1
		10	399728	2CSR255151R1105	DSE201 B10 A30	0.180	1
		16	658924	2CSR255151R1165	DSE201 B16 A30	0.180	1
		20	658429	2CSR255151R1205	DSE201 B20 A30	0.180	1
		25	659921	2CSR255151R1255	DSE201 B25 A30	0.180	1
		32	659426	2CSR255151R1325	DSE201 B32 A30	0.180	1
		40	658627	2CSR255151R1405	DSE201 B40 A30	0.180	1
		50	179337	2CSR255151R1505	DSE201 B50 A30	0.200	1
C characteristic							
1P+N	30	6	658122	2CSR255151R1064	DSE201 C6 A30	0.180	1
		10	659624	2CSR255151R1104	DSE201 C10 A30	0.180	1
		16	910923	2CSR255151R1164	DSE201 C16 A30	0.180	1
		20	659129	2CSR255151R1204	DSE201 C20 A30	0.180	1
		25	658726	2CSR255151R1254	DSE201 C25 A30	0.180	1
		32	658221	2CSR255151R1324	DSE201 C32 A30	0.180	1
		40	659723	2CSR255151R1404	DSE201 C40 A30	0.180	1
		50	349532	2CSR255151R1504	DSE201 C50 A30	0.200	1

eRCBOs

DSE201 series 6000 AC type, B and C characteristic



DSE201 ... A30

DSE201 AC type, B and C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: residential, light commercial

Standard: IEC 61009-1; IEC 61009-2-2

$I_{cn} = 6\ 000 \text{ A}$

N. of poles	Rated residual current $I_{\Delta n}$ [mA]	Rated Current I_n [A]	Bbn 8012542 EAN	Order details		Weight 1 piece [kg]	Pack unit pc.
				Type code	Order code		
B characteristic							
1P+N	30	6	659228	2CSR255051R1065	DSE201 B6 AC30	0.180	1
		10	658825	2CSR255051R1105	DSE201 B10 AC30	0.180	1
		16	658320	2CSR255051R1165	DSE201 B16 AC30	0.180	1
		20	659822	2CSR255051R1205	DSE201 B20 AC30	0.180	1
		25	659327	2CSR255051R1255	DSE201 B25 AC30	0.180	1
		32	658528	2CSR255051R1325	DSE201 B32 AC30	0.180	1
		40	658023	2CSR255051R1405	DSE201 B40 AC30	0.180	1
		50	179238	2CSR255051R1505	DSE201 B50 AC30	0.200	1
C characteristic							
1P+N	30	6	659525	2CSR255051R1064	DSE201 C6 AC30	0.180	1
		10	910824	2CSR255051R1104	DSE201 C10 AC30	0.180	1
		16	659020	2CSR255051R1164	DSE201 C16 AC30	0.180	1
		20	660125	2CSR255051R1204	DSE201 C20 AC30	0.180	1
		25	660521	2CSR255051R1254	DSE201 C25 AC30	0.180	1
		32	660026	2CSR255051R1324	DSE201 C32 AC30	0.180	1
		40	660422	2CSR255051R1404	DSE201 C40 AC30	0.180	1
		50	349433	2CSR255051R1504	DSE201 C50 AC30	0.200	1

DSE201 M, unique solution

New features to make operations friendly

2

Space for insulated screwdrivers

The larger neutral hole allows the use of an insulated screwdriver to tighten the screw of neutral terminals, ensuring maximum operation safety. All versions are equipped with cage type terminals (16mm² load side), with tightening torque of 1.2 Nm.

Earth fault indicator

Blue window in the front of the device to detect any earth fault trip: the cause of trip of the device can be identified in a short time, reducing the downtime for maintenance. DSE201 M is the only device equipped with an earth fault indicator between one module width electronic RCBOs.

Real contact position indicator below the toggle

Directly linked to the moving contact of the device, the green/red window in the front of the device can identify the current position of the contacts (open/closed) independently on the toggle position.

Combination with auxiliary elements

New platform suitable for quick installation in combination with the standard auxiliary elements that can be mounted with RCDs and MCBs.

Easy to install

Fast installation is supported by the two flying leads for neutral cable and functional earth, each integrated in the device, which can be directly connected to the main neutral bar and main earth bar.

Anti counterfeiting

Each DSE201 is equipped with a RFID tag containing a unique serial number assigned by ABB according to ISO/IEC FCD 15693-3 standard in order to authenticate the product. Through this unique serial number, ABB can easily identify counterfeited products and verify the authenticity of each single device.

In control

Test button allows the regular check of the functionality of the device: to be pushed every six months.

Reduced height

Thanks to its reduced height, only 115 mm, DSE201 M makes easier wiring operation inside the consumer unit or the distribution board.



DSE201 M, unique solution

Distinctive features

With its breaking capacity of 10kA in only one module width and 115mm height, DSE201 M series is the perfect solution for a complete protection in commercial and industrial applications, where space optimization is particularly required. The unique earth fault indicator window identifies any earth fault trip, making easier the troubleshooting on the network and reducing the downtime for maintenance.



Device status at a glance

Earth fault indicator: blue window above the toggle to immediately detect and identify any earth fault trip, reducing downtime for maintenance.
Contact position indicator (CPI): green/red window below the toggle to identify the real position of the contacts independently on the toggle position.



Double slot terminal

Easy to install. Fail-safe line side terminal to avoid improper connection. Two slots of different dimensions (35 mm² and 10 mm²) available to allow the connection both with cables and busbars.



Load side

Load side terminal accepts cables, both rigid and flexible up to 16 mm². Flying leads are straight instead of pigtail ones to reduce the space required for wiring operations.



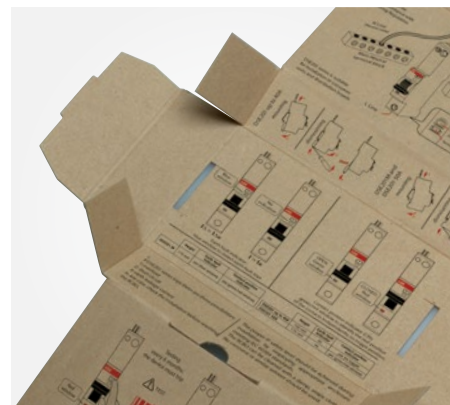
Easy and flexible

Double and bistable clips with a new design for a secure fixing in any type of consumer unit or distribution board. Easy removal from a cluster of RCBOs/MCBs supplied with Busbars.



Smart case

Main technical information are laser-printed on the front and left side of product to ensure long readability. On the right side, the tightening torque and the stripping length of the cable for a correct and safety installation of the unit are molded.



Smart package

Instruction manual printed inside the box with no additional paper wasted. Packaging is glue-less and takes advantage of the adhesive label containing the order information.

DSE201 M

Technical features and overall dimensions

2

Electrical features

Standards			IEC 61009-1 ; IEC 61009-2-2; BS EN 61009-1; AS/NZS 61009
Type (wave form of the earth leakage sensed)			AC, A
Number of poles			1P+N
Rated current I_n		A	$6 \leq I_n \leq 50$
Rated sensitivity $I_{\Delta n}$		mA	10-30-100-300
Rated voltage U_e		V	230-240
Insulation voltage U_i		V	500 V AC
Overvoltage category			III
Pollution degree			2
Max. operating voltage		V	264
Min. operating voltage for protection against $I\Delta n$ residual sinusoidal alternating currents		V	85
Min. operating voltage of circuit test		V	195
Rated frequency		Hz	50/60
Rated breaking capacity acc. to IEC 61009	ultimate I_{cn}	A	10000
Rated breaking capacity acc. to IEC 60947-2	ultimate I_{cu}	kA	15 (for $6A \leq I_n \leq 40A$)
		kA	10 (for $I_n = 50A$)
	service I_{cs}	kA	7.5
Rated residual breaking capacity $I_{\Delta m}$		kA	10
Rated impulse withstand voltage (1.2/50) U_{imp}		kV	4 kV (test voltage 6.2kV at sea level, 5kV at 2000m)
Dielectric test voltage at ind. freq. for 1 min.		kV	2.5 kV (50 / 60Hz, 1 min.)
Thermomagnetic release - characteristic	B: $3 I_n \leq I_m \leq 5 I_n$		■
	C: $5 I_n \leq I_m \leq 10 I_n$		■
Surge current resistance (wave 8/20)		A	250

Mechanical data

Housing			insulation group II, RAL 7035
Toggle			insulation group II, black, sealable in ON-OFF positions
Earth fault indicator			blue window
Contact position indication			green/red Window
Electrical life		operations	10000
Mechanical life		operations	20000
Protection degree	in enclosure with cover		IP40
	terminals		IP20
Shock resistance acc. to IEC/EN 60068-2-27			30g - 2 shocks - 13ms
Vibration resistance acc. to IEC/EN 60068-2-6			0.35mm or 5g - 20 cycles at 5...150...5 Hz without load
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%
Reference temperature for setting of thermal element		°C	30
Ambient temperature (with daily average $\leq +35$ °C)		°C	-25...+55
Storage temperature		°C	-40...+70

Installation

Terminal type	top (load side)		failsafe cage (shock protected)
	bottom (line side)		failsafe bi-directional cylinder-lift terminal (shock protected)
Terminal size for cables	load side	mm ²	16
	line side (solid/flexible)	mm ²	35/25
Terminal size for busbars	load side		only for wire connection
	line side	mm ²	10 (Standard ABB busbar / distribution board system)
Tightening torque	top (load side)	Nm	1.2
	bottom (line side)	Nm	2.8
Neutral load cable	Type		low smoke halogen free
	Lenght	mm	750
	Section	mm ²	2.5 mm ² up to 20 A; 4 mm ² up to 50 A
	Color		blue
Functional earth cable	Type		low smoke halogen free
	Lenght	mm	750
	Section	mm ²	0.75
	Color		white
Mounting			on DIN rail EN 60715 (35 mm) by means of fast clip device in consumer unit Type A according to IEC 61439-1&3, BS EN 61439-1&3 in distribution board Type B according to IEC 61439-1&3, BS EN 61439-1&3
Supply from			bottom terminal

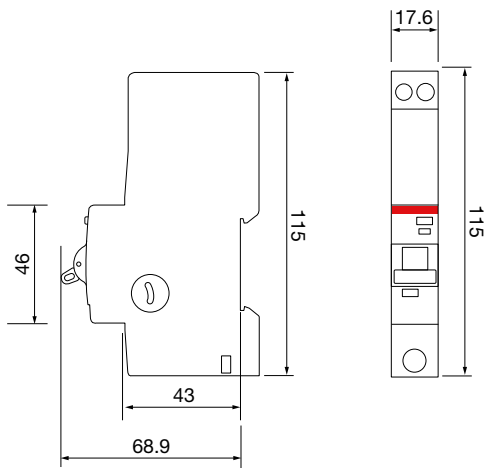
Dimensions and weight

Dimensions (H x D x W)		mm	115 x 68.9 x 17.6
Weight		g	200

Combination with auxiliary elements

Auxiliary contact	yes		
Signal contact / auxiliary switch	yes		
Shunt trip	yes		
Undervoltage release	yes		
Overvoltage release	yes		
Auxiliary contact for MCBs bottom fitting	yes		

Dimensions



Dimensions in mm

eRCBOs

DSE201 M series 10000 A type, B characteristic

2



DSE201 M ... A30

DSE201 M A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: commercial, industrial

Standard: IEC 61009-1; IEC 61009-2-2; BS EN 61009-1

$I_{cn} = 10\ 000 \text{ A}$

N. of poles	Rated residual current $I_{\Delta n}$ [mA]	Rated Current I_n [A]	Bbn 8012542 EAN	Order details		Weight 1 piece [kg]	Pack unit pc.
				Type code	Order code		
B characteristic							
1P+N	10	6	079231	2CSR275151R0065	DSE201 M B6 A10	0.200	1
		10	305033	2CSR275151R0105	DSE201 M B10 A10	0.200	1
		16	305132	2CSR275151R0165	DSE201 M B16 A10	0.200	1
		20	400233	2CSR275151R0205	DSE201 M B20 A10	0.200	1
		25	400035	2CSR275151R0255	DSE201 M B25 A10	0.200	1
		32	400134	2CSR275151R0325	DSE201 M B32 A10	0.200	1
		40	058830	2CSR275151R0405	DSE201 M B40 A10	0.200	1
		50	896531	2CSR275151R0505	DSE201 M B50 A10	0.200	1
1P+N	30	6	830832	2CSR275151R1065	DSE201 M B6 A30	0.200	1
		10	839835	2CSR275151R1105	DSE201 M B10 A30	0.200	1
		16	896739	2CSR275151R1165	DSE201 M B16 A30	0.200	1
		20	768432	2CSR275151R1205	DSE201 M B20 A30	0.200	1
		25	831136	2CSR275151R1255	DSE201 M B25 A30	0.200	1
		32	840138	2CSR275151R1325	DSE201 M B32 A30	0.200	1
		40	830733	2CSR275151R1405	DSE201 M B40 A30	0.200	1
		50	839736	2CSR275151R1505	DSE201 M B50 A30	0.200	1

eRCBOs

DSE201 M series 10000 A type, C characteristic



DSE201 M ... A300

DSE201 M A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: commercial, industrial

Standard: IEC 61009-1; IEC 61009-2-2; BS EN 61009-1

$I_{cn} = 10\,000 \text{ A}$

N. of poles	Rated residual current $I_{\Delta n}$ [mA]	Rated Current I_n [A]	Bbn 8012542 EAN	Order details		Weight 1 piece [kg]	Pack unit pc.
				Type code	Order code		
C characteristic							
1P+N	10	6	768234	2CSR275151R0064	DSE201 M C6 A10	0.200	1
		10	830931	2CSR275151R0104	DSE201 M C10 A10	0.200	1
		16	839934	2CSR275151R0164	DSE201 M C16 A10	0.200	1
		20	768531	2CSR275151R0204	DSE201 M C20 A10	0.200	1
		25	831235	2CSR275151R0254	DSE201 M C25 A10	0.200	1
		32	840237	2CSR275151R0324	DSE201 M C32 A10	0.200	1
		40	896432	2CSR275151R0404	DSE201 M C40 A10	0.200	1
		50	768135	2CSR275151R0504	DSE201 M C50 A10	0.200	1
1P+N	30	6	896630	2CSR275151R1064	DSE201 M C6 A30	0.200	1
		10	768333	2CSR275151R1104	DSE201 M C10 A30	0.200	1
		16	831037	2CSR275151R1164	DSE201 M C16 A30	0.200	1
		20	840039	2CSR275151R1204	DSE201 M C20 A30	0.200	1
		25	631637	2CSR275151R1254	DSE201 M C25 A30	0.200	1
		32	376033	2CSR275151R1324	DSE201 M C32 A30	0.200	1
		40	629733	2CSR275151R1404	DSE201 M C40 A30	0.200	1
		50	375937	2CSR275151R1504	DSE201 M C50 A30	0.200	1
1P+N	100	6	779339	2CSR275151R2064	DSE201 M C6 A100	0.200	1
		10	769330	2CSR275151R2104	DSE201 M C10 A100	0.200	1
		16	631538	2CSR275151R2164	DSE201 M C16 A100	0.200	1
		20	375838	2CSR275151R2204	DSE201 M C20 A100	0.200	1
		25	779230	2CSR275151R2254	DSE201 M C25 A100	0.200	1
		32	631439	2CSR275151R2324	DSE201 M C32 A100	0.200	1
		40	940739	2CSR275151R2404	DSE201 M C40 A100	0.200	1
		50	941330	2CSR275151R2504	DSE201 M C50 A100	0.200	1
1P+N	300	6	620235	2CSR275151R3064	DSE201 M C6 A300	0.200	1
		10	021834	2CSR275151R3104	DSE201 M C10 A300	0.200	1
		16	021735	2CSR275151R3164	DSE201 M C16 A300	0.200	1
		20	021636	2CSR275151R3204	DSE201 M C20 A300	0.200	1
		25	021537	2CSR275151R3254	DSE201 M C25 A300	0.200	1
		32	021438	2CSR275151R3324	DSE201 M C32 A300	0.200	1
		40	021339	2CSR275151R3404	DSE201 M C40 A300	0.200	1
		50	021230	2CSR275151R3504	DSE201 M C50 A300	0.200	1

eRCBOs

DSE201 M series 10000 AC type, B characteristic

2



DSE201 M ... A30

DSE201 M AC type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: commercial, industrial

Standard: IEC 61009-1; IEC 61009-2-2; BS EN 61009-1

$I_{cn} = 10\ 000 \text{ A}$

N. of poles	Rated residual current $I_{\Delta n}$ [mA]	Rated Current I_n [A]	Bbn 8012542 EAN	Order details		Weight 1 piece [kg]	Pack unit pc.
				Type code	Order code		
B characteristic							
1P+N	10	6	938132	2CSR275051R0065	DSE201 M B6 AC10	0.200	1
		10	297734	2CSR275051R0105	DSE201 M B10 AC10	0.200	1
		16	373230	2CSR275051R0165	DSE201 M B16 AC10	0.200	1
		20	373131	2CSR275051R0205	DSE201 M B20 AC10	0.200	1
		25	077534	2CSR275051R0255	DSE201 M B25 AC10	0.200	1
		32	077435	2CSR275051R0325	DSE201 M B32 AC10	0.200	1
		40	077336	2CSR275051R0405	DSE201 M B40 AC10	0.200	1
		50	077237	2CSR275051R0505	DSE201 M B50 AC10	0.200	1
1P+N	30	6	076438	2CSR275051R1065	DSE201 M B6 AC30	0.200	1
		10	076339	2CSR275051R1105	DSE201 M B10 AC30	0.200	1
		16	076230	2CSR275051R1165	DSE201 M B16 AC30	0.200	1
		20	076131	2CSR275051R1205	DSE201 M B20 AC30	0.200	1
		25	076032	2CSR275051R1255	DSE201 M B25 AC30	0.200	1
		32	353430	2CSR275051R1325	DSE201 M B32 AC30	0.200	1
		40	353331	2CSR275051R1405	DSE201 M B40 AC30	0.200	1
		50	266334	2CSR275051R1505	DSE201 M B50 AC30	0.200	1

eRCBOs

DSE201 M series 10000 AC type, C characteristic



DSE201 M ... A300

DSE201 M AC type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

Application: commercial, industrial

Standard: IEC 61009-1; IEC 61009-2-2; BS EN 61009-1

$I_{cn} = 10\ 000 \text{ A}$

N. of poles	Rated residual current $I_{\Delta n}$ [mA]	Rated Current I_n [A]	Bbn 8012542 EAN	Order details		Weight 1 piece [kg]	Pack unit pc.
				Type code	Order code		
C characteristic							
1P+N	10	6	077138	2CSR275051R0064	DSE201 M C6 AC10	0.200	1
		10	077039	2CSR275051R0104	DSE201 M C10 AC10	0.200	1
		16	076933	2CSR275051R0164	DSE201 M C16 AC10	0.200	1
		20	790532	2CSR275051R0204	DSE201 M C20 AC10	0.200	1
		25	076834	2CSR275051R0254	DSE201 M C25 AC10	0.200	1
		32	076735	2CSR275051R0324	DSE201 M C32 AC10	0.200	1
		40	076636	2CSR275051R0404	DSE201 M C40 AC10	0.200	1
		50	076537	2CSR275051R0504	DSE201 M C50 AC10	0.200	1
1P+N	30	6	266235	2CSR275051R1064	DSE201 M C6 AC30	0.200	1
		10	266136	2CSR275051R1104	DSE201 M C10 AC30	0.200	1
		16	266037	2CSR275051R1164	DSE201 M C16 AC30	0.200	1
		20	265931	2CSR275051R1204	DSE201 M C20 AC30	0.200	1
		25	790839	2CSR275051R1254	DSE201 M C25 AC30	0.200	1
		32	265832	2CSR275051R1324	DSE201 M C32 AC30	0.200	1
		40	353232	2CSR275051R1404	DSE201 M C40 AC30	0.200	1
		50	518235	2CSR275051R1504	DSE201 M C50 AC30	0.200	1
1P+N	100	6	186830	2CSR275051R2064	DSE201 M C6 AC100	0.200	1
		10	352235	2CSR275051R2104	DSE201 M C10 AC100	0.200	1
		16	186731	2CSR275051R2164	DSE201 M C16 AC100	0.200	1
		20	352136	2CSR275051R2204	DSE201 M C20 AC100	0.200	1
		25	263937	2CSR275051R2254	DSE201 M C25 AC100	0.200	1
		32	263838	2CSR275051R2324	DSE201 M C32 AC100	0.200	1
		40	263739	2CSR275051R2404	DSE201 M C40 AC100	0.200	1
		50	263630	2CSR275051R2504	DSE201 M C50 AC100	0.200	1
1P+N	300	6	263531	2CSR275051R3064	DSE201 M C6 AC300	0.200	1
		10	518334	2CSR275051R3104	DSE201 M C10 AC300	0.200	1
		16	263432	2CSR275051R3164	DSE201 M C16 AC300	0.200	1
		20	186038	2CSR275051R3204	DSE201 M C20 AC300	0.200	1
		25	352037	2CSR275051R3254	DSE201 M C25 AC300	0.200	1
		32	185932	2CSR275051R3324	DSE201 M C32 AC300	0.200	1
		40	185833	2CSR275051R3404	DSE201 M C40 AC300	0.200	1
		50	185734	2CSR275051R3504	DSE201 M C50 AC300	0.200	1

RCD-blocks

DDA 800 technical features

2



DDA 800

	Standards			
Electrical features	Type (wave form of the earth leakage sensed)			
	Poles			
	Rated current I _n		A	
	Rated sensitivity I _{Δn}		A	
	Rated voltage U _e		V	
	Insulation voltage U _i		V	
	Max. operating voltage of circuit test		V	
	Min. operating voltage of circuit test		V	
	Rated frequency		Hz	
	Rated breaking capacity (I _{cn}) acc. to IEC /EN 60947-2		A	
	Rated residual breaking capacity I _{Δm}	with S 800 C		kA
		with S 800 N		kA
		with S 800 S		kA
	Rated impulse withstand voltage (1.2/50) U _{imp}		kV	
	Dielectric test voltage at ind. freq. for 1 min.		kV	
	Surge current resistance (wave 8/20)		A	
Mechanical features	Toggle			
	Electrical life			
	Mechanical life			
	Protection degree	housing		
		terminals		
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30			
	Ambient temperature (with daily average ≤ +35 °C)			
	Storage temperature			
	Terminal size for cables	flexible		mm ²
		rigid		mm ²
Tightening torque				
Mounting				
Dimensions and weight	Dimensions (H x D x W)	2P	mm	
		3P	mm	
		4P	mm	
	Weight	2P	g	
		3P	g	
		4P	g	
Combination with MCBs	Combinable with:			
	S 800 N			
	S 800 S			

* only on 3P and 4P versions

DDA 800 AC	DDA 800 A		DDA 800 A AP-R	DDA 800 A S	
IEC/EN 60947-2 Ann. B					
AC	A		A	A	
2P, 3P, 4P					
63	63	100	63-100	63	100
0.03-0.3	0.03-0.3-0.5	0.3-0.5	0.03	0.3-1	0.3-0.5*-1
230/400 - 240/415 - 400/690					
690					
690					
195					
50...60					
according to the breaking capacity of the associated MCB					
according to the Icu of the associated MCB					
according to the Icu of the associated MCB					
according to the Icu of the associated MCB					
6					
2.5					
250			3000	5000	
blue operating just from OFF position					
10000					
20000					
IP4X					
IP2X					
28 cycles with 55°C/90-96% and 25°C/95-100%					
-25...+60					
-40...+70					
6...50					
6...70					
min. 3 / max. 4					
on DIN rail EN 60715 (35 mm) by means of rapid fixing device					
108.2 x 82.3 x 81					
108.2 x 82.3 x 117					
108.2 x 82.3 x 117					
300 for 63 A - 415 for 100 A					
400 for 63 A - 640 for 100 A					
460 for 63 A - 765 for 100 A					
yes					
yes					

RCD-blocks

DDA 800 AC type for MCBs S800

2



DDA 802

DDA 800 AC type for MCBs S800

Function: RCD-block for assembly on site with MCBs S800 series up to 63 A. Protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n} = 30$ mA).

Application: commercial, industrial.

Standard: IEC/EN 60947-2 Ann. B



DDA 803



DDA 804

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	63	919704	DDA802AC-63/0.03	2CSB802001R1630		0.300	1
	300	63	919902	DDA802AC-63/0.3	2CSB802001R3630		0.300	1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	63	922001	DDA803AC-63/0.03	2CSB803001R1630		0.400	1
	300	63	922209	DDA803AC-63/0.3	2CSB803001R3630		0.400	1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	63	924401	DDA804AC-63/0.03	2CSB804001R1630		0.460	1
	300	63	924609	DDA804AC-63/0.3	2CSB804001R3630		0.460	1

Where to find more:

Technical details for DDA 800:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Maybe you are also interested in:

Auxiliary elements and accessories
for S800 and DDA 800 - chapter 3

RCD-blocks

DDA 800 A type for MCBs S800



DDA 802

DDA 800 A type for MCBs S800

Function: RCD-block for assembly on site with MCBs S800 up to 100 A. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n} = 30$ mA).

Application: commercial, industrial.

Standard: IEC/EN 60947-2 Ann. B



DDA 803



DDA 804

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	63	920007	DDA802 A-63/0.03	2CSB802101R1630		0.300	1
	300	63	920205	DDA802 A-63/0.3	2CSB802101R3630		0.300	1
		100	545033	DDA802 A-100/0.3	2CSB802101R3000		0.415	1
	500	63	920403	DDA802 A-63/0.5	2CSB802101R4630		0.300	1
100		542636	DDA802 A-100/0.5	2CSB802101R4000		0.415	1	

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	63	922308	DDA803 A-63/0.03	2CSB803101R1630		0.400	1
	300	63	922506	DDA803 A-63/0.3	2CSB803101R3630		0.400	1
		100	544135	DDA803 A-100/0.3	2CSB803101R3000		0.640	1
	500	63	922704	DDA803 A-63/0.5	2CSB803101R4630		0.400	1
100		541738	DDA803 A-100/0.5	2CSB803101R4000		0.640	1	

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	63	924807	DDA804 A-63/0.03	2CSB804101R1630		0.460	1
	300	63	925002	DDA804 A-63/0.3	2CSB804101R3630		0.460	1
		100	547532	DDA804 A-100/0.3	2CSB804101R3000		0.765	1
	500	63	925200	DDA804 A-63/0.5	2CSB804101R4630		0.460	1
100		544937	DDA804 A-100/0.5	2CSB804101R4000		0.765	1	

RCD-blocks

DDA 800 A type AP-R (high immunity) for MCBs S800

2



DDA 802

2CSC400177R0201

DDA 800 A AP-R type for MCBs S800

Function: RCD-block for assembly on site with MCBs S800 up to 100 A. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct contacts (with $I_{\Delta n} = 30$ mA).

Application: commercial, industrial.

Standard: IEC/EN 60947-2 Ann. B



DDA 803

2CSC400178R0201

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	63	921400	DDA802 A-63/0.03 AP-R	2CSB802401R1630		0.300	1
		100	544630	DDA802 A-100/0.03 AP-R	2CSB802401R1000			



DDA 804

2CSC400179R0201

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	30	63	923800	DDA803 A-63/0.03 AP-R	2CSB803401R1630		0.400	1
		100	542230	DDA803 A-100/0.03 AP-R	2CSB803401R1000			

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	63	927709	DDA804 A-63/0.03 AP-R	2CSB804401R1630		0.460	1
		100	547136	DDA804 A-100/0.03 AP-R	2CSB804401R1000			

Where to find more:

Technical details for DDA 800:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Maybe you are also interested in:

Auxiliary elements and accessories
for S800 and DDA 800 - chapter 3

RCD-blocks

DDA 800 A type selective for MCBs S800



DDA 802

DDA 800 A selective type for MCBs S800

Function: RCD-block for assembly on site with MCBs S800 series up to 100 A. Protection against the effects of sinusoidal alternating and direct pulsating earth fault currents with an intentional tripping delay, which permits to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide).

Application: commercial, industrial.

Standard: IEC/EN 60947-2 Ann. B



DDA 803



DDA 804

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	300	63	920601	DDA802 A S-63/0.3	2CSB802201R3630		0.300	1
		100	542537	DDA802 A S-100/0.3	2CSB802201R3000		0.415	1
	1000	63	920809	DDA802 A S-63/1	2CSB802201R5630		0.300	1
		100	547433	DDA802 A S-100/1	2CSB802201R5000		0.415	1

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3	300	63	922902	DDA803 A S-63/0.3	2CSB803201R3630		0.400	1
		100	544838	DDA803 A S-100/0.3	2CSB803201R3000		0.640	1
	500	100	542438	DDA803 A S-100/0.5	2CSB803201R4000		0.640	1
	1000	63	923206	DDA803 A S-63/1	2CSB803201R5630		0.400	1
100		547334	DDA803 A S-100/1	2CSB803201R5000		0.640	1	

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	300	63	926207	DDA804 A S-63/0.3	2CSB804201R3630		0.460	1
		100	544739	DDA804 A S-100/0.3	2CSB804201R3000		0.765	1
	500	100	542339	DDA804 A S-100/0.5	2CSB804201R4000		0.765	1
	1000	63	926504	DDA804 A S-63/1	2CSB804201R5630		0.460	1
100		547235	DDA804 A S-100/1	2CSB804201R5000		0.765	1	

RCBOs

DS800S technical features



DS800S

2

	Standards			
Electrical features	Operating characteristic: type (wave form of the earth leakage sensed)			
	Poles			
	Rated sensitivity $I\Delta n$		A	
	Rated current I_n		A	
	Rated voltage U_e		V	
	Insulation voltage U_i		V	
	Max. operating voltage of circuit test		V	
	Min. operating voltage of circuit test		V	
	Rated frequency		Hz	
	Short-circuit breaking capacity ultimate I_{cu}	240/415 V	kA	
	acc. to IEC/EN 60947-2	254/440 V	kA	
	(AC) 50/60 Hz	289/500 V	kA	
	Short-circuit breaking capacity service I_{cs}	400/690 V	kA	
	acc. to IEC/EN 60947-2	240/415 V	kA	
	(AC) 50/60 Hz	254/440 V	kA	
	Short-circuit breaking capacity acc. to IEC/EN 60947-2	289/500 V	kA	
	(AC) 50/60 Hz	400/690 V	kA	
	Rated impulse withstand voltage (1.2/50) U_{imp}		kV	
	Dielectric test voltage at ind. freq. for 1 min.		kV	
	Thermomagnetic release characteristic	B: $3 I_n \leq I_m \leq 5 I_n$ C: $5 I_n \leq I_m \leq 10 I_n$ D: $10 I_n \leq I_m \leq 20 I_n$ K: $8 I_n \leq I_m \leq 14 I_n$		
	Surge current resistance acc. to VDE 0432 Part 2 (wave 8/20)		A	
	Mechanical features	Toggle		
		Electrical life		
Mechanical life				
Protection degree		housing terminals		
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30				
Ambient temperature (with daily average $\leq +35^\circ\text{C}$)			$^\circ\text{C}/\text{RH}$	
Storage temperature		$^\circ\text{C}$		
Installation	Terminal size for cables	flexible rigid	mm^2 mm^2	
	Tightening torque		Nm	
	Mounting			
Dimensions and weight	Dimensions (H x D x W)	2P	mm	
		3P	mm	
		4P	mm	
	Weight	2P	g	
		3P	g	
		4P	g	
Combination with auxiliary elements	Combinable with:			
	auxiliary contact			
	signal contact/auxiliary switch			
	shunt trip undervoltage release			

(*) 1A on 2P and 4P versions, while 0.3A only on 4P ones.

DS800S A	DS800N A	DS800S A S	DS800N A S	DS800S A AP-R	DS800N A AP-R
IEC/EN 60947-2					
A		A		A	
2P, 3P, 4P		2P,4P		2P, 3P, 4P	
0.3		0.3-1(*)		0.03	
125					
230/400-240/415-400/690					
690					
690					
195					
50...60					
50	36	50	36	50	36
30	20	30	20	30	20
10	10	10	10	10	10
4.5	4.5	4.5	4.5	4.5	4.5
40	30	40	30	40	30
15	10	15	10	15	10
5	5	5	5	5	5
3	3	3	3	3	3
6					
2.5					
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■		■		■	
250	250	5000	5000	3000	3000
black (MCB) sealable in ON-OFF position + blue (RCD) operating just from OFF position					
10000					
20000					
IP4X					
IP2X					
28 cycles with 55°C/90-96% and 25°C/95-100%					
-25...+60					
-40...+70					
6...50					
6...70					
min. 3 / max. 4					
on DIN rail EN 60715 (35 mm) by means of rapid fixing device					
108,2 x 82,3 x 133.5					
108,2 x 82,3 x 196					
108,2 x 82,3 x 223					
790					
1140					
1440					
yes					
yes					
yes					
yes					

RCBOs

DS800S series 50000 A type B, C, D and K characteristics

2



DS802S

DS800S, A type

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts; command and isolation of resistive and inductive loads.

Application: industrial.

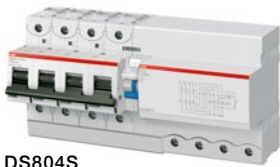
Standard: IEC/EN 60947-2

Icu = 50 kA



DS803S

Number of poles	Curve	Rated residual current I Δ n mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
2	B	300	125	211721	DS802S-B125/0.3A	2CCA862005R0845		0.790	1
	C	300	125	211738	DS802S-C125/0.3A	2CCA862005R0844		0.790	1
	D	300	125	211745	DS802S-D125/0.3A	2CCA862005R0841		0.790	1
	K	300	125	211752	DS802S-K125/0.3A	2CCA862005R0647		0.790	1



DS804S

Number of poles	Curve	Rated residual current I Δ n mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
3	B	300	125	211769	DS803S-B125/0.3A	2CCA863005R0845		1.14	1
	C	300	125	211776	DS803S-C125/0.3A	2CCA863005R0844		1.14	1
	D	300	125	211783	DS803S-D125/0.3A	2CCA863005R0841		1.14	1
	K	300	125	211790	DS803S-K125/0.3A	2CCA863005R0647		1.14	1

Number of poles	Curve	Rated residual current I Δ n mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
4	B	300	125	211806	DS804S-B125/0.3A	2CCA864005R0845		1.44	1
	C	300	125	211813	DS804S-C125/0.3A	2CCA864005R0844		1.44	1
	D	300	125	211820	DS804S-D125/0.3A	2CCA864005R0841		1.44	1
	K	300	125	211837	DS804S-K125/0.3A	2CCA864005R0647		1.44	1

Where to find more:

Technical details for DS 800 RCBOs:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

RCBOs

DS800N series 36000 A type B, C and D characteristics



DS802N

DS800N, A type

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts; command and isolation of resistive and inductive loads.

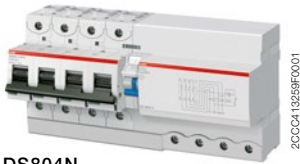
Application: industrial.

Standard: IEC/EN 60947-2

Icu = 36 kA



DS803N



DS804N

Number of poles	Curve	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
2	B	300	125	211844	DS802N-B125/0.3A	2CCA892005R0845		0.790	1
	C	300	125	211851	DS802N-C125/0.3A	2CCA892005R0844		0.790	1
	D	300	125	211868	DS802N-D125/0.3A	2CCA892005R0841		0.790	1

Number of poles	Curve	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
3	B	300	125	211875	DS803N-B125/0.3A	2CCA893005R0845		1.14	1
	C	300	125	211882	DS803N-C125/0.3A	2CCA893005R0844		1.14	1
	D	300	125	211899	DS803N-D125/0.3A	2CCA893005R0841		1.14	1

Number of poles	Curve	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
4	B	300	125	211905	DS804N-B125/0.3A	2CCA894005R0845		1.44	1
	C	300	125	211912	DS804N-C125/0.3A	2CCA894005R0844		1.44	1
	D	300	125	211929	DS804N-D125/0.3A	2CCA894005R0841		1.44	1

RCBOs

DS800S series 50000 A type selective B, C, D and K characteristics

2



DS802S

2CCC413257F0001

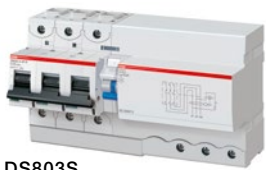
DS800S, A selective type

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents with an intentional tripping delay, which allows to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide); protection against indirect contacts; command and isolation of resistive and inductive loads.

Application: industrial.

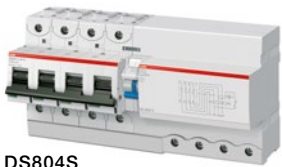
Standard: IEC/EN 60947-2

Icu = 50 kA



DS803S

2CCC413259F0001



DS804S

2CCC413259F0001

Number of poles	Curve	Rated residual current I Δ n mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
2	B	1000	125	211516	DS802S-B125/1AS	2CCC862006R0845		0.790	1
	C	1000	125	211523	DS802S-C125/1AS	2CCC862006R0844		0.790	1
	D	1000	125	211530	DS802S-D125/1AS	2CCC862006R0841		0.790	1
	K	1000	125	211547	DS802S-K125/1AS	2CCC862006R0647		0.790	1

Number of poles	Curve	Rated residual current I Δ n mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
4	B	300	125	211554	DS804S-B125/0.3AS	2CCC864005R0845		1.44	1
		1000	125	211592	DS804S-B125/1AS	2CCC864006R0845		1.44	1
	C	300	125	211561	DS804S-C125/0.3AS	2CCC864005R0844		1.44	1
		1000	125	211608	DS804S-C125/1AS	2CCC864006R0844		1.44	1
	D	300	125	211578	DS804S-D125/0.3AS	2CCC864005R0841		1.44	1
		1000	125	211615	DS804S-D125/1AS	2CCC864006R0841		1.44	1
	K	300	125	211685	DS804S-K125/0.3AS	2CCC864005R0647		1.44	1
		1000	125	211622	DS804S-K125/1AS	2CCC864006R0647		1.44	1

Where to find more:

Technical details for DS 800 RCBOs:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

RCBOs

DS800N series 36000 A type selective B, C and D characteristics



DS802N



DS803N



DS804N

DS800N, A selective type

Function: protection against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents with an intentional tripping delay, which allows to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide); protection against indirect contacts; command and isolation of resistive and inductive loads.

Application: industrial.

Standard: IEC/EN 60947-2

Icu = 36 kA

Number of poles	Curve	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
2	B	1000	125	211639	DS802N-B125/1AS	2CCC892006R0845		0.790	1
	C	1000	125	211646	DS802N-C125/1AS	2CCC892006R0844		0.790	1
	D	1000	125	211653	DS802N-D125/1AS	2CCC892006R0841		0.790	1

Number of poles	Curve	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
4	B	300	125	211660	DS804N-B125/0.3AS	2CCC894005R0845		1.44	1
		1000	125	211691	DS804N-B125/1AS	2CCC894006R0845		1.44	1
	C	300	125	211677	DS804N-C125/0.3AS	2CCC894005R0844		1.44	1
		1000	125	211707	DS804N-C125/1AS	2CCC894006R0844		1.44	1
	D	300	125	211684	DS804N-D125/0.3AS	2CCC894005R0841		1.44	1
		1000	125	211714	DS804N-D125/1AS	2CCC894006R0841		1.44	1

RCBOs

DS800S series 50000 A type, AP-R (high immunity) B, C, D and K characteristics

2



DS802S

DS800S AP-R, A type

Function: protection against the effects of sinusoidal alternating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct contacts ($I_{\Delta n}=30$ mA); protection and isolation of resistive and inductive loads.

Application: industrial.

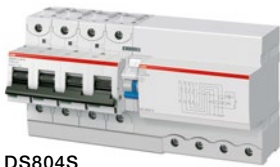
Standard: IEC/EN 60947-2

Icu = 50 kA



DS803S

Number of poles	Curve	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
2	B	30	125	211301	DS802SB125/.03AP-R	2CCB862004R0845		0.790	1
	C	30	125	211318	DS802SC125/.03AP-R	2CCB862004R0844		0.790	1
	D	30	125	211325	DS802SD125/.03AP-R	2CCB862004R0841		0.790	1
	K	30	125	211332	DS802SK125/.03AP-R	2CCB862004R0647		0.790	1



DS804S

Number of poles	Curve	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
3	B	30	125	211349	DS803SB125/.03AP-R	2CCB863004R0845		1.14	1
	C	30	125	211356	DS803SC125/.03AP-R	2CCB863004R0844		1.14	1
	D	30	125	211363	DS803SD125/.03AP-R	2CCB863004R0841		1.14	1
	K	30	125	211370	DS803SK125/.03AP-R	2CCB863004R0647		1.14	1

Number of poles	Curve	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
4	B	30	125	211387	DS804SB125/.03AP-R	2CCB864004R0845		1.44	1
	C	30	125	211394	DS804SC125/.03AP-R	2CCB864004R0844		1.44	1
	D	30	125	211400	DS804SD125/.03AP-R	2CCB864004R0841		1.44	1
	K	30	125	211417	DS804SK125/.03AP-R	2CCB864004R0647		1,44	1

Where to find more:

Technical details for DS 800 RCBOs:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

RCBOs

DS800N series $\boxed{36000}$ A type, AP-R (high immunity) B, C and D characteristics



DS802N

DS800N AP-R, A type

Function: protection against the effects of sinusoidal alternating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct contacts ($I\Delta n=30$ mA); protection and isolation of resistive and inductive loads.

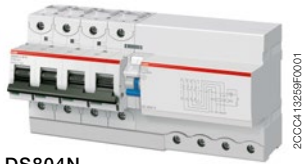
Application: industrial.

Standard: IEC/EN 60947-2

Icu = 36 kA



DS803N



DS804N

Number of poles	Curve	Rated residual current $I\Delta n$ mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
2	B	30	125	211424	DS802NB125/.03AP-R	2CCB892004R0845		0.790	1
	C	30	125	211431	DS802NC125/.03AP-R	2CCB892004R0844		0.790	1
	D	30	125	211448	DS802ND125/.03AP-R	2CCB892004R0841		0.790	1

Number of poles	Curve	Rated residual current $I\Delta n$ mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
3	B	30	125	211455	DS803NB125/.03AP-R	2CCB893004R0845		1.14	1
	C	30	125	211462	DS803NC125/.03AP-R	2CCB893004R0844		1.14	1
	D	30	125	211479	DS803ND125/.03AP-R	2CCB893004R0841		1.14	1

Number of poles	Curve	Rated residual current $I\Delta n$ mA	Rated current In A	Bbn 7612271 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
4	B	30	125	211486	DS804NB125/.03AP-R	2CCB894004R0845		1.44	1
	C	30	125	211493	DS804NC125/.03AP-R	2CCB894004R0844		1.44	1
	D	30	125	211509	DS804ND125/.03AP-R	2CCB894004R0841		1.44	1

Residual current relays

RD2



RD2

2

Technical features		
Operating voltage	[V]	230÷400 a.c. (RD2) and 48÷150 a.c./d.c. (RD2-48)
Frequency	[Hz]	50÷60
Type		A
Operating temperature	[°C]	-5...+40
Power consumption	[W]	<3.4, 230 V a.c.
Sensitivity settings I Δ n	[A]	0.03; 0.1; 0.3; 0.5; 1; 2
Tripping time settings	[s]	Fast (instantaneous); 0.3; 0.5; 1; 2; 5
Contact capacity	[A]	10 at 250 V a.c. (ohmic)
Contact type		NC-C-NO
Modules	[No.]	2
Protection degree		IP20
Standards		IEC/EN 62020

RD2 residual current relays

Residual current relays with external toroidal transformer can detect leakage currents. Through minidip it is possible to set sensitivity and intervention time.

Operating voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
V	EAN	Type code	Order code		kg	pc.
230...400 a.c.	058007	RD2	2CSM142120R1201		0.125	1
48...150 a.c./d.c.	537809	RD2-48	2CSM242120R1201		0.125	1

Where to find more:

Technical details for RD2:
Chapter 2 of
Solutions for electrical installation in
buildings - technical details

Wiring diagrams for RD2 - chapter 15

Maybe you are also interested in:

Toroidal transformers - chapter 2

Residual current relays

RD3



RD3



RD3M



RD3P

Technical features	RD3/RD3-48	RD3M/RD3M-48	RD3P/RD3P-48
Operating voltage	RD3: 230-400 Vac +10% / -15%	RD3M: 230-400 Vac +10% / -15%	RD3P: 230-400 Vac +10% / -15%
	RD3-48: 12-48 Vac/ Vdc +10% / -15%	RD3M-48: 12-48 Vac/ Vdc +10% / -15%	RD3P-48: 12-48 Vac/ Vdc +10% / -15%
Auxiliary supply frequency	50-60 Hz		
Frequency filter	-	Yes	Yes
Type	A (up to I Δ n=5 A) AC (for higher current)		
Operating temperature	-25...+70 °C		
Power consumption	<3.6 W (RD3, RD3M, RD3P), <600 mW RD3-48, RD3M-48, RD3P-48)		
Sensitivity settings I Δ n	0.03-0.1-0.3-0.5-1-2-3-5-10-30 A		
Tripping time settings Δ t	0-0.06-0.2-0.3-0.5-1-2-3-5-10 s		
Pre-alarm threshold	-	60%	60%
Max. resistance connection between toroidal transformer and relay	3 Ω		
Max. length connection of remote reset button	15 m		
Output Contact capacity (7-8-9); (10-11-12)	8 A, 250 V a.c.		
Led bar indicator	-	-	Yes
Max. cable terminals section	2.5 mm ²		
Modules	3		
Dimensions	52.8 × 85 × 64.7 mm		
Protection degree	IP20		
Standards	IEC/EN 60947-2 annex. M; IEC/EN 62020		

RD3 residual current relays

The RD3 family of electronic residual current relays provides residual current protection and monitoring functions according to IEC/EN 60947-2:2006 annex M and can be used in conjunction with all S 200 miniature circuit breakers and Tmax range moulded case devices up to T5, for industrial installations.

The RD3 residual current relays can provide status indications through two output contacts.

Operating voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
V	EAN	Type code	Order code		kg	pc.
12-48 a.c./d.c.	748236	RD3-48	2CSJ201001R0001		0.13	1
230-400 a.c.	734833	RD3	2CSJ201001R0002		0.25	1
12-48 a.c./d.c.	733935	RD3M-48	2CSJ202001R0001		0.13	1
230-400 a.c.	747031	RD3M	2CSJ202001R0002		0.25	1
12-48 a.c./d.c.	734734	RD3P-48	2CSJ203001R0001		0.13	1
230-400 a.c.	733836	RD3P	2CSJ203001R0002		0.25	1

Where to find more:

Tripping time, cumulative time, non intervention time for RD3:
Chapter 2 of
Solutions for electrical installation in buildings - technical details

Wiring Diagrams for RD3 - chapter 15

Maybe you are also interested in:

Toroidal transformers - chapter 2

Front panel residual current relays

ELR

2

Technical features		ELR48P	ELR72	ELR72P	ELR96	ELR96P	ELR96PF	ELR96PD
Operating voltage	[V]	24, 48, 110, 230 a.c./ 24, 48, 115 d.c.	24, 48, 110, 230 a.c./ 24, 48, 110 d.c.	24, 48, 110, 230, 400 a.c./ 24, 48 d.c.	24, 48, 110, 230, 400 a.c./ 24, 48 d.c.	24, 48, 110, 230, 400 a.c./ 24, 48 d.c.	110, 230, 400 a.c.	110, 230, 400 a.c.
Frequency	[Hz]	50 – 60						
Frequency filter		-	-	-	-	-	Yes	Yes
Type		A						
Operating temperature	[°C]	-10...+60						
Power consumption	[W]	<7						
Sensitivity setting I Δ n	[A]	from 0,03 to 30						
Tripping time setting Dt	[s]	from 0 to 5						
Contacts	[no.]	2	1	2	1	2	2	2
Contact capacity	[A]	5 (250 V a.c.)						
Dimensions	[mm]	48 x 48	72 x 72	72 x 72	96 x 96	96 x 96	96x96	96 x 96
Digital display		-	-	-	-	-	-	Yes
Protection degree (with cover)		IP52						
Protection degree (without cover)		IP40						
Protection degree (terminals)		IP20						
Standards		IEC EN 60947-2 Annex M						

Where to find more:

Tripping time, cumulative time, non intervention time for ELR:
Chapter 2 of
Solutions for electrical installation in buildings - technical details

Wiring diagrams for ELR - chapter 15

Maybe you are also interested in:

Toroidal transformers - chapter 2



ELR48P



ELR72



ELR96



ELR96PD

ELR front panel residual current relay

Front panel residual current relays are electronic devices used in combination with an external toroidal transformer. They are according to the protection standard IEC/EN 60947-2 Annex-M. The sensitivity can be set from 0.03 A to 30 A, while the tripping time from 0 to 5 seconds. Residual current relays are available in versions 48x48 mm, 72x72 mm, and 96x96 mm.

The Fail Safe function is available for versions ELR48P, ELR72P and ELR96P: the contacts switch when there is no auxiliary power.

The ELR96PF version is equipped with Fail Safe function, fault memory LED, and a frequency filter, that ensure continuity of service in the presence of harmonics.

ELR96PD has (in addition to these functions) a digital display for an instantaneous view of the residual current Δn .

Operating voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
V	EAN	Type code	Order code		kg	pc.
110 V a.c./d.c. - 230 V a.c.	748229	ELR48P	2CSG252211R1202		0.112	1
24-48 V a.c./d.c.	734826	ELR48V24P	2CSG452211R1202		0.112	1
110 V a.c./d.c. - 230 V a.c.	733928	ELR72	2CSG252120R1202		0.322	1
24-48 V a.c./d.c.	747024	ELR72V24	2CSG452120R1202		0.322	1
110-230-400 V a.c.	734727	ELR72P	2CSG152424R1202		0.322	1
24-48 V a.c./d.c.	733829	ELR72V24P	2CSG452424R1202		0.322	1
110-230-400 V a.c.	734628	ELR96	2CSG152130R1202		0.383	1
24-48 V a.c./d.c.	733720	ELR96V24	2CSG452130R1202		0.383	1
110-230-400 V a.c.	734529	ELR96P	2CSG152434R1202		0.383	1
24-48 V a.c./d.c.	733621	ELR96V24P	2CSG452434R1202		0.383	1
110-230-400 V a.c.	734420	ELR96PF	2CSG152435R1202		0.383	1
110-230-400 V a.c.	733522	ELR96PD	2CSG152436R1202		0.383	1

Toroidal transformers

TR



TR

Toroidal transformers

Dimension Ø	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm	EAN	Type code	Order code		kg	pc.
29 (modular version)	020707	TRM	2CSM029000R1211		0.170	1
35	020301	TR1	2CSG035100R1211		0.212	1
60	020400	TR2	2CSG060100R1211		0.274	1
80	020509	TR3	2CSG080100R1211		0.454	1
110	020608	TR4	2CSG110100R1211		0.530	1
110 (openable version)	743408	TR4/A	2CSG110200R1211		0.600	1
160	743507	TR160	2CSG160100R1211		1.350	1
160 (openable version)	743606	TR160A	2CSG160200R1211		1.600	1
210	024804	TR5	2CSG210100R1211		1.534	1
210 (openable version)	065708	TR5/A	2CSG210200R1211		1.856	1

Where to find more:

Technical details for toroidal transformers: Chapter 2 of Solutions for electrical installation in buildings - technical details

Maybe you are also interested in:

RD2 residual current relays - chapter 2
 RD3 residual current relays - chapter 2
 ELR residual current relays - chapter 2

AFDD

Arc Fault Detection Device

The S-ARC1 is the new 1P+N Arc Fault Detection Device (AFDD) with an integrated Miniature Circuit Breaker (MCB) in only two module width. Besides the overcurrent protection of the MCB, the S-ARC1 provides additional protection against parallel and series arc faults. The series is perfectly integrated with ABB's System pro M compact® range. Combined with a Residual Current Circuit Breaker (RCCB) as upstream device, the S-ARC1 provides the best solution for complete protection of electrical installations in buildings.

2



AFDD

Technical features and overall dimensions

2

Electrical features

Standards	IEC/EN 62606; IEC/EN 60898-1
Number of poles	1P+N
Tripping characteristics	B, C
Rated current I _n	6 ... 20 A
Rated frequency	50/60 Hz
Overvoltage category	III
Pollution degree	2
Energiebegrenzungs-klasse	3
Rated voltage U _e	230-240 V
Insulation voltage U _i	500 V AC
Min. operating voltage	170 V
Threshold for protection against overvoltage	275 V
Rated breaking capacity acc. to IEC 60898-1 I _{cn}	6000 A
Rated residual breaking capacity I _{cn1}	6000 A
Rated impulse withstand voltage (1.2/50) U _{imp}	4 kV (test voltage 6.2 kV at sea level, 5 kV at 2000 m)
Dielectric test voltage at ind. freq. for 1 min.	2 kV (50 / 60 Hz, 1 min.)
Thermomagnetic release – characteristic	B: $3 I_n \leq I \leq 5 I_n$ C: $5 I_n \leq I \leq 10 I_n$
Energy limiting class	3

Mechanical features

Housing	Insulation group II
Toggle	Insulation group IIIA
Contact position indication	Green / red window
LED for troubleshooting	Green / red blinking
Electrical life	10.000 operations
Mechanical life	20.000 operations
Protection degree acc. to EN 60529	housing: IP4X terminals: IP2X
Shock resistance acc. to IEC/EN 60068-2-27	30 g - 2 shocks - 13 ms
Vibration resistance acc. to IEC/EN 60068-2-6	0.35 mm or 5 g - 20 cycles at 5...150...5 Hz without load
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	28 cycles with 55 °C/90-96 % and 25 °C/95-100 % R/H
Reference temperature for setting of thermal element	30 °C
Ambient temperature (with daily average ≤ +35 °C)	-25 ... +55 °C
Storage temperature	-40 ... +70 °C

Installation

Terminal type (top/bottom)	failsafe bi-directional cylinder-lift terminal (shock protected)
Terminal size for cables (top/bottom)	25 / 25 mm ²
Terminal size for busbars (top/bottom)	10 / 10 mm ²
Tightening torque (top/bottom)	2.8 Nm
Stripping length of the cable	12.5 mm
Mounting	on DIN rail EN 60715 (35mm) by means of mounting clip
Mounting position	any
Supply from	top / bottom terminals

Dimensions and weight

Dimensions (H x D x W)	85 x 69 x 35 mm
Weight	180 g

Combination with auxiliary elements

Auxiliary contact	yes
Signal contact/auxiliary switch	yes
Shunt trip	yes
Undervoltage release	yes
Overvoltage release	yes

AFDD

S-ARC1 6000 B and C characteristic



S-ARC1, B and C characteristics

Function: protection of end user single-phase circuits against short-circuit currents, overload, earth arc faults, parallel arc faults and series arc faults.

Application: residential, commercial

Standard: IEC 62606; EN 62606; IEC 60898-1; EN 60898-1

Icn = 6 000 A

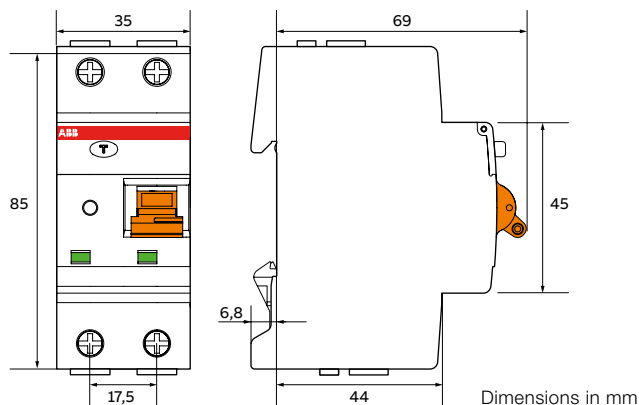
B-Characteristic

No. of poles	Rated	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	current In A		Type code	Order code			
1+N	6	750130	S-ARC1-B6	2CSA255901R9065		0.18	1
	10	178132	S-ARC1-B10	2CSA255901R9105		0.18	1
	13	750031	S-ARC1-B13	2CSA255901R9135		0.18	1
	16	178033	S-ARC1 B16	2CSA255901R9165		0.18	1
	20	749936	S-ARC1-B20	2CSA255901R9205		0.18	1

C-Characteristic

No. of poles	Rated	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	current In A		Type code	Order code			
1+N	6	177937	S-ARC1-C6	2CSA255901R9064		0.18	1
	10	749837	S-ARC1-C10	2CSA255901R9104		0.18	1
	13	500735	S-ARC1-C13	2CSA255901R9134		0.18	1
	16	886136	S-ARC1 C16	2CSA255901R9164		0.18	1
	20	175438	S-ARC1-C20	2CSA255901R9204		0.18	1

Dimensions



Solutions for electrical installation in buildings

Accessories for MCBs and RCDs

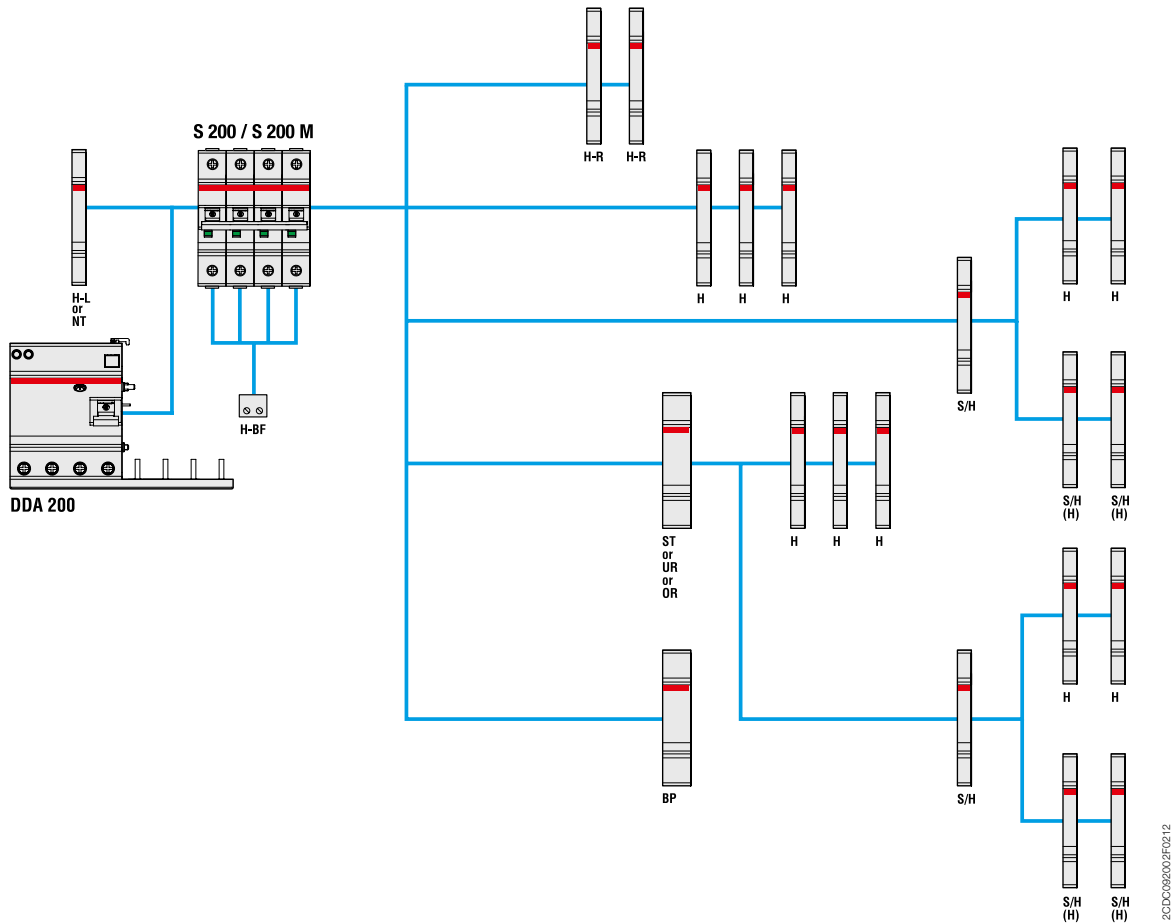
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Auxiliary elements and accessories for MCBs and RCDs

Selection tables

Combination of auxiliary elements with S200, S200M, S200P, DDA200 + S200 or DS200 (for S200 80-100A no combination with DDA)

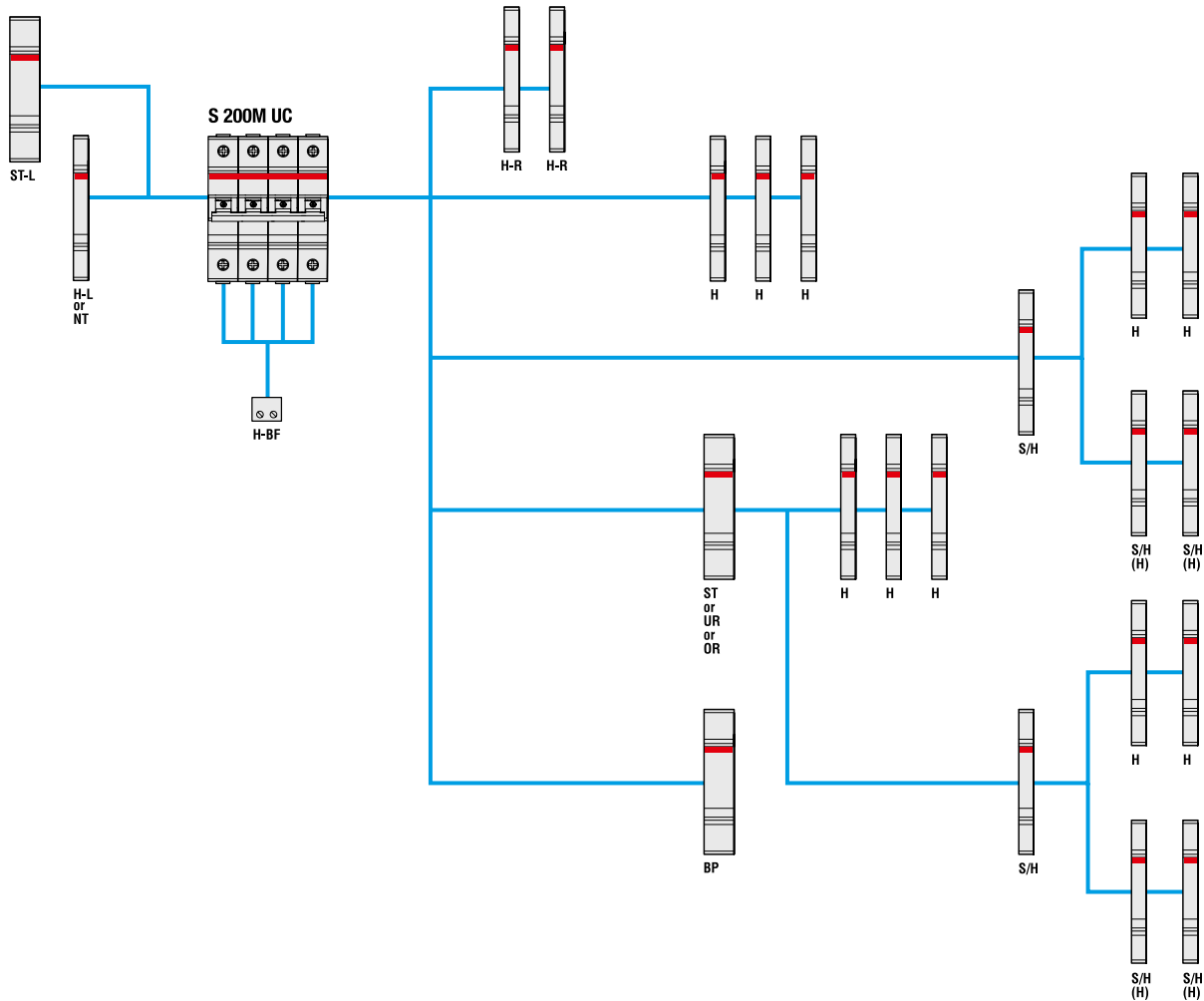


H	Auxiliary contact	S2C-H6R
H-R	Auxiliary contact	S2C-H6-...R
S/H	Signal/Auxiliary contact	S2C-S/H6R
S/H (H)	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R
ST	Shunt trip for S 200 MCB	S2C-A...
UR	Undervoltage release	S2C-UA
OR	Overvoltage release	S2C-OVP
H-L *	Auxiliary contact for S 200 MCBs to be mounted on the left	S2C-H...L
H-BF	Auxiliary contact for MCBs bottom fitting (1 for each pole of MCB)	S2C-H01/S2C-H10
BP	Mechanical tripping device	S2C-BP
NT	Switched neutral	S2C-Nt

In case of using rotary operating mechanism S2C-DH (only right side mountable) the auxiliary devices left side and bottom fitting auxiliary contact could be used.

* H-L and H-BF cannot be coupled with DS200.

Combination of auxiliary elements with S200M, S200MUC

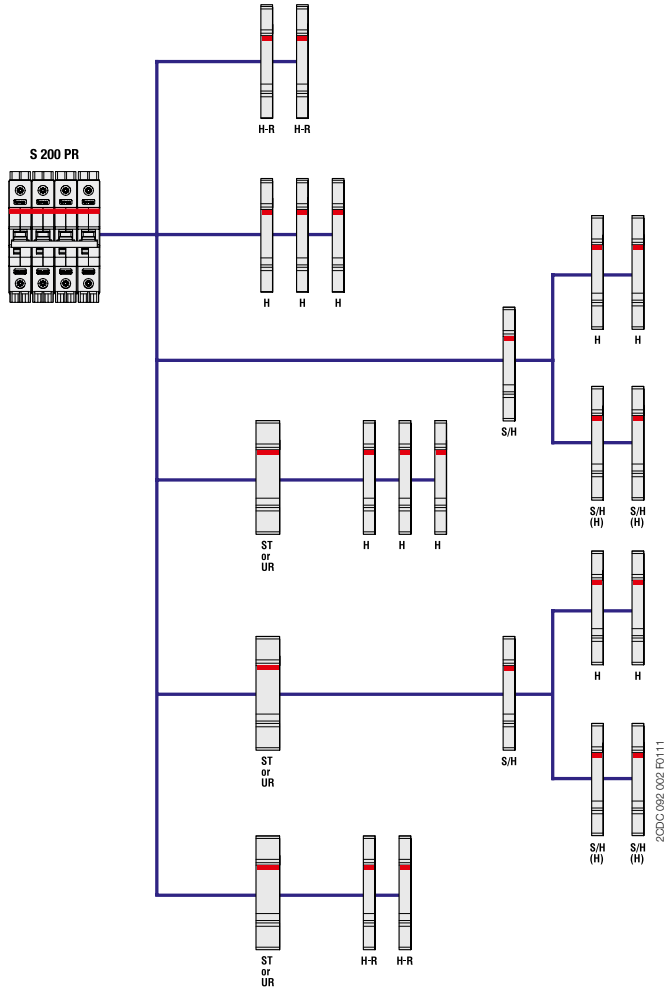


H	Auxiliary contact	S2C-H6R
H-R	Auxiliary contact	S2C-H6-...R
S/H	Signal/Auxiliary contact	S2C-S/H6R
S/H (H)	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R
ST	Shunt trip for S 200 MCB	S2C-A...
ST-L	Shunt trip to be mounted on the left	
UR	Undervoltage release	S2C-UA
OR	Overvoltage release	S2C-OVP
H-L	Auxiliary contact for S 200 MCBs to be mounted on the left	S2C-H...L
H-BF	Auxiliary contact for MCBs bottom fitting (1 for each pole of MCB)	S2C-H01/S2C-H10
BP	Mechanical tripping device	S2C-BP
NT	Switched neutral	S2C-Nt

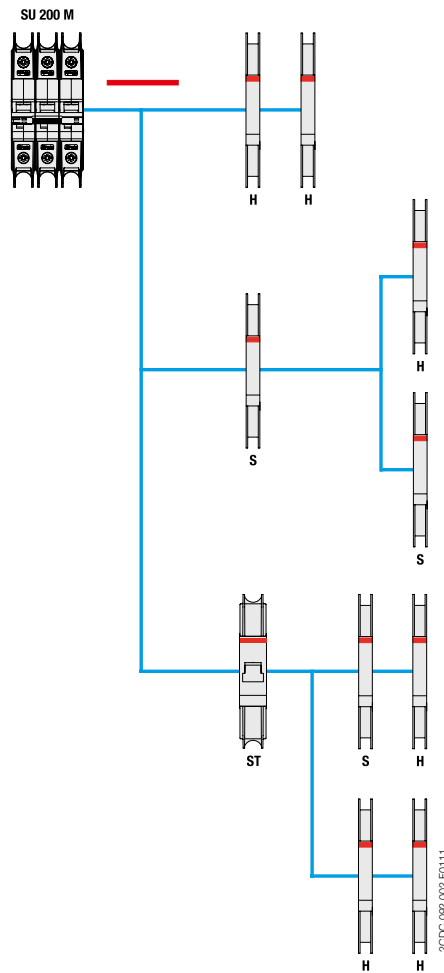
Auxiliary elements and accessories for MCBs and RCDs

Selection tables

Combination of auxiliary elements with S200PR



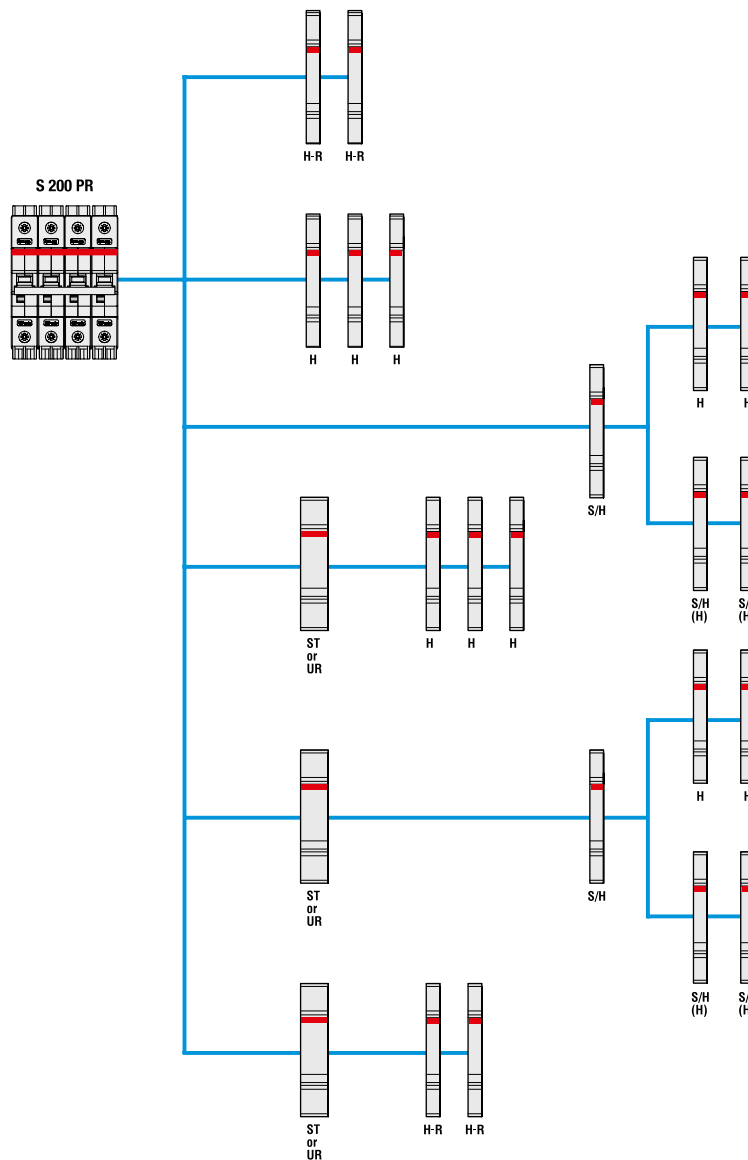
Combination of auxiliary elements with SU200M and S200UDC, SU200PR



H	Auxiliary contact	S2C-H6R
H-R	Auxiliary contact	S2C-H6-...R
S/H	Signal/Auxiliary contact	S2C-S/H6R
S/H (H)	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R
ST	Shunt trip	S2C-A...
UR	Undervoltage release	S2C-UA

H	Auxiliary contact	S2C-H6RU
S	Signal contact	S2C-S6RU
ST	Shunt trip	S2C-A...U

Combination of auxiliary elements with S200P



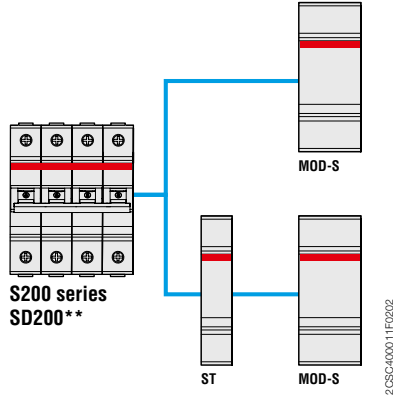
H	Auxiliary contact	S2C-H6R
H-R	Auxiliary contact	S2C-H6-...R
S/H	Signal/Auxiliary contact	S2C-S/H6R
S/H (H)	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R
ST	Shunt trip	S2C-A...
UR	Undervoltage release	S2C-UA

Auxiliary elements and accessories for MCBs and RCDs

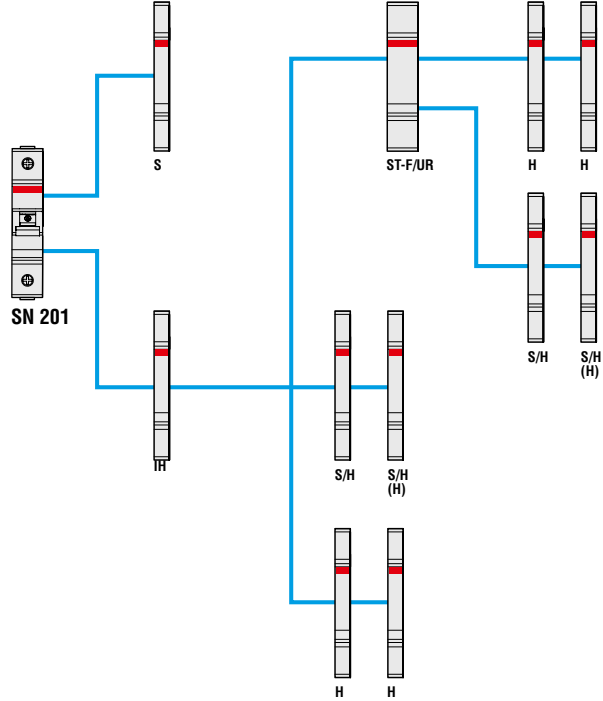
Selection tables

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Combination of S200/SD200 with motor operating device



Combination of auxiliary elements with SN201

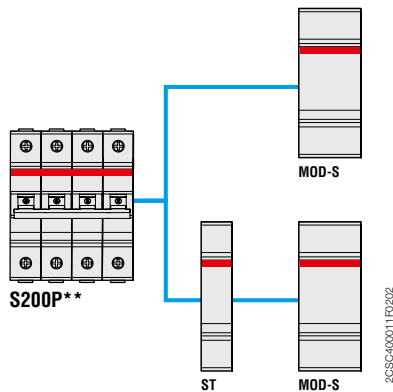


ST	Shunt trip for S 200 MCB	S2C-A...
MOD-S*	Motor operating device	S2C-CM...

* in case of using S 200 coupled with DDA 200, MOD-S doesn't operate in case of earth-leakage fault
 For S200 80-100A no combination with MOD
 ** S200 series MCBs and SD200 switch disconnectors up to 3P or 2P+ST can be coupled with MOD-S

IH	Coupling interface/ auxiliary contact	SN201-IH
S	Signal contact	SN201-S
H	Auxiliary contact	S2C-H6R
S/H	Signal/auxiliary contact	S2C-S/H6R
S/H (H)	Signal/auxiliary contact used as auxiliary contact	S2C-S/H6R
ST-F	Shunt trip of F200 RCD	F2C-A
UR	Undervoltage release	S2C-UA

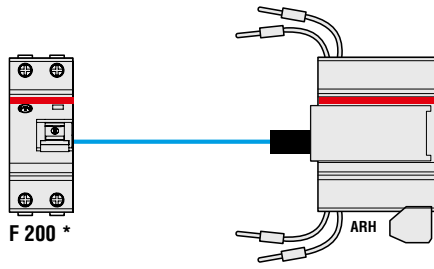
Combination of S200P with motor operating device



ST	Shunt trip for S 200 MCB S	S2C-A...
MOD-S*	Motor operating device	S2C-CM...

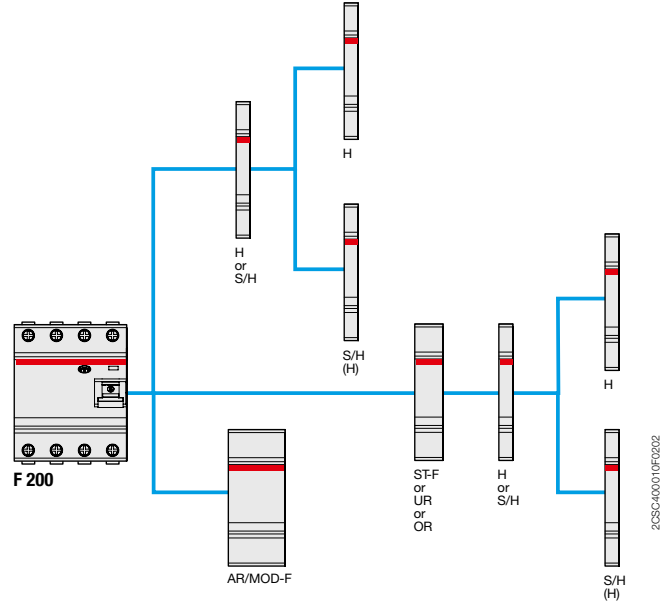
* in case of using S 200 coupled with DDA 200, MOD-S doesn't operate in case of earth-leakage fault
 ** S200P MCBs in all poles variants can be coupled with MOD-S

Combination of home automatic resetting unit with F200



2CSC400011F0202

Combination of auxiliary elements with F200

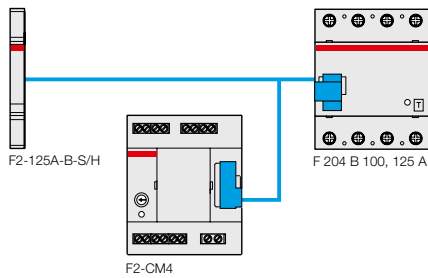


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ARH	Home automatic resetting unit	F2C-ARH
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* F 202 30 mA or 100 mA (depending on ARH model), max 63 A

F200 B high ratings



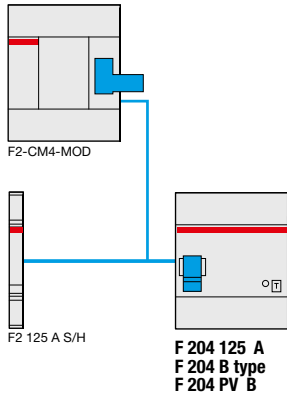
F2-125A-B-S/H	Signal/Auxiliary contact
F2-CM4-MOD	

H	Auxiliary contact	S2C-H6R
S/H	Signal/Auxiliary contact	S2C-S/H6R
S/H (H)	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R
UR	Undervoltage release	S2C-UA
OR	Overvoltage release	S2C-OVP
AR	Auto reclosing unit	F2C-ARI
MOD-F	Motor operating device	F2C-CM
ST-F	Shunt trip for F 200 RCCB	F2C-A

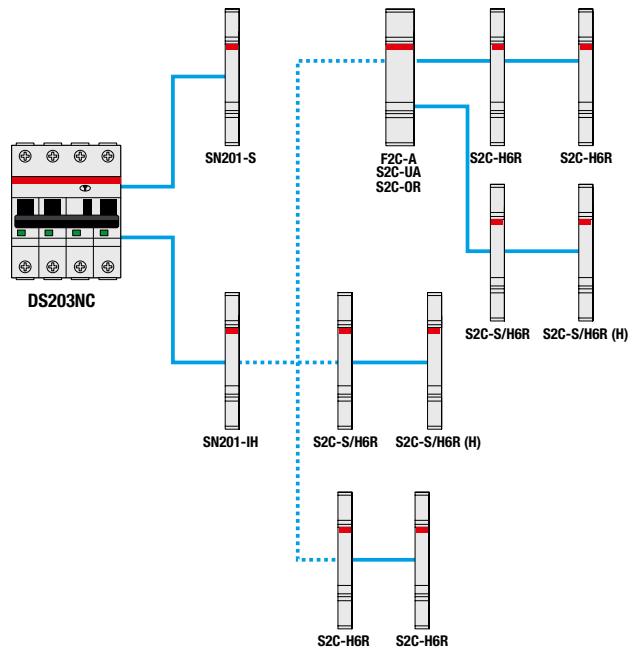
Auxiliary elements and accessories for MCBs and RCDs

Selection tables

Combination of auxiliary elements with F204 125 A, B type, PV B



Combination of auxiliary elements with DS203NC

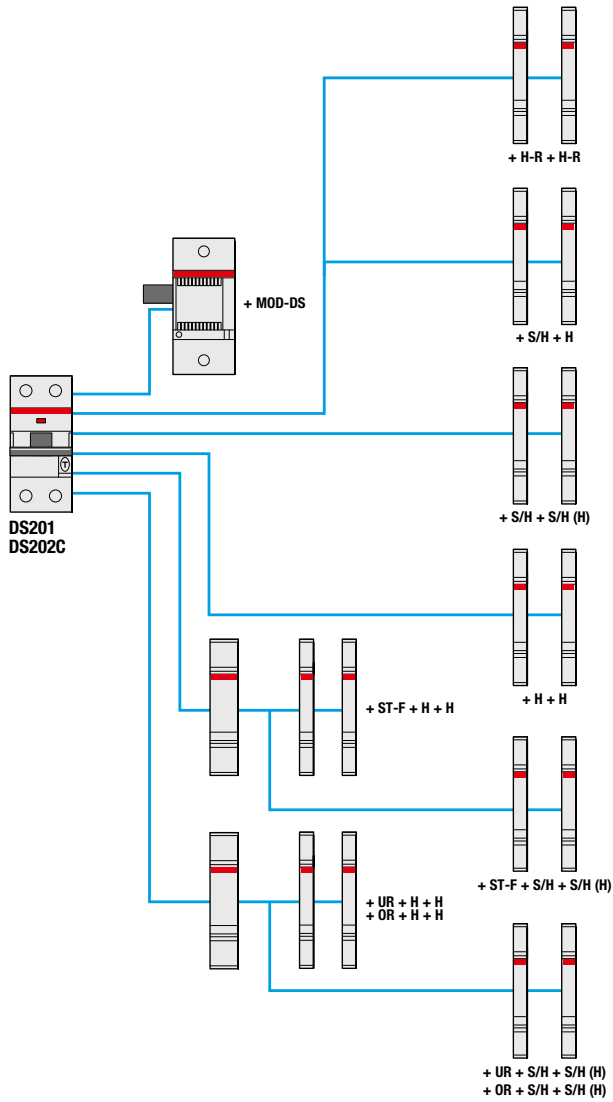


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F2-125A-B-S/H	Signal/Auxiliary contact
F2-CM4-MOD	Motor operating device

SN201-IH	coupling interface / auxiliary contact
SN201-S	signal contact
S2C-H6R	auxiliary contact
S2C-S/H6R	signal/ auxiliary contact
S2C-S/H6R (H)	signal/ auxiliary contact used as auxiliary contact
F2C-A	shunt trip
S2C-UA	undervoltage release
S2C-OR	overvoltage release

Combination of auxiliary elements with DS201, DS202C



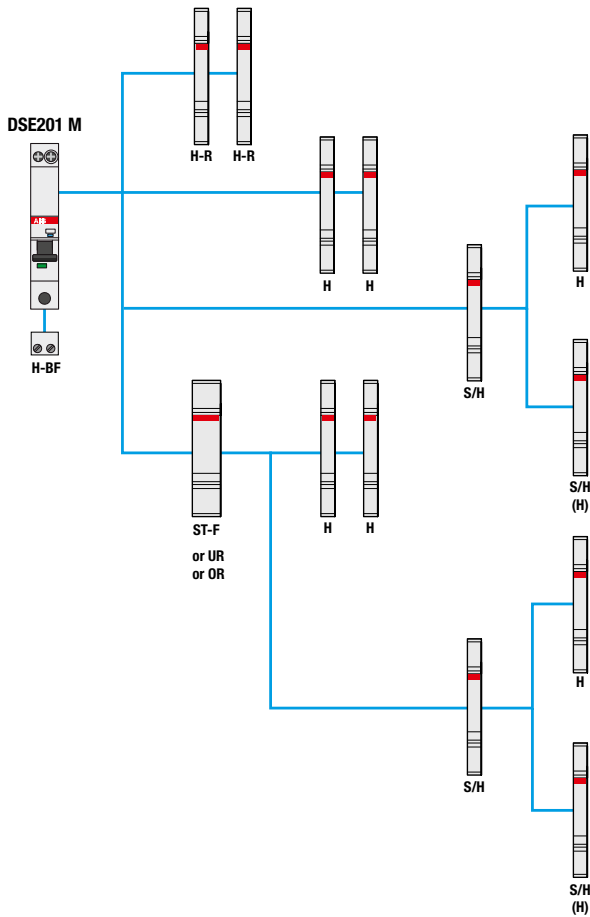
H	Auxiliary contact	S2C-H6R
H-R	Auxiliary contact	S2C-H6R / S2C-H6-xxR
S/H	Signal/Auxiliary contact	S2C-S/H6R
S/H (H)	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R
ST-F	Shunt trip for F 200 RCCB	F2C-A
UR	Undervoltage release	S2C-UA
OR	Overtoltage release	S2C-OVP
MOD-DS	Motor operating device	DS2C-CM

Auxiliary elements and accessories for MCBs and RCDs

Selection tables

Combination of auxiliary elements with DSE201 M

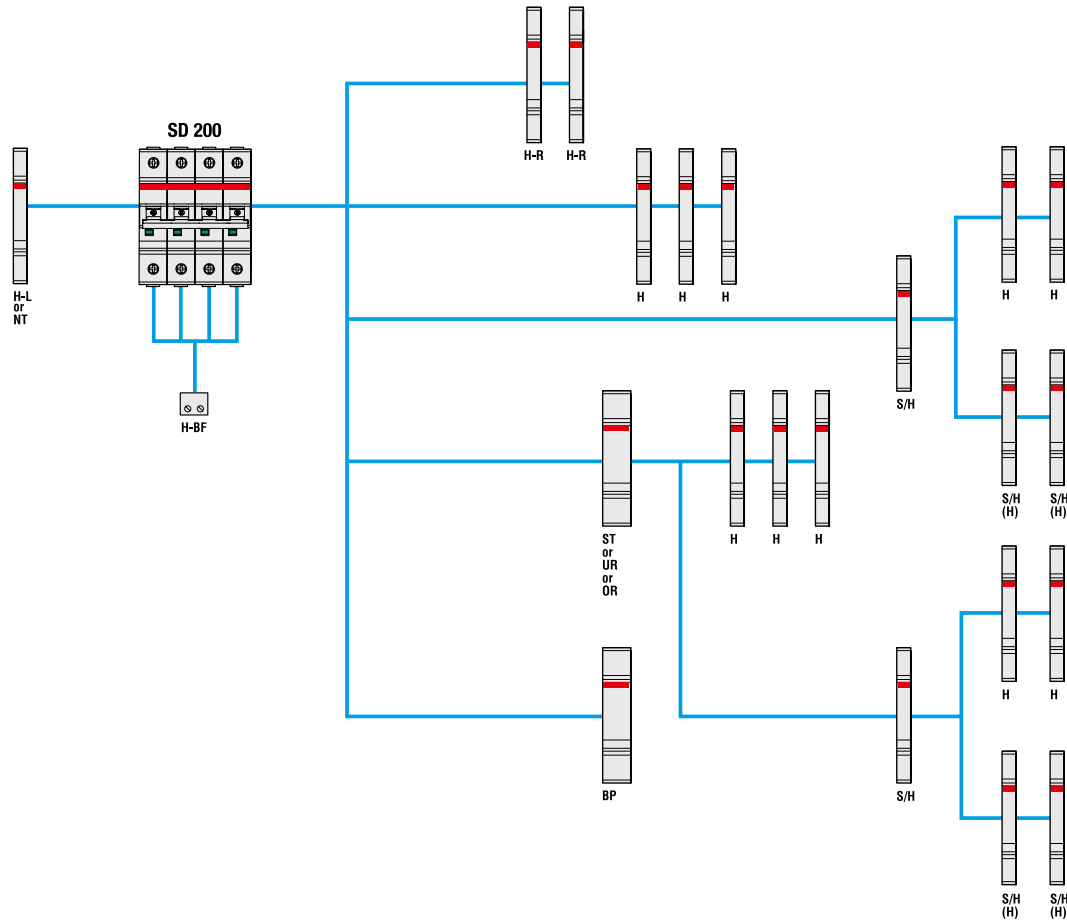
3



H	Auxiliary contact	S2C-H6R
H-R	Auxiliary contact	S2C-H6R / S2C-H6-xxR
S/H	Signal/Auxiliary contact	S2C-S/H6R
S/H (H)	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R
ST-F	Shunt trip for RCD	F2C-A
UR	Undervoltage release	S2C-UA
OR	Overvoltage release	S2C-OVP
H-BF	Auxiliary contact for bottom fitting	S2C-H01 / S2C-H10

Auxiliary elements and accessories for Switch Disconnectors SD 200 Selection tables

Combination of auxiliary elements with SD200



H	Auxiliary contact	S2C-H6R
H-R	Auxiliary contact	S2C-H6-...R
S/H	Signal/Auxiliary contact	S2C-S/H6R
S/H (H)	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R
NT	Switched neutral	S2C-Nt
MOD-S	Motor operating device	S2C-CM
OR	Overvoltage release	S2C-OVP
BP	Mechanical tripping device	S2C-BP
ST	Shunt trip	S2C-A...
UR	Undervoltage release	S2C-UA

Auxiliary elements for MCBs S 200, SN 201, RCDs F 200, DS 200, DS201-DS202C, DS203NC, DSE201 M and Switch disconnectors SD 200 series



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Auxiliary elements

Auxiliary contact and signal/auxiliary contact		
		S2C-S/H6R, S2C-H6R, S2C-H11L, S2C-H20L and S2C-H02L
Utilization category		AC14 1A/400V, 2A/230V - DC12 1A/220V, 1,5A/110V - DC13 2A/60V, 4A/24V
Conventional free air thermal current	A	10
Min. operational current/voltage*		10 mA at 12 V; 5 mA at 24 V
Rated conditional short-circuit current	V	230 V AC 1,000 A with S201 K4
Overvoltage category		III
Rated impuls withstand voltage (1.2/50µs)	kV	4
Cross-section of conductors	mm ²	0.75...2.5 (up to 2 x 1.5 mm ² for S2C-H11L, S2C-H20L and S2C-H02L)
Tightening torque	Nm	1.2 (max. 0.8 for S2C-H11L, S2C-H20L and S2C-H02L)
Contact stability in vibration test according to IEC/EN 60 068-2-6		5g, 20 sweep cycles 5...150...5 Hz at 24 V AC/DC, 5 mA automatic reclosing < 10 ms
Mechanical service life		10000 operations
Dimensions (H x D x W)	mm	85 x 69 x 8.8

Auxiliary contact and signal/auxiliary contact		
		S2C-H6-11R, S2C-H6-20R, S2C-H6-02R
Utilization category		AC14: 1A/400V, 2A/230V DC12/DC13: 1A/50V, 2A/30V
Conventional free air thermal current	A	10
Min. rated operational current/voltage*		10 mA at 12 V; 5 mA at 24 V
Rated conditional short-circuit current	V	230 V AC 1,000 A with S201 K4
Overvoltage category		III
Rated impuls withstand voltage (1.2/50µs)	kV	4
Cross-section of conductors	mm ²	0.75...2.5
Tightening torque	Nm	1.2
Contact stability in vibration test according to IEC/EN 60068-2-6		5g. 20 sweep cycles 5...150...5 Hz at 24 V AC/DC. 5mA automatic reclosing < 10 ms
Mechanical service life		10000 operations
Dimensions (H x D x W)	mm	85 x 69 x 8.8

* ensures safe contacting without current interruption by pollution layer



S2C-S/H6R

Signal/auxiliary contacts

Signal contacts indicate if a device tripped due to a failure (overcurrent/short-circuit for MCBs and RCBOs; earth fault for RCCBs and RCBOs).

Auxiliary contacts indicate the position of the contacts, independent if a failure occurred or the device was operated manually.

S2C-S/H6R: choice through a selector between signal and auxiliary contact.

S2C-H6R and S2C-HxxR: Auxiliary contacts with contact configuration according the following table.

All right-side mounted contacts are suitable for MCBs, RCDs and switch disconnectors SD200 according the “Selection tables” which are displayed in the beginning of chapter 4.

S2C-HxxL: Auxiliary contacts with contact configuration according the following table. These contacts are left-side mounted and fit to S200 MCBs and switch disconnectors SD200 according the “Selection tables” which are displayed in the beginning of chapter 4. Especially when using a motor operating device this is a possibility to add a contact as the right side mounted ones do not fit within this combination.

S2C-Hxx: Unique bottom-fitting contact for the S200 compact range, DSE201 M and SD200 switch disconnectors. Simple and space-saving solution. Also intended for retrofitting.



S2C-H6...

Description	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Signal contact/ auxiliary switch 1CO	563819	S2C-S/H6R	2CDS200922R0001		0.04	1
Auxiliary contact 1CO	563826	S2C-H6R	2CDS200912R0001		0.04	1
Auxiliary contact 1NO/1NC	697941	S2C-H6-11R	2CDS200946R0001		0.04	1
Auxiliary contact 2NO	697958	S2C-H6-20R	2CDS200946R0002		0.04	1
Auxiliary contact 2NC	697965	S2C-H6-02R	2CDS200946R0003		0.04	1

Auxiliary contacts mounting on the left side

Description	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Auxiliary contact 1 NO/1NC	648820	S2C-H11L	2CDS200936R0001		0.04	1
Auxiliary contact 2 NO	648837	S2C-H20L	2CDS200936R0002		0.04	1
Auxiliary contact 2 NC	648844	S2C-H02L	2CDS200936R0003		0.04	1

Auxiliary elements for MCBs S 200, SN 201, RCDs F 200, DS 200, DS201-DS202C, DS203NC, DSE201 M and Switch disconnectors SD 200 series



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S2C-H

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Bottom-fitting auxiliary contact

			S2C-H10 and S2C-H01
Conventional free air thermal current	A	7.5	
Utilization category		AC14 2A/230V - DC 12 identical DC13 1A /50V, 2A/30V	
Min. operational current/voltage*	V	10 mA at 12 V AC/DC	
Rated conditional short-circuit current		230 VAC 1000 A, fault protection with S 201-K2 or Z2	
Tightening torque	Nm	0.5	
Cross-section of conductors	mm ²	0.75 to 2.5	
Mechanical service life		10000 operations	
Dimensions (HxDxW)		19 x 17 x 17.5	

* ensures safe contacting without current interruption by pollution layer

Bottom-fitting auxiliary contacts for S 200, S 200 M, S 200 P, S 200 S, SD 200

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	4016779	Type code	Order code			
	EAN				kg	pc.
1 NC	64551 5	S 2C-H01	2CDS 200 970 R0001		0.01	1
1 NO	64552 2	S 2C-H10	2CDS 200 970 R0002		0.01	1

packing unit 15 parts

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	4016779	Type code	Order code			
	EAN				kg	pc.
1 NC	64677 2	S 2C-H01 15x	2CDS 200 970 R0011		0.01	15
1 NO	64681 9	S 2C-H10 15x	2CDS 200 970 R0012		0.01	15

Auxiliary contact bridge for bottom-fitting auxiliary contacts

Wire jumper for integrated auxiliary contact S2C-H01/S2C-H10 for series connections (HKB) or parallel connections (HKB1).

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	8012542	Type code	Order code			
	EAN				kg	pc.
1/2 mod.	523134	HKB	GH V036 0504 R0100		0.001	1000
1 mod.	524209	HKB 1	GH V036 0504 R0101		0.001	1000

Signal and auxiliary contacts

			SN201-S	SN201-IH
Terminals	mm ²	2x1,5		
Tightening torque	N	1.2		
Dimensions	mm	H: 85 x D: 68 x W: 8.9	H: 85 x D: 68,7 x W: 8.9	
Rated voltage	V	230		
Rated current	A	2		



SN201-S

2CSS400882F0001



SN201-IH

2CSS400881F0001

Utilization category / contact capacity

SN201-S, SN201-IH				
AC14	Ue	V	400	230
	Ie	A	1	2
DC12	Ue	V	220	110
	Ie	A	1	1,5
DC13	Ue	V	60	24
	Ie	A	2	4

Signal contact for SN201 MCBs and DS203NC RCBOs

Function: indication of the device contact positions only after the automatic release of the MCBs/RCBOs due to overcurrent.

Description	Bbn	Order details		Price	Weight	Pack
	8012542	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
Signal contact 1CO	104957	SN201-S	2CSS200924R0001		0.040	1

Auxiliary contact / interface module for SN201 MCBs and DS203NC RCBOs

Function: indication of the device contact positions. The auxiliary contact can be used as an interface module between SN201, DS203NC and other compact auxiliary elements.

Description	Bbn	Order details		Price	Weight	Pack
	8012542	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
Interface module/Aux. Contact 1CO	104858	SN201-IH	2CSS200923R0001		0.050	1

Signal and auxiliary contacts for F 200 125A and F 200 B

				F2 125A-S/H	
Rated current	AC	A	6		
	DC	A	1		
Min. rated voltage Ub min	AC	V	230		
	DC	V	110		
Connection cross section		mm ²	1...1.5		
Tightening torque		Nm	0.8		
Dimensions (H x D x W)		mm	85 x 69 x 8.8		

Auxiliary/Signal contact for F 200 125A and F 200 B

Function: choice through a selector between indication of the position of the device's contacts and signalling of the earth fault. Suitable for RCCBs F 200 125A and F 200 B series

Description	Bbn	Order details		Price	Weight	Pack
	8012542	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
Auxiliary/Signal contact 1CO+1NC	600527	F2-125A-B-S/H	2CSF200922R0001		0.04	1



F2-125A-B-S/H

Clamping cover for F200 125A-F200 B type

Description	Bbn	Order details		Price	Weight	Pack
	4016779	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
	999638	CPV B	2CSF200988R0001			1

Auxiliary elements for MCBs S 200, SN 201, RCDs F 200, DS 200, DS201-DS202C, DS203NC, DSE201 M and Switch disconnectors SD 200 series



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S2C-A

Shunt trip for S 200 MCBs								
S2C-A1								
Rated voltage	AC	V	12...60					
	DC	V	12...60					
Max release duration		ms	<10					
Min. release voltage	AC	V	7					
	DC	V	10					
Power consumption	Ub	V	12	12	24	24	60	60
		DC	AC	DC	AC	DC	AC	
	Ib max	A	2.2	2.5	4.5	5	14	8.8
Coil resistance		Ω	3.7					
Terminals	Fail-safe bi-directional cylinder-lift-terminal							
Tightening torque		Nm	2.8					
Dimensions (H x D x W)		mm	85 x 69 x 17.5					
S2C-A2								
Rated voltage	AC	V	110...415					
	DC	V	110...250					
Max release duration		ms	<10					
Min. release voltage	AC	V	55					
	DC	V	80					
Power consumption	Ub	V	110	110	220	230	415	
		DC	AC	DC	AC	AC		
	Ib max	A	0.4	0.5	1.1	1.0	2.7	
Coil resistance		Ω	225					
Terminals	Fail-safe bi-directional cylinder-lift-terminal							
Tightening torque		Nm	2.8					
Dimensions (H x D x W)		mm	85 x 69 x 17.5					

Shunt trips

Function: remote opening of the device when a voltage is applied. Suitable for MCBs S 200 series, RCBOs DS 200 series, SD 200 switch disconnectors series.

Shunt trips use a coil like MCBs for tripping. To trip a shunt it is necessary to choose the right voltage and make sure the corresponding Ibmax (as mentioned in the table above) is provided by the power supply used. If the power supply can provide higher currents the shunt trip will reduce the current to Ibmax due to its internal resistance.

As soon as the shunt tripped, the contact inside is open – the electrical circuit is disconnected even if the shunt trip is still powered on. The free-tripping mechanism of the shunt trip allows a restart of the MCB only after the shunt trip gets no external release signal anymore.

Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
AC/DC 12...60 V	570992	S2C-A1	2CDS200909R0001		0.15	1
AC 110...415 V/DC110...250 V	571005	S2C-A2	2CDS200909R0002		0.15	1



Shunt trip for F 200 RCCBs

				F2C-A1				
Rated voltage	AC	V	12...60					
	DC	V	12...60					
Max release duration		ms	10					
Min. release voltage	AC	V	6					
	DC	V	4.5					
Consumption on release	Ub	V	12 DC	12 AC	24 DC	60 DC	60 AC	
	Ib max	A	0.88	0.65	1.58	5.8	5	
Coil resistance		Ω	5.5					
Terminals		mm ²	2x1.5					
Tightening torque		Nm	0.2					
Dimensions (H x D x W)		mm	85 x 69 x 17.5					
				F2C-A2				
Rated voltage	AC	V	110...415					
	DC	V	110...250					
Max release duration		ms	10					
Min. release voltage	AC	V	75					
	DC	V	55					
Consumption on release	Ub	V	110 DC	110 AC	250 DC	415 AC		
	Ib max	A	0.05	0.03	0.1	0.16		
Coil resistance		Ω	1355					
Terminals		mm ²	2x1.5					
Tightening torque		Nm	0.2					
Dimensions (H x D x W)		mm	85 x 69 x 17.5					

Function: remote opening of the device when a voltage is applied. Suitable for RCCBs F 200 series and RCBOs DS201 - DS202C, DSE201 M.

It can be used with MCBs SN201 and RCBOs DS203NC series by means of SN201-IH interface module.

Rated voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
AC/DC 12...60V	974901	F2C-A1	2CSS200933R0011		0.15	1
AC 110...415V / DC 110...250V	975007	F2C-A2	2CSS200933R0012		0.15	1

Auxiliary elements for MCBs S 200, SN 201, RCDs F 200, DS 200, DS201-DS202C, DS203NC, DSE201 M and Switch disconnectors SD 200 series



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S2C-UA

Undervoltage release			S2C-UA 12 DC	S2C-UA 24 AC	S2C-UA 24 DC	S2C-UA 48 AC	S2C-UA 48 DC
Standards			IEC/EN 60947-1				
Rated voltage	AC	V		24		48	
	DC	V	12		24		48
Frequency		Hz	50...60				
Release trip		V	0.35 Un ≥ V ≥ 0.7 Un				
Terminals		mm ²	2x1.5				
Consumption		VA	2.2	3.6	2	3.6	2.1
Resistance to corrosion		°C/ RH	constant atmosphere: 23/83 - 40/93 - 55/20; variable atmosphere: 25/95 - 40/93				
Protection degree			IPXXB/IP2X				
Tightening torque		Nm	0.4				
Dimensions (H x D x W)		mm	85 x 69 x 17.5				
			S2C-UA 110 AC	S2C-UA 110 DC	S2C-UA 230 AC	S2C-UA 230 DC	S2C-UA 400 AC
Standards			IEC/EN 60947-1				
Rated voltage	AC	V	110		230		400
	DC	V		110		230	
Frequency		Hz	50...60				
Release trip		V	0.35 Un M V M 0.7 Un				
Terminals		mm ²	2x1.5				
Consumption		VA	3.5	2.2	3.7	2.3	2.4
Resistance to corrosion		°C/ RH	constant atmosphere: 23/83 - 40/93 - 55/20; variable atmosphere: 25/95 - 40/93				
Protection degree			IPXXB/IP2X				
Tightening torque		Nm	0.4				
Dimensions (H x D x W)		mm	85 x 69 x 17.5				

Undervoltage releases

Function: protection of the load in the event of a voltage drop (between 70% and 35% of its rated value); positive safety (device's tripping when the voltage is disconnected) emergency stop by means of a button. Suitable for MCBs S 200 series, RCCBs F200 series and RCBOs DS201, DS202C, DSE201 M, DS 200 series, SD 200 switch disconnectors series. It can be used with MCBs SN201 and RCBOs DS203NC series by means of SN201-IH interface module.

Rated voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
12VDC	839705	S2C-UA 12 DC	2CSS200911R0001		0.09	1
24VAC	839804	S2C-UA 24 AC	2CSS200911R0002		0.09	1
24VDC	896401	S2C-UA 24 DC	2CSS200911R0007		0.09	1
48VAC	839903	S2C-UA 48 AC	2CSS200911R0003		0.09	1
48VDC	896500	S2C-UA 48 DC	2CSS200911R0008		0.09	1
110VAC	840008	S2C-UA 110 AC	2CSS200911R0004		0.09	1
110VDC	896609	S2C-UA 110 DC	2CSS200911R0009		0.09	1
230VAC	840107	S2C-UA 230 AC	2CSS200911R0005		0.09	1
230VDC	896708	S2C-UA 230 DC	2CSS200911R0010		0.09	1
400VAC	840206	S2C-UA 400 AC	2CSS200911R0006		0.09	1



2CSS400677R0001

S2C-OVP

Overvoltage release			
		S2C - OVP2	S2C - OVP1
Rated voltage	VAC	230	
Rated frequency	Hz	50	
Max non-tripping voltage AC	V	253	
Max tripping voltage AC	V	290	275
Tripping time	@ 290V AC	s	t<1
	@ 380V AC	s	t<0.1
Peak current	@ 315V AC	A	1
	@ 440V AC	A	1.8
Max duration of impulse command	ms	7	
Operating temperature	°C	-5....+40	

3

Overvoltage releases

Function: monitoring voltage between the neutral and phase; when an overvoltage reaches the threshold value, the OVP device causes the tripping of the associated MCB or RCCB.

Suitable for MCBs of the S200 series up to 63 A, and RCCBs of the F200 series up to 100 A and RCBOs DS201 - DS202C, DSE201 M series. Suitable for SD 200 switch disconnectors series. It can be used with RCBOs SN201 series by means of SN201-IH interface module.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	8012542	Type code	Order code			
	EAN				kg	pc.
Overvoltage release (max tripping voltage AC: 275V)	748137	S2C-OVP1	2CSS200910R0005		0.100	1/5
Overvoltage release (max tripping voltage AC: 290V)	952039	S2C-OVP2	2CSS200993R0005		0.100	1/5



2CSS400655F0201

S2C-Nt

Hand operated neutral left side mounted			
		S2C-Nt	
Rated current	A	max. 40	
Terminal	mm ²	10; cage terminal	
Tightening torque	Nm	1.2	
Dimensions (H x D x W)	mm	85 x 69 x 8.8	

Hand operated neutral

The hand operated neutral has to be mounted to the left side of the MCB and be snapped on the DIN rail. It is used for measuring duties where the neutral conductor must be in the open position. Due to the special design of the handle - when switching ON the MCB - the neutral will make before the MCB is closed. Suitable for SD 200 switch disconnectors series.

The S2C - Nt is not to switch with a tool (screw driver).

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	4016779	Type code	Order code			
	EAN				kg	pc.
Max 40A	647625	S2C-Nt	2CDS200918R0001		0.06	1

Auxiliary elements for MCBs S 200, SN 201, RCDs F 200, DS 200, DS201-DS202C, DS203NC, DSE201 M and Switch disconnectors SD 200 series



S 2C-S6R U



S 2C-H6R U

Auxiliary contact and signal contact		
S2C-H6R U, S2C-S6RU		
Rating according UL 489 / CSA22-2 No.5		1A / 480 VAC 2A / 277 VAC 1.5 A / 125 VDC 2A / 60 VDC 4 A / 24 VDC
Conventional free air thermal current	A	10
Min. operational current/voltage*		10 mA at 12 V; 5 mA at 24 V
Rated conditional short-circuit current	V	230 V AC, 1,000 A with S201 K4
Overvoltage category		III
Rated impuls withstand voltage (1.2/50µs)	kV	4
Cross section of conductors	mm ²	0.75...2.5
Tightening torque	Nm	1.2
Contact stability in vibration test according to IEC/EN60068-2-6		5g, 20 sweep cycles 5...150...5 Hz according to DIN IEC 68-2-6 at 24 V AC/DC, 5 mA automatic reclosing < 10 ms
Mechanical service life		10000 operations
Dimensions (H x D x W)	mm	100 x 69 x 8.8

* ensures safe contacting without current interruption by pollution layer.

Accessories for S 200 U/S 200 UP/S 200 UDC

Auxiliary contact (switch)						
Description	Bbn	Order details		Price	Weight	Pack
	4016779	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
only for range U/UP/UDC	61561 7	S 2C-H6R U	2CDS 200 914 R0001		0.035	1

Signal contact (bell alarm)						
Description	Bbn	Order details		Price	Weight	Pack
	4016779	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
only for range U/UP/UDC	64677 2	S 2C-S6R U	2CDS 200 924 R0001		0.035	1



S 2C-A1 U

2CSDA00013F0201

Shunt trip

				S2C-A1 U				
Rated voltage	AC	V	12...60					
	DC	V	12...60					
Max release duration		ms	<10					
Min. release voltage	AC	V	7					
	DC	V	10					
Power consumption	Ub	V	12	12	24	24	60	60
		DC	AC	DC	AC	DC	AC	
	lb max	A	2.2	2.5	4.5	5	14	8.8
Coil resistance		Ω	3.7					
Terminals	Fale-safe bi-directional cylinder-lift-terminal							
Tightening torque		Nm	2.8					
Dimensions (H x D x W)		mm	100 x 69 x 17.5					
				S2C-A2 U				
Rated voltage	AC	V	110..415					
	DC	V	110...250					
Max release duration		ms	<10					
Min. release voltage	AC	V	55					
	DC	V	80					
Power consumption	Ub	V	110	110	220	230	415	
		DC	AC	DC	AC	AC		
	lb max	A	0.4	0.5	1.1	1.0	2.7	
Coil resistance		Ω	225					
Terminals	Fale-safe bi-directional cylinder-lift-terminal							
Tightening torque		Nm	2.8					
Dimensions (H x D x W)		mm	100 x 69 x 17.5					

Shunt trip only for range U/UP/UDC

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	4016779	Type code	Order code			
	EAN				kg	pc.
12 - 60 V AC/DC	64472 3	S 2C-A1 U	2CDS 200 908 R0001		0.15	1
110-415 V AC,110-250V DC	64473 0	S 2C-A2 U	2CDS 200 908 R0002		0.15	1

3

Accessories for MCBs, RCDs and Switch Disconnectors



2CDC021024S0011

S 2C-TC20 U

IP20 Terminal cover						
Description	Bbn	Order details		Price	Weight	Pack
	4016779	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
only for range U/UP/UDC	87756 5	S 2C-TC20 U	2CDS 200 917 R0001		0.0002	20

Mechanical tripping device

Function: it causes the automatic tripping of the circuit-breakers which it is associated to, when the panel or the door of the electrical switchboard are opened or removed.

Suitable for MCBs S 200 series (on both sides of the devices) and for DS 200 (only on the right side, because on the left side there's RCD-block DDA 200). Suitable for SD 200 switch disconnectors series.



2CSC400579F0201

S 2C-BP

Rated voltage	Bbn	Order details		Price	Weight	Pack
	8012542	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
Mechanical tripping device	941309	S2C-BP	2CSS200998R0001		0.048	1

Plug-in base

Function: it is possible to transform a standard circuit-breaker of the S 200 and F 200 range in a plug-in device which can be pulled out of the circuit where it is installed in one operation.

Suitable for MCBs S 200 series and for RCCBs F 200 series up to 63 A and RCBOs DS201 and DS202C.



2CSC400588F0201

S 2C-EST

Rated voltage	Bbn	Order details		Price	Weight	Pack
	8012542	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
Plug-in base	940708	S2C-EST	2CSS200999R0001		0.115	1

Motor operating and autoreclosing devices for MCBs, RCDs and Switch Disconnectors



S2C-CM

2CHC00248F0201

Motor operating devices

			S2C-CM	F2C-CM
Supply		V	12 ... 30 V a.c. +10% - 15% (50-60Hz); 12 ... 48 V d.c. +10% - 15%	
Power consumption during the operation	12 V a.c.	VA	< 15	
	24 V a.c.	VA	< 22	
	30 V a.c.	VA	< 25	
	12 ... 48 Vd.c.	VA	< 20	
Power consumption at rest		VA	< 1.5	
Make-time at ambient temperature		sec	< 1	
Opening time at ambient temperature		sec	< 0.5	
Number of operations			< 20.000	
Operating temperature		°C	- 25 ... + 55	
Cables length of control circuit		m	< 1500	
Cables cross-section		mm ²	< 2.5	
Signal contact (terminals 3 - 4 - 5) Current carrying capacity			1NA + 1NC (change-over contact) 5 A (250 V AC) (inductive-ohmic load)	
Auxiliary contact (terminals 6 - 7 - 8) Current carrying capacity			1NA + 1NC (change-over contact) 3 A (250 V AC) (inductive-ohmic load)	
Remote control*			By means of dry contacts	
Remote control terminals			Terminal 9 = make contact; Terminal 10 = opening contact Terminal 11 = common reference for control contacts, +5V d.c. (supplied by the motor operating device)	

* Note: In case of the device opening due to a fault, please wait 8 seconds before attempting to reclose the motor operator.

Motor operating and autoreclosing devices for MCBs, RCDs and Switch Disconnectors

Motor operating devices

		DS2C-CM	
Supply	V	12 ... 30 V a.c. +10% - 15% (50-60Hz); 12 ... 48 V d.c. +10% - 15%	
Insulation voltage	V	2500 for 1 minute	
Power consumption during the operation	12 V a.c.	VA	< 15
	24 V a.c.	VA	< 22
	30 V a.c.	VA	< 25
	12 ... 48 V d.c.	VA	< 20
Power consumption at rest	VA	< 1.5	
Remote control *		by means of dry contacts	
Make-time at ambient temperature	sec	< 1	
Opening time at ambient temperature	sec	< 0.5	
Time before attempting to reclose the motor operator	sec	8	
Number of operations		< 20.000	
Operating temperature	°C	- 25 ... + 55	
Storage temperature	°C	- 40 ... + 70	
Mounting		on DIN rail EN 60715 by means of fast clip device	
Protection degree (EN 60529)		terminals: IP2X	
		enclosure: IP4X	
Cables length of control circuit	m	< 1500	
Cables cross-section	mm ²	< 2.5	
Signal contact (terminals 3 – 4 – 5)		1NO + 1NC (change-over contact)	
Current carrying capacity		5 A (250 V AC) (resistive load)	
Auxiliary contact (terminals 6 – 7 – 8)		1NO + 1NC (change-over contact)	
Current carrying capacity		3 A (250 V AC) (resistive load)	
Remote control terminals		Terminal 9 = make contact; Terminal 10 = opening contact Terminal 11 = common reference for control contacts, +5 V d.c. (supplied by the motor operating device)	

* Note: In case of the device opening due to a fault, please wait 8 seconds before attempting to reclose the motor operator.

Motor operating devices

Function: S2C-CM, F2C-CM and DS2C-CM allow the remote control (opening or closing) of the coupled device. Suitable for S200 series MCBs and SD200 switch disconnectors, F 200 RCCBs and RCBOs DS201 and DS202C.

Description	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Motor operating device for 1P S200 series MCBs and SD200 switch disconnectors	026259	S2C-CM1	2CSS201997R0013		0,166	1
Motor operating device for 2P and 3P S200 series MCBs and SD200 switch disconnectors	026358	S2C-CM2/3	2CSS203997R0013		0,166	1
Motor operating device for 4P S200P MCBs	026457	S2C-CM4	2CSS204997R0013		0,166	1
Motor operating device for 2P and 4P F200 RCCBs	026556	F2C-CM	2CSF200997R0013		0,166	1
Motor operating device for 1P+N and 2P DS201, DS202C RCBOs	135951	DS2C-CM	2CSR201997R0013		0,166	1
Motor operating device for B type and PV B F200 RCCB up to 63A	600428	F2 63A 24V CM4	2CSF200997R6314		0,36	1
Motor operating device for B type and PV B F200 RCCB up to 63A	601029	F2 63A 230V CM4	2CSF200997R6305		0,36	1
Motor operating device for B type and PV B F200 RCCB up to 63A, autoreclosing	601128	F2 63A 24V CM4.1	2CSF200996R6314		0,36	1
Motor operating device for F200 125A RCCB	020721	F2-125A-24V-CM4	2CSF200997R1214		0,36	1
Motor operating device for F200 125A RCCB	600626	F2-125A-230V-CM4	2CSF200997R1205		0,36	1

Where to find more:

Wiring Diagrams for Motor Operating and Autoreclosing units - chapter 15



F2C-ARI

2CSF400247 F0201

Auto-reclosing unit

		F2C-ARI		F2C-ARI30	
Supply	V	12 ... 30 V a.c. +10% - 15% (50-60Hz); 12 ... 48 V d.c. +10% - 15%			
Number of automatic reset attempts		3			
Time of reset of the auto-reset meter	sec	12		45	
Power consumption during the operation	12 V a.c.	VA	< 15		
	24 V a.c.	VA	< 22		
	30 V a.c.	VA	< 25		
	12...48 V d.c.	VA	< 20		
Power consumption at rest	VA	< 1.5			
Waiting time between auto-reset attempts	sec	3		30	
Closing time at ambient temperature	sec	< 1			
Opening time at ambient temperature	sec	< 0.5			
Number of operations		< 20.000			
Operating temperature	°C	- 25 ... + 55			
Cables length of control circuit	m	< 1500			
Cables cross-section	mm ²	< 2.5			
Signaling contact to signal a locked state following three auto-reset attempts (terminals 3-4-5)		1NA + 1NC (change-over contact)			
Current carrying capacity		5 A (250 V AC) (ohmic load)			
Auxiliary contact (terminals 6-7-8)		1NA + 1NC (change-over contact)			
Current carrying capacity		3 A (250 V AC) (ohmic load)			
Remote control		By means of dry contacts			
Remote control terminals		Terminal 9 = closing and remote reset contact for locked state; Terminal 10 = opening contact			
		Terminal 11 = common reference for control contacts, +5V d.c. (supplied by the motor operating device)			

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Auto-reclosing units

Function: F2C-ARI and F2C-ARI30 allow the auto-reclosing of the coupled device in case of unwanted tripping. Suitable for F 200 RCCBs up to 100 A.

Description	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
Auto-reclosing unit for 2P and 4P F200 RCCBs	026655	F2C-ARI	2CSF200996R0013		0.166	1
Auto-reclosing unit for 2P and 4P F200 RCCBs (30")	064350	F2C-ARI30	2CSF200995R0013		0.166	1

Where to find more:

Wiring Diagrams for Motor Operating and Autoreclosing units - chapter 15

Motor operating and autoreclosing devices for MCBs, RCDs and Switch Disconnectors



2CSC400679F0001

F2C-ARH



2CSC400014F0002

F2C-ARH-T

Home automatic resetting unit

		F2C-ARH / F2C-ARH-T	
Power supply	VAC	230	
Number of automatic reclosing attempts		1	
Reset time for counter of automatic reclosing attempts	sec	12	
Power absorbed during the operation	VA	(t<0.5s) 20 max	
Power consumption in stand-by	W	0.4 max	
Number of operations		≤ 10.000	
Operating temperature	°C	-25 ... + 55	
Signal contact cable section	mm ²	≤ 2.5	
Signal contact for the locked state (terminals 1-2)		1NA (change-over contact)	
Signal contact rated current	A	3 (250V AC)	

Home automatic resetting unit (for domestic and similar applications)

Function: it recloses the associated residual current device, only after having checked that there are no effective faults in the system protected by the RCCB.

Suitable for 2-pole RCCB series with 30 mA or 100 mA sensitivities, max 63 A

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	8012542	Type code	Order code			
	EAN				kg	pc.
Home automatic resetting unit (30 mA)	732433	F2C-ARH	2CSF200992R0005		0.200	1
Home automatic resetting unit (100 mA)	658535	F2C-ARH100	2CSF200990R0005		0.200	1

Home automatic resetting unit with autotest (for domestic and similar applications)

Function: it recloses the associated residual current device, only after having checked that there are no effective faults in the system protected by RCCB.

Suitable for 2-pole RCCB series with 30 mA or 100 mA sensitivities, max 63 A.

F2C-ARH-T allows the RCCB automatic test every six months.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	8012542	Type code	Order code			
	EAN				kg	pc.
Home automatic resetting unit (30 mA) with RCCB autotest	733232	F2C-ARH-T	2CSF200991R0005		0.200	1
Home automatic resetting unit (100 mA) with RCCB autotest	593836	F2C-ARH-T100	2CSF200989R0005		0.200	1

Where to find more:

Wiring Diagrams for Motor Operating and Autoreclosing units - chapter 15

Busbar systems

Selection table

Short description

ABB busbar systems enable the safe and economic cross connection of MCBs, RCCBs and RCBOs.

For a correct busbar selection the following points need to be considered:

- MCB terminal type (Twin terminal or cage terminal)
- Number of poles (1, 2, 3, 4, 1+N or 3+N)
- Device type (MCB, RCCB or RCBO)
- Combinations (e.g. RCCB + MCB or RCCB 3+N + RCCB 1+N)
- Use of side mounted auxiliary elements on MCB *)
- Busbar diameter (for current carrying capacity calculation)
- Number of modules (choice of standard busbar or busbar for cutting)

Coding of PS busbars

	PS	<table border="1"><tr><td> </td></tr></table>		/	<table border="1"><tr><td> </td><td> </td></tr></table>			/	<table border="1"><tr><td> </td><td> </td></tr></table>				<table border="1"><tr><td> </td><td> </td><td> </td></tr></table>					<table border="1"><tr><td> </td><td> </td><td> </td></tr></table>			
		1		2	3		4	5	6	7	7										
Phases																					
1 phase		1																			
2 phases		2																			
3 phases		3																			
4 phases		4																			
Number of pins																					
Diameter																					
10 mm ²							-	-													
6 mm ²							6	-													
16 mm ²							1	6													
30 mm ²							3	0													
Application																					
Cross connection of RCCB and MCB (4th pin removed for RCCB 3+N)									F	I											
Use of neutral conductor (phase sequence e.g. L1-N-L2-N-L3-N-L1...)								N													
Space for 1 side mounted auxiliary contact								H													
Space for 2 side mounted auxiliary contacts									H	2											
Pins for breaking off											A										
Cross connection of devices 3P+N + 1P+N (phase sequence L1-L2-L3-N-L1-N-L2-N-L1-N-...)									N	N											
Busbars for IT networks									I	T											
Busbars acc. to UL 489 (Branch Protection)									B	P											
Busbars acc. to UL 1077 (Supplementary Protection)									S	P											
Note: Combinations of above applications are possible																					

*) only right side mounted auxiliary elements and bottom fixed auxiliary contacts can be considered for busbar connection

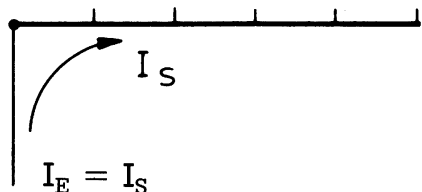
Busbars and accessories for MCBs S 200, RCDs F 200 and DS 200 series

3

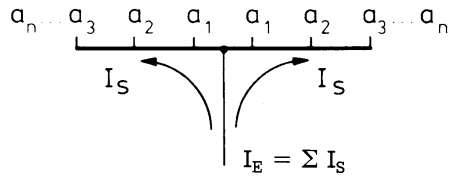
		Busbars PS				Busbars PS...SP					
Suitable for		MCB: S200, S200M, S200P RCD: F200, DDA-blocks				MCB: S200, S200P					
Electrical Data	Standards	for IEC applications IEC/EN 60947-1				for IEC / UL applications IEC/EN 60947-1 UL1077					
	Approvals	—				UL 1077					
	Rated voltage Ue	1P, 2P, 3P, 4P: 690 V AC, 690 V DC				1P, 2P, 3P, 4P: 480 V AC					
	Rated frequency	Hz	50 / 60 Hz, DC				50 / 60 Hz				
	Current carrying capacity / Phase (35°C ambient temperature)	A	10 mm ²	16 mm ²	30 mm ²	End feeding ①	10 mm ²	16 mm ²	End feeding ①	63 A	80 A
			63 A	80 A	120 A		63 A	80 A			
		100 A	130 A	160 A	Non-end feeding ①	100 A	130 A	Non-end feeding ①	100 A	130 A	
Short-circuit withstand capacity	kA	25 kA in series with fuse NH3 355 A gG 500 V				10 kA in series with fuse NH3 355 A gG 500 V					
Mechanical Data	Housing	light grey, RAL 7035									
	Environmental conditions acc. to	DIN EN 60068									
	Overvoltage category	III									
	Pollution degree	2									
Installation	Cross-Section Busbar	10 mm ² , 16 mm ² , 30 mm ²				10 mm ² , 16 mm ²					
	Mounting position	optional									
	Supply	Feed on terminal of the device (supply side optional) or use of feeder terminal range AST; SZ-ESK				Feed on terminal of the device (supply side optional) or use of feeder terminals AST 35/15 SP; SZ-ESK SP					
Accessories	Shock-protection caps	BSK, SZ-BSK				BSK SP					
	Feeder terminals	range AST, SZ-ESK				AST 35/15 SP SZ-ESK SP					
	End caps	range END, PS-END, PSB-END				PS-END SP; PS-END1 SP					
		Feeder Terminals AST , SZ-ESK				Feeder Terminals AST 35/15 SP and SZ-ESK SP					
Electrical Data	Max. operating voltage	V	690 V AC, 690 V DC				480 V AC				
	Current carrying capacity / phase	A	see below ①				115 A ①				
	Cross-Section	mm ²	SZ-ESK	6 - 35 mm ²	100 A	SZ-ESK SP	35 mm ² / 2AWG flexible with ferrules		AST 35/15 SP	50 mm ² / 1AWG solid / stranded	
				6 - 50 mm ²	125 A		25 mm ² / 3AWG flexible with ferrules			35 mm ² / 2AWG solid / stranded	
		AST	6 - 25 mm ²	80 A	AST 35/15 SP	25 mm ² / 3AWG flexible with ferrules		AST 35/15 SP	35 mm ² / 2AWG solid / stranded		
			6 - 50 mm ²	125 A		35 mm ² / 2AWG solid / stranded					
Instruction of installation		When cutting the busbar, ensure that the insulation profile exceeds the copper bar by approx. 10 mm on each side. Shock protection only with mounted end caps ensured. For DC applications the required increased clearance and creepage distances needs to be ensured.				When cutting the busbar, ensure that the installation profile exceeds the copper bar by approx. 10 mm on each side. Shock protection only with mounted end caps ensured.					

① In case of feed in from the middle of the busbar it needs to be ensured, that the sum of junction currents per side must not exceed the max busbar current I_g/phase. Irrespective of the current carrying capacity (I_g) of the busbar, the max. rated current of the devices terminal may not be exceeded.

Busbars PS...BP	Busbars PS...BP-C	Busbars PS..DC
MCB: SU200M, S200UDC, S200U, S200UP	MCB: SU200M, S200UDC, S200U, S200UP	MCBs, Fuseholders E90
for IEC / UL applications IEC/EN 60947-1 UL489	for IEC / UL applications IEC/EN 60947-1 UL508	for IEC applications IEC/EN 60947-1
UL 489	UL 489	-
1P, 2P, 3P: 480 V AC	600 V AC/DC	690 V AC / 1000 V DC
50 / 60 Hz	50 Hz (IEC) / 60 Hz (UL)	50 / 60 Hz, DC
16 mm ²		
80 A (115A for cubicle size ≥ 30"x30"x10")	End feeding ① 100 A Non-end feeding ① 200 A	End feeding ① 100 A Non-end feeding ① 160 A
10 kA in series with fuse NH3 355 A gG 500 V	10 kA 3 cycles @ 600 V / 140 kA Fuse Class J 200 A	25 kA/0,1 s, 100 kA in series with fuse NH3 355 A gG
16 mm ²	25 mm ²	30 mm ²
Feed on terminal of the device (supply side optional) or use of feeder terminals AST 35/15 BP; SZ-ESK BP	Feed on terminal of the device (supply side optional) or use of feeder terminal AST 35/58 BP-C	Feed on terminal of the device (supply side optional) or use of feeder terminal AST 35/18 DC or AST 35/45 DC
BSK BP	BSK BP-C	
AST 35/15 BP SZ-ESK BP	AST 35/58 BP-C	AST 35/18 DC (for use with 1-phase busbar) AST 35/45 DC (for use with 2-phase busbar)
-	PS-END 3 BP-C	PS-END0, PS-END3
Feeder Terminals AST 35/15 BP and SZ-ESK BP	Feeder Terminals AST 35/58 BP-C	
480 V AC	1000 V AC/DC	
115 A ①	115 A use 75° wire 95 A use 60° wire	
SZ-ESK BP 35 mm ² / 2AWG flexible with ferrules 50 mm ² / 1AWG solid / stranded	AST 35/58 BP-C 28mm ² / 2AWG	
AST 35/15 BP 25 mm ² / 3AWG flexible with ferrules 35 mm ² / 2AWG solid / stranded		
Cutting of busbar is not permitted.	Shock protection only with mounted end caps ensured. For DC applications the required increased clearance and creepage distances needs to be ensured.	The copper bus has to be cut to a length that is app. 10 mm less than the corresponding length of the plastic busbar housing. Touch-safe only when used with the required end caps. Independant from the rated voltage of the devices like busbars or feeder terminals the creepage distances and distances over the air needs to be considered. This is depending on the particular application as well as on the complete assembling.

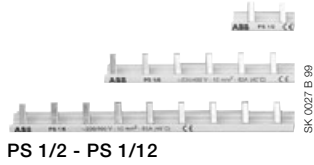


Feed in from the end of the busbar



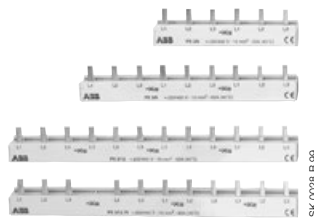
Feed in from the middle of the busbar

Busbars and accessories for MCBs S 200, RCDs F 200 and DS 200 series



PS 1/2 - PS 1/12

3



PS 3/6 - PS 3/12

Pre-assembled busbars (not to be cut)

1-phase busbars, pin distance 17.6 mm, end caps PS-END 0

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779	Type code	Order code			
2	1	10	0.01	463003	PS1/2	2CDL 210 001 R1002		0.01	180
3	1	10	0.03	514651	PS1/3	2CDL 210 001 R1003		0.03	120
4	1	10	0.03	648233	PS1/4	2CDL 210 001 R1004		0.03	100
6	1	10	0.03	463102	PS1/6	2CDL 210 001 R1006		0.03	60
9	1	10	0.04	463201	PS1/9	2CDL 210 001 R1009		0.04	30
12	1	10	0.05	463300	PS1/12	2CDL 210 001 R1012		0.05	30
12	1	10a	0.05	682985	PS1/12A ②	2CDL 210 010 R1012		0.05	30

3-phase busbars, pin distance 17.6 mm

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779	Type code	Order code			
6	3	10	0.04	463409	PS3/6	2CDL 231 001 R1006		0.04	60
9	3	10	0.07	463508	PS3/9	2CDL 231 001 R1009		0.07	30
12	3	10	0.10	463607	PS3/12	2CDL 231 001 R1012		0.10	30
12	3	10	0.10	463706	PS3/12FI *	2CDL 231 002 R1012		0.09	50

* phase sequence: L1, L2, L3, free, L2, L3, L1, ...

Busbars suitable for cutting

1-phase busbars, pin distance 17.6 mm, end caps PS-END 0

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779	Type code	Order code			
60	1	10	0.26	514668	PS1/60	2CDL 210 001 R1060		0.26	20
60	1	10	0.26	682992	PS1/60A ②	2CDL 210 010 R1060		0.28	50
60	1	16	0.41	516655	PS1/60/16	2CDL 210 001 R1660		0.41	20
60	1	16	0.41	683005	PS1/60/16A ②	2CDL 210 010 R1660		0.39	50
5	1	30	0.04	653244	PS1/5/30 ①	2CDL 210 001 R3005		0.04	100
10	1	30	0.09	653268	PS1/10/30 ①	2CDL 210 001 R3010		0.09	100
11	1	30	0.09	653275	PS1/11/30 ①	2CDL 210 001 R3011		0.10	100
14	1	30	0.120	653282	PS1/14/30 ①	2CDL 210 001 R3014		0.120	50
15	1	30	0.130	653299	PS1/15/30 ①	2CDL 210 001 R3015		0.130	50
18	1	30	0.150	653305	PS1/18/30 ①	2CDL 210 001 R3018		0.150	50
19	1	30	0.160	653312	PS1/19/30 ①	2CDL 210 001 R3019		0.160	50
60	1	30	0.520	653596	PS1/60/30	2CDL 210 001 R3060		0.520	20

1-phase busbars, connection of 1-pole devices with auxiliary, end caps PS-END 0

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779	Type code	Order code			
38	1	10	0.27	586139	PS1/38H	2CDL 210 001 R1038		0.27	30
38	1	16	0.45	586146	PS1/38/16H	2CDL 210 001 R1638		0.45	30

1-phase busbars, connection of neutral (blue insulation), end caps END 1.1

① inclusive of end caps
② pre-cutted pins

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
28	1	10	0.24	629546	PS1/28N	2CDL 210 001 R1028		0.14	50
28	1	16	0.32	629560	PS1/28/16N	2CDL 210 001 R1628		0.20	50
57	1	10	0.24	579728	PS1/57NA ②	2CDL 210 011 R1057		0.14	50
57	1	10	0.24	629539	PS1/57N	2CDL 210 001 R1057		0.14	50
57	1	16	0.32	579735	PS1/57/16NA ②	2CDL 210 011 R1657		0.20	50
57	1	16	0.32	629553	PS1/57/16N	2CDL 210 001 R1657		0.20	50

1-phase busbars, connection of auxiliaries, end caps END 1.1 except PS 1/57/6

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
23	1	6	0.16	584739	PS1/23/6	2CDL 210 005 R0623		0.09	50
29	1	6	0.14	580823	PS1/29/6	2CDL 210 005 R0629		0.10	50
38	1	6	0.14	580816	PS1/38/6	2CDL 210 005 R0638		0.09	50
57	1	6	0.11	585309	PS1/57/6	2CDL 210 005 R0657		0.08	50

1-phase busbars, connection of hand operated neutral S2C-Nt (blue insulation), end caps END 1.1

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
38	1	10	0.410	655361	PS1/38 NT	2CDL 210 002 R1038			10

2-phase busbars, pin distance 17.6 mm, end caps PS-END

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
12	2	10	0.07	556521	PS2/12 ①	2CDL 220 001 R1012		0.08	50
12	2	10	0.07	584616	PS2/12A ①②	2CDL 220 010 R1012		0.08	50
12	2	16	0.11	646918	PS2/12/16	2CDL 220 001 R1612		0.09	50
58	2	10	0.32	556552	PS2/58	2CDL 220 001 R1058		0.36	10
58	2	16	0.55	556569	PS2/58/16	2CDL 220 001 R1658		0.49	10
58	2	16	0.55	584746	PS2/58/16A ②	2CDL 220 010 R1658		0.49	10
58	2	30	1.81	654272	PS2/58/30 ③④	2CDL 220 001 R3058		1.81	10

Note: PS...A is a busbar with removable pin

2-phase busbars, connection of 2-pole devices with auxiliary, end caps PS-END

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
48	2	10	0.47	556538	PS2/48H	2CDL 220 001 R1048		0.35	10
48	2	16	0.68	556545	PS2/48/16H	2CDL 220 001 R1648		0.48	10
48	2	16	0.68	584630	PS2/48/16HA ②	2CDL 220 012 R1648		0.48	10

3-phase busbars, pin distance 17.6 mm, end caps PS-END

- ① inclusive of end caps
- ② pre-cutted pins
- ③ use end cap PS-END 3
- ④ removal of installed MCB not possible

Busbars and accessories for MCBs S 200, RCDs F 200 and DS 200 series

3

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
11	3	10	0.10	649926	PS3/11 ①	2CDL 230 001 R1011		0.08	50
12	3	10	0.09	576116	PS3/12 ①	2CDL 230 001 R1012		0.09	50
12	3	10	0.09	584647	PS3/12A ①②	2CDL 230 010 R1012		0.09	50
12	3	16	0.16	562805	PS3/12/16 ①	2CDL 230 001 R1612		0.12	50
60	3	10	0.51	514699	PS3/60	2CDL 230 001 R1060		0.47	10
60	3	10	0.51	563758	PS3/60A ②	2CDL 230 010 R1060		0.47	10
60	3	16	0.76	514705	PS3/60/16	2CDL 230 001 R1660		0.65	10
60	3	16	0.76	563765	PS3/60/16A ②	2CDL 230 010 R1660		0.65	10
60	3	30	2.65	654289	PS3/60/30 ③⑤	2CDL 230 001 R3060		2.65	10

3-phase busbars, connection of 1-pole devices with auxiliary, end caps PS-END

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
39	3	10	0.51	556590	PS3/39H	2CDL 230 001 R1039		0.43	10
39	3	16	0.76	556606	PS3/39/16H	2CDL 230 001 R1639		0.60	10

3-phase busbars, connection of 2-pole devices (Phase+N) with auxiliary, end caps PS-END

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
24	3	10	0.80	556576	PS3/24H	2CDL 230 001 R1024		0.41	10

3-phase busbars, connection of 2-pole devices (Phase+Phase) with auxiliary, end caps PS-END

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
46	3	16	0.98	662109	PS3/46/16H-IT	2CDL 230 006 R1648		0.98	10

3-phase busbars, connection of 3-pole devices with auxiliary, end caps PS-END

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
48	3	10	0.51	556613	PS3/48H	2CDL 230 001 R1048		0.43	10
48	3	16	0.76	556644	PS3/48/16H	2CDL 230 001 R1648		0.60	10
48	3	16	0.76	584654	PS3/48/16HA ②	2CDL 230 012 R1648		0.60	10

3-phase busbars, connection of 1+N or RCBOs, end caps PS-END

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
30	3	10	0.50	556583	PS3/30	2CDL 230 001 R1030		0.42	10

3-phase busbars, N of the RCD omitted, end caps PS-END

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- ① inclusive of end caps
- ② pre-cutted pins
- ③ use end cap PS-END 3
- ④ use end cap PS-END 3.1
- ⑤ removal of installed MCB not possible

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
9	3	10	0.10	517515	PS3/9FI ①	2CDL 230 002 R1009		0.06	50
10	3	10	0.10	517522	PS3/10FI ①	2CDL 230 002 R1010		0.07	50
12	3	10	0.11	571074	PS3/12FI ①	2CDL 230 002 R1012		0.09	50
57	3	10	0.55	556651	PS3/57FI	2CDL 230 002 R1057		0.46	10

3-phase busbars, N of the RCD omitted, with auxiliary at RCD end caps PS-END

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
12	3	10	0.11	571081	PS3/12FIH ①	2CDL 230 003 R1012		0.09	50

4-phase busbars, pin distance 17.6 mm, end caps PS-END 1

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
12	4	10	0.12	656054	PS4/12 ①	2CDL 240 101 R1012		0.11	30
12	4	10	0.12	656061	PS4/12A ①②	2CDL 240 110 R1012		0.11	30
12	4	16	0.24	656078	PS4/12/16 ①	2CDL 240 101 R1612		0.16	30
60	4	10	0.80	656085	PS4/60	2CDL 240 101 R1060		0.64	10
60	4	16	1.21	656092	PS4/60/16	2CDL 240 101 R1660		0.89	10
60	4	16	1.21	656108	PS4/60/16A ②	2CDL 240 110 R1660		0.89	10
60	4	30	3.37	654296	PS4/60/30 ④⑤	2CDL 240 001 R3060		3.37	10

Note: PS...A is a busbar with removable pin

4-phase busbars, connection of 4-pole devices with auxiliary, end caps PS-END 1

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
52	4	16	1.30	656115	PS4/52/16H	2CDL 240 101 R1652		0.78	10
52	4	16	1.30	656122	PS4/52/16HA ②	2CDL 240 212 R1652		0.78	10

4-phase busbars, connection of 1+N or RCBOs, end caps PS-END 1

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
12	4	10	0.14	656139	PS4/12NA ①②	2CDL 240 213 R1012		0.10	30
58	4	10	0.80	656146	PS4/58N	2CDL 240 101 R1058		0.59	10
58	4	16	1.21	656153	PS4/58/16N	2CDL 240 101 R1658		0.77	10
58	4	16	1.21	656221	PS4/58/16NA ②	2CDL 240 213 R1658		0.77	10

4-phase busbars, connection of 1+N or RCBOs with auxiliary, end caps PS-END 1

- ① inclusive of end caps
- ② pre-cutted pins
- ③ use end cap PS-END 3
- ④ use end cap PS-END 3.1
- ⑤ removal of installed MCB not possible

Busbars and accessories for MCBs S 200, RCDs F 200 and DS 200 series

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
				kg	EAN	Type code			
48	4	16	1.48	656160	PS4/48/16NHA ②	2CDL 240 114 R1648		0.76	10

4-phase busbars, connection of 4-pole RCD with 1+N , end caps PS-END 1

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
				kg	EAN	Type code			
58	4	10	0.80	656177	PS4/58NNA ②	2CDL 240 110 R1058		0.58	10
58	4	16	1.21	656184	PS4/58/16NNA ②	2CDL 240 110 R1658		0.80	10

- ① inclusive of end caps
- ② pre-cutted pins
- ③ use end cap PS-END 3
- ④ use end cap PS-END 3.1
- ⑤ removal of installed MCB not possible



PS2/6/16 BP

2CDC06100750010



BSK BP

2CDC 061 095 FC007



AST35/15BP

2CDC06100250010



SZ-ESK BP

2CDC06100350010

Pre-assembled busbars (not to be cut) UL 489 only suitable for S200U and S200UP

1-phase busbars, pin distance 17.6 mm, UL 489

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779	Type code	Order code			
6	1	16	0.04	644969	PS 1/6/16 BP	2CDL 210 489 R1606		0.05	1
12	1	16	0.07	644976	PS 1/12/16 BP	2CDL 210 489 R1612		0.11	1
18	1	16	0.11	644983	PS 1/18/16 BP	2CDL 210 489 R1618		0.16	1

2-phase busbars, pin distance 17.6 mm, UL489

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779	Type code	Order code			
6	2	16	0.07	644990	PS 2/6/16 BP	2CDL 220 489 R1606		0.06	1
12	2	16	0.14	645003	PS 2/12/16 BP	2CDL 220 489 R1612		0.13	1
18	2	16	0.21	645010	PS 2/18/16 BP	2CDL 220 489 R1618		0.20	1

3-phase busbars, pin distance 17.6 mm, UL 489

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779	Type code	Order code			
6	3	16	0.11	645027	PS 3/6/16 BP	2CDL 230 489 R1606		0.07	1
12	3	16	0.22	645034	PS 3/12/16 BP	2CDL 230 489 R1612		0.15	1
18	3	16	0.33	645041	PS 3/18/16 BP	2CDL 230 489 R1618		0.24	1

Shock-protection caps for PS...BP (UL 489)

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779	Type code	Order code			
	3 parts			656368	BSK BP	2CDL 200 489 R0001		0.001	10

Feeder Terminals for PS...BP (UL 489)

Technical features

	Feeder terminals SZ-ESK BP, AST 35/15 BP
Max. operating voltage	480 V AC
Max. current	80 A (115 A for cubicle size ≥ 30" x 30" x 10") ①
Protection degree	IP 20
Wire range	SZ-ESK PB: 35 mm ² / 2AWG flexible with ferrule 50 mm ² / 1AWG solid/stranded AST 35/15 BP: 25 mm ² / 3AWG flexible with ferrule 35 mm ² / 2AWG solid/stranded

① regardless of the rated current of the feeder terminal the maximum current rating of the device terminal may not be exceeded

Insulated with pin contact

Conn. capacity	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²	kg	4016779	Type code	Order code			
35	0.035	710350	AST 35/15 BP	2CDL 201 489 R3515		0.035	25

Single-pole terminal, can be mounted side by side, feed on the pin of the busba

50		710367	SZ-ESK BP	2CDL 201 489 R5001		0.038	50
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- ① inclusive of end caps
- ② pre-cut pins
- ③ use end cap PS-END 3
- ④ use end cap PS-END 3.1
- ⑤ removal of installed MCB not possible

Busbars and accessories for MCBs SU200 M, S200 UDC, S200 U and S200 UP

Busbars PS....BP-C suitable for MCBs acc. to UL489: SU200M, S200 UDC, S200U and S200UP

1-phase busbars, pin distance 17.6 mm, end caps PS-END 3 BP-C

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
57	1	25	0,47	949910	PS1/57/25BP-C	2CDL210489R5725		0,775	10

1-phase busbars, connection of 1-pole devices with auxiliary, end caps PS-END 3 BP-C

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
37	1	25	0,5	949934	PS1/37/25HBP-C	2CDL210489R3725		0,661	10

2-phase busbars, pin distance 17.6 mm, end caps PS-END 3 BP-C

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
56	2	25	0,888	949941	PS2/56/25BP-C	2CDL220489R5625		0,969	10

2-phase busbars, connection of 2-pole devices with auxiliary, end caps PS-END 3 BP-C

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
46	2	25	0,87	949958	PS2/46/25HBP-C	2CDL220489R4625		0,943	10

3-phase busbars, pin distance 17.6 mm, end caps PS-END 3 BP-C

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
57	3	25	1,31	949965	PS3/57/25BP-C	2CDL230489R5725		1,198	10

3-phase busbars, connection of 3-pole devices with auxiliary, end caps PS-END 3 BP-C

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
48	3	25	1,28	949972	PS3/48/25HBP-C	2CDL230489R4825		1,129	10
39	3	25	1,305	949989	PS3/39/25HBP-C	2CDL230489R3925		1,115	10

Shock-protection caps for PS....BP-C

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
	3 parts			950077	BS BP-C	2CDL200489R0002		0.005	10

Busbars PS....BP-C suitable for MCBs acc. to UL489: SU200M, S200 UDC, S200U and S200UP

Terminal insulated with pin contact

Conn.capacity mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	kg	EAN	Type code	Order code		kg	pc.
25	0,038	950060	AST 35/58 BP-C	2CDL201489R3558		0.045	10

Busbars and accessories for MCBs S 200, SN 201, RCDs F 200 and DS 200 series

Busbars (suitable for cutting) UL 1077 suitable for MCBs S200 and S200P

1-phase busbars, pin distance 17.6 mm, end caps PS-END 0									
No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
60	1	10	0.26	830409	PS 1/60 SP	2CDL 210 111 R1060		0.26	20
60	1	16	0.41	830423	PS 1/60/16 SP	2CDL 210 111 R1660		0.41	20

1-phase busbars, connection of 1-pole devices with auxiliary, PS-END 0

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
38	1	10	0.27	830430	PS 1/38H SP	2CDL 210 111 R1038		0.27	30
38	1	16	0.45	830447	PS 1/38/16H SP	2CDL 210 111 R1638		0.45	30

2-phase busbars, pin distance 17.6 mm, end caps PS-END SP

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
58	2	10	0.42	646413	PS 2/58 SP	2CDL 220 111 R1058			10
58	2	16	0.69	646420	PS 2/58/16 SP	2CDL 220 111 R1658			10

2-phase busbars, connection of 2-pole devices with auxiliary, end caps PS-END SP

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
48	2	16	0.68	646437	PS 2/48/16 HSP	2CDL 220 112 R1648			10

3-phase busbars, pin distance 17.6 mm, end caps PS-END SP

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
60	3	10	0.68	646444	PS 3/60 SP	2CDL 230 111 R1060			10
60	3	16	1.02	646451	PS 3/60/16 SP	2CDL 230 111 R1660			10

3-phase busbars, connection of 3-pole devices with auxiliary, end caps PS-END SP

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
48	3	16	1.16	646468	PS 3/48/16 HSP	2CDL 230 112 R1648			10

4-phase busbars, pin distance 17.6 mm, PS-END 1 SP

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
60	4	16	1.97	656191	PS 4/60/16 SP	2CDL 240 311 R1660			10

4-phase busbars, connection of 4-pole devices with auxiliary, end caps PS-END 1 SP

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code		kg	pc.
52	4	16	1.90	656207	PS 4/52/16H SP	2CDL 240 312 R1652			10

Busbars and accessories for MCBs S 200, SN 201, RCDs F 200 and DS 200 series



4-phase busbars, connection of 1+N and RCBO, end caps PS-END 1 SP

No. of pins	Phases	mm ²	Cu-No.		Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	Bbn 4016779 EAN	Type code	Order code			
58	4	16	1.86	656214	PS4/58/16N SP	2CDL 240 313 R1658		kg	pc.
									10

3



Shock-protection caps for PS...SP (UL 1077)

No. of pins	Phases	mm ²	Cu-No.		Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	Bbn 4016779 EAN	Type code	Order code			
	5 parts		0.001	710398	BSK SP	2CDL 200 111 R0001		kg	pc.
									100

AST 35/15 SP

Feeder Terminals for PS...SP (UL 1077)

Terminal, insulated with pin contact



Conn. capacity	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²	kg	EAN	Type code	Order code			
35	0.038	710374	AST 35/15 SP	2CDL 200 111 R3515		0.025	25

SZ-ESK SP

Feeder Terminal single-pole terminal, can be mounted side by side, feed on the pin of the busbar

Conn. capacity	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²	kg	EAN	Type code	Order code			
50	0.038	710381	SZ-ESK SP	2CDL 200 111 R5001		0.032	50

Suitable for MCBs S 200 and S200 P – UL 1077 (Supplementary Protection)

Technical features

Feeder terminals SZ-ESK SP, AST 35/15 SP	
Max. operating voltage	480 VAC
Max. current	115 A ①
Protection degree	IP 20
Wire range	SZ-ESK SP: 35 mm ² / 2AWG flexible with ferrule 50 mm ² / 1AWG solid/stranded
	AST 35/15 SP: 25 mm ² / 3AWG flexible with ferrule 35 mm ² / 2AWG solid/stranded

① regardless of the rated current of the feeder terminal the maximum current rating of the device terminal

4-phase busbars, pin distance 17.6 mm, PS-END 1 SP

No. of pins	Phases	mm ²	Cu-No. kg	Bbn 4016779 EAN	Order details Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
60	4	16	1.97	656191	PS 4/60/16 SP	2CDL 240 311 R1660			10

4-phase busbars, connection of 4-pole devices with auxiliary, end caps PS-END 1 SP

No. of pins	Phases	mm ²	Cu-No. kg	Bbn 4016779 EAN	Order details Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
52	4	16	1.90	656207	PS 4/52/16H SP	2CDL 240 312 R1652			10

4-phase busbars, connection of 1+N and RCBO, end caps PS-END 1 SP

No. of pins	Phases	mm ²	Cu-No. kg	Bbn 4016779 EAN	Order details Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
58	4	16	1.86	656214	PS4/58/16N SP	2CDL 240 313 R1658			10

Shock-protection caps for PS...SP (UL 1077)

No. of pins	Phases	mm ²	Cu-No. kg	Bbn 4016779 EAN	Order details Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
	5 parts		0.001	710398	BSK SP	2CDL 200 111 R0001			100

Feeder Terminals for PS...SP (UL 1077)

Terminal, insulated with pin contact

Conn. capacity mm ²	Cu-No. kg	Bbn 4016779 EAN	Order details Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
35	0.038	710374	AST 35/15 SP	2CDL 200 111 R3515		0.025	25

Feeder Terminal single-pole terminal, can be mounted side by side, feed on the pin of the busbar

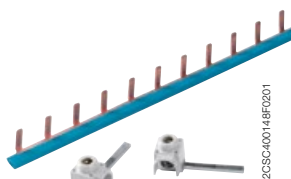
Conn. capacity mm ²	Cu-No. kg	Bbn 4016779 EAN	Order details Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
50	0.038	710381	SZ-ESK SP	2CDL 200 111 R5001		0.032	50

Busbars and accessories for MCBs S 200, SN 201, RCDs F 200 and DS 200 series



BS9+FEED-IN

3



BS9 NA+FEED-IN

Busbars for SN 201 range (Maximum rated current 63 A)

No. pins	Phases	Cross section mm ²	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code			
12	1	10	047650	BS9 1/12	2CSL910001R1012		0.050	10
12	1	10	047759	BS9 1/12 NA	2CSL910011R1012		0.050	10
56	1	10	047353	BS9 1/56	2CSL910001R1056		0.140	10
56	1	10	047452	BS9 1/56 NA	2CSL910011R1056		0.140	10
12	3	10	047551	BS9 3/12	2CSL930001R1012		0.090	5
57	3	10	047858	BS9 3/57	2CSL930001R1057		0.470	5

Busbars for F200/S200 and SN 201 range (Maximum rated current 63 A)

No. pins	Phases	Cross section mm ²	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code			
2 + 10 x 1+N	2	10	046950	BF2-S9 UP 1N/12	2CSL920009R1012		0,110	5
4 + 8 x 1+N	4	10	047056	BF2-S9 UP 3N/12	2CSL940009R1012		0,110	5
2 + 10 x 1+N	2	10	047155	BF2-S9 DOWN 1N/12	2CSL920002R1012		0,110	5
4 + 8 x 1+N	4	10	047254	BF2-S9 DOWN 3N/12	2CSL940002R1012		0,110	5

Terminals, insulated

Conn. capacity mm ²	Type of connection	Terminal lug L mm	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code			
25	pin	15	047957	FEED-IN 25/15 1P	2CSL980001R2515		0.010	5
25	pin	30	048053	FEED-IN 25/30 3P	2CSL980001R2530		0.010	5

End caps

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
	064251	BS9-END 3P ①	2CSL980001R0001		0.001	20

① In combination with BS9 3/57

Busbars (suitable for cutting) for DDA 200 and DS 200 – bottom mounting (RCD)

**3-phase busbars, connection of DDA 202 and DS 202, end caps PSB-END 3
(phase sequence L1-L2-free-free-L3-L1.....without N)**

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
30	3	10	0.97	647472	PS 3/30-DDA 202	2CDL 230 202 R1030		0.41	10
30	3	16	1.46	647502	PS 3/30/16-DDA 202	2CDL 230 202 R1630		0.55	10

**3-phase busbars, connection of DDA 202 and DS 202 with auxiliary, end caps PSB-END 3
(phase sequence L1-L2-aux.(free)-free-free-L3-L1-aux.(free).....without N)**

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
26	3	16		648912	PS 3/26/16H-DDA 202	2CDL 230 202 R1626			

**4-phase busbars, connection of DDA 204 63 A and DS 204 50 A and 63 A, end caps PSB-END 4
(phase sequence L1-L2-L3-N-free-free-free-free-L1.....)**

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
32	4	10	1.41	647458	PS 4/32-DDA 204	2CDL 240 204 R1032		0.56	10
32	4	16	2.12	647465	PS 4/32/16-DDA 204	2CDL 240 204 R1632		0.77	10

Busbars (suitable for cutting) for DDA 200 and DS 200 – top side mounting (MCB)

**2-phase busbars, connection of DDA 202 and DS 202, end caps PSB-END 3
(phase sequence L1-L2/N-free-free.....)**

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
30	2	16	0.512	697675	PS 2/30/16N-DDA 202T	2CDL 020 202 R1630			10

**3-phase busbars, connection of DDA 202 and DS 202, end caps PSB-END 3
(phase sequence L1-L2-free-free-L3-L1.....without N)**

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
30	3	16	1.25	652629	PS 3/30/16-DDA 202T	2CDL 033 202 R1630			10

**3-phase busbars, connection of DDA 202 and DS 202 with auxiliary, end caps PSB-END 3
(phase sequence L1-L2-aux.(free)-free-free-L3-L1-aux.(free).....without N)**

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
28	3	16	1.31	652636	PS 3/28/16H-DDA 202T	2CDL 034 202 R1628			10

**4-phase busbars, connection of DDA 202 and DS 202, end caps PSB-END 4
(phase sequence L1-N-free-free-L2-N...)**

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	EAN	Type code	Order code			
30	4	16	1.67	652852	PS 4/30/16N-DDA 202T	2CDL 040 202 R1630			10

Busbars and accessories for MCBs S 200, SN 201, RCDs F 200 and DS 200 series

3

4-phase busbars, connection of DDA 202 and DS 202 with auxiliary, end caps PSB-END 4 (phase sequence L1-N-aux.(free)-free-free-L2-N-aux.(free)...)

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779 EAN	Type code	Order code			
30	4	16	1.72	652599	PS 4/30/16NH-DDA 202T	2CDL 041 202 R1630			10

4-phase busbars, connection of DDA 204 25 A and 40 A and DS 204 up to 40 A, end caps PSB-END 4 (phase sequence L1-L2-L3-N-free-free-L1.....)

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779 EAN	Type code	Order code			
40	4	16	1.79	652605	PS 4/40/16-DDA 204T	2CDL 040 204 R1640			10

4-phase busbars, connection of DDA 204 25 A and 40 A and DS 204 up to 40 A with auxiliary, end caps PSB-END 4 (phase sequence L1-L2-L3-N-aux.(free)-free-free-free-free-L1)

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779 EAN	Type code	Order code			
36	4	16	1.73	652612	PS 4/36/16H-DDA 204T	2CDL 041 204 R1636			10

End caps

No. of pins	Phases	mm ²	Cu-No.	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			kg	4016779 EAN	Type code	Order code			
				638913	END 1.1	2CDL 200 011 R0011		0.001	50
				652261	PS-END 0	2CDL 200 001 R0004		0.001	50
				514729	PS-END	2CDL 200 001 R0001		0.001	50
				570114	PS-END 1	2CDL 200 001 R0002		0.001	50
				646505	PS-END SP	2CDL 200 110 R0001		0.001	50
				646512	PS-END 1 SP	2CDL 200 110 R0002		0.001	50
				654302	PS-END 3	2CDL 200 001 R3001		0.001	50
				654319	PS-END 3.1	2CDL 200 001 R3002		0.001	50
				556304 ①	PSB-END 3	GHV0 361 325 R0001		0.001	50
				556403 ①	PSB-END 4	GHV0 361 325 R0002		0.001	50
				950060	PS-END 3 BP-C	2CDL200489R0003		0.001	50

① bbn-No. 4012233

Busbars and accessories for MCBs S200 and fuse holder E90

Busbars PS...DC (cuttable) for use with end caps PS-END0 and PS-END3

No. of phases	Phase sequence	bbn 40 16779 EAN	Type	Order code	Pack unit pcs.	Weight 1 pc. kg
1	L1-L1-L1...	960168	PS1/60/30DC	2CDL210130R6030	10	0,485
	L1-Aux (free)-L1-Aux (free)... ¹⁾	960175	PS1/39/30HDC	2CDL210130R3930	10	0,435
2	L1-L2-L1-L2...	960199	PS2/60/30DC	2CDL220130R6030	10	0,94
	L1-Aux (free)-L2-Aux (free)... ¹⁾	960212	PS2/38/30HDC	2CDL220130R3830	10	0,85

¹⁾ for devices with auxiliary contact (half module) after each phase sequence or for devices with 27 mm module width

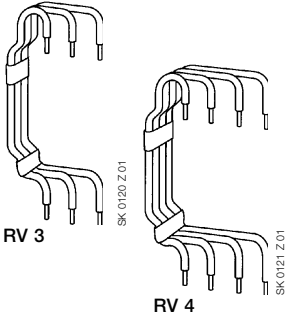
Accessories

Description	bbn 40 16779 EAN	Type	Order code	Pack unit pcs.	Weight 1 pc. kg
Tooth covers, for 5 pins (pin distance 17.6 mm)	420006	SZ-BSK	2CDL200001R0011	10	0,003
End caps 1-phase busbar	652261	PS-END0 ²⁾	2CDL200001R0004	25	0,001
End caps 2-phase busbar	654302	PS-END3	2CDL200001R3001	50	0,001
Feeder terminal in combination with 1-phase busbar	962483	AST35/18DC	2CDL200130R3518	10	0,025
Feeder terminal in combination with 2-phase busbar	962490	AST35/45DC	2CDL200130R3545	10	0,032

²⁾ 1 pair (= left and right end cap)

Accessories for S 200, SN 201, F 200, DS 200 and other series

3



Rail connectors

For wiring of component rails in the consumer unit, rail-to-rail clearance 125 mm. In the case of the 4-pole connector, the color of the N conductor is blue.

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
					Type code	Order code			
10	3-pole			512381	RV 3	GH V036 0504 R0023		0.080	25
10	4-pole			512244	RV 4	GH V036 0504 R0024		0.114	25

Auxiliary contact bridge for bottom-fitting auxiliary contacts

Wire jumper for integrated auxiliary contact (MCB S200 H or auxiliary contacts S2C-H01/S2C-H10) for series connections (HKB) or parallel connections (HKB1).



SZ-BSK

2CSC400496F0201

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
					Type code	Order code			
	1/2 mod.				523134	GH V036 0504 R0100		0.001	1000
	1 mod.				524209	GH V036 0504 R0101		0.001	1000



BSK

2CSC400096F0201

Shock-protection caps for PS...

No. of pins	Phases	mm ²	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
					Type code	Order code			
	5 parts			420006	SZ-BSK	2CDL 200 001 R0011		0.003	10
	5 parts			649834	BSK*	2CDL 200 001 R0012		0.003	10

* closed version

Shock-protection caps for busbars

PS...BP - see page 4/33

PS...SP - see page 4/34

Labelling system

Package comes with 40 labels, marked or blank. Blank labels can be labeled by hand with an indelible, waterproof pen or using a computerised labelling system (plotter).



identification label

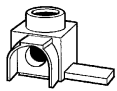
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Description	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
		Type code	Order code			
identification labels blank	478106	BS	GH S200 1946 R0001			0.004 30
identification labels with pictograms	478205	BS Pikto	GH S200 1946 R0002			0.004 30
identification labels marked 4 x 1 – 10	478304	BS 1/10	GH S200 1946 R0003			0.004 30
identification labels marked 2 x 1 – 20	478403	BS 1/20	GH S200 1946 R0004			0.004 30
identification labels marked 1 – 40	478502	BS 1/40	GH S200 1946 R0005			0.004 30
identification labels marked 41 – 80	585910	BS 41 – 80	GH S200 1946 R0006			0.004 30
identification labels marked 81 – 120	585927	BS 81 – 120	GH S200 1946 R0007			0.004 30
identification labels marked 121 – 160	585934	BS 121/160	GH S200 1946 R0008			0.004 30

1	2	3	4	5
6	7	8	9	10
1	2	3	4	5
6	7	8	9	10
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6	7	8	9	10
1	2	3	4	5
6	7	8	9	10

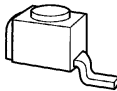
BS 1/10

Sk 0103 Z99



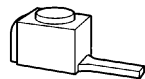
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- Ast 25/15 QS
- Ast 25/15 Q
- Ast 25/30 QS
- Ast 25/30 Q
- Ast 50/15 QS
- Ast 50/15 Q
- Ast 50/18 Q
- Ast 50/32 Q

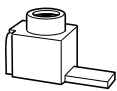


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SZ-Ast 95 gk

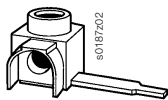


SZ-Ast 95



2CDL0000220F0005

- Ast 25/15 S
- Ast 50/15 S
- Ast 50/15
- Ast 50/18



S0187402

Ast 50/32 Q

Identification system ILS

The ILS individual identification system for labels is a DIN A5 polyester film for ink jet and laser printers with high temperature resistance. (If laser printers are used, please check whether self-adhesive film with thickness of 250 µm can be fed.) Adhesive coating 3MTM9471 LE has obtained UL approval (file No. MH 11410). There are two types of sheet: uncut for making individual labels or pre-cut with 23 stripes (6 x 191 mm each) for labelling 11 devices (1-module width) per stripe. Word template can be downloaded from www.abb.de/stotz-kontakt. Can also be used as write-on labels (ink, ballpoint pen, pencil, marker).

Description	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
1 sheet DIN A5 uncut for laser printer	663076	ILS-L	2CDL 200 002 R0003		0.011	1
1 sheet DIN A5 pre-cut in 23 stripes (6 x 191 mm) for laser printer	663083	ILS-LS	2CDL 200 002 R0004		0.011	1
1 sheet DIN A5 uncut for inkjet printer	663090	ILS-I	2CDL 200 002 R0005		0.011	1
1 sheet DIN A5 pre-cut in 23 stripes (6 x 191 mm) for inkjet printer	663106	ILS-IS	2CDL 200 002 R0006		0.011	1

Terminals, insulated with pin contact

Technical features

Connection capacity	6-25 mm ²	6-50 mm ²	25-95 mm ²
Max. electrical load	63 A	100 A	225 A
Max. operating voltage	600 V AC	600 V AC	690 V AC
Max. tightening torque	2 Nm	3 Nm	19 Nm

The terminals are single-phase. When combined in a multi-phase installation the required clearance and creepage distances needs to be considered!

Conn. capacity	Terminal lug	Type of connection	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²	LxW mm		kg	EAN	Type code	Order code			
6-25	15/4	90°	0.012	656535	Ast 25/15 QS	2CDL200010R2515			50
6-25	15/4	straight	0.012	656542	Ast 25/15 S	2CDL200011R2515			50
6-25	15/6	90°	0.012	656474	Ast 25/15 Q	2CDL200000R2515			50
6-25	22/4	90°	0.012	669436	Ast 25/22 QS	2CDL200010R2522			50
6-25	30/4	90°	0.012	656481	Ast 25/30 QS	2CDL200010R2530			50
6-25	30/6	90°	0.014	656498	Ast 25/30 Q	2CDL200000R2530			50
6-50	15/4	90°	0.014	656504	Ast 50/15 QS	2CDL200000R5015			50
6-50	15/4	straight	0.014	656566	Ast 50/15 S	2CDL200011R5015			50
6-50	15/7	90°	0.014	656559	Ast 50/15 Q	2CDL200010R5015			50
6-50	15/7	straight	0.014	656511	Ast 50/15	2CDL200001R5015			50
5-50	17.5/7	90°	0.019	656580	Ast 50/18 Q	2CDL200100R5018			50
6-50	17.5/7	straight	0.019	656573	Ast 50/18	2CDL200101R5018			50
6-50	32/6	90°	0.017	656528	Ast 50/32 Q	2CDL200000R5032			50
25-95	21/6.5	straight	0.06	522618	SZ-Ast 95 gk*	GHV0360501R0012		0.067	50
25-95	21/6.5	straight	0.06	522625	SZ-Ast 95*	GHV0360501R0013		0.067	50

Abbreviations: Q terminal 90°

* not for pro M compact

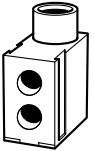
S narrow connection pin

Accessories for S 200, SN 201, F 200, DS 200 and other series



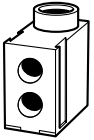
SZ-ESK 2

90133699



SZ-ESK 3

2CDL082244F0005



SZ-ESK 3 S

2CDL082245F0005



SZ-DB 121

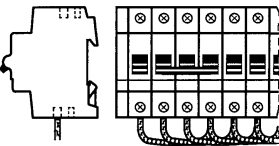


SZ-DB 232 N

2CSC600038F0201



SZ-DB 125 N



example 1

wiring of devices consisting of modules with different lengths with SZ-DB 125 N or 312

Feeder terminals

Single-pole terminals can be mounted side by side with multipole terminals.

Conn. capacity	Terminal lug	Type of connection	Cu-No.	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²	LxW mm		kg	EAN	Type code	Order code		kg	pc.
6-35				646765	SZ-ESK 2	2CDL200001R3501		0.024	10
6-50				652575	SZ-ESK 3	2CDL200003R5001		0.025	10
6-50				652889	SZ-ESK 3 S	2CDL200003R5003		0.024	10

Flexible connecting wires

Advantages:

- smaller dimensions for the same cross-section (more space in terminal)
- nearly no transition resistances
- more reliability; conductor sleeves could be loosen under specific conditions

with fork-type cable lug (black)

Conn. capacity	Lenght		Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²			EAN	Type code	Order code		kg	pc.
6	125	0.006	55650 2	SZ-DB 121	GH V036 1425 R0001		0.025	1000/50
10	135	0.010	55670 0	SZ-DB 122 N	GH V036 1425 R0031		0.02	500/25
6	260	0.014	55680 9	SZ-DB 231 N	GH V036 1425 R0032		0.02	500/25
10		0.022	55690 8	SZ-DB 232 N	GH V036 1425 R0033		0.04	250/25
10	330	0.029	55700 4	SZ-DB 311	GH V036 1425 R0034		0.05	100/25

with fork-type cable lug and ultrasonic compacted cable ends (black)

Conn. capacity	Lenght		Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²			EAN	Type code	Order code		kg	pc.
6	125	0.007	55660 1	SZ-DB 123	GH V036 1425 R0006		0.01	1000/50
10	135	0.012	55710 3	SZ-DB 124 N	GH V036 1425 R0035		0.02	500/25
6	260	0.014	55720 2	SZ-DB 235	GH V036 1425 R0036		0.02	500/25
10		0.024	55730 1	SZ-DB 236	GH V036 1425 R0037		0.04	250/25

with ultrasonic compacted cable ends (black)

Conn. capacity	Lenght		Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²			EAN	Type code	Order code		kg	pc.
6	125	0.007	55740 0	SZ-DB 125 N	GH V036 1425 R0038		0.01	1000/50
6	260	0.015	55750 9	SZ-DB 233 N	GH V036 1425 R0039		0.02	500/25
10	135	0.013	55760 8	SZ-DB 126 N	GH V036 1425 R0040		0.02	500/25
10	260	0.025	55770 7	SZ-DB 234 N	GH V036 1425 R0041		0.04	250/25
10	330	0.032	55780 6	SZ-DB 312	GH V036 1425 R0042		0.05	100/25

with ultrasonic compacted cable ends (blue)

Conn. capacity	Lenght		Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²			EAN	Type code	Order code		kg	pc.
10	135	0.013	66352 6	SZ-DB 10/135 N	2CDL 200 301 R0135		0.02	25
10	260	0.025	66353 3	SZ-DB 10/260 N	2CDL 200 301 R0260		0.04	25
10	330	0.032	66354 0	SZ-DB 10/330 N	2CDL 200 301 R0330		0.05	25



SZ-6/3

2CSC400459F0201



SZ-KLB 8, 12, 16, 24

2CSC400451F0201

Neutral and protective-conductor terminals with insulation holder for quick fastening onto DIN rails EN 50 022

Input	Output	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²	mm ²	EAN	Type code	Order code		kg	pc.
1 x 16	6 x to 16	50592 5a	SZ-6/3	GH V036 0876 R0003		0.022	10
1 x 16	2 x to 16 6 x to 10	59660 7	SZ-KLB 8	GJ I232 0131 R0001		0.025	30
1 x 16	2 x to 16 10 x to 10	59530 3	SZ-KLB 12	GJ I232 0071 R0013		0.035	30
1 x 35	4 x to 16 12 x to 10	59540 2	SZ-KLB 16	GJ I232 0072 R0017		0.077	30
1 x 35	4 x to 16 20 x to 10	59550 1	SZ-KLB 24	GJ I232 0073 R0016		0.100	30

Holders for SZ-KLB terminals

Screw-fixing

SZ-KLB 8 and 12 each 1 piece required

SZ-KLB 16 and 24 each 2 pieces required



SZ-Ktr

2CSC400438F0201

Conn. capacity	Lenght	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²		EAN	Type code	Order code		kg	pc.
		59450 4	SZ-Ktr	GJ I202 4027 R0001		0.003	100

Neutral and protective-conductor terminals with insulation holder for quick fastening onto DIN rails EN 50 022

Neutral with blue insulation holder; type C finger safe, conductor opening closed on one side



SZ-Ktr with KLB

2CSC400335F0201

Input	Output	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²	mm ²	EAN	Type code	Order code		kg	pc.
1 x 16	6 x 16	55570 3	SZ-N 6/3	GH V036 0876 R0001		0.027	20
1 x 16	11 x 16	55580 2	SZ-N 11/3	GH V036 0876 R0002		0.043	20
1 x 16	6 x 16	57095 4 ①	SZ-N 6/3 C	GH V036 0876 R0011		0.028	20
1 x 16	6 x 16	57096 1 ①	SZ-N 11/3 C	GH V036 0876 R0012		0.046	20

Protective conductor with green/yellow insulation holder; type C finger safe, conductor opening closed on one side



SZ-N6/3

2CSC400441F0201

Conn. capacity	Lenght	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²		EAN	Type code	Order code		kg	pc.
1 x 16	6 x 16	55600 7	SZ-PE 6/3	GH V036 0876 R0004		0.027	20
1 x 16	11 x 16	55610 6	SZ-PE 11/3	GH V036 0876 R0005		0.043	20
1 x 16	6 x 16	57097 8 ①	SZ-PE 6/3 C	GH V036 0876 R0014		0.028	20
1 x 16	11 x 16	57098 5 ①	SZ-PE 11/3 C	GH V036 0876 R0015		0.046	20

① bbn-No. 40 16779



SZ-N11/3

2CSC400440F0201

Accessories for S 200, SN 201, F 200, DS 200 and other series

3



SZ-BP 1

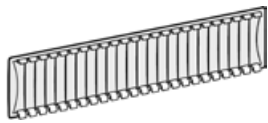
2CSC400066F0201



SZ-B



SZ-BP 2



SZ-BP 12 G



SZ-BP R

2CSC400102F0201



SZ-VP 1500

2CSC400041F0201



END

2CSC400448F0201



SZ-FDT 2

2CSC400042F0201

Blanking plates

For device covers with materials of a thickness of 1 to 3 mm, width: 1 module = 17.5 mm; color: grey RAL 7035, white RAL 9001

Input	Output	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²	mm ²	EAN	Type code	Order code		kg	pc.
46/grey	213	06050 4	SZ-BP 1	GH L530 1904 R0001		0.028	100
46/white	17.5	12857 4 a	SZ-BP	GH S270 1913 R0001		0.005	
46/grey	17.5	12861 1 a	SZ-BP 2	GH S270 1913 R0002		0.005	
46/grey	220	65227 8 a	SZ-BP 12 G	2CDL 000 001 R1220		0.022	50
46/white	220	66355 7 b	SZ-BP 12 W	2CDL 000 001 R2220		0.020	50

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Locking devices for SZ-BP 12 G	652285 a	SZ-BP R	2CDL 000 001 R1001		0.001	30

Sealing plate

Seal-proof locking of stamped-out device covers.

Detachable only from the inside of the device cover.

Can be used for device covers with 1.5 to 3 mm material thickness.

Height of cutout/ color	Width	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm	mm	EAN	Type code	Order code		kg	pc.
46/grey	1500	60290 2	SZ-VP 1500	GJ I995 9038 R0001		0.366	10

End bracket

Prevents lateral shifting of built-in devices mounted on DIN rails according to DIN EN 60 715, 35 x 7.5 mm.

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	59090 2	END	GJ I100 1814 R0001		0.02	50

Filling piece

e.g. for heat dissipation of closely mounted devices that generate much heat. Width 8.75 mm, as spacer, two different heights, breakable, for DIN rails according to DIN EN 60 715, 35 x 7.5 mm.

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
8.75	06070 2	SZ-FST 2	GH L530 1908 R0002		0.01	25

Spring piece

Holder for device covers, various heights available (in connection with FST 2 filling piece)

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	06080 1	SZ-FDT 2	GH L530 1908 R0005		0.002	25



SZ-FST 2 + SZ-FDT 2

2CSC400034F0201

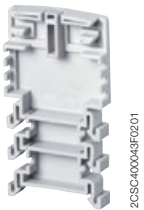
Filling piece

Two different heights, breakable, for DIN rails according to DIN EN 60 715, 35 x 7.5 mm for MCBs S 220 (3 different heights)

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
8.75	59410 8	SZ-FST	GJ I148 0003 R0001		0.01	25

① bbn-Nr. 4016779

Spring catch for mounting devices onto DIN rails (DIN EN 60 715, 35 x 7.5)



SZ-FST

2CSC400048F0201

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
for screw type M4	64560 2	SZ-FB 45.53-3	GJ I184 2013 P0003		0.03	50
for screw type M5	64580 0	SZ-FB 45.53-1	GJ I184 2013 P0004		0.03	50

False poles



SZ-FB 45.53-1

SZ-FB 45.53-3

2CSC400448F0201

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
False pole - 1 module	061304	FP1	16021765		0.01	100
False pole - 2 modules	061403	FP2	16021773		0.014	50
False pole - 4 modules	061502	FP4	16021781		0.022	30
False pole - 6 modules	061601	FP6	16021799		0.031	20
Support for false pole	061700	SFP	16021831		0.012	10



FP

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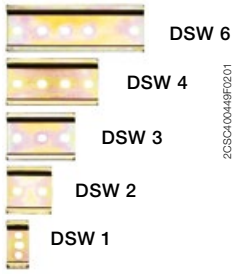
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2CSC400528F0201

Accessories

for S 200, SN 201, F 200, DS 200 and other series

3



DIN rails

DIN rails (DIN EN 60 715 – 35 x 7.5) for individual installation with 2 screws on an even surface (1 module = 17.5 mm)

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
for 1 module	13580 6	DSW 1	GH S210 1926 R0001		0.060	10
for 2 modules	13590 5	DSW 2	GH S210 1926 R0002		0.012	10
for 3 modules	13600 1	DSW 3	GH S210 1926 R0003		0.018	10
for 4 modules	13610 0	DSW 4	GH S210 1926 R0004		0.024	10
for 6 modules	13620 9	DSW 6	GH S210 1926 R0006		0.036	10



DIN rail DIN EN 60 715, 35 x 7.5, material thickness 1 mm, surface protected, galvanised.

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
241	04090 2	SKV-GTS 1	GH L110 1915 R0001		0.09	40



DIN rails DIN EN 60 715, 35 x 7.5, material thickness 1 mm, surface galvanised.

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
1000	59730 7	SZ-SI 45.460	GJ I232 2218 R0001		0.35	10
2000	59760 4	SZ-TS 7.5 L2	GJ I232 2218 R0007		0.70	20



DIN rails DIN EN 60 715, 35 x 15, material thickness 1.5 mm, surface galvanised

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
2000	59780 2	SZ-SI 45.472	GJ I232 2218 R0010		1.30	10
2000	59770 3	SZ-TS 15 L2	GJ I232 2218 R0009		0.78	10





S2C-DH

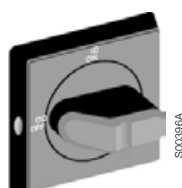
Rotary operating mechanism

For the actuation of 2-, 3- or 4pole miniature circuit-breakers in closed distribution boards for driveaxles of 5 or 6 mm² (square)

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	57960 5	S2C-DH	GH S200 1901 R0003		0.175	1

Handles

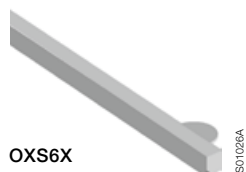
Handle IP 65, 65 x 65 mm, padlockable with max. 3 padlocks (bail diameter 5 - 8 mm), door interlock in ON-position, adjustable*



OH

Color	Suitable for switches	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code		kg	pc.
Black	OT16...40F	40978 8	OHBS2AJ	1SCA105213R1001			1
Yellow-red	OT16...40F	41226 9	OHYS2AJ	1SCA105296R1001			1
Silver	OT16...40F	41199 6	OHSS2AJ	1SCA105278R1001			1
Grey	OT16...40F	41186 6	OHGS2AJ	1SCA105265R1001			1

Handle IP 65, 65 x 65 mm, padlockable with max. 3 padlocks (bail diameter 5 - 8 mm), door interlock in ON-position



OXS6X

Color	Suitable for switches	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code		kg	pc.
Black	OT16...40F	41140 8	OHBS2AJ1	1SCA105215R1001			1
Yellow-red	OT16...40F	41227 6	OHYS2AJ1	1SCA105297R1001			1
Silver	OT16...40F	41210 8	OHSS2AJ1	1SCA105279R1001			1
Grey	OT16...40F	41187 3	OHGS2AJ1	1SCA105266R1001			1

* OH_2_J enables selection of MCB behavior when opening panel door (remain switched on or switch off). OH_2_J1 will cause MCB to switch off when opening panel door.

Axle extension

Type and order numbers are for one piece. For selector type handles. Shaft diameter 6 mm.

Lenght	Suitable for switches	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code		kg	pc.
85	OT16...40F	36571 8	OXS6X85	1SCA101647R1001		0.02	10
105	OT16...40F	42411 8	OXS6X105	1SCA108043R1001		0.02	10
120	OT16...40F	36578 7	OXS6X120	1SCA101654R1001		0.03	10
130	OT16...40F	36577 0	OXS6X130	1SCA101655R1001		0.03	10
160	OT16...40F	36580 0	OXS6X160	1SCA101656R1001		0.04	10
180	OT16...40F	36583 1	OXS6X180	1SCA101659R1001		0.04	10
250	OT16...40F	36584 8	OXS6X250	1SCA101660R1001		0.05	10
330	OT16...40F	36585 5	OXS6X330	1SCA101661R1001		0.05	10

Accessories for S 200, SN 201, F 200, DS 200 and other series



SZ-ES 68/83

Elevation piece

Compensates for different size of built-in devices with a mounting height of 68 mm and power MCBs of series S500 (83 mm)

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code	kg	pc.	
	53390 9	SZ-ES 68/83	GH V021 1425 R0001		0.003	100



SA 1

Locking device for MCBs and switches

Prevents unauthorised or dangerous operation of the operating lever. An adaptor makes it possible to block the operating lever whether switched ON or OFF. The lever is blocked with a padlock having a cross bar section of 3 or, as the case may be, 6 mm max. For multipole devices, one lock may be fitted per pole.

The lock adaptor can be used for all MCBs of the S 200, S 280 series, RCBOs DS201-DS202C as well as for switches E 200.

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code	kg	pc.	
locking devices	3 mm	58760 5	SA 1	GJ F110 1903 R0001	0.004	10
for padlock bar	6 mm	58790 2	SA 1E	GJ F110 1903 R0004	0.004	10
padlock with 2 keys		58770 4	SA 2	GJ F110 1903 R0002	0.02	10
padlock, identical locking with 2 keys		96940 1	SA 2 i	GJ F110 9999 R0001	0.02	10
lock adaptor incl. padlock with 3 keys in transparent box		58780 3	SA 3	GJ F110 1903 R0003	0.05	10



SA 2



KA 27 H + KA 27 S

Terminal cover KA 27

Provides overall touch protection of live parts. Suitable for installations acc. to DIN EN 50274 (DIN VDE 0660 Part 514) and BGV A2.

End parts can be snapped onto mounting rails EN 60 715, 35 mm. Covers are 486 mm = 27 modules (18 mm each) long. Knockouts for each half module for individualised use.

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code	kg	pc.	
cover, 1 piece	13630 8	KA 27 H	GH S210 1933 R0001		0.104	10
end part, 1 piece	13640 7	KA 27 S	GH S210 1934 R0001		0.027	10



PCD 2 N

Terminal covers with base plate, protection IP 40

Material: high-impact and flame-retardant (UL 94 V-0), color: white (RAL 9016), glow-wire test 960 °C according to IEC 695-2-1

The base plate has an integrated top-hat rail for snap-on fixing of MCBs, RCDs, modular built-in devices, etc.



PCD 4 N

	Bbn 8000126	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code	kg	pc.	
for 2 modules	12402 6	PCD 2 N	GH S270 1921 R0002		0.09	1
for 4 modules	12404 0	PCD 4 N	GH S270 1921 R0004		0.15	1
for 6 modules	12406 4	PCD 6 N	GH S270 1921 R0006		0.2	1

Flanges

	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Flange for rear board fixing 1 module - IP40	304401	ME 1	16219300		0.040	1
Flange for rear board fixing 2 modules - IP40	304500	ME 2	16219318		0.045	1
Flange for rear board fixing 3 modules - IP40	304609	ME 3	16219326		0.055	1
Flange for rear board fixing 4 modules - IP40	304708	ME 4	16219334		0.060	1
Flange for rear board fixing 6 modules - IP40	304807	ME 6	16219342		0.070	1
Flange for rear board fixing 8 modules - IP40	304906	ME 8	16219359		0.080	1

Auxiliary elements for S750 DR series



3

S750DR-AUX									
Electrical data									
Standards	DIN EN 62019 (VDE 0640), IEC/EN 62019 DIN EN 60947-5-1 (VDE 0660-200), IEC/EN 60947-5-1								
Conventional free air thermal current I _{th}	6 A								
Utilisation categories	AC14		AC15		DC12		DC13		
U _e	400 V	230 V	400 V	230 V	250 V	125 V	60 V	24 V	
I _e (max)	2 A	6 A	2 A	6 A	0.5 A	1.5 A	2 A	4 A	
Rated insulation voltage U acc. to IEC/EN 60664-1	690 V AC								
Overvoltage category	IV								
Pollution Degree	3								
Protection degree acc. to IEC/EN 60529	IP20								
Min. switching power DC	5V DC/5 mA, 12V DC/5 mA								
Rated impuls withstand voltage U _{imp} (1.2/50 µs)	6 kV								
Installation									
Cross-section of	1 conductor	0.75 - 2.5 mm ² solid, flexibel with and without insulated ferrule conductors							
	2 conductor	2 x 0.75 - 2 x 2.5 mm ² solid, flexibel with and without insulated ferrule							
Tightening torque	0.8 Nm								
Mechanical data									
Vibration resistance according to IEC/EN 60 068-2-6	5 g, 20 cycles at 5 ...150...5 Hz with 24 V AC/DC, 5 mA, without switching operation								
Mechanical endurance	10,000 ops.								
Pole dimensions (H x D x W)	128 x 77 x 8.7								
Mounting									
	Only 1 auxiliary contact mountable on the right site								
	Not mountable to S751DR/3								

Auxiliary elements for S750 DR



S750DR-AUX

Auxiliary contact S750DR-AUX

Two change-over contacts indicate the contact position of the S750 DR pole(s) independently and potential-free. A test button can be used to verify the correct indication of the contact position without switching the pole(s).

The change-over contacts fulfill the requirements of electrical separation of the main circuit connected to the pole(s).

The S750DR-AUX can be mounted on S750 DR 1-4 pole-devices without tools.

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Auxiliary contact	941891	S750DR-AUX	2CDH700901R0001		0.07	1

Accessories for S 700

3



SK 0142 B 00

S 700 BT 3



SK 0166 B 91

S 700 KA 1



SK 0167 B 91

S 700 KA 2/3



SK 0174 B 91

S 700 KA 4



SK 0072 B 96

S 700 KA 5



SK 0169 B 91

S 700 SPA



SK 0170 B 91

S 700 SPB 1
S 700 SPB 2



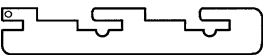
SK 119 B 02

S 700 QA



SK 0145 B 00

S 700 SA 1



SK 0079 Z 94

S 700-SPE

Mounting adapters

DIN rail adapter

for mounting S 700 onto 1 or 2 DIN rails 35 mm acc. to EN 50022 (distance of DIN rails 125 mm when using 2 DIN rails)

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code	kg	pc.	
no. to be used: S701: 1 pc. S 702, S703, S704: 2 pc	28440 0	S 700 BT 3	GHS7 001 902 R0003			10

Busbar adapter

for mounting onto 40 mm busbar systems, 4 or 5 pole, with busbars 5 x 12 mm or 10 x 12 mm

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code	kg	pc.	
single phase: L1 or L2 or L3 (adjustable)	25430 4 ①	S 700 SA 1	GHS7 001 917 R0001		0.105	1
3-phase	52793 4 ①	S 700 QA	GHS7 001 106 R0001		0.35	1

Terminal covers, 2 per pole

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code	kg	pc.	
within the shape of S 700	52050 3	S 700 KA 1	GHS7 001 903 R0001		0.001	6
for cutouts of 160 mm	52090 9	S 700 KA 2	GHS7 001 907 R0001		0.01	6
for cutouts of 175 mm	52100 5	S 700 KA 3	GHS7 001 908 R0001		0.01	6
with cable entry	52140 1	S 700 KA 4	GHS7 001 913 R0001		0.015	6
for IP20 protection (front)	24300 1 ①	S 700 KA 5	GHS7 001 903 R0005		0.003	6

Handle covers, 1 per pole

	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code	kg	pc.	
to prevent manual switch-off	52060 2	S 700 SPA	GHS7 001 905 R0001		0.001	10
to prevent manual switch-off/-on, transparent	52070 1	S 700 SPB 1	GHS7 001 906 R0001		0.002	10
to prevent manual switch-off/-on, grey	52080 0	S 700 SPB 2	GHS7 001 906 R0002		0.002	10

Locking for 3 mm padlock

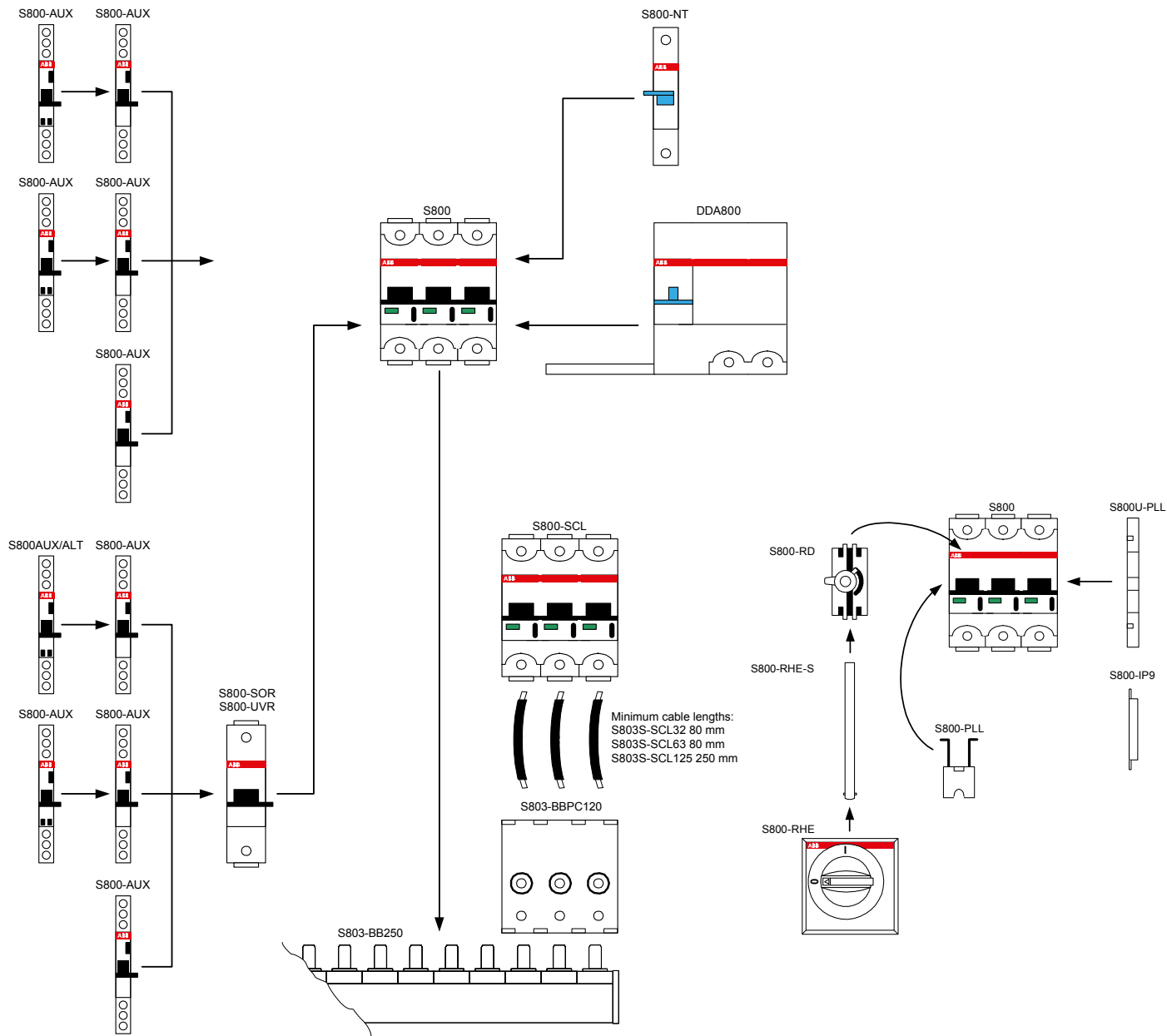
	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code	kg	pc.	
locking plate 3 pole	52110 4	S 700 SPE	GHS7 001 909 R0001		0.002	10

① bbn-No. 4016779

Auxiliary elements for MCBs S800 series

Selection table

Combination between auxiliary elements and S800



S800-AUX	Auxiliary contact for external display
S800-AUX/ALT	Combined auxiliary and signal contact for the external display
S800-NT	Disconnectable neutral conductor 63A
S800-SOR	Shunt opening release
DDA800	RCD block
S803-BB	Busbar system
S800RD	Rotary drive
S800-RHE	Rotary handle
S800-IP	Intermediate piece
S800-PLL/S800U-PLL	Padlock device/Locking device for American market
S800-UVR	Undervoltage release
S803-SCL/S800-SCL-SR	Short-circuit current limiter/Short-circuit current limiter self resetting

Auxiliary elements for S800



2CHC000001C0201

3

S800-RSU

Remote switch unit S800-RSU-H

Operating voltage	[V]	24 DC
Current consumption I _{rms}	[A]	2.5
Stand-by current	[mA]	< 50
Switching time OFF-ON	[ms]	< 500
Switching time ON-OFF	[ms]	< 250
Ambient operation temperature	[°C]	-25...+70
Switching cycles over lifetime		10000
Standard		IEC 60947-2 Annex N
Protection		IP20
Weight	[g]	300
Connection		10 pole Micro Fit 3.0

Short circuit limiter S803S-SCL

Max. rated continuous current I _n	[A]	32, 63, 125
Poles		3
Rated operating voltage U _e (AC) 50/60Hz	[V]	400/690
Rated insulation voltage U _i	[V]	690
Rated impulse withstand voltage U _{imp}	[kV]	8
Ultimate short-circuit breaking capacity I _{cu} in accordance with IEC 60947-2		
400VAC	[kA]	100
440VAC	[kA]	100
690VAC	[kA]	50
Valid combination see: http://www.abb.com/product		
Low Voltage Products and Systems/Modular DIN Rail Products/High Performance Circuit Breakers HPCBs/Software		
Service short-circuit breaking capacity I _{cs} in accordance with IEC 60947-2		100% I _{cu}
Rated frequency	[Hz]	50/60
Mounting position		any
Disconnecter properties according to IEC 60947-2		yes
Standard		IEC 60947-2
Connection Cu	[mm ²]	1...25 strand 1...35 cable
Connection Cu > 32 A	[mm ²]	6...50 strand 6...70 cable
Tightening torque	[Nm]	min. 3/max. 4
Supply		any
Mounting on DIN top hat rail		EN 60715
Permissible ambient temperature for operations	[°C]	-25...+60
Storage temperature	[°C]	-40...+70
Type of protection		IP20 IP40 (only actuation side)
Classification in accordance with NF-16-101, NF16-102		I3F2
Resistance to vibration		IEC 60068-2-27; IEC 60068-2; EN 61373 Cat.1/class B

Self-resetting short-circuit current limiter

		S800S-SCL-SR	S803W-SCL-SR	S803HV-SCL-SR in combination with S803HV-K
Rated operational current Ie		A	32, 63, 100	
Pole			1, 2, 3	3
Rated operational voltage Ue				
(AC) according to IEC 60947-2	50/60 Hz V		400/690	690
(AC) according to UL 508	50/60 Hz V			600
Rated insulation voltage Ui		V	690	1000
Rated impulse withstand voltage Uimp		kV	8	
Rated ultimate short-circuit breaking capacity Icu = Ics according to IEC 60947-2 *				
(AC) 50/60 Hz 240/415 V	kA	100		
(AC) 50/60 Hz 254/440 V	kA	100		
(AC) 50/60 Hz 289/500 V	kA	65		
(AC) 50/60 Hz 400/690 V	kA	50		
(AC) 50/60 Hz 580/1000 V				15
Short-circuit rating according to UL 508 *				
(AC) 50/60 Hz 480 V	kA	65		
(AC) 50/60 Hz 600 V	kA	65		
*) Valid only for approved combinations Please have a look to coordination tables in chapter 2, of Solutions for electrical installation in buildings - Technical details				
Rated frequency		Hz	50/60	
Mounting position			any	
Connections Cu		mm ²	1 ... 50 rigid (solid/stranded)	
		mm ²	1 ... 70 flexible	
				14–1 AWG
Tightening torque		Nm	3.5	
		in. lbs.		min. 26.5 / max. 25
Feeding			optional	
Mounting on DIN top hat rail E			N 60715	
Ambient air temperature		°C	-40 ... +70	-25 ... +60
Storage temperature		°C	-40 ... +85	-40 ... +70
Degree of protection			IP20	
Classification acc. to NF F 16-101, NF F 16-102			I3, F2	
Damp Heat			IEC 60068-2-30, 55 °C / 95 % r.h.	
Vibration			IEC 60068-2-6, 5–10 Hz / 3 mm and 10–500 Hz / 2 g at 0.5 x Ie	
Random Vibration			IEC 60068-2-64, 5–500 Hz / 2 g at 0.5 x Ie	
Resistance to climatic conditions			IEC 60068-2-1 /-2-2 /-2-30	
Standard			IEC 60947-2	IEC 60947-2
			IEC 60947-4-1	IEC 60947-4-1
				UL 508, CSA 22.2 No. 14

Auxiliary elements for S800

3

Auxiliary contact S800-AUX		
Utilisation category		AC15 400/2A AC15 240/6A DC13 250/0.55A DC13 125V/1.1A DC13 60V/2A DC13 24V/4A
Continuous thermal current I_n	[A]	6
Rated insulation voltage U_i	[V]	690
Number of contacts		2
Rated impulse withstand voltage U_{imp}	[kV]	6
Pollution degree		3
Function of contact		Changeover contacts
Connection Cu	[mm ²]	1 x 2.5 2 x 1.5
Tightening torque	[Nm]	1
AC/DC supply		any
Mounting on DIN top hat rail		EN 60715
Type of protection		IP20
Permissible ambient temperature for operations	[°C]	-25...+60
Storage temperature	[°C]	-40...+70
Mech. device service life		6000 switching cycles
I_{cu} with S450E	[A]	1000
Resistance to vibration		IEC 60068-2-6; EN 61373 Cat.1/class B 5g, 20 frequency cycle 5...150...5Hz at 24V AC/DC, 5mA brief interrupt <10ms

Combined auxiliary and signal contact S800 AUX/ALT

Utilisation category		AC15 400/2A AC15 240/6A DC13 250/0.55A DC13 125V/1.1A DC13 60V/2A DC13 24V/4A
Continuous thermal current I_n	[A]	6
Rated insulation voltage U_i	[kV]	690
Number of contacts		2 (1x AUX, 1 x AUX/ALT)
Rated impulse withstand voltage U_{imp}	[kV]	6
Pollution degree		3
Function of contact		Changeover contacts
Connection C_u	[mm ²]	1 x 2.5 2 x 1.5
Tightening torque	[Nm]	1
AC/DC supply		any
Mounting on DIN top hat rail		EN 60715
Type of protection		IP20
Permissible ambient temperature for operations	[°C]	-25...+60
Storage temperature	[°C]	-40...+70
Mech. device service life		6000 switching cycles
Icu with S450E	[A]	1000
Resistance to vibration		IEC 60068-2; EN 61373 Cat.1/class B 5g, 20 frequency cycle 5...150...5Hz at 24V AC/DC, 5mA brief interrupt <10ms

Auxiliary elements for S800

Shunt Operation Release S800-SOR

		S800-SOR24	S800-SOR130	S800-SOR250	S800-SOR400
Rated voltage Ue	[V AC/DC]	24	48...130	110...250	220...400/250 a
Operating range	[%] Ue	70...110			
Rated insulation voltage Ui	[V]	690			
Coil pull in consumption	[W/VA]	16.6/17 a	41.9...307.3 42...310 ①	23...119 20...105 ①	45...148.1
Rated frequency	[Hz]	DC; 50/60			
Pollution degree		3			
Connection Cu	[mm ²]	1...25 strand 1...35 cable			
Tightening torque	[Nm]	min.3/ max.4			
AC/DC supply		any			
DIN top hat rail		EN 60715			
Type of protection		IP20 IP40 (only actuation side)			
Permissible ambient temperature of operations	[°C]	-25...+60			
Storage temperature	[°C]	-40...+70			
Resistance to vibration		IEC 60068-2-6; EN61373 Cat.1/class B			

① according to UL 489

Undervoltage Release S800-UVR

		S800-UVR36	S800-UVR60	S800-UVR130	S800-UVR250
Rated voltage Ue	[V AC/DC]	24...36	48...60	110...130	220...250
Operating range	Operating opening	35...70			
	Operating closing	85			
Rated insulation voltage Ui	[V]	690			
Coil pull in consumption	[W/VA]	1.11...1.14/1.2	1.14...1.25/1.3 ①	1.3...1.41/1.4 ①	1.71...1.91/1.9 ①
Rated frequency	[Hz]	DC; 50/60			
Pollution degree		3			
Standard		IEC 60947-5-1, UL 489			
Connection Cu	[mm ²]	1...25 strand 1...35 cable			
Tightening torque	[Nm]	min.3/ max.4			
AC/DC supply		any			
DIN top hat rail		EN 60715			
Type of protection		IP20 IP40 (only actuation side)			
Permissible ambient temperature of operations	[°C]	-25...+60			
Storage temperature	[°C]	-40...+70			
Resistance to vibration		IEC 60068-2-6; EN61373 Cat.1/class B			

① according to UL 489

Busbar S803-BB250

Max. rated continuous current I _n	Side supply	[A]	125
	Central supply	[A]	250
Conditional short circuit current I _p		[kA eff]	100 protected by Tmax
Poles			3
Rated operating voltage U _e (AC) 50/60Hz		[V]	400/690
Rated insulation voltage U _i		[V]	690
Rated impulse withstand voltage U _{imp}		[kV]	8
Rated frequency		[Hz]	50
Standards			EN 60439-2:2000
Material of the bars			E-Cu 58 half-hard rolled F25
Material of the insulation profile			Cycoloy C 3600; UL94 V-0 at 1.5mm
Material of the end caps			Polyamide PA66+PA6; UL94 V-0 at 0.4mm Free of halogen and phosphorus
Busbar cross-sections		[mm ²]	60
Overvoltage category			III
Pollution degree			2

Busbar Power Connector S803-BBPC120

Max. rated continuous current I _n	[A]	250
Poles		3
Rated operating voltage U _e	[V]	400/690
Rated frequency	[Hz]	50
Standards		EN 60439-2:2000
Material of the terminals		CuZn39Pb2; material no.: 2.0380
Casing material		Polyamide PA66+PA6; UL94 V-0 at 0.4mm Free of halogen and phosphorus
Tightening torque		
At supply end	[Nm]	19
At busbar end	[Nm]	3
Connection cross-section	[mm ²]	1.6...120
Pollution degree		2

Remote switching unit

Description	Bbn	Order details		Price	Weight	Pack
	7612271	Type code	Order code	1 piece	1 piece	unit
	EAN			kg	pc.	
Remote switching unit	411244	S800-RSU-H	2CCS800900R0501		0.300	1

Description	Bbn	Order details		Price	Weight	Pack
	7612271	Type code	Order code	1 piece	1 piece	unit
	EAN			kg	pc.	
S800-RSU cable with plug	412869	S800-RSU-CP	2CCS800900R0541		0,35	1
10-pole Micro Fit 3.0 plug	412845	S800-RSU-P	2CCS800900R0551		0	1



S800-RSU

2CSC400025F0202



S800-RSU-CP

2CCC413357F0002

Accessories for S800

3



S800S-SCL

2CC0413019F0002

Short-circuit current limiters with cage terminal

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
A					kg	pc.
32	208912	S803S-SCL32	2CCS800900R0291		0.735	1
63	208929	S803S-SCL63	2CCS800900R0301		0.735	1
125	208905	S803S-SCL125	2CCS800900R0281		0.735	1



S800S-SCL-R

2CC0413020F0001

Short-circuit current limiters with ring terminal cable connection

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
A					kg	pc.
32	408916	S803S-SCL32-R	2CCS800900R0332		0.735	1
63	208950	S803S-SCL63-R	2CCS800900R0331		0.735	1
125	208936	S803S-SCL125-R	2CCS800900R0311		0.735	1



S800S-SCL-SR

2CC0413363F0001

Self-resetting short-circuit limiter IEC version

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
A					kg	pc.
32	412012	S801S-SCL32-SR	2CCS801901R0539		0,25	1
63	412036	S801S-SCL63-SR	2CCS801901R0599		0,25	1
100	411992	S801S-SCL100-SR	2CCS801901R0639		0,25	1
32	412074	S802S-SCL32-SR	2CCS801901R0539		0,5	1
63	412098	S802S-SCL63-SR	2CCS801901R0599		0,5	1
100	412050	S802S-SCL100-SR	2CCS801901R0639		0,5	1
32	411930	S803S-SCL32-SR	2CCS803901R0539		0,75	1
63	411947	S803S-SCL63-SR	2CCS803901R0599		0,75	1
100	411954	S803S-SCL100-SR	2CCS803901R0639		0,75	1



S800W-SCL-SR

2CC0413376F0001

Self-resetting short-circuit limiter World version

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
A					kg	pc.
32	412319	S803W-SCL32-SR	2CCS803917R0539		0,75	1
63	412326	S803W-SCL63-SR	2CCS803917R0599		0,75	1
100	412302	S803W-SCL100-SR	2CCS803917R0639		0,75	1



S803HV-SCL-SR for S800HV

2CC0413383F0001

Self-resetting short-circuit limiter for S800HV

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
A					kg	pc.
32	437008	S803HV-SCL32-SR	2CCF019047R0001		0.75	1
63	437107	S803HV-SCL63-SR	2CCF019048R0001		0.75	1
100	437114	S803HV-SCL100-SR	2CCF019049R0001		0.75	1



S800-AUX



S800-AUX-ALT



S800-NT



S800-SOR



S800-UVR

Auxiliary contact

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Auxiliary contact	206802	S800-AUX	2CCS800900R0011		0.049	1

Combined auxiliary and signal contact

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Auxiliary/signal contact	206819	S800-AUX/ALT	2CCS800900R0021		0.050	1

Separating neutral

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Separating neutral 63A	208196	S800-NT	2CCS800900R0061		0.115	1

Shunt operation releases

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
2VAC/DC	212070	S800-SOR12	2CCS800900R0191		0.15	1
24VAC/DC	208318	S800-SOR24	2CCS800900R0191		0.15	1
48...130VAC/DC	208349	S800-SOR130	2CCS800900R0221		0.15	1
110...250VAC/DC	208332	S800-SOR250	2CCS800900R0211		0.15	1
220...400VAC/DC	208356	S800-SOR400	2CCS800900R0231		0.15	1

Under voltage releases

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
24...36VAC/DC	208363	S800-UVR36	2CCS800900R0241		0.15	1
48...60VAC/DC	208370	S800-UVR60	2CCS800900R0251		0.15	1
110...130VAC/DC	208387	S800-UVR130	2CCS800900R0261		0.15	1
220...250VAC/DC	208394	S800-UVR250	2CCS800900R0271		0.15	1

Accessories for S800

3



2CC0413061F001

S800-RD

Rotary drive adapter for 3-4-pole High Performance MCB					
Description	Bbn	Order details		Price	Pack
	7612271			1 piece	1 piece
	EAN	Type code	Order code	kg	pc.
Rotary Drive	208172	S800-RD	2CCS800900R0041	0.080	1



2CC0413062F001

S800-RHE-H

Anthracite/Standard rotary handle for door assembly					
Description	Bbn	Order details		Price	Pack
	8015644			1 piece	1 piece
	EAN	Type code	Order code	kg	pc.
Anthracite rotary handle	625771	S800-RHE-H	1SDA060150R1	0.21	1



S800-RHE-M

Red/Emergency rotary handle for door assembly					
Description	Bbn	Order details		Price	Pack
	8015644			1 piece	1 piece
	EAN	Type code	Order code	kg	pc.
Red rotary handle	625764	S800-RHE-EM	1SDA060151R1	0.21	1



2CC0413064F001

S800-RHE-S

Axial extension of rotary drive - rotary handle 500mm					
Description	Bbn	Order details		Price	Pack
	8015644			1 piece	1 piece
	EAN	Type code	Order code	kg	pc.
Axial extension 500mm for RHE	626242	S800-RHE-S	1SDA060179R1	0.19	1

IP54 protection for rotary handle					
Description	Bbn	Order details		Price	Pack
	8015644			1 piece	1 piece
	EAN	Type code	Order code	kg	pc.
IP54 kit	626259	S800-RHE-IP54	1SDA060180R1	0.075	1

Accessories for MCBs S800 and RCD-blocks DDA 800 series



S800-IP9



S800-PLL



S800U-PLL



S800N-CT



S800-RT

Intermediate piece						
Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Intermediate Piece 9mm	208202	S800-IP9	2CCS800900R0031		0.011	1

Padlock device						
Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Padlock Lever Lock with 4mm hasp	208189	S800-PLL	2CCS800900R0051		0.0015	1

UL locking device						
Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
UL locking device	215057	S800U-PLL	2CCS800017R0001		0.03	2

Interchangeable adapter kit						
Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Cage Terminal	212049	S800N-CT2125	2CCS800900R0181		0.03	2
Cage Terminal	212032	S800N-CT4125	2CCS800900R0151		0.06	4

Interchangeable adapter kit						
Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Ring Terminal cable connection	208240	S800-RT2125	2CCS800900R0161		0.03	2
Ring Terminal cable connection	208219	S800-RT4125	2CCS800900R0131		0.06	4

Auxiliary elements for MCBs S500 and RCD-blocks DDA 800 series



S803-BB

2CCCA13057F0001



S803-BBPC

2CCCA13058F0001

3



S800-BBIC

2CCCA13059F0001



S802-LINK50

2CCCA13254F0001



S802-LINK120

2CCCA13384F0001

Busbar						
Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Busbar 250 A	208288	S803-BB250	2CCS800900R0071		1.5	1

Supply block						
Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Busbar Power Connector 120 mm ²	208301	S803-BBPC120	2CCS800900R0101		0.46	1

Contact protection cap						
Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Busbar Isolation Cap	208967	S800-BBIC	2CCS800900R0081		0.02	12

End cap						
Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
End cap	208295	S800-END	2CCS800900R0091		0.04	10

S 800-ILS						
Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Identification Labeling System 1 68x6x11.5 mm	208271	S800-ILS	2CCS800900R0121		0.011	1

Pole connectors						
Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Pole connector 50A	211295	S802-LINK50	2CCS800900R0411		0,03	10
Pole connector 125A	419103	S802-LINK125	2CCS800900R0562		0,015	2



S500-H

5009681



S500-S

5009684



S500-RSU

breaker is not included

2CSC400025F0202



DDA 800-RT

2CSC400860F0001

Auxiliary elements and accessories for S500

Auxiliary contact

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
1 NO and 1 NC contact	0305506	S500-H11	2CCF008681R0001		0.06	1
2 NO contacts	0305513	S500-H20	2CCF008682R0001		0.06	1

Signal contact

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
1 NO and 1 NC contact	0305537	S500-S11	2CCF008684R0001		0.06	1
2 NO contacts	0305544	S500-S20	2CCF008685R0001		0.06	1

Remote switch unit

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Remote switch unit	1407780	S500-RSU-H	2CCF017987R0001		0.3	1

Auxiliary elements and accessories for DDA 800 RCD-blocks

Description	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Ring tongue terminal kit	987406	DDA 800-RT	2CSB100913R0001		0.01	1/12

Plug-in systems

UNIFIX rapid wiring system

3

UNIFIX – Rapid Wiring System

UNIFIX makes bench pre-cabling possible, with installation in the switchboard only carried out at a later time, without any limit to the types or combination of apparatus you may need to install...and this becomes even easier, thanks to the rigid coupled connectors, standardized for the different types of apparatus.

Unifix H allows modular and moulded-case circuit-breakers up to 250A to be mounted on an apparatus frame, which can be connected directly to the rear busbar system. This means many fewer conductors circulating inside the switchboard with considerable advantages in terms of space taken up, connections needed to be checked, and cabling times, with consequent cost savings.

Unifix L means traditional wire cabling on the supply side of the circuit-breakers can be replaced. It is thanks to the characteristics of its connections that cabling can be done rapidly and without any possibility of error, obtaining a more essential switchboard without conductors and cabling ducts around. Flexibility is its strong point: several independent circuits can be realized on the same DIN rail, and circuit-breakers of different types, with different polarity and characteristics can be mounted.

Customer Benefits with UNIFIX

Wiring Time

The use of Unifix reduces considerably wiring time.

Use of Standard Devices

Unifix can be applied to all standard versions of ABB Sace modular devices, Tmax T1 - T2 - T3 - XT1 - XT3 moulded-case circuit breakers

Flexible

Unifix has variable modular capacity, it is possible to place both circuit-breakers with different polarities side by side on the same line and auxiliary elements.

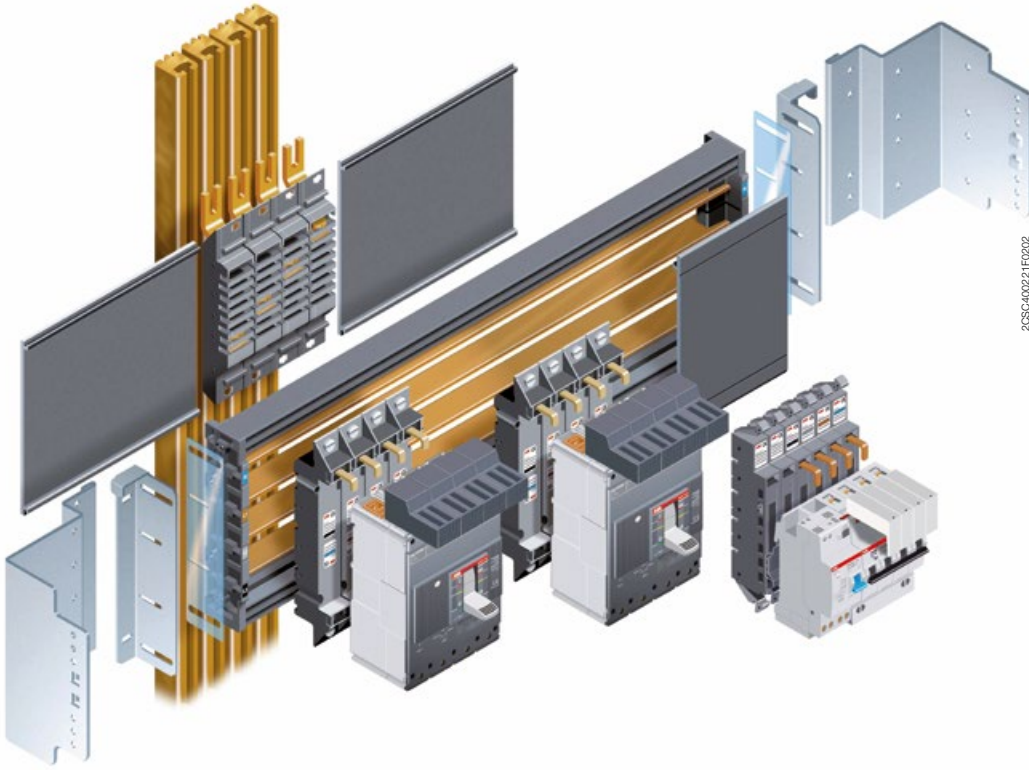
Reduce Space

Space taken up by Unifix is extremely low

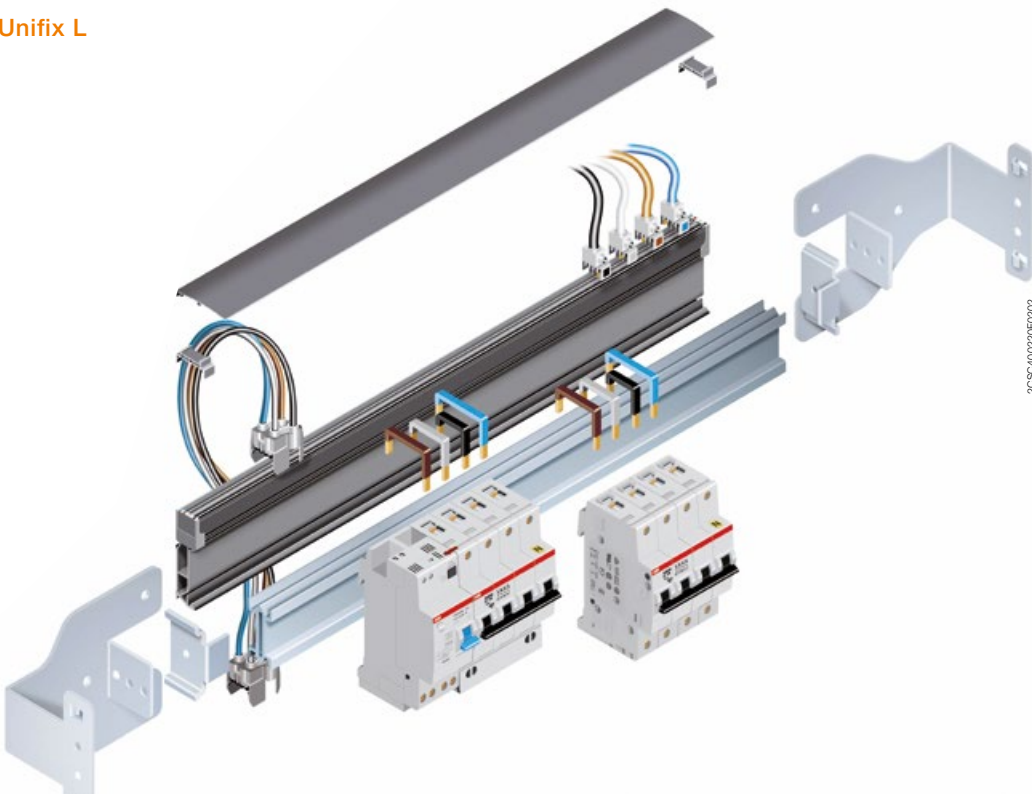
For order codes and technical details please check the Distribution Switchgear Catalogue 1STC008001D0203, pages 3/19-20, 4/18-19-20, 5/50-51-52



Unifix H



Unifix L



Solutions for electrical installation in buildings

Protection and safety

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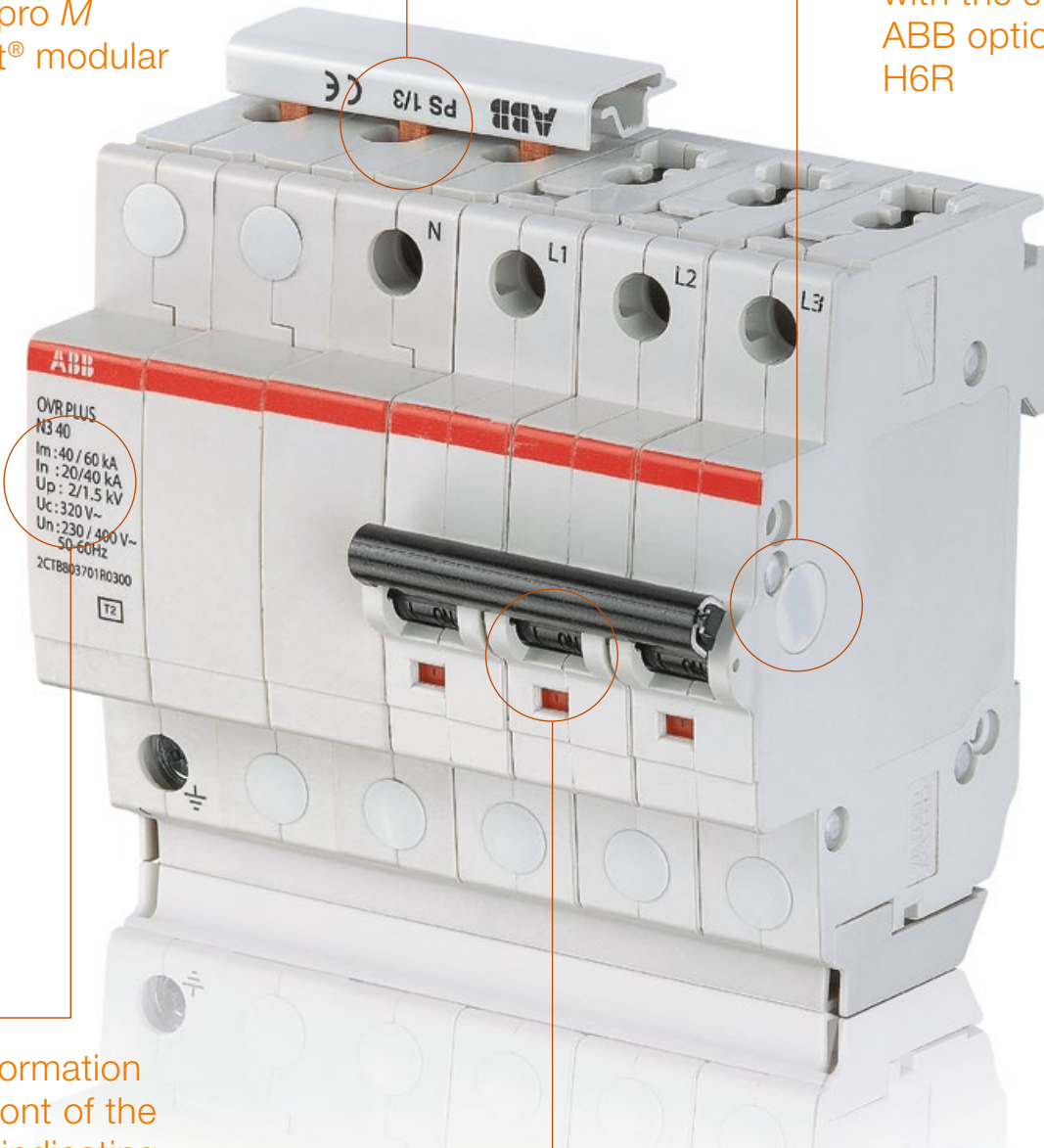
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OVR Plus, OVR T1-T2, T2 and T2-T3 ranges. The details make the difference

A complete range for your surge protection

Standard pro M terminals design for a better coordination with the complete ABB System pro M compact® modular range.

Possibility to add an auxiliary contact on the OVR Plus range with the standard ABB option S2C-H6R



Clear information on the front of the product indicating the technical characteristics of the OVR.

The MCB toggle indicates the status of the OVR PLUS range.

Toggle on: OVR PLUS is active
Toggle off: You can switch on again.
The OVR PLUS has protected your installation and is still active
Toggle off: You cannot switch on again.
You have to change the OVR PLUS.



The bidirectional cylindrical terminal block of the **OVR Plus** range allows a complete coordination with the ABB range with considerable time savings in wiring operations. All the devices allow connection through busbars, both from above and from below.



The pluggable feature of ABB **OVR T1-T2, T2 and T2-T3** surge protective devices (SPDs) facilitates maintenance. Should one or more worn cartridges need to be replaced, the electrical circuit does not have to be isolated nor do the wires have to be removed.



The end-of-life indicator of the SPD signals the status of the device. A mechanical indicator turns from green to red when the SPD reaches the end of its life, when the end-of-life indicator is fitted.



The toggle of the miniature circuit breaker indicates the status of the **OVR Plus** range.
 If the toggle is on, the surge protection is active.
 If the toggle is off and can be switched on again, the device has protected your equipment.
 If the toggle is off and cannot be switched on. The device must be changed.



The configuration allows to use the **OVR Plus** range on TT and TNS network in Phase + Neutral and 3 Phases + Neutral with a high surge capacity up to 40kA I_{max}.

Surge and lightning protection solutions

Coordination and wiring principals

The SPD installed at the line entrance of an installation may not ensure an effective protection to the whole system. As a matter of fact, the selection of the voltage protection level (U_p) of SPDs depends on many parameters: Type of equipment to be protected, the length of the connections to the SPDs, the length in between the SPDs and the equipment to be protected.

Coordination required if :

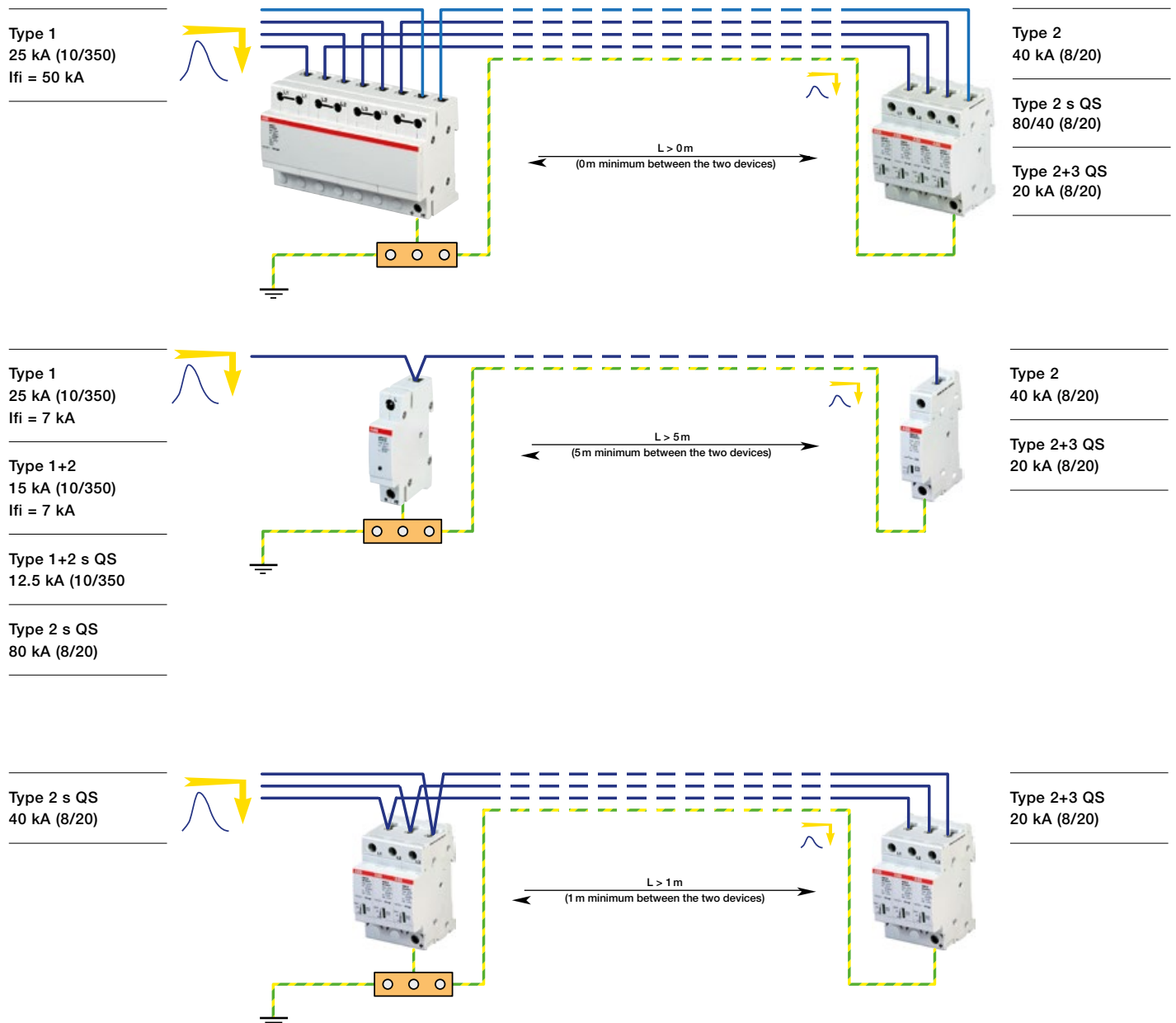
The protection level (U_p) of the SPDs is not low enough to protect the equipment.
If the distance in between the SPDs and the equipment is $>10\text{m}$.

NOTE:

The first SPD is diverting most of the surge current to the ground, and the second SPD will ensure a good protection level to the equipment.

It is what we call the stepping protection.

Coordination between Type 1, Type 1+2, Type 2 (with and without Safety System) and Type 2+3 surge protective device



Type of Surge Protective Devices	Circuit breaker maximum ratings * curve B or C				Fuses maximum ratings* (gL - gG)
	Ip ≤ 6 kA	Prospective short circuit current at SPD location (IP)			
		IP ≤ 10 kA	IP ≤ 15 kA	IP ≤ 50 kA	
Type 1					
OVR T1 25 kA non-pluggable Iimp 25 kA; Uc 255, 440 V	-	-	-	-	125 A fuse
Type 1+2					
OVR T1+2 non-pluggable Iimp 25 kA/Ifi = 15 kA; Uc 255 V	-	-	-	-	125 A fuse
OVR T1+2 non-pluggable Iimp 15 kA/Ifi = 7 kA; Uc 255 V	-	-	-	-	125 A fuse
OVR T1-T2 pluggable Safety Reserve QuickSafe® Iimp 12.5 kA; Uc 275, 440V	-	-	-	-	160 A fuse
Type 2					
OVR T2 pluggable Imax 15 kA; Uc 75 V	S 200 M - 16	S 200 M - 16	-	-	16 A fuse
Type 2 pluggable Imax 120 kA; Uc 440V	S 200 M - 50	S 200 M - 50	S 200 P - 50	S 200 P - 50	50 A fuse
OVR T2 pluggable Safety Reserve QuickSafe® Imax 40 and 80 kA; Uc 275, 440 V	S 200 M - 63	S 200 M - 63	S 200 P - 63	S 800 S - 125	160 A fuse
Type 2 QuickSafe® pluggable Imax 40 kA; Uc 275, 350, 440, 600 V	S 200 M - 63	S 200 M - 63	S 200 P - 63	S 800 S - 125	125 A fuse
OVR T2 non-pluggable Imax 20 and 40 kA Uc 150 V, 275 and 440 V	S 200 M - 50	S 200 M - 50	S 200 P - 50	S 200 P - 50	50 A fuse
Type 2+3					
OVR T2-T3 Safety QuickSafe® Imax 20 kA; Uc 275, 350, 440, 600 V	S 200 M - 63	S 200 M - 63	S 200 P - 63	S 800 S - 125	125 A fuse
Type 3					
OVR T3 non-pluggable Imax 10 kA; Uc 275 V	S 200 M - 10	S 200 M - 10	-	-	25 A fuse

* Maximum ratings, must be in accordance with the installation to follow coordination rules with main or upstream short circuit protection(s).

Service entrance SPDs	PE connection cable size
Type 1	16 mm ²
Type 1+2	16 mm ²
Type 2	4 mm ²
Type 2+3	4 mm ²
Type 3	4 mm ²

Backup disconnection

Type 2 QuickSafe® Characteristics	Prospective short circuit current at SPD location (Ip)	Circuit breaker* (curve B or C)	Fuses* (gL - gG)
Maximum rating			
In: 5, 20, 30 kA Uc: 275, 350, 440, 600 V	0.625 kA < Ip < 100 kA	S800S B or C - 125 A**	E90/125 125 A fuse (without Safety Reserve System) 160 A fuse (with Safety Reserve System)

*: The backup disconnection of the SPD shall always be coordinated with the circuit breakers used in the installation.

**: up to Ip ≤ 50kA

Protection and safety

OVR surge protective devices selection tables

Protected lines	Impulse current Iimp 10/350 kA	Max. discharge current Imax 8/20 kA	Nominal current In kA	Follow current interrupting rating Ifi kA	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Type	Order code
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Type 1 OVR non-pluggable

Uc 255 V

1	25	60	25	50	2.5	230	255	OVR T1 25-255	2CTB815101R0100
2	25	60	25	50	2.5	230/400	255	OVR T1 2L 25-255	2CTB815101R1200
2	25	60	25	50	2.5	230/400	255	OVR T1 2L 25-255 TS	2CTB815101R1100
3	25	60	25	50	2.5	230/400	255	OVR T1 3L 25-255	2CTB815101R1300
3	25	60	25	50	2.5	230/400	255	OVR T1 3L 25-255 TS	2CTB815101R0600
4	25	60	25	50	2.5	230/400	255	OVR T1 4L 25-255	2CTB815101R1400
4	25	60	25	50	2.5	230/400	255	OVR T1 4L 25-255 TS	2CTB815101R0800
1+1	25	60	25	50	2.5	230	255	OVR T1 1N 25-255	2CTB815101R1500
1+1	25	60	25	50	2.5	230	255	OVR T1 1N 25-255 TS	2CTB815101R1000
3+1	25	60	25	50	2.5	230/400	255	OVR T1 3N 25-255	2CTB815101R1600
3+1	25	60	25	50	2.5	230/400	255	OVR T1 3N 25-255 TS	2CTB815101R0700
1	25	60	25	7	2.5	230	255	OVR T1 25-255-7	2CTB815101R8700
3+1	25	60	25	7	2.5	230/400	255	OVR T1 3N 25-255-7	2CTB815101R8800

Uc 440 V

1	25	60	25	50	2.5	400/690	440	OVR T1 25-440-50	2CTB815101R9300
Neutral									
1	25	60	25	0.1	4	400	690	OVR T1 25 N	2CTB815101R9700
1	50	100	50	0.1	1.5	230	255	OVR T1 50 N	2CTB815101R0400
1	100	100	25	0.1	2	230	255	OVR T1 100 N	2CTB815101R0500

Type T1-T2 OVR pluggable and non-pluggable

Uc 255-275 V

1	25	60	25	-	1.5	230	255	OVR T1+2 25-255 TS	2CTB815101R0300
1	25	60	25	-	1.5	230	255	OVR T1+2 1N 25-255 TS	2CTB815101R4400
1	25	60	25	-	1.5	230/400	255	OVR T1+2 3L 25-255 TS	2CTB815101R4300
1	25	60	25	-	1.5	230/400	255	OVR T1+2 3N 25-255 TS	2CTB815101R4500
1	25	60	25	-	1.5	230/400	255	OVR T1+2 4L 25-255 TS	2CTB815101R4200
1	15	60	15	7	1.7	230	255	OVR T1+2 15-255-7	2CTB815101R8900
3+1	15	60	15	7	1.5	230/400	255	OVR 3N T1+2 15-255-7	2CTB815101R9000
1	12.5	80	20	-	1.4	230	275	OVR T1-T2 12.5-275s P TS QS	2CTB815710R0000
1+1	12.5	80	20	-	1.4	230	275	OVR T1-T2 1N 12.5-275s P TS QS	2CTB815710R0100
3	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 3L 12.5-275s P TS QS	2CTB815710R0600
3+1	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 3N 12.5-275s P TS QS	2CTB815710R0700
4	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 4L 12.5-275s P TS QS	2CTB815710R1100
1	12.5	80	20	-	1.4	230	275	OVR T1-T2 12.5-275s P QS	2CTB815710R1200
1+1	12.5	80	20	-	1.4	230	275	OVR T1-T2 1N 12.5-275s P QS	2CTB815710R1300
3	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 3L 12.5-275s P QS	2CTB815710R1800
3+1	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 3N 12.5-275s P QS	2CTB815710R1900
4	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 4L 12.5-275s P QS	2CTB815710R2300

Uc 440 V

1	12.5	80	20	-	1.9	400	440	OVR T1-T2 12.5-440s P TS QS	2CTB815710R2900
1+1	12.5	80	20	-	1.9	400	440	OVR T1-T2 1N 12.5-440s P TS QS	2CTB815710R3000
3	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 3L 12.5-440s P TS QS	2CTB815710R3500
3+1	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 3N 12.5-440s P TS QS	2CTB815710R3600
4	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 4L 12.5-440s P TS QS	2CTB815710R4000
1	12.5	80	20	-	1.9	400	440	OVR T1-T2 12.5-440s P QS	2CTB815710R4100
1+1	12.5	80	20	-	1.9	400	440	OVR T1-T2 1N 12.5-440s P QS	2CTB815710R4200
3	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 3L 12.5-440s P QS	2CTB815710R4700
3+1	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 3N 12.5-440s P QS	2CTB815710R4800
4	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 4L 12.5-440s P QS	2CTB815710R5200

Neutral

1	50	100	50	-	1.4	230	275	OVR T1-T2 N 50-275s P QS	2CTB815710R5300
1	50	100	50	-	1.9	400	440	OVR T1-T2 N 50-440s P QS	2CTB815710R5300

Cartridges

1	12.5	80	20	-	1.4	230	275	OVR T1-T2 12.5-275s C QS	2CTB815710R2600
1	12.5	80	20	-	1.9	400	440	OVR T1-T2 12.5-440s C QS	2CTB815710R5500
1	50	100	50	-	1.4	230	275	OVR T1-T2 N 50-275s C QS	2CTB815710R2700
1	50	100	50	-	1.9	400	440	OVR T1-T2 N 50-440s C QS	2CTB815710R5600

Protected lines	Impulse current	Max. discharge current	Nominal current	Follow current interrupting rating	Voltage protection level	Nominal voltage	Max. cont. operating voltage	Type	Order code
	limp 10/350	I _{max} 8/20	I _n	I _{fi}	U _p	U _n	U _c		
	kA	kA	kA	kA	kV	V	V		

Type 2 OVR non-pluggable

Uc 150 V

1	-	20	5	-	1.0	120	150	OVR T2 20-150	2CTB804200R0700
1	-	40	20	-	1.4	120	150	OVR T2 40-150	2CTB804201R0700
1	-	20	5	-	1.0	120	150	OVR T2 20-150 (x20)	2CTB804200R1700
1	-	40	20	-	1.4	120	150	OVR T2 40-150 (x20)	2CTB804201R1700

Uc 275 V

1	-	20	5	-	1.0	230	275	OVR T2 20-275	2CTB804200R0100
1	-	40	20	-	1.4	230	275	OVR T2 40-275	2CTB804201R0100
3	-	20	5	-	1.0	230/400	275	OVR T2 3L 20-275	2CTB804600R0400
3	-	40	20	-	1.4	230/400	275	OVR T2 3L 40-275	2CTB804601R0400
4	-	20	5	-	1.0	230/400	275	OVR T2 4L 20-275	2CTB804600R0500
4	-	40	20	-	1.4	230/400	275	OVR T2 4L 40-275	2CTB804601R0500
1	-	20	5	-	1.0	230	275	OVR T2 20-275 (x20)	2CTB804200R1100
1	-	40	20	-	1.4	230	275	OVR T2 40-275 (x20)	2CTB804201R1100
3	-	20	5	-	1.0	230/400	275	OVR T2 3L 20-275 (x6)	2CTB804600R1400
3	-	40	20	-	1.4	230/400	275	OVR T2 3L 40-275 (x6)	2CTB804601R1400
4	-	20	5	-	1.0	230/400	275	OVR T2 4L 20-275 (x5)	2CTB804600R1500
4	-	40	20	-	1.4	230/400	275	OVR T2 4L 40-275 (x5)	2CTB804601R1500

Uc 440 V

1	-	20	5	-	1.3	400	440	OVR T2 20-440	2CTB804200R0200
1	-	40	20	-	1.9	400	440	OVR T2 40-440	2CTB804201R0200
1	-	20	5	-	1.3	400	440	OVR T2 20-440 (x20)	2CTB804200R1200
1	-	40	20	-	1.9	400	440	OVR T2 40-440 (x20)	2CTB804201R1200

Type 2 OVR pluggable

Uc 75 V

1		20	5		0.3	57	75	OVR T2 20-75 P	2CTB803851R2800
1		20	5		0.3	57	75	OVR T2 20-75 P TS	2CTB803851R2700
2		20	5		0.3	57	75	OVR T2 2 20-75 P	2CTB803852R1700
2		20	5		0.3	57	75	OVR T2 2 20-75 P TS	2CTB803852R1600

Uc 275 V

1	2	40	20		1.25	230	275	OVR T2 40-275 P TS QS	2CTB803871R1700
1+1	2	40	20		1.25	230	275	OVR T2 1N 40-275 P TS QS	2CTB803972R0500
3	2	40	20		1.25	230/400	275	OVR T2 3L 40-275 P TS QS	2CTB803873R2500
4	2	40	20		1.25	230/400	275	OVR T2 4L 40-275 P TS QS	2CTB803873R5200
1	2	40	20		1.25	230	275	OVR T2 40-275 P QS	2CTB803871R2300
1+1	2	40	20		1.25	230	275	OVR T2 1N 40-275 P QS	2CTB803972R1100
3	2	40	20		1.25	230/400	275	OVR T2 3L 40-275 P QS	2CTB803873R2400
4	2	40	20		1.25	230/400	275	OVR T2 4L 40-275 P QS	2CTB803873R5600
1	2	40	20		1.4	230	275	OVR T2 40-275s P TS QS	2CTB815704R0000
1+1	2	40	20		1.4	230	275	OVR T2 1N 40-275s P TS QS	2CTB815704R0200
3	2	40	20		1.4	230/400	275	OVR T2 3L 40-275s P TS QS	2CTB815704R0600
4	2	40	20		1.4	230/400	275	OVR T2 4L 40-275s P TS QS	2CTB815704R1100
1	2	40	20		1.4	230	275	OVR T2 40-275s P QS	2CTB815704R1200
1+1	2	40	20		1.4	230	275	OVR T2 1N 40-275s P QS	2CTB815704R1400
3	2	40	20		1.4	230/400	275	OVR T2 3L 40-275s P QS	2CTB815704R1800
4	2	40	20		1.4	230/400	275	OVR T2 4L 40-275s P QS	2CTB815704R2300
1	6.25	80	20		1.4	230	275	OVR T2 80-275s P TS QS	2CTB815708R0000
1+1	6.25	80	20		1.4	230	275	OVR T2 1N 80-275s P TS QS	2CTB815708R0200
3	6.25	80	20		1.4	230/400	275	OVR T2 3L 80-275s P TS QS	2CTB815708R0600
4	6.25	80	20		1.4	230/400	275	OVR T2 4L 80-275s P TS QS	2CTB815708R1100
1	6.25	80	20		1.4	230	275	OVR T2 80-275s P QS	2CTB815708R1200
1+1	6.25	80	20		1.4	230	275	OVR T2 1N 80-275s P QS	2CTB815708R1400
3	6.25	80	20		1.4	230/400	275	OVR T2 3L 80-275s P QS	2CTB815708R1800
4	6.25	80	20		1.4	230/400	275	OVR T2 4L 80-275s P QS	2CTB815708R2300

Protection and safety

OVR surge protective devices selection tables

Protected lines	Impulse current Iimp 10/350 kA	Max. discharge current Imax 8/20 kA	Nominal current In kA	Follow current interrupting rating Ifi kA	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Type	Order code
Neutral									
1	2	80	30	-	1.4	230	275	OVR T2-T3 N 80-275 P QS	2CTB803973R1900
1	6.25	80	30	-	1.4	230	275	OVR T2 N 80-275s P QS	2CTB815708R2500
Cartridges									
1	2	80	30		1.4	230	275	OVR T2-T3 N 80-275 C QS	2CTB803876R0000
1	2	40	20		1.25	230	275	OVR T2 40-275 C QS	2CTB803876R1000
1	6.25	40	20		1.4	230	275	OVR T2 40-275s C QS	2CTB815704R2600
1	6.25	80	20		1.4	230	275	OVR T2 80-275s C QS	2CTB815708R2600
1	6.25	80	30		1.4	230	275	OVR T2 N 80-275s C QS	2CTB815708R2800
Uc 350V									
1	2	40	20		1.5	230	350	OVR T2 40-350 P QS	2CTB803881R2300
1	2	40	20		1.5	230	350	OVR T2 40-350 P TS QS	2CTB803881R1700
1+1	2	40	20		1.7	230	350	OVR T2 1N 40-350 P QS	2CTB803982R1100
1+1	2	40	20		1.7	230	350	OVR T2 1N 40-350 P TS QS	2CTB803982R0500
3	2	40	20		1.5	230/400	350	OVR T2 3L 40-350 P QS	2CTB803883R2400
3	2	40	20		1.5	230/400	350	OVR T2 3L 40-350 P TS QS	2CTB803883R2500
3+1	2	40	20		1.7	230/400	350	OVR T2 3N 40-350 P QS	2CTB803983R1100
3+1	2	40	20		1.7	230/400	350	OVR T2 3N 40-350 P TS QS	2CTB803983R0500
Neutral									
1	2	80	30		1.4	230	350	OVR T2 N 80-350 P QS	2CTB803983R1900
Cartridges									
1	2	80	30		1.4	230	350	OVR T2 N 80-350 C QS	2CTB803886R0000
1	2	40	20		1.5	230	350	OVR T2 40-350 C QS	2CTB803886R1000
Uc 440V									
1		60	60		2.5	400	440	OVR T2 120-440s P TS	2CTB803951R1300
1	2	40	20		1.8	400	440	OVR T2 40-440 P QS	2CTB803871R1200
1	2	40	20		1.8	400	440	OVR T2 40-440 P TS QS	2CTB803871R0500
3	2	40	20		1.8	400/690	440	OVR T2 3L 40-440 P TS QS	2CTB803873R2700
4	2	40	20		1.8	400/690	440	OVR T2 4L 40-440 P QS	2CTB803873R5100
4	2	40	20		1.8	400/690	440	OVR T2 4L 40-440 P TS QS	2CTB803873R5300
3+1	2	40	20		2.1	400/690	440	OVR T2 3N 40-440 P QS	2CTB803973R1400
3+1	2	40	20		2.1	400/690	440	OVR T2 3N 40-440 P TS QS	2CTB803973R1500
3	2	40	20		1.8	400/690	440	OVR T2 3L 40-440 P QS	2CTB803873R2800
1	2	40	20		1.8	400	440	OVR T2 40-440s P TS QS	2CTB815704R2900
3+1	2	40	20		1.8	400/690	440	OVR T2 3N 40-440s P TS QS	2CTB815704R3700
1	2	40	20		1.8	400	440	OVR T2 40-440s P QS	2CTB815704R4100
1	6.25	80	20		1.8	400	440	OVR T2 80-440s P TS QS	2CTB815708R2900
3	6.25	80	20		1.8	400/690	440	OVR T2 3L 80-440s P TS QS	2CTB815708R3500
3+1	6.25	80	20		1.8	400/690	440	OVR T2 3N 80-440s P TS QS	2CTB815708R3700
4	6.25	80	20		1.8	400/690	440	OVR T2 4L 80-440s P TS QS	2CTB815708R4000
1	6.25	80	20		1.8	400	440	OVR T2 80-440s P QS	2CTB815708R4100
3	6.25	80	20		1.8	400/690	440	OVR T2 3L 80-440s P QS	2CTB815708R4700
3+1	6.25	80	20		1.8	400/690	440	OVR T2 3N 80-440s P QS	2CTB815708R4900
4	6.25	80	20		1.8	400/690	440	OVR T2 4L 80-440s P QS	2CTB815708R5200
Neutral									
1	6.25	80	30		2	400	440	OVR T2 N 80-440s P QS	2CTB815708R5400
1	2	80	30		1.4	400	440	OVR T2-T3 N 80-440 P QS	2CTB803973R2000
Cartridges									
1	2	80	20		1.8	400	440	OVR T2 40-440 C QS	2CTB803876R0400
1	2	40	20		1.8	400	440	OVR T2-T3 40-440s C QS	2CTB815704R5500
1	6.25	80	20		1.8	400	440	OVR T2 80-440s C QS	2CTB815708R5500
1	6.25	80	30		1.4	400	440	OVR T2-T3 N 80-440 C QS	2CTB803886R0100
1	6.25	80	30		2	400	440	OVR T2 N 80-440s C QS	2CTB815708R5700

Protected lines	Impulse current Iimp 10/350 kA	Max. discharge current Imax 8/20 kA	Nominal current In kA	Follow current interrupting rating Ifi kA	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Type	Order code
Uc 600V									
1	2	40	20		2.3	400	600	OVR T2 40-600 P TS QS	2CTB803881R0500
3	2	40	20		2.3	400/690	600	OVR T2 3L 40-600 P TS QS	2CTB803883R2700
4	2	40	20		2.3	400/690	600	OVR T2 4L 40-600 P TS QS	2CTB803883R5300

Uc 760V									
3		40	15		2.9	400/690	440	OVR T2 3L 40 400/690 P	2CTB803853R4500
3		40	15		2.9	400/690	440	OVR T2 3L 40 400/690 P TS	2CTB803853R4600
Cartridges									
1		40	20		2.9	400	440	OVR T2 40-400/690 C	2CTB803854R1100

Type T2-T3 OVR Pluggable

Uc 275V									
1	2	20	5		0.9	230	275	OVR T2-T3 20-275 P QS	2CTB803871R2400
1	2	20	5		0.9	230	275	OVR T2-T3 20-275 P TS QS	2CTB803871R2500
1+1	2	20	5		1.4	230	275	OVR T2-T3 1N 20-275 P QS	2CTB803972R1200
1+1	2	20	5		1.4	230	275	OVR T2-T3 1N 20-275 P TS QS	2CTB803972R1300
3	2	20	5		0.85	230/400	275	OVR T2-T3 3L 20-275 P QS	2CTB803873R3400
3	2	20	5		0.85	230/400	275	OVR T2-T3 3L 20-275 P TS QS	2CTB803873R3500
3+1	2	20	5		1.4	230/400	275	OVR T2-T3 3N 20-275 P QS	2CTB803973R1200
3+1	2	20	5		1.4	230/400	275	OVR T2-T3 3N 20-275 P TS QS	2CTB803973R1600

Neutral									
1		80	30		1.4	230	275	OVR T2-T3 N 80-275 P QS	2CTB803973R1900

Cartridges									
1		20	5		1.4	230	275	OVR T2 20-275 C QS	2CTB803876R1200
1		80	30		1.4	230/400	275	OVR T2-T3 N 80-275 C QS	2CTB803876R0000

Uc 440V									
1	2	20	5		1.4	400	440	OVR T2-T3 20-440 P QS	2CTB803871R1100
1	2	20	5		1.4	400	440	OVR T2-T3 20-440 P TS QS	2CTB803871R1300
3+1	2	20	5		1.4	400/690	440	OVR T2-T3 3N 20-440 P QS	2CTB803973R1300

Neutral									
1		80	30		1.4	400	440	OVR T2-T3 N 80-440 P QS	2CTB803973R2000

Cartridges									
1		80	5		1.4	400	440	OVR T2 20-440 C QS	2CTB803876R0600
1		80	30		1.4	400	440	OVR T2-T3 N 80-440 C QS	2CTB803886R0100

OVR T3 OVR non-pluggable

Combination wave Uoc 6 kV									
1+1	-	10	3	-	0.9	230	275	OVR 1N 10 275	2CTB813912R1000
3+1	-	10	3	-	0.9	230/400	275	OVR 3N 10 275	2CTB813913R1000

Protected lines	Impulse current Iimp 10/350 kA	Max. discharge current Imax 8/20 kA	Nominal discharge current In kA	Short circuit withstand Iscrr/Iscpv kA	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Type	Order code
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Type T2-T3 OVR non-pluggable Street Light

1+1		15	5		1.1	230	275	OVR T2-T3 N1 15-275s SL	2CTB804500R0200
1+1		15	5		1.1	230	275	OVR T2-T3 N1 15-275s SL (x20)	2CTB804500Z1200

Protection and safety

OVR surge protective devices selection tables

Protected lines	Impulse current	Max. discharge current	Nominal current	Follow current interrupting rating	Voltage protection level	Nominal voltage	Max. cont. operating voltage	Type	Order code
	Iimp 10/350 kA	I _{max} 8/20 kA	I _n kA	I _{fi} kA	U _p kV	U _n V	U _c V		

Type T2 OVR autoprotected non-pluggable

1+1	-	20	5	-	1.3	230	275	OVR PLUS N1 20	2CTB803701R0700
1+1	-	40	20	-	1.6	230	275	OVR PLUS N1 40	2CTB803701R0100
3+1	-	20	5	-	1.3	230/400	275	OVR PLUS N3 20	2CTB803701R0400
3+1	-	40	20	-	1.5	230/400	275	OVR PLUS N3 40	2CTB803701R0300

4 Type 1 OVR pluggable PV applications

Uc 600 V DC

1+1 DC	6,25	-	6,25	0.3 (Iscpv)	1.9	600	600	OVR PV T1 6.25-600 P TS	2CTB803953R5700
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Cartridges

1+1 DC	6,25	-	6,25	0.3 (Iscpv)	1.9	600	600	OVR PV T1 6.25-600 C	2CTB803950R1000
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Uc 1000 V DC

1+1 DC	6,25	-	6,25	0.3 (Iscpv)	2.5	1000	1000	OVR PV T1 6.25-1000 P TS	2CTB803953R6700
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Cartridges

1+1 DC	6,25	-	6,25	0.3 (Iscpv)	2.5	1000	1000	OVR PV T1 6.25-1000 C	2CTB803950R1100
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Type 2 OVR pluggable PV applications

Uc 670 V DC

1+1 DC	2	40	20	0.3 (Iscpv)	2.8/1.4	600	600	OVR PV T2 40-600 P QS	2CTB804153R2800
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1+1 DC	2	40	20	0.3 (Iscpv)	2.8/1.4	600	600	OVR PV T2 40-600 P TS QS	2CTB804153R2900
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1+1 DC	2	40	20	0.3 (Iscpv)	2.8/1.4	600	600	OVR PV T2 40-600 P QS BULK (30)	2CTB804153Z2800
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1+1 DC	2	40	20	0.3 (Iscpv)	2.8/1.4	600	600	OVR PV T2 40-600 P TS QS BULK (30)	2CTB804153Z2900
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Cartridges

1+1 DC	2	40	20	10.000 (Iscpv)	2.8/1.4	600	600	OVR PV T2 40-600 C QS	2CTB804153R3100
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1+1 DC	2	40	20	10.000 (Iscpv)	2.8/1.4	600	600	OVR PV MC C QS	2CTB804153R3500
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Uc 1100 V DC

1+1 DC		40	20	10.000 (Iscpv)	3.8	1000	1100	OVR PV T2 40-1000 P QS	2CTB804153R2400
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1+1 DC	2	40	20	10.000 (Iscpv)	3.8	1000	1100	OVR PV T2 40-1000 P TS QS	2CTB804153R2500
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1+1 DC	2	40	20	10.000 (Iscpv)	3.8	1000	1100	OVR PV T2 40-1000 P QS BULK (30)	2CTB804153Z2400
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1+1 DC	2	40	20	10.000 (Iscpv)	3.8	1000	1100	OVR PV T2 40-1000 P TS QS BULK (30)	2CTB804153Z2500
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2+2 DC	2	40	20	10.000 (Iscpv)	3.8	1000	1100	OVR PV T2 40-1000 P TWIN QS	2CTB804153R3000
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2+2 DC	2	40	20	10.000 (Iscpv)	3.8	1000	1100	OVR PV T2 40-1000 P TS TWIN QS	2CTB804153R2300
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2+2 DC	2	40	20	10.000 (Iscpv)	3.8	1000	1100	OVR PV T2 40-1000 P TS TWIN QS BULK (18)	2CTB804153Z2300
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Cartridges

1+1 DC or 2+2DC	2	40	20	10.000 (Iscpv)	3.8	1000	1100	OVR PV T2 40-1000 C QS	2CTB804153R3200
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Uc 1500 V DC

1+1 DC	2	40	10	10.000 (Iscpv)	4.5	1500	1500	OVR PV T2 40-1500 P QS	2CTB804153R2600
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1+1 DC	2	40	10	10.000 (Iscpv)	4.5	1500	1500	OVR PV T2 40-1500 P TS QS	2CTB804153R2700
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1+1 DC	2	40	10	10.000 (Iscpv)	4.5	1500	1500	OVR PV T2 40-1500 P QS BULK (30)	2CTB804153Z2600
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1+1 DC	2	40	10	10.000 (Iscpv)	4.5	1500	1500	OVR PV T2 40-1500 P TS QS BULK (30)	2CTB804153Z2700
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Cartridges

1+1 DC	2	40	10	10.000 (Iscpv)	4.5	1500	1500	OVR PV T2 40-1500 C QS	2CTB804153R3300
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Protected lines	Impulse current I _{imp} 10/350 kA	Max. discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Short circuit withstand I _{sc} cc/I _{sc} pv kA	Voltage protection level U _p kV	Nominal voltage U _n V	Max. cont. operating voltage U _c V	Type	Order code
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Type T1+T2 OVR pluggable WT Applications

Uc 690 V									
3	2	40	20		6	400/690	690	OVR WT 3L 690 P TS	2CTB235402R0000
Cartridges									
1	2	40	20		6	400	440	OVR T2 40 440 C	2CTB803854R0400

Type C2 DATA OVR Pluggable TC

Uc 7 V DC									
1 pair		10	5		0.015	6	7	OVR TC 06V P	2CTB804820R0000
Cartridges									
1 pair		10	5		0.015	6	7	OVR TC 06V C	2CTB804821R0000
Uc 14 V DC									
1 pair		10	5		0.02	12	14	OVR TC 12V P	2CTB804820R0100
Cartridges									
1 pair		10	5		0.02	12	14	OVR TC 12V C	2CTB804821R0100
Uc 27 V DC									
1 pair		10	5		0.035	24	27	OVR TC 24V P	2CTB804820R0200
Cartridges									
1 pair		10	5		0.035	24	27	OVR TC 24V C	2CTB804821R0200
Uc 53 V DC									
1 pair		10	5		0.07	48	53	OVR TC 48V P	2CTB804820R0300
Cartridges									
1 pair		10	5		0.07	48	53	OVR TC 48V C	2CTB804821R0300
Uc 220 V DC									
1 pair		10	5		0.7	200	220	OVR TC 200V P	2CTB804820R0400
1 pair		10	5		0.4	200	220	OVR TC 200FR P	2CTB804820R0500
Cartridges									
1 pair		10	5		0.7	200	220	OVR TC 200V C	2CTB804821R0400
1 pair		10	5		0.4	200	220	OVR TC 200FR C	2CTB804821R0500

Protection and safety

OVR Type 1 surge protective devices, single pole



OVR T1

4

Technical features					
Types			OVR T1 25-255-7	OVR T1 25-440-50	OVR T1 25-255
	with auxiliary contact (TS)		–	–	–
Technology			Spark-gap	Spark-gap	Spark-gap
Electrical features					
Standard			IEC 61643-1/EN 61643-11		
Type/test class			T1/I	T1/I	T1/I
Protected lines			1	1	1
Types of networks			TNC/TNS/TT	IT/TNC/TNS/TT	TNC/TNS/TT
Type of current			AC	AC	AC
Nominal voltage Un		[V]	230/400	400/690	230/400
Maximum continuous operating voltage Uc		[V]	255	440	255
Maximum impulse current Iimp (10/350)		[kA]	25	25	25
Maximum impulse current Tot. Iimp (10/350)		[kA]	25	25	25
Nominal discharge current In (8/20)		[kA]	25	25	25
Follow current interrupting rating Ifi		[kA]	7	50	50
Voltage protection level Up at In		[kV]	≤ 2.5	≤ 2.5	≤ 2.5
Voltage protection level Ures at 3 kA		[kV]	≤ 0.9	≤ 1.3	≤ 0.9
TOV (Temporary overvoltage) withstand Ut					
	(L-N: 5 s /N-PE: 200 ms)	[V]	650/–	690/–	450/–
Response time		[ns]	≤ 100	≤ 100	≤ 100
Residual current IPE		[μA]	10	10	10
Short-circuit withstand capability Iscrr		[kA]	50	50	50
Backup protection	Fuse (gG - gL)	[A]	≤ 125	≤ 125	≤ 125
	Circuit breaker (B or C curve)	[A]	≤ 125	≤ 125	≤ 125
Pluggable cartridge			No	No	No
Integrated thermal disconnecter			–	–	–
State indicator			Yes	No	No
Safety reserve			No	No	No
Auxiliary contact			No	No	No
Installation					
Wire range (L, N, PE)	Solid wire	[mm ²]	2.5...50	2.5...50	2.5...50
	Stranded wire	[mm ²]	2.5...35	2.5...35	2.5...35
Stripping length (L, N, PE)		[mm]	15	15	15
Tightening torque (L, N, PE)		[Nm]	3.5	3.5	3.5
Auxiliary contact (TS)					
Contact complement			–	–	–
Minimum load			–	–	–
Maximum load			–	–	–
Connection cross-section		[mm ²]	–	–	–
Miscellaneous characteristics					
Stocking and operating temperature		[°C]	-40 to +80	-40 to +80	-40 to +80
Degree of protection			IP20	IP20	IP20
Fire resistance according to UL 94			V0	V0	V0
Dimensions	height x width x depth	[mm]	85 x 17.8 x 70.8	90 x 35 x 64.8	90 x 35 x 64.8
		[inches]	3.34 x 0.70 x 2.78	3.54 x 1.38 x 2.55	3.54 x 1.38 x 2.55
Dimensions with auxiliary contact (TS)	height x width x depth	[mm]	–	–	–
		[inches]	–	–	–

Type 1 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

Type 1 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

Follow current interrupting rating 7 kA										
Poles	Impulse current Iimp 10/350 kA	Follow current interrupting rating I _{fi} kA	Voltage protection level		Max. cont. operating voltage U _c V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
			U _p kV	U _n V			Type code	Order code		
1	25	7	2.5	230	255	514110	OVR T1 25-255-7	2CTB815101R8700		0.16

Follow current interrupting rating 50 kA										
Poles	Impulse current Iimp 10/350 kA	Follow current interrupting rating I _{fi} kA	Voltage protection level		Max. cont. operating voltage U _c V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
			U _p kV	U _n V			Type code	Order code		
1	25	50	2.5	400	440	514929	OVR T1 25-440-50	2CTB815101R9300		0.31
1	25	50	2.5	230	255	510877	OVR T1 25-255	2CTB815101R0100		0.31

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Fuses and fuseholders - chapter 4

Protection and safety

OVR Type 1 surge protective devices TNC 230 V networks



2CHC4002/F0013

4

OVR T1 3L 25-255

Technical features			
Types			OVR T1 3L 25-255
	with auxiliary contact (TS)		OVR T1 3L 25-255 TS
Technology			Spark-gap
Electrical features			
Standard			IEC 61643-1/EN 61643-11
Type/test class			T1/I
Protected lines			3
Types of networks			TNC
Type of current			AC
Nominal voltage U_n	[V]		230/400
Maximum continuous operating voltage U_c	[V]		255
Maximum impulse current I_{imp} (10/350)	[kA]		25
Maximum impulse current Tot. I_{imp} (10/350)	[kA]		75
Nominal discharge current I_n (8/20)	[kA]		25
Follow current interrupting rating I_{fi}	[kA]		50
Voltage protection level U_p at I_n	[kV]		≤ 2.5
Voltage protection level U_{res} at 3 kA	[kV]		≤ 0.9
TOV (Temporary overvoltage) withstand U_t	(L-N: 5 s /N-PE: 200 ms) [V]		450/-
Response time	[ns]		≤ 100
Residual current IPE	[μ A]		10
Short-circuit withstand capability I_{scrr}	[kA]		50
Backup protection	Fuse (gG - gL)	[A]	≤ 125
	Circuit breaker (B or C curve)	[A]	≤ 125
Pluggable cartridge			No
Integrated thermal disconnecter			-
State indicator			TS Option
Safety reserve			No
Auxiliary contact			TS Option
Installation			
Wire range (L, N, PE)	Solid wire	[mm ²]	2.5...50
	Stranded wire	[mm ²]	2.5...35
Stripping length (L, N, PE)		[mm]	15
Tightening torque (L, N, PE)		[Nm]	3.5
Auxiliary contact (TS)			
Contact complement			1 NO - 1 NC
Minimum load			12 V DC - 10 mA
Maximum load			250 V AC - 1 A
Connection cross-section		[mm ²]	1.5
Miscellaneous characteristics			
Stocking and operating temperature		[°C]	-40 to +80
Degree of protection			IP20
Fire resistance according to UL 94			V0
Dimensions	height x width x depth	[mm]	90 x 106.8 x 64.8
		[inches]	3.54 x 4.2 x 2.55
with auxiliary contact (TS)	height x width x depth	[mm]	90 x 124.6 x 64.8
		[inches]	3.54 x 4.91 x 2.55

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Type 1 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

Type 1 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

Follow current interrupting rating 50 kA										
Poles	Im-pulse current limp 10/350 kA	Follow current interrupting rating I _{fi} kA	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
							Type code	Order code		
3	25	50	2.5	230/400	255	510907	OVR T1 3L 25-255	2CTB815101R1300		0.94
3	25	50	2.5	230/400	255	510952	OVR T1 3L 25-255 TS	2CTB815101R0600		1.00

Protection and safety

OVR Type 1 surge protective devices TNS/TT 230 V 1Ph+N networks



OVR T1 1N 25-255

4

Technical features			
Types		OVR T1 1N 25-255	OVR T1 2L 25-255
	with auxiliary contact (TS)	OVR T1 1N 25-255 TS	OVR T1 2L 25-255 TS
Technology		Spark-gap	Spark-gap
Electrical features			
Standard		IEC 61643-1/EN 61643-11	IEC 61643-1/EN 61643-11
Type/test class		T1/I	T1/I
Protected lines		1+1	2
Types of networks		TNS/TT	TNS
Type of current		AC	AC
Nominal voltage U_n	[V]	230	230/400
Maximum continuous operating voltage U_c	[V]	255	255
Maximum impulse current I_{imp} (10/350)	[kA]	25	25
Maximum impulse current Tot. I_{imp} (10/350)	[kA]	50	50
Nominal discharge current I_n (8/20)	[kA]	25	25
Follow current interrupting rating I_{fi}	[kA]	50	50
Voltage protection level U_p at I_n (L-N/N-PE/L-PE)	[kV]	2.5/-/2.5	≤ 2.5
Voltage protection level U_{res} at 3 kA (L-N/N-PE/L-PE)	[kV]	0.9/-/0.9	≤ 0.9
TOV (Temporary overvoltage) withstand U_t (L-N: 5 s /N-PE: 200 ms)	[V]	450/1200	450/-
Response time	[ns]	≤ 100	≤ 100
Residual current IPE	[μA]	10	10
Short-circuit withstand capability I_{scCR}	[kA]	50	50
Backup protection	Fuse (gG - gL)	[A]	≤ 125
	Circuit breaker (B or C curve)	[A]	≤ 125
Pluggable cartridge		No	No
Integrated thermal disconnecter		-	-
State indicator		TS Option	TS Option
Safety reserve		No	No
Auxiliary contact		TS Option	TS Option
Installation			
Wire range (L, N, PE)	Solid wire	[mm ²]	2.5...50
	Stranded wire	[mm ²]	2.5...35
Stripping length (L, N, PE)		[mm]	15
Tightening torque (L, N, PE)		[Nm]	3.5
Auxiliary contact (TS)			
Contact complement		1 NO - 1 NC	1 NO - 1 NC
Minimum load		12 V DC - 10 mA	12 V DC - 10 mA
Maximum load		250 V AC - 1 A	250 V AC - 1 A
Connection cross-section		[mm ²]	1.5
Miscellaneous characteristics			
Stocking and operating temperature		[°C]	-40 to +80
Degree of protection			IP20
Fire resistance according to UL 94			V0
Dimensions	height x width x depth	[mm]	90 x 71.2 x 64.8
		[inches]	3.54 x 2.8 x 2.55
with auxiliary contact (TS)	height x width x depth	[mm]	90 x 89 x 64.8
		[inches]	3.54 x 3.5 x 2.55

Type 1 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

Type 1 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

Follow current interrupting rating 50 kA										
Poles	Impulse current limp 10/350 kA	Follow current interrupting rating I _{fi} kA	Voltage protection level		Max. cont. operating voltage U _c V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
			U _p kV	U _n V			Type code	Order code		
1+1	25	50	2.5	230	255	510921	OVR T1 1N 25-255	2CTB815101R1500		0.53
1+1	25	50	2.5	230	255	510976	OVR T1 1N 25-255 TS	2CTB815101R1000		0.64
2	25	50	2.5	230	255	510891	OVR T1 2L 25-255	2CTB815101R1200		0.63
2	25	50	2.5	230	255	510945	OVR T1 2L 25-255 TS	2CTB815101R1100		0.64

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Fuses and fuseholders - chapter 4

Protection and safety

OVR Type 1 surge protective devices TNS/TT 230 V 3Ph+N networks



OVR T1 3N 25-255-7

4

Technical features					
Types			OVR T1 4L 25-255	OVR T1 3N 25-255	OVR T1 3N 25-255-7
	with auxiliary contact (TS)		OVR T1 4L 25-255 TS	OVR T1 3N 25-255 TS	–
Technology			Spark-gap	Spark-gap	Spark-gap
Electrical features					
Standard			IEC 61643-1/EN 61643-11		
Type/test class			T1/I	T1/I	T1/I
Protected lines			4	3+1	3+1
Types of networks			TNS	TNS/TT	TNS/TT
Type of current			AC	AC	AC
Nominal voltage Un	[V]		230/400	230/400	230/400
Maximum continuous operating voltage Uc	[V]		255	255	255
Maximum impulse current Iimp (10/350)	[kA]		25	25	25
Maximum impulse current Tot. Iimp (10/350)	[kA]		100	100	100
Nominal discharge current In (8/20)	[kA]		25	25	25
Follow current interrupting rating I _{fi}	[kA]		50	50	7
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kV]		2.5/–/–	2.5/2.0/2.5	2.0/2.0/2.0
Voltage protection level Ures at 3 kA (L-N/N-PE/L-PE)	[kV]		≤ 0.9	0.9/0.9/0.9	0.9/0.9/0.9
TOV (Temporary overvoltage) withstand Ut (L-N: 5 s /N-PE: 200 ms)	[V]		450/–	450/1200	650/1200
Response time	[ns]		≤ 100	≤ 100	≤ 100
Residual current IPE	[μA]		10	10	1000
Short-circuit withstand capability I _{scCR}	[kA]		50	50	50
Backup protection	Fuse (gG - gL)	[A]	≤ 125	≤ 125	≤ 125
	Circuit breaker (B or C curve)	[A]	≤ 125	≤ 125	≤ 125
Pluggable cartridge			No	No	No
Integrated thermal disconnecter			–	–	–
State indicator			TS option	TS option	Yes
Safety reserve			No	No	No
Auxiliary contact			TS option	TS option	No
Installation					
Wire range (L, N, PE)	Solid wire	[mm ²]	2.5...50	2.5...50	2.5...50
	Stranded wire	[mm ²]	2.5...35	2.5...35	2.5...35
Stripping length (L, N, PE)		[mm]	15	15	15
Tightening torque (L, N, PE)		[Nm]	3.5	3.5	3.5
Auxiliary contact (TS)					
Contact complement			1 NO - 1 NC	1 NO - 1 NC	–
Minimum load			12 V DC - 10 mA	12 V DC - 10 mA	–
Maximum load			250 V AC - 1 A	250 V AC - 1 A	–
Connection cross-section		[mm ²]	1.5	1.5	–
Miscellaneous characteristics					
Stocking and operating temperature		[°C]	-40 to +80	-40 to +80	-40 to +80
Degree of protection			IP20	IP20	IP20
Fire resistance according to UL 94			V0	V0	V0
Dimensions	height x width x depth	[mm]	90 x 142.4 x 64.8	90 x 142.4 x 64.8	85 x 89 x 70.8
		[inches]	3.54 x 5.61 x 2.55	3.54 x 5.61 x 2.55	3.35 x 3.50 x 2.79
with auxiliary contact (TS)	height x width x depth	[mm]	90 x 160.2 x 64.8	90 x 160.2 x 64.8	–
		[inches]	3.54 x 6.31 x 2.55	3.54 x 6.31 x 2.55	–

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Fuses and fuseholders - chapter 4

Type 1 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

Type 1 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

Follow current interrupting rating 7 kA											
Poles	Impulse current Iimp 10/350 kA	Follow current interrupting rating I _{fi} kA	Voltage protection level		Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
			Up kV	Un V				Type code	Order code		
3+1	25	7	2		230/400	255	514127	OVR T1 3N 25-255-7	2CTB815101R8800		0.84

Follow current interrupting rating 50 kA											
Poles	Impulse current Iimp 10/350 kA	Follow current interrupting rating I _{fi} kA	Voltage protection level		Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
			Up kV	Un V				Type code	Order code		
4	25	50	2.5		230/400	255	510914	OVR T1 4L 25-255	2CTB815101R1400		1.16
4	25	50	2.5		230/400	255	510969	OVR T1 4L 25-255 TS	2CTB815101R0800		1.26
3+1	25	50	2.5		230/400	255	510938	OVR T1 3N 25-255	2CTB815101R1600		1.16
3+1	25	50	2.5		230/400	255	510983	OVR T1 3N 25-255 TS	2CTB815101R0700		1.26

Protection and safety

OVR Type 1 surge protective devices Single pole neutral



OVR T1 100 N

2CSC400023F0013

4

Technical features					
Types			OVR T1 25 N	OVR T1 50 N	OVR T1 100 N
	with auxiliary contact (TS)		–	–	–
Technology			Gas discharge tube (GDT)	Gas discharge tube (GDT)	Gas discharge tube (GDT)
Electrical features					
Standard			IEC 61643-1/EN 61643-11		
Type/test class			T1/I	T1/I	T1/I
Protected lines			1	1	1
Types of networks			Neutral	Neutral	Neutral
Type of current			AC	AC	AC
Nominal voltage Un		[V]	400	230	230
Maximum continuous operating voltage Uc		[V]	690	255	255
Maximum impulse current Iimp (10/350)		[kA]	25	50	100
Maximum impulse current Tot. Iimp (10/350)		[kA]	25	50	100
Nominal discharge current In (8/20)		[kA]	25	25	25
Follow current interrupting rating Ifi		[kA]	0.1	0.1	0.1
Voltage protection level Up at In		[kV]	≤ 4	≤ 1.5	≤ 2
Voltage protection level Ures at 3 kA		[kV]	–	0.9	0.9
TOV (Temporary overvoltage) withstand Ut (L-N: 5 s /N-PE: 200 ms)		[V]	–/1200	–/1200	–/1200
Response time		[ns]	≤ 100	≤ 100	≤ 100
Residual current IPE		[μA]	10	10	10
Short-circuit withstand capability Isccr		[kA]	50	50	50
Backup protection		Fuse (gG - gL)	[A]	–	–
		Circuit breaker (B or C curve)	[A]	–	–
Pluggable cartridge			No	No	No
Integrated thermal disconnecter			–	–	–
State indicator			No	No	No
Safety reserve			No	No	No
Auxiliary contact			No	No	No
Installation					
Wire range (L, N, PE)		Solid wire	[mm ²]	2.5...50	2.5...50
		Stranded wire	[mm ²]	2.5...35	2.5...35
Stripping length (L, N, PE)			[mm]	15	15
Tightening torque (L, N, PE)			[Nm]	3.5	3.5
Auxiliary contact (TS)					
Contact complement			–	–	–
Minimum load			–	–	–
Maximum load			–	–	–
Connection cross-section			[mm ²]	–	–
Miscellaneous characteristics					
Stocking and operating temperature			[°C]	-40 to +80	-40 to +80
Degree of protection				IP20	IP20
Fire resistance according to UL 94				V0	V0
Dimensions		height x width x depth		[mm]	85 x 17.8 x 64.8
		[inches]	3.35 x 0.70 x 2.55	3.35 x 1.40 x 2.55	3.35 x 1.40 x 2.55
with auxiliary contact (TS)		height x width x depth		[mm]	–
		[inches]	–	–	–

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Type 1 and Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

Type 1+2 ABB surge protective devices have a high impulse current withstand capacity with ensuring a low protection level (Up).

Type 1 and Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

Type 1 Neutral										
Poles	Im- pulse cur- rent Iimp 10/350 kA	Follow cur- rent inter- rupt- ing rating I _{fi} kA	Volt- age pro- tection level U _p kV	Nominal voltage U _n V	Max. cont. operat- ing voltage U _c V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
							Type code	Order code		
1	25	0.1	4	440	690	517043	OVR T1 25 N	2CTB815101R9700		0.15
1	50	0.1	1.5	230	255	510853	OVR T1 50 N	2CTB815101R0400		0.29
1	100	0.1	2	230	255	510860	OVR T1 100 N	2CTB815101R0500		0.29

Protection and safety

OVR Type 1+2 surge protective devices Single pole



OVR T1-T2 12.5-275s
P QS

4

Technical features				
Types			OVR T1-T2 12.5-275s P QS	OVR T1-T2 12.5-440s P QS
with auxiliary contact (TS)			OVR T1-T2 12.5-275s P TS QS	OVR T1-T2 12.5-440s P TS QS
Electrical features				
Standard			IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Type/test class			T1-T2/I - II	T1-T2/I - II
Protected lines			1	1
System network			TT (L-N) - TNS - TNC	TT (L-N) - TNS - TNC
Type of current			a.c. 45-65Hz	a.c. 45-65Hz
Nominal system voltage Un		[V]	230	400
Max. cont. operating voltage Uc		[V]	275	440
Nominal dc voltage Un dc L-PE		[V dc]	320	495
Max. dc. cont. operating voltage Ucdc L-PE		[V dc]	355	545
Maximum impulse current Iimp (10/350)		[kA]	12.5	12.5
Nominal discharge current In (8/20)		[kA]	20	20
Maximum discharge current Imax (8/20)		[kA]	80	80
Follow current interrupting rating Ifi		[kA]	-	-
Voltage protection level Up at In (L-N/N-PE/L-PE)		[kV]	1.4/-/1.4	1.9/-/1.9
Voltage protection level Ures at 3 kA		[kV]	0.5	0.5
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)		[V]	337/	581/
Response time		[ns]	< 25	< 25
Short-circuit withstand capability Isccr		[kA]	100	100
Backup protection maximum rating		fuse (gG - gL)	[A]	≤ 160
		circuit breaker (B or C curve)	[A]	≤ 125
Pluggable cartridge			Yes	Yes
Integrated thermal disconnecter			Yes	Yes
State indicator			Yes	Yes
Safety reserve			Yes	Yes
Auxiliary contact			Yes (TS option)	Yes (TS option)
Installation				
Wire range (L, N, PE)		solid wire	[mm ²]	2.5 ... 35
		stranded wire	[mm ²]	2.5 ... 25
Stripping length (L, N, PE)		[mm]	12.5	12.5
Tightening torque (L, N, PE)		[Nm]	2.8	2.8
Auxiliary contact (TS)				
Contacts information			1 NO - 1 NC	1 NO - 1 NC
Min. load			12 V DC - 10 mA	12 V DC - 10 mA
Max. load			250 V AC - 1A	250 V AC - 1A
Connection cross-section		[mm ²]	6.5	6.5
Miscellaneous characteristics				
Stocking and operating temperature		[°C]	- 40 to +80	- 40 to +80
Degree of protection			IP 20 - Indoor	IP 20 - Indoor
Fire resistance according to UL 94			V-0	V-0
Dimensions				
height x width x depth		[mm]	88 x 17.8 x 76.7	88 x 35.6 x 76.7
		[inches]	3.46 x 0.70 x 3.02	3.46 x 1.4 x 3.02
Dimensions with auxiliary contact (TS)				
height x width x depth		[mm]	95.8 x 17.8 x 76.7	95.8 x 35.6 x 76.7
		[inches]	3.77 x 0.70 x 3.02	3.77 x 1.4 x 3.02
Replacement Cartridges				
Phase Product ID			OVR T1-T2 12.5-275s C QS 2CTB815710R2600	OVR T1-T2 12.5-440s C QS 2CTB815710R5500
Neutral Product ID			-	-

OVR T1-T2 N 50-275s P QS	OVR T1-T2 N 50-440s P QS	- OVR T1+2 25-255 TS	OVR T1+2 15-255-7
IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
T1-T2/I - II	T1-T2/I - II	T1+2/I - II	T1+2/I - II
N	N	1	1
TT (N) - TNS (N)	TT (N) - TNS (N)	TT (L-N) - TNS - TNC	TT (L-N) - TNS - TNC
a.c. 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz
230	400	230	230
275	440	255	255
-	-	-	-
-	-	-	-
50	50	25	15
50	50	25	15
100	100	60	60
-	-	15	7
-/1.4/-	-/1.9/-	1.5/-/1.5	1.7/-/1.7
-	-	1.0	0.9
-/1200	-/1200	334/-	650/-
≤10	≤10	< 100	< 100
≤100	≤100	≤50	≤50
-	-	≤125	≤125
-	-	≤125	≤125
Yes	Yes	No	No
No	No	Yes	No
No	No	Yes	No
No	No	No	No
No	No	Yes	No
2.5 ... 50	2.5 ... 50	2.5 ... 50	2.5 ... 50
2.5 ... 35	2.5 ... 35	2.5 ... 35	2.5 ... 35
12.5	12.5	15	15
3.5	3.5	3.5	3.5
		1 NO - 1 NC	
		12 V DC - 10 mA	
		250 VAC - 1 A	
		1.5	
-40 to +80	-40 to +80	-40 to +80	-40 to +80
IP 20 - Indoor	IP 20 - Indoor	IP 20 - Indoor	IP 20 - Indoor
V0	V0	V0	V0
88 x 17.8 x 76.7	88 x 17.8 x 76.7		85 x 17.8 x 70.8
3.46 x 0.7 x 3.02	3.46 x 0.7 x 3.02		3.35 x 0.70 x 2.79
		93.5 x 35.6 x 65	
		3.68 x 1.4 x 2.56	
OVR T1-T2 N 50-275s C QS 2CTB815710R2700	OVR T1-T2 N 50-440s C QS 2CTB815710R5600		

Protection and safety

OVR Type 1+2 surge protective devices Single pole

Type 1 and Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

Type 1+2 ABB surge protective devices have a high impulse current withstand capacity with ensuring a low protection level (U_p).

Type 1 and Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

4

Poles	Impulse current Iimp 10/350 kA	Max. discharge current I _{max} 8/20 kA	Follow current interrupting rating I _{fi} kA	Voltage protection level U _p kV	Nominal voltage U _n V	Max. cont. operating voltage U _c V	Bbn 3660 308 EAN	Order details		Weight 1 piece kg
								Type code	Order code	
1	12.5	80	-	1.4	230	275	524881	OVR T1-T2 12.5-275s P TS QS	2CTB815710R0000	0.15
1	12.5	80	-	1.4	230	275	524959	OVR T1-T2 12.5-275s P QS	2CTB815710R1200	0.15
1	12.5	80	-	1.9	400	440	525055	OVR T1-T2 12.5-440s P TS QS	2CTB815710R2900	0.30
1	12.5	80	-	1.9	400	440	525123	OVR T1-T2 12.5-440s P QS	2CTB815710R4100	0.30
1	50	100	-	1.4	230	275	525024	OVR T1-T2 N 50-275s P QS	2CTB815710R2400	0.15
1	50	100	-	1.9	400	440	525192	OVR T1-T2 N 50-440s P QS	2CTB815710R5300	0.14
1	25	60	15	1.5	230	255	510884	OVR T+2 25 -255 TS	2CTB815101R0300	0.27
1	15	60	7	1.7	230	255	514134	OVR T+2 15 -255 -7	2CTB815101R8900	0.14

Where to find more:

Coordination and wiring principals of OVR: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

For back-up protection:
S200 MCBs - chapter 1
Fuses and fuseholders - chapter 4

Is it possible to keep the lights on? Absolutely.

Thanks to continuous innovation on surge protection. ABB improves the protection of the lighting systems equipment by launching the new OVR T2-T3 N1 15-2758 SL. OVR SL is a very compact SPD, equipped with a patented thermal disconnecter and a safety reserve system. This new range is specifically designed in order to prevent the risks of overheating and fires in LED lighting systems.

www.abb.com/lowvoltage



Protection and safety

OVR Type 1+2 surge protective devices TNC 230 and 400 V networks

Technical features

Types		OVR T1-T2 3L 12.5-275s P QS	OVR T1-T2 3L 12.5-440s P QS	
with auxiliary contact (TS)		OVR T1-T2 3L 12.5-275s P TS QS	OVR T1-T2 3L 12.5-440s P TS QS	OVR T1+2 3L 25-255 TS
Electrical features				
Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Type/test class		T1-T2/I - II	T1-T2/I - II	T1+2/I - II
Protected lines		3	3	3
System network		TT (L-N) - TNS - TNC	TT (L-N) - TNS - TNC	TT (L-N) - TNS - TNC
Type of current		a.c. 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz
Nominal system voltage Un	[V]	230/400	400/690	230/400
Max. cont. operating voltage Uc	[V]	275	440	255
Nominal dc voltage Un dc L-PE/Un dc L-L	[V dc]	320/640	495/990	-
Max. dc. cont. operating voltage Ucdc L-PE/Ucdc L-L	[V dc]	355/710	545/1090	-
Maximum impulse current Iimp (10/350)	[kA]	12.5	12.5	25
Max. Imp current Tot Iimp (10/350)	[kA]	37.5	37.5	75
Nominal discharge current In (8/20)	[kA]	20	20	25
Maximum discharge current Imax (8/20)	[kA]	80	80	60
Follow current interrupting rating Ifi	[kA]	-	-	-
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kV]	-/-1.4	-/-1.9	-/-1.5
Voltage protection level Ures at 3 kA	[kV]	0.5	0.8	1.0
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	337/-	581/-	334/-
Response time	[ns]	≤ 25	≤ 25	< 100
Short-circuit withstand capability Isccr	[kA]	100	100	≤50
Backup protection fuse (gG - gL)	[A]	≤ 160	≤ 160	≤125
maximum rating circuit breaker (B or C)	[A]	≤ 125	≤ 125	≤125
Pluggable cartridge		Yes	Yes	No
Integrated thermal disconnecter		Yes	Yes	Yes
State indicator		Yes	Yes	Yes
Safety reserve		Yes	Yes	No
Auxiliary contact		Yes (TS option)	Yes (TS option)	Yes
Installation				
Wire range (L, N, PE)	solid wire	[mm ²]	2.5 ... 35	2.5 ... 35
	stranded wire	[mm ²]	2.5 ... 25	2.5 ... 25
Stripping length (L, N, PE)		[mm]	12.5	12.5
Tightening torque (L, N, PE)		[Nm]	2.8	2.8
Auxiliary contact (TS)				
Contacts information			1 NO- 1 NC	1 NO - 1 NC
Min. load			12 DC - 10 mA	12 V DC - 10 mA
Max. load			250 V AC - 1A	250 VAC - 1 A
Connection cross-section		[mm ²]	1.5	1.5
Miscellaneous characteristics				
Stocking and operating temperature		[°C]	- 40 to +80	-40 to +80
Degree of protection			IP 20 - Indoor	IP 20 - Indoor
Fire resistance according to UL 94			V-0	V0
Dimensions				
height x width x depth		[mm]	88 x 53.4 x 76.7	88 x 106.8 x 76.7
		[inches]	3.46 x 2.1 x 3.02	3.46 x 4.2 x 3.02
Dimensions with auxiliary contact (TS)				
height x width x depth		[mm]	95.8 x 53.4 x 76.7	95.8 x 106.8 x 76.7
		[inches]	3.77 x 2.1 x 3.02	3.77 x 4.2 x 3.02
Replacement Cartridges				
Phase Product ID			OVR T1-T2 12.5-275s C QS 2CTB815710R2600	OVR T1-T2 12.5-440s C QS 2CTB815710R5500
				OVR T1+2 25-255 c 2CTB815101R3700

Type 1 and Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

Type 1+2 ABB surge protective devices have a high impulse current withstand capacity with ensuring a low protection level (U_p).

Type 1 and Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

Poles	Impulse current Iimp 10/350 kA	Max discharge current I _{max} 8/20 kA	Voltage protection level		Max. cont. operating voltage U _c V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
			U _p kV	U _n V			Type code	Order code		
3	12.5	80	1.4	230/400	275	524911	OVR T1-T2 3L 12.5- 275s P TS QS	2CTB815710R0600		0.45
3	12.5	80	1.4	230/400	275	524980	OVR T1-T2 3L 12.5- 275s P QS	2CTB815710R1800		0.45
3	12.5	80	1.9	400/690	440	525086	OVR T1-T2 3L 12.5- 440s P TS QS	2CTB815710R3500		0.90
3	12.5	80	1.9	400/690	440	525154	OVR T1-T2 3L 12.5- 440s P QS	2CTB815710R4700		0.90
3	25	60	1.5	230/400	255	513397	OVR T1+T2 3L 25-255 TS	2CTB815101R4300		0.85

Where to find more:

Coordination and wiring principals of OVR: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

For back-up protection:
S200 MCBs - chapter 1
Fuses and fuseholders - chapter 4

Protection and safety

OVR Type 1+2 surge protective devices TNS/TT 230 1Ph+N and 3Ph+N networks

4

Technical features				
Types		OVR T1-T2 1N 12.5-275s P QS	OVR T1+2 3N 15-255-7	OVR T1-T2 3N 12.5-275s P QS
with auxiliary contact (TS)		OVR T1-T2 1N 12.5-275s P TS QS		OVR T1-T2 3N 12.5-275s P TS QS
Electrical features				
Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Type/test class		T1-T2/I - II	T1+2/I - II	T1-T2/I - II
Protected lines		1+1	3+1	3+1
System network		TT (L-N) - TNS	TNS/TT	TT - TNS
Type of current		a.c. 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz
Nominal system voltage Un	[V]	230	230/400	230/400
Max. cont. operating voltage Uc	[V]	275	255	275
Nominal dc voltage Un dc L-PE/Un dc L-L	[V dc]	-	-	-
Max. dc. cont. operating voltage Ucdc L-PE/Ucdc L-L	[V dc]	-	-	-
Maximum impulse current Iimp (10/350)	[kA]	12.5	15	12.5
Max. Imp current Tot Iimp (10/350)	[kA]	25	60	50
Nominal discharge current In (8/20)	[kA]	20	15	20
Maximal discharge current I _{max} (8/20) kA	[kA]	80	60	80
Follow current interrupting rating I _{fi}	[kA]		7	
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kV]	1.4/1.4/1.5	1.7/1.5/1.7	1.4/1.4/1.5
Voltage protection level Ures at 3 kA	[kV]	0.5	0.9	0.5
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	337/1200	650/1200	337/1200
Response time	[ns]	≤ 25	< 100	≤ 25
Short-circuit withstand capability I _{sc}	[kA]	100	≤ 50	100
Backup protection maximum rating	fuse (gG - gL)	[A]	≤ 160	≤ 160
	circuit breaker (B or C curve)	[A]	≤ 125	≤ 125
Pluggable cartridge		Yes	No	Yes
Integrated thermal disconnecter		Yes	No	Yes
State indicator		Yes	Yes	Yes
Safety reserve		Yes	No	Yes
Auxiliary contact		Yes (TS option)	No	Yes (TS option)
Installation				
Wire range (L, N, PE)	solid wire	[mm ²]	2.5 ... 35	2.5 ... 50
	stranded wire	[mm ²]	2.5 ... 25	2.5 ... 35
Stripping length (L, N, PE)	[mm]	12.5	15	12.5
Tightening torque (L, N, PE)	[Nm]	2.8	3.5	2.8
Auxiliary contact (TS)				
Contacts information		1 NO - 1 NC		1 NO - 1 NC
Min. load		12 V DC - 10 mA		12 V DC - 10 mA
Max. load		250 V AC - 1A		250 V AC - 1A
Connection cross-section	[mm ²]	1.5		1.5
Miscellaneous characteristics				
Stocking and operating temperature	[°C]	- 40 to +80	- 40 to +80	- 40 to +80
Degree of protection		IP 20 - Indoor	IP 20 - Indoor	IP 20 - Indoor
Fire resistance according to UL 94		V-0	V-0	V-0
Dimensions				
height x width x depth	[mm]	88 x 35.6 x 76.7	85 x 89 x 70.8	88 x 71.2 x 76.7
	[in]	3.46 x 1.4 x 3.02	3.35 x 3.5 x 2.79	3.46 x 2.8 x 3.02
Dimensions with auxiliary contact (TS)				
height x width x depth	[mm]	95.8 x 35.6 x 76.7		95.8 x 71.2 x 76.7
	[in]	3.46 x 1.4 x 3.02		3.77 x 2.8 x 3.02
Replacement Cartridges				
Phase Product ID		OVR T1-T2 12.5-275s C QS 2CTB815710R2600		OVR T1-T2 12.5-275s C QS 2CTB815710R2600
Neutral Product ID		OVR T1-T2 N 50-275s C QS 2CTB815710R2700		OVR T1-T2 N 50-275s C QS 2CTB815710R2700

OVR T1-T2 4L 12.5-275s P QS	OVR T1+2 1N 25-255 TS	OVR T1+2 3N 25-255 TS	OVR T1+2 4L 25-255 TS
IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
T1-T2/I - II	T1+2/I - II	T1+2/I - II	T1+2/I - II
3+N	1+N	3+N	3+N
TNS	TT (L-N) - TNS - TNC	TT (L-N) - TNS - TNC	TNS
a.c. 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz
230/400	230	230/400	230/400
275	255	255	255
320/640	-	-	-
355/710	-	-	-
12.5	25	25	25
50	50	100	100
20	25	25	25
80	60	60	60
-	15	15	15
2.8/1.4/1.4	1.5	1.5	1.5
0.5	1.0	1.0	1.0
337/	334/-	334/-	334/-
≤ 25	< 100	< 100	< 100
100	≤ 50	≤ 50	≤ 50
≤ 160	≤ 125	≤ 125	≤ 125
≤ 125	≤ 125	≤ 125	≤ 125
Yes	No	No	No
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	No	No	No
Yes (TS option)	Yes	Yes	Yes
2.5 ... 35	2.5 ... 50	2.5 ... 50	2.5 ... 50
2.5 ... 25	2.5 ... 35	2.5 ... 35	2.5 ... 35
12.5	15	15	15
2.8	3.5	3.5	3.5
1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
12 V DC - 10 mA	12 V DC - 10 mA	12 V DC - 10 mA	12 V DC - 10 mA
250 V AC - 1 A	250 V AC - 1 A	250 V AC - 1 A	250 V AC - 1 A
1.5	1.5	1.5	1.5
- 40 to +80	-40 to +80	-40 to +80	-40 to +80
IP 20 - Indoor	IP 20 - Indoor	IP 20 - Indoor	IP 20 - Indoor
V-0	V0	V0	V0
88 x 71.2 x 76.7	93.5 x 71.2 x 65	93.5 x 142.4 x 65	93.5 x 142.4 x 65
3.46 x 2.8 x 3.02	3.68 x 2.8 x 2.56	3.68 x 5.61 x 2.56	3.68 x 5.61 x 2.56
95.8 x 71.2 x 76.7			
3.77 x 2.8 x 3.02			
OVR T1-T2 12.5-275s C QS 2CTB815710R2600	OVR T1+2 25-255 c 2CTB815101R3700	OVR T1+2 25-255 c 2CTB815101R3700	OVR T1+2 25-255 c 2CTB815101R3700

Protection and safety

OVR Type 1+2 surge protective devices TNS/TT 400 V 1Ph+N and 3Ph+N networks

Technical features

Types		OVR T1-T2 1N 12.5-440s P QS	OVR T1-T2 3N 12.5-440s P QS	OVR T1-T2 4L 12.5-440s P QS
with auxiliary contact (TS)		OVR T1-T2 1N 12.5-440s P TS QS	OVR T1-T2 3N 12.5-440s P TS QS	OVR T1-T2 4L 12.5-440s P TS QS

Electrical features

Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Type/test class		T1-T2/I - II	T1-T2/I - II	T1-T2/I - II
Protected lines		1+1	3+1	4
System network		TT (L-N) - TNS	TT - TNS	TNS
Type of current		a.c. 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz
Nominal system voltage Un	[V]	400	400/690	400/690
Max. cont. operating voltage Uc	[V]	440	440	440
Nominal dc voltage Un dc L-PE/Un dc L-L	[V dc]	-	-	495/990
Max. dc. cont. operating voltage Ucdc L-PE/Ucdc L-L	[V dc]	-	-	545/1090
Maximum impulse current Iimp (10/350)	[kA]	12.5	12.5	12.5
Max. Imp current Tot Iimp (10/350)	[kA]	25	50	50
Nominal discharge current In (8/20)	[kA]	20	20	20
Maximal discharge current Imax (8/20) kA	[kA]	80	80	80
Follow current interrupting rating Ifi	[kA]			
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kV]	1.9/1.9/2	1.9/1.9/2	3.8/1.9/1.9
Voltage protection level Ures at 3 kA	[kV]	0.8	0.8	0.8
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	581/1200	581/1200	581/
Response time	[ns]	≤ 25	≤ 25	≤ 25
Short-circuit withstand capability Isccr	[kA]	100	100	100
Backup protection maximum rating	fuse (gG - gL)	[A]	≤ 160	≤ 160
	circuit breaker (B or C curve)	[A]	≤ 125	≤ 125
Pluggable cartridge		Yes	Yes	Yes
Integrated thermal disconnecter		Yes	Yes	Yes
State indicator		Yes	Yes	Yes
Safety reserve		Yes	Yes	Yes
Auxiliary contact		Yes (TS option)	Yes (TS option)	Yes (TS option)

Installation

Wire range (L, N, PE)	solid wire	[mm ²]	2.5 ... 35	2.5 ... 35	2.5 ... 35
	stranded wire	[mm ²]	2.5 ... 25	2.5 ... 25	2.5 ... 25
Stripping length (L, N, PE)		[mm]	12.5	12.5	12.5
Tightening torque (L, N, PE)		[Nm]	2.8	2.8	2.8

Auxiliary contact (TS)

Contacts information		1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
Min. load		12 V DC - 10 mA	12 V DC - 10 mA	12 V DC - 10 mA
Max. load		250 V AC - 1 A	250 V AC - 1 A	250 V AC - 1 A
Connection cross-section	[mm ²]	1.5	1.5	1.5

Miscellaneous characteristics

Stocking and operating temperature	[°C]	- 40 to +80	- 40 to +80	- 40 to +80
Degree of protection		IP 20 - Indoor	IP 20 - Indoor	IP 20 - Indoor
Fire resistance according to UL 94		V-0	V-0	V-0

Dimensions

height x width x depth	[mm]	88 x 53.4 x 76.7	88 x 124.6 x 76.7	88 x 142.4 x 76.7
	[in]	3.46 x 2.1 x 3.02	3.46 x 4.91 x 3.02	3.46 x 5.61 x 3.02

Dimensions with auxiliary contact (TS)

height x width x depth	[mm]	95.8 x 53.4 x 76.7	95.8 x 124.6 x 76.7	95.8 x 142.4 x 76.7
	[in]	3.77 x 2.1 x 3.02	3.77 x 4.91 x 3.02	3.77 x 5.61 x 3.02

Replacement Cartridges

Phase Product ID		OVR T1-T2 12.5-440s C QS 2CTB815710R5500	OVR T1-T2 12.5-440s C QS 2CTB815710R5500	OVR T1-T2 12.5-440s C QS 2CTB815710R5500
Neutral Product ID		OVR T1-T2 N 50-440s C QS 2CTB815710R5600	OVR T1-T2 N 50-440s C QS 2CTB815710R5600	



2CSC140026F0013

OVR T1-T2 1N 12.5-440s P TS QS

Type 1 and Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

Type 1+2 ABB surge protective devices have a high impulse current withstand capacity with ensuring a low protection level (U_p).

Type 1 and Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

Poles	Impulse current Iimp 10/350 kA	Max. discharge current I _{max} 8/20 kA	Follow current interrupting rating I _{fi} kA	Voltage protection level U _p kV	Nominal voltage U _n V	Max. cont. operating voltage U _c V	Bbn 3660 308 EAN	Order details Type code	Order code	Weight 1 piece kg
1+1	12.5	80	-	1.4	230	275	524966	OVR T1-T2 1N 12.5-275s P QS	2CTB815710R1300	0.30
1+1	12.5	80	-	1.4	230	275	524898	OVR T1-T2 1N 12.5-275s P TS QS	2CTB815710R0100	0.30
1+1	12.5	80	-	1.9	400	440	525130	OVR T1-T2 1N 12.5-440s P QS	2CTB815710R4200	0.45
1+1	12.5	80	-	1.9	400	440	525062	OVR T1-T2 1N 12.5-440s P TS QS	2CTB815710R3000	0.45
3+1	12.5	80	-	1.4	230/400	275	524997	OVR T1-T2 3N 12.5-275s P QS	2CTB815710R1900	0.60
3+1	12.5	80	-	1.4	230/400	275	524928	OVR T1-T2 3N 12.5-275s P TS QS	2CTB815710R0700	0.60
3+1	12.5	80	-	1.9	400/690	440	525161	OVR T1-T2 3N 12.5-440s P QS	2CTB815710R4800	1.05
3+1	12.5	80	-	1.9	400/690	440	525093	OVR T1-T2 3N 12.5-440s P TS QS	2CTB815710R3600	1.05
4	12.5	80	-	1.4	230/400	275	525017	OVR T1-T2 4L 12.5-275s P QS	2CTB815710R2300	0.60
4	12.5	80	-	1.4	230/400	275	524942	OVR T1-T2 4L 12.5-275s P TS QS	2CTB815710R1100	0.60
4	12.5	80	-	1.9	400/690	440	525185	OVR T1-T2 4L 12.5-440s P QS	2CTB815710R5200	1.20
4	12.5	80	-	1.9	400/690	440	525116	OVR T1-T2 4L 12.5-440s P TS QS	2CTB815710R4000	1.20
3+1	15	60	7	1.5	230/400	255	514141	OVR T1+2 3N 15-255-7	2CTB815101R9000	0.84
1+1	25	60	15	1.5	230	255	513519	OVR T1+2 1N 25-255 TS	2CTB815101R4400	0.54
3+1	25	60	15	1.5	230/400	255	513526	OVR T1+2 3N 25-255 TS	2CTB815101R4500	1.07
4	25	60	15	1.5	230/400	255	513434	OVR T1+2 4L 25-255 TS	2CTB815101R4200	1.07

Where to find more:

Coordination and wiring principals of OVR: Chapter 4 of Solutions for electrical installation in buildings - technical details

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Maybe you are also interested in:

For back-up protection:
S200 MCBs - chapter 1
Fuses and fuseholders - chapter 4

Protection and safety

OVR Type 2 surge protective devices Single pole 57 V networks



OVR T2 20-75 P

4

Technical features			
Types		OVR T2 20-75 P	OVR T2 2 20-75 P
	with auxiliary contact (TS)	OVR T2 20-75 P TS	OVR T2 2 20-75 P TS
Technology		Varistor	Varistor
Electrical features			
Standard		IEC 61643-1/EN 61643-11	
Type/test class		T2/II	T2/II
Protected lines		1	2
Types of networks		TNC/TNS/TT	TNC/TNS/TT
Type of current		AC - DC	AC - DC
Nominal AC voltage Un	[V]	57	57
Max. cont. operating AC voltage Uc	[V]	75	75
Maximum discharge current Imax (8/20)	[kA]	20	20
Nominal discharge current In (8/20)	[kA]	5	5
Voltage protection level Up at In	[kV]	0.30	0.30
Voltage protection level Ures at 3 kA	[kV]	0.25	0.25
TOV (Temporary overvoltage) withstand Ut	(L-N: 5 s /N-PE: 200 ms) [V]	75/-	75/-
Response time	[ns]	≤ 25	≤ 25
Residual current IPE	[μA]	25	50
Short-circuit withstand capability Iscsr	[kA]	50	50
Backup protection	Fuse (gG - gL)	[A]	≤ 16
	Circuit breaker (B or C curve)	[A]	≤ 16
Pluggable cartridge		Yes	Yes
Integrated thermal disconnecter		Yes	Yes
State indicator		Yes	Yes
Safety reserve		No	No
Auxiliary contact		TS Option	TS Option
Installation			
Wire range (L, N, PE)	Solid wire	[mm ²]	2.5...25
	Stranded wire	[mm ²]	2.5...16
Stripping length (L, N, PE)		[mm]	12.5
Tightening torque (L, N, PE)		[Nm]	2.5
Auxiliary contact (TS)			
Contact complement		1 NO - 1 NC	1 NO - 1 NC
Minimum load		12 V DC - 10 mA	12 V DC - 10 mA
Maximum load		250 V AC - 1 A	250 V AC - 1 A
Connection cross-section		[mm ²]	1.5
Miscellaneous characteristics			
Stocking and operating temperature		[°C]	-40 to +80
Degree of protection			IP20
Fire resistance according to UL 94			V0
Dimensions	height x width x depth	[mm]	88 x 17.8 x 64.8
		[inches]	3.46 x 0.70 x 2.55
with auxiliary contact (TS)	height x width x depth	[mm]	96 x 17.8 x 64.8
		[inches]	3.78 x 0.70 x 2.55
Replacement Cartridges			
Phase Product ID		OVR T2 20-75 C 2CTB803854R1400	OVR T2 20-75 C 2CTB803854R1400

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

Type 2 pluggable - Uc 75 V										
Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
							Type code	Order code		
1	20	5	0.3	57	75	518446	OVR T2 20-75 P	2CTB803851R2800		0.12
1	20	5	0.3	57	75	518453	OVR T2 20-75 P TS	2CTB803851R2700		0.12
2	20	5	0.3	57	75	518484	OVR T2 2 20-75 P	2CTB803852R1700		0.23
2	20	5	0.3	57	75	518477	OVR T2 2 20-75 P TS	2CTB803852R1600		0.23

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Protection and safety

OVR Type 2 surge protective devices Single pole 120 V and 230 V networks non-pluggable



OVR T2 20-150

4

		Technical features					
Types			OVR T2 20-150	OVR T2 40-150	OVR T2 20-275	OVR T2 40-275	
	with auxiliary contact (TS)		-	-	-	-	
Technology			Varistor	Varistor	Varistor	Varistor	
Electrical features							
Standard			IEC 61643-1/EN 61643-11				
Type/test class			T2/II	T2/II	T2/II	T2/II	
Protected lines			1	1	1	1	
Types of networks			TNC/TNS/TT	TNC/TNS/TT	TNC/TNS/TT	TNC/TNS/TT	
Type of current			AC	AC	AC	AC	
Nominal AC voltage Un		[V]	120	120	230	230	
Max. cont. operating AC voltage Uc		[V]	150	150	275	275	
Maximum discharge current I _{max} (8/20)		[kA]	20	40	20	40	
Nominal discharge current I _n (8/20)		[kA]	5	20	5	20	
Voltage protection level U _p at I _n		[kV]	0.6	0.9	1	1.4	
Voltage protection level U _{res} at 3 kA		[kV]	0.6	0.6	0.9	0.9	
TOV (Temporary overvoltage) withstand Ut		(L-N: 5 s /N-PE: 200 ms) [V]	175/-	175/-	337/-	337/-	
Response time		[ns]	≤ 25	≤ 25	≤ 25	≤ 25	
Residual current IPE		[μA]	25	25	25	25	
Short-circuit withstand capability I _{sc}		[kA]	50	50	50	50	
Backup protection		Fuse (gG - gL)	[A]	≤ 50	≤ 50	≤ 50	≤ 50
		Circuit breaker (B or C curve)	[A]	≤ 50	≤ 50	≤ 50	≤ 50
Pluggable cartridge			No	No	No	No	
Integrated thermal disconnecter			Yes	Yes	Yes	Yes	
State indicator			Yes	Yes	Yes	Yes	
Safety reserve			No	No	No	No	
Auxiliary contact			No	No	No	No	
Installation							
Wire range (L, N, PE)		Solid wire	[mm ²]	2.5...25	2.5...25	2.5...25	2.5...25
		Stranded wire	[mm ²]	2.5...16	2.5...16	2.5...16	2.5...16
Stripping length (L, N, PE)		[mm]	12.5	12.2	12.2	12.2	
Tightening torque (L, N, PE)		[Nm]	2.5	2.5	2.5	2.5	
Auxiliary contact (TS)							
Contact complement			-	-	-	-	
Minimum load			-	-	-	-	
Maximum load			-	-	-	-	
Connection cross-section		[mm ²]	-	-	-	-	
Miscellaneous characteristics							
Stocking and operating temperature		[°C]	-40 to +80	-40 to +80	-40 to +80	-40 to +80	
Degree of protection			IP20	IP20	IP20	IP20	
Fire resistance according to UL 94			V0	V0	V0	V0	
Dimensions		height x width x depth	[mm]	88 x 17.8 x 64.8	88 x 17.8 x 64.8	88 x 17.8 x 64.8	88 x 17.8 x 64.8
			[inches]	3.46 x 0.7 x 2.55	3.46 x 0.7 x 2.55	3.46 x 0.7 x 2.55	3.46 x 0.7 x 2.55

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 µs wave form.

Type 2 non-pluggable										
Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
							Type code	Order code		
1	20	5	0.6	120	150	518057	OVR T2 20-150	2CTB804200R0700		0.12
1	40	20	0.9	120	150	518064	OVR T2 40-150	2CTB804201R0700		0.12
1	20	5	1	230	275	514882	OVR T2 20-275	2CTB804200R0100		0.12
1	40	20	1.4	230	275	514103	OVR T2 40-275	2CTB804201R0100		0.12
1	20	5	1.0	120	150	519405	OVR T2 20-150 (x20)	2CTB804200R1700		0.12
1	40	20	1.4	120	150	519436	OVR T2 40-150 (x20)	2CTB804201R1700		0.12
1	20	5	1.0	230	275	519382	OVR T2 20-275 (x20)	2CTB804200R1100		0.12
1	40	20	1.4	230	275	519412	OVR T2 40-275 (x20)	2CTB804201R1100		0.12

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Protection and safety

OVR Type 2 surge protective devices Single pole 230 V networks, pluggable version

4

Technical features			
Types		OVR T2 40-275 P QS	OVR T2 40-275s P QS
with auxiliary contact (TS)		OVR T2 40-275 P TS QS	OVR T2 40-275s P TS QS
Electrical features			
Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Type/test class		T2/II	T2/II
Protected lines		1	1
System network		TNC - TNS - TT(L-N)	TNC - TNS - TT(L-N)
Type of current		AC 45-65Hz	AC 45-65Hz
Voltage regulation of the system network		± 20 %	± 20 %
Nominal system voltage Un	[V]	230	230
Max. cont. operating voltage Uc	[V]	275	275
Nominal dc voltage Un dc L-PE	[V dc]	320	320
Max. dc. cont. operating voltage Ucdc L-PE	[V dc]	355	355
Maximum discharge current Imax (8/20)	[kA]	40	40
Maximum impulse current Iimp (10/350)	[kA]	2	2
Nominal discharge current In (8/20)	[kA]	20	20
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kV]	1.25/-1.25	1.4/-1.4
Voltage protection level Ures at 3kA (L-N)	[kV]	0.8	0.5
Voltage protection level Ures at 5kA (L-N)	[kV]	0.85	0.7
Voltage protection level Ures at 10kA (L-N)	[kV]	1	0.9
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	337/-	337/-
Response time	[ns]	≤ 25	≤ 25
Short-circuit withstand capability Isccr	[kA]	100	100
Backup protection maximum rating	fuse (gG - gL)	[A]	≤ 125
	circuit breaker (B or C curve)	[A]	≤ 125
Pluggable cartridge		Yes	Yes
Integrated QuickSafe® technology		Yes	Yes
State indicator		Yes	Yes
Safety reserve		No	Yes
Auxiliary contact		Yes (TS option)	Yes (TS option)
Installation			
Wire range (L, N, PE)	solid wire	[mm²]	2.5 ... 25
	stranded wire	[mm²]	2.5 ... 16
Stripping length (L, N, PE)		[mm]	12.5
Tightening torque (L, N, PE)		[Nm]	2.8
Auxiliary contact (TS)			
Contacts information		1 NO - 1 NC	1 NO - 1 NC
Min. load		12 V DC - 10 mA	12 V DC - 10 mA
Max. load		250 V AC - 1 A	250 V AC - 1 A
Connection cross-section	[mm²]	1.5	1.5
Miscellaneous characteristics			
Stocking and operating temperature	[°C]	-40 to +80	-40 to +80
Degree of protection		IP 20	IP 20
Fire resistance according to UL 94		V0	V0
Dimensions			
height x width x depth	[mm]	88 x 17.8 x 65.3	88 x 17.8 x 76.7
	[inches]	3.46 x 0.7 x 2.57	3.46 x 0.7 x 3.02
With Auxiliary Contact (TS)			
height x width x depth	[mm]	95.8 x 17.8 x 65.3	95.8 x 17.8 x 76.7
	[inches]	3.77 x 0.7 x 2.57	3.77 x 0.7 x 3.02
Replacement Cartridges			
Phase Product ID		OVR T2 40-275 C QS 2CTB803876R1000	OVR T2 40-275s C QS 2CTB815704R2600
Neutral Product ID		-	-

	OVR T2 40-350 P QS OVR T2 40-350 P TS QS	OVR T2 80-275s P QS OVR T2 80-275s P TS QS	OVR T2-T3 N 80-275 P QS	OVR T2 N 80-350 P QS	OVR T2 N 80-275s P QS
	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
	T2/II	T2/II	T2-T3/II-III	T2/II	T2
	1	1	1	1	1
	TNC - TNS - TT(L-N)	TT (L-N) - TNS - TNC	TT (N-PE)	TT (N-PE)	TT(N-PE)
	AC 45-65Hz	a.c. 45-65Hz	AC 45-65Hz	AC 45-65Hz	a.c. 45-65Hz
	± 50 %	± 20 %	± 20 %	± 50 %	
	230	230	230	230	230
	350	275	275	350	275
	375	320	-	-	-
	415	-	-	-	-
	40	80	80	80	80
	2	6.25	2	2	6.25
	20	20	30	30	30
	1.5/-1.5	1.4/-1.4	-1.4/-	-1.4/-	-1.4/-
	1	0.5	-	-	-
	1.05	0.7	-	-	-
	1.2	0.9	-	-	-
	455/-	337/	-1200	-1200	-1200
	≤ 25	≤ 25	< 25	< 25	< 25
	100	100	-	-	100
	≤ 125	≤ 160	≤ 125	≤ 125	≤ 160
	≤ 125	≤ 125	≤ 125	≤ 125	≤ 125
	Yes	Yes	Yes	Yes	Yes
	Yes	Yes	-	-	-
	Yes	Yes	No	No	No
	No	Yes	No	No	No
	Yes (TS option)	Yes (TS option)	No	No	No
	2.5 ... 25	2.5 ... 25	2.5 ... 25	2.5 ... 25	2.5 ... 50
	2.5 ... 16	2.5 ... 35	2.5 ... 16	2.5 ... 16	2.5 ... 35
	12.5	12.5	12.5	12.5	15
	2.8	2.8	2.8	2.8	3.5
	1 NO- 1 NC	1 NO- 1 NC	-	-	1 NO - 1 NC
	12 V DC - 10 mA	12 V DC - 10 mA	-	-	12 V DC - 10 mA
	250 V AC - 1 A	250 V AC - 1 A	-	-	250 V AC - 1 A
	1.5	1.5	-	-	1.5
	-40 to +80	- 40 to +80	- 40 to +80	- 40 to +80	-40 to +80
	IP 20	IP 20 - Indoor	IP 20 - Indoor	IP 20 - Indoor	IP 20 - Indoor
	V0	V-0	V-0	V-0	V0
	88 x 17.8 x 65.3	88 x 17.8 x 76.7	85 x 17.8 x 64.8	85 x 17.8 x 64.8	
	3.46 x 0.7 x 2.57	3.46 x 0.7 x 3.02	3.35 x 0.70 x 2.55	3.35 x 0.70 x 2.55	
	95.8 x 17.8 x 65.3	95.8 x 17.8 x 76.7			96 x 17.8 x 69.4
	3.77 x 0.7 x 2.57	3.77 x 0.7 x 3.02			3.78 x 0.7 x 2.73
	OVR T2 40-350 C QS 2CTB803886R1000	OVR T2 80-275s C QS 2CTB815708R2600	-	-	
	-	-	OVR T2-T3 N 80-275 C QS 2CTB803876R0000	OVR T2 N 80-350 C QS 2CTB803886R0000	OVR T2 N 80-275s C QS 2CTB815708R2800

Protection and safety

OVR Type 2 surge protective devices Single pole 230 V networks



OVR T2 40-275 P QS

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (U_p). They are characterized by their capacity to safely discharge current with 8/20 μ s wave form.

Type 2 pluggable										
Poles	Max discharge current I_{max} 8/20 kA	Nominal discharge current I_n kA	Voltage protection level U_p kV	Nominal voltage U_n V	Max. cont. operating voltage U_c V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
							Type code	Order code		
1	40	20	1.25	230	275	519580	OVR T2 40-275 P QS	2CTB803871R2300		0.12
1	40	20	1.25	230	275	519597	OVR T2 40-275 P TS QS	2CTB803871R1700		0.12
1	40	20	1.4	230	275	525291	OVR T2 40-275s P QS	2CTB815704R1200		0.15
1	40	20	1.4	230	275	525222	OVR T2 40-275s P TS QS	2CTB815704R0000		0.15
1	40	20	1.5	230	350	520609	OVR T2 40-350 P QS	2CTB803881R2300		0.12
1	40	20	1.5	230	350	520562	OVR T2 40-350 P TS QS	2CTB803881R1700		0.12
1	80	20	1.4	230	275	525475	OVR T2 80-275s P QS	2CTB815708R1200		0.15
1	80	20	1.4	230	275	525406	OVR T2 80-275s P TS QS	2CTB815708R0000		0.15
1	80	30	1.4	230	275	519658	OVR T2 N 80-350 P QS	2CTB803983R1900		0.12
1	80	30	1.4	230	275	519641	OVR T2-T3 N 80-275 P QS	2CTB803973R1900		0.12
1	80	30	1.4	230	275	525536	OVR T2 N 80-275s P QS	2CTB815708R2500		0.12

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Protection and safety

OVR Type 2 surge protective devices Single pole 400 V networks

Technical features

Types		OVR T2 40-440 P QS	OVR T2 40-440s P QS	OVR T2 80-440s P QS
with auxiliary contact (TS)		OVR T2 40-440 P TS QS	OVR T2 40-440s P TS QS	OVR T2 80-440s P TS QS

Electrical features

Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Type/test class		T2/II	T2/II	T2/II
Protected lines		1	1	1
System network		TNC - TNS - TT(L-N)-IT (230 V)	TT (L-N) - TNS - TNC-IT (230 V)	TT (L-N) - TNS - TNC-IT (230 V)
Type of current		AC 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz
Voltage regulation of the system network		± 10%	± 10 %	± 10 %
Nominal system voltage Un	[V]	400	400	400
Max. cont. operating voltage Uc	[V]	440	440	440
Nominal dc voltage Un dc L-PE	[V dc]	495	495	495
Max. dc. cont. operating voltage Ucdc L-PE	[V dc]	545	545	545
Maximum discharge current Imax (8/20)	[kA]	40	40	80
Maximum impulse current Iimp (10/350)	[kA]	2	2	6.25
Nominal discharge current In (8/20)	[kA]	20	20	20
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kV]	1.8/-/1.8	1.8/-/1.8	1.8/-/1.8
Voltage protection level Ures at 3kA (L-N)	[kV]	1.25	0.8	0.8
Voltage protection level Ures at 5kA (L-N)	[kV]	1.35	1.2	1.2
Voltage protection level Ures at 10kA (L-N)	[kV]	1.55	1.55	-
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	581/-	581/-	581/-
Uoc	[kV]	-	-	-
Response time	[ns]	≤ 25	≤ 25	≤ 25
Short-circuit withstand capability Iscsr	[kA]	100	100	100
Backup protection fuse (gG - gL)	[A]	≤ 125	≤ 160	≤ 160
maximum rating circuit breaker (B or C curve)	[A]	≤ 125	≤ 125	≤ 125
Pluggable cartridge		Yes	Yes	Yes
Integrated QuickSafe® technology		Yes	Yes	Yes
State indicator		Yes	Yes	Yes
Safety reserve		No	Yes	Yes
Auxiliary contact		Yes (TS option)	Yes (TS option)	Yes (TS option)

Installation

Wire range (L, N, PE)	solid wire	[mm²]	2.5 ... 25	2.5 ... 25	2.5 ... 25
	stranded wire	[mm²]	2.5 ... 16	2.5 ... 35	2.5 ... 35
Stripping length (L, N, PE)		[mm]	12.5	12.5	12.5
Tightening torque (L, N, PE)		[Nm]	2.8	2.8	2.8

Auxiliary contact (TS)

Contacts information		1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
Min. load		12 V DC - 10 mA	12 V DC - 10 mA	12 V DC - 10 mA
Max. load		250 V AC - 1 A	250 V AC - 1A	250 V AC - 1A

OVR T2 40-600 P QS	OVR T2-T3 N 80-440 P QS	OVR T2 N 80-440s P QS	OVR T2 120-440s P TS
IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
T2/II	T2-T3/II-III	T2	T2
1	1	1	1
TNC - TNS - TT(L-N)-IT (230 V)	TT (N-PE)	TT(N-PE)	TNC/TNS/TT (L-N) - IT(230)
AC 45-65Hz	AC 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz
± 50 %	± 10%		
400	400	400	400
600	440	440	440
650	-	-	
715	-	-	
40	80	80	120
2	2	6.25	-
20	30	30	60
2.3/-/-	-/1.4/-	-/2/-	2.5
1.6	-	-	1.1
1.7	-	-	-
1.9	-	-	-
792/-	-/1200	-/1200	440/-
-	-		
≤ 25	< 25	< 25	< 25
100	-	100	50
≤ 125	≤ 125	≤ 160 A	≤ 50
≤ 125	≤ 125	≤ 160 A	≤ 50
Yes	Yes	No	Yes
Yes	Yes	-	No
Yes	Yes	No	Yes
No	No	No	Yes
Yes	No	No	Yes
2.5 ... 25	2.5 ... 25	2.5 ... 50	2.5 ... 50
2.5 ... 16	2.5 ... 16	2.5 ... 35	2.5 ... 35
12.5	12.5	15	15
2.8	2.8	3.5	3.5
1 NO - 1 NC		1 NO - 1 NC	1 NO - 1 NC
12 V DC - 10 mA		12 V DC - 10 mA	12 V DC - 10 mA
250 V AC - 1A		250 VAC - 1 A	250 VAC - 1 A

Protection and safety

OVR Type 2 surge protective devices Single pole 400 V networks

Technical features

Types		OVR T2 40-440 P QS	OVR T2 40-440s P QS	OVR T2 80-440s P QS	
with auxiliary contact (TS)		OVR T2 40-440 P TS QS	OVR T2 40-440s P TS QS	OVR T2 80-440s P TS QS	
Connection cross-section	[mm ²]	1.5	1.5	1.5	
Miscellaneous characteristics					
Stocking and operating temperature	[°C]	-40 to +80	- 40 to +80	- 40 to +80	
Degree of protection		IP 20	IP 20	IP 20	
Fire resistance according to UL 94		V0	V-0	V-0	
Dimensions of packing					
height x width x depth	[mm]	88 x 17.8 x 65.3	88 x 17.8 x 76.7	88 x 17.8 x 76.7	
	[inches]	3.46 x 0.7 x 2.57	3.46 x 0.7 x 3.02	3.46 x 0.7 x 3.02	
With Auxiliary Contact (TS)					
height x width x depth	[mm]	95.8 x 17.8 x 65.3	95.8 x 17.8 x 76.7	95.8 x 17.8 x 76.7	
	[inches]	3.77 x 0.7 x 2.57	3.77 x 0.7 x 3.02	3.77 x 0.7 x 3.02	
Replacement Cartridges					
Phase Product ID		OVR T2 40-440 C 2CTB803876R0400	OVR T2 40-440s C QS 2CTB815704R5500	OVR T2 80-440s C QS 2CTB815708R5500	
Neutral Product ID		-	-	-	

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 μs wave form.

Type 2 non-pluggable - Uc 440 V

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level Up kV	Nominal voltage U _n V	Max. cont. operating voltage U _c V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
							Type code	Order code		
1	20	5	1.3	400	440	518071	OVR T2 20-440	2CTB804200R0200		0.12
1	40	20	1.9	400	440	518088	OVR T2 40-440	2CTB804201R0200		0.12
1	20	5	1.3	400	440	519399	OVR T2 20-440 (x20)	2CTB804200R1200		0.12
1	40	20	1.9	400	440	519429	OVR T2 40-440 (x20)	2CTB804201R1200		0.12

Where to find more:

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For back-up protection:
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OVR T2 40-600 P QS	OVR T2-T3 N 80-440 P QS	OVR T2 N 80-440s P QS	OVR T2 120-440s P TS
OVR T2 40-600 P TS QS			
1.5		1.5	1.5
-40 to +80	- 40 to +80	-40 to +80	-40 to +80
IP 20	IP 20	IP 20	IP 20
V0	V-0	V0	V0
85 x 17.8 x 64.8	88 x 17.8 x 65.3	88 x 17.8 x 76.7	
3.35 x 0.70 x 2.55	3.46 x 0.7 x 2.57	3.46 x 0.7 x 3.02	
95.8 x 17.8 x 65.3			96 x 35.6 x 64.8
3.77 x 0.7 x 2.57			3.78 x 1.4 x 2.55
OVR T2 40-600 C QS 2CTB803886R0400	-		OVR T2 70 440s C 2CTB803854R0100
-	OVR T2-T3 N 80-440 C QS 2CTB803886R0100	OVR T2 N 80-440s C QS 2CTB815708R2800	

Type 2 pluggable

Poles	Max discharge current I _{max 8/20} kA	Nominal discharge current I _n kA	Voltage protection level		Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
			Up kV	Un V				Type code	Order code		
1	40	20	1.8	400	440	519627	OVR T2 40-440 P QS	2CTB803871R1200	0.12		
1	40	20	2	400	440	519634	OVR T2 40-440 P TS QS	2CTB803871R0500	0.12		
1	40	20	1.8	400	440	525369	OVR T2 40-440s P TS QS	2CTB815704R2900	0.30		
1	80	20	1.8	400	440	525567	OVR T2 80-440s P TS QS	2CTB815708R2900	0.30		
1	40	20	2.3	400	600	520616	OVR T2 40-600 P QS	2CTB803881R1200	0.12		
1	40	20	2.3	400	600	520579	OVR T2 40-600 P TS QS	2CTB803881R0500	0.12		
1	80	30	1.4	400	440	519665	OVR T2-T3 N 80-440 P QS	2CTB803973R2000	0.12		
1	80	30	2	400	440	525642	OVR T2 N 80-440s P QS	2CTB815708R5400	0.12		
1	120	60	2.5	400	440	517067	OVR T2 120-440s P	2CTB803951R1300	0.25		

Protection and safety

OVR Type 2 surge protective devices TNC 230 V networks

Technical features

Types		OVR T2 3L 20-275	OVR T2 3L 40-275
with auxiliary contact (TS)			

Electrical features

Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Type/test class		T1+2/I - II	T1+2/I - II
Protected lines		3	3
System network		TNC	TNC
Type of current		a.c. 45-65Hz	a.c. 45-65Hz
Voltage regulation of the system network		-	-
Nominal system voltage Un (L-PEN/L-L)	[V]	230/400	230/400
Max. cont. operating voltage Uc	[V]	275	275
Nominal dc voltage Un dc L-PE/Un dc L-L	[V dc]	-	-
Max. dc. cont. operating voltage Ucdc L-PE/Ucdc L-L	[V dc]	-	-
Maximum discharge current Imax (8/20)	[kA]	20	40
Maximum impulse current Iimp (10/350)	[kA]	-	-
Nominal discharge current In (8/20)	[kA]	5	20
Voltage protection level Up at In (L-PE)	[kV]	1	1.4
Voltage protection level Ures at 3kA	[kV]	0.9	0.9
Voltage protection level Ures at 5kA	[kV]	-	-
Voltage protection level Ures at 10kA	[kV]	-	-
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	334/-	334/-
Uoc	[kV]	-	-
Response time	[ns]	≤50	≤50
Short-circuit withstand capability Isccr	[kA]	50	50
Backup protection	fuse (gG - gL)	[A]	≤50
maximum rating	circuit breaker (B or C curve)	[A]	≤50
Pluggable cartridge		No	No
Integrated QuickSafe® technology		No	No
State indicator		No	No
Safety reserve		No	No
Auxiliary contact		No	No

Installation

Wire range (L, N, PE)	solid wire	[mm ²]	2.5 ... 25	2.5 ... 25
	stranded wire	[mm ²]	2.5 ... 16	2.5 ... 16
Stripping length (L, N, PE)		[mm]	12.5	12.5
Tightening torque (L, N, PE)		[Nm]	2.5	2.5

Auxiliary contact (TS)

Contacts information		-	-
Min. load		-	-
Max. load		-	-
Connection cross-section	[mm ²]	-	-

Miscellaneous characteristics

Stocking and operating temperature	[°C]	-40 to +80	-40 to +80
Degree of protection		IP 20	IP 20
Fire resistance according to UL 94		V0	V0

OVR T2 3L 40-275 P QS	OVR T2 3L 40-275s P QS	OVR T2 3L 80-275s P QS	OVR T2 3L 40-350 P QS
OVR T2 3L 40-275 P TS QS	OVR T2 3L 40-275s P TS QS	OVR T2 3L 80-275s P TS QS	OVR T2 3L 40-350 P TS QS
IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
T2/II	T2/II	T2/II	T2/II
3	3	3	3
TNC	TNC	TNC	TNC
AC 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz	AC 45-65Hz
± 20 %	± 20 %	± 20 %	± 50 %
230/400	230/400	230/400	230/400
275	275	275	350
320/640	320/640	320/640	375/750
355/710	355/710	355/710	415/830
40	40	80	40
2	2	6.25	2
20	20	20	20
1.25	1.4	1.4	1.5
0.8	0.5	0.5	1.0
0.85	0.7	0.7	1.05
1.0	0.9	0.9	1.2
337/-	337/-	337/-	455/-
-	-	-	-
≤ 25	≤ 25	≤ 25	≤ 25
100	100	100	100
≤ 125	≤ 160	≤ 160	≤ 125
≤ 125	≤ 125	≤ 125	≤ 125
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
No	Yes	Yes	No
Yes (TS option)	Yes (TS option)	Yes (TS option)	Yes (TS option)
2.5 ... 25	2.5 ... 25	2.5 ... 25	2.5 ... 25
2.5 ... 16	2.5 ... 35	2.5 ... 35	2.5 ... 16
12.5	12.5	12.5	12.5
2.8	2.8	2.8	2.8
1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
12 DC - 10 mA	12 DC - 10 mA	12 DC - 10 mA	12 DC - 10 mA
250 V AC - 1A	250 V AC - 1A	250 V AC - 1A	250 V AC - 1A
1.5	1.5	1.5	1.5
-40 to +80	- 40 to +80	- 40 to +80	-40 to +80
IP 20	IP 20	IP 20	IP 20
V0	V-0	V-0	V0

Protection and safety

OVR Type 2 surge protective devices TNC 230 V networks

Technical features

Types		OVR T2 3L 20-275	OVR T2 3L 40-275	
with auxiliary contact (TS)				
Dimensions				
height x width x depth	[mm]	90.5 x 53.4 x 64.8	90.5 x 53.4 x 64.8	
	[inches]	3.56 x 2.1 x 2.55	3.56 x 2.1 x 2.55	
With Auxiliary Contact (TS)				
height x width x depth	[mm]			
	[inches]			
Replacement Cartridges				
Phase Product ID				
Neutral Product ID				

4



OVR T2 3L 40-275 P QS

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 μs wave form.

Type 2 non-pluggable - Uc 275 V

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level U _p kV	Nominal voltage U _n V	Max. cont. operating voltage U _c V	Bbn 3660308 EAN	Order details	Price 1 piece	Weight 1 piece
							Type code	Order code	kg
3	20	5	1.0	230/400	275	515957	OVR T2 3L 20-275	2CTB804600R0400	0.35
3	40	20	1.4	230/400	275	515964	OVR T2 3L 40-275	2CTB804601R0400	0.35
3	20	5	1.0	230/400	275	519443	OVR T2 3L 20-275 (x6)	2CTB804600R1400	0.35
3	40	20	1.4	230/400	275	515467	OVR T2 3L 40-275 (x6)	2CTB80460110400	0.35

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OVR T2 3L 40-275 P QS	OVR T2 3L 40-275s P QS	OVR T2 3L 80-275s P QS	OVR T2 3L 40-350 P QS
OVR T2 3L 40-275 P TS QS	OVR T2 3L 40-275s P TS QS	OVR T2 3L 80-275s P TS QS	OVR T2 3L 40-350 P TS QS
88 x 53.4 x 65.3	88 x 53.4 x 76.7	88 x 53.4 x 76.7	85 x 53.4 x 64.8
3.46 x 2.1 x 2.57	3.46 x 2.1 x 3.02	3.46 x 2.1 x 3.02	3.35 x 2.10 x 2.55
95.8 x 53.4 x 65.3	95.8 x 53.4 x 76.7	95.8 x 53.4 x 76.7	96 x 53.4 x 64.8
3.77 x 2.1 x 2.57	3.77 x 2.1 x 3.02	3.77 x 2.1 x 3.02	3.78 x 2.10 x 2.55
OVR T2 40-275 C QS 2CTB803876R1000	OVR T2 40-275s C QS 2CTB815704R2600	OVR T2 80-275s C QS 2CTB8157084R2600	OVR T2 40-350 C QS 2CTB803886R1000
-	-	-	-

Type 2 pluggable

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level Up kV	Nominal voltage		Max. cont. operating voltage U _c V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
				Un V				Type code	Order code		
3	40	20	1.25	230/400	275	519825	OVR T2 3L 40-275 P QS	2CTB803873R2400		0.36	
3	40	20	1.25	230/400	275	519832	OVR T2 3L 40-275 P TS QS	2CTB803873R2500		0.36	
3	40	20	1.4	230/400	275	525253	OVR T2 3L 40-275s P TS QS	2CTB815704R0600		0.45	
3	40	20	1.4	230/400	275	525314	OVR T2 3L 40-275s P QS	2CTB815704R1800		0.45	
3	80	20	1.4	230/400	275	525437	OVR T2 3L 80-275s P TS QS	2CTB815708R0600		0.45	
3	80	20	1.4	230/400	275	525499	OVR T2 3L 80-275s P QS	2CTB815708R1800		0.45	
3	40	20	1.5	230/400	350	519849	OVR T2 3L 40-350 P QS	2CTB803883R2400		0.36	
3	40	20	1.5	230/400	350	519856	OVR T2 3L 40-350 P TS QS	2CTB803883R2500		0.36	

Protection and safety

OVR Type 2 surge protective devices TNC 400 V networks

Technical features

Types		OVR T2 3L 40-440 P QS	OVR T2 3L 80-440s P QS	OVR T2 3L 40 400/690 P	
with auxiliary contact (TS)		OVR T2 3L 40-440 P TS QS	OVR T2 3L 80-440s P TS QS	OVR T2 3L 40 400/690 P TS	OVR T2 3L 40-600 P TS QS

Electrical features

Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	
Type/test class		T2/II	T2/II	T2/II	T2/II	
Protected lines		3	3	3	3	
System network		TNC - IT (230)	TNC - IT (230)	TNC - IT (400)	TNC - IT (230)	
Type of current		a.c. 45-65Hz	a.c. 45-65Hz	A.C 47-63 Hz	AC 45-65Hz	
Voltage regulation of the system network		± 10%	± 50 %	± 10%	± 50 %	
Nominal system voltage Un (L-PEN/L-L)	[V]	400/690	400/690	400/690	400/690	
Max. cont. operating voltage Uc	[V]	440	440	440	600	
Nominal dc voltage Un dc L-PE/Un dc L-L	[V dc]	495/990	495/990	-	650/990	
Max. dc. cont. operating voltage Ucdc L-PE/Ucdc L-L	[V dc]	545/1090	545/1090	-	715/1090	
Maximum discharge current Imax (8/20)	[kA]	40	80	40	40	
Maximum impulse current Iimp (10/350)	[kA]	2	6.25	2	2	
Nominal discharge current In (8/20)	[kA]	20	20	15	20	
Voltage protection level Up at In (L-PE)	[kV]	1.8	2.1	2.9	2.3	
Voltage protection level Ures at 3kA	[kV]	1.25	1.25	2.1	1.6	
Voltage protection level Ures at 5kA	[kV]	1.35	1.35	2.2	1.7	
Voltage protection level Ures at 10kA	[kV]	1.55	1.55	2.3	1.9	
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	581/	581/-	910/-	792/-	
Response time	[ns]	< 25	< 25	< 25	< 25	
Short-circuit withstand capability Isccr	[kA]	100	100	100	100	
Backup protection	fuse (gG - gL)	[A]	≤ 125	≤ 160	≤ 50	≤ 125
maximum rating	circuit breaker (B or C curve)	[A]	≤ 125	≤ 126	≤ 50	≤ 125
Pluggable cartridge		Yes	Yes	Yes	Yes	
Integrated QuickSafe® technology		Yes	Yes	No	Yes	
State indicator		Yes	Yes	Yes	Yes	
Safety reserve		No	Yes	No	No	
Auxiliary contact		Yes (TS option)	Yes (TS option)	Yes (TS option)	Yes	

Installation

Wire range (L, N, PE)	solid wire	[mm²]	2.5 ... 35	2.5 ... 35	2.5 ... 36	2.5 ... 36
	stranded wire	[mm²]	12.5	12.5	12.5	12.5
Stripping length (L, N, PE)		[mm]	2.8	2.8	2.8	2.8
Tightening torque (L, N, PE)		[Nm]				
Auxiliary contact (TS)			1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
Contacts information			12 DC - 10 mA	12 DC - 10 mA	12 DC - 10 mA	12 DC - 10 mA
Min. load			250 V AC - 1A	250 V AC - 1A	250 V AC - 1A	250 V AC - 1A
Max. load			1.5	1.5	1.5	1.5
Connection cross-section		[mm²]				

Technical features

Types		OVR T2 3L 40-440 P QS	OVR T2 3L 80-440s P QS	OVR T2 3L 40 400/690 P	
with auxiliary contact (TS)		OVR T2 3L 40-440 P TS QS	OVR T2 3L 80-440s P TS QS	OVR T2 3L 40 400/690 P TS	OVR T2 3L 40-600 P TS QS

Miscellaneous characteristics

Stocking and operating temperature	°C	- 40 to +80	- 40 to +80	-40 to +80	-40 to +80
Degree of protection		IP 20	IP 20	IP 20	IP 20
Fire resistance according to UL 94		V-0	V-0	V-0	V-0

Dimensions

height x width x depth	mm	88 x 53.4 x 65.3	88 x 53.4 x 76.7	88 x 53.4 x 64.8	
	inches	3.46 x 2.1 x 2.57	3.46 x 2.1 x 3.02	3.46 x 2.1 x 2.55	

With Auxiliary Contact (TS)

height x width x depth	mm	95.8 x 53.4 x 65.3	95.8 x 53.4 x 76.7	96 x 53.4 x 64.8	95.8 x 53.4 x 65.3
	inches	3.77 x 2.1 x 2.57	3.77 x 2.1 x 3.02	3.78 x 2.1 x 2.55	3.77 x 2.1 x 2.57

Replacement Cartridges

Phase Product ID		OVR T2 40-440 C QS 2CTB803876R0400	OVR T2 80-440s C QS 2CTB815708R5500	OVR T2 40 400/690 C 2CTB803854R1100	OVR T2 40-600 C QS 2CTB803886R0400
Neutral Product ID		-	-	-	-



OVR T2 3L 40-440 P QS

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 μ s wave form.

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level Up kV	Nominal voltage		Max. cont. operating voltage Uc V	Bbn 3660308	Order details		Price 1 piece	Weight 1 piece kg
				Un V	Uc V			EAN	Type code		
4	40	20	1.8	400	440	519894	OVR T2 3L 40-440 P QS	2CTB803873R5100		0.45	
4	40	20	1.8	400	440	519900	OVR T2 3L 40-440 P TS QS	2CTB803873R5300		0.45	
4	80	20	2.1	400	440	525598	OVR T2 3L 80-440s P TS QS	2CTB815708R4000		0.45	
4	80	20	2.1	400	440	525635	OVR T2 3L 80-440s P QS	2CTB815708R5200		0.45	
4	40	20	2.3	400	600	520685	OVR T2 3L 40-600 P TS QS	2CTB803883R5300		0.45	
3	40	15	2.9	400/690	440	515629	OVR T2 3L 40-400/690 P	2CTB803853R4500		0.48	
3	40	15	2.9	400/690	440	515636	OVR T2 3L 40-400/690 P TS	2CTB803853R4600		0.48	

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S200 MCBs - chapter 1
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Protection and safety

OVR Type 2 surge protective devices TNS 230 V networks

Technical features

Types		OVR T2 4L 20-275	OVR T2 4L 40-275	OVR T2 4L 40-275 P QS	OVR T2 4L 40-275s P QS	OVR T2 4L 80-275s P QS
	with auxiliary contact (TS)	-	-	OVR T2 4L 40-275 P TS QS	OVR T2 4L 40-275s P TS QS	OVR T2 4L 80-275s P TS QS
Technology		Varistor	Varistor	Varistor	Varistor	Varistor

Electrical features

Standard	IEC 61643-1/EN 61643-11					
Type/test class		T2/II	T2/II	T2/II	T2/II	T2/II
Protected lines		4	4	4	4	4
Types of networks		TNS	TNS	TNS	TNS	TNS
Type of current		AC	AC	AC	AC	AC
Nominal voltage Un (L-N/L-L)	[V]	230/400	230/400	230/400	230/400	230/400
Max. cont. operating AC voltage Uc	[V]	275	275	275	275	275
Nominal dc voltage Un dc L-PE/Un dc L-L	V dc	-	-	320/640	320/640	320/640
Max. dc. cont. operating voltage Ucdc L-PE/Ucdc L-L	V dc	-	-	355/710	355/710	355/710
Maximum discharge current Imax (8/20)	[kA]	20	40	40	40	80
Nominal discharge current In (8/20)	[kA]	5	20	20	20	20
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kA]	2/1/1	2.6/1.3/1.3	2.5/1.25/1.25	2.8/1.4/1.4	2.8/1.4/1.4
Voltage protection level Up at 3 kA	[kA]	0.9	0.9	0.8	0.5	0.8
TOV (Temporary over-voltage) withstand Ut (L-N: 5 s /N-PE: 200 ms)	[V]	334/-	334/-	334/-	337	334/-
Response time	[ns]	≤ 25	≤ 25	≤ 25	≤ 25	≤ 25
Residual current IPE	[μA]	100	100	100 (200 for s option)	200	200
Short-circuit withstand capability Isccr	[kA]	50	50	100	100	100
Backup protection	Fuse (gG - gL)	[A]	≤ 50	≤ 50	≤ 125	≤ 160
	Circuit breaker (B or C curve)	[A]	≤ 50	≤ 50	≤ 125	≤ 125
Pluggable cartridge		No	No	Yes	Yes	Yes
Integrated thermal disconnecter		Yes	Yes	Yes	Yes	Yes
State indicator		Yes	Yes	Yes	Yes	Yes
Safety reserve		No	No	No	Yes	Yes
Auxiliary contact		No	No	Yes (TS option)	Yes (TS option)	Yes (TS option)

Installation

Wire range (L, N, PE)	Solid wire	[mm ²]	2.5...25	2.5...25	2.5...25	2.5...25	2.5...25
	Stranded wire	[mm ²]	2.5...16	2.5...16	2.5...16	2.5...16	2.5...16
Stripping length (L, N, PE)		[mm]	12.5	12.5	12.5	12.5	12.5
Tightening torque (L, N, PE)		[Nm]	2.5	2.5	2.5	2.5	2.5

Auxiliary contact (TS)

Contact complement		-	-	1 NO - 1 NC	-	1 NO - 1 NC
Minimum load		-	-	12 V DC - 10 mA	-	12 V DC - 10 mA
Maximum load		-	-	250 V AC - 1 A	-	250 V AC - 1 A
Connection cross-section	[mm ²]	-	-	1.5	-	1.5

Miscellaneous characteristics

Stocking and operating temperature	[°C]	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80
Degree of protection		IP20	IP20	IP20	IP 20	IP20
Fire resistance according to UL 94		V0	V0	V0	V0	V0
Dimensions	height x width x depth	[mm]	90.5 x 71.2 x 64.8	90.5 x 71.2 x 64.8	88 x 71.2 x 65.3	88 x 71.2 x 76.7
		[inches]	3.56 x 2.8 x 2.55	3.56 x 2.8 x 2.55	3.46 x 2.8 x 2.57	3.46 x 2.8 x 3.02
with auxiliary contact (TS)	height x width x depth	[mm]	-	-	95.8 x 71.2 x 65.3	95.8 x 71.2 x 76.7
		[inches]	-	-	3.77 x 2.8 x 2.57	3.77 x 2.8 x 3.02

Replacement Cartridges

Phase Product ID		-	-	OVR T2 40-275 C QS 2CTB803876R1000	OVR T2 40-275s C QS 2CTB8157084R2600	OVR T2 80-275s C QS 2CTB815708R2600
Neutral Product ID		-	-	-	-	-



OVR T2 4L 40-275 P QS

ZCHC-000001F0013

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 μ s wave form.

Type 2 non-pluggable - Uc 275 V

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level		Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308	Order details		Price 1 piece	Weight 1 piece kg
			Up kV	Un V				Type code	Order code		
4	20	5	1.0	230/400	275	515971	OVR T2 4L 20-275	2CTB804600R0500		0.45	
4	40	20	1.4	230/400	275	515988	OVR T2 4L 40-275	2CTB804601R0500		0.45	
4	20	5	1.0	230/400	275	519450	OVR T2 4L 20-275 (x5)	2CTB804600R1500		0.45	
4	40	20	1.4	230/400	275	519474	OVR T2 4L 40-275 (x5)	2CTB804601R1500		0.45	

Type 2 pluggable - Uc 275 V

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level		Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308	Order details		Price 1 piece	Weight 1 piece kg
			Up kV	Un V				Type code	Order code		
4	40	20	1.25	230/400	275	20548	OVR T2 4L 40-275 P QS	2CTB803873R5600		0.45	
4	40	20	1.25	230/400	275	20555	OVR T2 4L 40-275 P TS QS	2CTB803873R5200		0.45	
4	40	20	1.4	230/400	275	25345	OVR T2 4L 40-275s P QS	2CTB815704R2300		0.45	
4	40	20	1.4	230/400	275	25284	OVR T2 4L 40-275s P TS QS	2CTB815704R1100		0.45	
4	80	20	1.4	230/400	275	25529	OVR T2 4L 80-275s P QS	2CTB815708R2300		0.45	
4	80	20	1.4	230/400	275	25468	OVR T2 4L 80-275s P TS QS	2CTB815708R1100		0.45	

Where to find more:

Coordination and wiring principals of OVR: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

For back-up protection:
S200 MCBs - chapter 1
Fuses and fuseholders - chapter 4

Protection and safety

OVR Type 2 surge protective devices TNS 400 V networks

4

Technical features			
Types			
with auxiliary contact (TS)		OVR T2 4L 40-440 P TS QS	OVR T2 4L 40-600 P TS QS
Electrical features			
Standard		IEC 61643-11/EN 61643-11	
Type/test class		T2/II	T2/II
Protected lines		4	4
System network		TNS	TNS
Type of current		AC	AC
Voltage regulation of the system network		± 10%	± 50 %
Nominal system voltage Un (L-N/L-L)	V	400/690	400/690
Max. cont. operating AC voltage Uc	V	440	600
Nominal dc voltage Un dc L-PE/Un dc L-L		495/990	650/990
Max. dc cont. Operating voltage Ucdc L-PE/Ucdc L-L		545/1090	715/1090
Nominal dc voltage Un dc L-PE/Un dc L-L		495/990	495/990
Max. dc cont. Operating voltage Ucdc L-PE/Ucdc L-L		545/1090	545/1090
Maximal discharge current I _{max} (8/20)	kA	40	40
Maximum impulse current I _{imp} (10/350)	kA	2	2
Nominal discharge current I _n (8/20)	kA	20	20
Follow current interrupting rating I _{fi}	kA	-	-
Voltage protection level U _p at I _n (L-N/N-PE/L-PE)	kV	3.6/1.8/1.8	4.6/2.3/2.3
Voltage protection level U _{res} at 3 kA	kV	1.25	1.6
Voltage protection level U _{res} at 5 kA		1.35	1.7
Voltage protection level U _{res} at 10 kA		1.55	1.9
TOV (Temporary overvoltage) withstand U _t (L-N: 5s./N-PE: 200ms)	V	581/	792/
Response time	ns	≤25	≤25
Short-circuit withstand capability I _{sc}	kA	100	100
Backup protection maximum rating			
fuse (gG - gL)	A	≤125	≤125
circuit breaker (B or C curve)	A	≤125	≤125
Pluggable cartridge		Yes	Yes
Integrated thermal disconnecter		Yes	Yes
State indicator		Yes	Yes
Safety reserve		No	No
Auxiliary contact		Yes (TS option)	Yes
Installation			
Wire range (L, N, PE) solid wire	mm ²	2.5 ... 25	2.5 ... 25
stranded wire	mm ²	2.5 ... 16	2.5 ... 16
Stripping length (L, N, PE)	mm	12.5	12.5
Tightening torque (L, N, PE)	Nm	2.5	2.5
Auxiliary contact (TS)		-	-
Contacts information		1 NO - 1 NC	1 NO - 1 NC
Min. load		12 V DC - 10 mA	12 V DC - 10 mA
Max. load		250 V AC - 1 A	250 V AC - 1 A
Connection cross-section	mm ²	1.5	1.5
Miscellaneous characteristics			
Stocking and operating temperature	°C	-40 to +80	-40 to +80
Degree of protection		IP 20	IP 20
Fire resistance according to UL 94		V0	V0
Dimensions			
height x width x depth	mm	88 x 71.2 x 65.3	
	inches	3.46 x 2.8 x 2.57	

Dimensions with auxiliary contact (TS)

height x width x depth	mm	95.8 x 142.4 x 69	95.8 x 71.2 x 65.3
	inches	3.77 x 2.8 x 2.57	3.77 x 2.8 x 2.57

Replacement Cartridges

Phase Product ID		OVR T2 40-440 C QS	OVR T2 40-600 C QS
		2CTB803876R0400	2CTB803886R0400



OVR T2 4L 20-275

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 μ s wave form.

OVR T2 Pluggable

Protected lines	Max. discharge current I _{max} 8/20	Nominal current I _n 8/20	Voltage Protection Level	Nominal voltage	Max. cont. Operating voltage	Bbn 3660308	Order details		Price 1 piece	Weight 1 piece
							Type code	Order code		
4	kA		Up KV	Un V	Uc V	EAN				kg
4	40	20	1,8	440	440	519894	OVR T2 4L 40-440 P QS	2CT-B803873R5100		0.45
4	40	20	1,8	440	440	519900	OVR T2 4L 40-440 P TS QS	2CT-B803873R5300		0.45
4	40	20	2,3	440	600	520685	OVR T2 4L 40-600 P TS QS	2CT-B803883R5300		0.45

Where to find more:

Coordination and wiring principals of OVR: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

For back-up protection:
S200 MCBs - chapter 1
Fuses and fuseholders - chapter 4

Protection and safety

OVR Type 2 surge protective devices TNS/TT 230 V 1Ph+N networks



2C5C400031F0013

OVR T2 1N 40-275
P QS

4

Technical features			OVR T2 1N 40-275 P QS	OVR T2 1N 40-275s P QS	OVR T2 1N 80-275s P QS	OVR T2 1N 40-350 P QS
Types			OVR T2 1N 40-275 P QS	OVR T2 1N 40-275s P QS	OVR T2 1N 80-275s P QS	OVR T2 1N 40-350 P QS
with auxiliary contact (TS)			OVR T2 1N 40-275 P TS QS	OVR T2 1N 40-275s P TS QS	OVR T2 1N 80-275s P TS QS	OVR T2 1N 40-350 P TS QS
Electrical features						
Standard			IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Type/test class			T2/II	T2/II	T2/II	T2/II
Protected lines			1+1	1+1	1+1	1+1
System network			TNS - TT	TT - TNS	TT - TNS	TNS - TT
Type of current			AC 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz	AC 45-65Hz
Voltage regulation of the system network			± 20 %	± 20 %	± 20 %	± 50 %
Nominal system voltage Un			[V] 230	230	230	230
Max. cont. operating voltage Uc			[V] 275	275	275	350
Maximum discharge current I _{max} (8/20)			[kA] 40	40	80	40
Maximum impulse current I _{imp} (10/350)			[kA] 2	2	6.25	2
Nominal discharge current I _n (8/20)			[kA] 20	20	20	20
Total Current			[kA] 80	80	80	80
Voltage protection level U _p at I _n (L-N/N-PE/L-PE)			[kV] 1.25/1.4/1.5	1.4/1.4/1.5	1.4/1.4/1.5	1.5/1.4/1.6
Voltage protection level U _{res} at 3 kA			[kV] 0.8/1.4/0.85	0.8/1.4/0.85	0.8/1.4/0.85	1.0/1.4/1.05
Voltage protection level U _{res} at 5 kA			[kV] 0.85/1.4/0.95	0.85/1.4/0.95	0.85/1.4/0.95	1.05/1.4/1.1
Voltage protection level U _{res} at 10 kA			[kV] 1/1.4/1.15	1/1.4/1.15	1/1.4/1.15	1.2/1.4/1.3
TOV (Temporary overvoltage) withstand U _t (L-N: 5s./N-PE: 200ms)			[V] 337/1200	337/1200	337/1200	455/1200
U _{oc}			[kV] -	-	-	-
Response time			[ns] < 25	< 25	< 25	< 25
Short-circuit withstand capability I _{sc}			[kA] 100	100	100	100
Backup protection						
fuse (gG - gL)			[A] ≤ 125	≤ 160	≤ 160	≤ 125
maximum rating						
circuit breaker (B or C curve)			[A] ≤ 125	≤ 125	≤ 125	≤ 125
Pluggable cartridge			Yes	Yes	Yes	Yes
Integrated QuickSafe® technology			Yes	Yes	Yes	Yes
State indicator			Yes	Yes	Yes	Yes
Safety reserve			No	Yes	Yes	No
Auxiliary contact			Yes (TS option)	Yes (TS option)	Yes (TS option)	Yes (TS option)
Installation						
Wire range (L, N, PE)						
solid wire			[mm ²] 2.5 ... 25	2.5 ... 25	2.5 ... 25	2.5 ... 25
stranded wire			[mm ²] 2.5 ... 16	2.5 ... 35	2.5 ... 35	2.5 ... 16
Stripping length (L, N, PE)			[mm] 12.5	12.5	12.5	12.5
Tightening torque (L, N, PE)			[Nm] 2.8	2.8	2.8	2.8
Auxiliary contact (TS)						
Contacts information			1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
Min. load			12 DC - 10 mA	12 DC - 10 mA	12 DC - 10 mA	12 DC - 10 mA
Max. load			250 V AC - 1A	250 V AC - 1A	250 V AC - 1A	250 V AC - 1A
Connection cross-section			[mm ²] 1.5	1.5	1.5	1.5

Technical features					
Types		OVR T2 1N 40-275 P QS	OVR T2 1N 40-275s P QS	OVR T2 1N 80-275s P QS	OVR T2 1N 40-350 P QS
with auxiliary contact (TS)		OVR T2 1N 40-275 P TS QS	OVR T2 1N 40-275s P TS QS	OVR T2 1N 80-275s P TS QS	OVR T2 1N 40-350 P TS QS
Miscellaneous characteristics					
Stocking and operating temperature	°C	-40 to +80	- 40 to +80	- 40 to +80	-40 to +80
Degree of protection		IP 20	IP 20	IP 20	IP 20
Fire resistance according to UL 94		V0	V-0	V-0	V0
Dimensions					
height x width x depth	mm	88 x 35.6 x 65.3	88 x 35.6 x 76.7	88 x 35.6 x 76.7	88 x 35.6 x 65.3
	inches	3.46 x 1.4 x 2.57	3.46 x 1.4 x 3.02	3.46 x 1.4 x 3.02	3.46 x 1.4 x 2.57
With Auxiliary Contact (TS)					
height x width x depth	mm	95.8 x 35.6 x 65.3	95.8 x 35.6 x 76.7	95.8 x 35.6 x 76.7	95.8 x 35.6 x 65.3
	inches	3.77 x 1.4 x 2.57	3.77 x 1.4 x 3.02	3.77 x 1.4 x 3.02	3.77 x 1.4 x 2.57
Replacement Cartridges					
Phase Product ID		OVR T2 40-275 C QS 2CTB803876R1000	OVR T2 40-275s C QS 2CTB815704R2600	OVR T2 80-275s C QS 2CTB815708R2600	OVR T2 40-350 C QS 2CTB803886R1000
Neutral Product ID		OVR T2-T3 N 80-275 C QS 2CTB803876R0000	OVR T2 N 80-275s C QS 2CTB815708R2800	OVR T2 N 80-275s C QS 2CTB815708R2800	OVR T2 N 80-350 C QS 2CTB803886R0000

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up).

They are characterized by their capacity to safely discharge current with 8/20 μ s wave form.

Type 2 pluggable											
Poles	Impluse Current Iimp 10/350 kA	Max discharge current Imax 8/20 kA	Nominal current In kA	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
								Type code	Order code		
1+1	2	40	20	1.25	230	275	519696	OVR T2 1N 40-275 P QS	2CTB803972R1100		0.24
1+1	2	40	20	1.25	230	275	519702	OVR T2 1N 40-275 P TS QS	2CTB803972R0500		0.24
1+1	2	40	20	1.4	230	275	525239	OVR T2 1N 40-275s P TS QS	2CTB815704R0200		0.30
1+1	2	40	20	1.4	230	275	525307	OVR T2 1N 40-275s P QS	2CTB815704R1400		0.30
1+1	2	80	20	1.4	230	275	525413	OVR T2 1N 80-275s P TS QS	2CTB815708R0200		0.30
1+1	2	80	20	1.4	230	275	525482	OVR T2 1N 80-275s P QS	2CTB815708R1400		0.30
1+1	2	40	20	1.5	230	350	519719	OVR T2 1N 40-350 P QS	2CTB803982R1100		0.24
1+1	2	40	20	1.5	230	350	519726	OVR T2 1N 40-350 P TS QS	2CTB803982R0500		0.24

Protection and safety

OVR Type 2 surge protective devices TNS/TT 230 and 400 V 3Ph+N networks



OVR T2 3N 40-275 P QS

4

Technical features			
Types		OVR T2 3N 40-275 P QS	OVR T2 3N 40-275s P QS
with auxiliary contact (TS)		OVR T2 3N 40-275 P TS QS	OVR T2 3N 40-275s P TS QS
Electrical features			
Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Type/test class		T2/II	T2/II
Protected lines		3+1	3+1
System network		TNS - TT	TT - TNS
Type of current		AC 45-65Hz	a.c. 45-65Hz
Voltage regulation of the system network		± 20 %	± 20 %
Nominal system voltage Un (L-N/L-L)		[V] 230/400	230/400
Max. cont. operating voltage Uc (L-N/L-L)		[V] 275/440	275/440
Maximum discharge current Imax (8/20)		[kA] 40	40
Maximum impulse current Iimp (10/350)		[kA] 2	2
Nominal discharge current In (8/20)		[kA] 20	20
Total Current		[kA] 80	80
Voltage protection level Up at In (L-N/N-PE/L-PE)		[kV] 1.25/1.4/1.5	1.4/1.4/1.5
Voltage protection level Ures at 3kA (L-N/N-PE /L-PE)		[kV] 0.8/1.4/0.85	0.8/1.4/0.85
Voltage protection level Ures at 5kA (L-N/N-PE /L-PE)		[kV] 0.85/1.4/0.95	0.85/1.4/0.95
Voltage protection level Ures at 10kA (L-N/N-PE /L-PE)		[kV] 1/1.4/1.15	1/1.4/1.15
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)		[V] 337/1200	337/1200
Response time		[ns] < 25	< 25
Short-circuit withstand capability Iscsr		[kA] 100	100
Backup protection maximum rating	fuse (gG - gL)	[A] ≤ 125	≤ 160
	circuit breaker (B or C curve)	[A] ≤ 125	≤ 125
Pluggable cartridge		Yes	Yes
Integrated QuickSafe® technology		Yes	Yes
State indicator		Yes	Yes
Safety reserve		No	Yes
Auxiliary contact		Yes (TS option)	Yes (TS option)
Installation			
Wire range (L, N, PE)	solid wire	[mm²] 2.5 ... 25	2.5 ... 25
	stranded wire	[mm²] 2.5 ... 16	2.5 ... 35
Stripping length (L, N, PE)		[mm] 12.5	12.5
Tightening torque (L, N, PE)		[Nm] 2.8	2.8
Auxiliary contact (TS)			
Contacts information		1 NO - 1 NC	1 NO - 1 NC
Min. load		12 DC - 10 mA	12 DC - 10 mA
Max. load		250 V AC - 1A	250 V AC - 1A
Connection cross-section		[mm²] 1.5	1.5
Miscellaneous characteristics			
Stocking and operating temperature		[°C] -40 to +80	- 40 to +80
Degree of protection		IP 20	IP 20
Fire resistance according to UL 94		V0	V-0
Dimensions			
height x width x depth	[mm]	88 x 71.2 x 65.3	88 x 71.2 x 76.7
	[inches]	3.46 x 2.8 x 2.57	3.46 x 2.8 x 3.02
With Auxiliary Contact (TS)			
height x width x depth	[mm]	95.8 x 71.2 x 65.3	95.8 x 71.2 x 76.7
	[inches]	3.77 x 2.8 x 2.57	3.77 x 2.8 x 3.02
Replacement Cartridges			
Phase Product ID		OVR T2 40-275 C QS 2CTB803876R1000	OVR T2 40-275s C QS 2CTB815704R2600
Neutral Product ID		OVR T2-T3 N 80-275 C QS 2CTB803876R0000	OVR T2 N 80-275s C QS 2CTB815708R2800

	OVR T2 3N 80-275s P QS	OVR T2 3N 40-350 P QS	OVR T2 3N 40-440 P QS		OVR T2 3N 80-440s P QS
	OVR T2 3N 80-275s P TS QS	OVR T2 3N 40-350 P TS QS	OVR T2 3N 40-440 P TS QS	OVR T2 3N 40-440s P TS QS	OVR T2 3N 80-440s P TS QS
	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
	T2/II	T2/II	T2/II	T2/II	T2/II
	3+1	3+1	3+1	3+1	3+1
	TT - TNS	TNS - TT	TNS - TT	TT - TNS	TT - TNS
	a.c. 45-65Hz	AC 45-65Hz	AC 45-65Hz	a.c. 45-65Hz	a.c. 45-65Hz
	± 20 %	± 50 %	± 10%	± 10%	± 10%
	230/440	230/400	400/690	400/690	400/690
	275/440	350/600	440/760	440/760	440/760
	80	40	40	40	80
	6.25	2	2	2	6.25
	20	20	20	20	20
	80	80	80	80	80
	1.4/1.4/1.5	1.5/1.4/1.7	1.8/1.4/2.1	1.8/2/2.1	1.8/2/2.1
	0.8/1.4/0.85	1.0/1.4/1.05	1.25/1.4/1.45	1.25/1.4/1.45	1.25/1.4/1.45
	0.85/1.4/0.95	1.05/1.4/1.1	1.35/1.4/1.45	1.35/1.4/1.45	1.35/1.4/1.45
	1/1.4/1.15	1.2/1.4/1.3	1.55/1.4/1.65	1.55/1.4/1.65	1.55/1.4/1.65
	337/1200	455/1200	581/1200	581/1200	581/1200
	< 25	< 25	< 25	< 26	< 25
	100	100	100	100	100
	≤ 160	≤ 125	≤ 125	≤ 160	≤ 160
	≤ 125	≤ 125	≤ 125	≤ 125	≤ 125
	Yes	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes	Yes
	Yes	No	No	Yes	Yes
	Yes (TS option)	Yes (TS option)	Yes (TS option)	Yes	Yes (TS option)
	2.5 ... 25	2.5 ... 25	2.5 ... 25	2.5 ... 25	2.5 ... 25
	2.5 ... 35	2.5 ... 16	2.5 ... 16	2.5 ... 35	2.5 ... 35
	12.5	12.5	12.5	12.5	12.5
	2.8	2.8	2.8	2.8	2.8
	1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
	12 DC - 10 mA	12 DC - 10 mA	12 DC - 10 mA	12 DC - 10 mA	12 DC - 10 mA
	250 V AC - 1A	250 V AC - 1A	250 V AC - 1A	250 V AC - 1A	250 V AC - 1A
	1.5	1.5	1.5	1.5	1.5
	- 40 to +80	-40 to +80	-40 to +80	- 40 to +80	- 40 to +80
	IP 20	IP 20	IP 20	IP 20	IP 20
	V-0	V0	V0	V-0	V-0
	88 x 71.2 x 76.7	88 x 71.2 x 65.3	88 x 71.2 x 65.3		88 x 71.2 x 76.7
	3.46 x 2.8 x 3.02	3.46 x 2.8 x 2.57	3.46 x 2.8 x 2.57		3.46 x 2.8 x 3.02
	95.8 x 71.2 x 76.7	95.8 x 71.2 x 65.3	95.8 x 71.2 x 65.3	95.8 x 71.2 x 76.7	95.8 x 71.2 x 76.7
	3.77 x 2.8 x 3.02	3.77 x 2.8 x 2.57	3.77 x 2.8 x 2.57	3.77 x 2.8 x 3.02	3.77 x 2.8 x 3.02
	OVR T2 80-275s C QS 2CTB815708R2600	OVR T2 40-350 C QS 2CTB803886R1000	OVR T2 40-440 C QS 2CTB803876R0400	OVR T2 40-440s C QS 2CTB815704R5500	OVR T2 80-440s C QS 2CTB815708R5500
	OVR T2 N 80-275s C QS 2CTB815708R2800	OVR T2 N 80-350 C QS 2CTB803886R0000	OVR T2-T3 N 80-440 C QS 2CTB803886R0100	OVR T2 N 80-440s C QS 2CTB815708R5700	OVR T2 N 80-440s C QS 2CTB815708R5700

Protection and safety

OVR Type 2 surge protective devices TNS/TT 230 and 400 V 3Ph+N networks



OVR T2 3N 40-275
P QS

Type 2 surge protective devices are designed to protect electric installations and sensitive equipment against indirect surges with ensuring a low protection level (Up). They are characterized by their capacity to safely discharge current with 8/20 μs wave form.

Type 2 pluggable										
Pro- tected lines	Max di- scharge current	Nominal di- scharge current	Voltage pro- tection level	Nominal voltage	Max. cont. ope- rating voltage	Bbn 3660308	Order details		Price 1 pie- ce	Weight 1 piece
	I _{max} 8/20 kA	I _n kA	U _p kV	U _n V	U _c V	EAN	Type code	Order code		kg
3+1	40	20	1.5	230/400	275	519.931	OVR T2 3N 40-275 P QS	2CTB803973R1100		0.48
3+1	40	20	1.5	230/400	275	519.948	OVR T2 3N 40-275 P TS QS	2CT- B803973R0500		0.48
3+1	40	20	1.4	230/400	275	52526 0	OVR T2 3N 40- 275s P TS QS	2CTB815704R0800		0.60
3+1	40	20	1.4	230/400	275	52532 1	OVR T2 3N 40- 275s P QS	2CTB815704R2000		0.60
3+1	80	20	1.4	230/400	275	52544 4	OVR T2 3N 80- 275s P TS QS	2CTB815708R0800		0.60
3+1	80	20	1.4	230/400	275	52550 5	OVR T2 3N 80- 275s P QS	2CTB815708R2000		0.60
3+1	40	20	1.5	230/400	350	519.962	OVR T2 3N 40-350 P QS	2CTB803983R1100		0.48
3+1	40	20	1.5	230/400	350	519.979	OVR T2 3N 40-350 P TS QS	2CT- B803983R0500		0.48
3+1	40	20	1.8	400/690	440	519.993	OVR T2 3N 40-440 P QS	2CTB803973R1400		0.48
3+1	40	20	1.8	400/690	440	520.005	OVR T2 3N 40-440 P TS QS	2CTB803973R1500		0.48
3+1	40	20	1.8	400/690	440	52537 6	OVR T2 3N 40- 440s P TS QS	2CTB815704R3700		1.05
3+1	80	20	1.8	400/690	440	52558 1	OVR T2 3N 80- 440s P TS QS	2CTB815708R3700		1.05
3+1	80	20	1.8	400/690	440	52562 8	OVR T2 3N 80- 440s P QS	2CTB815708R4900		1.05

Where to find more:

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Protection and safety

OVR Type T2-T3 QuickSafe® surge protective devices

Single pole - 230 V and 440 V networks



OVR T2 T3 20- 275 P QS

4

Technical features			OVR T2-T3 20-275 P QS	OVR T2-T3 20-440 P QS	OVR T2-T3 N 80-275 P QS	OVR T2-T3 N 80-440 P QS
Types			OVR T2-T3 20-275 P QS	OVR T2-T3 20-440 P QS	OVR T2-T3 N 80-275 P QS	OVR T2-T3 N 80-440 P QS
with auxiliary contact (TS)			OVR T2-T3 20-275 P TS QS	OVR T2-T3 20-440 P TS QS	-	-
Electrical features						
Standard			IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Type/test class			T2-T3/II-III	T2-T3/II-III	T2-T3/II-III	T2-T3/II-III
Protected lines			1	1	1	1
System network			TNC - TNS - TT(L-N)	TNC - TNS - TT(L-N)	TT (N-PE)	TT (N-PE)
Type of current			AC 45-65Hz	AC 45-65Hz	AC 45-65Hz	AC 45-65Hz
Voltage regulation of the system network			± 20 %	± 10%	± 20 %	± 10 %
Nominal system voltage Un			[V] 230	400	230	400
Max. cont. operating voltage Uc			[V] 275	440	275	440
Nominal dc voltage Un dc L-PE			[V dc] 320	320	-	-
Max. dc. cont. operating voltage Ucdc L-PE			[V dc] 355	355	-	-
Maximum discharge current Imax (8/20)			[kA] 20	20	80	80
Nominal discharge current In (8/20)			[kA] 5	5	2	2
Voltage protection level Up at In (L-N)			[kV] 0.9/-/-	1.4/-/-	30	30
Voltage protection level Ures at 3kA (L-N)			[kV] 0.8	1.25	-/-/1.4	-/-/1.4
Voltage protection level Ures at 5kA (L-N)			[kV] 0.85	1.35	-	-
Voltage protection level Ures at 10kA (L-N)			[kV] 1	1.55	-	-
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)			[V] 337/-	581/-	-	-
Uoc			[kV] 6	6	-	-
Response time			[ns] ≤ 25	≤ 25	-/1200	-/1200
Short-circuit withstand capability Isccr			[kA] 100	100	<25	<25
Backup protection fuse (gG - gL)			[A] ≤ 125	≤ 125	<125	<125
maximum rating circuit breaker (B or C curve)			[A] ≤ 125	≤ 125	<125	<125
Pluggable cartridge			Yes	Yes	Yes	Yes
Integrated QuickSafe® technology			Yes	Yes	-	-
State indicator			Yes	Yes	No	No
Safety reserve			No	No	No	No
Auxiliary contact			Yes (TS option)	Yes (TS option)	No	No
Installation						
Wire range (L, N, PE)			solid wire [mm²] 2.5 ... 25	2.5 ... 25	2.5 ... 25	2.5 ... 25
			stranded wire [mm²] 2.5 ... 16	2.5 ... 16	2.5 ... 16	2.5 ... 16
Stripping length (L, N, PE)			[mm] 12.5	12.5	12.5	12.5
Tightening torque (L, N, PE)			[Nm] 2.8	2.8	2.8	2.8
Auxiliary contact (TS)						
Contacts information			1 NO - 1 NC	1 NO - 1 NC	-	-
Min. load			12 DC - 10 mA	12 DC - 10 mA	-	-
Max. load			250 V AC - 1A	250 V AC - 1A	-	-
Connection cross-section			[mm²] 1.5	1.5	-	-
Miscellaneous characteristics						

Technical features					
Types		OVR T2-T3 20-275 P QS	OVR T2-T3 20-440 P QS	OVR T2-T3 N 80-275 P QS	OVR T2-T3 N 80-440 P QS
with auxiliary contact (TS)		OVR T2-T3 20-275 P TS QS	OVR T2-T3 20-440 P TS QS	-	-
Stocking and operating temperature	[°C]	-40 to +80	-40 to +80	- 40 to + 80	- 40 to + 80
Degree of protection		IP 20	IP 20	IP 20 - Indoor	IP 20 - Indoor
Fire resistance according to UL 94		V0	V0	V-0	V-0
Dimensions of packing					
height x width x depth	[mm]	88 x 17.8 x 65.3	88 x 17.8 x 65.3	85 x 17.8 x 64.8	85 x 17.8 x 64.8
	[inches]	3.46 x 0.7 x 2.57	3.46 x 0.7 x 2.57	3.35 x 0.70 x 2.55	3.35 x 0.70 x 2.55
With Auxiliary Contact (TS)					
height x width x depth	[mm]	95.8 x 17.8 x 65.3	95.8 x 17.8 x 65.3	-	-
	[inches]	3.77 x 0.7 x 2.57	3.77 x 0.7 x 2.57	-	-
Replacement Cartridges					
Phase Product ID		OVR T2-T3 20-275 C QS 2CT- B803876R1200	OVR T2-T3 20-440 C QS 2CT- B803876R0600	OVR T2-T3 N 80-275 C QS 2CT- B803876R0000	OVR T2-T3 N 80-275 C QS 2CT- B803876R0000
Neutral Product ID		-	-	-	-

Type 2 and 3 surge protective devices shall be installed as close as possible to the sensitive equipment to protect. As Type 2 they have been characterized by their capacity to safely discharge current with a 8/20 μ s wave form and they guarantee the coordination with Type 1 SPDs or other Type 2 respecting coordination distances. As Type 3 they are characterized by their capacity to safely discharge current with 1.2/50 μ s wave form, with a very low level of Voltage Protection level.

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level		Nominal voltage U _n V	Max. cont. operating voltage U _c V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
			U _p kV	U _n V				Type code	Order code		
1	20	5	0.9	230	275	519.566	OVR T2-T3 20-275 P QS	2CTB803871R2400		0.12	
1	20	5	0.9	230	275	519.573	OVR T2-T3 20-275 P TS QS	2CTB803871R2500		0.12	
1	20	5	1.4	400	440	519.603	OVR T2-T3 20-440 P QS	2CTB803871R1100		0.12	
1	20	5	1.4	400	440	519.610	OVR T2-T3 20-440 P TS QS	2CTB803871R1300		0.12	
1	80	30	1.4	230	275	519641	OVR T2-T3 N 80-275 P QS	2CTB803973R1900		0.12	
1	80	30	1.4	400	440	519641	OVR T2-T3 N 80-275 P QS	2CTB803973R2000		0.12	

Protection and safety

OVR Type T2-T3 QuickSafe® surge protective devices TNC - 230 V 3Ph + PEN networks



OVR T2 T3 3L 20-275 P TS QS

4

Technical features			
Types		OVR T2-T3 3L 20-275 P QS	
with auxiliary contact (TS)		OVR T2-T3 3L 20-275 P TS QS	
Electrical features			
Standard		IEC 61643-11/EN 61643-11	
Type/test class		T2-T3/II-III	
Protected lines		3	
System network		TNC	
Type of current		AC 45-65Hz	
Voltage regulation of the system network		± 20 %	
Nominal system voltage Un (L-PEN/L-L)		[V]	230/400
Max. cont. operating voltage Uc (L-PEN/L-L)		[V]	275/440
Nominal dc voltage Un dc L-PE		[V dc]	320
Max. dc. cont. operating voltage Ucdc L-PE		[V dc]	355
Maximum discharge current Imax (8/20)		[kA]	20
Nominal discharge current In (8/20)		[kA]	5
Total Current		[kA]	60
Voltage protection level Up at In (L-N/N-PE /L-PE)		[kV]	0,85/-/-
Voltage protection level Ures at 3kA		[kV]	0.8
Voltage protection level Ures at 5kA		[kV]	0.85
Voltage protection level Ures at 10kA		[kV]	1.0
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)		[V]	337/-
Uoc		[kV]	6
Response time		[ns]	≤ 25
Short-circuit withstand capability Isccr		[kA]	100
Backup protection maximum rating		fuse (gG - gL)	[A] ≤ 125
		circuit breaker (B or C curve)	[A] ≤ 125
Pluggable cartridge		Yes	
Integrated QuickSafe® technology		Yes	
State indicator		Yes	
Safety reserve		No	
Auxiliary contact		Yes (TS option)	
Installation			
Wire range (L, N, PE)		solid wire	[mm ²] 2.5 ... 25
		stranded wire	[mm ²] 2.5 ... 16
Stripping length (L, N, PE)		[mm]	12.5
Tightening torque (L, N, PE)		[Nm]	2.8
Auxiliary contact (TS)			
Contacts information		1 NO - 1 NC	
Min. load		12 DC - 10 mA	
Max. load		250 V AC - 1A	
Connection cross-section		[mm ²]	1.5
Miscellaneous characteristics			
Stocking and operating temperature		[°C]	-40 to +80
Degree of protection		IP 20	
Fire resistance according to UL 94		V0	

Technical features		
Types		OVR T2-T3 3L 20-275 P QS
with auxiliary contact (TS)		OVR T2-T3 3L 20-275 P TS QS
Dimensions		
height x width x depth	mm	88 x 53.4 x 65.3
	inches	3.46 x 2.1 x 2.57
With Auxiliary Contact (TS)		
height x width x depth	mm	95.8 x 53.4 x 65.3
	inches	3.77 x 2.1 x 2.57
Replacement Cartridges		
Phase Product ID		OVR T2-T3 20-275 C QS 2CTB803876R1200
Neutral Product ID		-

Type 2 and 3 surge protective devices shall be installed as close as possible to the sensitive equipment to protect. As Type 2 they have been characterized by their capacity to safely discharge current with a 8/20 μs wave form and they guarantee the coordination with Type 1 SPDs or other Type 2 respecting coordination distances. As Type 3 they are characterized by their capacity to safely discharge current with 1.2/50 μs wave form, with a very low level of Voltage Protection level.

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level		Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308	Order details		Price 1 piece	Weight 1 piece kg
			Up kV	Un V				EAN	Type code		
3	20	5	0.85	230/400	275	519.818	OVR T2-T3 3L 20-275 P QS	2CTB803873R3400		0.36	
3	20	5	0.85	230/400	275	520.661	OVR T2-T3 3L 20-275 P TS QS	2CTB803873R3500		0.36	

Protection and safety

OVR Type T2-T3 QuickSafe® surge protective devices

TNS/TT - 230 V 1Ph+N networks



2CS0400032P0013

OVR T2 T3 1N 20-275 P QS

4

Technical features			
Types		OVR T2-T3 1N 20-275 P QS	
with auxiliary contact (TS)		OVR T2-T3 1N 20-275 P TS QS	
Electrical features			
Standard		IEC 61643-11/EN 61643-11	
Type/test class		T2-T3/II-III	
Protected lines		1+1	
System network		TNS - TT	
Type of current		AC 45-65Hz	
Voltage regulation of the system network		± 20 %	
Nominal system voltage Un	[V]	230	
Max. cont. operating voltage Uc	[V]	275	
Maximum discharge current I _{max} (8/20)	[kA]	20	
Nominal discharge current I _n (8/20)	[kA]	5	
Total Current	[kA]	40	
Voltage protection level U _p at I _n (L-N/N-PE/L-PE)	[kV]	0.9/1.4/1.4	
Voltage protection level U _{res} at 3kA (L-N/N-PE /L-PE)	[kV]	0.8/1.4/0.85	
Voltage protection level U _{res} at 5kA(L-N/N-PE /L-PE)	[kV]	0.85/1.4/0.95	
Voltage protection level U _{res} at 10kA (L-N/N-PE /L-PE)	[kV]	1/1.4/1.15	
TOV (Temporary overvoltage) withstand U _t (L-N: 5s./N-PE: 200ms)	[V]	337/1200	
U _{oc}	[kV]	6	
Response time	[ns]	≤ 25	
Residual current I _{PE}	[μA]	≤ 10	
Short-circuit withstand capability I _{sc}	[kA]	100	
Backup protection maximum rating	fuse (gG - gL)	[A]	≤ 125
	circuit breaker (B or C curve)	[A]	≤ 125
Pluggable cartridge		Yes	
Integrated QuickSafe® technology		Yes	
State indicator		Yes	
Safety reserve		No	
Auxiliary contact		Yes (TS option)	
Installation			
Wire range (L, N, PE)	solid wire	[mm ²]	2.5 ... 25
	stranded wire	[mm ²]	2.5 ... 16
Stripping length (L, N, PE)		[mm]	12.5
Tightening torque (L, N, PE)		[Nm]	2.8
Auxiliary contact (TS)			
Contacts information			1 NO - 1 NC
Min. load			12 DC - 10 mA
Max. load			250 V AC - 1A
Connection cross-section		[mm ²]	1.5
Miscellaneous characteristics			
Stocking and operating temperature	[°C]		-40 to +80
Degree of protection			IP 20
Fire resistance according to UL 94			V0
Dimensions			
height x width x depth	[mm]		88 x 35.6 x 65.3
	[inches]		3.46 x 1.4 x 2.57

Technical features		
Types		OVR T2-T3 1N 20-275 P QS
with auxiliary contact (TS)		OVR T2-T3 1N 20-275 P TS QS
With Auxiliary Contact (TS)		
height x width x depth	mm	95.8 x 35.6 x 65.3
	inches	3.77 x 1.4 x 2.57
Replacement Cartridges		
Phase Product ID		OVR T2-T3 20-275 C QS 2CTB803876R1200
Neutral Product ID		OVR T2-T3 N 80-275 C QS 2CTB803876R0000

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Type 2 and 3 surge protective devices shall be installed as close as possible to the sensitive equipment to protect. As Type 2 they have been characterized by their capacity to safely discharge current with a 8/20 μ s wave form and they guarantee the coordination with Type 1 SPDs or other Type 2 respecting coordination distances. As Type 3 they are characterized by their capacity to safely discharge current with 1.2/50 μ s wave form, with a very low level of Voltage Protection level.

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level		Nominal voltage U _n V	Max. cont. operating voltage U _c V	Bbn 3660308	Order details		Price 1 piece	Weight 1 piece kg
			U _p kV	U _n V				EAN	Type code		
1+1	20	5	1.4	230	275	519.689	OVR T2-T3 1N 20-275 P QS	2CTB803972R1200		0.24	
1+1	20	5	1.4	230	275	520.654	OVR T2-T3 1N 20-275 P TS QS	2CTB803972R1300		0.24	

Protection and safety

OVR Type T2-T3 QuickSafe® surge protective devices

TT - 230 V and 400 V 3Ph+N networks



OVR T2 T3 3N 20-275 P TS QS

4

Technical features			
Types		OVR T2-T3 3N 20-275 P QS	OVR T2-T3 3N 20-440 P QS
with auxiliary contact (TS)		OVR T2-T3 3N 20-275 P TS QS	OVR T2-T3 3N 20-440 P TS QS
Electrical features			
Standard		IEC 61643-11/EN 61643-11	IEC 61643-11 /EN 61643-11
Type/test class		T2-T3/II-III	T2-T3 /II-III
Protected lines		3+1	3+1
System network		TNS - TT	TNS - TT
Type of current		AC 45-65Hz	AC 45-65Hz
Voltage regulation of the system network		± 20 %	± 10 %
Nominal system voltage Un (L-N/L-L)	[V]	230/400	400/690
Max. cont. operating voltage Uc (L-N/L-L)	[V]	275/440	440/750
Maximum discharge current Imax (8/20)	[kA]	20	20
Nominal discharge current In (8/20)	[kA]	5	5
Total Current	[kA]	80	80
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kV]	0.9/1.4/1.4	1.4/1.4/1.4
Voltage protection level Ures at 3kA (L-N/N-PE /L-PE)	[kV]	0.8/1.4/0.85	1.25/1.4/1.4
Voltage protection level Ures at 5kA (L-N/N-PE /L-PE)	[kV]	0.85/1.4/0.95	1.35/1.4/1.45
Voltage protection level Ures at 10kA (L-N/N-PE /L-PE)	[kV]	1/1.4/1.15	1.35/1.4/1.65
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	337/1200	581/1200
Uoc	[kV]	6	6
Response time	[ns]	≤ 25	≤ 25
Residual current IPE	[μA]	≤ 10	≤ 10
Short-circuit withstand capability Isccr	[kA]	100	100
Backup protection maximum rating	fuse (gG - gL)	[A]	≤ 125
	circuit breaker (B or C curve)	[A]	≤ 125
Pluggable cartridge		Yes	Yes
Integrated QuickSafe® technology		Yes	Yes
State indicator		Yes	Yes
Safety reserve		No	No
Auxiliary contact		Yes (TS option)	Yes (TS option)
Installation			
Wire range (L, N, PE)	solid wire	[mm ²]	2.5 ... 25
	stranded wire	[mm ²]	2.5 ... 16
Stripping length (L, N, PE)		[mm]	12.5
Tightening torque (L, N, PE)		[Nm]	2.8
Auxiliary contact (TS)			
Contacts information		1 NO- 1 NC	1 NO- 1 NC
Min. load		12 DC - 10 mA	12 DC - 10 mA
Max. load		250 V AC - 1A	250 V AC - 1A
Connection cross-section	[mm ²]	1.5	1.5
Miscellaneous characteristics			
Stocking and operating temperature	[°C]	-40 to +80	-40 to +80
Degree of protection		IP 20	IP 20
Fire resistance according to UL 94		V0	V0

Technical features			
Types		OVR T2-T3 3N 20-275 P QS	OVR T2-T3 3N 20-440 P QS
with auxiliary contact (TS)		OVR T2-T3 3N 20-275 P TS QS	OVR T2-T3 3N 20-440 P TS QS
Dimensions			
height x width x depth	mm	88 x 71.2 x 65.3	88 x 71.2 x 65.3
	inches	3.46 x 2.8 x 2.57	3.46 x 2.8 x 2.57
With Auxiliary Contact (TS)			
height x width x depth	mm	95.8 x 71.2 x 65.3	96 x 71.2 x 64.8
	inches	3.77 x 2.8 x 2.57	3.35 x 2.81 x 2.55
Replacement Cartridges			
Phase Product ID		OVR T2-T3 20-275 C QS 2CTB803876R1200	OVR T2-T3 20-440 C QS 2CTB803876R0600
Neutral Product ID		OVR T2-T3 N 80-275 C QS 2CTB803876R0000	OVR T2-T3 N 80-440 C QS 2CTB803886R0100

Type 2 and 3 surge protective devices shall be installed as close as possible to the sensitive equipment to protect. As Type 2 they have been characterized by their capacity to safely discharge current with a 8/20 μs wave form and they guarantee the coordination with Type 1 SPDs or other Type 2 respecting coordination distances. As Type 3 they are characterized by their capacity to safely discharge current with 1.2/50 μs wave form, with a very low level of Voltage Protection level.

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
							Type code	Order code		
3+1	20	5	1.4	230/400	275	519.924	OVR T2-T3 3N 20-275 P QS	2CTB803973R1200		0.48
3+1	20	5	1.4	230/400	275	520.692	OVR T2-T3 3N 20-275 P TS QS	2CTB803973R1600		0.48
3+1	20	5	1.5	400/690	440	519986	OVR T2-T3 3N 20-440 P QS	2CTB803973R1300		0.48
3+1	20	5	1.5	400/690	440	520715	OVR T2-T3 3N 20-440 P TS QS	2CTB803973R1700		0.48

Protection and safety

OVR Type T2-T3 StreetLight surge protective devices TT TN - 230 V



OVR T2 T3 StreetLight

4

Technical features			
Types		OVR T2-T3 N1 15-275S SL	
Electrical features			
Standard		IEC 61643-11/EN 61643-11	
Type/test class		T2-T3/II-III	
System network		TT, TN	
Protection mode		Commun + differentiel	
Number of pole/Type of current		1+1	
Nominal system voltage Un	[V]	230	
Max. cont. operating voltage Uc (L-N)	[V]	275	
Maximum discharge current Imax (8/20)	[kA]	15	
Nominal discharge current In (8/20)	[kA]	5	
Total Current	[kA]	30	
Voltage protection level Up at In (L-N/L-PE)	[kV]	1.1/1.3	
TOV (Temporary overvoltage) withstand Ut (L-N: 5s.)	[V]	337	
Uoc	[kV]	1.1	
Response time	[ns]	< 25	
Short circuit withstand Icc	[kA]	15	
Backup protection maximum rating	fuse (gG - gL)	[A]	< 20 A
	circuit breaker (B or C curve)	[A]	< 20 A
Pluggable cartridge		No	
Integrated QuickSafe® technology		No	
State indicator		Yes	
Safety reserve		No	
Installation			
Wire range : phase and neutral wire		2 x 1.5mm ² - L 16cm	
Wire range : Protective Earth wire	[mm ²]	< 6mm ²	
Stripping length (L, N, PE)	[mm]	10	
Auxiliary contact (TS)			
Contacts information		-	
Min. load		-	
Max. load		-	
Connection cross-section	[mm ²]	-	
Miscellaneous characteristics			
Stocking and operating temperature	[°C]	-40 to +80	
Degree of protection		IP 32	
Fire resistance according to UL 94		V0	
Dimensions			
height x width x depth	[mm]	80 x 17.5 x 41	
	[inches]	3.15 x 0.69 x 1.62	
With Auxiliary Contact (TS)			
height x width x depth	[mm]	-	
	[inches]	-	

OVR Type 2 – Type 3 Street Lighting

This is a particular Type 2 and 3 surge protective devices meant to be installed in applications where overall dimensions are critical.

It has the Safety system integrated by default, performed by two varistors in parallel, allowing the customer to perform preventive maintenance. As soon as one of the Life status windows swap from green to red, we know the product needs to be replaced, but it still guarantees the protection.

It has IP 32 and bottom connections to guarantee the best performances in critical and humid environment.

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level		Nominal voltage U _n V	Max. cont. operating voltage U _c V	Bbn 3660308	Order details		Price 1 piece	Weight 1 piece kg
			Up kV	Un V				Type code	Order code		
1+1	15	5	1.3	230	275	524.775	524.775	OVR T2-T3 N1 15-275S SL	2CTB804500R0200		0.04
1+1	15	5	1.3	230	275	524.799	524.799	OVR T2-T3 N1 15-275S SL (x20)	2CTB804500Z1200		0.04

Protection and safety

OVR Type 3 surge protective devices TNS/TT 230 V networks



2CHC400.039F0013

OVR 3N 10 275

4

Technical features			OVR 1N 10 275	OVR 3N 10 275
Types				
	with auxiliary contact (TS)		–	–
Technology			Varistor	Varistor
Electrical features				
Standard			IEC 61643-1/EN 61643-11	
Type/test class			T3/III	T3/III
Protected lines			1+1	3+1
Types of networks			TNS/TT	TNS/TT
Type of current			AC	AC
Nominal voltage Un (L-N/L-L)			[V] 230/400	230/400
Max. cont. operating voltage Uc			[V] 275	275
Maximum discharge current Imax (8/20)			[kA] 10	10
Nominal discharge current In (8/20)			[kA] 3	3
Combination wave Uoc			[kV] 6	6
Voltage protection level Up at In (L-N/N-PE/L-PE)			[kA] 0.9/1.4	0.9/1.4
Voltage protection level Up at 3 kA (L-N/N-PE/L-PE)			[kA] 0.9/0.9	0.9/0.9
TOV (Temporary overvoltage) (L-N: 5 s /N-PE: 200 ms)			[V] 334/440	334/440
withstand Ut				
Response time			[ns] ≤ 25	≤ 25
Residual current IPE			[μA] 10	10
Short-circuit withstand capability Isccr			[kA] 10	10
Backup protection				
	Fuse (gG - gL)	[A]	≤ 25	≤ 25
	Circuit breaker (B or C curve)	[A]	≤ 10	≤ 10
Pluggable cartridge			No	No
Integrated thermal disconnecter			Yes	Yes
State indicator			Yes	Yes
Safety reserve			No	No
Auxiliary contact			No	No
Installation				
Wire range (L, N, PE)				
	Solid wire	[mm ²]	2.5...25	2.5...25
	Stranded wire	[mm ²]	2.5...16	2.5...16
Stripping length (L, N, PE)			[mm] 12.5	12.5
Tightening torque (L, N, PE)			[Nm] 2.5	2.5
Auxiliary contact (TS)				
Contact complement			–	–
Minimum load			–	–
Maximum load			–	–
Connection cross-section			[mm ²] –	–
Miscellaneous characteristics				
Stocking and operating temperature			[°C] -40 to +80/-40 to +70	-40 to +80/-40 to +70
Degree of protection			IP20	IP20
Fire resistance according to UL 94			V0	V0
Dimensions				
	height x width x depth	[mm]	87.5 x 35.6 x 68.4	87.5 x 71.2 x 68.4
		[inches]	3.44 x 1.4 x 2.69	3.44 x 2.8 x 2.69

Where to find more:

Coordination and wiring principals of OVR: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

For back-up protection:
S200 MCBs - chapter 1
Fuses and fuseholders - chapter 4

Type 3 surge protective devices shall be installed as close as possible from the sensitive equipment to protect. Tested with a 1.2/50 - 8/20 current combination wave generator, they ensure a very low protection level.

Type 3 non-pluggable - Uc 275 V										
Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
							Type code	Order code		
1+1	10	3	0.9	230/400	275	509208	OVR 1N 10 275	2CTB813912R1000		0.27
3+1	10	3	0.9	230/400	275	509215	OVR 3N 10 275	2CTB813913R1000		0.48

Protection and safety

OVR Plus - Autoprotected surge protective devices TNS/TT 230 V networks



OVR PLUS N3 20
OVR PLUS N3 40

4

		Technical features				
Types		OVR Plus N1 20	OVR Plus N1 40	OVR Plus N3 20	OVR Plus N3 40	
	with auxiliary contact (TS)	-	-	-	-	
Technology		Varistor	Varistor	Varistor	Varistor	
Electrical features						
Standard		IEC 61643-1/EN 61643-11				
Type/test class		T2/II	T2/II	T2/II	T2/II	
Protected lines		1+1	1+1	3+1	3+1	
Types of networks		TNS/TT	TNS/TT	TNS/TT	TNS/TT	
Type of current		AC	AC	AC	AC	
Nominal voltage Un (L-N/L-L)		[V] 230/400	230/400	230/400	230/400	
Max. cont. operating voltage Uc		[V] 275	275	275	275	
Maximum discharge current I _{max} (8/20)		[kA] 20	40	20	40	
Nominal discharge current I _n (8/20)		[kA] 5	20	5	20	
Voltage protection level Up at I _n (L-N/N-PE/L-PE)		[kV] 1.3/-/1.3	1.6/-/1.8	1.3/1.3/1.3	2.0/1.5/2.0	
Voltage protection level Up at 3 kA (L-N/N-PE/L-PE)		[kV] 1.1/-/1.1	1.1/-/1.1	1.1/1.1/1.1	1.1/1.1/1.1	
TOV (Temporary overvoltage) withstand Ut (L-N: 5 s /N-PE: 200 ms)		[V] 334/1200	334/1200	334/1200	334/1200	
Response time		[ns] ≤ 25	≤ 25	≤ 25	≤ 25	
Residual current IPE		[μA] 10	10	10	10	
Short-circuit withstand capability I _{sc}		[kA] 10	15	10	15	
Backup protection		Fuse (gG - gL)	[A] integrated	integrated	integrated	integrated
		Circuit breaker (B or C curve)	[A] integrated	integrated	integrated	integrated
Pluggable cartridge		No	No	No	No	
Integrated thermal disconnecter		Yes	Yes	Yes	Yes	
State indicator		Yes	Yes	Yes	Yes	
Safety reserve		No	No	No	No	
Auxiliary contact		Yes (S2C-H6R/2CDS200912R0001)				
Installation						
Wire range (L, N, PE)		Solid wire	[mm ²] 2.5...25	2.5...25	2.5...25	2.5...25
		Stranded wire	[mm ²] 2.5...16	2.5...16	2.5...16	2.5...16
Stripping length (L, N, PE)		[mm] 11	11	11	11	
Tightening torque (L, N, PE)		[Nm] 2.5	2.5	2.5	2.5	
Auxiliary contact (TS)						
Contact complement		-	-	-	-	
Minimum load		-	-	-	-	
Maximum load		-	-	-	-	
Connection cross-section		[mm ²] -	-	-	-	
Miscellaneous characteristics						
Stocking and operating temperature		[°C] -40 to +70/-25 to +55	-40 to +70/-25 to +55	-40 to +70/-25 to +55	-40 to +70/-25 to +55	
Degree of protection		IP20	IP20	IP20	IP20	
Fire resistance according to UL 94		V0	V0	V0	V0	
Dimensions		height x width x depth	[mm] 91 x 35.6 x 74.6	91 x 35.6 x 74.6	100.8 x 106.8 x 74.6	100.8 x 106.8 x 74.6
			[inches] 3.58 x 1.40 x 2.94	3.58 x 1.40 x 2.94	3.97 x 4.20 x 2.94	3.97 x 4.20 x 2.94

OVR PLUS N3 20 and OVR PLUS N3 40 for commercial and industrial applications:

- Auto-protected: Backup miniature circuit breaker integrated and fully coordinated with the surge protective device.
- Easy installation: Fully coordinated unit with easy wiring with the complete ABB pro M modular range.
- High discharge capacity: With I_{max} 20 and 40 kA the OVR Plus N3 insure the protection of your low voltage installations and electric equipment.
- High reliability: No welding inside the module and specific thermal disconnection with the „bilame“ sensor.

OVR PLUS N1 40 for residential applications:

- Auto-protected: Backup miniature circuit breaker integrated and fully coordinated with the surge protective device.
- Compact: Only two modules (36 mm width), means more space and easy wiring with the complete ABB DIN rail range.
- High discharge capacity: With I_{max} 20 and 40 kA the OVR PLUS N1 can protect your electric equipment against high surges.
- High reliability: No welding inside the module and specific thermal disconnection.

Type 2 autoprotected

Poles	Max discharge current I _{max} 8/20 kA	Nominal discharge current I _n kA	Voltage protection level		Max. cont. operating voltage U _c V	Bbn 3660308 EAN	Order details		Price 1 piece	Weight 1 piece kg
			U _p kV	U _n V			Type code	Order code		
1+1	20	5	1.3	230	275	521286	OVR PLUS N1 20	2CTB803701R0700		0.28
1+1	40	20	1.8	230	275	517005	OVR PLUS N1 40	2CTB803701R0100		0.28
3+1	20	5	1.3	230/400	275	517081	OVR PLUS N3 20	2CTB803701R0400		0.84
3+1	40	20	2.0	230/400	275	517074	OVR PLUS N3 40	2CTB803701R0300		0.84

Where to find more:

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

For back-up protection:
S200 MCBs - chapter 1
Fuses and fuseholders - chapter 4

Protection and safety

OVR PV surge protective devices Photovoltaic networks

Technical features

Types		–	–	OVR PV T2 40-600 P QS	OVR PV T2 40-1000 P QS	OVR PV T2 40-1000 P TWIN QS	OVR PV T2 40-1500 P QS
	with auxiliary contact (TS)	OVR PV T1 6.25-600 P TS	OVR PV T1 6.25-1000 P TS	OVR PV T2 40-600 P TS QS	OVR PV T2 40-1000 P TS QS	OVR PV T2 40-1000 P TS TWIN QS	OVR PV T2 40-1500 P TS QS
Technology		Varistor	Varistor	Varistor	Varistor	Varistor	Varistor

Electrical features

Standard		UTE C 61-740-51/prEN 50539-11		EN 50539-11/UL 1449 Ed 4			
Type/test class		T1/I	T1/I	T2/II	T2/II	T2/II	T2/II
Protected lines		2	2	2	2	4	2
Types of networks		Photovoltaic	Photovoltaic	Photovoltaic	Photovoltaic	Photovoltaic	Photovoltaic
Type of current		DC	DC	DC	DC	DC	DC
Nominal voltage Un (L-N/L-L)	[V]	600	1000	600	1000	1000	1500
Max. cont. operating voltage Ucpv	[V]	600	1000	600	1100	1100	1500
Impulse current Iimp (10/350)		6.25	6.25	2	–	2	2
Maximum discharge current I _{max} (8/20)	[kA]	–	–	40	40	40	40
Nominal discharge current I _n (8/20)	[kA]	6.25	6.25	20	20	20	10 (EN)/10 (UL)
Voltage protection level Up at In	[kV]	1.9/1.9	2.5/2.5	2.8/1.4	3.8/3.8	3.8/3.8	4.5/4.5
Response time	[ns]	≤ 25	≤ 25	≤ 25	≤ 25	≤ 25	≤ 25
Residual current IPE	[μA]	75	75	10	75	75	<30
Short-circuit DC current I _{scpv}	[A]	100	100	300	10,000	10,000	10,000
Disconnecter	Fuse	10AgPV (E90PV)	10AgPV (E90PV)	no need up to 0.3 kA	no need up to 10 kA	no need up to 10 kA	no need up to 10 kA
	Circuit breaker	–	–	no need up to 0.3 kA	no need up to 10 kA	no need up to 10 kA	no need up to 10 kA
Pluggable cartridge		Yes	Yes	Yes	Yes	Yes	Yes
Integrated specific thermal disconnecter		Yes	Yes	Yes	Yes	Yes	Yes
State indicator		Yes	Yes	Yes	Yes	Yes	Yes
Safety reserve		No	No	No	No	No	No
Auxiliary contact		Yes	Yes	Yes (TS option)	Yes (TS option)	Yes (TS option)	Yes (TS option)

Installation

Wire range (L, N, PE)	Solid wire	[mm ²]	2.5...25	2.5...25	2.5...35	2.5...35	2.5...35
	Stranded wire	[mm ²]	2.5...16	2.5...16	2.5...25	2.5...25	2.5...25
Stripping length (L, N, PE)			12.2	12.2	12.2	12.2	12.2
Tightening torque (L, N, PE)			2.5	2.5	2.5	2.5	2.5

Auxiliary contact (TS)

Contact complement		1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
Minimum load		12 V DC - 10 mA	12 V DC - 10 mA	12 V DC - 10 mA	12 V DC - 10 mA	12 V DC - 10 mA	12 V DC - 10 mA
Maximum load		250 V AC - 1 A	250 V AC - 1 A	250 V AC - 1 A	250 V AC - 1 A	250 V AC - 1 A	250 V AC - 1 A
Connection cross-section		1.5	1.5	1.5	1.5	1.5	1.5

Miscellaneous characteristics

Stocking and operating temperature	[°C]	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80
Humidity Rate HR		93%	93%	95%	95%	95%	95%
Degree of protection		IP20	IP20	IP20	IP20	IP20	IP 20
Fire resistance according to UL 94		V0	V0	V0	V0	V0	V0
Dimensions	height x width x depth	[mm]	–	–	88 x 53.4 x 65	88 x 53.4 x 65	88 x 88,33 x 65
		[inches]	–	–	3.46 x 2.10 x 2.56	3.46 x 2.10 x 2.56	3.46 x 3,5 x 2.56
with auxiliary contact (TS)	height x width x depth	[mm]	95.8 x 160.2 x 65	95.8 x 160.2 x 65	95 x 53.4 x 65	95 x 53.4 x 65	95 x 88,33 x 65
		[inches]	3.77 x 6.31 x 2.56	3.77 x 6.31 x 2.56	3.46 x 2.10 x 2.56	3.77 x 2.1 x 2.55	3.46 x 3,5 x 2.56

Replacement Cartridges

Phase Product ID		OVR PV T1 625-600 C 2CTB803950R1000	OVR PV T1 6.25-1000 C 2CTB803950R1100	OVR PV T2 40-600 C QS 2CTB804153R3100	OVR PV T2 40-1000 C QS 2CTB804153R3200	OVR PV T2 40-1000 C QS 2CTB804153R3200	OVR PV T2 40-1500 C QS 2CTB804153R3300
				OVR PV MC C QS 2CTB804153R3500			



OVR PV T1 6.25-600 P TS

2CSC0009AF0013



OVR PV T2 40-600 P QS

2CTC432389V0000



OVR PV T2 40-1000 P QS

2CTB804153R2500

Specifically designed for photovoltaic DC installations, the OVR PV family provide a safe and reliable surge and lightning protection of solar panels and converters.
The OVR PV surge protective devices comply with UTE C 61-740-51 and prEN 50539-11.

Type 1 PV

Pro- tected lines	Im- pulse current	Max. di- schar- ge current	No- mi- nal current	Vol- tage pro- tection level	Max. cont. ope- rating voltage	Bbn 3660308	Order details		Price 1 pie- ce	Weight 1 pie- ce
							Type code	Order code		
	limp 10/350 kA	Imax 8/20 kA	In kA	Up kV	Ucpv V	EAN				kg
2	6.25	-	6.25	1.9	670	518361	OVR PV T1 6.25-600 P TS	2CTB803953R5700		1.10
2	6.25	-	6.25	2.5	1000	518378	OVR PV T1 6.25-1000 P TS	2CTB803953R6700		1.10

Type 2 PV

Pro- tected lines	Im- pulse current	Max. di- schar- ge current	No- mi- nal current	Vol- tage pro- tection level	Max. cont. ope- rating voltage	Bbn 3660308	Order details		Weight 1 piece
							Type code	Order code	
	limp 10/350 kA	Imax 8/20 kA	In kA	Up kV	Ucpv V	EAN			kg
1+1 DC	2	40	20	2.8/1.4	600	526502	OVR PV T2 40-600 P QS	2CTB804153R2800	0.38
1+1 DC	2	40	20	2.8/1.4	600	526519	OVR PV T2 40-600 P TS QS	2CTB804153R2900	0.39
1+1 DC	2	40	20	2.8/1.4	600	527318	OVR PV T2 40-600 P QS BULK (30)	2CTB804153Z2800	0.38
1+1 DC	2	40	20	2.8/1.4	600	527325	OVR PV T2 40-600 P TS QS BULK (30)	2CTB804153Z2900	0.39
					600	526540	OVR PV T2 40-600 C QS	2CTB804153R3100	0.055
					600	526731	OVR PV MC C QS	2CTB804153R3500	0.055
1+1 DC	-	40	20	3.8	1100	526243	OVR PV T2 40-1000 P QS	2CTB804153R2400	0.38
1+1 DC	2	40	20	3.8	1100	526434	OVR PV T2 40-1000 P TS QS	2CTB804153R2500	0.39
1+1 DC	2	40	20	3.8	1100	526748	OVR PV T2 40-1000 P QS BULK (30)	2CTB804153Z2400	0.36
1+1 DC	2	40	20	3.8	1100	526755	OVR PV T2 40-1000 P TS QS BULK (30)	2CTB804153Z2500	0.39
2+2 DC	2	40	20	3.8	1100	526779	OVR PV T2 40-1000 P TWIN QS	2CTB804153R3000	0.63
2+2 DC	2	40	20	3.8	1100	526199	OVR PV T2 40-1000 P TS TWIN QS	2CTB804153R2300	0.65
2+2 DC	2	40	20	3.8	1100	527295	OVR PV T2 40-1000 P TS TWIN QS BULK (4)	2CTB804153Z2300	0.65
					1100	526557	OVR PV T2 40-1000 C QS	2CTB804153R3200	0.055
1+1 DC	2	40	10	4.5	1500	526465	OVR PV T2 40-1500 P QS	2CTB804153R2600	0.47
1+1 DC	2	40	10	4.5	1100	526472	OVR PV T2 40-1500 P TS QS	2CTB804153R2700	0.48
1+1 DC	2	40	10	4.5	1500	527332	OVR PV T2 40-1500 P QS BULK (30)	2CTB804153Z2600	0.47
1+1 DC	2	40	10	4.5	1500	527301	OVR PV T2 40-1500 P TS QS BULK (30)	2CTB804153Z2700	0.48
					1500	526595	OVR PV T2 40-1500 C QS	2CTB804153R3300	0.055

Where to find more:
Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:
For back-up protection:
S200 MCBS - chapter 1
Fuses and fuseholders - chapter 4

Protection and safety

OVR WT surge protective devices - Wind turbine networks

Technical features

Types

with auxiliary contact (TS) **OVR WT 3L 690 P TS**

Electrical features

Standard		IEC 61643-11/EN 61643-11
Type/test class		T1+2/I - II
Protected lines		3
System network		TNC-IT
Type of current		a.c. 45-65Hz
Nominal system voltage Un	[V]	400/690
Peak repetitive voltage withstand Urp (L-PE/L-L)	[V]	3000/3400
Max. cont. operating voltage Uc	[V]	690
Maximal discharge current I _{max} (8/20)	[kA]	40
Maximum impulse current I _{imp} (10/350)	[kA]	2
Nominal discharge current I _n (8/20)	[kA]	20
Follow current interrupting rating I _{fi}	[kA]	-
Voltage protection level Up at I _n	[kV]	6
Voltage protection level Up at 3 kA	[kV]	4.4
Voltage protection level Up at 5 kA		-
Voltage protection level Up at 10 kA		-
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	-
Uoc		-
Response time	[ns]	≤100
Short-circuit withstand capability I _{sc}	[kA]	50
Backup protection maximum rating	fuse (gG - gL) circuit breaker (B or C curve)	[A] ≤125 [A] ≤125
Pluggable cartridge		Yes
Integrated thermal disconnecter		Yes
State indicator		Yes
Safety reserve		No
Auxiliary contact (TS)		Yes

Installation

Wire range (L, N, PE) solid wire	[mm ²]	2.5 ... 25
stranded wire	[mm ²]	2.5 ... 16
Stripping length (L, N, PE)	[mm]	11
Tightening torque (L, N, PE)	[Nm]	2.5
Contacts information		-
Min. load		-
Max. load		-
Connection cross-section	[mm ²]	

Miscellaneous characteristics

Stocking and operating temperature	[°C]	-40 to +80
Degree of protection		IP 20
Fire resistance according to UL 94		V0

Dimensions

height x width x depth	[mm]	
	[inches]	

Dimensions with auxiliary contact (TS)

height x width x depth	[mm]	100 x 178 x 65
	[inches]	3.94 x 7.01 x 2.56

Replacement Cartridges

Phase Product ID		OVR T2 40-440 C/2CTB803854R0400
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2CTB235402R0000

OVR WT 3L 690 P TS

Due to their height, wind turbines have especially high exposure to lightning, they need high capacity and reliable lightning and surge protection.

The OVR WT family takes into consideration the specificity of wind installations with a high peak repetitive voltage withstand (U_{rp} up to 3 kV) ensure a safe protection to Wind applications.

It can be DIN mounted with the OVR.

Type 1+2 WT										
Pro- tected lines	Im- pulse current	Max. di- schar- ge current	No- minal current	Vol- tage pro- tection level	Max. cont. ope- rating voltage	Bbn	Order details		Price 1 pie- ce	Weight 1 pie- ce
	Iimp 10/350 kA	I _{max} 8/20 kA	I _n kA	U _p kV	U _{cpv} V	366030	Type code	Order code		kg
3	2	40	20	6	400/690	518507	OVR WT 3L 690 P TS	2CTB235402R0000		1.67

Protection and safety

OVR TC surge protective devices Data networks

4

Technical features			OVR TC 06V P	OVR TC 12V P	OVR TC 24V P	OVR TC 48V P	OVR TC 200V P	OVR TC 200FR P
Types								
	with auxiliary contact (TS)		-	-	-	-	-	-
Connection configuration			Serial	Serial	Serial	Serial	Parallel	Serial
Electrical features								
Standard			IEC/EN 61643-21					
Type/test class			C2	C2	C2	C2	C2	C2
Protected lines			1 pair	1 pair	1 pair	1 pair	1 pair	1 pair
Types of networks			MIC/T2 - RS422/485	RS232	LS - 4/20mA	RNIS	ADSL	RTC/Analogue
Type of current			DC	DC	DC	DC	DC	DC
Nominal voltage Un	[V]		6	12	24	48	200	200
Max. cont. operating voltage Uc	[V]		7	14	27	53	220	220
Maximum discharge current I _{max} (8/20)	[kA]		10	10	10	10	10	10
Nominal discharge current I _n (8/20)	[kA]		5	5	5	5	5	5
Voltage protection level Up at I _n	[V]		15	20	35	70	700	400
Response time	[ns]		1	1	1	1	100	1
Rated current I _L	[mA]		140	140	140	140	-	140
Series resistance	[Ω]		10	10	10	10	-	10
Cut frequency	[MHz]		10	2	4	6	100	3
Pluggable cartridge			Yes	Yes	Yes	Yes	Yes	Yes
State indicator			-	-	-	-	-	-
Safety reserve			No	No	No	No	No	No
Auxiliary contact			No	No	No	No	No	No
Installation								
Wire range (L, N, PE)	Solid wire	[mm ²]	1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5
	Stranded wire	[mm ²]	-	-	-	-	-	-
Stripping length (L, N, PE)		[mm]	6/7	6/7	6/7	6/7	6/7	6/7
Tightening torque (L, N, PE)		[Nm]	0.2/0.4	0.2/0.4	0.2/0.4	0.2/0.4	0.2/0.4	0.2/0.4
Auxiliary contact (TS)								
Contact complement			-	-	-	-	-	-
Minimum load			-	-	-	-	-	-
Maximum load			-	-	-	-	-	-
Connection cross-section			-	-	-	-	-	-
Miscellaneous characteristics								
Stocking and operating temperature		[°C]	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80	-40 to +80
Degree of protection			IP20	IP20	IP20	IP20	IP20	IP20
Fire resistance according to UL 94			V0	V0	V0	V0	V0	V0
Dimensions	height x width x depth	[mm]	85 x 12 x 64	85 x 12 x 64	85 x 12 x 64	85 x 12 x 64	85 x 12 x 64	85 x 12 x 64
		[inches]	3.35 x 0.47 x	3.35 x 0.47 x	3.35 x 0.47 x	3.35 x 0.47 x	3.35 x 0.47 x	3.35 x 0.47 x
			2.52	2.52	2.52	2.52	2.52	2.52
Replacement Cartridges								
			OVR TC 06V C , 2CT- B804821R0000	OVR TC 12V C 2CT- B804821R0100	OVR TC 24V C 2CT- B804821R0200	OVR TC 48V C 2CT- B804821R0300	OVR TC 200V C 2CT- B804821R0400	OVR TC 200FR C 2CT- B804821R0500



2CSC400030FR0013

OVR TC 200FR P



2CSC400037FR0013

Base OVR TC RJ 45

The OVR TC family offers a reliable surge protection to dataline networks for datacenters, water treatment installations or wind turbine installations.

With the RJ11 and RJ45 bases they allow a flexible and easy installation.

Dataline protection modules

Pro- tected lines	Max. di- schar- ge current I _{max} 8/20 kA	Nomi- nal/ rated current I _n /I _L kA/mA	Vol- tage pro- tection level U _p kV	No- minal voltage U _n V	Max. cont. ope- rating voltage U _c V	Bbn 3660308 EAN	Order details		Price 1 pie- ce	Weight 1 pie- ce kg
							Type code	Order code		
1 pair	10	5/140	15	6	7	515230	OVR TC 06V P	2CTB804820R0000		0.07
1 pair	10	5/140	20	12	14	515247	OVR TC 12V P	2CTB804820R0100		0.07
1 pair	10	5/140	35	24	27	515254	OVR TC 24V P	2CTB804820R0200		0.07
1 pair	10	5/140	70	48	53	515261	OVR TC 48V P	2CTB804820R0300		0.07
1 pair	10	5/-	700	200	220	515278	OVR TC 200V P	2CTB804820R0400		0.07
1 pair	10	5/140	400	200	220	515285	OVR TC 200FR P	2CTB804820R0500		0.07

Bases

Pro- tected lines	Max. di- schar- ge current I _{max} 8/20 kA	Nomi- nal/ rated current I _n /I _L kA/mA	Vol- tage pro- tection level U _p kV	No- minal voltage U _n V	Max. cont. ope- rating voltage U _c V	Bbn 3660308 EAN	Order details		Price 1 pie- ce	Weight 1 pie- ce kg
							Type code	Order code		
-	-	-	-	-	-	515605	BASE OVR TC RJ45	2CTB804840R1100		0.07

Where to find more:

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

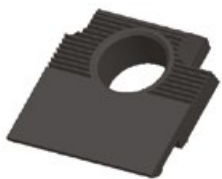
For back-up protection:

S200 MCBs - chapter 1

Fuses and fuseholders - chapter 4

Protection and safety

Accessories for OVR



Accessory for Cartridge Lock

Accessory for Cartridge Lock

This accessory can be fitted into the front of the socket of the SPD of the QS and PV range (for other families please consult us), QS and PV range, to guarantee an even higher withstand to vibrations and shocks, it reinforces mechanical lock between the cartridges and the socket (they are already locked by the pins in the back of the cartridge). It's recommended for stressful environments as the nazelle of the wind turbines. It's sold on packs of 50.

	Bbn 3660308	Order details		Price 1 piece	Weight 1 piece
	EAN	Type code	Order code		kg
Accessory for Cartridge Lock (x50)			2CTB814355Z1200		

4



Accessory for Auxiliary contact lock

Accessory for Auxiliary contact lock

This accessory can be fitted into the top of the auxiliary contact module and guarantees an even higher withstand to stressful environments. It reinforces the mechanical lock between the auxiliary contact module and the socket of the SPD. It's recommended in environments where the cables of the auxiliary contact can suffer pulls due to the limited length of the auxiliary cables that restrict any potential movements. It's sold on packs of 50. It can not be used on single pole devices. Please order it for multipole versions.

	Bbn 3660308	Order details		Price 1 piece	Weight 1 piece
	EAN	Type code	Order code		kg
Accessory for Auxiliary contact lock (x50)			2CTB814355R2700		

Label for Surge Protected Installations

This label allows the user to identify the panels where surge protection devices are fitted. It's meant to be used in the inside of the panel door and clearly states that the cartridges need to be removed to perform insulation tests. It's sold in packs of 100.

	Bbn 3660308	Order details		Price 1 piece	Weight 1 piece
	EAN	Type code	Order code		kg
Label for Surge Protected Installations (x 100)			2CTB813860R1500		

Bus bar

For TNC, IT, TNS or TT systems using single pole Type 1 SPDs assembled together, we have 2 different bus bars than can be used, as listed here below.

For TNS, TT (1Ph+N or 3Ph+N) or TNC (3Ph) systems for Type 1+2, Type 2, Type 2+3 SPDs, please refer to the "Busbar and accessories for MCBs S200, SN 201, RCDs F200 and DS 200 series".

These both products are sold in packs of 50.



Busbar

	Bbn 3660308	Order details		Price 1 piece	Weight 1 piece
	EAN	Type code	Order code		kg
Busbar for Type 1, TT/TNS 3+1 configurations (x 50)	516091		2CTB815102R0400		0.03
Busbar for Type 1, TNC or IT 3-0 configurations (x 50)	524751		2CTB815141R0700		0.03

New DS202C. Protection with unrivalled compactness.

With only 2 modules, the DS202C series of 2P residual current circuit-breakers with overcurrent protection (RCBOs) enables to save 50 % of switchboard space compared to the conventional 4-modules solution. Available in a technologically advanced and comprehensive range, the DS202C can be applied in the tertiary sector, in large-sized industrial plants and in naval applications. The new series perfectly integrates with the System pro M compact® range, starting from the same profile, ensuring a nice and functional design in the installation. The maximum protection in only 2 modules.

www.abb.com



Protection and safety

OVRH series product range



Name	OVRHSP (200, 240, 300, 400)	OVRHSP (120, 160)	OVRHSP (60, 80, 100)	OVRHSR (120, 160)
4 SPD Type	Type 1	Type 1	Type 1	Type 1
Certifications	UL 1449 and CE	UL 1449 and CE	UL 1449 and CE	UL 1449 and CE
Surge Ratings	200, 240, 300, 400 kA per phase	120, 160 kA per phase	60, 80, 100 kA per phase	120, 160 kA per phase
LEDs	Yes	Yes	Yes	Yes
Dry Relay Contacts	Standard	Standard	Optional	Standard
EMI Filter	Optional	Optional	Optional	Optional
Surge Counter	Optional	Optional	Not available	Not available
Warranty	5 years	5 years	5 years	5 years



OVRHTE	OVRHS3	OVRHS3U	OVRHS3-F1	OVRHLD
Type 2	Type 1 and Type 2	Type 1 and Type 2	Type 2	Type 1
UL 1449	UL 1449	UL 1449	UL 1449	UL 1449
40 kA per phase	40 kA per phase	40 kA per phase	40, 60, 80 kA per phase	20, 25, 30 kA per phase
Yes	Yes	Yes	Yes	Yes
Optional	Not available	Optional	Not available	Not available
Optional	Not available	Not available	Not available	Not available
Not available	Not available	Not available	Not available	Not available
3 years	1 year	1 year	1 year	1 year

Protection and safety

OVRHSP/OVRHSR heavy duty for service entrance applications



Listed to UL 1449 4th Edition for Type 1 and Type 2 SPD applications.
 Fail-safe design with individually fused Metal Oxide Varistors (MOVs) eliminating single point failure, protecting against both overcurrent and overvoltage events.
 200kAIC short circuit rating permits direct bus connection to most electrical services.
 Low let through voltage ensured by the lowest possible impedance path to ground and equal current sharing during surge events.
 All weather sealed, powder-coated NEMA 4/IP65 housing is designed for any orientation and indoor/outdoor applications.
 5-year standard warranty.

4

Technical features

Electrical

Nominal discharge current rating (I-n)	10kA (60–100) 20kA (120–400)
Operating frequency	47–63Hz
Connection method	Parallel to electrical distribution system
Modes of protection	All modes (L-N, L-G, N-G, L-L)
Fault rating (SCCR)	200kAIC–no upstream over-current protection device (breaker or fuse) required
Response time	Less than 1 nanosecond
Standard monitoring (120–400kA)	Status indicator lights (one per phase), Standard dry (Form “C”) relay contacts, Audible alarm with silence button

Mechanical

Weight	60, 80, 100 kA: 4.5 kg (10 lbs.) 120, 160 kA: 9 kg (20 lbs.) 200, 240, 300, 400 kA: 18 kg (40 lbs.)
Enclosure type	Powder coated, impact-resistance steel, weather-proof NEMA 4
Installation location	Indoor/outdoor
Mounting method	Dual mounting flanges
Operating environment	-40° to +70°C (-40° to +185°F)
Altitude	Up to 4000m (13,000 ft.)
Product design	Parallel design with individually fused MOVs

Regulatory

UL 1449 4th Edition Type	Type 1
UL 1283	Yes
IEEE C62.41.1, .2, C62.45	Yes
Listed by	ETL: 60–100kA models UL: 120–400kA models CE: 120–400kA models



OVRHSP and OVRHSR

Configuration	Voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code			
1-phase, 2-wire + ground	120V			OVRHSP(SR)xxx1201P			
1-phase, 2-wire + ground	240V			OVRHSP(SR)xxx2401P			
2-phase, 3-wire + ground	120/240V			OVRHSP(SR)xxx1202S			
3-phase Wye, 4-wire + ground	120/208V			OVRHSP(SR)xxx1203Y			
3-phase Wye, 4-wire + ground	220/380V			OVRHSP(SR)xxx2203Y			
3-phase Wye, 4-wire + ground	240/415V			OVRHSP(SR)xxx2403Y			
3-phase Wye, 4-wire + ground	277/480V			OVRHSP(SR)xxx2773Y			
3-phase Wye, 4-wire + ground	347/600			OVRHSP(SR)xxx3473Y*			
3-phase High-Leg, 4-wire + ground	120/240V			OVRHSP(SR)xxx2403H			
3-phase Delta, 3-wire + ground	240V			OVRHSP(SR)xxx2403D			
3-phase Delta, 3-wire + ground	380V			OVRHSP(SR)xxx3803D*			
3-phase Delta, 3-wire + ground	480V			OVRHSP(SR)xxx4803D*			
3-phase Delta, 3-wire + ground	600V			OVRHSP(SR)xxx6003D*			

OVRHSP: Where "xxx" can be 60, 80, 100, 120, 160, 200, 240, 300 or 400

OVRHSR: Where "xxx" can be 120 or 160

*Voltages not available with 60, 80 or 100kA units

Available options Add applicable suffix to end of numbers	Model number
Surge counter (SP 120–400kA only)	2
Transient filter* (meets UL 1283) (All models)	3
Stainless steel enclosure (All models)	4
Transient filter* and surge counter (SP 120–400kA only)	B
Transient filter* and stainless steel enclosure (All models)	C
Surge counter and stainless steel enclosure (SP 120–400kA only)	D
Transient filter*, surge counter and stainless steel enclosure (SP 120–400kA only)	T

*Not recommended when using telecommunication rectifiers.

OVRHSR stand alone option

(To be ordered as a separate item)

	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Flush-mount plate kit			OVRHSR-FMP-120/160			

Protection and safety

OVRHTE medium duty for distribution applications



Listed to UL 1449 4th edition for Type 2 SPD applications.
 Protects facilities and equipment against the harmful effects of lightning strikes and internally generated electrical transients.
 Includes pre-wired pigtail conductors to streamline installation.
 Features internal copper bus conduction path to minimize system impedances, lowering clamping voltage and increasing protection.

Technical features

Electrical

Nominal discharge current rating (I-n)	20kA
Operating frequency	47–63Hz
Connection methods	Parallel to load (shunt) 609.6mm (24") 5mm ² (#10 AWG) wires through 20A (max) breaker
Modes of protection	L-L, L-N, L-G, N-G
Fault rating (SCCR)	65kAIC–upstream over-current protection device (breaker or fuse required)
Response time	Less than 1 nanosecond (one per phase)
Standard monitoring	LED status indicator lights

Mechanical

Weight	5.8 kg (12.7 lbs.)
Enclosure type	NEMA 4X fiberglass-reinforced polyester (FRP) surface-mount, non-removable cover
Installation location	Indoor/outdoor
Mounting methods	Dual mounting flanges
Operating environment	40° to +60°C (-40° to +140°F)
Altitude	Up to 5000 m (16,400 ft.)
Product design	No internal fusing

Regulatory

UL 1449 4th edition type	Type 2
UL 1283	Yes
IEEE C62.41.1, .2, C62.45	Yes
Listed by	UL



Configuration	Voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		EAN	Type code	Order code			
1-phase, 2-wire + ground	120V		OVRHTExx1201P				
1-phase, 2-wire + ground	240V		OVRHTExx2401P				
2-phase, 3-wire + ground	120/240V		OVRHTExx1202S				
3-phase Wye, 4-wire + ground	120/208V		OVRHTExx1203Y				
3-phase Wye, 4-wire + ground	220/380V		OVRHTExx2203Y				
3-phase Wye, 4-wire + ground	240/415V		OVRHTExx2403Y				
3-phase Wye, 4-wire + ground	277/480V		OVRHTExx2773Y				
3-phase Wye, 4-wire + ground	347/600V		OVRHTExx3473Y				
3-phase Hi-Leg, 4-wire + ground	120/240V		OVRHTExx2403H				
3-phase Delta, 3-wire + ground	240V		OVRHTExx2403D				
3-phase Delta, 3-wire + ground	380V		OVRHTExx3803D				
3-phase Delta, 3-wire + ground	480V		OVRHTExx4803D				

Model number: Where "xx" can be 25, 50, 80, or 100

Available option	Model number*
Dry Form "C" relay contacts	5

*Add applicable suffix to the end of Model number.
Example: OVRHTE251201P5

Protection and safety

OVRHS3 medium duty for residential or industrial applications



Listed to UL 1449 4th Edition for Type 1 and Type 2 SPD applications.
Individual fusing for each Metal Oxide Varistors (MOVs).
LED indicates proper functioning of L-N and N-G MOVs

Technical features	
Electrical	
Nominal discharge current rating (I-n)	20kA
Operating frequency	47–63Hz
Connection methods	Parallel to load (shunt) 2mm ² (#14 AWG) wires
Modes of protection	Model dependent
Fault rating (SCCR)	100kAIC
Response time	Less than 1 nanosecond (one per phase)
Standard monitoring	LED status indicator lights
Mechanical	
Weight	.9 kg (2 lbs.)
Enclosure type	NEMA 1, non-metallic
Installation location	Indoor
Mounting method	12.7mm (1/2")–14 NPT thread (Aluminum bracket optional)
Operating environment	-40° to +80°C (-40° to +176°F)
Altitude	Up to 5000 m (16,400 ft.)
Product design	Individually fused MOVs
Regulatory	
UL 1449 4th edition type	Type 1 and Type 2
UL 1283	No
IEEE C62.41.1, .2, C62.45	Yes
Listed by	UL



Type 1

Configuration	kA per phase	Voltage	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1-phase, 2-wire + ground	40kA	120V		OVRHS3401201P				
2-phase, 3-wire + ground	40kA	120/240V		OVRHS3401202S				
3-phase Wye, 4-wire + ground	40kA	120/208V		OVRHS3401203Y				

Type 2

Configuration	kA per phase	Voltage	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1-phase, 2-wire + ground	40kA	230V		OVRHS3402301P				
1-phase, 2-wire + ground	40kA	480V		OVRHS3404801P				
3-phase Wye, 4-wire + ground	40kA	277/480V		OVRHS3402773Y				
3-phase Wye, 4-wire + ground	40kA	230/400V		OVRHS3402303Y				
3-phase High-Leg, 4-wire + ground	40kA	120/240V		OVRHS3401203H				
3-phase Delta, 3-wire + ground	40kA	480V		OVRHS3404803D				
3-phase Delta, 3-wire + ground	40kA	240V		OVRHS3402403D				

Available option
Add applicable suffix to end of numbers

Mounting bracket

Model number

6

Protection and safety

OVRHS3U medium duty for residential or industrial applications



Listed to UL 1449 4th Edition for Type 1 and Type 2 SPD applications.
Individual fusing for each Metal Oxide Varistors (MOVs).
LED indicates proper functioning of L-N and N-G MOVs

Technical features

Electrical

Nominal discharge current rating (I-n)	20kA
Operating frequency	47–63Hz
Connection methods	Parallel to load (shunt) 2mm ² (#14 AWG) wires
Modes of protection	Model dependent
Fault rating (SCCR)	100kAIC
Response time	Less than 1 nanosecond (one per phase)
Standard monitoring	LED status indicator lights

Mechanical

Weight	.9 kg (2 lbs.)
Enclosure type	NEMA 1, non-metallic
Installation location	Indoor
Mounting method	12.7mm (1/2")–14 NPT thread (Aluminum bracket optional)
Operating environment	-40° to +80°C (-40° to +176°F)
Altitude	Up to 5000 m (16,400 ft.)
Product design	Individually fused MOVs

Regulatory

UL 1449 4th edition type	Type 1 and Type 2
UL 1283	Only for model number OVRHS3U802402SR
IEEE C62.41.1, .2, C62.45	Yes
Listed by	UL



Type 1

Configuration	kA per phase	Voltage	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1-phase, 2-wire + ground	40kA	120V		OVRHS3U401201P				
2-phase, 3-wire + ground	40kA	120/240V		OVRHS3U401202S				
3-phase Delta, 4-wire + ground	40kA	240V		OVRHS3U402403D				
3-phase, 4-wire + ground	40kA	120/208V		OVRHS3U402083Y				

Type 2

Configuration	kA per phase	Voltage	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1-phase, 2-wire + ground	40kA	240V		OVRHS3U402401P				
2-phase, 3-wire + ground (Contains UL 1283 listed filter, Dry relay contacts not available.)	80kA	120/240V		OVRHS3U802402SR				
3-phase Delta, 3-wire + ground	40kA	480V		OVRHS3U404803D				
3-phase High-Leg, 4-wire + ground	40kA	120/240V		OVRHS3U401202H				
3-phase, 4-wire + ground	40kA	277/480V		OVRHS3U402773Y				
3-phase, 4-wire + ground	40kA	230/400V		OVRHS3U402303Y				

Available options (Not available on OVRHS3U802402SR unit)

	Model number*
1 set of dry relay contacts (all models)	5
1 set of dry relay contacts + mounting bracket (only on OVRHS3U402401P and OVRHS3U402303Y models)	P

Protection and safety

OVRHS3-F1 medium duty for residential or industrial applications



Listed to UL 1449 4th Edition for Type 2 SPD applications.
 Multiple Metal Oxide Varistors (MOVs) with individual and overcurrent protection.
 LED indicates proper functioning of MOVs

4

Technical features

Electrical	
Nominal discharge current rating (I-n)	10kA
Operating Frequency	50-60Hz
Connection Methods	2mm2 (#14 AWG) wires 30A max breaker
Modes of protection	L-L, L-N, L-G, N-G
Fault rating (SCCR)	100kAIC
Response time	Less than 1 nanosecond (one per phase)
Standard monitoring	LED status indicator lights
Mechanical	
Weight	.9 kg (2 lbs.)
Enclosure type	NEMA 1, Non-metallic
Installation location	Indoor
Mounting method	12.7mm (1/2")-14 NPT thread (Aluminum bracket optional)
Operating environment	-40° to +80°C (-40° to +176°F)
Altitude	Up to 5000 m (16,400 ft.)
Product design	Individually fused MOVs
Regulatory	
UL 1449 4th edition type	Type 2
UL 1283	No
IEEE C62.41.1, .2, C62.45	Yes
Listed by	UL

Configuration	kA per phase	Voltage	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
			8012542	Type code	Order code			
			EAN			kg	pc.	
2-phase, 3-wire + ground	80kA	120/240V		OVRHS3801202SF1				
2-phase, 3-wire + ground	60kA	120/240V		OVRHS3601202SF1				
2-phase, 3-wire + ground	40kA	120/240V		OVRHS3401202SF1				

Stand alone option

(To be ordered as a separate item)

	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	8012542	Type code	Order code			
		EAN			kg	pc.
Flush-Mount Plate Kit			OVRHS322FMP			

Protection and safety

OVRHLD light duty for AC applications



Listed by ETL to UL 1449 4th edition for Type 1 SPD applications.
Multiple Metal Oxide Varistors (MOVs), with individual current fusing and thermal disconnects for each MOV.
LED indicates proper functioning of L-N MOVs.

Technical features

Electrical	
Nominal discharge current rating (I-n)	10kA
Operating frequency	47–63Hz
Connection methods	Parallel to load (shunt) 457.2 mm (18") 2mm ² (#14 AWG) wires Direct connect or breaker
Modes of protection	L-N, L-G, N-G
Fault rating (SCCR)	65kAIC
Response time	Less than 1 nanosecond
Standard monitoring	LED status indicator lights (one per phase)
Mechanical	
Weight	.5 kg (1 lb.)
Enclosure type	NEMA 1, non-metallic
Installation location	Indoor
Mounting method	NPS thread and aluminum bracket
Operating environment	-40° to +80°C (-40° to +176°F)
Altitude	Up to 5000m (16,400 ft.)
Product design	Individually fused MOVs Overcurrent fusing Thermal fusing
Regulatory	
UL 1449 4th edition type	Type 1
UL 1283	No
IEEE C62.41.1, -2, C62.45	Yes
Listed by	ETL

Configuration	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
xxkA, yyyV, L-N, L-G (1 LED)		OVRHLDxx-yyy-1				
xxkA, yyyV, L1-N, L2-N (2 LEDs)		OVRHLDxx-yyy-2				
xxkA, yyyV, L1-G, L2-G (2 LEDs)		OVRHLDxx-yyy-3				
xxkA, yyyV, L1-G, N-G (1 LED)		OVRHLDxx-yyy-4				
xxkA, yyyV, L-N, L-G (2 LEDs)		OVRHLDxx-yyy-5				
xxkA, yyyV, L-N (1 LED)		OVRHLDxx-yyy-6				
xxkA, yyyV, L-G (1 LED)		OVRHLDxx-yyy-7				
xxkA, yyyV, N-G (0 LED)		OVRHLDxx-yyy-8				
xxkA, yyyV, L1-L2 (1 LED)		OVRHLDxx-yyy-9				

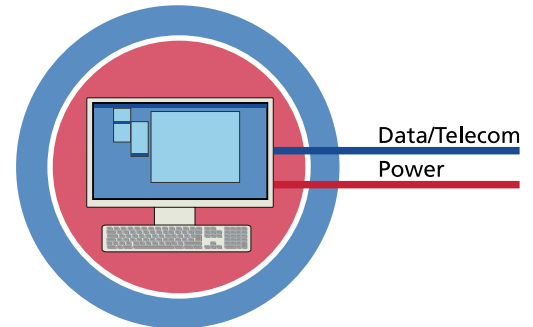
Model number: Where "xx" can be 20, 25 or 30 and "yyy" can be 120, 127, 230, or 277
Description: Where "xx" can be 20, 25 or 30 and "yyy" can be 120, 127, 230, or 277

Available option	Model number*
Mounting bracket	6

The new ABB OVR data and telecom SPD range overview

Protecting critical electronic systems

The new ABB OVR data/telecom range of SPDs are designed to protect equipment connected to data and telephone lines to complement the OVR power SPD products and offer a complete system protection solution (power & data) against surges. The comprehensive range includes protection for twisted pair data lines (including hazardous environments), computer networks, telecom systems including PBX and ISDN, CCTV, TV and RF systems.



WARNING Equipment is **ONLY** protected if all incoming lines have protection fitted

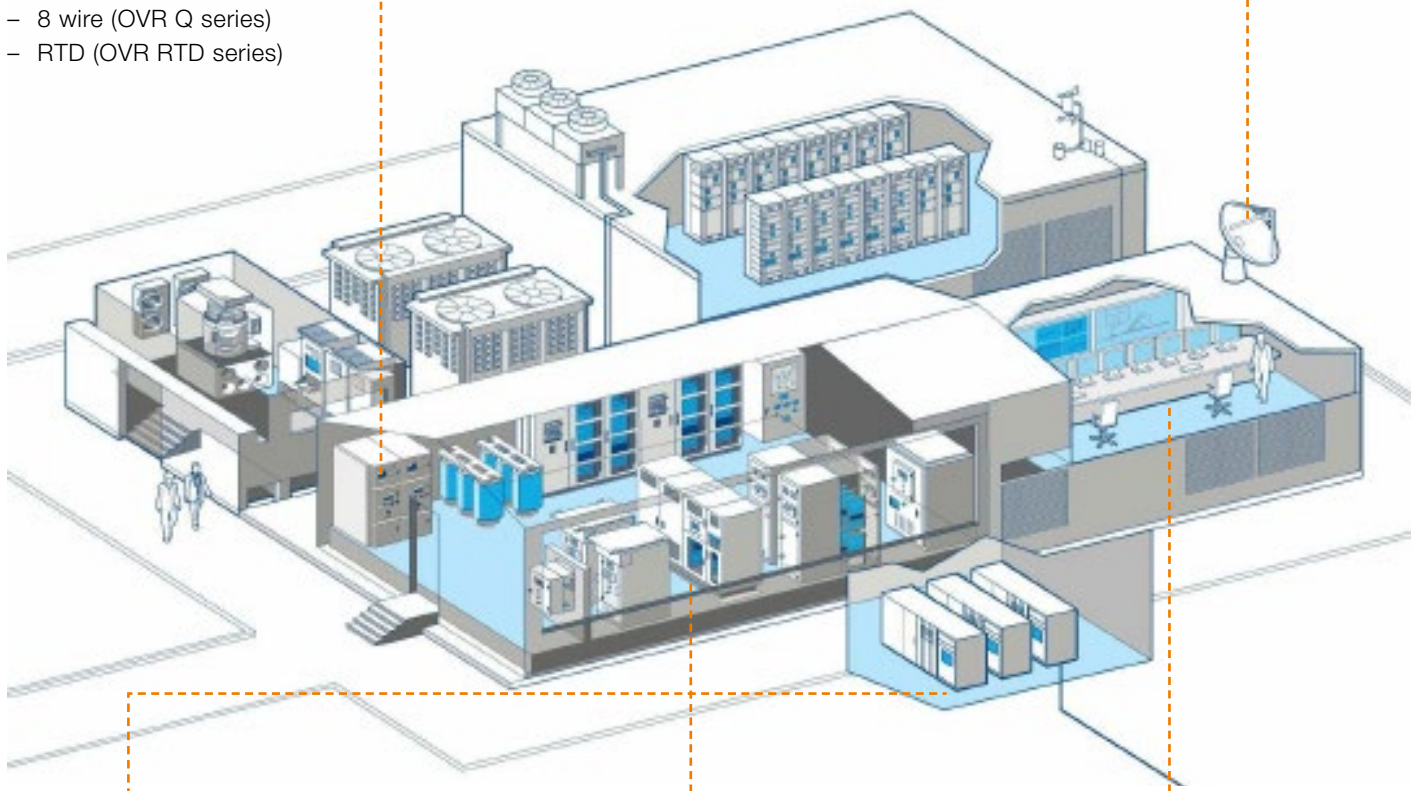
To protect the electronic equipment inside a building, all cables that enter or leave the building must be protected. Cables leaving the building can also provide a route back into the building for transients.

Data & measurement systems

- 2 wire (OVR SL series)
- 2 wire ATEX (OVR SLX series)
- 2 wire (OVR D/E/H series)
- 3 wire (OVR SL-3W series)
- 4-20 mA (OVR SL 4-20)
- 8 wire (OVR Q series)
- RTD (OVR RTD series)

Transceiver/CCTV systems

- RF (OVR RF series)
- CCTV (OVR CCTV series with OVR 240-16A)
- TV (OVR TV series)



Mains power supply

- See OVR power SPD series

Telecom systems

- PBX (OVR KT series)
- RJ11 (OVR TN series)
- RJ45 (OVR ISDN series)
- 2 wire (OVR TN, OVR SLTN) 8 wire (OVR TNQ)

Information technology systems

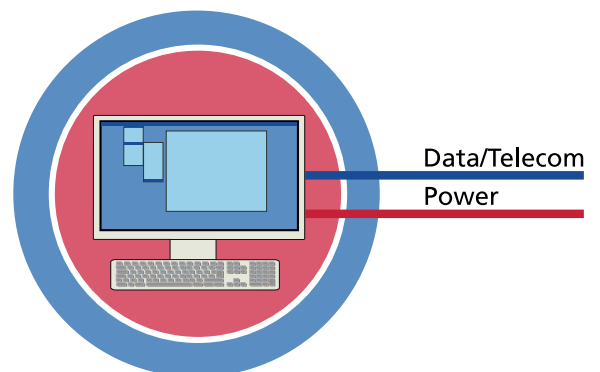
- Cat 6 + PoE (OVR Cat-6 series)
- Cat 5e + PoE (OVR Cat-5e series)
- RS485/HART/Profibus (OVR RS485 series)

Data & measurement systems protection

Product selector - Data and Telecom line protection

Product selection guide - By system interface and application

System/Application	Product	System/Application	Product
RS 232 Data interfaces - Twisted pair data protection	 OVR 15D See page 2/7	DC systems up to 110V, 4A	 OVR H Series See page 2/11
Compact for limited space	 OVR SL15 See page 2/9	DC systems up to 110V, 0.75 A - Compact, for limited space	 OVR SL LED Series See page 2/15
Multiple line protection	 OVR 15Q See page 2/18	3-wire systems - Compact for limited space	 OVR SL/3W Series See page 2/13
RS 422 & RS 423 Data interfaces	 OVR 06E OVR SL06 See pages 2/3 & 2/9	RTD systems (see ABB Application Note OVR AN001)	 OVR RTD OVR SL RTD OVR RTDQ See page 2/20
RS 485 Data interfaces	 OVR RS485 OVR SL RS485 OVR RS485Q See page 4/4	RF radio and antenna communication systems	 OVR RF Series See page 5/2
PBX systems terminating on LSA-Plus disconnection modules	 OVR KT Series See page 3/2	CCTV systems	 OVR CCTV Series OVR 240-16A See pages 5/4 & 5/6
Computer networks, including Power over Ethernet (PoE) (see ABB Application Note OVR N004)	 OVR Cat-5 Series OVR Cat-6 Series See page 4/2	TV systems	 OVR TV Series See page 5/8
4-20 mA loops and low current telemetry systems - Compact, for limited space	 OVR SL30L/4-20 See page 2/15	Hazardous area (process control, fire & gas detectors, 4-20 mA loops, shut down systems)	 OVR SL X Series See pages 2/5
Multiple line and PBX protection	 OVR D & Q Series OVR KT Series See pages 2/7, 2/18 & 3/2		



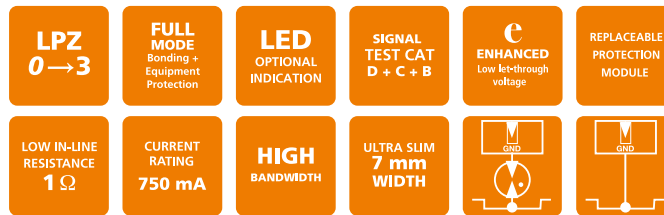
WARNING Equipment is **ONLY** protected if all incoming lines have protection fitted

Data & signal protection

OVR SL Series



4



Combined Category D, C, B tested protector (to BS EN 61643) suitable for twisted pair signalling applications which require either a lower in-line resistance, an increased current and/or higher bandwidth. Also suitable for DC power applications less than 0.75 Amps. Available for working voltages of up to 6, 15, 30, 50 and 110 Volts. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Ultra slim 7 mm width ideal for compact protection of large numbers of lines (e.g. process control installations)
- Optional LED status indication versions available for low current DC power applications - add L suffix to part number - e.g. OVR SL30L
- Two stage removable protection module with simple quick release mechanism allowing partial removal for easy line commissioning and maintenance as well as full removal for protection replacement
- Strong, flame retardant, polycarbonate housing
- High (750 mA) maximum running current
- High bandwidth enables higher frequency (high traffic or bit rate) data communications
- Screen terminal enables easy connection of cable screen to earth
- Suitable for earthed or isolated screen systems - add/I suffix to part number for versions that require isolated screens - e.g. OVR SL30/I
- Built-in innovative DIN rail foot with locking feature for simple positioning and clip-on mounting to top hat DIN rails
- 4 mm² terminals allow for larger cross section wiring, stranded wires terminated with ferrules or fitting two wires into a single terminal
- Convenient earthing through DIN foot and/or earth terminal
- Very low (1 Ω) in-line resistance allows resistance critical applications (e.g. alarm loops) to be protected

Application

Use these protectors where installation space is at a premium and large numbers of lines require protection (e.g. process control, high speed digital communication equipment or systems with long signal lines).

Installation

Connect in series with the data communication or signal line either near where it enters or leaves the building or close to the equipment being protected (e.g. within its control panel). Either way, it must be very close to the system's earth star point. Install protectors either within an existing cabinet/cubicle or in a separate enclosure.

Accessories

Replacement modules:

OVR SLXX/M

Standard module replacement where XX is voltage rating (06, 15, 30, 50 or 110)

OVR SLXXL/M

LED module replacement where XX is voltage rating, as above

OVR SL/B

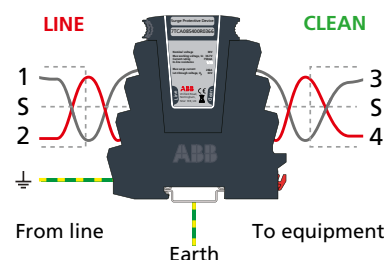
Base replacement (common for standard and LED modules)

OVR SL/I/B

Base replacement with isolated screen from earth

Weatherproof enclosure:

OVR WBX SLQ



NOTE: The OVR SL 'Slim Line' Series is also available for protection of 3-wire, RS 485 and RTD applications (OVR SL/3W, OVR SL RS485 & OVR SL RTD). The OVR SL X Series has approvals for use in hazardous areas. For telecommunication applications use OVR SLTN Series.

OVR SL Series - Technical specification

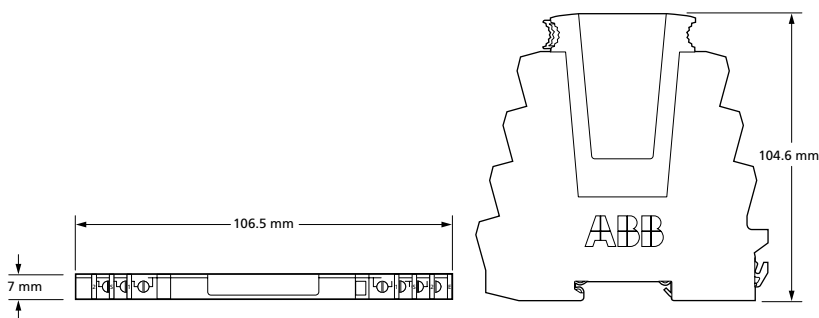
Electrical specification	OVR SL06	OVR SL15	OVR SL30	OVR SL50	OVR SL110
ABB order code	7TCA085400R0360	7TCA085400R0361	7TCA085400R0363	7TCA085400R0364	7TCA085400R0362
Nominal voltage ⁽¹⁾	6 V	15 V	30 V	50 V	110 V
Maximum working voltage U _c (RMS/DC) ⁽²⁾	5 V/7.79 V	11 V/16.7 V	25 V/36.7 V	40 V/56.7 V	93 V/132 V
Current rating (signal)	750 mA				
In-line resistance (per line ±10%)	1.0 Ω				
Bandwidth (-3 dB 50 Ω system)	45 MHz	45 MHz	45 MHz	45 MHz	45 MHz
Transient specification	OVR SL06	OVR SL15	OVR SL30	OVR SL50	OVR SL110
Let-through voltage (all conductors)⁽³⁾ Up					
C2 test 4 kV 1.2/50 μs, 2 kA 8/20 μs to BS EN/EN/IEC 61643-21	36.0 V	38.4 V	63.0 V	90.3 V	185 V
C1 test 1 kV, 1.2/50 μs, 0.5 kA 8/20 μs to BS EN/EN/IEC 61643-21	26.2 V	29.4 V	51.3 V	77.2 V	175 V
B2 test 4 kV 10/700 μs to BS EN/EN/IEC 61643-21	16.0 V	26.8 V	45.4 V	68.3 V	165 V
5 kV, 10/700 μs ⁽⁴⁾	17.0 V	27.5 V	46.3 V	69.1 V	170 V
Maximum surge current					
D1 test 10/350 μs to BS EN/EN/IEC 61643-21: - Per signal wire	1.25 kA				
8/20 μs to ITU-T K.45:2003, - Per signal wire	10 kA				
IEEE C62.41.2:2002: - Per pair	20 kA				
Mechanical specification	OVR SL06	OVR SL15	OVR SL30	OVR SL50	OVR SL110
Temperature range	-40 to +80 °C				
Connection type	Screw terminal - maximum torque 0.8 Nm				
Conductor size (stranded)	4 mm ²				
Earth connection	Via DIN rail or 4 mm ² earth terminal - maximum torque 0.8 Nm				
Case material	FR Polymer UL-94 V-0				
Weight: - Unit	0.08 kg				
- Packaged (per 10)	0.85 kg				
Dimensions	See diagram below				

⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at < 10 μA (OVR SL15, OVR SL30, OVR SL50, OVR SL110 and LED variants) and < 200 μA (OVR SL06 and OVR SL06L)

⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at < 1 mA leakage

⁽³⁾ The maximum transient voltage let-through of the protector throughout the test (±10%), line to line & line to earth, both polarities. Response time < 10 ns

⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)

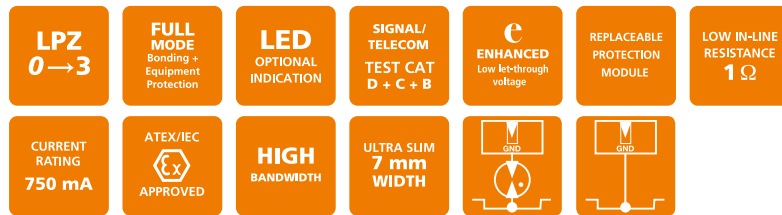


Data & signal protection

OVR SL X Series



4



Combined Category D, C, B tested protector (to BS EN 61643) suitable for twisted pair signalling applications within hazardous environments (ATEX/IECEX approved). Available for working voltages of up to 15 and 30 Volts. For use at boundaries up to LPZ 0 to protect against flashover through to LPZ 3 to protect sensitive electronic equipment.

Features & benefits

- Approved for use in hazardous environments for the protection of Intrinsically Safe circuits (Classification: II 2(1) G, Ex ia (ia Ga) IIC T4 Gb)
- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Ultra slim 7 mm width ideal for compact protection of large numbers of lines (e.g. process control installations)
- Optional LED status indication versions available for low current DC power applications
- Negligible self-capacitance and self-inductance offering minimal interference when protecting Intrinsically Safe circuits
- Very low (1 Ω) in-line resistance allows resistance critical applications (e.g. alarm loops) to be protected
- High (750 mA) maximum running current
- High bandwidth enables higher frequency (high traffic or bit rate) data communications
- Screen terminal enables easy connection of cable screen to earth
- Suitable for earthed or isolated screen systems - add/I suffix to part number for versions that require isolated screens
- Built-in innovative DIN rail foot with locking feature for simple positioning and clip-on mounting to top hat DIN rails
- 4 mm² terminals allow for larger cross section wiring, stranded wires terminated with ferrules or fitting two wires into a single terminal
- Approval references for OVR SL X Series: IECEx SIR 10.0030X, Sira 10ATEX2063X

Application

Use these protectors in hazardous environments where installation space is at a premium and large numbers of lines require protection (e.g. process control, 4-20 mA loops, fire and gas detectors and shut-down systems). Suitable for high speed digital communication equipment or systems with long signal lines. See Application Note OVR AN013.

Installation

Connect in series with the data communication or signal line either near where it enters or leaves the building or close to the equipment being protected (e.g. within its control panel). Either way, it must be very close to the system's earth star point. Install protectors either within an existing cabinet/cubicle or in a separate enclosure.

Accessories

Replacement modules:

OVR SL15X/M, OVR SL30X/M

Standard module replacement for 15 and 30 V protectors respectively

OVR SL15XL/M, OVR SL30XL/M

LED module replacement for 15 and 30 V protectors respectively

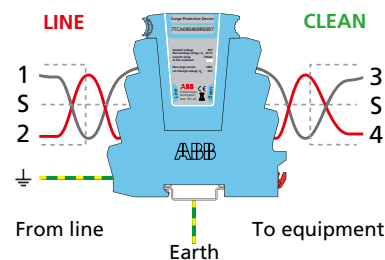
OVR SLX/B Base replacement (common for standard and LED modules)

OVR SLX/I/B

Base replacement with isolated screen from earth

Weatherproof enclosure:

OVR WBX SLQ



NOTE: Use the standard OVR SL 'Slim Line' Series for non-hazardous areas. The OVR SL Series is also available for protection of 3-wire, RS 485, RTD & telecommunication applications (OVR SL/3W, OVR SL RS485, OVR SL RTD & OVR SL TN).

OVR SL X Series - Technical specification

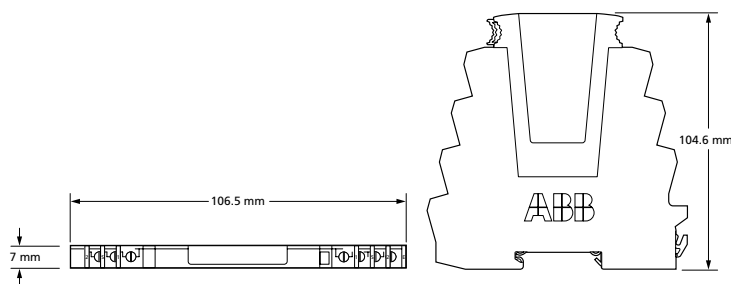
Electrical specification	OVR SL15X	OVR SL30X
ABB order code	7TCA085400R0386	7TCA085400R0387
Nominal voltage ⁽¹⁾	15 V	30 V
Maximum working voltage U_c (RMS/DC) ⁽²⁾	11 V/16.7 V	25 V/36.7 V
Current rating (signal)	750 mA	
In-line resistance (per line $\pm 10\%$)	1.0 Ω	
Bandwidth (-3 dB 50 Ω system)	45 MHz	
Intrinsically safe specification	OVR SL15X	OVR SL30X
Maximum voltage U_i	30 V	
Maximum power P_i :	- Per -40 °C < Ta < 40 °C	1.3 W
	- Per -40 °C < Ta < 60 °C	1.2 W
	- Per -40 °C < Ta < 80 °C	1.0 W
Capacitance C_i	0 μ F	
Inductance L_i	0 μ H	
Certificate number	IECEX SIR 10.0030X, Sira 10ATEX2063X	
Classification	Ex II 2 (1) G, Ex ia (ia Ga) IIC T4 Gb	
Transient specification	OVR SL15X	OVR SL30X
Let-through voltage (all conductors)⁽³⁾ U_p		
C2 test 4 kV 1.2/50 μ s, 2 kA 8/20 μ s to BS EN/EN/IEC 61643-21	38.4 V	63.0 V
C1 test 1 kV, 1.2/50 μ s, 0.5 kA 8/20 μ s to BS EN/EN/IEC 61643-21	29.4 V	51.3 V
B2 test 4 kV 10/700 μ s to BS EN/EN/IEC 61643-21	26.8 V	45.4 V
5 kV, 10/700 μ s ⁽⁴⁾	27.5 V	46.3 V
Maximum surge current		
D1 test 10/350 μ s to BS EN/EN/IEC 61643-21:		
- Per signal wire	1.25 kA	
- Per pair	2.5 kA	
8/20 μ s to ITU-T K.45:2003, IEEE C62.41.2:2002:		
- Per signal wire	10 kA	
- Per pair	20 kA	
Mechanical specification	OVR SL15X	OVR SL30X
Temperature range	-40 to +80 °C	
Connection type	Screw terminal - maximum torque 0.8 Nm	
Conductor size (stranded)	4 mm ²	
Earth connection	Via DIN rail or 4 mm ² earth terminal - maximum torque 0.8 Nm	
Case material	FR Polymer UL-94 V-0	
Weight:		
- Unit	0.08 kg	
- Packaged (per 10)	0.85 kg	
Dimensions	See diagram below	

⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at < 10 μ A

⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at < 1 mA leakage

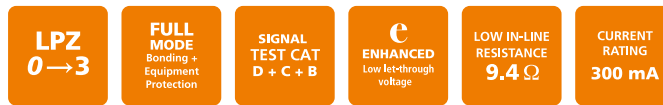
⁽³⁾ The maximum transient voltage let-through of the protector throughout the test ($\pm 10\%$), line to line & line to earth, both polarities. Response time < 10 ns

⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)



Data & signal protection

OVR D Series



Combined Category D, C, B tested protector (to BS EN 61643) suitable for most twisted pair signalling applications. Available for working voltages of up to 6, 15, 30, 50 and 110 Volts. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

4

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Low in-line resistance minimizes unnecessary reductions in signal strength
- Strong, flame retardant, ABS housing
- Supplied ready for flat mounting on base or side
- Built-in DIN rail foot for simple clip-on mounting to top hat DIN rails
- Colour coded terminals give a quick and easy installation check - grey for the dirty (line) end and green for the clean end
- Screen terminal enables easy connection of cable screen to earth
- Substantial earth stud to enable effective earthing
- Integral earthing plate for enhanced connection to earth via a OVR CME kit

Application

Use on twisted pair lines, e.g. those found in process control equipment, modems and computer communications interfaces.

Installation

Connect in series with the data communication or signal line either near where it enters or leaves the building or close to the equipment being protected (e.g. within its control panel). Either way, it must be very close to the system's earth star point. Install protectors either within an existing cabinet/cubicle or in a separate enclosure.

Accessories

Combined Mounting/Earthing kits:

OVR CME 4 Mount & earth up to 4 protectors

OVR CME 8 Mount & earth up to 8 protectors

OVR CME 16 Mount & earth up to 16 protectors

OVR CME 32 Mount & earth up to 32 protectors

Weatherproof enclosures:

OVR WBX 4, OVR WBX 4/GS

For use with a OVR CME 4 and up to 4 protectors

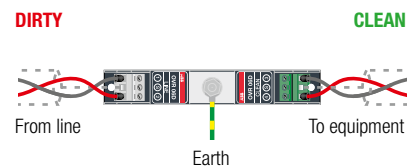
OVR WBX 8, OVR WBX 8/GS

For use with a OVR CME 8 and up to 8 protectors

OVR WBX 16/2/G

For use with one or two OVR CME 16 and up to 32 protectors

Install in series (in-line)



Slim Line (OVR SL) and ATEX (OVR SLX) versions are also available. If your system requires a protector with a very low resistance or higher current, see the OVR E & H Series. Also use the OVR E Series for systems needing a higher bandwidth. Protectors for 3-wire (OVR SL/3W) and RTD (OVR RTD, OVR SL RTD) are available, as are the space saving protectors (OVR Q, OVR SL Series). The OVR KT and TN Series are additional protectors specifically for telephone lines.

OVR D Series - Technical specification

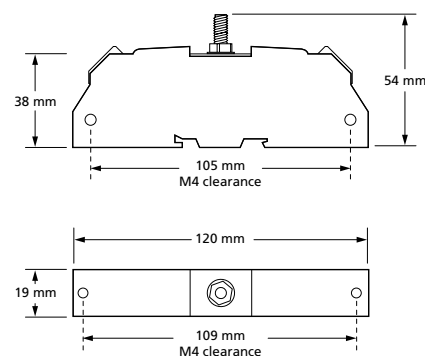
Electrical specification	OVR 06D	OVR 15D	OVR 30D	OVR 50D	OVR 110D
ABB order code	7TCA085400R0288	7TCA085400R0349	7TCA085400R0351	7TCA085400R0352	7TCA085400R0347
Nominal voltage ⁽¹⁾	6 V	15 V	30 V	50 V	110 V
Maximum working voltage U_c (RMS/DC) ⁽²⁾	5 V/7.79 V	13 V/19 V	26 V/37.1 V	41 V/58 V	93 V/132 V
Current rating (signal)	300 mA				
In-line resistance (per line $\pm 10\%$)	9.4 Ω	9.4 Ω	9.4 Ω	9.4 Ω	9.4 Ω
Bandwidth (-3 dB 50 Ω system)	800 kHz	2.5 MHz	4 MHz	6 MHz	9 MHz
Transient specification	OVR 06D	OVR 15D	OVR 30D	OVR 50D	OVR 110D
Let-through voltage (all conductors)⁽³⁾ Up					
C2 test 4 kV 1.2/50 μ s, 2 kA 8/20 μ s to BS EN/EN/IEC 61643-21	12.0 V	25.0 V	44.0 V	78.0 V	155 V
C1 test 1 kV, 1.2/50 μ s, 0.5 kA 8/20 μ s to BS EN/EN/IEC 61643-21	11.5 V	24.5 V	43.5 V	76.0 V	150 V
B2 test 4 kV 10/700 μ s to BS EN/EN/IEC 61643-21	10.0 V	23.0 V	42.5 V	73.0 V	145 V
5 kV, 10/700 μ s ⁽⁴⁾	10.5 V	23.8 V	43.4 V	74.9 V	150 V
Maximum surge current					
D1 test 10/350 μ s to BS EN/EN/IEC 61643-21: - Per signal wire	2.5 kA				
8/20 μ s to ITU-T K.45:2003, IEEE C62.41.2:2002: - Per pair	5 kA				
	10 kA				
	20 kA				
Mechanical specification	OVR 06D	OVR 15D	OVR 30D	OVR 50D	OVR 110D
Temperature range	-40 to +80 °C				
Connection type	Screw terminal - maximum torque 0.5 Nm				
Conductor size (stranded)	2.5 mm ²				
Earth connection	M6 stud				
Case material	FR Polymer UL-94 V-0				
Weight: - Unit	0.08 kg				
- Packaged (per 10)	0.85 kg				
Dimensions	See diagram below				

⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at $< 5 \mu$ A (OVR 15D, OVR 30D, OVR 50D, OVR 110D) and $< 200 \mu$ A (OVR 06D)

⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at < 1 mA leakage (OVR 15D, OVR 30D, OVR 50D, OVR 110D), < 10 mA (OVR 06D)

⁽³⁾ The maximum transient voltage let-through of the protector throughout the test ($\pm 10\%$), line to line & line to earth, both polarities. Response time < 10 ns

⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)



Data & signal protection

OVR E Series



4

LPZ 0 → 3	FULL MODE Bonding + Equipment Protection	HIGH BANDWIDTH	SIGNAL/ TELECOM TEST CAT D + C + B	e ENHANCED Low let-through voltage	LOW IN-LINE RESISTANCE 1 Ω	CURRENT RATING 1.25 A
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Combined Category D, C, B tested protector (to BS EN 61643) suitable for twisted pair signalling applications which require either a lower in-line resistance, an increased current or a higher bandwidth than the OVR D Series. Also suitable for DC power applications less than 1.25 Amps. Available for working voltages of up to 6, 15, 30, 50 and 110 Volts. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Very low (1 Ω) in-line resistance allows resistance critical applications (e.g. alarm loops) to be protected
- High (1.25 A) maximum running current
- High bandwidth enables higher frequency (high traffic or bit rate) data communications
- Screen terminal enables easy connection of cable screen to earth
- Strong, flame retardant, ABS housing
- Built-in DIN rail foot for simple clip-on mounting to top hat DIN rails
- Colour coded terminals give a quick and easy installation check - grey for the dirty (line) end and green for clean
- Substantial earth stud to enable effective earthing
- Supplied ready for flat mounting on base or side
- Integral earthing plate for enhanced connection to earth via OVR CME kit)

Application

Use these units to protect resistance sensitive, higher frequency or running current systems, e.g. high speed digital communications equipment or systems with long signal lines.

Installation

Connect in series with the data communication or signal line either near where it enters or leaves the building or close to the equipment being protected (e.g. within its control panel). Either way, it must be very close to the system's earth star point. Install protectors either within an existing cabinet/ cubicle or in a separate enclosure.

Accessories

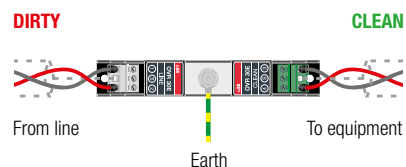
Combined Mounting/Earthing kits:

- OVR CME 4** Mount & earth up to 4 protectors
- OVR CME 8** Mount & earth up to 8 protectors
- OVR CME 16** Mount & earth up to 16 protectors
- OVR CME 32** Mount & earth up to 32 protectors

Weatherproof enclosures:

- OVR WBX 4, OVR WBX 4/GS**
For use with a OVR CME 4 and up to 4 protectors
- OVR WBX 8, OVR WBX 8/GS**
For use with a OVR CME 8 and up to 8 protectors
- OVR WBX 16/2/G**
For use with one or two OVR CME 16 and up to 32 protectors

Install in series (in-line)



NOTE: Slim Line (OVR SL) and ATEX (OVR SLX) are available. For many twisted pair data and signal applications, the lower cost OVR D Series may be suitable. For applications requiring higher current (1.25 A to 4 A) or ultra-low in-line resistance, the OVR H Series protectors may be more suitable.

OVR E Series - Technical specification

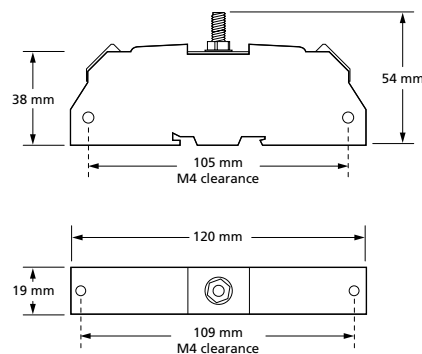
Electrical specification	OVR 06E	OVR 15E	OVR 30E	OVR 50E	OVR 110E
ABB order code	7TCA085400R0346	7TCA085400R0350	7TCA085400R0353	7TCA085400R0354	7TCA085400R0348
Nominal voltage ⁽¹⁾	6 V	15 V	30 V	50 V	110 V
Maximum working voltage U _c (RMS/DC) ⁽²⁾	5 V/7.79 V	11 V/16.7 V	25 V/36.7 V	40 V/56.7 V	93 V/132 V
Current rating (signal)	1.25 A				
In-line resistance (per line ±10%)	1.0 Ω				
Bandwidth (-3 dB 50 Ω system)	45 MHz				
Transient specification	OVR 06E	OVR 15E	OVR 30E	OVR 50E	OVR 110E
Let-through voltage (all conductors)⁽³⁾ Up					
C2 test 4 kV 1.2/50 μs, 2 kA 8/20 μs to BS EN/EN/IEC 61643-21	36.0 V	39.0 V	60.0 V	86.0 V	180 V
C1 test 1 kV, 1.2/50 μs, 0.5 kA 8/20 μs to BS EN/EN/IEC 61643-21	26.2 V	28.0 V	49.0 V	73.5 V	170 V
B2 test 4 kV 10/700 μs to BS EN/EN/IEC 61643-21	16.0 V	25.5 V	43.5 V	65.0 V	160 V
5 kV, 10/700 μs ⁽⁴⁾	17.0 V	26.2 V	44.3 V	65.8 V	165 V
Maximum surge current					
D1 test 10/350 μs to BS EN/EN/IEC 61643-21: - Per signal wire	2.5 kA				
8/20 μs to ITU-T K.45:2003, IEEE C62.41.2:2002: - Per pair	5 kA				
	10 kA				
	20 kA				
Mechanical specification	OVR 06E	OVR 15E	OVR 30E	OVR 50E	OVR 110E
Temperature range	-40 to +80 °C				
Connection type	Screw terminal - maximum torque 0.5 Nm				
Conductor size (stranded)	2.5 mm ²				
Earth connection	M6 stud				
Case material	FR Polymer UL-94 V-0				
Weight: - Unit	0.08 kg				
- Packaged (per 10)	0.85 kg				
Dimensions	See diagram below				

⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at < 10 μA (OVR 15E, OVR 30E, OVR 50E, OVR 110E) and < 200 μA (OVR 06E)

⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at < 5 mA leakage (OVR 15E, OVR 30E, OVR 50E, OVR 110E) and < 10 mA (OVR 06E)

⁽³⁾ The maximum transient voltage let-through of the protector throughout the test (±10%), line to line & line to earth, both polarities. Response time < 10 ns

⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)



Data & signal protection

OVR H Series



4



Combined Category D, C, B tested protector (to BS EN 61643) suitable for twisted pair signalling applications which require either a lower in-line resistance or an increased current than the OVR D or E Series. Also suitable for DC power applications less than 4 Amps. Available for working voltages of up to 6, 15, 30, 50 and 110 Volts. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Ultra-low (< 0.05 Ω) in-line resistance allows resistance critical applications (e.g. alarm loops) to be protected
- Very high (4 A) maximum running current
- Strong, flame retardant ABS housing
- Supplied ready for flat mounting on base or side
- Built-in DIN rail foot for simple clip-on mounting to top hat DIN rails
- Colour coded terminals give a quick and easy installation check - grey for the dirty (line) end and green for clean
- Screen terminal enables easy connection of cable screen to earth
- Substantial earth stud to enable effective earthing
- Integral earth plate enables enhanced connection to earth via OVR CME kit

Application

Use these applications to protect resistance sensitive or higher running current systems, e.g. systems with long signal lines, or DC power applications.

Installation

Connect in series with the data communication or signal line either near where it enters or leaves the building or close to the equipment being protected (e.g. within its control panel). Either way, it must be very close to the system's earth star point. Install protectors either within an existing cabinet/cubicle or in a separate enclosure.

Accessories

Combined Mounting/Earthing kits:

OVR CME 4 Mount & earth up to 4 protectors

OVR CME 8 Mount & earth up to 8 protectors

OVR CME 16 Mount & earth up to 16 protectors

OVR CME 32 Mount & earth up to 32 protectors

Weatherproof enclosures:

OVR WBX 4, OVR WBX 4/GS

For use with a OVR CME 4 and up to 4 protectors

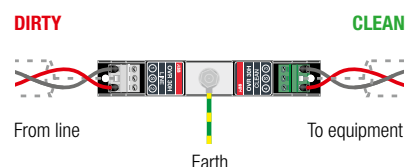
OVR WBX 8, OVR WBX 8/GS

For use with a OVR CME 8 and up to 8 protectors

OVR WBX 16/2/G

For use with one or two OVR CME 16 and up to 32 protectors

Install in series (in-line)



NOTE: For some data and signal applications with lower current, higher in-line resistance or higher bandwidth requirements, the OVR D or E Series protectors or the Slim Line OVR SL Series may be more suitable.

OVR H Series - Technical specification

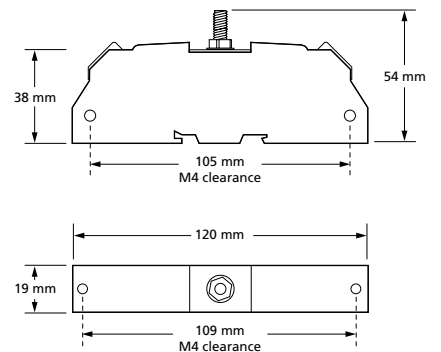
Electrical specification	OVR 06H	OVR 15H	OVR 30H	OVR 50H	OVR 110H
ABB order code	7TCA085400R0355	7TCA085400R0357	7TCA085400R0358	7TCA085400R0359	7TCA085400R0356
Nominal voltage ⁽¹⁾	6 V	15 V	30 V	50 V	110 V
Maximum working voltage U _c (RMS/DC) ⁽²⁾	5 V/7.79 V	11 V/16.7 V	25 V/36.7 V	40 V/56.7 V	93 V/132 V
Current rating (signal)	4 A				
In-line resistance (per line ±10%)	0.05 Ω				
Bandwidth (-3 dB 50 Ω system)	160 KHz	140 KHz	130 KHz	120 KHz	120 KHz
Transient specification	OVR 06H	OVR 15H	OVR 30H	OVR 50H	OVR 110H
Let-through voltage (all conductors)⁽³⁾ Up					
C2 test 4 kV 1.2/50 μs, 2 kA 8/20 μs to BS EN/EN/IEC 61643-21	12.0 V	27.5 V	46.0 V	67.0 V	150 V
C1 test 1 kV, 1.2/50 μs, 0.5 kA 8/20 μs to BS EN/EN/IEC 61643-21	11.0 V	26.5 V	45.0 V	66.5 V	145 V
B2 test 4 kV 10/700 μs to BS EN/EN/IEC 61643-21	10.5 V	25.5 V	43.5 V	65.0 V	140 V
5 kV, 10/700 μs ⁽⁴⁾	10.8 V	26.2 V	44.3 V	65.8 V	145 V
Maximum surge current					
D1 test 10/350 μs to BS EN/EN/IEC 61643-21: - Per signal wire	2.5 kA				
8/20 μs to ITU-T K.45:2003, - Per signal wire	5 kA				
IEEE C62.41.2:2002: - Per signal wire	10 kA				
- Per pair	20 kA				
Mechanical specification	OVR 06E	OVR 15E	OVR 30E	OVR 50E	OVR 110E
Temperature range	-40 to +80 °C				
Connection type	Screw terminal - maximum torque 0.5 Nm				
Conductor size (stranded)	2.5 mm ²				
Earth connection	M6 stud - maximum torque 0.5 Nm				
Case material	FR Polymer UL-94 V-0				
Weight: - Unit	0.08 kg				
- Packaged (per 10)	0.85 kg				
Dimensions	See diagram below				

⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at < 10 μA (OVR 15H, OVR 30H, OVR 50H, OVR 110H) and < 200 μA (OVR 06H)

⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at < 5 mA leakage (OVR 15H, OVR 30H, OVR 50H, OVR 110H) and < 10 mA (OVR 06H)

⁽³⁾ The maximum transient voltage let-through of the protector throughout the test (±10%), line to line & line to earth, both polarities. Response time < 10 ns

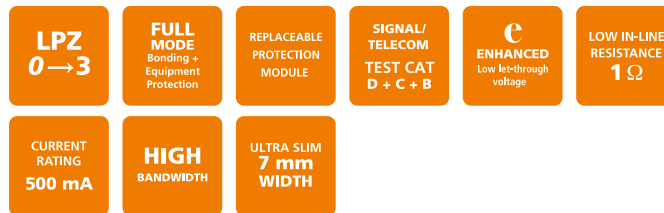
⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)



Data & signal protection

OVR SL 3-Wire Series

4



Combined Category D, C, B tested protector (to BS EN 61643) suitable for 3-wire signalling applications which require either a lower in-line resistance, an increased current and/or higher bandwidth. Also suitable for DC power applications less than 0.5 Amps. Available for working voltages of up to 6, 15, 30, 50 and 110 Volts. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Ultra slim 7 mm width ideal for compact protection of large numbers of lines (e.g. process control installations)
- Two stage removable protection module with simple quick release mechanism allowing partial removal for easy line commissioning and maintenance as well as full removal for protection replacement
- Very low (1 Ω) in-line resistance allows resistance critical applications (e.g. alarm loops) to be protected
- High (500 mA) maximum running current
- High bandwidth enables higher frequency (high traffic or bit rate) data communications
- Strong, flame retardant, polycarbonate housing
- Built-in innovative DIN rail foot with locking feature for simple positioning and clip-on mounting to top hat DIN rails
- 4 mm² terminals allow for larger cross section wiring, stranded wires terminated with ferrules or fitting two wires into a single terminal
- Convenient earthing through DIN foot and/or earth terminal

Application

Use these protectors for 3-wire systems where installation space is at a premium and large numbers of lines require protection (e.g. process control, high speed digital communication equipment or systems with long signal lines).

Installation

Connect in series with the data communication or signal line either near where it enters or leaves the building or close to the equipment being protected (e.g. within its control panel). Either way, it must be very close to the system's earth star point. Install protectors either within an existing cabinet/ cubicle or in a separate enclosure.

Accessories

Replacement modules:

OVR SLXX/3W/M

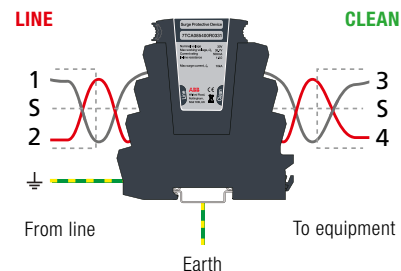
Standard module replacement where XX is voltage rating (06, 15, 30, 50 or 110)

OVR SL/3W/B

Base replacement

Weatherproof enclosure:

OVR WBX SLQ



NOTE: The OVR SL 'Slim Line' Series is also available for protection of 2-wire systems up to 110 V, RS 485, RTD and telecommunication applications (OVR SL Series, OVR SL RS485, OVR SL RTD and OVR SL TN). The OVR SL X Series has approvals for use in hazardous areas.

OVR SL 3-Wire Series - Technical specification

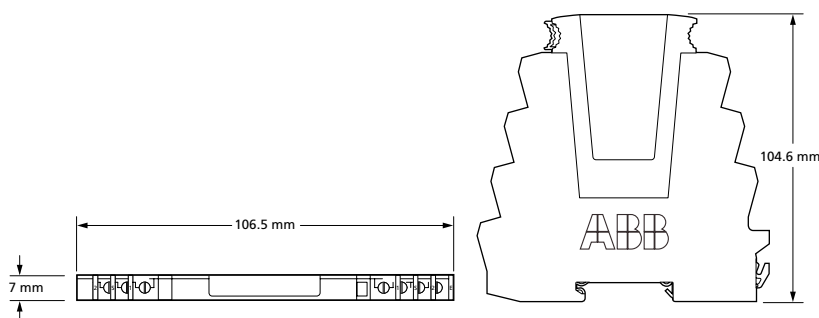
Electrical specification	OVR SL06/3W	OVR SL15/3W	OVR SL30/3W	OVR SL50/3W	OVR SL110/3W
ABB order code	7TCA085400R0328	7TCA085400R0330	7TCA085400R0331	7TCA085400R0332	7TCA085400R0329
Nominal voltage ⁽¹⁾	6 V	15 V	30 V	50 V	110 V
Maximum working voltage U _c (RMS/DC) ⁽²⁾	5 V/7.79 V	11 V/16.7 V	25 V/36.7 V	40 V/56.7 V	93 V/132 V
Current rating (signal)	500 mA				
In-line resistance (per line ±10%)	1.0 Ω				
Bandwidth (-3 dB 50 Ω system)	45 MHz				
Transient specification	OVR SL06/3W	OVR SL15/3W	OVR SL30/3W	OVR SL50/3W	OVR SL110/3W
Let-through voltage (all conductors)⁽³⁾ Up					
C2 test 4 kV 1.2/50 μs, 2 kA 8/20 μs to BS EN/EN/IEC 61643-21	36.0 V	38.4 V	63.0 V	90.3 V	185 V
C1 test 1 kV, 1.2/50 μs, 0.5 kA 8/20 μs to BS EN/EN/IEC 61643-21	26.2 V	29.4 V	51.3 V	77.2 V	175 V
B2 test 4 kV 10/700 μs to BS EN/EN/IEC 61643-21	16.0 V	26.8 V	45.4 V	68.3 V	165 V
5 kV, 10/700 μs ⁽⁴⁾	17.0 V	27.5 V	46.3 V	69.1 V	170 V
Maximum surge current					
D1 test 10/350 μs to BS EN/EN/IEC 61643-21: - Per signal wire	1.25 kA				
8/20 μs to ITU-T K.45:2003, IEEE C62.41.2:2002: - Per pair	2.5 kA				
- Per signal wire	10 kA				
- Per pair	20 kA				
Mechanical specification	OVR SL06/3W	OVR SL15/3W	OVR SL30/3W	OVR SL50/3W	OVR SL110/3W
Temperature range	-40 to +80 °C				
Connection type	Screw terminal - maximum torque 0.8 Nm				
Conductor size (stranded)	4 mm ²				
Earth connection	Via DIN rail or 4 mm ² earth terminal - maximum torque 0.8 Nm				
Case material	FR Polymer UL-94 V-0				
Weight: - Unit	0.08 kg				
- Packaged (per 10)	0.85 kg				
Dimensions	See diagram below				

⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at < 10 μA (OVR SL15/3W, OVR SL30/3W, OVR SL50/3W, OVR SL110/3W) and < 200 μA (OVR SL06/3W)

⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at < 1 mA leakage

⁽³⁾ The maximum transient voltage let-through of the protector throughout the test (±10%), line to line & line to earth, both polarities. Response time < 10 ns

⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)



Data & signal protection

OVR SL LED 4-20 mA Series

4



LPZ 0 → 3	FULL MODE Bonding + Equipment Protection	REPLACEABLE PROTECTION MODULE	SIGNAL/TELECOM TEST CAT D + C + B	ENHANCED Low let-through voltage	LOW IN-LINE RESISTANCE 1 Ω
CURRENT RATING 75 mA	ULTRA SLIM 7 mm WIDTH	LED INDICATION			

Combined Category D, C, B tested protector (to BS EN 61643) suitable for twisted pair 4-20 mA loop systems with innovative LED protector status indication. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment (e.g. transmitters, monitors, controllers).

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Innovative LED indication of protection status provides easy visual checking and quick maintenance
- Ultra slim 7 mm width ideal for compact protection of large numbers of lines (e.g. process control installations)
- Two stage removable protection module with simple quick release mechanism allowing partial removal for easy line commissioning and maintenance as well as full removal for protection replacement
- Very low (1 Ω) in-line resistance for minimal system interference
- High (75 mA) maximum running current - can also be used on 10-50 mA systems (e.g. process control)
- Screen terminal enables easy connection of cable screen to earth
- Strong, flame retardant, polycarbonate housing
- Built-in innovative DIN rail foot with locking feature for simple positioning and clip-on mounting to top hat DIN rails
- 4 mm² terminals allow for larger cross section wiring, stranded wires terminated with ferrules or fitting two wires into a single terminal
- Convenient earthing through DIN foot and/or earth terminal

Application

Use these protectors on 4-20 mA loop systems - ideal where installation space is at a premium and large numbers of lines require protection, or for systems with long signal lines.

Accessories

OVR SL30L/4-20/M

Module replacement

OVR SL/B

Base replacement

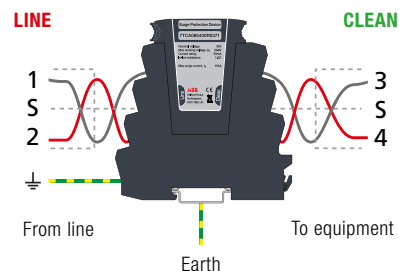
Weatherproof enclosure:

OVR WBX SLQ

TECHNICAL NOTE: 4-20 mA current loops can serve multiple devices over a long distance. The devices and wiring produce a voltage drop (also known as “loop drops”) but these do not reduce the 4-20 mA current as long as the power supply voltage is greater than the sum of the voltage drops around the loop at the maximum signalling current of 20 mA. For design considerations, each OVR SL30L/4-20 device installed within the loop introduces a 1.7 V loop drop.

Installation

Connect in series with the 4-20 mA current loop either near where it enters or leaves the building or close to the equipment being protected (e.g. within its control panel). Either way, it must be very close to the system’s earth star point. Install protectors either within an existing cabinet/ cubicle or in a separate enclosure.

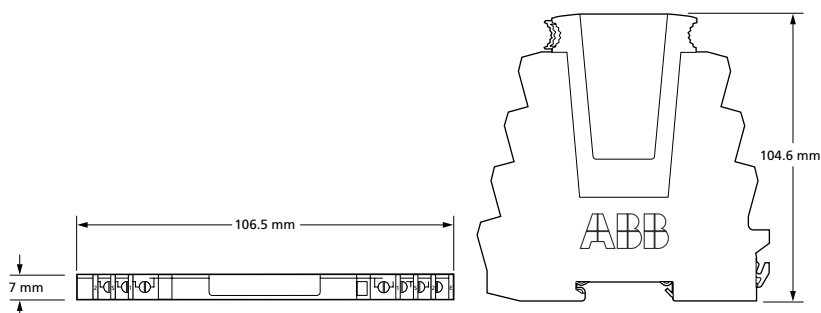


NOTE: The OVR SL ‘Slim Line’ Series is also available for protection of systems up to 110 V as well as 3-wire, RS 485, RTD & telecommunication applications (OVR SL/3W, OVR SL RS485, OVR SL RTD & OVR SL TN). The OVR SL X Series has approvals for use in hazardous areas.

OVR SL LED 4-20 mA Series - Technical specification

Electrical specification	OVR SL30L/4-20	
ABB order code	7TCA085400R0371	
Nominal voltage ⁽¹⁾	30 V	
Maximum working voltage U_c (RMS/DC) ⁽²⁾	25 V/36.7 V	
Current rating (signal) ⁽³⁾	75 mA	
In-line resistance (per line $\pm 10\%$)	1.0 Ω	
Series voltage drop ⁽⁴⁾	1.7 V	
Bandwidth (-3 dB 50 Ω systems)	45 MHz	
Transient specification	OVR SL30L/4-20	
Let-through voltage (all conductors)⁽⁵⁾ U_p		
C2 test 4 kV 1.2/50 μs , 2 kA 8/20 μs to BS EN/EN/IEC 61643-21	63.0 V	
C1 test 1 kV, 1.2/50 μs , 0.5 kA 8/20 μs to BS EN/EN/IEC 61643-21	51.3 V	
B2 test 4 kV 10/700 μs to BS EN/EN/IEC 61643-21	45.4 V	
5 kV, 10/700 μs ⁽⁶⁾	46.3 V	
Maximum surge current		
D1 test 10/350 μs to BS EN/EN/IEC 61643-21:	- Per signal wire	1.25 kA
8/20 μs to ITU-T K.45:2003,	- Per pair	2.5 kA
IEEE C62.41.2:2002:	- Per signal wire	10 kA
	- Per pair	20 kA
Mechanical specification	OVR SL30L/4-20	
Temperature range	-40 to +80 °C	
Connection type	Screw terminal - maximum torque 0.8 Nm	
Conductor size (stranded)	4 mm ²	
Earth connection	Via DIN rail or 4 mm ² earth terminal - maximum torque 0.8 Nm	
Case material	FR Polymer UL-94 V-0	
Weight: - Unit	0.08 kg	
- Packaged (per 10)	0.85 kg	
Dimensions	See diagram below	

- ⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at $< 10 \mu A$
⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at $< 1 mA$ leakage
⁽³⁾ The minimum current for LED indicator operation is 2 mA
⁽⁴⁾ At 20 mA
⁽⁵⁾ The maximum transient voltage let-through of the protector throughout the test ($\pm 10\%$), line to line & line to earth, both polarities. Response time $< 10 ns$
⁽⁶⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)



Data & signal protection

OVR Q Series



Combined Category D, C, B tested protector (to BS EN 61643) suitable for 4 twisted pair lines. Available for working voltages of up to 6, 15, 30, 50 and 110 Volts. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

4

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Almost twice as space efficient as smallest competitor
- Standard DIN module (18 mm) depth
- Removable (plug-in) terminals allow pre-wiring of cable looms, for easier installation
- Suitable for earthed or isolated screen systems
- Built-in DIN rail foot for clip-on mounting to top hat or G DIN rails
- Optional flat mounting on side
- 2.5 mm² terminals allow for larger cross section wiring, stranded wires terminated with ferrules or fitting two wires into a single terminal
- Very low resistance to minimizes unwanted signal strength reductions
- Strong, flame retardant, ABS housing
- Colour coded terminals (grey for line, green for clean) give a quick and easy installation check
- Screen terminal enables easy connection of cable screen, maintaining continuity through the SPD between the input and output connectors.
- Simple, yet substantial, connection to earth via DIN rail

Application

Use these protectors where installation space is at a premium and large numbers of lines require protection.

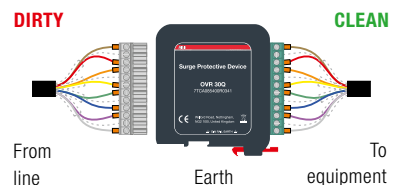
Installation

Connect in series with the signal or data line either near where it enters or leaves the building or close to the equipment being protected. Install in a cabinet/cubicle close to the system's earth star point.

Accessories

Weatherproof enclosure: **OVR WBX SLQ**

OVR 06Q, OVR 15Q, OVR 30Q, OVR 50Q and OVR 110Q installed in series (in-line)



NOTE: The OVR Q Series is also available for protection of RS 485 and RTD applications (OVR RS485Q, OVR RTDQ). Protectors for individual data and signal lines are available (OVR D Series and Slim Line OVR SL Series). Alternatively, for individual protectors with higher current or bandwidth use the OVR E and OVR H Series. For telecommunication applications use OVR TNQ Series.

OVR Q Series - Technical specification

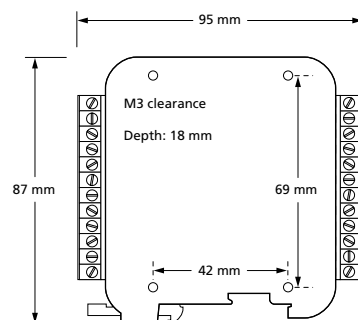
Electrical specification	OVR 06Q	OVR 15Q	OVR 30Q	OVR 50Q	OVR 110Q
ABB order code	7TCA085400R0333	7TCA085400R0340	7TCA085400R0341	7TCA085400R0342	7TCA085400R0343
Nominal voltage ⁽¹⁾	6 V	15 V	30 V	50 V	110 V
Maximum working voltage U _c (RMS/DC) ⁽²⁾	5 V/7.79 V	13 V/18.8 V	26 V/37.8 V	41 V/57.8 V	93 V/132 V
Current rating (signal)	750 mA	750 mA	750 mA	750 mA	750 mA
In-line resistance (per line ±10%)	1.0 Ω	1.0 Ω	1.0 Ω	1.0 Ω	1.0 Ω
Bandwidth (-3 dB 50 Ω system)	45 MHz	45 MHz	45 MHz	45 MHz	45 MHz
Transient specification	OVR 06Q	OVR 15Q	OVR 30Q	OVR 50Q	OVR 110Q
Let-through voltage (all conductors) ⁽³⁾ Up					
C2 test 4 kV 1.2/50 μs, 2 kA 8/20 μs to BS EN/EN/IEC 61643-21	15.0 V	28.0 V	53.0 V	84.0 V	188 V
C1 test 1 kV, 1.2/50 μs, 0.5 kA 8/20 μs to BS EN/EN/IEC 61643-21	12.5 V	26.5 V	48.0 V	76.0 V	175 V
B2 test 4 kV 10/700 μs to BS EN/EN/IEC 61643-21	10.0 V	23.0 V	43.5 V	64.5 V	145 V
5 kV, 10/700 μs ⁽⁴⁾	10.8 V	26.2 V	44.3 V	65.8 V	150 V
Maximum surge current					
D1 test 10/350 μs to BS EN/EN/IEC 61643-21: - Per signal wire	2.5 kA				
8/20 μs to ITU-T K.45:2003, - Per signal wire	10 kA				
IEEE C62.41.2:2002: - Per pair	20 kA				
Mechanical specification	OVR 06Q	OVR 15Q	OVR 30Q	OVR 50Q	OVR 110Q
Temperature range	-40 to +80 °C				
Connection type	Pluggable 12 way screw terminal - maximum torque 0.6 Nm				
Conductor size (stranded)	2.5 mm ²				
Earth connection	Via DIN rail or M5 threaded hole in base of unit				
Case material	FR Polymer UL-94 V-0				
Weight: - Unit	0.1 kg				
- Packaged (each)	0.12 kg				
- Packaged (per 10)	1.3 kg				
Dimensions	See diagram below				

⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at < 5 μA (OVR 15Q, OVR 30Q, OVR 50Q, OVR 110Q) and < 200 μA (OVR 06Q)

⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at < 5 mA leakage (OVR 15Q, OVR 30Q, OVR 50Q, OVR 110Q)

⁽³⁾ The maximum transient voltage let-through of the protector throughout the test (±10%), line to line & line to earth, both polarities. Response time < 10 ns

⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)



Data & signal protection

OVR RTD, RTDQ & SL RTD Series



4

LPZ 0 → 3	FULL MODE Bonding + Equipment Protection	OVR SL RTD ULTRA SLIM 7 mm WIDTH	SIGNAL/ TELECOM TEST CAT D + C + B	ENHANCED Low let-through voltage	OVR RTDQ ULTRA COMPACT 18 mm WIDTH	LOW IN-LINE RESISTANCE	OVR SL RTD HIGH BANDWIDTH
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Combined Category D, C, B tested protector (to BS EN 61643) suitable for 3-wire RTD systems to protect monitoring equipment. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3. Available as standard OVR RTD format, or compact OVR RTDQ and Slim Line OVR SL RTD versions for installations where a high number of lines require protection.

Features & benefits

- Protects all three wires on a 3-wire RTD system with a single protector
- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Low in-line resistance minimizes reductions in signal strength
- Built-in DIN rail foot for simple mounting to top hat DIN rails
- Convenient earthing through DIN foot and/or earth terminal
- OVR RTD can be flat mounted on base or side
- OVR RTD and OVR RTDQ have colour coded terminals for quick and easy installation check
- OVR SL RTD has ultra slim 7 mm width ideal for compact protection of large numbers of lines (e.g. process control installations)
- OVR SL RTD includes two stage removable protection module with simple quick release mechanism allowing partial removal for easy line commissioning and maintenance as well as full removal for protection replacement

For further information on RTD applications, see separate Application Note OVR AN001 (contact us for a copy).

Installation

Connect in series with the signal line either near where it enters or leaves the building or close to the equipment being protected ensuring it is very close to the system's earth star

point. Install protectors either within an existing cabinet/ cubicle or in a separate enclosure.

Accessories

Replacement module for OVR SL RTD:

OVR SLRDT/M

Standard module replacement

OVR SLRDT/B

Base replacement

Combined Mounting/Earthing kits for OVR RTD:

OVR CME 4

For up to 4 x OVR RTD

OVR CME 8

For up to 8 x OVR RTD

OVR CME 16

For up to 16 x OVR RTD

OVR CME 32

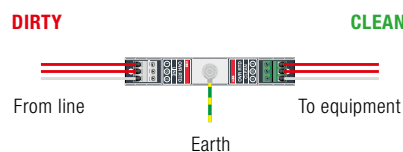
For up to 32 x OVR RTD

If protectors cannot be incorporated within an existing panel or enclosure, OVR WBX enclosures are available for up to 4, 8, 16 or 32 protectors and their associated OVR CME kit.

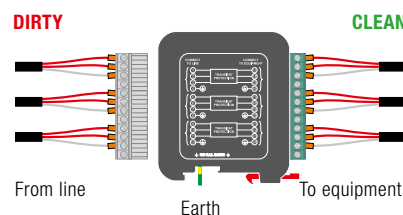
Weatherproof enclosure:

OVR WBX SLQ (OVR SLRDT and OVR RTD Q)

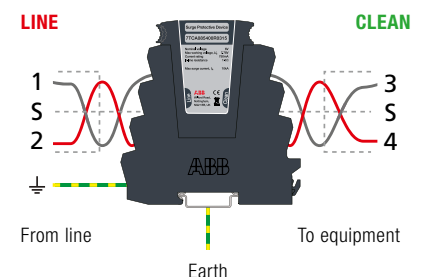
OVR RTD installed in series



OVR RTDQ installed in series (in-line)



OVR SL RTD installed in series

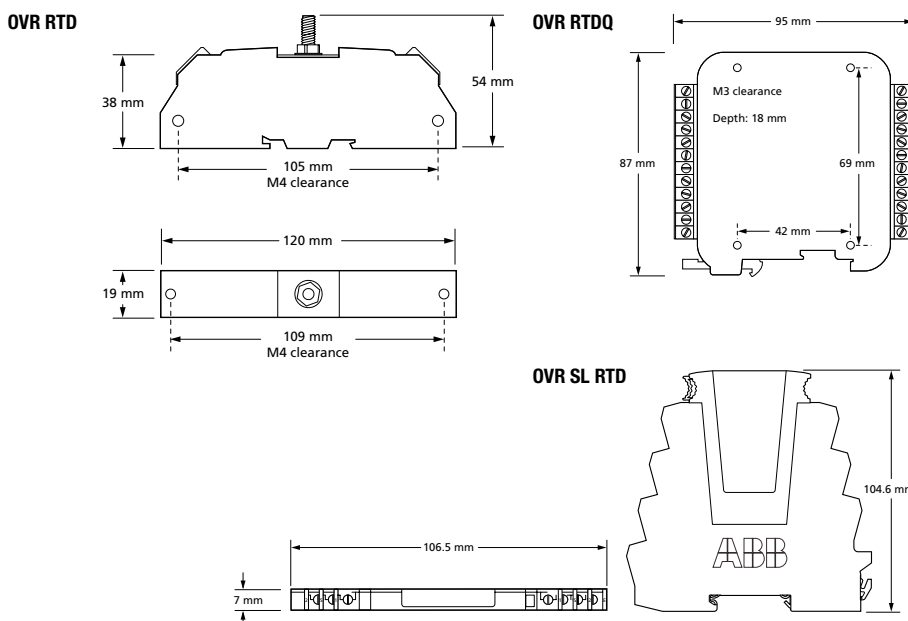


NOTE: For 2-wire or 4-wire RTD applications, use one or two OVR 06D or OVR SL06 protectors respectively.

OVR RTD, RTDQ & SL RTD Series - Technical specification

Electrical specification	OVR RTD	OVR SL RTD	OVR RTDQ
ABB order code	7TCA085400R0313	7TCA085400R0315	7TCA085400R0314
Nominal voltage ⁽¹⁾	6 V		
Maximum working voltage U_c (RMS/DC) ⁽²⁾	5 V/7.79 V		
Current rating (signal)	200 mA	500 mA	700 mA
In-line resistance (per line $\pm 10\%$)	10 Ω	1.0 Ω	1.0 Ω
Bandwidth (-3 dB 50 Ω system)	800 kHz	1.5 MHz	800 kHz
Transient specification	OVR RTD	OVR SL RTD	OVR RTDQ
Let-through voltage (all conductors)⁽³⁾ Up			
C2 test 4 kV 1.2/50 μ s, 2 kA 8/20 μ s to BS EN/EN/IEC 61643-21	12.0 V	17.9 V	15.0 V
C1 test 1 kV, 1.2/50 μ s, 0.5 kA 8/20 μ s to BS EN/EN/IEC 61643-21	11.5 V	12.1 V	12.5 V
B2 test 4 kV 10/700 μ s to BS EN/EN/IEC 61643-21	10.0 V	11.0 V	10.0 V
5 kV, 10/700 μ s ⁽⁴⁾	10.5 V	11.3 V	10.5 V
Maximum surge current			
D1 test 10/350 μ s to BS EN/EN/IEC 61643-21:			
- Per signal wire	2.5 kA	1.25 kA	2.5 kA
- Per pair	5 kA	2.5 kA	5 kA
8/20 μ s to ITU-T K.45:2003, IEEE C62.41.2:2002:			
- Per signal wire	10 kA		
- Per pair	20 kA		
Mechanical specification	OVR RTD	OVR SL RTD	OVR RTDQ
Temperature range	-40 to +80 °C		
Connection type	Screw terminal - max. torque 0.5 Nm	Screw terminal - max. torque 0.8 Nm	Pluggable 12 way screw terminal
Conductor size (stranded)	2.5 mm ²	4 mm ²	2.5 mm ²
Earth connection	M6 stud - max. torque 0.5 Nm	Via DIN rail or 4 mm ² earth terminal - max. torque 0.8 Nm	Via DIN rail or M5 threaded hole in base of unit - max. torque 0.6 Nm
Case Material	FR Polymer UL-94 V-0		
Weight: - Unit	0.08 kg	0.08 kg	0.1 kg
- Packaged (per 10)	0.85 kg	0.85 kg	1.3 kg
Dimensions	See diagram below		

⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at < 200 μ A
⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at < 10 mA
⁽³⁾ The maximum transient voltage let-through of the protector throughout the test ($\pm 10\%$), line to line & line to earth, both polarities. Response time < 10 ns
⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)



Telecoms & computer line protection

OVR KT & KE Series



Combined Category D, C, B tested protector (to BS EN 61643) suitable for use on ten line LSA-PLUS disconnection modules to PBX telephone exchanges, ISDN and other telecoms equipment with LSA-PLUS disconnection modules. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

4

Features & benefits

- Low cost protection for large numbers of data and signal lines
- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Colour of housing distinguishes electrically different protectors - avoids confusion when installed together on the same distribution frame
- Quick and easy plug-in installation, with 'bump' location feedback
- Under power line cross conditions/PTC versions offer safe disconnection during fault duration. Unit auto-resets once fault corrected
- At larger installations OVR K10T1 and OVR K10T1/PTC provide all in one protection for all ten lines on LSA-PLUS disconnection modules
- Use the OVR KE10 to provide trouble free earthing for up to ten OVR KT1 and OVR KT1/PTC (per disconnection module)
- OVR K10T1 and OVR K10T1/PTC have an integral earth connection, and an external M4 earth bush for use with non-metallic LSA-Plus frames
- OVR KT1/PTC and OVR K10T1/PTC have resettable overcurrent protection and are rated for power cross faults
- OVR KT1, OVR KT1/PTC, OVR K10T1 and OVR K10T1/PTC are suitable for telecoms applications in accordance with Telcordia and ANSI Standards

Application

- For PSTN (e.g POTS, dial-up, lease line, T1/E1, *DSL and Broadband) and U interface ISDN lines, use OVR KT1 (or OVR KT1/PTC) and OVR K10T1 (or OVR K10T1/PTC)
- Protect single lines with OVR KT1 or OVR KT1/PTC
- Protect all ten lines on a disconnection module with OVR K10T1 or OVR K10T1/PTC

Installation

Install protectors on all lines that enter or leave each building (including extensions to other buildings). Identify the lines requiring protection and plug-in the protector (ensuring the correct orientation) for a series connection. Plug OVR K10T1 or OVR K10T1/PTC directly into each disconnection module requiring protection.

OVR KT1 and OVR KT1/PTC must be installed via the OVR KE10 earth bar. Clip an OVR KE10 on to the disconnection module and plug an OVR KT1 or OVR KT1/PTC in to each line on the module that needs protecting. In the unlikely situation that the protector is damaged, it will sacrifice itself and fail short circuit, taking the line out of commission, indicating it needs replacing and preventing subsequent transients from damaging equipment.

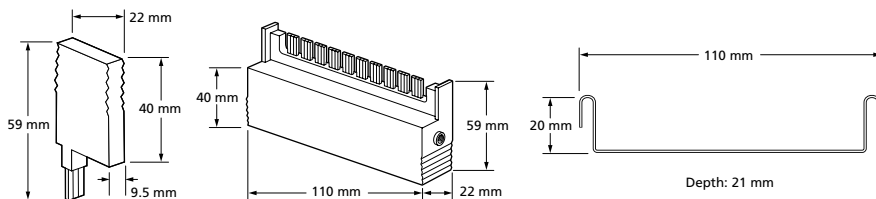
For further information on global telephony applications, see separate Application Note OVR AN005 (contact us for a copy).

NOTE: For individual telephone lines and lines at unmanned sites the high performance OVR TN or plug-in OVR TN/JP or OVR TN/RJ11 Series should be used. For plug-in S/T interface ISDN protection, use the ISDN Series protectors.

OVR KT & KE Series - Technical specification

Electrical specification		OVR KT1	OVR KT1/PTC	OVR K10T1	OVR K10T1/PTC	
ABB order code		7TCA085400R0305	7TCA085400R0306	7TCA085400R0307	7TCA085400R0410	
Maximum working voltage $U_c^{(1)}$	– line to line – line to earth	296 V 296 V	296 V 296 V	296 V 296 V	296 V 296 V	
Current rating (signal)		300 mA	145 mA	300 mA	145 mA	
In-line resistance (per line $\pm 10\%$)		4.4 Ω				
Bandwidth (-3 dB 50 Ω system)		20 MHz				
Transient specification		OVR KT1	OVR KT1/PTC	OVR K10T1	OVR K10T1/PTC	
Let-through voltage (all conductors)⁽²⁾ Up						
C2 test 4 kV 1.2/50 μ s, 2 kA 8/20 μ s to	– line to line	395 V	395 V	395 V	395 V	
BS EN/EN/IEC 61643-21	– line to earth	395 V	395 V	395 V	395 V	
C1 test 1 kV, 1.2/50 μ s, 0.5 kA 8/20 μ s to	– line to line	390 V	390 V	390 V	390 V	
BS EN/EN/IEC 61643-21	– line to earth	390 V	390 V	390 V	390 V	
B2 test 4 kV 10/700 μ s to	– line to line	298 V	298 V	298 V	298 V	
BS EN/EN/IEC 61643-21	– line to earth	298 V	298 V	298 V	298 V	
5 kV, 10/700 μ s ⁽³⁾	– line to line – line to earth	300 V 300 V	300 V 300 V	300 V 300 V	27 V 80 V	
Maximum surge current⁽⁴⁾						
D1 test 10/350 μ s to	– line to line	1 kA				
BS EN/EN/IEC 61643-21:	– line to earth	2 kA				
8/20 μ s to ITU-T K.45:2003,	– line to line	5 kA				
IEEE C62.41.2:2002:	– line to earth	10 kA				
Power Faults specification		OVR KT1	OVR KT1/PTC	OVR K10T1	OVR K10T1/PTC	
Power/Line Cross and Power Induction - tests to: ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, UL 60950/IEC 950						
Power/line cross	–	110/230 Vac (15 min)		–	110/230 Vac (15 min)	
Power induction	–	600 V, 1 A (0.2 sec)		–	600 V, 1 A	
Mechanical specification		OVR KT1, OVR KT1/PTC		OVR K10T1, OVR K10T1/PTC		OVR KE10
Temperature range		-40 to +80 °C				–
Connection type		To LSA-PLUS disconnection modules (BT part number 237A)				–
Earth connection		Via OVR KE10 earth bar		Via integral earth clip/external M4 bush		–
Material		FR Polymer UL-94 V-0				Stainless Steel
Weight: – Unit		0.01 kg		0.10 kg		0.01 kg
– Packaged		0.12 kg (per 10)		0.12 kg		0.10 kg (per 10)
Dimensions		See diagram below				

⁽¹⁾ Maximum working voltage (DC or AC peak) at 10 μ A for OVR KT1, OVR KT1/PTC, OVR K10T1, OVR K10T1/PTC
⁽²⁾ The maximum transient voltage let-through of the protector throughout the test ($\pm 10\%$), line to line & line to earth, both polarities. Response time < 10 ns
⁽³⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)
⁽⁴⁾ The installation and connections external to the protector may limit the capability of the protector



Telecoms & computer line protection

OVR TN/RJ11 & ISDN/RJ45 Series



LPZ 0 → 3	FULL MODE Bonding + Equipment Protection	SIGNAL/ TELECOM TEST CAT D + C + B	ENHANCED Low let-through voltage	LOW IN-LINE RESISTANCE 4.4 Ω	CURRENT RATING 300 mA
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Combined Category D, C, B tested protector (to BS EN 61643) suitable to protect telephony equipment plugged into a Modem (RJ11) or ISDN (RJ45) socket. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

4

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Substantial earth connection to enable effective earthing
- Supplied in a sturdy ABS housing ready for flat mounting, or vertically via TS35 'Top Hat' DIN rail
- OVR TN/RJ11-2/6, OVR TN/RJ11-4/6 and OVR TN/RJ11-6/6 are suitable for telecommunication applications in accordance with Telcordia and ANSI Standards (see Application Note OVR AN005)

Application

- For PSTN (e.g. POTS, dial-up, lease line, T1/E1, *DSL and Broadband) use TN/RJ11
 - OVR TN/RJ11... are suitable for use on telephone lines with a maximum (or ringing) voltage of up to 296 Volts
 - For telephone lines with RJ11 connections protect the middle 2 (of 6) conductors with OVR TN/RJ11-2/6, the middle 4 (of 6) with OVR TN/RJ11-4/6 or all 6 with OVR TN/RJ11-6/6
 - For S/T interface ISDN lines, use OVR ISDN/RJ45-4/8 and OVR ISDN/RJ45-8/8
 - For S/T interface ISDN lines with RJ45 connections protect the middle 4 (of 8) conductors (paired 3&6, 4&5) with OVR ISDN/RJ45-4/8, or all 8 (outside pairs 1&2, 7&8) with OVR ISDN/RJ45-8/8
- For further information on RJ45 ISDN applications, see separate Application Note OVR AN002 and for global telephony applications, see separate Application Note OVR AN005 (contact us for a copy).

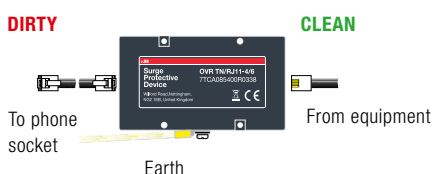
Installation

Connect in series with the telephone or ISDN line. These units are usually installed close to the equipment being protected and within a short distance of a good electrical earth.

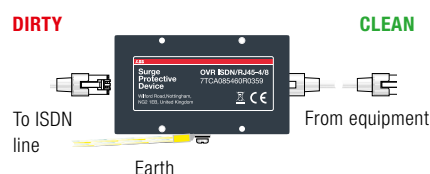
Accessories

- OVR CAT5e/UTP-1**
1 metre cable with RJ45 connections

Plug-in series connection for OVR TN/RJ11-2/6, 4/6 & 6/6



Plug-in series connection for OVR ISDN/RJ45-4/8 & 8/8



NOTE: For non-ISDN wire-in applications the high performance OVR TN, OVR SLTN or OVR TNQ can be used. Protect PBX telephone exchanges and other equipment with LSA-PLUS connections using OVR KT series.

OVR TN/RJ11 & ISDN/RJ45 Series - Technical specification

Electrical specification	OVR TN/ RJ11-2/6	OVR TN/ RJ11-4/6	OVR TN/ RJ11-6/6	OVR ISDN/ RJ45-4/8	OVR ISDN/ RJ45-8/8	
ABB order code	7TCA085400R0337	7TCA085400R0338	7TCA085400R0339	7TCA085460R0359	7TCA085460R0360	
Nominal voltage	296 V	296 V	296 V	5 V	5 V/58 V ⁽²⁾	
Maximum working voltage $U_c^{(1)}$	296 V	296 V	296 V	58 V	58 V	
Current rating (signal)	300 mA					
In-line resistance (per line $\pm 10\%$)	4.4 Ω					
Bandwidth (-3 dB 50 Ω system)	20 MHz	20 MHz	20 MHz	19 MHz	19 MHz	
Transient specification	OVR TN/ RJ11-2/6	OVR TN/ RJ11-4/6	OVR TN/ RJ11-6/6	OVR ISDN/ RJ45-4/8	OVR ISDN/ RJ45-8/8	
Let-through voltage (all conductors)⁽³⁾ Up						
C2 test 4 kV 1.2/50 μs , 2 kA 8/20 μs to	– line to line	395 V	395 V	395 V	28 V	28 V/88 V ⁽⁵⁾
BS EN/EN/IEC 61643-21	– line to earth	395 V	395 V	395 V	88 V	88 V
C1 test 1 kV, 1.2/50 μs , 0.5 kA 8/20 μs to	– line to line	390 V	390 V	390 V	23 V	23 V/63 V ⁽⁵⁾
BS EN/EN/IEC 61643-21	– line to earth	390 V	390 V	390 V	63 V	63 V
B2 test 4 kV 10/700 μs to	– line to line	298 V	298 V	298 V	26 V	26 V/65 V ⁽⁵⁾
BS EN/EN/IEC 61643-21	– line to earth	298 V	298 V	298 V	65 V	65 V
5 kV, 10/700 μs^4	– line to line	300 V	300 V	300 V	27 V	27 V/80 V ⁽⁵⁾
	– line to earth	300 V	300 V	300 V	80 V	80 V
Maximum surge current⁽⁶⁾						
D1 test 10/350 μs to BS EN/EN/IEC 61643-21	1 kA					
8/20 μs to ITU-T K.45:2003, IEEE C62.41.2:2002:	10 kA					
Mechanical specification	OVR TN/ RJ11-2/6	OVR TN/ RJ11-4/6	OVR TN/ RJ11-6/6	OVR ISDN/ RJ45-4/8	OVR ISDN/ RJ45-8/8	
Temperature range	-40 to +80 °C					
Connection type	RJ11 plug and socket	RJ11 plug and socket	RJ11 plug and socket	RJ45 plug and socket	RJ45 plug and socket	
Earth connection	M4/DIN rail					
Case Material	FR Polymer UL-94 V-0					
Weight: – Unit	0.15 kg					
– Packaged	0.2 kg					
Dimensions	See diagram below					

⁽¹⁾ Maximum working voltage (DC or AC peak) measured at < 10 μA leakage for OVR TN/RJ11 products and < 5 μA for OVR ISDN/RJ45 products

⁽²⁾ Maximum working voltage is 5 V for pairs 3/6 & 4/5, and 58 V for pairs 1/2 & 7/8

⁽³⁾ The maximum transient voltage let-through of the protector throughout the test ($\pm 10\%$), line to line & line to earth, both polarities. Response time < 10 ns

⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)

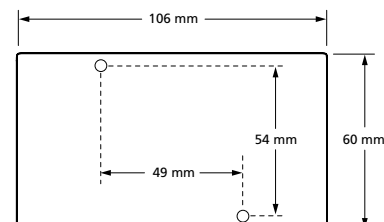
⁽⁵⁾ The first let-through voltage value is for pairs 3/4 & 5/6, and the second value is for pairs 1/2 & 7/8

⁽⁶⁾ The installation and connectors external to the protector may limit the capability of the protector

OVR ISDN/RJ45-4/8, 8/8
cable length: 0.5 m



OVR TN/RJ11-2/6, 4/6, 6/6
cable length: 1 m



Depth: 24 mm
Fixing centres 49 x 54 mm, M3 clearance

Data & signal protection

OVR TN, TNQ & SL TN Series

4



FULL MODE Bonding + Equipment Protection	OVR SLTN ULTRA SLIM 7 mm WIDTH	LPZ 0 → 3	ENHANCED Low let-through voltage	OVR TNQ ULTRA COMPACT 18 mm WIDTH
SIGNAL/TELECOM TEST CAT D + C + B	LOW IN-LINE RESISTANCE	HIGH BANDWIDTH		

Combined Category D, C, B tested protector (to BS EN 61643) specifically designed for telecommunications applications in accordance with Telcordia and ANSI standards (see Application Note OVR AN005). For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3. Available as standard OVR TN format, or compact OVR TNQ and Slim Line OVR SL TN versions for installations where a high number of lines require protection.

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- 20 MHz bandwidth greatly exceeds VDSL2+ (50Mbps ~ 7MHz) maximum speeds
- Low in-line resistance minimizes reductions in signal strength
- Built-in DIN rail foot for simple mounting to top hat DIN rails
- Convenient earthing through DIN foot and/or earth terminal
- OVR TN can be flat mounted on base or side
- OVR TN and OVR TNQ have colour coded terminals for quick and easy installation check
- OVR SL TN has ultra slim 7 mm width ideal for compact protection of large numbers of lines (e.g. process control installations)
- OVR SL TN includes two stage removable protection module with simple quick release mechanism allowing partial removal for easy line commissioning and maintenance as well as full removal for protection replacement
- OVR SL TN includes optional LED status indication (add L suffix to part number - i.e. OVR SL TNL)

Application

Connect in series with the signal line either near where it enters or leaves the building or close to the equipment being protected ensuring it is very close to the system's earth star point. Install protectors either within an existing cabinet/ cubicle or in a separate enclosure.

Accessories

Replacement module for OVR SL TN:
OVR SL4/M
Standard module replacement

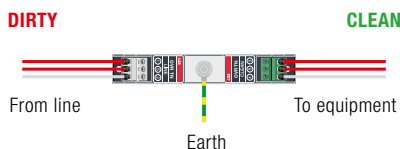
Combined Mounting/Earthing kits for OVR RS485:

- OVR CME 4** For up to 4 x OVR TN
- OVR CME 8** For up to 8 x OVR TN
- OVR CME 16** For up to 16 x OVR TN
- OVR CME 32** For up to 32 x OVR TN

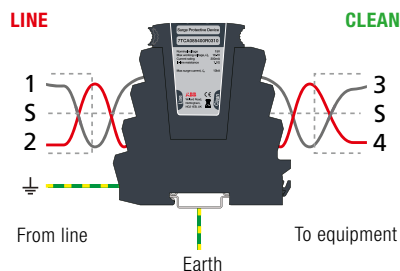
If protectors cannot be incorporated within an existing panel or enclosure, OVR WBX enclosures are available for up to 4, 8, 16 or 32 protectors and their associated OVR CME kit.

Weatherproof enclosure:
OVR WBX SLQ (OVR SLTN and OVR TNQ)

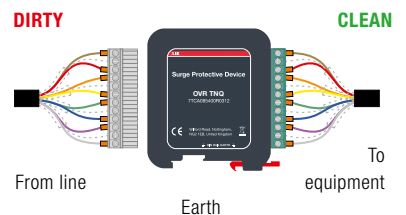
OVR TN installed in series



OVR SL TN installed in series



OVR TNQ installed in series (in-line)



NOTE: The OVR KT Series is also available for telecommunications application using LSA-PLUS disconnection modules. Plug-in solutions are also available for RJ11 connections (see OVR TN RJ11 Series).

OVR TN, TNQ & SL TN Series - Technical specification

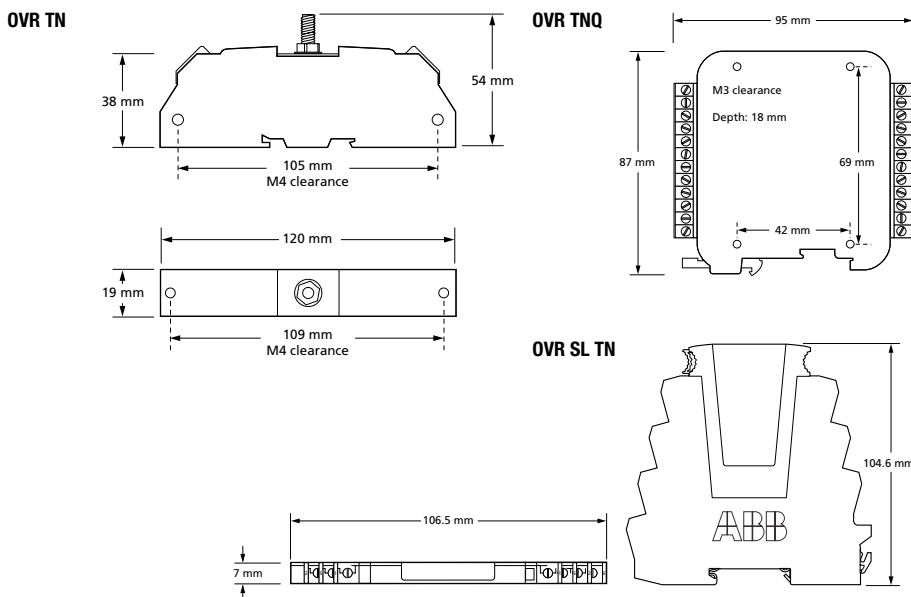
Electrical specification	OVR TN	OVR SL TN, OVR SL TNL	OVR TNQ
ABB order code	7TCA085400R0345	7TCA085400R0323, 7TCA085400R0418	7TCA085400R0344
Nominal voltage ⁽¹⁾	-		
Maximum working voltage U _c (RMS/DC) ⁽²⁾	-/296 V		
Current rating (signal)	300 mA		
In-line resistance (per line ±10%)	4.4 Ω		
Bandwidth (-3 dB 50 Ω system)	20 MHz		
Transient specification	OVR TN	OVR SL TN, OVR SL TNL	OVR TNQ
Let-through voltage (all conductors)⁽³⁾ Up			
C2 test 4 kV 1.2/50 μs, 2 kA 8/20 μs to BS EN/EN/IEC 61643-21	395 V		
C1 test 1 kV, 1.2/50 μs, 0.5 kA 8/20 μs to BS EN/EN/IEC 61643-21	390 V		
B2 test 4 kV 10/700 μs to BS EN/EN/IEC 61643-21	298 V		
5 kV, 10/700 μs ⁽⁴⁾	300 V		
Maximum surge current			
D1 test 10/350 μs to - Per signal wire	2.5 kA	1.25 kA	2.5 kA
BS EN/EN/IEC 61643-21: - Per pair	5 kA	2.5 kA	5 kA
8/20 μs to ITU-T K.45:2003, - Per signal wire	10 kA		
IEEE C62.41.2:2002: - Per pair	20 kA		
Mechanical specification	OVR TN	OVR SL TN, OVR SL TNL	OVR TNQ
Temperature range	-40 to +80 °C		
Connection type	Screw terminal - max. torque 0.5 Nm	Screw terminal - max. torque 0.8 N	Pluggable 12 way screw terminal
Conductor size (stranded)	2.5 mm ²	4 mm ²	2.5 mm ²
Earth connection	M6 stud	Via DIN rail or 4 mm ² earth terminal - max. torque 0.8 Nm	Via DIN rail or M5 threaded hole in base of unit
Case Material	FR Polymer UL-94 V-0		
Weight: - Unit	0.08 kg		0.1 kg
- Packaged (per 10)	0.85 kg		1.3 kg
Dimensions	See diagram below		

⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at < 10 μA

⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at < 5 mA

⁽³⁾ The maximum transient voltage let-through of the protector throughout the test (±10%), line to line & line to earth, both polarities. Response time < 10 ns

⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)



Telecom & computer line protection

OVR Cat-5 & Cat-6 Series



LPZ 0 → 3	FULL MODE Bonding + Equipment Protection	SIGNAL/ TELECOM TEST CAT D + C + B	ENHANCED Low let-through voltage	LOW IN-LINE RESISTANCE 1.5 Ω	HIGH CURRENT RATING	PoE+ Compliant IEEE 802.3at	PoE Modes A & B
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Combined Category D, C, B tested protector (to BS EN 61643) suitable to protect twisted pair Ethernet networks, including Power over Ethernet (PoE), with RJ45 connections. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

4

Features & benefits

- Suitable for systems signalling on up to eight wires of either shielded or unshielded twisted pair cable
- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Unlike some competing devices, the ethernet SPDs provide effective protection without impairing the system's normal operation

- Low capacitance circuitry prevents the start-up signal degradation associated with other types of network protector
- Low in-line resistance minimizes unnecessary reductions in signal strength to maximize signalling distance
- Sturdy ABS housing with convenient holes for flat mounting, or vertically via TS35 'Top Hat' DIN rail
- Substantial earth connection to enable effective earthing
- Will protect all PoE powering modes A and B.

Application

Use these protectors on network cables that travel between buildings to prevent damage to equipment, e.g. computers, servers, repeaters and hubs. Suitable for computer networks up to Cat-6A cabling.

- To protect up to 100baseT networks with Cat-5/Cat-5e cabling use OVR Cat-5e
- To protect up to 1000baseT/10GbaseT networks with Cat-6/Cat-6A cabling use OVR Cat-6

- To protect up to 100baseT Power over Ethernet (PoE) networks with Cat-5/Cat-5e use OVR Cat-5e/PoE
- To protect up to 1000baseT/10GbaseT Power over Ethernet (PoE) networks with Cat-6/Cat-6A cabling use OVR Cat-6/PoE

For further application information, see separate Application Note OVR AN004 (contact us for a copy).

Installation

Connect in series with the network cable, either:

- Near to where it enters or leaves the building, or
- As it enters the network hub, or
- Close to the equipment being protected

This should be close to the system's earth star point (to enable a good connection to earth).

Accessories

OVR CAT5e/UTP-1

1 metre cable with unshielded RJ45 connections

OVR CAT6/STP-2

2 metre screened cable with shielded RJ45 connections

Plug-in series connection



TECHNICAL NOTE: The interfaces used in Ethernet networks incorporate an isolation transformer which gives these systems an inbuilt immunity to transients between line and earth of 1,500 Volts or more.

NOTE: To protect datacomms systems based on twisted pairs, use the OVR D, E or H Series. Local protection for networked equipment is also available.

OVR Cat-5 & Cat-6 Series - Technical specification

Electrical Specification	OVR Cat-5e	OVR Cat-5e/PoE	OVR Cat-6	OVR Cat-6/PoE
ABB order code	7TCA085400R0289	7TCA085400R0290	7TCA085400R0291	7TCA085400R0292
Maximum working voltage $U_c^{(1)}$	5 V	58 V	–	58 V
Current rating	300 mA	600 mA ⁽⁴⁾	300 mA	600 mA ⁽⁴⁾
In-line resistance (per line $\pm 25\%$)	1.5 Ω	1.5 Ω	–	–
Maximum data rate	100 Mbps	100 Mbps	1000 Mbps	1000 Mbps
Networking standards:	10/100baseT TIA Cat-5e IEEE 802.3i IEEE 802.3u – – –	10/100baseT TIA Cat-5/PoE IEEE 802.3i IEEE 802.3u IEEE 802.3af – –	10/100/1000/ 10GbaseT TIA Cat-6 IEEE 802.3i IEEE 802.3u IEEE 802.3ab IEEE 802.3an – –	10/100/1000/ 10GbaseT TIA Cat-6 IEEE 802.3i IEEE 802.3u IEEE 802.3ab IEEE 802.3an IEEE 802.3af IEEE 802.3at
Transient specification	OVR Cat-5e	OVR Cat-5e/PoE	OVR Cat-6	OVR Cat-6/PoE
Let-through voltage (all conductors)⁽⁵⁾ Up				
C2 test 4 kV 1.2/50 μ s, 2 kA 8/20 μ s to BS EN/EN/IEC 61643-21	– line to line – line to earth ⁽⁶⁾	120 V 700 V	120 V/116 V ⁽⁶⁾ 700 V	120 V 700 V
C1 test 1 kV, 1.2/50 μ s, 0.5 kA 8/20 μ s to BS EN/EN/IEC 61643-21	– line to line – line to earth ⁽⁶⁾	74 V 600 V	74 V/95 V ⁽⁶⁾ 600 V	74 V 600 V
B2 test 4 kV 10/700 μ s to BS EN/EN/IEC 61643-21	– line to line – line to earth ⁽⁶⁾	21 V 550 V	21 V/87 V ⁽⁶⁾ 550 V	21 V 550 V
5 kV, 10/700 μ s ⁽⁷⁾	– line to line – line to earth ⁽⁶⁾	25 V 600 V	25 V/90 V ⁽⁶⁾ 600 V	25 V 600 V
Maximum surge current⁽⁹⁾				
D1 test 10/350 μ s to BS EN/EN/IEC 61643-21	1 kA	1 kA	1 kA	1 kA
8/20 μ s to ITU-T K.45:2003, IEEE C62.41.2:2002	10 kA	10 kA	10 kA	10 kA
Mechanical specification	OVR Cat-5e, OVR Cat-5e/PoE		OVR Cat-6, OVR Cat-6/PoE	
Temperature range	-40 to +80 °C			
Connection type	RJ45 sockets			
Cable (supplied)	0.5 m Cat-5e UTP patch lead		0.5 m Cat-6 STP patch lead	
Earth connection	M4/DIN rail			
Case Material	FR Polymer UL-94 V-0			
Weight: – Unit	0.15 kg			
– Packaged	0.2 kg			
Dimensions	See diagram below			

⁽¹⁾ Maximum working voltage (DC or AC peak) measured at 1 mA leakage

⁽²⁾ Data pairs 1/2 and 3/6 are protected as standard. Pairs 4/5 and 7/8 are also protected on Cat-6 barriers

⁽³⁾ PoE protectors transmit power Mode A and Mode B power

⁽⁴⁾ Based on 30W of transmitted PSE power, to IEEE 802.3at.

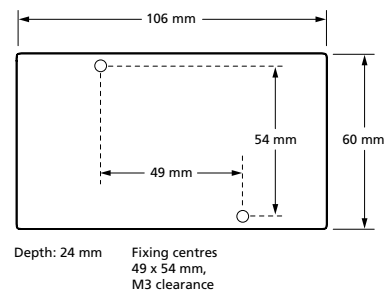
⁽⁵⁾ The maximum transient voltage let-through of the protector throughout the test ($\pm 10\%$), line to line & line to earth. Response time <10 ns (on all protected pairs)

⁽⁶⁾ The interfaces used in network systems incorporate an isolation transformer that inherently provides an inbuilt immunity to transients between line and earth of 1,500 Volts or more

⁽⁷⁾ Test to IEC 61000-4-5:2014, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 6:2011, ANSI TIA/EIA/IS-968-A:2005 (formerly FCC Part 68).

⁽⁸⁾ The first number is for the data pair, with the second number for the power pair

⁽⁹⁾ The installation and connectors may limit the capability of the protector



Data & signal protection

OVR RS485, RS485Q & SL RS485 Series

4



FULL MODE Bonding + Equipment Protection	OVR SL RS485 ULTRA SLIM 7 mm WIDTH	LPZ 0 → 3	ENHANCED Low let-through voltage	OVR RS485Q ULTRA COMPACT 18 mm WIDTH
SIGNAL/TELECOM TEST CAT D + C + B	LOW IN-LINE RESISTANCE	HIGH BANDWIDTH		

Combined Category D, C, B tested protector (to BS EN 61643) specifically designed for RS 485 and Fieldbus applications, such as Profibus DP. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3. Available as standard OVR RS485 format, or compact OVR RS485Q and Slim Line OVR SL RS485 versions for installations where a high number of lines require protection.

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- 45 MHz bandwidth greatly exceeds 12 Mbps maximum speeds
- Low in-line resistance minimizes reductions in signal strength
- Suitable for earthed or isolated screen systems
- Built-in DIN rail foot for simple mounting to top hat DIN rails
- Convenient earthing through DIN foot and/or earth terminal
- OVR RS485 can be flat mounted on base or side
- OVR RS485 and OVR RS485Q have colour coded terminals for quick and easy installation check
- OVR SL RS485 has ultra slim 7 mm width ideal for compact protection of large numbers of lines (e.g. process control installations)
- OVR SL RS485 includes two stage removable protection module with simple quick release mechanism allowing partial removal for easy line commissioning and maintenance as well as full removal for protection replacement
- OVR SL RS485 includes optional LED status indication
- Add L suffix to part number - i.e. OVR SL RS485L

Application

Connect in series with the signal line either near where it enters or leaves the building or close to the equipment being protected ensuring it is very close to the system's earth star point. Install protectors either within an existing cabinet/cubicle or in a separate enclosure.

Accessories

Replacement module for OVR SL RS485:

- OVR SLRS485/M**
Standard module replacement
- OVR SLRS485/B**
Base replacement

If protectors cannot be incorporated within an existing panel or enclosure, OVR WBX enclosures are available for up to 4, 8, 16 or 32 protectors and their associated OVR CME kit.

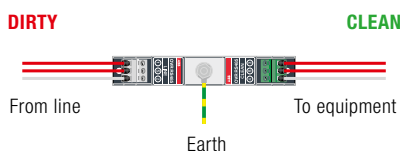
Combined Mounting/Earthing kits for OVR RS485:

- OVR CME 4** For up to 4 x OVR RS485
- OVR CME 8** For up to 8 x OVR RS485
- OVR CME 16** For up to 16 x OVR RS485
- OVR CME 32** For up to 32 x OVR RS485

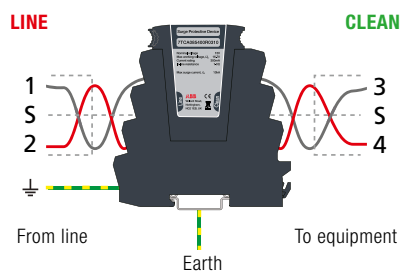
Weatherproof enclosure:

- OVR WBX SLQ (OVR SL RS485 and OVR RS485Q)**

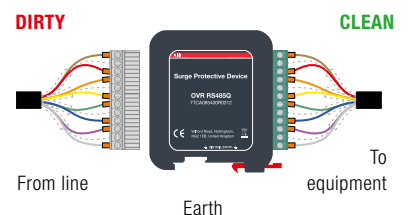
OVR RS485 installed in series



OVR SL RS485 installed in series



OVR RS485Q installed in series (in-line)



NOTE: The OVR SL 'Slim Line' Series is also available for protection of 3-wire and RTD applications (OVR SL/3W & OVR SL RTD). The OVR SL X Series has approvals for use in hazardous areas.

OVR RS485, RS485Q & SL RS485 Series - Technical specification

Electrical specification	OVR RS485	OVR SL RS485	OVR RS485Q	
ABB order code	7TCA085400R0311	7TCA085400R0310	7TCA085400R0312	
Nominal voltage ⁽¹⁾	15 V			
Maximum working voltage U _c (RMS/DC) ⁽²⁾	11 V/16.7 V			
Current rating (signal)	300 mA			
In-line resistance (per line ±10%)	1 Ω			
Bandwidth (-3 dB 50 Ω system)	45 MHz			
Transient specification	OVR RS485	OVR SL RS485	OVR RS485Q	
Let-through voltage (all conductors)⁽³⁾ U_p				
C2 test 4 kV 1.2/50 μs, 2 kA 8/20 μs to BS EN/EN/IEC 61643-21	55.0 V			
C1 test 1 kV, 1.2/50 μs, 0.5 kA 8/20 μs to BS EN/EN/IEC 61643-21	42.0 V			
B2 test 4 kV 10/700 μs to BS EN/EN/IEC 61643-21	27.2 V			
5 kV, 10/700 μs ⁽⁴⁾	28.2 V			
Maximum surge current				
D1 test 10/350 μs to BS EN/EN/IEC 61643-21:	- Per signal wire	2.5 kA	1.25 kA	2.5 kA
8/20 μs to ITU-T K.45:2003, IEEE C62.41.2:2002:	- Per pair	5 kA	2.5 kA	5 kA
	- Per signal wire	10 kA		
	- Per pair	20 kA		
Mechanical specification	OVR RS485	OVR SL RS485	OVR RS485Q	
Temperature range	-40 to +80 °C			
Connection type	Screw terminal - max. torque 0.5 Nm	Screw terminal - max. torque 0.8 N	Pluggable 12 way screw terminal	
Conductor size (stranded)	2.5 mm ²	4 mm ²	2.5 mm ²	
Earth connection	M6 stud	Via DIN rail or 4 mm ² earth terminal - max. torque 0.8 Nm	Via DIN rail or M5 threaded hole in base of unit	
Case Material	FR Polymer UL-94 V-0			
Weight: - Unit	0.08 kg		0.1 kg	
- Packaged (per 10)	0.85 kg		1.3 kg	
Dimensions	See diagram below			

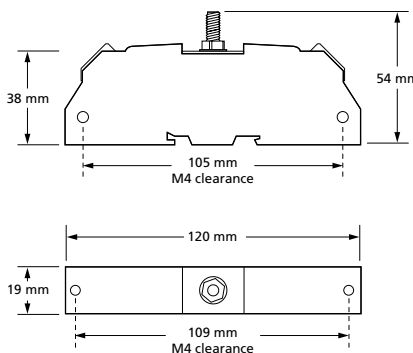
⁽¹⁾ Nominal voltage (RMS/DC or AC peak) measured at < 10 μA

⁽²⁾ Maximum working voltage (RMS/DC or AC peak) measured at < 5 mA

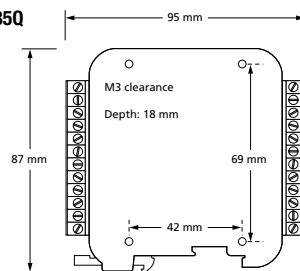
⁽³⁾ The maximum transient voltage let-through of the protector throughout the test (±10%), line to line & line to earth, both polarities. Response time < 10 ns

⁽⁴⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)

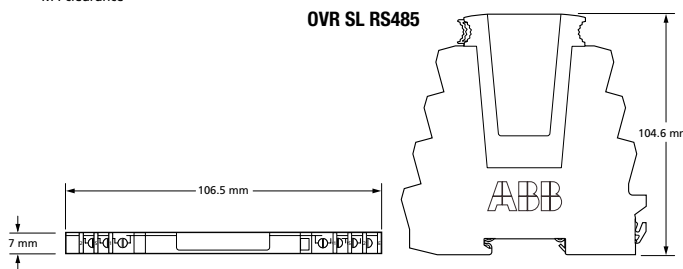
OVR RS485



OVR RS485Q



OVR SL RS485



Specific systems protection

OVR RF Series



FULL MODE
Bonding +
Equipment
Protection

LPZ
0 → 3

ENHANCED
Low let-through
voltage

**SIGNAL/
TELECOM**
TEST CAT
D + C + B

HIGH
BANDWIDTH

Combined Category D, C, B tested protector (to BS EN 61643) suitable for RF systems using coaxial cables at frequencies between DC and 2.7 GHz and where DC power is present. Suitable for RF systems with power up to 1.9 kW. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

4

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Wide bandwidth means a single product is suitable for a range of applications
- Very low attenuation and near unity VSWR over a wide range of frequencies ensure the protectors do not impair system performance
- Available with N, 7/16 DIN and BNC connectors
- Easily mounted and earthed via fixtures on the base of the unit that accept M3 and M5 screws or via mounting brackets
- Additional mounting plates give increased flexibility
- Robust aluminium housing

Application

Use on coaxial cables to protect RF transmitter and receiver systems, including electronics located at the antenna or dish. Typical examples include cell sites, military communications, satellite earth stations, pager systems and emergency services communications systems.

Installation

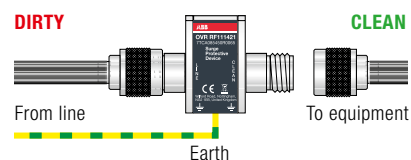
In a building, connect in series with the coaxial cable near where it enters or leaves the structure, or close to the equipment being protected. This should be as close as possible to the system's earth star point (to enable a good connection to earth). On a mast, connect in series with the coaxial cable near the antenna/dish being protected. Install in a radio communications room, an existing cabinet or a suitable enclosure.

Accessories

OVR RF BK1 Straight mounting plates
OVR RF BK2 90° angled mounting plates
OVR RF BK3 Bulkhead through mounting plate (single)

OVR RF BK4 Bulkhead through mounting plate (for 4 products)
OVR RF GDT-4 Replacement gas discharge tube

OVR RF 111421 with N female connectors installed in series



NOTE: These protectors are based on a continuous transmission line with a GDT connected between this line and screen/earth, and are suited for applications where DC is required to pass to the equipment. OVR CCTV/B and OVR CCTV/T are suitable for use on coaxial (or twisted pair) CCTV lines. For coaxial CATV lines, use the OVR CATV/F.

OVR RF Series - Technical specification

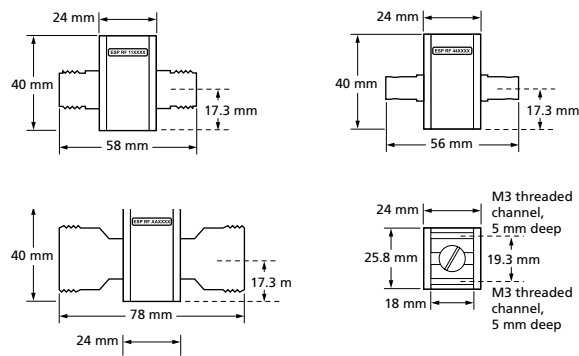
Electrical specification		OVR RF 111421, OVR RF AA1421, OVR RF 441421		
Gas Discharge Tube voltage	350 V			
Maximum working voltage U_c (RMS)	200 V			
Characteristic impedance	50 Ω			
Bandwidth	DC-2.7 GHz			
Voltage standing wave ratio	≤ 1.1			
Insertion loss over bandwidth	≤ 0.1 dB			
Maximum power ⁽¹⁾	650 W			
Transient specification		OVR RF 111421, OVR RF AA1421, OVR RF 441421		
Let-through voltage (all conductors) ⁽²⁾ Up				
C2 test 4 kV 1.2/50 μ s, 2 kA 8/20 μ s to BS EN/EN/IEC 61643-21	< 800 V			
C1 test 1 kV 1.2/50 μ s, 0.5 kA 8/20 μ s to BS EN/EN/IEC 61643-21	< 650 V			
B2 test 4 kV 10/700 μ s to BS EN/EN/IEC 61643-21	< 550 V			
5 kV, 10/700 μ s ⁽³⁾	< 580 V			
Maximum surge current ⁽⁴⁾				
D1 test 10/350 μ s to BS EN/EN/IEC 61643-21	2.5 kA			
8/20 μ s to ITU-T K.45:2003, IEEE C62.41.2:2002	20 kA			
Mechanical specification		OVR RF 111421	OVR RF AA1421	OVR RF 441421
ABB order code		7TCA085450R0065	7TCA085450R0063	7TCA085450R0066
Temperature range		-40 to +80 °C		
Connection type		N female	7/16 DIN female	BNC female
Conductor size (stranded)		Via mounting fixtures		
Case Material		Aluminium body, nickel plated. Brass connectors, white bronze plated		
Weight: – Unit	120 g	190 g	90 g	
– Packaged	140 g	210 g	110 g	
Dimensions	See diagram below			

⁽¹⁾ Power levels have been de-rated to allow for real life 'worst case' conditions, calculated with VSWR as 2:1

⁽²⁾ The maximum transient voltage let-through of the protector throughout the test ($\pm 10\%$). Response time < 10 ns. This let-through voltage represents a deviation from the applied signal voltage, present at the time of the test

⁽³⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)

⁽⁴⁾ The installation and connections external to the protector may limit the capability of the protector



OVR RF BK1 (ABB order code: 7TCA085400R0416)

Straight mounting bracket, 53 x 26.3 x 3 mm

2 x M4 clearance mounting holes, 16.3 mm apart

OVR RF BK2 (ABB order code: 7TCA085400R0064)

90° mounting bracket, 33 x 26.3 x 3 mm, 20 x 26.3 x 3 mm

2 x M4 clearance mounting holes, 16.3 mm apart, 14 mm from fold line

OVR RF BK3 (ABB order code: 7TCA085400R0412)

90° mounting bracket, 50 x 24 x 1.5 mm, 60 x 24 x 1.5 mm

2 x M5 clearance mounting holes, 40 mm apart

OVR RF BK4 (ABB order code: 7TCA085400R0413)

90° quad mounting bracket, 50 x 24 x 1.5 mm, 210 x 24 x 1.5 mm

5 x M5 clearance mounting holes, various spacings

Mounting brackets supplied with screws for fixing to protector

Specific systems protection

OVR CCTV Series



4

LPZ 0 → 3	FULL MODE Bonding + Equipment Protection	HIGH BANDWIDTH	SIGNAL/ TELECOM TEST CAT D + C + B	ENHANCED Low let-through voltage
LOW IN-LINE RESISTANCE 1 Ω	CURRENT RATING 300 mA			

Combined Category D, C, B tested protector (to BS EN 61643) suitable for coaxial CCTV cables with BNC connectors (OVR CCTV/B) or twisted pair CCTV lines (OVR CCTV/T) on systems with either an earthed or an isolated screen. Not suitable for use on broadcast, satellite or cable TV systems. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- 100 MHz bandwidth prevents the degradation of high frequency signals
- Low in-line resistance to minimize unnecessary reductions in signal strength and maximizes signalling distance
- Very low reflection coefficient/VSWR ensure that the protector doesn't disrupt system operations

- Suitable for either earthed or isolated screen systems
- Sturdy, conductive ABS housing for 2 way shielding - preventing emissions & providing signals with immunity from external interference
- Convenient holes for flat mounting on base or side
- Built-in DIN rail foot for easy installation on a top hat DIN rail
- OVR CCTV/T has colour coded terminals for a quick and easy installation check - grey for the dirty (line) end and green for the clean end
- Substantial earth stud to enable effective earthing
- Integral earthing plate for enhanced connection to earth via OVR CME kit

Application

Use these protectors on the video cable to outdoor CCTV cameras and central control and monitoring equipment.

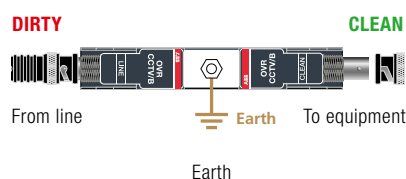
Accessories

When CCTV protectors are installed in groups, or alongside protectors for signal and mains power lines, these can be mounted and earthed simultaneously on a OVR CME kit. An OVR CME 4 will accommodate the video, telemetry and power protectors to a camera. If protectors cannot be incorporated within an existing panel or enclosure, OVR WBX enclosures are available for up to 4, 8, 16 or 32 protectors and their associated OVR CME kit. The OVR WBX 4/GS is a secure IP66 enclosure suitable for a OVR CME 4 and associated protectors.

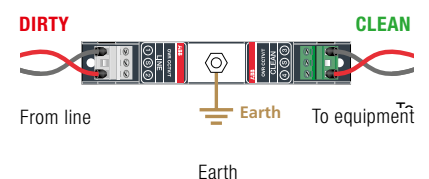
Installation

Connect in series with the CCTV cable in a convenient place close to the equipment being protected. For outdoor CCTV cameras, protectors should be mounted in the junction box, or in a separate enclosure, close to the camera. Protect central control and monitoring equipment inside the building by installing protectors on all incoming or outgoing lines, either: a) near where they enter or leave the building, or b) close to the equipment being protected (or actually within its control panel).

Series connection for OVR CCTV/B



Series connection for OVR CCTV/T

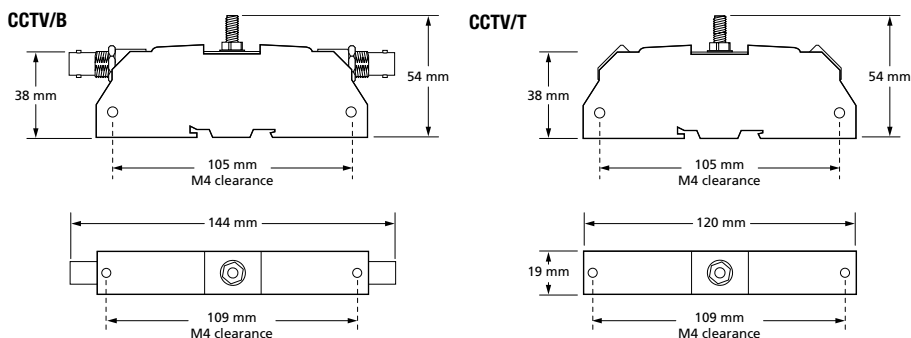


NOTE: Camera telemetry or control lines should be protected with a suitable Lightning Barrier from the OVR D or E Series. Protectors for the power supply to individual cameras (e.g. OVR 240-16A) and the mains supply to the control room are available. For coaxial RF (OVR RF Series) cable protectors and CATV systems (OVR CATV/F) are also available.

OVR CCTV Series - Technical specification

Electrical specification	OVR CCTV/B	OVR CCTV/B-15V	OVR CCTV/B-30V	OVR CCTV/B-50V	OVR CCTV/T	OVR CCTV/T-15V	OVR CCTV/T-30V	OVR CCTV/T-50V
ABB order code	7TCA085400R0296	7TCA085400R0297	7TCA085400R0298	7TCA085400R0300	7TCA085400R0301	7TCA085400R0302	7TCA085400R0298	7TCA085400R0303
Nominal voltage ⁽¹⁾ (peak-peak)	1 V				2 V			
Maximum working voltage U_c ⁽²⁾ (peak)	7.79 V	16.7 V	36.7 V	56.7 V	7.79 V	16.7 V	36.7 V	56.7 V
Current rating (signal)	300 mA							
In-line resistance ($\pm 10\%$)	1 Ω inserted in coax inner				1 Ω per line			
Bandwidth (-3 dB 75 Ω system) ⁽³⁾	> 100 MHz							
Voltage standing wave ratio	< 1.2:1							
Transient specification	OVR CCTV/B	OVR CCTV/B-15V	OVR CCTV/B-30V	OVR CCTV/B-50V	OVR CCTV/T	OVR CCTV/T-15V	OVR CCTV/T-30V	OVR CCTV/T-50V
Let-through voltage (all conductors)⁽⁴⁾ Up								
C2 test 4 kV 1.2/50 μ s, 2 kA 8/20 μ s to BS EN/EN/IEC 61643-21	39.5 V	55.0 V	78.0 V	105.0 V	39.5 V	55.0 V	78.0 V	105.0 V
C1 test 1 kV 1.2/50 μ s, 0.5 kA 8/20 μ s to BS EN/EN/IEC 61643-21	26.0 V	42.0 V	66.5 V	93.5 V	26.0 V	42.0 V	66.5 V	93.5 V
B2 test 4 kV 10/700 μ s to BS EN/EN/IEC 61643-21	16.0 V	27.2 V	47.5 V	73.6 V	16.0 V	27.2 V	47.5 V	73.6 V
5 kV, 10/700 μ s ⁽⁵⁾	17.0 V	28.2 V	49.5 V	76.2 V	17.0 V	28.2 V	49.5 V	76.2 V
Maximum surge current⁽⁶⁾								
D1 test 10/350 μ s to BS EN/EN/IEC 61643-21: - Per signal wire	2.5 kA				2.5 kA			
8/20 μ s to ITU (formerly CCITT): - Per signal wire	10 kA				10 kA			
- Per pair	-				20 kA			
Mechanical specification	OVR CCTV/B variants				OVR CCTV/T variants			
Temperature range	-40 to +80 °C							
Connection type	Coaxial BNC female				Screw terminal			
Conductor size (stranded)	Not applicable				2.5 mm ²			
Earth connection	M6 stud							
Case Material	ABS UL94 V-0				ABS UL94 V-0			
Weight: - Unit	0.08 kg							
- Packaged	0.9 kg							
Dimensions	See diagram below							

⁽¹⁾ Nominal voltage (DC or AC peak) measured at <10 μ A leakage
⁽²⁾ Maximum working voltage (DC or AC peak) measured at 5 mA leakage
⁽³⁾ Capacitance < 30 pF
⁽⁴⁾ The maximum transient voltage let-through of the protector throughout the test ($\pm 10\%$), line to line & line to earth. Screen to earth let-through voltage will be up to 600 V (with 5 kV 10/700 test), when protector is configured for use with non-earthed or isolated screen systems. Response time < 10 ns
⁽⁵⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)
⁽⁶⁾ The installation and connectors external to the protector may limit the capability of the protector



Mains power protection

OVR 240-16A



Combined Type 2 and 3 tested protector (to BS EN 61643) for use on low current (up to 16 A) single phase systems to protect connected electronic equipment from transient overvoltages on the mains supply, e.g. CCTV systems, fire/intruder alarm panels.

4

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all sets of conductors (phase to neutral, phase to earth, neutral to earth - Full Mode protection) allowing continuous operation of equipment
- Repeated protection in lightning intense environments
- Compact size for easy incorporation in the protected system
- Removable DIN rail foot for simple clip-on mounting to top hat DIN rails
- Colour coded terminals give a quick and easy installation check - grey for the dirty (line) end and green for the clean end
- Robust housing and substantial earth stud fixing holes ready for flat mounting
- Maintenance free

Application

Use these protectors on low current mains power supplies, e.g. CCTV cameras, alarm panels and telemetry equipment.

Installation

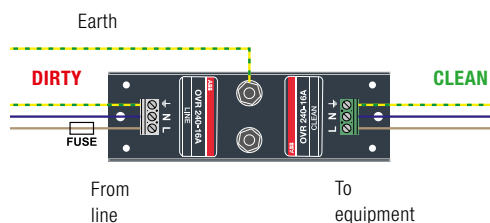
Connect in-line with the power supply usually either within the equipment panel (or for CCTV cameras, in an enclosure close by), or on the fused connection that supplies equipment. To protect equipment inside a building from transients entering on an outgoing feed (e.g. to CCTV cameras or to site lighting) the protector should be installed as close to where the cable leaves the building as possible. Protectors should be installed either within an existing cabinet/cubicle or in a separate enclosure.

Accessories

If several OVR 240-16A protectors are to be installed together, or if one is in use alongside OVR SPDs for video or signal lines, these can be simultaneously mounted and earthed on a OVR CME kit and housed in a suitable OVR WBX enclosure.

Connect in-line on supplies fused up to 16 A.

Note how the protector can also be earthed from its earth stud.



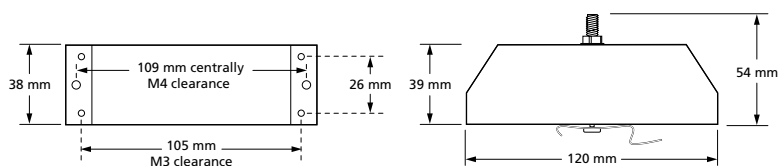
OVR 240-16A - Technical specification

Electrical specification	OVR 240-16A
ABB order code	7TCA085460R0361
Nominal voltage - Phase-Neutral U_0 (RMS)	240 V
Maximum voltage - Phase-Neutral U_c (RMS)	280 V
Working voltage (RMS)	200-280 V
Frequency range	47-63 Hz
Current rating (supply)	16 A or less
Max. back-up fuse (see installation instructions)	≤ 16 A
Leakage current (to earth)	< 0.5 mA
Transient specification	OVR 240-16A
Type 2 (BS EN/EN), Class II (IEC)	
Nominal discharge current 8/20 μ s (per mode) I_n	5 kA
Let-through voltage U_p at I_n ⁽¹⁾	750 V
Maximum discharge current I_{max} (per mode) ⁽²⁾	10 kA
Type 3 (BS EN/EN), Class III (IEC)	
Let-through voltage at U_{oc} of 6 kV 1.2/50 μ s and I_{sc} of 3 kA 8/20 μ s (per mode) ^(1,3)	600 V
Electrical specification	OVR 240-16A
Temperature range	-40 to +80 °C
Connection type	Screw terminal - maximum torque 0.5 Nm
Conductor size (stranded)	4 mm ²
Earth connection	Via M6 stud or earth terminal - maximum torque 0.5 Nm
Degree of protection (IEC 60529)	IP20
Case material	Steel
Weight: – Unit	0.23 kg
– Packaged	0.25 kg
Dimensions	See diagrams below

⁽¹⁾ The maximum transient voltage let-through of the protector throughout the test ($\pm 10\%$), phase to neutral, phase to earth and neutral to earth

⁽²⁾ The electrical system, external to the unit, may constrain the actual current rating achieved in a particular installation

⁽³⁾ Combination wave test within IEC/BS EN 61643, IEEE C62.41-2002 Location Cats C1 & B3, SS 555:2010, AS/NZS 1768-2007, UL 1449 mains wire-in



Specific systems protection

OVR TV Series



Combined Category D, C, B tested protector (to BS EN 61643) suitable to protect Cable, Terrestrial and Satellite TV systems. For use on lines running within buildings at boundaries up to LPZ 0 to through to LPZ 3 to protect sensitive electronic equipment.

4

Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Low attenuation and high return loss over a wide range of frequencies ensures the protectors do not impair system performance
- Substantial earth termination
- Supplied ready for flat mounting
- Strong metal housing

Application

Use to protect analogue and digital Cable, Terrestrial and Satellite TV installations. OVR CATV/F, OVR MATV/F, OVR SMATV/F and OVR TV/F are suitable for systems using F connectors. OVR TV/EURO is suitable for systems using EURO-TV connectors.

- For protecting terrestrial antenna feeds use OVR TV/F or OVR TV/EURO
- For protecting satellite feeds use OVR SMATV/F

- For protecting distributed combined TV feeds use OVR MATV/F
- For protecting cable TV feeds use OVR CATV/F

For further information on TV applications, see separate Application Note OVR AN006 (contact us for a copy).

Installation

Connect in series with the coaxial cable either near where it enters or leaves each building or close to equipment being protected.



NOTE: Protectors for coaxial (or twisted pair) CCTV Lines are available. For coaxial RF lines, use the OVR RF Series. Transients can also be conducted into TV systems via the mains power supplies - use suitable OVR mains protection.

OVR TV Series - Technical specification

Electrical specification

ABB order code

	OVR CATV/F	OVR MATV/F	OVR SMATV/F	OVR TV/F	OVR TV/EURO
Maximum working voltage ⁽¹⁾	140 V	18.9 V	18.9 V	6.4 V	6.4 V
Maximum operating current	4 A	800 mA	800 mA	300 mA	300 mA
Characteristic impedance	75 Ω				
Bandwidth	5-860 MHz	5-3224 MHz	860-3224 MHz	5-860 MHz	5-860 MHz
Insertion loss:					
– 5-860 MHz	< 0.5 dB	< 0.3 dB	–	< 0.3 dB	< 0.3 dB
– 860-2150 MHz	–	< 1.5 dB	< 1.5 dB	–	–
– 2150-3224 MHz	–	< 2.2 dB	< 2.2 dB	–	–
Return loss (VSWR):					
– 5-860 MHz	> 20 dB (< 1.2:1)	> 32 dB (< 1.05:1)	–	> 32 dB (< 1.05:1)	> 32 dB (< 1.05:1)
– 860-2150 MHz	–	> 20 dB (< 1.2:1)	> 20 dB (< 1.2:1)	–	–
– 2150-3224 MHz	–	< 2.2 dB	< 2.2 dB	–	–

Transient specification

Let-through voltage (all conductors)⁽²⁾ Up

	OVR CATV/F	OVR MATV/F	OVR SMATV/F	OVR TV/F	OVR TV/EURO
C2 test 4 kV 1.2/50 μs, 2 kA 8/20 μs to BS EN/EN/IEC 61643-21	270 V	70 V	70 V	65 V	65 V
C1 test 1 kV 1.2/50 μs, 0.5 kA 8/20 μs to BS EN/EN/IEC 61643-21	265 V	60 V	60 V	50 V	50 V
B2 test 4 kV 10/700 μs to BS EN/EN/IEC 61643-21	245 V	45 V	45 V	30 V	30 V
5 kV, 10/700 μs ⁽³⁾	250 V	50 V	50 V	35 V	35 V

Maximum surge current

8/20 μs to ITU-T K.45:2003, IEEE C62.41.2:2002	3 kA				
D1 test 10/350 μs to BS EN/EN/IEC 61643-21	500 A	750 A	750 A	750 A	750 A

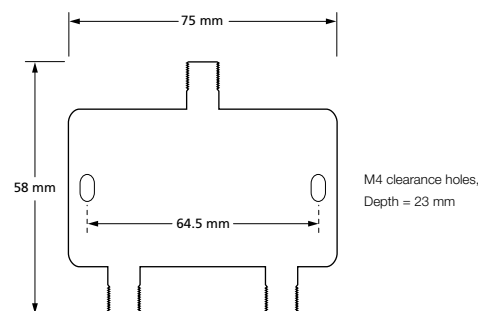
Mechanical specification

	OVR CATV/F	OVR MATV/F	OVR SMATV/F	OVR TV/F	OVR TV/EURO
Temperature range	-40 to +80 °C				-40 to +80 °C
Connection type	F female				Euro-TV
Earth connection	~ 9.5 mm (3/8") diameter earth stud				~ 9.5 mm (3/8") diameter earth stud
Case Material	Diecast				Diecast
Weight: – Unit	0.14 kg				0.14 kg
– Packaged	0.15 kg				0.15 kg
Dimensions	See diagram below				

⁽¹⁾ Maximum working voltage (DC or AC peak) measured at < 5 μA (OVR CATV/F) and < 50 mA (OVR MATV/F, OVR SMATV/F, OVR TV/EURO, OVR TV/F)

⁽²⁾ The maximum transient voltage let-through of the protector throughout the test (±10%) line to earth. Response time < 10 ns

⁽³⁾ Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)



Protector accessories

OVR WBX Series



4

OVR WBX Series

A range of moisture and dirt resistant enclosures for the convenient installation of any OVR protector. For signalling applications they can be used with their associated OVR CME with grey base and either a see-through or grey (part number/G or/GS) lid.

Features & benefits

- Tough polycarbonate enclosures
- Weatherproof with IP resistance to dirt and water of IP56 or more
- Clear lid enables easy visual inspection of the protector's visual status indication (OVR WBX 4, OVR WBX 8)
- Grey lid for applications not needing regular protector inspection (OVR WBX 4/GS, OVR WBX 8/GS and OVR WBX 16/2/G)
- For external CCTV and other installations requiring added security the OVR WBX 4/GS and OVR WBX 8/GS are supplied with an opaque lid and special secure head screws (plus tool)
- Supplied complete with metal base (mounting) plate with pre-prepared mounting positions and fixing hardware for easy installation

Application

Use OVR WBX enclosures when your OVR protector(s) can't be installed within the existing equipment panel or enclosure and for added protection in damp and dirty environments.

OVR WBX Series

Installation

The protector(s), or OVR CME kit, are mounted on the metal base plate, which in turn mounts in the enclosure.

OVR WBX Series - Technical specification

Enclosure part no.	For use with following protectors
OVR WBX 4 or the secure OVR WBX 4/GS	1 OVR CME 4 and associated protectors
OVR WBX 8 or the secure OVR WBX 8/GS	1 OVR CME 8 and associated protectors
OVR WBX 16/2/G	1 or 2 OVR CME 16 and associated protectors
OVR WBX SLQ or OVR WBX SLQ/G	Up to 6 x OVR**Q, or up to 15 x OVR SL**

	OVR WBX 4 OVR WBX 4/GS	OVR WBX 8 OVR WBX 8/GS	OVR WBX 16/2/G	OVR WBX SLQ OVR WBX SLQ/G
ABB Order Code	7TCA085410R0048 7TCA085410R0049	7TCA085410R0050 7TCA085410R0051	7TCA085410R0047	7TCA085400R0326 7TCA085400R0327
Weight: - Unit	0.9 kg	1.3 kg	6.4 kg	0.7 kg
- Packaged	0.95 kg	1.35kg	7.6 kg	1.0 kg
Dimensions:				
Length: - Internal	246 mm	225 mm	460 mm	230 mm
- External	255 mm	235 mm	474 mm	250 mm
Width: - Internal	171 mm	225 mm	380 mm	105 mm
- External	180 mm	235 mm	396 mm	125 mm
Depth: - Internal	119 mm	100 mm	120 mm	110 mm
- External	125 mm	117 mm	128 mm	125 mm
Fixing centres (mm)	240 x 165	215 x 215	380 x 310	235 x 110
IP rating	IP66	IP66	IP56	IP67
Temperature range	-15 to +75 °C	-15 to +75 °C	-25 to +60 °C	-40 to +80 °C
Flammability	UL 94 V2	UL 94 V2	UL 94 V0	UL 746C 5V

Protector accessories

OVR CME Series



OVR CME Series

OVR CME Series

Enables groups of protectors to be simultaneously mounted and earthed via their earth stud. Suitable for installing protectors with one or two earth studs on their top face. Available with 4, 8, 16 and 32 mounting holes.

Features & benefits

- Enables quick and easy installation of protectors for added convenience
- Speedy installation of groups of protectors saves time and money
- Individual protectors can be changed without needing to remove others
- Sturdy construction
- Supplied with a choice of flat and round ended fixing screws to suit your application

Application

Use OVR CME kits to simultaneously mount and earth groups of single and double earth stud protectors. Each single earth stud protector requires one OVR CME mounting position and each double earth stud protector requires two OVR CME mounting positions, this includes:

- High conductivity copper with electro-tin plating and nylon insulating pillars, for low impedance to earth

Single earth stud protectors which are:

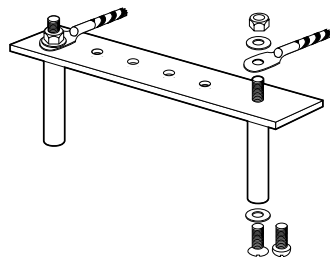
- | | | | |
|------------|------------|------------|--------------|
| - OVR 06D | - OVR 06E | - OVR 06H | - OVR TN |
| - OVR 15D | - OVR 15E | - OVR 15H | - OVR RTD |
| - OVR 30D | - OVR 30E | - OVR 30H | - OVR CCTV/B |
| - OVR 50D | - OVR 50E | - OVR 50H | - OVR CCTV/T |
| - OVR 110D | - OVR 110E | - OVR 110H | - OVR RS485 |

Double earth stud protectors which are:

- OVR 240-16A

Once you know how many OVR CME mounting positions you require choose a OVR CME kit to suit:

- OVR CME 4 has 4 mounting positions
- OVR CME 8 has 8 mounting positions
- OVR CME 16 has 16 mounting positions
- OVR CME 32 has 32 mounting positions



Assembly of OVR CME kit
Earth connection (not supplied)

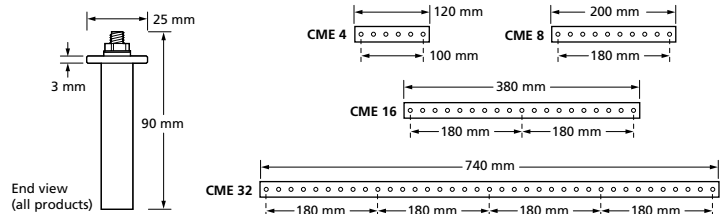
Accessories

Enclosures suitable for a OVR CME 4 and its associated protectors:

(OVR WBX 4/GS), OVR CME 8 and protectors **(OVR WBX 8/GS)** or one or two **OVR CME 16** and protectors **(OVR WBX 16/2/G)**

Installation

The earth bar is supported by a series of mounting pillars (which are fixed to the cubicle or box base). Protectors are attached to the OVR CME's earth bar via their earth stud(s) and earthed with shared connections to earth. We suggest one earth connection per mounting pillar.



OVR CME Series - Technical specification

	OVR CME 4	OVR CME 8	OVR CME 16	OVR CME 32
ABB order code	7TCA085400R0414	7TCA085400R0415	7TCA085410R0045	7TCA085410R0046
Hole size	6.5 mm with 20 mm spacings			
Weight	0.1 kg	0.15 kg	0.3 kg	0.6 kg
Dimensions	See diagram opposite			

Protector accessories

Accessories



Slim Line replacement base/module

Slim Line replacement base/module

Replacement: Base & module for the Slim Line Series of protectors

Part no.	Description
Slim Line protector replacement base	
OVR SL/B	For use with standard and 4-20 mA Slim Line Series
OVR SL/I/B	Isolated screen version for use with standard and 4-20 mA Slim Line Series
OVR SLX/B	For use with Slim Line Intrinsically Safe (ATEX) Series
OVR SLX/I/B	Isolated screen version for use with Slim Line Intrinsically Safe (ATEX) Series
OVR SL/3W/B	For use with Slim Line 3-wire Series
OVR SLRTD/B	For use with Slim Line RTD Series
OVR SL RS485/B	For use with Slim Line RS485 Series

Slim Line protector replacement module

OVR SLXX/M	For use with Slim Line Series - replace 'XX' with relevant voltage, i.e. 06, 15, 30, 50, 110
OVR SLTN/M	For use with Slim Line TN Series
OVR SL15X/M	For use with Slim Line Intrinsically Safe (ATEX) Series, 15 V
OVR SL30X/M	For use with Slim Line Intrinsically Safe (ATEX) Series, 30 V
OVR SLRTD/M	For use with Slim Line RTD Series
OVR SLRS485/M	For use with Slim Line RS485 Series

Slim Line LED protector replacement module

OVR SLXXL/M	For use with Slim Line LED Series - replace 'XX' with relevant voltage, i.e. 06, 15, 30, 50, 110
OVR SL30L/4-20/M	For use with Slim Line LED Series, 4-20 mA
OVR SL15XL/M	For use with Slim Line Intrinsically Safe (ATEX) LED Series, 15 V
OVR SL30XL/M	For use with Slim Line Intrinsically Safe (ATEX) LED Series, 30 V
OVR SLXX/3W/M	For use with Slim Line 3-wire LED Series – replace 'XX' with relevant voltage, i.e. 06, 15, 30, 50, 110
OVR SLTNL/M	For use with Slim Line TN LED Series



OVR RF mounting plates

OVR RF mounting plates

Use with: Any ESP RF protector to assist installation

Part no.	Description
OVR RF BK1	Straight Mounting plate
OVR RF BK2	90° Mounting plate
OVR RF BK3	Bulkhead through mounting plate (single)
OVR RF BK4	Bulkhead through mounting plate (4 protectors)



OVR RF GDT-4

OVR RF GDT-4

Replacement: Gas Discharge Tubes for use with standard RF protectors

Part no.	Description	Voltage
OVR RF GDT-4	Gas Discharge Tube	350 V



Cable assembly

Use with: OVR ISDN/RJ45-* /8 or OVR Cat-5e or OVR Cat-6 protector range

Part no.	Description	Length
OVR CAT5e/UTP-1	Cable assembly for OVR Cat-5e with unshielded RJ45 connections	1 m
OVR CAT6/STP-2	Cable assembly for OVR Cat-6 with shielded RJ45 connections	2 m

Cable assembly with RJ45 connections for the OVR ISDN/RJ45-4/8 or OVR ISDN/RJ45-8/8 plug-in ISDN protectors for use if the standard 0.5 m cable is insufficient

E 90. Uncompromising performance

A safe and smart range designed for quick, flexible and error-proof installation

Compactness

When open, the drawer projection is only 17 mm more than in the normal position.

Reliability

Venting grooves and cooling chambers improve heat dissipation even in multiple-pole configurations.

Completeness

The fuse tripping can be easily displayed, thanks to the special blown fuse indicator light.



Universal use

Screw holes have increased diameter to accommodate insulated screwdrivers and electric screwdrivers.

E 90. Uncompromising performance

A safe and smart range designed for quick, flexible and error-proof installation

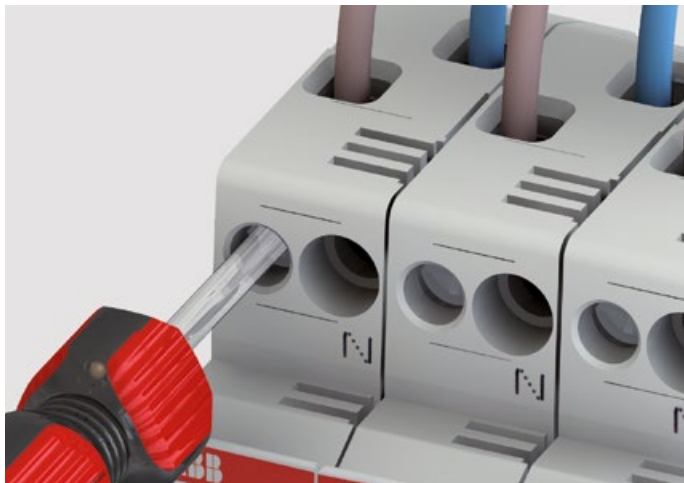
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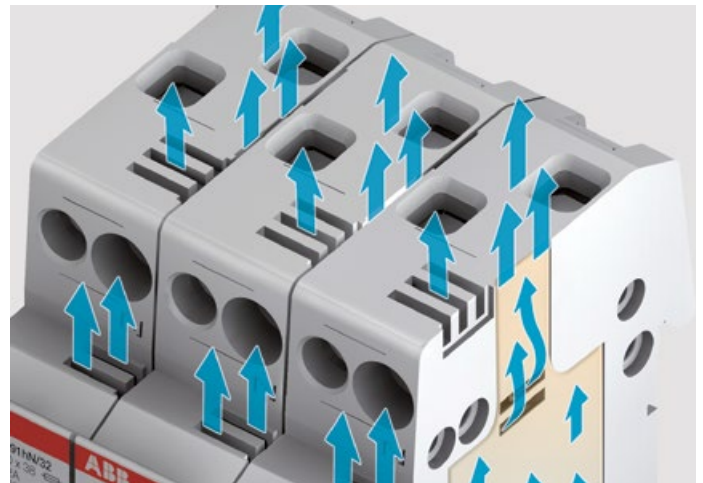
Fuseholder profile has been designed for maximum ease of use: the 90° flip hinge with ergonomic knob, makes the replacement of fuses easier even in small spaces or when wearing protective gloves.



The compact dimensions enable to close the switchboard door even when the fuseholder is open, thus ensuring total safety during maintenance.



With the Prozidriv PZ2 screws tightening can be performed by exerting less torque than conventional screws, and the same electric screwdriver can be used for all terminals. Moreover, the PS connection busbars facilitate the connecting operations, making the wiring both simple and safe and providing complete integration with S 200 and SN 201 System pro M compact® circuit-breakers.



Venting grooves and cooling chambers improve heat dissipation even in multiple-pole configurations. The reduced operating temperature inside fuseholders ensures durability and reliability of the devices over time.

Protection and safety

E 90 fuse switch disconnectors



E 90

Technical features					
Type		E 90/20	E 90/32		
Rated current	A	20	32		
Type of current		a.c.			
Fuse	[mm]	8 x 31	10 x 38		
Max power dissipation accepted	[W]	2.5	3		
Rated frequency	[Hz]	50-60			
Tightening torque	[Nm]	PZ2 2-2.5			
Protection degree		IP20			
Terminals' section	[mm ²]	25			
Cross section rigid copper conductors	[mm ²]	1.5-25			
Cross section stranded copper conductors	[mm ²]	1.5-16			
Operating temperature	[°C]	-5/+40 ①			
Storage temperature	[°C]	-25/+70 ②			
Altitude	[m]	2000			
Voltage range for LED indicator light		24-1000 AC/DC (only s version)			
Padlockable (when open)		■	■		
Sealable (when closed)		■	■		
IEC 60947-3					
Utilization category		AC-22B	AC-20B	AC-22B	AC-20B
Markings	[V]	400	690	400	690

① for lower temperature verify fuse technical characteristics, for higher temperature refer to derating table in Chapter 5 of Solutions for electrical installation in buildings - Technical details

② for more than 24h max temperature is +55 °C

Shock and vibration

Vibration withstand on the 3 main axis:

- Sinusoidal vibration testing according to IEC 60068-2-6: 2 to 13 Hz x = 1 mm peak; 13 to 100 Hz y = 0.7 g peak
- Random vibration testing according to IEC 61373: Category 1 Class B

Shock withstand

- Shock testing according to IEC 60068-2-27 : 15 g/11 ms/18 shocks
- Shock testing according to IEC 61373: Category 1 Class B

Materials

Plastic parts	Case:	Material PA 6 +30 % glass fibre Self extinguishing class: V2 (UL94) Temperature resistance: 130 °C
	Opening handle	Material PA 66 +25 % glass fibre Self-extinguishing class V0 (UL94) Temperature resistance: 140 °C
Metal parts	Clips	Silver plated copper
	Clip spring	Stainless steel
	Terminals	Galvanized steel

Where to find more:

Utilization categories of E 90, Protection and safety technical details for E 90: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

E 9F gG cylindrical fuses - chapter 4
E 9F aM cylindrical fuses - chapter 4

The E 90 series is environmental friendly and protects the health of people: all used materials are conform to the RoHS and REACH directives and they completely exclude hazardous substances and halogen.

Protection and safety

E 90 fuse switch disconnectors



2CSC400694F0201

E 92

4



2CSC400694F0201

E 94

E 90 fuse switch disconnectors

E 90 series fuse switch disconnectors are designed for switching circuits under load, providing protection against short circuits and overloads. The case is made of self-extinguishing thermoplastic material resistant to high temperatures (all materials are UL listed) while the contact clips are in silver plated copper.

E 90 fuse switch disconnectors can be sealed or padlocked to ensure operator safety during maintenance. Versions with blown fuse indicator allow to check whether the fuse is still working correctly or not. For easy and quick installation E 90 range is totally compatible with connecting bars, terminals and caps of S 200 MCBs.

Thanks to cURus approval, they can be installed in UL certified machines.

E 90 fuse switch disconnectors for 10.3 x 38 mm fuses (AC-22B)

Poles	Rated current	Modules	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In			EAN	Type code			
1	32	1	009238	E 91/32	2CSM200923R1801		0.061	6
1	32	1	024835	E 91/32s	2CSM202483R1801		0.062	6
1+N	32	2	008934	E 91N/32	2CSM200893R1801		0.130	3
1+N	32	2	515036	E 91N/32s	2CSM251503R1801		0.132	3
2	32	2	008835	E 92/32	2CSM200883R1801		0.122	3
2	32	2	514930	E 92/32s	2CSM251493R1801		0.132	3
3	32	3	047537	E 93/32	2CSM204753R1801		0.183	2
3	32	3	020639	E 93/32s	2CSM202063R1801		0.184	2
3+N	32	4	047339	E 93N/32	2CSM204733R1801		0.252	1
3+N	32	4	514831	E 93N/32s	2CSM251483R1801		0.255	1
4	32	4	047230	E 94/32	2CSM204723R1801		0.244	1
4	32	4	020530	E 94/32s	2CSM202053R1801		0.248	1

s: version with blown fuse indicator light

E 90 fuse switch disconnectors for 8.5 x 31.5 mm fuses (AC-22B)

Poles	Rated current	Modules	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In			EAN	Type code			
1	20	1	009832	E 91/20	2CSM200983R1801		0.061	6
1	20	1	024231	E 91/20s	2CSM202423R1801		0.062	6
2	20	2	009535	E 92/20	2CSM200953R1801		0.122	3
2	20	2	896234	E 92/20s	2CSM289623R1801		0.062	3
3	20	3	009436	E 93/20	2CSM200943R1801		0.183	2
3	20	3	896135	E 93/20s	2CSM289613R1801		0.184	2

s: version with blown fuse indicator light

Protection and safety

E 90h fuseholders



E 91hN



E 93hN



Fuse indicator LED

Technical features

Type		E 90hN/20	E 90hN/32
Rated current	[A]	20	32
Type of current		a.c.	
Fuse	[mm]	8 x 31	10 x 38
Max power dissipation accepted	[W]	2.6	3.2
Rated frequency	[Hz]	50-60	
Tightening torque	[Nm]	PZ2 0.8-1.2	
Protection degree		IP20	
Terminals' section	[mm ²]	16	
Cross section rigid copper conductors	[mm ²]	1.5-16	
Cross section stranded copper conductors	[mm ²]	1.5-10	
Operating temperature	[°C]	-5/+40 ①	
Storage temperature	[°C]	-25/+70 ②	
Altitude	[m]	2000	
Voltage range for LED indicator light		24-1000 AC/DC (only s version)	
Padlockable (when open)		■	
Sealable (when closed)		■	
IEC 60269-3			
Rated voltage	[V]	400	

① for lower temperature verify fuse technical characteristics, for higher temperature refer to derating table in Chapter 5 of Solutions for electrical installation in buildings - Technical details

② for more than 24h max temperature is +55 °C

E 90h fuseholders

E 90h fuseholders are suitable for protection against overloads and short circuits. Available in a single module 1P+N version and in a three-module 3P+N version, they are designed for use with gG and aM cylindrical fuse links. The body is made from self-extinguishing material resistant to high temperatures, while the contact clips are in silver-plated copper. E 90h fuseholders can be sealed or padlocked to assure operator safety during maintenance. Versions with blown fuse indicator allow to check whether the fuse is still working correctly or not.

E 90h fuseholders for 10.3 x 38 mm fuses

Poles	Rated current	Modules	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In			Type code	Order code			
1+N	32	1	009139	E 91hN/32	2CSM200913R1801		0.070	6
1+N	32	1	065739	E 91hN/32s	2CSM206573R1801		0.071	6
3+N	32	3	047438	E 93hN/32	2CSM204743R1801		0.192	2
3+N	32	3	743439	E 93hN/32s	2CSM274343R1801		0.200	2

s: version with blown fuse indicator light

E 90h fuseholders for 8.5 x 31.5 mm fuses

Poles	Rated current	Modules	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In			Type code	Order code			
1+N	20	1	009634	E 91hN/20	2CSM200963R1801		0.070	6
1+N	20	1	007036	E 91hN/20s	2CSM200703R1801		0.071	6
3+N	20	3	009337	E 93hN/20	2CSM200933R1801		0.192	2
3+N	20	3	896036	E 93hN/20s	2CSM289603R1801		0.200	2

s: version with blown fuse indicator light

Where to find more:

Protection and disconnection of 1000V DC lines with E 90h and utilization categories of E 90: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

E 9F gG cylindrical fuses - chapter 4
E 9F aM cylindrical fuses - chapter 4

Protection and safety

E 90 PV fuse disconnectors



E 90 PV

2CSC400697F0201

4

Technical features			
Type		E 90/32 PV	E 90/32 PV according to UL
Rated current	[A]	30	
Type of current		d.c.	
Fuse	[mm]	10 x 38	
Max power dissipation accepted	[W]	3	
Rated frequency	[Hz]	-	
Tightening torque	[Nm]	PZ2 2-2.5 Nm	PZ2 18-22 lb-in
Protection degree		IP20	
Terminals' section	[mm ²]	25	
Cross section rigid copper conductors		1.5 - 25 mm ²	n..a.
Cross section stranded copper conductors		1.5 - 16 mm ²	8÷3 AWG
Operating temperature	[°C]	-5/+40 ①	
Storage temperature	[°C]	-25/+70 ②	
Altitude	[m]	2000	
Voltage range for LED indicator light		24-1000 AC/DC (only s version)	
Can be padlocked (open)		■	
Can be sealed (closed)		■	
IEC 60947-3			
Utilization category		DC-20B	
Rated voltage	[V]	1000	

① for lower temperature verify fuse technical characteristics, for higher temperature refer to derating table in Chapter 5 of Solutions for electrical installation in buildings - Technical details
 ② for more than 24h max temperature is +55 °C

E 90 PV fuse disconnectors

E 90 PV series fuse disconnectors, designed for operating voltages of 1000 V d.c. with utilization category DC-20B, are particularly suited for protection against overcurrents of photovoltaic systems. The single-pole or two-pole E 90 PV disconnectors for 10.3 x 38 mm cylindrical fuse links offer a reliable, compact and affordable solution for photovoltaic installations. Versions with blown fuse indicator allow to check whether the fuse is still working correctly or not.

E 90 PV fuse disconnectors for 10.3 x 38 mm fuses (DC-20B)								
Poles	Rated current	Modules	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In			EAN	Type code			
1	32	1	047131	E 91/32 PV	2CSM204713R1801		0.061	6
1	32	1	046936	E 91/32 PVs	2CSM204693R1801		0.062	6
2	32	2	047032	E 92/32 PV	2CSM204703R1801		0.122	3
2	32	2	569138	E 92/32 PVs	2CSM256913R1801		0.233	3

s: version with blown fuse indicator light

Where to find more:

Utilization categories of E 90 PV:
 Chapter 4 of
 Solutions for electrical installation in
 buildings - technical details

Worldwide marks and approvals of
 MDRCs - chapter 15

Maybe you are also interested in:

E 9F gG cylindrical fuses - chapter 4
 E 9F aM cylindrical fuses - chapter 4

Protection and safety

E 90 50/125 fuse disconnectors



E 90 50/125

Technical features			
Type		E 90/50	E 90/125
Rated current	[A]	50	100*
Type of current		a.c.	
Fuse	[mm]	14 x 51	22 x 58
Max power dissipation accepted	[W]	5	9.5
Rated frequency	[Hz]	50-60	
Tightening torque	[Nm]	PZ2 3-3.5	PZ2 3.5-4
Protection degree		IP20**	
Terminals' section	[mm ²]	35	50
Cross section rigid copper conductors	[mm ²]	2.5 - 35	4 - 50
Cross section stranded copper conductors	[mm ²]	2.5 - 25	4 - 35
Can be sealed closed		■	
Can be padlocked open		■	
IEC 60947-3			
Utilization category		AC-20B	
Rated voltage	[V]	690	

* 125A with fuses of type aM and in combination with a device which guarantees protection against overload

** The protection degree IP20 is obtained also as standalone unit with respect to wire size of 10mm²

90 50/125 fuse disconnectors

The E 90 50/125 fuse disconnector range is specifically intended for industrial circuit protection when currents are from 50 A to 125 A. They can, respectively, carry any type of cylindrical fuses 14x51 and 22x58 mm. The E 90 50/125 fuseholders can be sealed or padlocked in open position to ensure operator safety during maintenance operations. Versions with blown fuse indicator (LED) allow checking whether the fuse is still working correctly or not.

E 90/50 fuse disconnectors for 14 x 51 mm fuses (AC-20B)

Poles	Rated current In	Modules	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1	50	1.5	790228	E 91/50	2CSM279022R1801		0.095	4
1	50	1.5	372028	E 91/50s	2CSM237202R1801		0.095	4
1+N	50	3	779827	E 91N/50	2CSM277982R1801		0.19	2
1+N	50	3	023920	E 91N/50s	2CSM202392R1801		0.19	2
2	50	3	779728	E 92/50	2CSM277972R1801		0.19	2
2	50	3	070320	E 92/50s	2CSM207032R1801		0.19	2
3	50	4.5	779629	E 93/50	2CSM277962R1801		0.285	1
3	50	4.5	574828	E 93/50s	2CSM257482R1801		0.285	1
3+N	50	6	779520	E 93N/50	2CSM277952R1801		0.38	1
3+N	50	6	563020	E 93N/50s	2CSM256302R1801		0.38	1

E 90/125 fuse disconnectors for 22 x 58 mm fuses (AC-20B)

Poles	Rated current In	Modules	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1	100	2	775720	E 91/125	2CSM277572R1801		0.135	4
1	100	2	896326	E 91/125s	2CSM289632R1801		0.135	4
1+N	100	4	773528	E 91N/125	2CSM277352R1801		0.27	2
1+N	100	4	049425	E 91N/125s	2CSM204942R1801		0.27	2
2	100	4	771326	E 92/125	2CSM277132R1801		0.27	2
2	100	4	049326	E 92/125s	2CSM204932R1801		0.27	2
3	100	6	775027	E 93/125	2CSM277502R1801		0.405	1
3	100	6	049227	E 93/125s	2CSM204922R1801		0.405	1
3+N	100	8	965329	E 93N/125	2CSM296532R1801		0.54	1
3+N	100	8	049128	E 93N/125s	2CSM204912R1801		0.54	1

s: version with blown fuse indicator light

Where to find more:

Protection and safety technical details for E 90 50/125: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

E 9F gG cylindrical fuses - chapter 4
E 9F aM cylindrical fuses - chapter 4

Protection and safety

E 90 CC fuseholders



E 91



E 93

Technical features		
Type	E 90/30 CC	
Rated voltage Un	[V]	600
Rated current In	[A]	30
Type of current		a.c./d.c.
Rated frequency	[Hz]	60
Fuse size	[mm]	class CC
Tightening torque	[Nm]	PZ2 2-2.5
	[lb-in]	PZ2 18-22
Rated temperature	[°C]	75
Voltage range for LED indicator light (only s version)	[V]	24 - 1000 a.c./d.c.
Can be sealed closed		■
Can be padlocked open		■

The E 90 fuse carriers for Class CC cylindrical fuse links are specifically designed for the North American market in compliance with the UL standards. In accordance with the reference standards UL 4248-1 and UL 4248-4, they come in voltage and current ratings up to 600V and 30A. They are available in 1P, 1P+N, 2P, 3P, 3P+N and 4P versions. They can be padlocked open and sealed closed.

The E 90 fuse carriers are the ideal solution for process control and industrial systems, automation systems, industrial installations and control circuits. The versions with blown fuse indicator light provide a visual signal of the fuse break condition

E 90 for class CC cartridge fuses								
Poles	Rated current	Modules	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In		8012542	Type code	Order code			
			EAN				kg	pc.
1	30	1	998723	E 91/30 CC	2CSM299872R1801		0.061	6
1	30	1	998822	E 91/30s CC	2CSM299882R1801		0.062	6
1+N	30	2	998921	E 91N/30 CC	2CSM299892R1801		0.13	3
1+N	30	2	999027	E 91N/30s CC	2CSM299902R1801		0.13	3
2	30	2	999126	E 92/30 CC	2CSM299912R1801		0.122	3
2	30	2	999225	E 92/30s CC	2CSM299922R1801		0.122	3
3	30	3	999324	E 93/30 CC	2CSM299932R1801		0.183	2
3	30	3	999423	E 93/30s CC	2CSM299942R1801		0.183	2
3+N	30	4	999522	E 93N/30 CC	2CSM299952R1801		0.252	1
3+N	30	4	999621	E 93N/30s CC	2CSM299962R1801		0.252	1
4	30	4	999720	E 94/30 CC	2CSM299972R1801		0.244	1
4	30	4	999829	E 94/30s CC	2CSM299982R1801		0.244	1

s: version with blown fuse indicator light

Where to find more:

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

E 9F gG cylindrical fuses - chapter 4
E 9F aM cylindrical fuses - chapter 4

Protection and safety

E 90 J fuse fuseholders



E 90 Class J

Technical features

Type		E 90/30 J	E 90/60 J
Rated current	[A]	30	60
Rated voltage	[V]	600	
Type of current		a.c./d.c.	
Fuse		Class J 1-30A	Class J 31-60A
Rated frequency	[Hz]	60	
Tightening torque	[Nm]	PZ2 3.5-4	
Terminals' section	[mm ²]	50	
Cross section rigid copper conductors	[AWG]	14-10	
Cross section stranded copper conductors	[AWG]	14-8	
Can be sealed closed		■	
Can be padlocked open		■	

E 90 Class J

The E 90 Class J fuse carriers are the ideal solution for industrial systems, industrial installations and control circuits. They are specifically designed for the North American market in compliance with the UL standards. In accordance with the reference standard UL 4248-8, they come in voltage and current ratings up to 600V and 30/60A. They are available in 1P, 2P and 3P versions. The versions with blown fuse indicator light provide a visual signal of the fuse break condition. They can be padlocked open and sealed closed to ensure operator safety during maintenance operations..

E 90/30 fuse disconnectors for Class J fuses

Poles	Rated current	Modules	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In			EAN	Type code			
1	30	2	048220	E 91/30 J	2CSM204822R1801		0.135	4
2	30	4	048121	E 92/30 J	2CSM204812R1801		0.27	2
3	30	6	048022	E 93/30 J	2CSM204802R1801		0.405	1
1	30	2	047926	E 91/30s J	2CSM204792R1801		0.135	4
2	30	4	047827	E 92/30s J	2CSM204782R1801		0.27	2
3	30	6	047728	E 93/30s J	2CSM204772R1801		0.405	1

E 90/60 fuse disconnectors for Class J fuses

Poles	Rated current	Modules	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In			EAN	Type code			
1	60	2.5	047629	E 91/60 J	2CSM204762R1801		0.175	3
2	60	5	049821	E 92/60 J	2CSM204982R1801		0.35	1
3	60	7.5	049722	E 93/60 J	2CSM204972R1801		0.525	1
1	60	2.5	049623	E 91/60s J	2CSM204962R1801		0.175	3
2	60	5	049524	E 92/60s J	2CSM204952R1801		0.35	1
3	60	7.5	738824	E 93/60s J	2CSM273882R1801		0.525	1

s: version with blown fuse indicator light

Where to find more:

Worldwide marks and approvals of MDRCs - chapter 15

Protection and safety

Cylindrical fuses E 9F gG



E 9F8

Technical features		
Rated voltage	[V]	400, 500, 690 AC
Rated current	[A]	0.5...125
Breaking capacity	[kA]	20, 80, 120
Overall dimensions	[mm]	8.5x31.5 , 10.3x38 , 14x51 , 22x58
Weight	[g]	4, 7, 18, 48
Standards		IEC 60269-2; ROHS 2002/98/CE
Marks		LLOYD, BV

4



E 9F10

E 9F 8 gG cylindrical fuses 8.5 x 31.5 mm			
Type	Rated current [A]	Rated voltage [V AC]	Breaking capacity [kA]
E 9F8 GG1	1	400	20
E 9F8 GG2	2	400	20
E 9F8 GG4	4	400	20
E 9F8 GG6	6	400	20
E 9F8 GG8	8	400	20
E 9F8 GG10	10	400	20
E 9F8 GG12	12	400	20
E 9F8 GG16	16	400	20
E 9F8 GG20	20	400	20

E 9F 10 gG cylindrical fuses 10.3 x 38 mm			
Type	Rated current [A]	Rated voltage [V AC]	Breaking capacity [kA]
E 9F10 GG05	0.5	500	120
E 9F10 GG1	1	500	120
E 9F10 GG2	2	500	120
E 9F10 GG4	4	500	120
E 9F10 GG6	6	500	120
E 9F10 GG8	8	500	120
E 9F10 GG10	10	500	120
E 9F10 GG12	12	500	120
E 9F10 GG16	16	500	120
E 9F10 GG20	20	500	120
E 9F10 GG25	25	500	120
E 9F10 GG32	32	400	120

Where to find more:

Protection and safety technical details for E 9F: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

E 90 fuse switch disconnectors - chapter 4
E 90h fuseholders - chapter 4
E 90 50/125 fuse disconnectors - chapter 4



2/CSCA000039F022

E 9F14



2/CSCA000040F022

E 9F22

E 9F 14 gG cylindrical fuses 14 x 51 mm

Type	Rated current [A]	Rated voltage [V AC]	Breaking capacity [kA]
E 9F14 GG2	2	690	120
E 9F14 GG4	4	690	120
E 9F14 GG6	6	690	120
E 9F14 GG8	8	690	120
E 9F14 GG10	10	690	120
E 9F14 GG12	12	690	120
E 9F14 GG16	16	690	120
E 9F14 GG20	20	690	120
E 9F14 GG25	25	690	120
E 9F14 GG32	32	500	120
E 9F14 GG40	40	500	120
E 9F14 GG50	50	400	120

E 9F 22 gG cylindrical fuses 22 x 58 mm

Type	Rated current [A]	Rated voltage [V AC]	Breaking capacity [kA]
E 9F22 GG4	4	690	120
E 9F22 GG6	6	690	120
E 9F22 GG8	8	690	120
E 9F22 GG10	10	690	120
E 9F22 GG12	12	690	120
E 9F22 GG16	16	690	120
E 9F22 GG20	20	690	120
E 9F22 GG25	25	690	120
E 9F22 GG32	32	690	120
E 9F22 GG40	40	690	120
E 9F22 GG50	50	690	120
E 9F22 GG63	63	690	120
E 9F22 GG80	80	690	120
E 9F22 GG100	100	500	120
E 9F22 GG125	125	500	120

Where to find more:

Protection and safety technical details for E 9F: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

E 90 fuse switch disconnectors - chapter 4
E 90h fuseholders - chapter 4
E 90 50/125 fuse disconnectors - chapter 4

Protection and safety

Cylindrical fuses E 9F gG

E 9F gG cylindrical fuses

The E 9F gG cylindrical fuses, coupled with E 90 and E 90 50/125 fuse disconnectors, are the ideal solution for protection against overload and short-circuit. They feature a fast tripping curve that is ideal for protecting electronic devices, transformers and electric cables. The E 9F gG series is available for all the main sizes (8.5 x 31.5 mm, 10.3 x 38 mm, 14 x 51 mm e 22 x 58 mm) and with a wide range of rated current values (from 1 A to 125 A and up to 690 V a.c.). All the E 9F series fuses conform to the RoHS directive and are type-approved in accordance with the most important international naval marks.

4

E 9F 8 gG cylindrical fuses 8.5 x 31.5 mm

Rated current	Size	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
In	mm	EAN	Type code	Order code		kg	pc.
1	8.5x31.5	575733	E 9F8 GG1	2CSM257573R1801		0.004	10
2	8.5x31.5	563938	E 9F8 GG2	2CSM256393R1801		0.004	10
4	8.5x31.5	586630	E 9F8 GG4	2CSM258663R1801		0.004	10
6	8.5x31.5	574835	E 9F8 GG6	2CSM257483R1801		0.004	10
8	8.5x31.5	563037	E 9F8 GG8	2CSM256303R1801		0.004	10
10	8.5x31.5	775737	E 9F8 GG10	2CSM277573R1801		0.004	10
12	8.5x31.5	773535	E 9F8 GG12	2CSM277353R1801		0.004	10
16	8.5x31.5	771333	E 9F8 GG16	2CSM277133R1801		0.004	10
20	8.5x31.5	775034	E 9F8 GG20	2CSM277503R1801		0.004	10

E 9F 10 gG cylindrical fuses 10.3 x 38 mm

Rated current	Size	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
In	mm	EAN	Type code	Order code		kg	pc.
0.5	10.3x38	773337	E 9F10 GG05	2CSM277333R1801		0.007	10
1	10.3x38	771135	E 9F10 GG1	2CSM277113R1801		0.007	10
2	10.3x38	587231	E 9F10 GG2	2CSM258723R1801		0.007	10
4	10.3x38	575436	E 9F10 GG4	2CSM257543R1801		0.007	10
6	10.3x38	563631	E 9F10 GG6	2CSM256363R1801		0.007	10
8	10.3x38	586333	E 9F10 GG8	2CSM258633R1801		0.007	10
10	10.3x38	574538	E 9F10 GG10	2CSM257453R1801		0.007	10
12	10.3x38	562733	E 9F10 GG12	2CSM256273R1801		0.007	10
16	10.3x38	775430	E 9F10 GG16	2CSM277543R1801		0.007	10
20	10.3x38	773238	E 9F10 GG20	2CSM277323R1801		0.007	10
25	10.3x38	771036	E 9F10 GG25	2CSM277103R1801		0.007	10
32	10.3x38	587132	E 9F10 GG32	2CSM258713R1801		0.007	10

E 9F 14 gG cylindrical fuses 14 x 51 mm

Rated current	Size	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
In	mm	EAN	Type code	Order code		kg	pc.
2	14x51	775232	E 9F14 GG2	2CSM277523R1801		0.018	10
4	14x51	773030	E 9F14 GG4	2CSM277303R1801		0.018	10
6	14x51	770831	E 9F14 GG6	2CSM277083R1801		0.018	10
8	14x51	910039	E 9F14 GG8	2CSM291003R1801		0.018	10
10	14x51	909835	E 9F14 GG10	2CSM290983R1801		0.018	10
12	14x51	909637	E 9F14 GG12	2CSM290963R1801		0.018	10
16	14x51	587835	E 9F14 GG16	2CSM258783R1801		0.018	10
20	14x51	576037	E 9F14 GG20	2CSM257603R1801		0.018	10
25	14x51	564232	E 9F14 GG25	2CSM256423R1801		0.018	10
32	14x51	586937	E 9F14 GG32	2CSM258693R1801		0.018	10
40	14x51	575139	E 9F14 GG40	2CSM257513R1801		0.018	10
50	14x51	563334	E 9F14 GG50	2CSM256333R1801		0.018	10

E 9F 22 gG cylindrical fuses 22 x 58 mm

Rated current	Size	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
In	mm	EAN	Type code	Order code		kg	pc.
4	22x58	571834	E 9F22 GG4	2CSM257183R1801		0.048	10
6	22x58	592839	E 9F22 GG6	2CSM259283R1801		0.048	10
8	22x58	581031	E 9F22 GG8	2CSM258103R1801		0.048	10
10	22x58	569237	E 9F22 GG10	2CSM256923R1801		0.048	10
12	22x58	594031	E 9F22 GG12	2CSM259403R1801		0.048	10
16	22x58	582236	E 9F22 GG16	2CSM258223R1801		0.048	10
20	22x58	570431	E 9F22 GG20	2CSM257043R1801		0.048	10
25	22x58	595335	E 9F22 GG25	2CSM259533R1801		0.048	10
32	22x58	583530	E 9F22 GG32	2CSM258353R1801		0.048	10
40	22x58	571735	E 9F22 GG40	2CSM257173R1801		0.048	10
50	22x58	593935	E 9F22 GG50	2CSM259393R1801		0.048	10
63	22x58	582137	E 9F22 GG63	2CSM258213R1801		0.048	10
80	22x58	570332	E 9F22 GG80	2CSM257033R1801		0.048	10
100	22x58	595236	E 9F22 GG100	2CSM259523R1801		0.048	10
125	22x58	583431	E 9F22 GG125	2CSM258343R1801		0.048	10

Where to find more:

Protection and safety technical details for E 9F: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

- E 90 fuse switch disconnectors - chapter 4
- E 90h fuseholders - chapter 4
- E 90 50/125 fuse disconnectors - chapter 4

Protection and safety

Cylindrical fuses E 9F aM



E 9F8 aM

Technical features		
Rated voltage	[V]	400, 500, 690 AC
Rated current	[A]	0.5...125
Breaking capacity	[kA]	20, 80, 120
Overall dimensions	[mm]	8.5x31.5, 10.3x38, 14x51, 22x58
Weight	[g]	4, 7, 18, 48
Standards		IEC 60269-2; ROHS 2002/98/CE
Marks		LLOYD, BV

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E 9F10 aM

E 9F8 aM cylindrical fuses 8.5 x 31.5 mm			
Type	Rated current [A]	Rated voltage [V AC]	Breaking capacity [kA]
E 9F1 AM1	1	400	20
E 9F8 AM2	2	400	20
E 9F8 AM4	4	400	20
E 9F8 AM6	6	400	20
E 9F8 AM8	8	400	20
E 9F8 AM10	10	400	20

E 9F10 aM cylindrical fuses 10.3 x 38 mm			
Type	Rated current [A]	Rated voltage [V AC]	Breaking capacity [kA]
E 9F10 AM05	0.5	500	120
E 9F10 AM1	1	500	120
E 9F10 AM2	2	500	120
E 9F10 AM4	4	500	120
E 9F10 AM6	6	500	120
E 9F10 AM8	8	500	120
E 9F10 AM10	10	500	120
E 9F10 AM12	12	500	120
E 9F10 AM16	16	500	120
E 9F10 AM20	20	500	120
E 9F10 AM25	25	400	120
E 9F10 AM32	32	400	120

Where to find more:

Protection and safety technical details for E 9F: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

E 90 fuse switch disconnectors - chapter 4
E 90h fuseholders - chapter 4
E 90 50/125 fuse disconnectors - chapter 4



E 9F14 aM

2/CSCA000039F0202



E 9F22 aM

2/CSCA000040F0202

E 9F14 aM cylindrical fuses 14 x 51 mm

Type	Rated current [A]	Rated voltage [V AC]	Breaking capacity [kA]
E 9F14 AM1	1	690	120
E 9F14 AM2	2	690	120
E 9F14 AM4	4	690	120
E 9F14 AM6	6	690	120
E 9F14 AM8	8	690	120
E 9F14 AM10	10	690	120
E 9F14 AM12	12	690	120
E 9F14 AM16	16	690	120
E 9F14 AM20	20	690	120
E 9F14 AM25	25	690	120
E 9F14 AM32	32	500	120
E 9F14 AM40	40	500	120
E 9F14 AM45	45	500	120
E 9F14 AM50	50	400	120

E 9F22 aM cylindrical fuses 22 x 58 mm

Type	Rated current [A]	Rated voltage [V AC]	Breaking capacity [kA]
E 9F22 AM6	6	690	120
E 9F22 AM8	8	690	120
E 9F22 AM10	10	690	120
E 9F22 AM12	12	690	120
E 9F22 AM16	16	690	120
E 9F22 AM20	20	690	120
E 9F22 AM25	25	690	120
E 9F22 AM32	32	690	120
E 9F22 AM40	40	690	120
E 9F22 AM50	50	690	120
E 9F22 AM63	63	690	120
E 9F22 AM80	80	690	120
E 9F22 AM100	100	500	120
E 9F22 AM125	125	500	120

Where to find more:

Protection and safety technical details for E 9F: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

E 90 fuse switch disconnectors - chapter 4
 E 90h fuseholders - chapter 4
 E 90 50/125 fuse disconnectors - chapter 4

Protection and safety

Cylindrical fuses E 9F aM

E 9F aM cylindrical fuses

The E 9F aM cylindrical fuses, coupled with E 90 and E 90 50/125 fuse disconnectors, are the ideal solution for protection against overload and short-circuit. They feature a delayed tripping curve and are therefore ideal for protecting industrial motors that require high inrush current during the starting phase. The E 9F aM series is available for all the main sizes (8.5 x 31.5 mm, 10.3 x 38 mm, 14 x 51 mm e 22 x 58 mm) and with a wide range of rated current values (from 1 A to 125 A and up to 690 V a.c.). All the E 9F series fuses conform to the RoHS directive and are type-approved in accordance with the most important international naval marks.

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E 9F 8 aM cylindrical fuses 8.5 x 31.5 mm

Rated current	Size	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
In	mm	EAN	Type code	Order code		kg	pc.
1	8.5x31.5	772835	E 9F8 AM1	2CSM277283R1801		0.004	10
2	8.5x31.5	770633	E 9F8 AM2	2CSM277063R1801		0.004	10
4	8.5x31.5	587439	E 9F8 AM4	2CSM258743R1801		0.004	10
6	8.5x31.5	575634	E 9F8 AM6	2CSM257563R1801		0.004	10
8	8.5x31.5	563839	E 9F8 AM8	2CSM256383R1801		0.004	10
10	8.5x31.5	586531	E 9F8 AM10	2CSM258653R1801		0.004	10

E 9F 10 aM cylindrical fuses 10.3 x 38 mm

Rated current	Size	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
In	mm	EAN	Type code	Order code		kg	pc.
0.5	10.3x38	574736	E 9F10 AM05	2CSM257473R1801		0.007	10
1	10.3x38	562931	E 9F10 AM1	2CSM256293R1801		0.007	10
2	10.3x38	775638	E 9F10 AM2	2CSM277563R1801		0.007	10
4	10.3x38	773436	E 9F10 AM4	2CSM277343R1801		0.007	10
6	10.3x38	771234	E 9F10 AM6	2CSM277123R1801		0.007	10
8	10.3x38	587330	E 9F10 AM8	2CSM258733R1801		0.007	10
10	10.3x38	575535	E 9F10 AM10	2CSM257553R1801		0.007	10
12	10.3x38	563730	E 9F10 AM12	2CSM256373R1801		0.007	10
16	10.3x38	586432	E 9F10 AM16	2CSM258643R1801		0.007	10
20	10.3x38	574637	E 9F10 AM20	2CSM257463R1801		0.007	10
25	10.3x38	562832	E 9F10 AM25	2CSM256283R1801		0.007	10
32	10.3x38	775539	E 9F10 AM32	2CSM277553R1801		0.007	10

E 9F 14 aM cylindrical fuses 14 x 51 mm

Rated current	Size	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
In	mm	EAN	Type code	Order code		kg	pc.
1	14x51	575337	E 9F14 AM1	2CSM257533R1801		0.018	10
2	14x51	563532	E 9F14 AM2	2CSM256353R1801		0.018	10
4	14x51	586234	E 9F14 AM4	2CSM258623R1801		0.018	10
6	14x51	574439	E 9F14 AM6	2CSM257443R1801		0.018	10
8	14x51	562634	E 9F14 AM8	2CSM256263R1801		0.018	10
10	14x51	775331	E 9F14 AM10	2CSM277533R1801		0.018	10
12	14x51	773139	E 9F14 AM12	2CSM277313R1801		0.018	10
16	14x51	770930	E 9F14 AM16	2CSM277093R1801		0.018	10
20	14x51	587033	E 9F14 AM20	2CSM258703R1801		0.018	10
25	14x51	575238	E 9F14 AM25	2CSM257523R1801		0.018	10
32	14x51	563433	E 9F14 AM32	2CSM256343R1801		0.018	10
40	14x51	586135	E 9F14 AM40	2CSM258613R1801		0.018	10
45	14x51	574330	E 9F14 AM45	2CSM257433R1801		0.018	10
50	14x51	562535	E 9F14 AM50	2CSM256253R1801		0.018	10

E 9F 22 aM cylindrical fuses 22 x 58 mm

Rated current	Size	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
In	mm	EAN	Type code	Order code		kg	pc.
6	22x58	586036	E 9F22 AM6	2CSM258603R1801		0.048	10
8	22x58	574231	E 9F22 AM8	2CSM257423R1801		0.048	10
10	22x58	562436	E 9F22 AM10	2CSM256243R1801		0.048	10
12	22x58	775133	E 9F22 AM12	2CSM277513R1801		0.048	10
16	22x58	772934	E 9F22 AM16	2CSM277293R1801		0.048	10
20	22x58	770732	E 9F22 AM20	2CSM277073R1801		0.048	10
25	22x58	774938	E 9F22 AM25	2CSM277493R1801		0.048	10
32	22x58	772736	E 9F22 AM32	2CSM277273R1801		0.048	10
40	22x58	770534	E 9F22 AM40	2CSM277053R1801		0.048	10
50	22x58	594130	E 9F22 AM50	2CSM259413R1801		0.048	10
63	22x58	582335	E 9F22 AM63	2CSM258233R1801		0.048	10
80	22x58	570530	E 9F22 AM80	2CSM257053R1801		0.048	10
100	22x58	595434	E 9F22 AM100	2CSM259543R1801		0.048	10
125	22x58	583639	E 9F22 AM125	2CSM258363R1801		0.048	10

Where to find more:

Protection and safety technical details for E 9F: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

- E 90 fuse switch disconnectors - chapter 4
- E 90h fuseholders - chapter 4
- E 90 50/125 fuse disconnectors - chapter 4

Protection and safety

Cylindrical Fuses E 9F gPV



2CSC40068F0002

E 9F PV

4

Technical features		
Rated voltage	[V]	1000 DC
Rated current	[A]	1...30
Breaking capacity	[kA]	10
Minimum breaking capacity		From 1 A up to 7 A = 1.3 x I _n From 8 A up to 30 A = 2.0 x I _n
Overall dimensions	[mm]	10.3 x 38
Weight	[g]	7
Standards		IEC 60269-6; ROHS 2002/98/CE, UL

E 9F PV cylindrical fuses for photovoltaic applications

The cylindrical fuses E 9F PV series are specifically used in overcurrent protection of photovoltaic applications up to 1000 V in direct current. Thanks to the wide current range from 1 A to 30 A, and to the high nominal voltage of 1000 V DC, the series E 9F PV is ideal to protect strings, inverters and OVR surge protections according to IEC 60269-6 "Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems".

E 9F PV cylindrical fuses 10.3 x 38 mm

Rated current	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
I _n	EAN	Type code	Order code		kg	pc.
1 A	134568	E 9F1 PV	2CSM213456R1801		0.007	10
2 A	134667	E 9F2 PV	2CSM213466R1801		0.007	10
3 A	134766	E 9F3 PV	2CSM213476R1801		0.007	10
4 A	134865	E 9F4 PV	2CSM213486R1801		0.007	10
5 A	134964	E 9F5 PV	2CSM213496R1801		0.007	10
6 A	135060	E 9F6 PV	2CSM213506R1801		0.007	10
7 A	135169	E 9F7 PV	2CSM213516R1801		0.007	10
8 A	135268	E 9F8 PV	2CSM213526R1801		0.007	10
10 A	135367	E 9F10 PV	2CSM213536R1801		0.007	10
12 A	135466	E 9F12 PV	2CSM213546R1801		0.007	10
15 A	135565	E 9F15 PV	2CSM213556R1801		0.007	10
20 A	135664	E 9F20 PV	2CSM213566R1801		0.007	10
25 A	135763	E 9F25 PV	2CSM213576R1801		0.007	10
30 A	135862	E 9F30 PV	2CSM213586R1801		0.007	10

Where to find more:

Protection and safety technical details for E 9F: Chapter 4 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

E 90 fuse switch disconnectors - chapter 4
E 90h fuseholders - chapter 4
E 90 50/125 fuse disconnectors - chapter 4

Protection and safety

ILTS-E D0 Fuse-switch-disconnectors



ILTS-E1



ILTS-E1



ILTS-E3



ILTS-E/H11



ILTS-E/RE

Maybe you are also interested in:

Busbars and accessories for ILTS-E and ISS - chapter 4

Technical data

Standards:	DIN VDE 0638, EN 60947-3, EN 660269-3-1
Approval:	VDE
No. of poles:	1, 2, 3 pole and 3 pole+N
Rated voltage:	400 V AC, per pole 65 V DC (2 pole 130 V DC)
Operating current In:	acc. to fuse link D0 2-63 A
Rated frequency:	50/60 Hz
Rated short circuit capacity:	50 kA for AC (8 kA for DC)
Power loss:	5.5 W/pole
Utilization category:	AC 22 B: 400 V AC 63 A according to IEC/EN 60947-3 (all versions)
	DC 22 B: 65 V DC 63 A according to IEC/EN 60947-3 (1 pole)
	DC 22 B: 130 V DC 63 A according to IEC/EN 60947-3 (2 pole)
Leakage current resistance:	CTI 200
Ambient temperature:	- 5 °C up to + 40 °C
Casing material:	thermoplast; halogen-, phosphor-, silicone- and CFC-free
Fire classification:	UL 94 (self-extinguishing)
Shock protection:	according to DIN EN 50 274 (DIN VDE 0660 Part 514) BGV A3
Connection capacity:	1.5 – 35 mm ² finely stranded, directly clamped or with connector sleeve Twin-function terminal for simultaneous connection of two conductors (35 mm ² and 16 mm ²) or conductor and busbar
Pick-up torque:	2.5 – 3 Nm
Auxiliary switch indicating contact position	
Contacts:	1 NO contact + 1 NC contact
Contact rating:	AC 13: 2 A/400 V, 6 A/230 V DC 13: 1 A/220 V, 6 A/24 V

Switch-disconnector ILTS-E for D0 2-63 A fuse links “Drawer technology”

User-friendly fuse-switch-disconnector in “drawer technology”:

- Snap action
- Fuse can be replaced only if the system is de-energized.
- Captive fuse carrier
- For D02 fuse links, D01 fuse link with reducing piece
- Twin box terminal on both sides
- User-friendly installation of cross-wiring in lower terminal
- Auxiliary switch to indicate switching position

Fuse-switch-disconnector

Poles	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
1	65347 3	ILTS-E1	2CDE 101 001 R1901		0.210	3
2	65348 0	ILTS-E2	2CDE 102 001 R1901		0.420	2
3	65349 7	ILTS-E3	2CDE 103 001 R1901		0.630	1
3+N*	65350 3	ILTS-E3+N	2CDE 103 101 R1901		0.790	1
Reducing piece	65407 4	ILTS-E/RE	2CDE 000 011 R1901		0.001	20
Auxiliary switch 1NO/1NC	65671 9	LTS-E/H11	2CDE 000 012 R1901		0.050	1

* N conductor leading make contact, late closing

Protection and safety

ISS D0 Fuse carriers



2CDC 051 109 F0007

ISS 16/1



2CDC 051 110 F0007

ISS 63/1



2CDC 051 111 F0007

ISS 16/3



2CDC 051 112 F0007

ISS 63/3

Technical features

Size:	D01	D02
Current type:	AC (50 Hz)/DC	AC (50 Hz)/DC
Rated voltage:	400 V AC/250 V DC	400 V AC/250 V DC
Rated current:	16 A	63 A
Rated short-circuit current:	50 kA (AC) 8 kA (DC)	50 kA (AC) 8 kA (DC)
For fuse links with losses per phase up to:	2.5 W	5.5 W

D0 fuse carrier ISS with integrated red cover

D0 fuse base for NEOZED fuse links D01/D02. Touch-protection according to BGV A3. Twin box terminal on both sides for connection of two different conductor cross-sections or conductors and busbars.

Conductor cross-sections incoming and outgoing 1.5 – 35 mm², stranded. With integrated terminal cover. A separate cover for distribution board installation is not required.

- IEC 60269-3/VDE 0636-3
- 1/3-pole
- Fuse links, connector sleeves VDE 0636-3
- Snap clip device for rail mounting to EN 60715
- Twin function terminal
- Connection cross-section 1.5 – 35 mm²
- Tightening torque 2.5 – 3 Nm

D0 fuse carrier

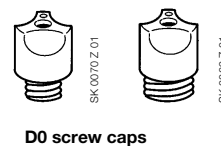
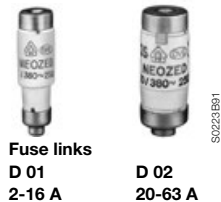
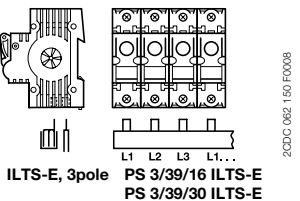
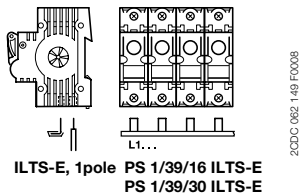
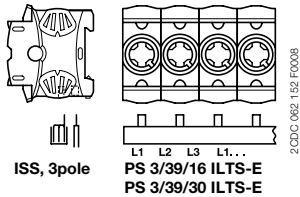
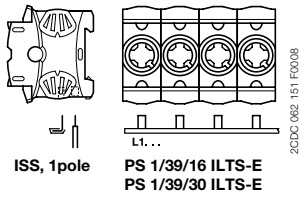
Poles	Screw cover/fuse	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code			
1	E14 D01	65579 8	ISS 16/1	2CDE 111 001 R1902		0.08	9
1	E18 D02	65581 1	ISS 63/1	2CDE 161 001 R1902		0.08	9
3	E14 D01	65580 4	ISS 16/3	2CDE 113 001 R1902		0.24	9
3	E18 D02	65582 8	ISS 63/3	2CDE 163 001 R1902		0.24	9

Maybe you are also interested in:

Busbars and accessories
for D0 fuses - chapter 4

Protection and safety

Busbars and accessories for ILTS-E and ISS



Busbars for fuse-switch-disconnector ILTS-E and fuse carrier ISS: 1pole or 3pole

End caps:

PS 1/39/16 ILTS-E: END 1.1

PS 1/39/30 ILTS-E: PS-END 3.2

PS 3/39/16 ILTS-E: PS-END

PS 3/39/30 ILTS-E: PS-END 3

Busbars									
Cross-section	Length	No. of poles	Cu factor	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²	mm			EAN	Type code	Order code		kg	pc.
16	1040	39 x 1	0.43	66956 6 a	PS 1/39/16 ILTS-E	2CDL 010 101 R1639	15	0.23	10
30	1040	39 x 1	0.74	66957 3 a	PS 1/39/30 ILTS-E*	2CDL 010 101 R3039	15	0.487	5
16	1040	39 x 3	1.3	66958 0 a	PS 3/39/16 ILTS-E	2CDL 030 101 R1639	15	0.59	10
30	1040	39 x 3	1.95	66959 7 a	PS 3/39/30 ILTS-E*	2CDL 030 101 R3039	15	1.222	5

a bbn-Nr. 40 16779 * Not compatible with ISS

End caps									
Cross-section	Length	No. of poles	Cu factor	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm ²	mm			EAN	Type code	Order code		kg	pc.
		1		63891 3	END 1.1	2CDL 200 011 R0011	15	0.001	50
		2/3		51472 9	PS-END	2CDL 200 001 R0001	15	0.001	50
		2/3		65430 2	PS-END 3	2CDL 200 001 R3001	15	0.001	50
		1		66960 3	PS-END 3.2	2CDL 200 001 R3003	15	0.001	50

D0 fuses and accessories

D0 fuse links to DIN VDE 0636-3, IEC/EN 60269-3 suitable for D01/E14

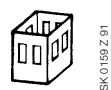
Rated current	Colour code	Power loss	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
A		W	EAN	Type code	Order code		kg	pc.
2	pink	1.5	60480 7	D01 x 2 gG	GMN 977 120 P0011	13	0.006	10
4	brown	1.5	60490 6	D01 x 4 gG	GMN 977 120 P0012	13	0.006	
6	green	1.5	60500 2	D01 x 6 gG	GMN 977 120 P0013	13	0.006	
10	red	1.8	60510 1	D01 x 10 gG	GMN 977 120 P0014	13	0.006	
16	grey	2.1	60520 0	D01 x 16 gG	GMN 977 120 P0015	13	0.006	

Suitable for D02/E18

Rated current	Colour code	Power loss	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
A		W	EAN	Type code	Order code		kg	pc.
20	blue	2.3	60530 9	D02 x 20 gG	GMN 977 120 P0017	13	0.011	10
25	yellow	2.6	60540 8	D02 x 25 gG	GMN 977 120 P0018	13	0.012	
35	black	2.9	60550 7	D02 x 35 gG	GMN 977 120 P0019	13	0.013	
50	white	3.5	60560 6	D02 x 50 gG	GMN 977 120 P0020	13	0.014	
63	copper	4.2	60570 5	D02 x 63 gG	GMN 977 120 P0021	13	0.015	

Protection and safety

Busbars and accessories for ILTS-E and ISS



SK 0189 Z 01

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D0 screw caps acc. to DIN VDE 0636-3, IEC/EN 60269-3, 400 V AC Plastic version, RAL 7037

Rated current	Colour code	Power loss	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
A		W	EAN	Type code	Order code		kg	pc.
16	for D01	–	60790 7	D01 DIN 49 525 K	GMN 977 130 P0011	13	0.015	20
63	for D02	–	60800 3	D02 DIN 49 525 K	GMN 977 130 P0012	13	0.015	20

D0 connector sleeves to DIN VDE 0636-3, IEC/EN 60269-3 Suitable for D01/E14

Rated current	Colour code	Power loss	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
A		W	EAN	Type code	Order code		kg	pc.
2	pink	–	60600 9	D01 x 2	GMN 977 125 P0001	13	0.001	50
4	brown		60610 8	D01 x 4	GMN 977 125 P0002	13	0.001	
6	green		60620 7	D01 x 6	GMN 977 125 P0003	13	0.001	
10	red		60630 6	D01 x 10	GMN 977 125 P0004	13	0.001	

Suitable for D02/E18

Rated current	Colour code	Power loss	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
A		W	EAN	Type code	Order code		kg	pc.
2	pink	–	60640 5	D02 x 2	GMN 977 125 P0011	13	0.001	50
4	brown		60650 4	D02 x 4	GMN 977 125 P0012	13	0.001	
6	green		60660 3	D02 x 6	GMN 977 125 P0013	13	0.001	
10	red		60670 2	D02 x 10	GMN 977 125 P0014	13	0.001	
16	grey		60680 1	D02 x 16	GMN 977 125 P0015	13	0.001	
20	blue		60690 0	D02 x 20	GMN 977 125 P0016	13	0.001	
25	yellow		60700 6	D02 x 25	GMN 977 125 P0017	13	0.001	
35	black		60710 5	D02 x 35	GMN 977 125 P0018	13	0.001	
50	white		60720 4	D02 x 50	GMN 977 125 P0019	13	0.001	

Spring clip for use of D01 fuses in D02 screw caps

Rated current	Colour code	Power loss	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
A		W	EAN	Type code	Order code		kg	pc.
			15120 7	FD 1713	GMN 977 130 P0004	13	0.001	50

Protection and safety

Electronic Protection Devices for use behind 24 V DC Switch Mode Power Supplies



EPD

Operating data

Operating voltage UB:	24 V DC (18...32 V)		
Current rating IN:	fixed current ratings: 0.5, 1, 2, 3, 4, 6, 8, 10, 12 A		
Closed current IO:	ON condition: typically 20...30 mA depending on signal output		
Status indication by means of:	multi-colour LED:	Green:	- unit is ON (S1 = ON) - load circuit/Power-is switched on MOSFET
		Orange:	- in the event of overload or short circuit until electronic disconnection
		Red:	- unit electronically disconnected - load circuit/Power-MOSFET OFF - undervoltage (UB < 8 V) - after switch-on till the end of the delay period
		OFF:	- manually switched off (S1 = OFF) or device is dead
		potential-free auxiliary contact F ON/OFF/condition of switch S1	

Load circuit

Load output	Power-MOSFET switching output (high side switch)
Overload disconnection	typically 1.1 x IN (1.05...1.35 x IN)
Short-circuit current IK	active current limitation (see table 1)
Trip time	see time/current characteristics
For electronic disconnection	typically 3 s at ILoad > 1.1 x IN typically 100 ms...3 s at ILoad > 1.8 x IN (or 1.5 x IN/1.3 x IN,)
Temperature disconnection	internal temperature monitoring with electronic disconnection
Low voltage monitoring load output	with hysteresis, no reset required: load »OFF« at UB < 8 V
Starting delay tStart	typically 0.5 sec after every switch-on and after applying US
Disconnection of load circuit	electronic disconnection
Free-wheeling circuit	suitable external free-wheeling circuit to be used with inductive load
Several load outputs must not be connected in parallel	

Signal output F

Electrical data	potential-free auxiliary contact max. 30 V DC/0.5 A, min. 10 V DC/10 mA
ON condition LED green	voltage UB applied, switch S1 is in ON position no overload, no short circuit
OFF condition LED off	device switched off (switch S1 is in OFF position) no voltage UB applied
Fault condition LED orange	overload condition > 1.1 x IN up to electronic disconnection
Aux. contact	single signal, make contact contact open, terminal 13-14
Fault	signal output fault conditions - no operating voltage UB - ON/OFF switch S1 is in OFF position - red LED lighted (electronic disconnection)

Protection and safety

Electronic Protection Devices for use behind 24 V DC Switch Mode Power Supplies

4

General data	
Fail-Safe element	backup fuse for EPD24 not required because of the integral redundant fail-safe element
Housing material	moulded
Mounting	symmetrical rail to EN 50022-35x7.5
Ambient temperature	0...+50 °C (without condensation, see EN 60204-1)
Storage temperature	-20...+70 °C
Humidity	96 hrs/95 % RH/40 °C to IEC 60068-2-78, test Cab. climate class 3K3 to EN 60721
Vibration	3 g, test to IEC 60068-2-6 test Fc
Degree of protection	housing: IP20 DIN 40050 terminals: IP20 DIN 40050
EMC (EMC directive, CE logo)	emission: EN 61000-6-3 susceptibility: EN 61000-6-2
Isolations coordination (IEC 60934)	0.5 kV/pollution degree 2 reinforced insulation in operating area
Dielectric strength	max. 32 V DC (load circuit)
Isolation resistance (OFF condition)	n/a, only electronic disconnection
Approvals/Declarations of conformity	UL 2367 Solid State Overcurrent Protectors UL 1604, (class I, division 2, groups A, B, C, D) UL 508 CSA C22.2 No. 213 (class I, division 2) CSA C22.2 No. 142 CSA C22.2 No. 14 CE logo
Dimensions (B x H x T)	12.5 x 80 x 83 mm
Weight	approx. 65 g

Terminals Line+/LOAD+/0V

Screw terminals	M4
Max. cable cross section flexible with wire end ferrule w/wo plastic sleeve	0.5 – 10 mm ²
Multi-lead connection (2 identical cables) rigid/flexible	0.5 – 4 mm ²
Flexible with wire end ferrule without plastic sleeve	0.5 – 2.5 mm ²
Flexible with TWIN wire end ferrule with plastic sleeve	0.5 – 6 mm ²
Wire stripping length	10 mm
Tightening torque (EN 60934)	1.5 – 1.8 Nm

Terminals aux. contacts

Screw terminals	M3
Max. cable cross section flexible with wire end ferrule w/wo plastic sleeve	0.25 - 2.5 mm ²
Wire stripping length	8 mm
Tightening torque (EN 60934)	0.5 Nm



The protection devices EPD24 extend the ABB product range of modular DIN rail components by electronic overcurrent protection modules for selective protection of 24V DC load circuits. This protection is achieved by a combination of active electronic current limitation in the case of a short circuit and an overload deactivation from 1.1 x I_N upwards. If a fault occurs in a load circuit, the protection device EPD24 will detect this rapidly and reliably, disable the power output transistor and hence interrupt the current flow in the defective circuit. The maximum possible overcurrent is always limited to 1.5...1.8 times the selected rated current. An activation of capacitive loads up to 20.000 μF is possible, deactivation only occurring in the case of overloads or short circuits. Selective deactivation of the defective current circuit means undefined error states and a complete system stop are prevented.

Features

- Selective load protection, one electronic trip characteristics.
- Active current limitation for safe connection of capacitive loads up to 20.000 μF and on overload/short circuit.
- Current ratings 0.5 A...12 A.
- Reliable overload disconnection with 1.1 x I_N
- Manual ON/OFF button
- Clear status and failure indication through LED and auxiliary contact.
- Integral fail-safe element adjusted to current rating.
- Width per unit only 12.5 mm.
- Rail mounting
- Ease of wiring through busbar LINE+ and 0 V as well as signal bars.
- UL- and CSA-approvals allow international use of the devices.

Rated current I_N	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
A	EAN	Type code	Order code		kg	pc.
0.5	829960	EPD24-TB-101-0.5A	2CDE 601 101 R2905		0.065	4
1	829984	EPD24-TB-101-1A	2CDE 601 101 R2001		0.065	4
2	830003	EPD24-TB-101-2A	2CDE 601 101 R2002		0.065	4
3	830027	EPD24-TB-101-3A	2CDE 601 101 R2003		0.065	4
4	830041	EPD24-TB-101-4A	2CDE 601 101 R2004		0.065	4
6	830065	EPD24-TB-101-6A	2CDE 601 101 R2006		0.065	4
8	830089	EPD24-TB-101-8A	2CDE 601 101 R2008		0.065	4
10	830102	EPD24-TB-101-10A	2CDE 601 101 R2010		0.065	4
12	830126	EPD24-TB-101-12A	2CDE 601 101 R2012		0.065	4

Accessories

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Busbars for LINE+ and 0 V, grey insulation, length 500 mm 1)	830140	EPD-BB500	2CDE 605 100 R0500		0.20	10
Signal Bars for aux. contacts, grey insulation, length 21 mm	830164	EPD-SB21	2CDE 605 200 R0021		0.04	10

1) Max. load with one line entry $I_{max} = 50 \text{ A}$ (recommended: center-feeding)
Max. load with two line entries $I_{max} = 63 \text{ A}$

Where to find more:

Technical details for EPD24:
Chapter 4 of
Solutions for electrical installation in
buildings - technical details

Protection and safety

SQZ3 phase and sequence relay



SQZ3

2CSM111310R1331

4

Technical features		
Supply voltage	[Vn]	400 V a.c.
Frequency	[Hz]	50/60
Contact type	[A]	1 CO, 250 V, 10 A (cosφ=1) safety switching
Minimum voltage adjustment trimmer	[%]	100 to 70 % of Vn
Intervention delay adjustment trimmer	[s]	2 to 20 (only for min. voltage)
Protection degree	[IP]	20
Operating temperature	[°C]	-10...+55
Power consumption	[W]	1.5
Modules	[No.]	3

SQZ3 phase and sequence relay

SQZ3 relay performs the following continue monitoring functions on three-phase networks at 400 V a.c.:

- phase sequence
- phase failure
- minimum voltage (adjustable up to 70 % of Vn).

If one of the three failures is detected, the output relay (safety switching contact) intervenes with a

delay adjustable from 2 to 20 seconds for minimum voltage only and controls the following:

- acoustic alarms
- motor controlling contactors
- circuit-breakers with coils.

Bbn	Order details		Price	Weight	Pack
8012542	Type code	Order code	1 piece	1 piece	unit
EAN				kg	pc.
372004	SQZ3	2CSM111310R1331		0.300	1

Where to find more:

Technical details for SQZ3:
Chapter 4 of
Solutions for electrical installation
in buildings - technical details

Worldwide marks and approvals
of MDRCs - chapter 15

Protection and safety

RH/RL maximum and minimum current/voltage relays



RH/RL

Technical characteristics

Rated voltage Un	[V]	a.c. 230
Contact type		1 CO, 250 V, 16 A
Rated frequency	[Hz]	50/60
Current relay alarm thresholds	[A]	2, 5, 10
Voltage relay alarm thresholds	[V]	100, 300, 500
Adj. calibration of In and Vn %	[%]	30...100
Adjustable hysteresis value	[%]	1...45
Time delay	[s]	1...30
Power consumption	[W]	2
Modules	[No.]	3
Control relay alarm indication		red LED on = alarm
Power supply lighting indication		green LED on = ON
Alarm indication		blinking green LED = alarm

4

Maximum and minimum current/voltage relays

These relays are used for monitoring current and voltage on single-phase electrical networks, to ensure perfect protection of the devices installed on the system.

The range includes:

- maximum current (RHI) and maximum voltage (RHV) relays. The control relay remains on as long as the measured quantity stays below the preset threshold value.
- minimum current (RLI) and minimum voltage (RLV) relays. The control relay remains on as long as the measured quantity stays above a preset threshold value.

Both types of relays have trimmers for adjusting the switch-off delay and the hysteresis (from 1 to 45 %).

The 100 V and 5 A relay inputs allow indirect connection of external CTs and VTs for monitoring voltage and current values exceeding the maximum device scale

Type	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
maximum current relay	334309	RHI	2CSM121310R1321		0.300	1
maximum voltage relay	334101	RHV	2CSM111310R1321		0.300	1
minimum current relay	334200	RLI	2CSM122310R1321		0.300	1
minimum voltage relay	334002	RLV	2CSM112310R1321		0.300	1

Where to find more:

Technical details for RH/RL:
Chapter 4 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals of
MDRCs - chapter 15

Frequently asked question - FAQ:

Can I use RH/RL with current/voltage
transformers?

Yes, 5A and 100V inputs are made
for that.

Protection and safety

E 236 undervoltage monitoring relays



E 236-US 1



E 236-US 2

Technical features		US 1	US 2
Rated voltage		250 V a.c.	
Frequency		48-63 Hz	
Measuring range:	supply voltage	3N 400/230 V a.c. (terminals N-L1-L2-L3)	
	overload capacity	3N 459/265 V a.c.	
Switching capacity		device in series (distance < 5 mm): 750 VA (3 A/250 V a.c.); device not in series (distance > 5 mm): 1250 VA (5 A/250 V a.c.)	
Rated insulation voltage		250 V a.c. (corresponds with IEC 664-1)	
Rated surge voltage		4 kV	
Tripping delay		ca. 100 ms	
Clearance and creepage distance		> 6 mm (between contact and electronics)	
Mechanical service life		20 x 10 ⁶ operations	
Electrical service life at 10000 VA		2 x 10 ⁵ operations	
Max. switching rate		max. 6/min (1000 VA Ohmic load); max. 60/min (100 VA Ohmic load)	
Ambient temperature		-25 °C/-13 °F to +55 °C/131 °F	
Overvoltage category		III	
Accuracy in non-changing environment:	setting tolerance (US 2)	≤ 5 %	
	repeat accuracy	±1 %	
	temperature effect	≤ 0.1 %/°C	
Terminals		up to 4 mm ²	
Specifications		VDE 0110 and VDE 0435	
EMC tests		EM 50081-1 and EN 50082-2	
Displays		LED green= supply voltage applied; LED yellow= relay status	
Power loss		1.7 W	

E 236 undervoltage monitoring relays

Function

The green LED is lit when the supply voltage is applied. If each phase voltage exceeds 195 V (US1) or exceeds the preset threshold value (US2) with respect to the neutral including the hysteresis when switching the device on, the relay switches immediately into the working position. The yellow LED is lit. If at least one phase voltage falls below the threshold value, the relay goes back into its normal position and the yellow LED goes out.

If also phase 2 fails, the green LED goes out, too.

It is indispensable to connect the neutral conductor!

Application - devices with 2CO contacts

For the control of three-phase undervoltage (each phase to neutral) of switchgear, also for installations according to DIN VDE 0100-718 (power installations in hospitals and rooms used for medical purposes outside of hospitals) and DIN VDE 0108-100 (power installations and safety supply in buildings where many people gather).

US 1: 3 phases to neutral with fixed threshold at 195 V; hysteresis fixed 5 %

US 2: 3 phases to neutral with fixed threshold at 160 – 240 V; hysteresis fixed 5 %

Contact	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
2CO	511087	E 236-US 1	2CDE165000R2001		0.095	5
2CO	511094	E 236-US 2	2CDE165010R2001		0.095	5

Where to find more:

Technical details for E236:
Chapter 4 of
Solutions for electrical installation in
buildings - technical details



E 236

2CHC 001 284 F0005

Technical features

	US 1.1	US 2.1	US 1.1D
Supply circuit			
Supply voltage (= measured voltage):	3N~ 400/230 V AC (terminals N-C1-C2-C3)		
Overvoltage permanent:	3N~ 459/265 V AC		
Frequency:	48 – 63 Hz (AC sinus)		
Rated surge voltage:	4 kV		
Overvoltage category:	III		
Output circuit (isolated two-way-switch)			
Rated voltage:	250 V AC		
Switching capacity:	1250 VA (5 A/250 V AC)		
Continuous current:	1250 VA (5 A/250 V AC)		
Fuse protection:	5 A flink		
Serviceable life, mechanical:	15x106 switchover cycles		
Serviceable life, electric:	2x105 switchover cycles at 1.000 VA resistive load		
Max. switching rate:	max. 6/min at 1.000 VA resistive load max. 60/min at 100 VA resistive load		
Trip delay:	ca. 200 ms		
Pick-up delay (US 1.1D)	0,1 – 10 min		
Accuracy under constant conditions	≤ 5 % of full scale value		
– setting accuracy (US 2.1/1.1D):	≤ 2 %		
– repeat accuracy:	≤ 1 %		
– temperature effect:			
Ambient temperature:	– 25° to + 55 °C		
Terminals:	1 x 0.5 to 2.5 mm ² with/without connector sleeve 1 x 4 mm ² without connector sleeve 2 x 0.5 to 1.5 mm ² with/without connector sleeve 2 x 2.5 mm ² without connector sleeve		
Pick-up torque:	max. 1 Nm		
Mounting position:	optional		
Vibration resistance:	10 to 55 Hz 0.35 mm (IEC 68-2-6)		
Shock resistance:	15 g 11 ms (IEC 68-2-27)		
Standards:	VDE 0110 und VDE 0435		
EMC tests:	EN 61000-6-2 and EN 61000-6-4		
Back-up fuse	≤ 16 A		
Displays:	green LED U/t ON	all 3 voltages ok	
	green LED U/t flashes	time-out indication	
	yellow LED ON/OFF	position of output relay	

All measured inputs have to be connected to one phase each. If no three-phase measurement should be carried out, measured inputs have to be connected to one phase to apply the required voltage to all measured inputs. If a load causes inverse voltage exceeding the threshold value U_s , phase failures cannot be identified.

A neutral conductor must be connected in any case!

Where to find more:

Technical details for E236:
Chapter 4 of
Solutions for electrical installation in
buildings - technical details

Protection and safety

E 236 undervoltage monitoring relays



2CDE 051 234 F0005

4 E 236-US 1.1



2CDE 051 235 F0005

E 236-US 2.1



2CDE 051 236 F0005

E 236-US 1.1D

Devices for panel installation onto mounting rails (35 mm) according to DIN EN 60715
 mounting depth: 68 mm
 mounting width: 17.5 mm = 1 module
 color: gray, RAL 7035

Application - devices with 1CO contact

For three-phase undervoltage monitoring (each phase connected to a neutral conductor) of switchgear. Devices with fixed threshold value (US 1.x and US 1.1 D) also for installations according to

DIN VDE 0100-718 (for medical purposes) and DIN VDE 0108-100 (power installations and safety supply in installations for gathering of people).

US 1.1: 3 phases to neutral conductor with fixed threshold value at 195 V; hysteresis fixed at 5 %

US 2.1: 3 phases to neutral conductor with threshold value range of 160 – 240 V; hysteresis fixed at 5 %

US 1.1D: 3 phases to neutral conductor with fixed threshold value at 195 V; hysteresis fixed at 5 %, but with switch-on delay of 0.1 (6 sec.) to 10 min

Undervoltage monitoring device with pick-up delay E 236-US 1.1D

If the measurement of the voltage of all phases connected exceeds the switching threshold U_s , including the hysteresis, the time delay (t) starts to run and the (green LED U/t) flashes. Upon expiry of the time delay (t), the output relay R picks up (yellow LED on, green LED U/t flashes). If the measured voltage of one of the connected phases falls below the switching threshold U_s , the output relay de-energizes (yellow LED is off, green LED U/t is off).

Contact	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
1 two-way switch	651776	E 236-US 1.1	2CDE165001R2001		0.05	10
1 two-way switch	651783	E 236-US 2.1	2CDE165011R2001		0.05	10
1 two-way switch	651790	E 236-US 1.1D	2CDE165001R2011		0.05	10

H+ Line. Operational continuity

A wide range which ensure safety and reliability in hospital segment

S200 residual miniature circuit-breakers

OVR surge protection device

ISOLTESTER-DIG-RZ insulation monitoring device

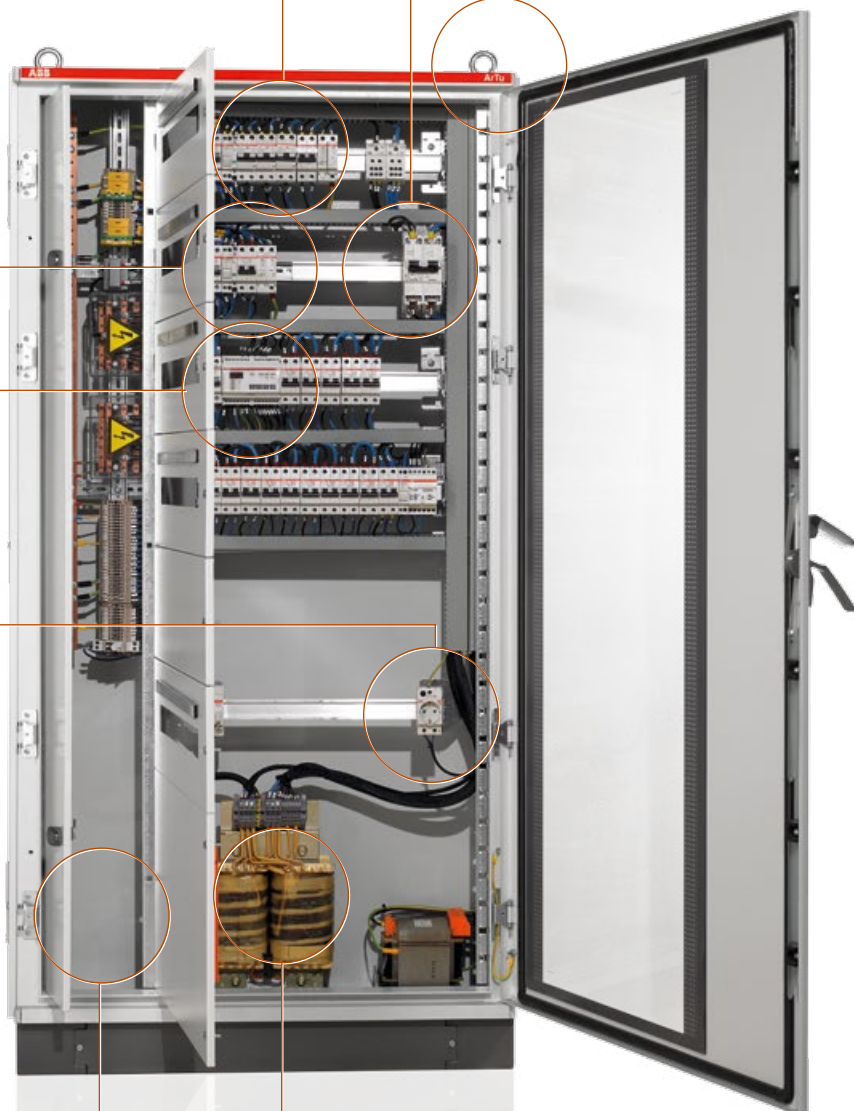
M1175-FL schuko socket outlet

Cable container

S700 E, S750DR selective main circuit-breakers

Lifting eyebolts

TI-S insulating transformers



H+ Line. Operational continuity

A wide range which ensure safety and reliability in hospital segment

4



Specifically designed and assembled for medical use according to the IEC EN 61558-2-15, it ensures protection against indirect contacts without the need to interrupt the circuit automatically upon the first grounding fault.

Thanks to its two PT100 temperature probes, on primary and secondary winding, it is possible to monitor the transformer over temperature produced by any eventual overload, and therefore anticipating any breakdown.

The transformer is mounted on the base of the switchboard in order to ease handling and installation operations.



ArTu K series floor standing switchboards are equipped with a cable container that makes installation and wiring easier, both for the electrical systems distributed along the false ceiling, as under the floor.

It is possible to reach any terminal block in a comfortable way.

Finally, there is a copper equipotential bonding busbar which may lodge up to 20 additional connections, providing grounding connections to all the external masses which are present in the medical premises, and avoiding the creation of further cascade sub-nodes that are not allowed.



This is an insulation monitoring device for group 2 medical locations fully compliant with the IEC 60364-7-710 reference standard. It integrates all the performances established by the reference standard, such as overload and overcurrent monitoring, together with traditional IT system earthing insulation measurement.



Floor standing QSO switchboards are composed of modular ArTu K series enclosures. The switchboards are equipped with venting grooves that guarantee proper natural convection, useful to dissipate the heat produced by the transformer during its normal functioning.

Protection and safety

H+Line products

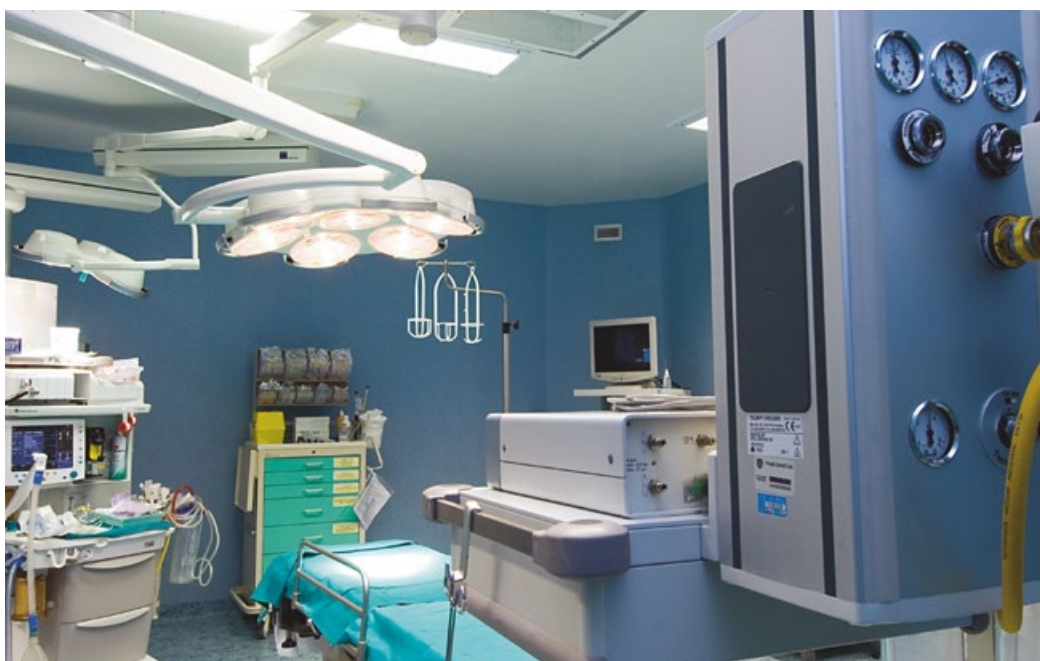
Solutions for the hospital sector

ABB's extensive experience in the hospital field is certified by several installations in leading hospitals, which represent the current leading-edge in safety and technology. Over the years, ABB has developed an increasingly more complete product with higher performance to meet the needs of more demanding customers and guarantee patient and operator safety.

H+Line products are specifically designed for group 2 medical environments in full compliance with Standard IEC 60364-7-710, specifically:

- Intensive therapy wards, operating theatres, cardio surgical rooms, ICU...
- Day hospitals, clinics, rest homes, dental and veterinary clinics, etc.

- H like Hospital
- + like health and first aid
- + like the countless advantages of ABB products



Protection and safety

H+Line products

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H+Line product range

ISOLTESTER		Insulation monitoring device for IT-M 230 V circuits
SELVTESTER		Insulation monitoring device for SELV 24 V circuits which supply scialitic lamps.
QSD		Remote signalling panel for visual and acoustic fault indication.
TI		Medical insulating transformers for insulated protection systems.
QSO		Wall mounting and floor standing switchboards for medical locations.

Valid assistance for consultants

Everyone knows what the regulations say. ABB tells you what they don't say. The "Practical guide to group 2 medical locations" is designed to be a useful daily tool for consultants and installers to help them in each group 2 hospital electrical system designing and installation. The document was developed together with ABB customers with the intent to support key regulatory questions with practical solutions, considerations and recommendations on system design. This way, the "Practical guide to group 2 medical locations" is a valid tool, with plenty of examples, to support consultants in their daily job.

Protection and safety

ISOLTESTER-DIG insulation monitoring devices



ISOLTESTER-DIG

20SC400703F0001

Technical features	ISOLTESTER-DIG-RZ	ISOLTESTER-DIGPLUS
Aux supply	115 - 230 V 50-60Hz	
Power consumption	5 VA max	6 VA max
Rated voltage	24÷230V 50-60Hz	24÷250V ac/dc
Measurement current	1 mA max	
Measurement voltage	24 V max	
Control signal	Continuous with digital filter	Composite codified
Internal impedance	200 kΩ	
Insulation measurement	0 ÷ 999 kΩ resolution 1 kΩ accuracy 5% ± 1 digit	
Impedance measurement	0 ÷ 999 kΩ resolution 1 kΩ	
Temperature measurement	PT100 with 2 or 3 wires, PTC 0÷200 °C, resolution 1 °C, accuracy 2 % ± 1 digit	
Current measurement	TA .../5 A external accuracy 5% ± 1 digit, (adjustable transformation rate 1÷40)	
Capacity measurement	no	0 ÷ 9.9 μF resolution 0.1 μF
Thresholds	Resistance: 50 ÷ 500 kΩ Impedance: 50 ÷ 500 kΩ Thermal overload: 30 ÷ 200 °C with PT100 Electrical overload: 1 ÷ 99.9 A	
Signals	incorrect wiring (link fail) open/short circuit for temp sensor PT100 internal error	
Output	QSD supply (max 2 QSD), max 24Vdc Signals to QSD aux relay for low resistance, NO-C-NC 5A 250 V AC -	QSD supply (max 4 QSD), max 24Vdc programmable aux relay, NO-C-NC 5A 250 V AC Serial output RS485, ModbusRTU protocol,
Modules	6	
Weight	0.4 kg	0.5 kg
Mechanical features	fire resistant plastic case sealable transparent front cover	
Terminals	screw terminals 2.5 mm ²	
IP degree	IP20, IP50 when the cover is closed	
Operating temperature	-10 ÷ 60 °C	
Storage temperature	-25 ÷ 70 °C, humidity < 95%	
Insulation	2.5 kV 60 sec.	
Directives	CEI-EN 61010-1 CEI-EN 61557-8 IEC 60364-7-710 UNE 20615 CEI-EN 61326-1	

Where to find more:

Functioning of the frontal operator of ISOLTESTER: Chapter 4 of Solutions for electrical installation in buildings - technical details

You can find all ABB instruction manuals on www.abb.com/abblibrary/download-center

Protection and safety

ISOLTESTER-DIG insulation monitoring devices



ISOLTESTER-DIG

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H+Line

Assuring operational continuity in medical environments, even in presence of first earthing fault, it's mandatory in operating theatre group 2 medical locations.

For this reason an IT distribution system with insulating transformer is used to supply medical equipment.

ISOLTESTER-DIG

ISOLTESTER range of insulation monitoring device allows IT-M network monitoring, assuring safety for patients and medical personnel avoiding supply interruption in case of first earthing fault according to IEC 60364-7-710 Standard.

The ISOLTESTER-DIG range assures safety to patients and medical personnel, signalling when a fault to earth occurs. Thanks to its innovative technology it is used to sense the insulation level of the network by far more efficiently compared to traditional insulation monitoring devices.

Advanced features	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
	884507	ISOLTESTER-DIG-RZ	2CSM244000R1501		0.500	1
RS485, Max-Min values, Programmable relay, Noise immunization (with codified signal)	884606	ISOLTESTER-DIG-PLUS	2CSM341000R1501		0.500	1

Protection and safety

SELVTESTER insulation monitoring devices for insulated networks at 24 V a.c/d.c.



SELVTESTER

2CSM211000R1511

H+Line

Technical features	
Network voltage and auxiliary power supply	24 V 50-60 Hz/d.c. ± 20 %
Max power dissipation	3 VA – 3 W
Max measuring current	max. 0.5 mA
Internal impedance	50 kohm
Activation threshold setting	programmable to 10 ÷ 50 kohm (4 levels using microswitches)
Activation delay	about 1 second
Signals	led ON, led ALARM +, led ALARM -
Output	for up to 2 QSD-230/24-C, max. 24 V 1 A remote panels
Operating/storage temperature	-10 ÷ 60 °C/-20 ÷ 70 °C
Relative humidity	≤ 95 %
Insulation test	2.5 kV 60 sec./4 kV imp. 1.2/50µs
Terminal cross section	4 mm ²
Front degree of protection	IP40 with cover/IP20 container
Modules	3
Weight	200 g
Reference standards for safety	IEC 60364-7-710, EN 61326-1, EN 61010-1

4

SELVTESTER for insulated networks at 24 V a.c/d.c.

It is used to monitor permanently the insulation of safety extremely low voltage circuits (up to 24 V) especially scialitic lamps.

Function	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	8012542	Type code	Order code			
	EAN				kg	pc.
Insulation monitoring	884705	SELVTESTER-24	2CSM211000R1511		0.250	1

Where to find more:

You can find all ABB instruction manuals on www.abb.com/abblibrary/download-center

Protection and safety

QSD remote signalling panel



QSD

2CSC40083R0001

4

H+Line

Technical features	
Signals	Green LED network ON Red LED overload ALARM Yellow LED insulation ALARM intermittence 2 Hz dB ALARM, acoustic signaller, emission 2400 Hz
Buttons	TEST and MUTE buttons
Terminal cross section	2.5 mm ²
Degree of protection	IP30
Installation	universal flush-mounted box
Weight	200 g
Operating temperature	-10 ÷ 60 °C, max. humidity 95%
Storage temperature	-25 ÷ +80 °C
Insulation	2500 Vrms 50 Hz 60 s
Cables section	0.35 mm ² for 300 m
Compatibility	ISOLTESTER-C, ISOLTESTER-RZ, ISOLTESTER-DIG-RZ, ISOLTESTER-DIG, PLUS, SELVTESTER-C, SELVTESTER-24
Reference standards	safety EN 61010-1 product EN 61557-8/IEC 60364-7-710/ UNE 20615 electromagnetic compatibility EN 61326-1

QSD remote signalling panel

They are installed in combination with insulation monitoring devices, to remotely report the signalling generated by these devices. They can be installed together with ISOLTESTER-DIG and SELVTESTER-24 and they are compatible also with former versions of insulating monitoring devices. Flush mounting box already included in the packaging.

Version	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	8012542	Type code	Order code			
	EAN				kg	pc.
Horizontal	730637	QSD-DIG 230/24	2CSM273063R1521		0.800	1
Vertical	570936	QSD-DIG 230/24 V	2CSM257093R1521		0.800	1

Where to find more:

Technical details of QSD:
Chapter 4 of
Solutions for electrical installation in
buildings - technical details

You can find all ABB instruction
manuals on [www.abb.com/abblibrary/
download center](http://www.abb.com/abblibrary/download-center)

Protection and safety

TI switchboards and devices for medical locations



TI

H+Line

Technical characteristics					
		TI 3 TI 3-S	TI 5 TI 5-S	TI 7.5 TI 7.5-S	TI 10 TI 10-S
Rated output	[KVA]	3	5	7.5	10
Frequency	[Hz]	50-60			
Power dissipation	[W]	120	150	260	320
Electrical protection class		1			
Thermal insulation class	[°C]	B 130	B 130	F 155	F 155
Operating temperature max	[°C]	40			
Primary winding voltage	[V]	230			
Secondary winding voltage	[V]	230			
No load current	[A]	< 0.39	< 0.65	< 0.98	< 1.3
Short circuit voltage drop		<3%			
Inrush current	[A]	< 221	< 369	< 553	< 738
Power loss	[W]	120	150	260	320
Winding separation		double insulation			
Metallic shield		■			
Reference standard		IEC-EN 61558-1, IEC-EN 61558-2-15, IEC-EN 62041			
Dimensions	[mm]	205x340x150	240x380x150	240x380x160	277x380x260

4

Insulating transformers for medical locations

Permanently connected to an IT power supply system, single-phase medical insulating transformers provide galvanic separation between the distribution network and the user load in accordance with IEC EN 61558-2-15 concerning power supply group 2 medical locations.

Rated output	PT100	Bbn 801254	Order details		Price 1 piece	Weight 1 piece	Pack unit
kVA		EAN	Type code	Order code		kg	pc.
3		2896005	TI 3	2CSM110000R1541		29.5	1
5		2896104	TI 5	2CSM120000R1541		44.0	1
7.5		2896203	TI 7.5	2CSM130000R1541		50.5	1
10		2521204	TI 10	2CSM140000R1541		73.0	1
3	■	2521402	TI 3-S	2CSM210000R1541		29.5	1
5	■	2521501	TI 5-S	2CSM220000R1541		44.0	1
7.5	■	2521600	TI 7.5-S	2CSM230000R1541		50.5	1
10	■	2521709	TI 10-S	2CSM240000R1541		73.0	1

Accessories

	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Shock absorber	2557920	AMM	2CSM900000R1541		1	4

Where to find more:

Wiring and serial number location of TI: Chapter 4 of Solutions for electrical installation in buildings - technical details

You can find all ABB instruction manuals on www.abb.com/abblibrary/ download center

Protection and safety

QSO selection table

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Series	Type	Power [kVA]	Installation	IT-M lines	TN-S line sect.	PT100	OVR	Unifix L	I/O KNX	SELV 24 V line
S 	QSO 3S Classic	3	wall	2x10A+3x16A	-	■				
	QSO 5S Classic	5	wall	2x10A+3x16A	-	■				
	QSO 3S Premium	3	wall	2x10A+5x16A	1x10A 0.03A+2x 16A 0.03A	■				
	QSO 5S Premium	5	wall	2x10A+5x16A	1x10A 0.03A+2x 16A 0.03A	■				
M 	QSO 3M Classic	3	floor	3x10A+7x16A	1x16A 0.03A	■				
	QSO 5M Classic	5	floor	3x10A+7x16A	1x16A 0.03A	■				
	QSO 7.5M Classic	7.5	floor	3x10A+7x16A	1x16A 0.03A	■				
	QSO 3M Premium	3	floor	6x10A+8x16A	1x10A 0.03A+2x 16A 0.03A	■	■			■
	QSO 5M Premium	5	floor	6x10A+8x16A	1x10A 0.03A+2x 16A 0.03A	■	■			■
	QSO 7.5M Premium	7.5	floor	6x10A+8x16A	1x10A 0.03A+2x 16A 0.03A	■	■			■
L 	QSO 10L Classic	10	floor	6x10A+9x16A	1x10A 0.03A+2x 16A 0.03A	■				
	QSO 7.5L Premium	7.5	floor	6x10A+11x 16A+1x32A	1x10A 0.03A+2x 16A 0.03A	■	■			■
	QSO 10L Premium	10	floor	6x10A+11x 16A+1x32A	1x10A 0.03A+2x 16A 0.03A	■	■		■	■
XL 	QSO 7.5XL Premium	7.5+7.5	floor	12x10A+22x 16A+2x32A	2x10A 0.03A+4x 16A 0.03A	■	■	■	■	■
	QSO 10XL Premium	10+10	floor	12x10A+22x 16A+2x32A	2x10A 0.03A+4x 16A 0.03A	■	■	■	■	■

Protection and safety

QSO switchboards and components for medical locations



QSO

Technical features				
	QSO wall type		QSO floor type	
Rated operational voltage (U _e)	230 V ~ ± 15%			
Rated power frequency	50 - 60 Hz			
Number of phases	1 + N ~/PE			
Rated voltage of auxiliary service circuits	24 - 230 V ~			
Rated insulation voltage (U _i)	300 V - *2500 V			
Earthing system	TT/TN-S			
Maximum prospective short circuit current to the input terminals (I _{cc})	10 kA RMS Sym ***			
Max. altitude	2000 m s.l.m.			
Pollution degree	1 **			
Degree of protection against impacts (IK code) EN 50102 I	K 09 (5 kg - 200 mm)			
Degree of relative humidity at temperature °C	50 % with max. temp. +40 °C			
Ambient air temperature - operation	-5 °C - +55 °C			
Ambient air temperature - transport and storage	-25 °C - +40 °C			
Degree of protection EN 60529	QSO 3S Classic	IP 40	QSO 3M Classic	IP 54
	QSO 5S Classic	IP 40	QSO 5M Classic	IP 54
	QSO 3S Premium	IP 40	QSO 5M Premium	IP 54
	QSO 5S Premium	IP 40	QSO 7.5M Premium	IP 54
			QSO 10L Classic	IP 54
			QSO 7.5L Premium	IP 54
			QSO 10L Premium	IP 54
			QSO 7.5XL Premium	IP 54
			QSO 10XL Premium	IP 54

* Dielectric strength test voltage.

** Corresponds to no pollution or only dry and non-conductive pollution.

*** Value conditioned by upstream coordination with NH 00 100A gL-gG fuses

Where to find more:

Technical details of QSO:
Chapter 4 of
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Protection and safety

QSO switchboards and components for medical locations



QSO S

2CSC400101F0004



QSO M

2CSC400102F0004

4



QSO L

2CSC400103F0004



QSO XL

2CSC400104F0004

Electrical switchboard for medical locations

QSO switchboards for operating theatres represent the ideal solution for distribution within group 2 medical locations, in compliance with the requirements of IEC standard 64-8/7-710. Four sizes are available: S, M, L, and XL. Each one of these can be customized with two layouts. The CLASSIC version contains the instrumentation essential for protection against direct contacts, while the PREMIUM version also has, depending on the type of switchboard, additional devices intended for:

- emergency power cut-off of operating theatre circuits outside of the patient area (lighting, radiology sockets, etc.)
- 24 V SELV line for supplying scalytic lamps
- overvoltage protection
- Unifix L fast-wiring system
- I/O module for managing xon alarms through KNX protocol

XL QSOs are equipped with two isolation transformers to ensure dual redundant power supply of the IT-M circuits. ABB provides, for its switchboards for operating theatres, the declaration of conformity required to commission the system, ensuring the installer that the system is built in compliance with technical standards. To ensure the best efficiency of the QSO will be delivered in a new wooden packing.

S series switchboards for medical locations

Applications: surgery clinics, post-op recovery rooms, analysis laboratories, dental offices, veterinary clinics

Power	Installation	TN-S section feeder lines	IT-M section feeder lines	Bbn 801254	Order details		Price 1 piece	Weight 1 piece	Pack unit
kVA				EAN	Type code	Order code		kg	pc.
3	wall-mounted		2x10A +5x16A +1x25A	2611226	QSO 3S Classic	2CSM261122R1551		113	1
5	wall-mounted		2x10A +5x16A +1x25A	2736929	QSO 5S Classic	2CSM273692R1551		128	1
3	wall-mounted	1x10A +2x16A	2x10A +1x25A +5x16A	2736028	QSO 3S Premium	2CSM273602R1551		150	1
5	wall-mounted	1x10A +2x16A	2x10A +1x25A +5x16A	2736820	QSO 5S Premium	2CSM273682R1551		130	1

M series switchboards for medical locations

Applications: Day hospital rooms, medium sized operating theatres, ICU rooms

Power	Installation	TN-S section feeder lines	IT-M section feeder lines	Bbn 801254	Order details		Price 1 piece	Weight 1 piece	Pack unit
kVA				EAN	Type code	Order code		kg	pc.
3	floor standing	1x10A	3x10A +7x16A	2735922	QSO 3M Classic	2CSM273592R1551		180	1
5	floor standing	1x10A	3x10A +7x16A	2736721	QSO 5M Classic	2CSM273672R1551		195	1
7.5	floor standing	1x10A	3x10A +7x16A	2735823	QSO 7.5M Classic	2CSM273582R1551		202	1
3	floor standing	1x10A +2x16A	6x10A +8x16A +1x25A	2736622	QSO 3M Premium	2CSM273662R1551		181	1
5	floor standing	1x10A +2x16A	6x10A +8x16A +1x25A	2735724	QSO 5M Premium	2CSM273572R1551		196	1
7.5	floor standing	1x10A +2x16A	6x10A +8x16A +1x25A	2736523	QSO 7.5M Premium	2CSM273652R1551		202	1

H+Line

L series switchboards for medical locations

Applications: operating theatres, intensive care rooms, cardiac operating rooms

Power kVA	Installation	TN-S section feeder lines	IT-M section feeder lines	Bbn 801254 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
10	floor standing	1X10A +2x16A	6x10A +9x16A	2735625	QSO 10L Classic	2CSM273562R1551		244	1
7.5	floor standing	1X10A +2x16A	1x32A +2x25A +6x10A +11x16A	2736424	QSO 7.5L Premium	2CSM273642R1551		222	1
10	floor standing	1X10A +2x16A	1x32A +2x25A +6x10A +11x16A	2735526	QSO 10L Premium	2CSM273552R1551		248	1

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XL series switchboards for medical locations

Applications: resuscitation, intensive care, long term care

Power kVA	Installation	TN-S section feeder lines	IT-M section feeder lines	Bbn 801254 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
7.5+7.5	floor standing	2X10A +4x16A	2x32A +4x25A +12x10A +22x16A	2736325	QSO 7.5XL Premium	2CSM273632R1551		379	1
10+10	floor standing	2X10A +4x16A	2x32A +4x25A +12x10A +22x16A	2735427	QSO 10XL Premium	2CSM273542R1551		429	1

Where to find more:

Technical details of QSO:
Chapter 4 of
Solutions for electrical installation in
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manuals on www.abb.com/abblibrary/
download center

Protection and safety

ISL industrial insulation monitoring devices



ISL

2CHC000765P0201

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Technical features ISL-A

		ISL-A		
		A 24-48	A 115 and A 230	A 600
Power consumption	[VA]	3	4	6
ALARM threshold	[kW]	30 - 300 (5 levels, selectable)		
TRIP threshold	[kW]	10 - 60 (5 levels by switches)	10 - 100 (5 levels selectable)	30 - 300 (adjustable by potentiometer)
LED indications	ON	■	■	■
	TRIP	■	■	■
	ALARM		■	
	+/-	■	■	■
Max trip delay	[s]	0.2	2	2.5
Max measuring signal current	[mA]	0.5	1.8	1.5
Internal impedance	[kW]	50	ISL-A 115: 200 kΩ L+/L- 100 kΩ L/PE ISL-A 230: 400 kΩ L+/L- 200 kΩ L/PE	880 kW L+/L - 450 kW L/PE
TRIP relay output		1 NO-C-NC	2 NO-C-NC	1 NO-C-NC
ALARM relay output		2 NO-C-NC		
Relay contact capacity		max 250 V, 5 A		
Programmed functions	Alarm output	■		
	Fail safe	■		
	Reset	■		
Insulation		2.5 kV60 sec./ 6 kV imp 1.2/50 μs	2.5 kV 60 sec./ 4 kV imp 1.2/50 μs	2.5 kV 60 sec./ 6 kV imp 1.2/50 μs
Operating temperature	[°C]	-10 ÷ 60		
Storage temperature	[°C]	-20 ÷ 70		
Relative humidity		≤ 90%		
Max terminal section	[mm ²]	4	2.5	2.5
Protection degree		IP40 front, IP20 enclosure		
Modules		3	6	6
Weight	[g]	200	400	400
Reference standards		EN 61010-1, EN 61557-8, EN 61326-1		

Where to find more:

Technical details of ISL: Chapter 4 of Solutions for electrical installation in buildings - technical details

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ISL-A

Technical features ISL-C and ISL-MOT

		ISL-C			ISL-MOT
		C 230	C 440	C 600	MOT 1000
Auxiliary power supply	[V]	220-240 V a.c.	220-240 V a.c.	100÷130 V a.c./220÷240 V a.c.	220- 240 V a.c.
Power consumption	[VA]	3	3	5	3
TRIP threshold	[kΩ]	100	10 -150 (5 levels)	10-100 (5 levels)	0.1-10 MΩ (8 levels)
LED indications	ON	■	■	■	■
	TRIP	■	■	■	■
	ALARM			■	
Max trip delay	[s]	1	4	5	0.2
Max measuring current	[mA]	0.1		0.25	0.0015
Max measuring voltage	[V]	12 V d.c.		48	20
Internal impedance	[kW]	250	250	200	a.c.: 1000 d.c.: 1500
TRIP relay output		1 NO-C-NC	1 NO-C-NC	2 NO-C-NC	1 NO-C-NC
Relay contact capacity		max 250 V, 5 A			
Insulation test		2.5 kV60 sec./4 kV imp 1.2/50 μs			
Operating temperature	[°C]	-10 ÷ 60			
Storage temperature	[°C]	-20 ÷ 70			
Relative humidity		≤ 95%			
Max terminal section	[mm ²]	4	4	2.5	4
Protection degree		IP40 front, IP20 enclosure			
Modules		3	3	6	3
Weight	[g]	200	200	500	200
Reference standards		EN 61010-1, EN 61557-8, EN 61326-1			

Insulation monitoring devices for voltageless network

Monitored line voltage	Bbn	Order details		Price	Weight	Pack
	8012542	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
20-700 V a.c./d.c.	943204	ISL-MOT 1000	2CSM808000R1500		0.300	1

Where to find more:

Technical details of ISL: Chapter 4 of Solutions for electrical installation in buildings - technical details

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Protection and safety

ISL industrial insulation monitoring devices



2CSC400705F0201

ISL-A

4



2CSC400704F0201

ISL-C

Insulation monitoring devices

In IT electrical distribution networks with isolated neutral, the high insulation impedance prevents earth faults from generating currents that would dangerously elevate the potential of exposed conductive parts. Therefore, in case of earth leakage in an IT network it is not necessary to interrupt the supply, but it is still essential to continually monitor the insulation level in order to detect faults and restore optimal functioning of the system.

In industrial installations, IT networks are used when operational continuity is an intrinsic requirement of the production process, due to both technical and economic considerations. Such applications include: metalworking and chemical industries, explosion risk locations, railway lines and vehicles, uninterruptible power supplies, cinema sets, emergency lines, fire water pumps and emergency lighting.

Insulation monitoring devices for a.c. networks

Max. monitored line voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
220-240 V a.c.	942801	ISL-C 230	2CSM444000R1500		0.300	1
380-415 V a.c.	942900	ISL-C 440	2CSM545000R1500		0.300	1
60-760 V a.c.	943006	ISL-C 600	2CSM656000R1500		0.500	1

Insulation monitoring devices for d.c. networks

Max. monitored line voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
100-144 V d.c.	942603	ISL-A 115	2CSM222000R1500		0.500	1
220 V d.c.	942702	ISL-A 230	2CSM333000R1500		0.500	1
400-600 V d.c.	498537	ISL-A 600	2CSM249853R1500		0.500	1

Insulation monitoring devices for a.c./d.c. networks

Monitored line voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
24-28 V a.c./d.c.	942504	ISL-A 24-48	2CSM111000R1500		0.300	1

Solutions for electrical installation in buildings

Command and signalling

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The details make the difference

Switch disconnecter SD 200

Easy product coding
– easy identification:
basic technical
information already
integrated into the
name

New, patented twin
terminals with captive
screws: highest
comfort, safety and
flexibility

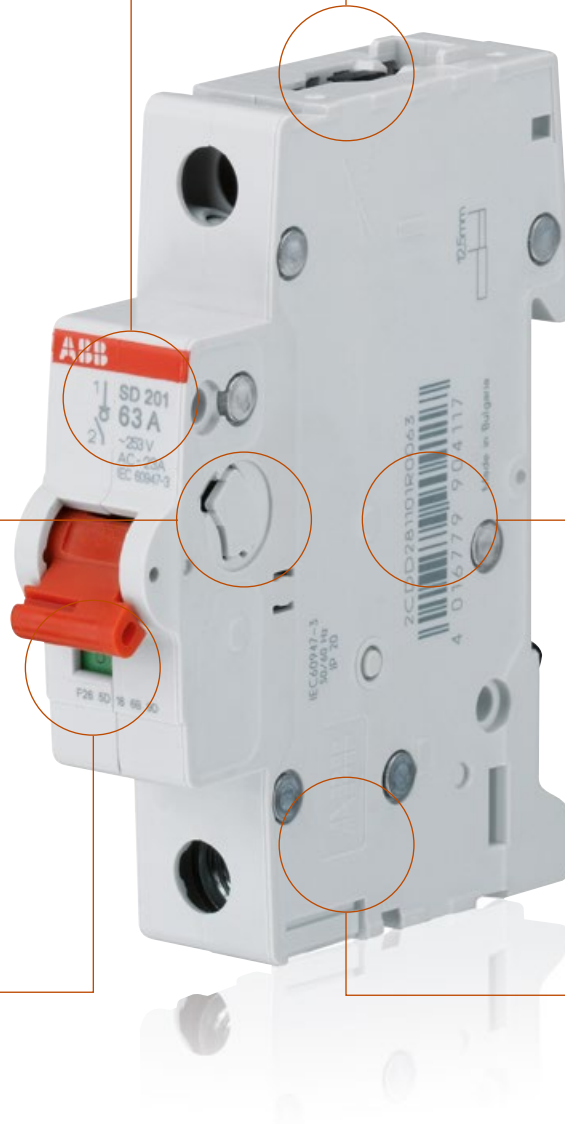
5

Fully compatible with all
System pro M devices
and accessories

Laser printing: scratch
and solvent resistant
marking

Real contact position
indication, directly
connected to the
moving contact, for
more comfort and
safety

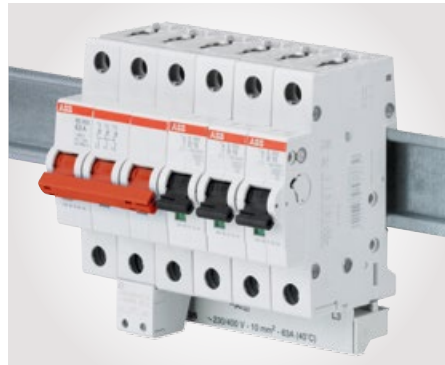
New, patented housing
design: environmental
friendly and
performance-optimized





Contact position indication

The switch disconnector SD 200 is suited with a real contact position indication (real CPI). You can easily identify, if the SD 200 is in the ON or the OFF position – easy and safe maintenance work is possible. The position of the toggle and the red/green display leaves no doubt about the present switching position, while the latter offers additional security, as the exact position of the inner contacts is always displayed. Thus, the device always supplies reliable information in the event of an error.



Wide range of accessories

SD 200 is fully compatible to the complete range of System pro *M* compact accessories like

- Auxiliary contacts, to be mounted on the left side, the right side or bottom fitting
- Shunt trips
- Undervoltage release
- Motor operating devices



PATENTED – Housing Design

By using state-of-the-art housing material, ABB is taking care of the environment. With the latest generation of halogen free thermoplastics for SD 200 it's possible to recycle the switch disconnectors completely without environmental pollution. The new material also improves the stability.



Laser printing

All labels on the SD 200, as the approvals on the dome, technical details and the product identification, are printed by a laser. The laser printing ensures a friction, scratch and solvent resistant marking on the switch disconnectors for easy identification in case of maintenance or replacements. For control and acceptance procedure it is important to see all markings also in the mounted position.



Highest performance

With a rated voltage of 253/440 V AC, a rated conditional short-circuit current of 25 kA, terminals with protection from misconnection, a “Real CPI” switching position display, as well as full compatibility with all MCB accessories, the SD 200 is unique in its field of application. SD 200 comply with IEC/EN 60947-3.



PATENTED – IP 20 finger safe terminals

The SD 200 are equipped with 35 mm² and 10 mm² cylinder lift twin terminals for challenging industrial use. Cross wiring can easily be realized by inserting the busbars into the rear terminal part and the incoming wires into the front part.

Command and signalling

SD 200 and SHD 200 switch disconnecter ranges



Series		SD 200	SHD 200	E 200
Standards and approvals		IEC/EN 60947-3 VDE/CCC/EAC/KEMA	IEC/EN 60947-3 VDE/CCC/EAC/KEMA	IEC/EN 60947-3 VDE/CCC/KEMA
Rated currents	16...63 80...125	[A] 16/25/32/40/50/63 –	16/25/32/40/50/63 –	– 80/100/125
Rated voltage		[V AC] 253/440	240/415	230/400
Short circuit withstand capacity		[kA] 25	10	25
Utilization category		AC-23A	AC-22A	AC-22A
Electrical lifetime		[Ops.] $I_b < 32$ A: 20,000 (AC) $I_b \geq 32$ A: 10,000 (AC)	$I_b < 32$ A: 20,000 (AC) $I_b \geq 32$ A: 10,000 (AC)	$I_b < 100$ A: 1,500 (AC) $I_b \geq 125$ A: 1,000 (AC)
Terminal cross section		[mm ²] 35	25	50
Terminal		Cylinder lift terminal	Cage terminal	Cage terminal
Two terminal openings for conductor and busbar		Yes	No	No
Safety wire guard		Yes	No	No
Contact position indication		Marking on toggle (I ON/O OFF) Real CPI (red ON/green OFF)	Marking on toggle (I ON/O OFF)	Marking on toggle (I ON/O OFF)
Combination with auxiliary elements				
Auxiliary contacts		Right side Left side Bottom side	No	Right side
Shunt trip		Yes	No	No
Undervoltage release		Yes	No	No
Motor operated remote control		Yes	No	No
Padlock		Yes	Yes	Yes
Removal without disassembling of the busbar		Yes	No	Yes

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Command and signalling

Switch disconnectors selection table

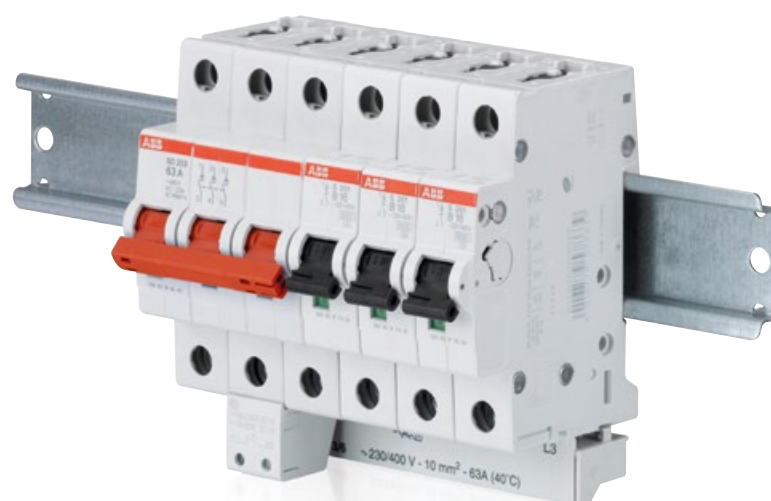
The SD 200 and SHD 200 extend the proven System pro M compact® series by new ranges of switch disconnectors which provides state-of-the-art safety and comfort. Both are available with 1 to 4 poles with rated currents from 16 to 63 A and provides disconnection properties according to IEC/EN 60947-3.

The SD 200 offers performance on a new level. With a rated voltage of 253/440 V AC, a rated conditional short-circuit current of 25 kA, terminals with protection from misconnection and a “Real CPI” contact position indication the range is unique in its field of application. In addition SD 200 is fully compatible with all MCB accessories.

The SHD 200 has a rated voltage of 240/415 V AC. A rated conditional short-circuit current of 10 kA enables a wide range of applications.

The laser printing and the design of the devices allow a consistent optical appearance in the distribution board.

The laser printing and the design of the devices allow a consistent optical appearance in the distribution board. A VDE/CCC/EAC and KEMA approval ensures a wide scope of applications. For technical differences between the ranges please refer to the selection table on the left page.



Command and signalling SD 200 switch disconnecter



SD 201

5

Electrical data	
Standards	IEC/EN 60947-3
Poles	1P, 2P, 3P, 4P
Rated current I_n	16 A, 25 A, 32 A, 40 A, 50 A, 63 A
Utilization category	AC-23A, DC-21A
Rated voltage U_e	1P: 253 V AC, 60 V DC 2P: 440 V AC, 125 V DC 3...4P: 440 V AC
Insulation voltage U_i	440 V AC
Max. power frequency recovery voltage U_{max}	1P: 266 V AC, 63 V DC 2P: 462 V AC, 131 V DC 3...4P: 462 V AC
Min. operating voltage U_{Emin}	12 V AC
Rated frequency f	50/60 Hz, DC
Suitable for isolation	Yes
Rated conditional short-circuit current	25 kA in series with NH 00 \leq 63 A gG
Overvoltage category	III
Pollution degree	3
Rated impulse withstand voltage U_{imp} (1.2/50 μ s)	4 kV (test voltage 6.2 kV at sea level; 5 kV at 2,000 m)
Dielectric test voltage	2 kV (50/60 Hz, 1 min.)
Mechanical data	
Housing	Insulation group I, RAL 7035
Toggle	Insulation group II, red, sealable
Contact position indication	Marking on toggle, I ON / 0 OFF Real CPI (green OFF/red ON)
Protection degree acc. to EN 60529	IP20 / IP40 in enclosure with cover
Electrical endurance	$I_n < 32$ A: 20,000 ops. (AC), 1,500 ops. (DC) $I_n \geq 32$ A: 10,000 ops. (AC), 1,500 ops. (DC)
Mechanical endurance	20,000 ops.
Shock resistance acc. to IEC/EN 60068-2-27	25g, 2 shocks, 13 ms
Vibration resistance acc. to IEC/EN 60068-2-6	5g, 20 cycles at 5...150...5 Hz with load 0.8 I_n
Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30	28 cycles with 55 °C/90-96% and 25 °C/95-100% [°C/RH]
Ambient temperature	-25 ... +55 °C
Storage temperature	-40 ... +70 °C
Installation	
Terminal	Cylinder lift terminal
Safety wire guard	Yes
Two terminal openings for conductor and busbar	Yes
Cross-section of conductors	35 mm ²
Cross-section of busbars	10 mm ²
Torque	2.8 Nm
Screwdriver	No. 2 Pozidriv
Mounting	On DIN rail 35 mm acc. to EN 60715 by fast clip
Mounting position	Optional
Removal without disassembling of the busbar	Yes
Supply	Optional
Dimensions and weight	
Mounting dimensions acc. to DIN 43880	Mounting dimension 1
Pole dimensions (H x D x W)	88 x 69 x 17.5 mm
Pole weight	Approx. 85 g
Combination with auxiliary elements	
Auxiliary contact	Yes
Signal/auxiliary contact	Yes
Shunt trip	Yes
Undervoltage release	Yes
Motor operating device	Yes
Padlock	Yes
Approvals	
	CE and RoHS-conform
	Approvals: VDE/CCC/EAC/KEMA

Where to find more:
Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:
Accessories for SD 200 - chapter 3



SD 201

2CDD051001S0013



SD 202

2CDD051002S0013



SD 203

2CDD051003S0013



SD 204

2CDD051004S0013

SD 200

Switch disconnector acc. to IEC/EN 60947-3 for panel installation onto DIN rail (35 mm)

Mounting depth: 68 mm

Mounting width: per pole = 17.5 mm = 1 module

Colour: grey, RAL 7035

Colour of switch lever: red RAL 3000

Special features

- Isolating characteristics acc. to IEC/EN 60947-3
- Clear contact position indication in red/green ("Real CPI")
- Highest performance at an increased voltage level: 25 kA conditional short-circuit current at $U_e = 253/440$ V AC acc. to IEC/EN 60947-3
- Protection degree IP20 = finger safe
- 35 mm² cylinder lift terminal with 2 terminal openings for two wires or one wire and one busbar for cross wiring
- Bottom fixed auxiliary contact as accessory for a space saving installation or upgrade of existing assemblies without additional mounting width
- Consistent design to other System pro M DIN rail products
- Cross wiring with MCBs or RCDs using busbars PS
- Durable device identification due to laser labeling
- Captive screws
- Compatibility with all MCB accessories
- Approved acc. to IEC/EN 60947-3 for international use

Ordering details

Rated current: 16 A							
Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC		EAN	Type code			
1	253	904063	SD201/16	2CDD281101R0016		0.085	10
2	440	904124	SD202/16	2CDD282101R0016		0.170	5
3	440	904186	SD203/16	2CDD283101R0016		0.255	1
4	440	904247	SD204/16	2CDD284101R0016		0.340	1

Rated current: 25 A							
Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC		EAN	Type code			
1	253	904070	SD201/25	2CDD281101R0025		0.085	10
2	440	904131	SD202/25	2CDD282101R0025		0.170	5
3	440	904193	SD203/25	2CDD283101R0025		0.255	1
4	440	904254	SD204/25	2CDD284101R0025		0.340	1

Rated current: 32 A							
Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC		EAN	Type code			
1	253	904087	SD201/32	2CDD281101R0032		0.085	10
2	440	904148	SD202/32	2CDD282101R0032		0.170	5
3	440	904209	SD203/32	2CDD283101R0032		0.255	1
4	440	904261	SD204/32	2CDD284101R0032		0.340	1

Command and signalling SD 200 switch disconnecter



SD 201

2CDD051001S0013

Ordering details

Rated current: 40 A

Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	EAN	Type code	Order code			
1	253	904094	SD201/40	2CDD281101R0040		0.085	10
2	440	904155	SD202/40	2CDD282101R0040		0.170	5
3	440	904216	SD203/40	2CDD283101R0040		0.255	1
4	440	904278	SD204/40	2CDD284101R0040		0.340	1

Rated current: 50 A

Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	EAN	Type code	Order code			
1	253	904100	SD201/50	2CDD281101R0050		0.085	10
2	440	904162	SD202/50	2CDD282101R0050		0.170	5
3	440	904223	SD203/50	2CDD283101R0050		0.255	1
4	440	904285	SD204/50	2CDD284101R0050		0.340	1

Rated current: 63 A

Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	EAN	Type code	Order code			
1	253	904117	SD201/63	2CDD281101R0063		0.085	10
2	440	904179	SD202/63	2CDD282101R0063		0.170	5
3	440	904230	SD203/63	2CDD283101R0063		0.255	1
4	440	904292	SD204/63	2CDD284101R0063		0.340	1



SD 202

2CDD051002S0013



SD 203

2CDD051003S0013



SD 204

2CDD051004S0013

Where to find more:

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

Accessories for SD 200 - chapter 3

Command and signalling

SHD 200 switch disconnecter



SHD 201

Electrical data	
Standards	IEC/EN 60947-3
Poles	1P, 2P, 3P, 4P
Rated current I_n	16 A, 25 A, 32 A, 40 A, 50 A, 63 A
Utilization category	AC-22A, DC-21A
Rated voltage U_n	1P: 240 V AC, 60 V DC 2P: 415 V AC, 125 V DC 3...4P: 415 V AC
Insulation voltage U_i	440 V AC
Max. power frequency recovery voltage U_{rmax}	1P: 252 V AC, 63 V DC 2P: 436 V AC, 131 V DC 3...4P: 436 V AC
Min. operating voltage U_{Bmin}	12 V AC
Rated frequency f	50/60 Hz, DC
Suitable for isolation	Yes
Rated conditional short-circuit current	10 kA in series with NH 00 \leq 63 A gG
Overvoltage category	III
Pollution degree	3
Rated impulse withstand voltage U_{imp} (1.2/50 μ s)	4 kV (test voltage 6.2 kV at sea level; 5 kV at 2,000 m)
Dielectric test voltage	2 kV (50/60 Hz, 1 min.)
Mechanical data	
Housing	Insulation group II, RAL 7035
Toggle	Insulation group II, red, sealable
Contact position indication	Marking on toggle, I ON / 0 OFF
Protection degree acc. to EN 60529	IP20 / IP40 in enclosure with cover
Electrical endurance	$I_n < 32$ A: 20,000 ops. (AC), 1,500 ops. (DC) $I_n \geq 32$ A: 10,000 ops. (AC), 1,500 ops. (DC)
Mechanical endurance	20,000 ops.
Shock resistance acc. to IEC/EN 60068-2-27	25g, 2 shocks, 13 ms
Vibration resistance acc. to IEC/EN 60068-2-6	5g, 20 cycles at 5...150...5 Hz with load 0.8 I_n
Environmental conditions (damp heat cyclic) acc. to IEC/EN 60068-2-30	28 cycles with 55 °C/90-96% and 25 °C/95-100% [°C/RH]
Ambient temperature	-25 ... +55 °C
Storage temperature	-40 ... +70 °C
Installation	
Terminal	Cage terminal
Safety wire guard	No
Two terminal openings for conductor and busbar	No
Cross-section of conductors	25 mm ²
Torque	2.0 Nm
Screwdriver	No. 2 Pozidriv
Mounting	On DIN rail 35 mm acc. to EN 60715 by fast clip
Mounting position	Optional
Removal without disassembling of the busbar	No
Supply	Optional
Dimensions and weight	
Mounting dimensions acc. to DIN 43880	Mounting dimension 1
Pole dimensions (H x D x W)	85 x 69 x 17.5 mm
Pole weight	Approx. 75 g
Combination with auxiliary elements	
Auxiliary contact	No
Signal/auxiliary contact	No
Shunt trip	No
Undervoltage release	No
Motor operating device	No
Padlock	Yes
Approvals	
	CE and RoHS conform Approvals: VDE/CCC/EAC/KEMA

Where to find more:
Worldwide marks and approvals
of MDRCs - chapter 15

Command and signalling

SHD 200 switch disconnecter



SHD 201

SHD 200

Switch disconnecter acc. to IEC/EN 60947-3 for panel installation onto DIN rail (35 mm)

Mounting depth: 69 mm

Mounting width: per pole = 17.5 mm = 1 module

Colour: grey, RAL 7035

Colour of switch lever: red RAL 3000

Special features

- Isolating characteristics acc. to IEC/EN 60947-3
- Protection degree IP20 = finger safe
- 25 mm² cage terminal
- Consistent design to all other System pro M DIN rail products
- Cross wiring with MCBs or RCDs using busbars PS
- Durable device identification due to laser labeling
- Captive screws
- Locking device as accessory for unauthorized ON/OFF switching
- Approved acc. to IEC/EN 60947-3 for international use

Ordering details

Rated current: 16 A

Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	EAN	Type code	Order code			
1	240	904308	SHD201/16	2CDD271111R0016		0.075	10
2	415	904360	SHD202/16	2CDD272111R0016		0.150	5
3	415	904421	SHD203/16	2CDD273111R0016		0.225	1
4	415	904483	SHD204/16	2CDD274111R0016		0.300	1

Rated current: 25 A

Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	EAN	Type code	Order code			
1	240	904315	SHD201/25	2CDD271111R0025		0.075	10
2	415	904377	SHD202/25	2CDD272111R0025		0.150	5
3	415	904438	SHD203/25	2CDD273111R0025		0.225	1
4	415	904490	SHD204/25	2CDD274111R0025		0.300	1

Rated current: 32 A

Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	EAN	Type code	Order code			
1	240	904322	SHD201/32	2CDD271111R0032		0.075	10
2	415	904384	SHD202/32	2CDD272111R0032		0.150	5
3	415	904445	SHD203/32	2CDD273111R0032		0.225	1
4	415	904506	SHD204/32	2CDD274111R0032		0.300	1



SHD 202



SHD 203



SHD 204

Where to find more:
Worldwide marks and approvals of
MDRCs - chapter 15



SHD 201

2CDD051002S0012

Ordering details

Rated current: 40 A

Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	EAN	Type code	Order code			
1	240	904339	SHD201/40	2CDD271111R0040		0.075	10
2	415	904391	SHD202/40	2CDD272111R0040		0.150	5
3	415	904452	SHD203/40	2CDD273111R0040		0.225	1
4	415	904513	SHD204/40	2CDD274111R0040		0.300	1



SHD 202

2CDD051003S0012

Rated current: 50 A

Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	EAN	Type code	Order code			
1	240	904346	SHD201/50	2CDD271111R0050		0.075	10
2	415	904407	SHD202/50	2CDD272111R0050		0.150	5
3	415	904469	SHD203/50	2CDD273111R0050		0.225	1
4	415	904520	SHD204/50	2CDD274111R0050		0.300	1



SHD 203

2CDD051004S0012

Rated current: 63 A

Poles	Rated voltage	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	EAN	Type code	Order code			
1	240	904353	SHD201/63	2CDD271111R0063		0.075	10
2	415	904414	SHD202/63	2CDD272111R0063		0.150	5
3	415	904476	SHD203/63	2CDD273111R0063		0.225	1
4	415	904537	SHD204/63	2CDD274111R0063		0.300	1



SHD 204

2CDD051005S0012

Command and signalling E 200 switches



E 200

5

Technical data		
Electrical Data		
Standards	DIN EN 60947-3 (VDE0660-107); IEC/EN 60947-3	
Number of poles	1P, 2P, 3P, 4P	
Rated current I_e	80...125 A	
Rated voltage U_e	230/400 V AC; 60 V DC	
Rated frequency f	50/60 Hz; DC	
Utilization category	I_e 80 ... 100 A	AC-22A (1..4-pole) DC-21B (1/2-pole)
	I_e 125A	AC-23A (1/2-pole) DC-21B (1/2-pole)
	Acc. to DIN EN 60947-3 (VDE0660-107); IEC/EN 60947-3	
Protection fuse	NH 00 gG \leq Rated current E200	
Positive opening	Acc. to DIN VDE 0113	
Rated conditional short-circuit current	16 ... 100 A (1- to 4-pole): 25 kA, 125 A (1-/2-pole): 6 kA	
Surge withstand capability U_{imp}	4 kV (EN 60947-1)	
Min. voltage U_{min}	12 V AC/DC bei 0.1 VA	
Min. contact loading	24 V AC; 4 mA	
Mechanical Data		
Housing	Grey, RAL 7035	
Toggle	Red (RAL 3000) / grey (RAL 7000), sealable	
Contact position indication	On toggle (I ON / 0 OFF), on dome (I / 0)	
Protection degree acc. to IEC/EN 60529	IP10, IP40 in enclosure with cover	
Electrical endurance	80 ... 100 A: 1,500 ops., 125 A: 1,000 ops.	
Mechanical endurance	20,000 ops.	
Environmental conditions acc. to IEC/EN 60068-2-30	Constant climate 23/83, 40/93, 55/20 [°C/RH]	
	Alternating climate 25/95 - 40/93 [°C/RH]	
Ambient temperature	-25 ... +55 °C	
Storage temperature	-40 ... +70 °C	
Installation		
Terminal size	2.5 to 50 mm ²	
Cross-section busbar	\geq 16 mm ²	
Tightening torque	2.5 Nm	
Screw driver	Nr. 2 Pozidriv	
Mounting	On DIN rail 35 mm acc. to EN 60715 by fast clip	
Mounting position	Any	
Supply	Any	
Dimensions and weight		
Mounting dimensions acc. to DIN 43880	Mounting dimension 1	
Pole dimensions (H x D x W)	85 x 70 x 17.5 mm	
Pole weight	Ca. 95 g	
Accessories		
Auxiliary contact	Max. 3x S2C-H 6R	
Approvals	CE and RoHS conform Approvals: VDE, CCC, KEMA, EAC	

Where to find more:

Assembling of S2C-H 6R and E 200:
Chapter 5 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals of -
chapter 15



E 201

2CDE051498F003

E 200 switches

Isolator for panel installation onto DIN rail acc. to DIN EN 60715

Mounting depth: 70 mm

Mounting width: per pole = 17.5 mm = 1 module

Colour: grey, RAL 7035

Colour of switch lever: red RAL 3000 (r); grey RAL 7000 (g)

Special features

- Fast removal without dismantling of the busbar
- Captive screws with recessed/slotted head, Pozidriv size 2
- Add-on of up to 3 auxiliary contact S2C-H6R possible
- Integrated lay-on edge for labeling system ILS
- Locking device as accessory for unauthorized ON/OFF
- Approval: VDE, CCC, KEMA, EAC

Rated current: 80 A

Poles	Rated voltage	Power loss	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	V AC	W	EAN	Type code	Order code			
1NO	230	2.60	645737	E201/80g	2CDE281001R1080		0.095	10
1NO	230	2.60	645744	E201/80r	2CDE281001R0080		0.095	10
2NO	400	5.15	645911	E202/80g	2CDE282001R1080		0.190	5
2NO	400	5.15	645928	E202/80r	2CDE282001R0080		0.190	5
3NO	400	7.75	646093	E203/80g	2CDE283001R1080		0.290	3
3NO	400	7.75	646109	E203/80r	2CDE283001R0080		0.290	3
4NO	400	10.30	646277	E204/80g	2CDE284001R1080		0.390	2
4NO	400	10.30	646284	E204/80r	2CDE284001R0080		0.390	2

Rated current: 100 A

Poles	Rated voltage	Power loss	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	V AC	W	EAN	Type code	Order code			
1NO	230	3.95	645751	E201/100g	2CDE281001R1100		0.095	10
1NO	230	3.95	645738	E201/100r	2CDE281001R0100		0.095	10
2NO	400	7.90	645935	E202/100g	2CDE282001R1100		0.190	5
2NO	400	7.90	645942	E202/100r	2CDE282001R0100		0.190	5
3NO	400	11.85	646116	E203/100g	2CDE283001R1100		0.290	3
3NO	400	11.85	646123	E203/100r	2CDE283001R0100		0.290	3
4NO	400	15.80	646291	E204/100g	2CDE284001R1100		0.390	2
4NO	400	15.80	646307	E204/100r	2CDE284001R0100		0.390	2

Rated current: 125 A

Poles	Rated voltage	Power loss	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	V AC	W	EAN	Type code	Order code			
1NO	230	6.10	645775	E201/125g	2CDE281001R1125		0.095	10
1NO	230	6.10	645782	E201/125r	2CDE281001R0125		0.095	10
2NO	400	12.20	645959	E202/125g	2CDE282001R1125		0.190	5
2NO	400	12.20	645966	E202/125r	2CDE282001R0125		0.190	5
3NO	400	18.30	646130	E203/125g ①	2CDE283001R1125		0.33	3
3NO	400	18.30	646147	E203/125r ①	2CDE283001R0125		0.33	3
4NO	400	24.35	646314	E204/125g ①	2CDE284001R1125		0.44	2
4NO	400	24.35	646321	E204/125r ①	2CDE284001R0125		0.44	2

① without approvals

Command and signalling

E 463/3, E 480/3 switches



E463/3-KB

2CSC400458F0201



E463/3-SL

2CSC400438F0201



SA 2

2CSC400458F0201

Technical features

Switching capacity	1.25 In; 1.1 Un; cosφ = 0.6 according to DIN VDE 0632
Rated voltage	250/400 V a.c.
Connection cross section	1 mm ² stranded wire/0.5 mm ² wire up to 25 mm ²
Pick-up torque	3 Nm max.
Positive opening	according to DIN VDE 0113
Ambient temperature	-25°C to +55°C
Storage temperature	-40°C to +70°C
Poles	3 NO
Short-circuit withstanding capacity	10 kA, 400 V a.c.

E 463/3-KB, E 480/3-KB, E 463/3-SL switches

Poles	Power loss	Rated voltage	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
	W	V AC	EAN	Type code	Order code		kg	pc.
63	5.4	250/400	932528	E 463/3-KB	2CCE160300R0131		0.190	1
63	5.5	250/400	932535	E 463/3-SL	2CCE160301R0131		0.195	1
80	9.9	250/400	932542	E 480/3-KB	2CCE180300R0141		0.210	1

Padlock for E 463/3-SL with 2 keys

	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	587704	SA 2	GJF1101903R0002		0.020	1

Command and signalling

S800PV series 1500 switch disconnecter



S800PV-M

2CHC0113002F0021

		S800PV-M	S802PV-M-H
General Data	Standards	IEC / EN 60947-3	IEC / EN 60947-3
	Poles	2 ... 4	2 (polarized)
	Tripping characteristics		
	Rated current I _e	A 32, 63, 125	32, 63, 100
	Rated frequency f	Hz	
	Rated insulation voltage U _i acc. to IEC/EN 60664-1	V DC 1500	DC 1500
	Rated impulse withstand voltage U _{imp} (1.2/50µs)	kV 8	
	Overtoltage category	III	
	Pollution degree	2	
Suitability for isolation	yes		
Data acc. to IEC/EN 60947-3	Rated operational voltage U _e	V DC 800V: 2-pole DC 1200V: 3-pole DC 1200V: 4-pole	DC 1000V: 2-pole
	Min. operating voltage	V -	-
	Rated short-term withstand current I _{sw}	kA 1,5	
	Rated short-circuit making capacity I _{cm}	kA 0,5	
	Utilisation category	DC-21A	
	Electrical and Mechanical Endurance	ops. 10 ... 100A: 1500 electric; 8500 mechanic 125A: 1000 electric, 7000 mechanic acc. to IEC 60947-3	
Mechanical Data	Housing	Material group I, RAL 7035	
	Toggle	black, lockable	
	Classification acc. To NF F 126-101, NF F 16-102		
	Protection degree acc. to EN 60529	IP20, IP40 (actuating end only)	
	Mechanical endurance	ops. 10'000 cycles	10'000 cycles
	Shock resistance acc. to IEC/EN 60068-2-30	IEC 61373 Cat. 1 Class B, 5g / 30ms acc. To IEC 60068-27 Test Ea	
	Vibration resistance acc. to IEC/EN 60068-2-6	IEC 60068-2-6 Test Fc; 2 - 13.2Hz /1mm 13.2 - 100Hz / 0.7g with load 100% x I _e	
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	°C/RH 12 + 12 cycle with 55°C / 90-96% and 25% / 95-100%	
	Environmental conditions (dry heat) acc. to IEC/EN 60068-2-2 Test B	°C/RH 16 hours 55°C / 2 hours 70°C with damp heat 55%	
	Ambient temperature	°C -25 ... +60	
Storage temperature	°C -25 ... +70		
Installation	Terminal	Failsafe cage or ringlug terminal	Failsafe cage or ringlug terminal
	Stranded Cross-section of conductors (top / bottom)	mm ² 1 ... 50	
	Flexible Cross-section of conductors (top/bottom)	mm ² 1 ... 70	
	Tightening torque	Nm 3,5 in-lbs. 31	
	Screwdriver	POZI 2	
	Mounting	any	
	Mounting position	any	
	Supply	any	any (taking into account the polarization)
Dimensions and weight	Pole dimensions (H x L x W)	mm 95 x 26.5 x 82.5	
	Pole weight	g 240	
Combination with aux. elements	Auxiliary contact	yes	
	Combined auxiliary- / signal contact	yes	
	Shunt trip	yes	
	Undervoltage release	yes	
	Shunt open release	yes	
Motor Operating Device	yes		

Command and signalling

S800PV series 1500 switch disconnecter



2CCD413001R0002

S802PV-M

S800PV-M

Function: DC main switch for photovoltaic applications. Safe disconnection of photovoltaic arrays.

Applications: Photovoltaic systems.

Standard: IEC 60947-3

Icw=1.5 kA

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
2	32	211233	S802PV-M32	2CCP812001R1329		0.43	1
	63	215026	S802PV-M63	2CCD842001R1590		0.65	1
	125	211240	S802PV-M125	2CCP812001R1849		0.43	1

5



2CCD413003R0021

S803PV-M

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
3	32	211257	S803PV-M32	2CCP813001R1329		0.65	1
	63	215033	S803PV-M63	2CCD843001R1590		0.65	1
	125	211264	S803PV-M125	2CCP813001R1849		0.65	1



2CCD413004R0021

S804PV-M

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code			
4	32	211271	S804PV-M32	2CCP814001R1329		0.86	1
	63	215040	S804PV-M63	2CCD844001R1590		0.86	1
	125	211288	S804PV-M125	2CCP814001R1849		0.86	1

Maybe you are also interested in:
S800PV - chapter 1



S800PV

S800PV-M-H

Function: this polarized disconnecter is designed to meet the requirements for photovoltaic systems.

Only 54 mm wide, voltage up to 1000 V d.c. and a rated current up to 100 A.

Number of poles	Rated current	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	32	420703	S802PV-M32-H	2CCP247204R0001		0.43	1
	63	420710	S802PV-M63-H	2CCP247205R0001		0.43	1
	100	420796	S802PV-M100-H	2CCP247212R0001		0.43	1

Command and signalling E 210 switches



E 210

2CCC41003FC001

On-off switches

General	
Overall depth	68 mm
Width	0.5 or 1 module (9 or 18 mm)
Colour	grey, RAL 7035
Climatic resistance to	IEC 60068-2-2 (dry heat) IEC 60068-2-30 (humid heat) IEC 60068-2-1 (low temperatures)
Ambient temperature	- 25°C to + 55°C
Storage temperature	- 40°C to + 70°C
Connection cross-section (Cu)	from 1 x 1 mm ² to 1 x 6 mm ² or 2 x 2.5 mm ² solid; from 1x 0.75 mm ² to 2 x 1.5 mm ² flexible with end ferrule or pin cable lug
Tightening torque	1,2-1,5 Nm
Contacts	Double interrupting
On-off switches (E211; E211X)	
Short-circuit withstand capacity I _{nc}	3 kA; at 400 V cos j = 0.8 (with fusing <_ 35 A / NH00)
Rated current I _n	16 A, 25 A, 32 A
Rated voltage U _n	
in accordance with EN	250 VAC, 400 VAC
in accordance UL 508	240 VAC
Rated impulse withstand voltage U _{imp}	6 kV
Lowest operating voltage	24 VAC; 25 mA
Isolating features	to EN60669-2-4; IEC/EN 60947-3
Utilization category	AC-22 A, DC-22 A acc. IEC/EN 60947-3
LED voltage ranges	On-off switches E211X 115-250 VAC (Tolerance +/- 10%)
Frequency	50/60 Hz
Sealable	in the On and Off positions
Standards	DIN EN 60669-1 *VDE 0632-1 DIN EN 60669-2-4 *VDE 0632-2-4 UL 508
Approvals	VDE; UL; GOST; CCC

Utilization category for E211 On-off switches (according to standard IEC 60947-3)

Type	I _n	Utilization category		
		DC-22 A	AC-22 A	
E211-16-...	16 A	50 VDC / 16 A	200 VDC / 1 A	400 VAC / 16 A
E211-25-...	25 A	50 VDC / 25 A	200 VDC / 2 A	400 VDC / 25 A
E211-32-...-	32 A	50 VDC / 32 A	200 VDC / 3 A	400 VDC / 32 A

Change over, Group and control switches, pushbuttons and indicator lights

Change over, Group and Control switches (E213; E214; E218)	
Rated current I_n	16 A, 25 A
Rated voltage U_n	
in accordance with EN	250 VAC, 400 VAC
in accordance UL 508	240 VAC
Lowest operating voltage	24 VAC; 25 mA
Frequency	50/60 Hz
Switches sealable	in the On and Off positions
Standards	DIN EN 60669-1 *VDE 0632-1 UL 508
Approvals	VDE; UL; GOST; CCC
Pushbuttons without and with LED (E215; E217)	
Rated current I_n	16 A
Rated voltage U_n	
in accordance with EN	250 VAC
in accordance UL 508	240 VAC
Lowest operating voltage	24 VAC; 25 mA
LED voltage ranges	12-48 VAC / DC; 115-250 VAC; 60-220 VDC (Tolerance +/- 10%)
Frequency	50/60 Hz
Standards	DIN EN 60669-1 *VDE 0632-1 UL 508
Approvals	VDE; UL; GOST; CCC
Indicator lights (E219)	
LED voltage ranges	12-48 VAC / DC; 115-250 VAC; 60-220 VDC (Tolerance +/- 10%)
Frequency	50/60 Hz
Insulation voltage	250 V
Rated impulse withstand voltage U_{imp}	4 kV
Dissipated power	0.47-1 W
Standards	DIN EN 62094-1 UL 508
Approvals	VDE; UL; GOST; *1
Indicator lights with 2 LEDs	
LED voltage ranges	115-250 VAC; 12-48 VAC (tolerance +/- 10%)
Frequency	50/60 Hz
Insulation voltage	250 V
Rated impulse withstand voltage U_{imp}	4 kV
Dissipated power	0.8 W
Standards	DIN EN 62094-1
Approvals	VDE; GOST; *1
Indicator lights with 3 LEDs	
LED voltage ranges	415/250 VAC (tolerance +/- 10%)
Frequency	50/60 Hz
Insulation voltage	250 V
Rated impulse withstand voltage U_{imp}	4 kV
Dissipated power	1.2 W
Standards	DIN EN 62094-1
Approvals	VDE; GOST; *1

*1 = CCC approval not required

Command and signalling E 210 switches



E 211-16-10

These devices are specifically made for commanding loads and signalling electrical conditions in any low-voltage switchboard. They are available in half module or 1 module, depending on the contact-layout. The devices with indicator lights are equipped with a LED, which grants an optimal illumination with very low consumption.

The functions of these devices are particularly switching, pushing and signalling electrical conditions in any installations (low-voltage area)

General new features

- Space-saving through 9 mm modules
- All terminals equipped with Pozidrive 1 screws
- Safe connection due to cage-clamp
- LED with bright colours and available in three different voltage ranges
- Different lens and button colours
- Compliance to international standards

E 211-... ON-OFF switches

For example, such devices are used to switch indicators or other electrical components (like fan's, air-conditions, e.g.). The new On-Off switches distinguish themselves through simple handling, easy mounting and optimal functionality.

5



E211-16-20

Rated current = 16 A									
Contacts	Rated voltage	Power loss	Width	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	W	mm	EAN	Type code	Order code			
1 NO	250	0.32	9	938575	E211-16-10	2CCA703000R0001		0.035	10
2 NO	250/400	0.82	9	938582	E211-16-20	2CCA703005R0001		0.045	10
3 NO	250/400	1.14	18	938599	E211-16-30	2CCA703010R0001		0.080	10
4 NO	250/400	1.64	18	938605	E211-16-40	2CCA703015R0001		0.090	10

Rated current = 25 A									
Contacts	Rated voltage	Power loss	Width	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	W	mm	EAN	Type code	Order code			
1 NO	250	0.75	9	938612	E211-25-10	2CCA703001R0001		0.035	10
2 NO	250/400	1.95	9	938629	E211-25-20	2CCA703006R0001		0.045	10
3 NO	250/400	2.70	18	938636	E211-25-30	2CCA703011R0001		0.080	10
4 NO	250/400	3.90	18	938643	E211-25-40	2CCA703016R0001		0.090	10

Rated current = 32 A									
Contacts	Rated voltage	Power loss	Width	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	W	mm	EAN	Type code	Order code			
1 NO	250	1.12	9	938650	E211-32-10	2CCA703002R0001		0.035	10
2 NO	250/400	2.73	9	938667	E211-32-20	2CCA703007R0001		0.045	10
3 NO	250/400	3.85	18	938674	E211-32-30	2CCA703012R0001		0.080	10
4 NO	250/400	5.46	18	938681	E211-32-40	2CCA703017R0001		0.090	10

Where to find more:
DC switching capacity of E210:
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chapter 15



E211X-16-10

2CCA441038F0001

E 211X-... On-Off switches with yellow LED for contact indication

LED voltage 115-250 V AC

Rated current = 16 A

Con- tacts	Rated voltage V AC	Power loss W	LED colour	Width mm	Bbn 7612270 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
						Type code	Order code			
1 NO	250	0.50	yellow	9	938872	E211X-16-10	2CCA703100R0001		0.040	10
2 NO	250/400	1.00	yellow	18	938889	E211X-16-20	2CCA703110R0001		0.050	10
3 NO	250/400	1.50	yellow	18	938896	E211X-16-30	2CCA703115R0001		0.060	10



E211X-16-20

2CCA441038F0001

Rated current = 25 A

Con- tacts	Rated voltage V AC	Power loss W	LED colour	Width mm	Bbn 7612270 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
						Type code	Order code			
1 NO	250	1.15	yellow	9	938902	E211X-25-10	2CCA703101R0001		0.040	10
2 NO	250/400	2.30	yellow	18	938919	E211X-25-20	2CCA703111R0001		0.050	10
3 NO	250/400	3.45	yellow	18	938926	E211X-25-30	2CCA703116R0001		0.060	10

5

E 213-... Change over switches

The new change-over switches distinguish themselves through simple handling, easy mounting and optimal functionality. Example applications include opening and closing of electrically operated flaps.



E213-16-001

2CCA441019F0001

Rated current = 16 A

Con- tacts	Rated voltage V AC	Power loss W	LED colour	Width mm	Bbn 7612270 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
						Type code	Order code			
1 CO	250	0.32	-	9	938698	E213-16-001	2CCA703040R0001		0.041	10
2 CO	250	0.82	-	18	938704	E213-16-002	2CCA703045R0001		0.082	10



E 213-16-002

2CCA441020F0001

Rated current = 25 A

Con- tacts	Rated voltage V AC	Power loss W	LED colour	Width mm	Bbn 7612270 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
						Type code	Order code			
1 CO	250	0.40	-	9	938711	E213-25-001	2CCA703041R0001		0.041	10
2 CO	250	0.88	-	18	938728	E213-25-002	2CCA703046R0001		0.082	10

Command and signalling

E 210 switches



E214-16-101

2CCA41023F0001

E 214-... Group switches (I-0-II, manual-OFF-automatic)

The new Group switches can be used to control the main installation of an emergency supply. Such devices distinguish themselves through simple handling, easy mounting and optimal functionality.

Rated current = 16 A									
Contacts	Rated voltage	Power loss	Width	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	W	mm	EAN	Type code	Order code	kg	pc.	
1 CO	250	0.32	9	938735	E214-16-101	2CCA703025R0001		0.041	10
2 CO	250	0.82	18	938742	E214-16-202	2CCA703030R0001		0.082	10

5



E214-16-202

2CCA41024F0001

Rated current = 25 A									
Contacts	Rated voltage	Power loss	Width	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	W	mm	EAN	Type code	Order code	kg	pc.	
1 CO	250	0.40	9	938759	E214-25-101	2CCA703026R0001		0.041	10
2 CO	250	0.88	18	938766	E214-25-202	2CCA703031R0001		0.082	10

E 218-... Control switches

These devices can be used in distribution board for any control function. The new control switches distinguish themselves through simple handling, easy mounting and optimal functionality.



E 218-16-11

2CCA41023F0001

Rated current = 16 A									
Contacts	Rated voltage	Power loss	Width	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	W	mm	EAN	Type code	Order code	kg	pc.	
1NO+1NC	250	0.50	9	938773	E218-16-11	2CCA703050R0001		0.041	10
2NO+2NC	250	1.00	18	938780	E218-16-22	2CCA703060R0001		0.082	10
3NO+1NC	250	1.50	18	938797	E218-16-31	2CCA703065R0001		0.082	10



E 218-16-22

2CCA41024F0001

Rated current = 25 A									
Contacts	Rated voltage	Power loss	Width	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V AC	W	mm	EAN	Type code	Order code	kg	pc.	
1NO+1NC	250	0.75	9	938803	E218-25-11	2CCA703051R0001		0.041	10

Where to find more:

DC switching capacity of E210:
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chapter 15

Command and signalling

E 210 pushbuttons



E 215



E 217

E 215-... Pushbuttons (6 different button colours)

Pushbuttons without and with LED

The new products are available in 9 mm widths (= 0.5 modules).

The devices can be used in distribution boards and are all distinguished by their simple handling, ease of mounting and optimal functionality. The pushbuttons are used for remote control in all kinds of electrical installation (e.g. public, industrial). The range offers three different voltages.

(Ranges: 12-48 V AC/DC; 115-250 V AC and 60-220 V DC).

Rated current = 16 A

Contacts	Rated voltage V AC	Power loss W	Button colour	Width mm	Bbn 7612270 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
						Type code	Order code			
1NO+1NC	250	0.50	grey	9	938810	E215-16-11B	2CCA703150R0001		0.046	10
1NO+1NC	250	0.50	red	9	938827	E215-16-11C	2CCA703151R0001		0.046	10
1NO+1NC	250	0.50	green	9	938834	E215-16-11D	2CCA703152R0001		0.046	10
1NO+1NC	250	0.50	yellow	9	938841	E215-16-11E	2CCA703153R0001		0.046	10
1NO+1NC	250	0.50	black	9	938858	E215-16-11F	2CCA703154R0001		0.046	10
1NO+1NC	250	0.50	blue	9	938865	E215-16-11G	2CCA703155R0001		0.046	10

E 217-... Luminous Pushbuttons (5 different LED colours)

LED Voltage range = 115-250 V AC

Con- tacts	Rated voltage V AC	Power loss W	LED colour	Width mm	Bbn 7612270 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
						Type code	Order code			
1 NO	250	1.10	white	9	938988	E217-16-10B	2CCA703160R0001		0.050	10
1 NO	250	1.10	red	9	938995	E217-16-10C	2CCA703161R0001		0.050	10
1 NO	250	1.10	green	9	939008	E217-16-10D	2CCA703162R0001		0.050	10
1 NO	250	1.10	yellow	9	939015	E217-16-10E	2CCA703163R0001		0.050	10
1 NO	250	1.10	blue	9	939022	E217-16-10G	2CCA703164R0001		0.050	10
1 NC	250	1.10	white	9	939084	E217-16-01B	2CCA703250R0001		0.050	10
1 NC	250	1.10	red	9	939091	E217-16-01C	2CCA703251R0001		0.050	10
1 NC	250	1.10	green	9	939107	E217-16-01D	2CCA703252R0001		0.050	10
1 NC	250	1.10	yellow	9	939114	E217-16-01E	2CCA703253R0001		0.050	10
1 NC	250	1.10	blue	9	939121	E217-16-01G	2CCA703254R0001		0.050	10

Command and signalling

E 210 pushbuttons



E 217

E 217-... Luminous Pushbuttons (5 different LED colours)

LED Voltage range = 12-48 V AC/DC										
Con- tacts	Rated voltage V AC	Power loss W	LED colour	Width mm	Bbn 7612270 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
						Type code	Order code			
1 NO	250	0.72	white	9	938933	E217-16-10B48	2CCA703170R0001		0.050	10
1 NO	250	0.72	red	9	938940	E217-16-10C48	2CCA703171R0001		0.050	10
1 NO	250	0.72	green	9	938957	E217-16-10D48	2CCA703172R0001		0.050	10
1 NO	250	0.72	yellow	9	938964	E217-16-10E48	2CCA703173R0001		0.050	10
1 NO	250	0.72	blue	9	938971	E217-16-10G48	2CCA703174R0001		0.050	10
1 NC	250	0.72	white	9	939039	E217-16-01B48	2CCA703260R0001		0.050	10
1 NC	250	0.72	red	9	939046	E217-16-01C48	2CCA703261R0001		0.050	10
1 NC	250	0.72	green	9	939053	E217-16-01D48	2CCA703262R0001		0.050	10
1 NC	250	0.72	yellow	9	939060	E217-16-01E48	2CCA703263R0001		0.050	10
1 NC	250	0.72	blue	9	939077	E217-16-01G48	2CCA703264R0001		0.050	10

LED Voltage range = 60-220 V DC										
Con- tacts	Rated voltage V AC	Power loss W	LED colour	Width mm	Bbn 7612270 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
						Type code	Order code			
1 NO	250	1.50	white	9	939138	E217-16-10B220	2CCA703165R0001		0.050	10
1 NO	250	1.50	red	9	939145	E217-16-10C220	2CCA703166R0001		0.050	10
1 NO	250	1.50	green	9	939152	E217-16-10D220	2CCA703167R0001		0.050	10
1 NO	250	1.50	yellow	9	939169	E217-16-10E220	2CCA703168R0001		0.050	10
1 NO	250	1.50	blue	9	939176	E217-16-10G220	2CCA703169R0001		0.050	10
1 NC	250	1.50	white	9	939183	E217-16-01B220	2CCA703255R0001		0.050	10
1 NC	250	1.50	red	9	939190	E217-16-01C220	2CCA703256R0001		0.050	10
1 NC	250	1.50	green	9	939206	E217-16-01D220	2CCA703257R0001		0.050	10
1 NC	250	1.50	yellow	9	939213	E217-16-01E220	2CCA703258R0001		0.050	10
1 NC	250	1.50	blue	9	939220	E217-16-01G220	2CCA703259R0001		0.050	10

Where to find more:

DC switching capacity of E210:
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Command and signalling

E 210 indicator lights



E 219

E 219-... Indicator Lights with LED (5 different colours)

Indicator Lights with LED

The new products are available in 9 mm width (= 0.5 modules) and can be used for indicating any operational condition such as signalling loss of a phase.

The range offers three different voltages.

(Ranges: 12-48 V AC/DC; 115-250 V AC and 110-220 V DC).

Single indicator light - LED Voltage range = 115-250 V AC

Power loss	LED colour	Width	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
W		mm	EAN	Type code	Order code		kg	pc.
0.47	white	9	939282	E219-B	2CCA703400R0001		0.04	10
0.47	red	9	939299	E219-C	2CCA703401R0001		0.04	10
0.47	green	9	939305	E219-D	2CCA703402R0001		0.04	10
0.47	yellow	9	939312	E219-E	2CCA703403R0001		0.04	10
0.47	blue	9	939329	E219-G	2CCA703404R0001		0.04	10

Single indicator light - LED Voltage range = 12-48 V AC/DC

Power loss	LED colour	Width	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
W		mm	EAN	Type code	Order code		kg	pc.
0.40	white	9	939237	E219-B48	2CCA703420R0001		0.04	10
0.40	red	9	939244	E219-C48	2CCA703421R0001		0.04	10
0.40	green	9	939251	E219-D48	2CCA703422R0001		0.04	10
0.40	yellow	9	939268	E219-E48	2CCA703423R0001		0.04	10
0.40	blue	9	939275	E219-G48	2CCA703424R0001		0.04	10

Single indicator light - LED Voltage range = 60-220 V DC

Power loss	LED colour	Width	Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
W		mm	EAN	Type code	Order code		kg	pc.
1.00	white	9	939336	E219-B220	2CCA703405R0001		0.04	10
1.00	red	9	939343	E219-C220	2CCA703406R0001		0.04	10
1.00	green	9	939350	E219-D220	2CCA703407R0001		0.04	10
1.00	yellow	9	939367	E219-E220	2CCA703408R0001		0.04	10
1.00	blue	9	939374	E219-G220	2CCA703409R0001		0.04	10

Command and signalling

E 210 indicator lights



E 219-2CD

Double indicator light - LED Voltage range = 12-24 V AC								
Power loss	LED colour	Width	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
W		mm	EAN	Type code	Order code		kg	pc.
0.8	green, red	9	413347	E219-2CD48	2CCA703911R0001		0.042	10



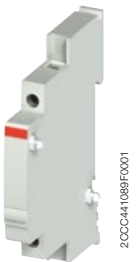
E 219-3CDE

Double indicator light - LED Voltage range = 115-230 V AC								
Power loss	LED colour	Width	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
W		mm	EAN	Type code	Order code		kg	pc.
0.8	green, red	9	413330	E219-2CD	2CCA703910R0001		0.042	10

Triple indicator light - LED Voltage range = 415-230 V AC								
Power loss	LED colour	Width	Bbn 7612271	Order details		Price 1 piece	Weight 1 piece	Pack unit
W		mm	EAN	Type code	Order code		kg	pc.
1.2	red, red, red	9	413309	E219-3C	2CCA703900R0001		0.044	10
1.2	green, green, green	9	413316	E219-3D	2CCA703901R0001		0.044	10
1.2	red, yellow, green	9	413323	E219-3CDE	2CCA703902R0001		0.044	10

Command and signalling

E 210 accessories



E 210-DH

Accessories for E 210 device series

Dummy housing for 9 mm wide units								
The modular width of 18 mm must be complied with to use the devices in the SMISSLINE socket system. The dummy housing is ready-made with two expanding connectors. Always snap on dummy housing on the left.								
			Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
			404208	E210-DH	2CCA703480R0001		0.18	10



E 210-ASV9

Padlock								
			Bbn 7612270	Order details		Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
to use for 9 and 18 mm wide units			404215	E210-ASV9	2CCA703648R0001		0.01	10

Where to find more:

DC switching capacity of E210:
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chapter 15

Command and signalling SL luminous indicators for panel installation



SL 4 LEDs

2CSG445168F0001



SL 12 LEDs

2CSG445168F0001

Technical characteristics

Electrical characteristics

Supply	[V]	AC/DC 24, 48 ±20% AC 115, 230 ±20% DC 115 ±20%
Frequency	[Hz]	0-1000
Power consumption	[W]	0.5 max per input
TEST input consumption	[W]	4 max

Other characteristics

Operating temperature	[°C]	-20 +60
Storage temperature	[°C]	-20 +70
Relative humidity		30-95%
Overall dimensions	[mm]	48 x 48 x 56 (SL-3 e SL-4) 96 x 96 x 56 (SL...96) 72 x 144 x 70 (SL...72-144)
Weight	[gr]	100 (SL-3 e SL-4), 300 (SL-12-115V/96) 350 (SL-12-115V/72-144)
Protection degree		IP40
Label dimensions	[mm]	30 x 9

5

Luminous indicator

These luminous indicator devices provide an intuitive and readily visible front panel display of the state of an electrical line or load situated either remotely or inside the panel itself. The range of luminous indicator includes devices with 3, 4 or 12 LEDs with various supply voltage ratings, and fully-customisable plain labels.

The version with 115 V DC supply rating, is ideal for installation on medium voltage panels and for non-standard applications, and complete an extensive range of easy-to-install indicator devices.

Indicator lamps 24 V AC/DC

Size	Number of LEDs	Characteristics of the LEDs	Label	Bbn 801254	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm				EAN	Type code	Order code	kg	pc.
48	3	not included	neutral	2659501	SL-3-24V/48	2CSG211010R3001	0.01	1
48	4	not included	neutral	2659600	SL-4-24V/48	2CSG221010R3001	0.01	1
48	3	■	neutral	2659709	SL-3-L1-L2-L3-24V/48	2CSG241020R3001	0.01	1
48	3	■ ■ ■	in English	2659808	SL-3-A-C-S-24V/48	2CSG251030R3001	0.01	1
48	4	■ ■ ■ ■	in English	2659907	SL-4-A-C-S-E-24V/48	2CSG251040R3001	0.01	1
96	12	not included	alarm	2660002	SL-12-24V/96	2CSG274050R3001	0.03	1
144	12	not included	alarm	2660408	SL-12-24V/144	2CSG233050R3001	0.35	1

Indicator lamps 48 V AC/DC

Size	Number of LEDs	Characteristics of the LEDs	Label	Bbn 801254	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm				EAN	Type code	Order code	kg	pc.
48	3	not included	neutral	2660002	SL-3-48V/48	2CSG311010R3001	0.01	1
48	4	not included	neutral	2658603	SL-4-48V/48	2CSG321010R3001	0.01	1
48	3	■	neutral	2658702	SL-3-L1-L2-L3-48V/48	2CSG341020R3001	0.01	1
48	3	■ ■ ■	in English	2658801	SL-3-A-C-S-48V/48	2CSG351030R3001	0.01	1
48	4	■ ■ ■ ■	in English	2658900	SL-4-A-C-S-E-48V/48	2CSG351040R3001	0.01	1
96	12	not included	alarm	2660101	SL-12-48V/96	2CSG374050R3001	0.03	1
144	12	not included	alarm	2660507	SL-12-48V/144	2CSG333050R3001	0.35	1

Command and signalling SL luminous indicators for panel installation

5

Indicator lamps 115 V AC									
Size	Num-ber of LEDs	Characteris-tics of the LEDs	Label	Bbn 801254	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm				EAN	Type code	Order code		kg	pc.
48	3	not included	neutral	2659006	SL-3-115V/48	2CSG411010R3001		0.01	1
48	4	not included	neutral	2659105	SL-4-115V/48	2CSG421010R3001		0.01	1
48	3	■ ■ ■	in English	2659303	SL-3-A-C-S-115V/48	2CSG451030R3001		0.01	1
48	4	■ ■ ■ ■	in English	2659402	SL-4-A-C-S-E-115V/48	2CSG451040R3001		0.01	1
96	12	not included	alarm	2660200	SL-12-115V/96	2CSG474050R3001		0.03	1
144	12	not included	alarm	2660606	SL-12-115V/144	2CSG433050R3001		0.35	1

Indicator lamps 115 V DC									
Size	Num-ber of LEDs	Characteris-tics of the LEDs	Label	Bbn 801254	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm				EAN	Type code	Order code		kg	pc.
48	3	not included	neutral	2659006	SL-3-115V/48 DC	2CSG273233R3001		0.01	1
48	4	not included	neutral	2659105	SL-4-115V/48 DC	2CSG273313R3001		0.01	1
48	3	■ ■ ■	in English	2659303	SL-3-A-C-S-115V/48 DC	2CSG273223R3001		0.01	1
48	4	■ ■ ■ ■	in English	2659402	SL-4-A-C-S-E-115V/48 DC	2CSG273303R3001		0.01	1
96	12	not included	neutral	2732136	SL12-115V/96 DC	2CSG273213R3001		0.01	1
144	12	not included	neutral	2732938	SL12-115V/72-144 DC	2CSG273293R3001		0.01	1

Indicator lamps 230 V AC									
Size	Num-ber of LEDs	Characteris-tics of the LEDs	Label	Bbn 801254	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm				EAN	Type code	Order code		kg	pc.
48	3	not included	neutral	2659501	SL-3-230V/48	2CSG511010R3001		0.01	1
48	4	not included	neutral	2659600	SL-4-230V/48	2CSG521010R3001		0.01	1
48	3	■	neutral	2659709	SL-3-L1-L2-L3-230V/48	2CSG541020R3001		0.01	1
48	3	■ ■ ■	in English	2659808	SL-3-A-C-S-230V/48	2CSG551030R3001		0.01	1
48	4	■ ■ ■ ■	in English	2659907	SL-4-A-C-S-E-230V/48	2CSG551040R3001		0.01	1
96	12	not included	alarm	2660309	SL-12-230V/96	2CSG574050R3001		0.03	1
144	12	not included	alarm	2660705	SL-12-230V/144	2CSG533050R3001		0.35	1

Accessories for luminous indicators									
				Bbn 801254	Order details		Price 1 piece	Weight 1 piece	Pack unit
				EAN	Type code	Order code		kg	pc.
■				2660804	red LED	2CSG500060R3001		0.05	5 pcs
■				2660903	green LED	2CSG500070R3001		0.05	5 pcs
■				2661009	yellow LED	2CSG500080R3001		0.05	5 pcs
■				2661108	blue LED	2CSG500090R3001		0.05	5 pcs
□				2661207	white LED	2CSG500100R3001		0.05	5 pcs

Command and signalling ESB installation contactors



Main Pole - Utilization Characteristics according to IEC

Contactor types:	AC operated		ESB20/ EN20			
	AC/DC operated			ESB24/ EN24	ESB40/ EN40	ESB63
Rated operational voltage Ue max.		V	250	400		
Rated frequency limits		Hz	50/60	DC or 50/60 Hz		
Utilization category AC-1 / AC-7a						
for air temperature close to contactor < 55 °C		(NO) A	20	24	40	63
Max. rated operational current Ie AC-1 / AC-7a		(NC) A	20	24	30	30
Rated operational power AC-1/ AC-7a	230 V - 1 phase	(NO) kW	4	5.5	9.2	14.5
	400 V - 3 phases	(NO) kW	-	16	26	41
	230 V - 1 phase	(NC) kW	4	5.3	8.8	6.9
	400 V - 3 phases	(NC) kW	-	16	26	26
Utilization category AC-3 / AC-7b						
for air temperature close to contactor < 55 °C	230 V - 1 phase	A	9	9	22	30
	400 V - 3 phases	A	-	9	22	30
Max. rated operational current Ie AC-3/AC-7b						
Rated operational power AC-3/ AC-7b	230 V - 1 phase	kW	1.1	1.3	3.7	5
	400 V - 3 phases	kW	-	4	11	15
Rated making capacity AC-3/AC-7b			10 x Ie / AC-3			
Rated breaking capacity AC-3/AC-7b			8 x Ie / AC-3			
Short-circuit protection for contactors gG type fuse		A	20	35	63	80
Rated short-time withstand current Icw at 40 °C ambient temp., in free air, from a cold state	10 s	A	72	72	176	240
Heat dissipation per pole	Ie / AC-1/AC-7a	W	1	3	4	6
Max. electrical switching fre- quency	- for AC-1 / AC-7a	cycles/h	300			
	- for AC-3 / AC-7b	cycles/h	600			
Electrical durability	- for AC-1 / AC-7a	cycles	150000	150000	150000	150000
	- for AC-3 / AC-7b	cycles	150000	500000	170000	240000
Mechanical durability	- millions of opera- ting cycles		1.000.000			

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Command and signalling ESB installation contactors

Magnet System Characteristics

Contactor types:	AC operated		ESB20/ EN20			
	AC/DC operated			ESB24/ EN24	ESB40/ EN40	ESB63
Coil operating limits acc. to IEC 60947-4-1			0.85 ... 1.1 x U _c (at m 55 °C)			
Drop-out voltage in % of U _c			approx. 20 ... 75 %	approx. 20 ... 70 %		
Frequency range		Hz	50/60	50/60 or DC		
Coil consumption	Average pull-in value	VA / W	8 / 5	4 / 4	5 / 5	65 / 65
	Average holding value	VA / W	3.2 / 1.2	4 / 4	5 / 5	4.2 / 4.2

Connecting Characteristics

Contactor types:	AC operated		ESB20/ EN20			
	AC/DC operated			ESB24/ EN24	ESB40/ EN40	ESB63
Connecting capacity (min. ... max.)						
Main pole terminals						
Rigid		1 x mm ²	1.5 ... 10		1.5 ... 25	
		2 x mm ²	1.5 ... 4		1.5 ... 10	
Degree of protection acc. to IEC 60947-1 / EN 60947-1 and IEC 60529 / EN 60529						
Protection against direct contact in acc. with EN 50274						
All terminals			IP20			

EH04... Auxiliary Contact Block - Utilization Characteristics according to IEC

Contactor types:	AC operated		ESB20			
	AC/DC operated			ESB24	ESB40	ESB63
Rated operational voltage U _e max.		V	-	500		
Conventional free air thermal current I _{th}		A	-	6		
θ < 40 °C		Hz	-	50/60		
Rated operational current I _e / AC-15 acc. to IEC 60947-5-1	240 V	50/60 Hz	A	-	4	
	415 V	50/60 Hz	A	-	3	
	500 V	50/60 Hz	A	-	2	
Making capacity	acc. to IEC 60947-5-1		-	11 x I _e AC-15		
Breaking capacity	acc. to IEC 60947-5-1		-	11 x I _e AC-15		
Short-circuit protection gI type fuse		A	-	10		
Minimum switching capacity with failure rate acc. to IEC 60947-5-4		V/mA	-	17 / 5		
Heat dissipation per pole at 6 A		W	-	0.1		

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ESB 20

1SBEC103007F0014

Application

The ESB contactors are used mainly in buildings for switching and controlling lighting, heating, ventilation and pumps. They are part of the complete range of Din rail products and can be integrated easily in dedicated panels.

ESB20 are AC coil operated.

The ESB 24, 40, 63 contactors are used for the control of loads up to 24, 40, 63 A.

Due to their DC solenoid actuator, the ESB 24 can be connected to AC or DC voltages.

This provides the following benefits:

Hum-free operating system, no vibration, silent in operation, low power consumption, integrated high overvoltage protection 5 kV. You can choose between a various N.O. and N.C. contacts combination.

Main accessories für ESB 24, 40, 63

Auxiliary contact blocks EH04.

ESB 20									
Main poles	Nb of modules	Control coil voltage		Bbn 3471521 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		50 Hz	60 Hz		Type code	Order code			
2 N.O. 	1	12 V	14 V	1230141	ESB 20-20	GHE 321 1102 R1004		0.14	10
		24 V	28 V	0263218	ESB 20-20	GHE 321 1102 R0001		0.14	10
		110 V	125..127 V	1230042	ESB 20-20	GHE 321 1102 R0004		0.14	10
		230 V	264 V	0263263	ESB 20-20	GHE 321 1102 R0006		0.14	10
2 N.C. 	1	12 V	14 V	1232145	ESB 20-02	GHE 321 1202 R1004		0.14	10
		24 V	28 V	0263812	ESB 20-02	GHE 321 1202 R0001		0.14	10
		110 V	125..127 V	1232046	ESB 20-02	GHE 321 1202 R0004		0.14	10
		230 V	264 V	0263867	ESB 20-02	GHE 321 1202 R0006		0.14	10
1 N.O. 1 N.C. 	1	12 V	14 V	1231148	ESB 20-11	GHE 321 1302 R1004		0.14	10
		24 V	28 V	0263515	ESB 20-11	GHE 321 1302 R0001		0.14	10
		110 V	125..127 V	1231049	ESB 20-11	GHE 321 1302 R0004		0.14	10
		230 V	264 V	0263560	ESB 20-11	GHE 321 1302 R0006		0.14	10

Command and signalling ESB installation contactors



15SC10009F0014

ESB 24

ESB 24									
Main poles	Nb of modules	Control coil voltage		Bbn 4013614	Order details		Price 1 piece	Weight 1 piece	Pack unit
		40...450 Hz	DC		EAN	Type code			
2 N.O.	2	24 V	24 V	215193	ESB 24-20	GHE 329 1402 R0001		0.28	5
		230...240 V	230...240 V	146756	ESB 24-20	GHE 329 1402 R0006		0.28	5
	2	12 V	12 V	084478	ESB 24-40	GHE 329 1102 R1004		0.28	5
		24 V	24 V	084416	ESB 24-40	GHE 329 1102 R0001		0.28	5
		110...120 V	110...120 V	084430	ESB 24-40	GHE 329 1102 R0004		0.28	5
		230...240 V	230...240 V	084454	ESB 24-40	GHE 329 1102 R0006		0.28	5
4 N.C.	2	12 V	12 V	084560	ESB 24-04	GHE 329 1202 R1004		0.28	5
		24 V	24 V	084515	ESB 24-04	GHE 329 1202 R0001		0.28	5
		110...120 V	110...120 V	084539	ESB 24-04	GHE 329 1202 R0004		0.28	5
		230...240 V	230...240 V	084546	ESB 24-04	GHE 329 1202 R0006		0.28	5
2 N.O. 2 N.C.	2	12 V	12 V	084638	ESB 24-22	GHE 329 1302 R1004		0.28	5
		24 V	24 V	084584	ESB 24-22	GHE 329 1302 R0001		0.28	5
		110...120 V	110...120 V	084607	ESB 24-22	GHE 329 1302 R0004		0.28	5
		230...240 V	230...240 V	084614	ESB 24-22	GHE 329 1302 R0006		0.28	5
3 N.O. 1 N.C.	2	12 V	12 V	084720	ESB 24-31	GHE 329 1602 R1004		0.28	5
		24 V	24 V	084676	ESB 24-31	GHE 329 1602 R0001		0.28	5
		110...120 V	110...120 V	084690	ESB 24-31	GHE 329 1602 R0004		0.28	5
		230...240 V	230...240 V	084706	ESB 24-31	GHE 329 1602 R0006		0.28	5
1 N.O. 3 N.C.	2	12 V	12 V	218255	ESB 24-13	GHE 329 1702 R1004		0.28	5
		24 V	24 V	214783	ESB 24-13	GHE 329 1702 R0001		0.28	5
		110...120 V	110...120 V	218224	ESB 24-13	GHE 329 1702 R0004		0.28	5
		230...240 V	230...240 V	218224	ESB 24-13	GHE 329 1702 R0006		0.28	5

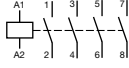
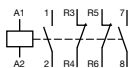
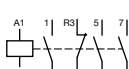

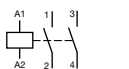
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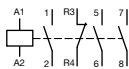
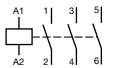
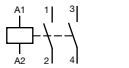
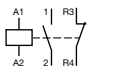
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ESB 40

Main poles	Nb modules	Control coil voltage		Bbn 4013614 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		40...450 Hz	DC		Type code	Order code			
4 N.O. 	3	12 V	12 V	149245	ESB 40-40	GHE 349 1102 R1004		0.40	3
		24 V	24 V	084829	ESB 40-40	GHE 349 1102 R0001		0.40	3
		110...120 V	110...120 V	084843	ESB 40-40	GHE 349 1102 R0004		0.40	3
		230...240 V	230...240 V	084867	ESB 40-40	GHE 349 1102 R0006		0.40	3
2 N.C. 	3	24 V	24 V	379611	ESB 40-22	GHE 349 1302 R0001		0.40	3
		230 V	230 V	214332	ESB 40-22	GHE 349 1302 R0006		0.40	3
1 N.C. 	3	24 V	24 V	316890	ESB 40-31	GHE 349 1602 R0001		0.40	3
		230 V	230 V	214349	ESB 40-31	GHE 349 1602 R0006		0.40	3
3 N.O. 	3	24 V	24 V	316890	ESB 40-30	GHE 349 1502 R0001		0.39	3
		230 V	230 V	214349	ESB 40-30	GHE 349 1502 R0006		0.39	3
2 N.O. 	3	24 V	24 V	212345	ESB 40-20	GHE 349 1402 R0001		0.38	3
		230 V	230 V	085314	ESB 40-20	GHE 349 1402 R0006		0.38	3

ESB 63

Main poles	Nb modules	Control coil voltage		Bbn 4013614 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		40...450 Hz	DC		Type code	Order code			
4 N.O. 	3	12 V	12 V	218262	ESB 63-40	GHE 369 1102 R1004		0.42	3
		24 V	24 V	084935	ESB 63-40	GHE 369 1102 R0001		0.42	3
		110...120 V	110...120 V	084959	ESB 63-40	GHE 369 1102 R0004		0.42	3
		230...240 V	230...240 V	084973	ESB 63-40	GHE 369 1102 R0006		0.42	3
1 N.C. 	3	110 V	110 V		ESB 63-31	GHE 369 1602 R0004		0.42	3
		230 V	230 V		ESB 63-31	GHE 369 1602 R0006		0.42	3
3 N.O. 	3	230 V	230 V	085376	ESB 63-30	GHE 369 1502 R0006		0.41	3
		400 V	400 V	260964	ESB 63-30	GHE 369 1502 R0007		0.41	3
2 N.O. 	3	24 V	24 V	291999	ESB 63-20	GHE 369 1402 R0001		0.40	3
		230 V	230 V	085369	ESB 63-20	GHE 369 1402 R0006		0.40	3
1 N.O. 1 N.C. 	3	230 V	230 V	214622	ESB 63-11	GHE 369 1802 R0006		0.40	3

Command and signalling

EN series contactors



EN

Application

The EN contactors are used mainly in buildings for switching and controlling lighting, heating, ventilation and pumps. They are part of the complete range of Din rail products and can be integrated easily in dedicated panels.

Description


EN contactors have a built-in toggle switch to select between three function modes:


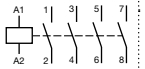
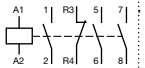
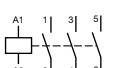
Off position, automatic run (normal contactor function), manual override with a return to Auto the next time the coil is energized.

This offers many advantages as:

You can make functional test before installation start-up. It can be used for maintenance operation, to change lamps and test it. It provides higher safety and drop out as you can switch the application manually.

The toggle switch is also used for household application like water heating where double tariff of kWh is used.

Main poles	Nb of modules	Control coil voltage		Bbn 4013614 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		50 Hz	60 Hz		Type code	Order code			
2 N.O. 	1	24 V	28 V	239038	EN 20-20	GHE 322 1101 R0001		0.14	10
		230 V	264 V	265069	EN 20-20	GHE 322 1101 R0006		0.14	10

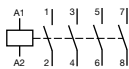
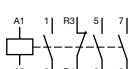
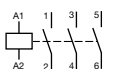
Main poles	Nb of modules	Control coil voltage		Bbn 4013614 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		50 Hz	60 Hz		Type code	Order code			
2 N.O. 	3	230...240 V	230...240 V	129582	EN 40-20	GHE 342 1401 R0006		0.40	3
4 N.O. 	2	24 V	24 V	190469	EN 24-40	GHE 326 1101 R0001		0.24	5
		230...240 V	230...240 V	133688	EN 24-40	GHE 326 1101 R0006		0.24	5
3 N.O. 1 N.C. 	2	24 V	24 V	316906	EN 24-31	GHE 326 1601 R0001		0.24	5
		230...240 V	230...240 V	133695	EN 24-31	GHE 326 1601 R0006		0.24	5
3 N.O. 	2	230...240 V	230...240 V	134319	EN 24-30	GHE 326 1501 R0006		0.23	5

Where to find more:

Worldwide marks and approvals - chapter 15

Maybe you are also interested in:

Accessories for contactors - chapter 5

Main poles	Nb of modules	Control coil voltage		Bbn 4013614 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		50 Hz	60 Hz		Type code	Order code			
4 N.O. 	3	24 V	24 V	262500	EN 40-40	GHE 342 1101 R0001		0.41	3
		110 V	110 V	261077	EN 40-40	GHE 342 1101 R0004		0.41	3
		230...240 V	230...240 V	133701	EN 40-40	GHE 342 1101 R0006		0.41	3
3 N.O. 1 N.C. 	3	24 V	24 V	337017	EN 40-31	GHE 342 1601 R0001		0.41	3
		230...240 V	230...240 V	337017	EN 40-31	GHE 342 1601 R0006		0.41	3
3 N.O. 	3	230...240 V	230...240 V	212338	EN 40-30	GHE 342 1501 R0006		0.40	3

Command and signalling

ESB/EN installation contactors main accessories



1SBCE103016F0014

EH 04

5



1SBCE103012F0014

ESB-PLK



ESB-PLK



1SBCE103011F0014

ESB-DIS

Contact blocks								
Contactor type	Contact blocks		Bbn 4013614	Order details		Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code	kg	pc.	
ESB/EN 24, 40, 63	2	–	084768	EH 04-20	GHE 340 1321 R0001		0.004	10
	1	1	084768	EH 04-11	GHE 340 1321 R0002		0.004	10

Sealing cover								
Contactor type			Bbn 4013614	Order details		Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code	kg	pc.	
ESB/EN 24			084171	ESB-PLK 24	GHE 320 1903 R0001		0.002	10
ESB/EN 40, 63			085222	ESB-PLK 40/63	GHE 340 1903 R0002		0.002	10

Distance piece								
Contactor type			Bbn 4013614	Order details		Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code	kg	pc.	
ESB/EN 24, 40, 63			085215	ESB-DIS	GHE 340 1902 R0001		0.002	10

Command and signalling

E290 Latching relays



E290

E290 Latching relays

General			
Overall depth	68 mm		
Overall width	1 module (18 mm)		
Colour	grey, RAL 7035		
Climate resistance in accordance with	IEC 60068-2-2 (dry heat) IEC 60068-2-30 (humid heat) IEC 60068-2-1 (low temperatures)		
Ambient temperature	-25 °C to +55 °C		
Storage temperature	-40 °C to +70 °C		
Contact system	Double interruption		
Tightening torque	1.2 - 1.5 Nm		
Weight	0.122 kg		
Standards	EN 60669-1; EN 60669-2-2		
Approval	VDE; EAC		
Power circuit			
Rated current I _n	E290-16-.../...	16 A	---
	E290-32-.../...	---	32 A
Rated voltage U _n	250 VAC		250 VAC
Frequency	50 Hz		50 Hz
Short circuit withstand capacity I _{nc}	3 kA		3 kA
Back-up fuses (gL)	max. 16 A		max. 32 A
Latching relay contact configurations for 16 A and 32 A	1NO; 2NO; 1NO + 1NC		
Additional Power contacts 16A (attachable) (not for 32 A version)	1CO; 2NO; 1NO + 1NC		
Max. DC current per contact with 24 VDC	5 A	8 A	
Min. switching load	24 V; 10 mA		
Bounce time	< 3 ms		
Power loss in W per contact	0.32 W	1.2 W	
Rated impulse withstand voltage U _{imp}	4 kV		
Max. lamp load			
Glow lamps (20 W - 200 W)	3000 W		4000 W
Fluorescent lamps, uncorrected power factor (cos. 0.5)	1800 W		2200 W
Fluorescent lamps, corrected power factor (cos. 0.9)	serial	3000 W	4000 W
	parallel	2500 W	3200 W
	single	1800 W	2200 W
	double	2500 W	3200 W
(see also lamp load table)			

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

Command and signalling

E290 Latching relays



E290

E290 Latching Relays

Lifetime (switching cycles)	
Electrical (AC1 rated current load)	150,000
Mechanical	250,000
Connector cross-sections	
Connecting terminals	solid from 1 x 1 mm ² to 1 x 10 mm ² or 2 x 2.5 mm ² flexible from 1 x 0.75 mm ² to 1 x 6 mm ² (Cu) with end ferrule or pin cable lug
Control circuit	
Rated control voltages Un	AC: 8 V; 12 V; 24 V; 48 V; 115 V; 230 V
	DC: – ; – ; 12 V; 24 V; 60 V; 110 V
AC/DC ratio 1)	1: 0.5 (not available for 8 VAC and 12 VAC coils)
Operation limits	+/- 10% = 0.9 - 1.1 x Un
Minimum command duration	50 ms
Max. switching operations	15 x per min. at In 16 A; 8 x per min. at In 32 A
Switching noise	60 dB (A) (distance 1 m)
Max. number of illuminated buttons (0.6 mA)	(see table on page 3/6)
Max. glow lamp current parallel to the 230 V control buttons	5 mA

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

Switching components for E290

E292-16... Contact Module (attachable only to 16 A In version)	
Rated current I_n per E292 contact	16 A
Rated voltage U_n	250 VAC
Frequency	50 Hz
Max. no. attachable 2) (additional main contacts)	1 unit (attachable on the right side of the main module)
Contact configurations	1CO; 2NO; 1NO+1NC
Max. DC current per contact with 24 VDC	8 A
Min. switching load	24 V;10 mA
E299-11 Auxiliary Contacts	
Max. no. attachable 2) (signalling or control contacts)	1 unit (attachable on the right side of the main module)
Number of contacts	1 NO + 1 NC
Max. current per contact with AC	5.0 A
Max. current per contact with 24 VDC	5.0 A

Control components for E290

E293X Central On-Off Control Module (same control voltage potential)	
Max. no. attachable 2)	1 unit (attachable on the left side of the main module)
Rated current I_n max.	1 A
Rated voltage U_n	250 VAC
E294 Central On-Off Control Module (different control voltage potential)	
Max. no. attachable 2)	1 unit (attachable on the left side of the main module)
Rated current I_n max.	1 A
Rated voltage U_n	250 VAC
E295-PS Permanent Signal Module	
Max. no. attachable 2)	1 unit (attachable on the left side of the main module)
Rated current I_n max.	1 A
Rated voltage U_n	250 VAC
E295-GM Group Module	
Use of group switching modules	1 unit per defined group
Rated current I_n max.	1 A
Rated voltage U_n	250 VAC
E296-CP Compensator	
Compensation when using illuminated buttons	Wiring parallel to the main module
Compensation	2.2 μ F
Rated voltage U_n	250 VAC

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

Command and signalling

E297 Installation relay



E290

5

E297 Installation Relays

General		
Overall depth	68 mm	
Overall width	1 module (18 mm)	
Colour	grey, RAL 7035	
Climate resistance in accordance with	IEC 60068-2-2 (dry heat)	
	IEC 60068-2-30 (humid heat)	
	IEC 60068-2-1 (low temperatures)	
Ambient temperature	- 25 °C to + 55 °C	
Storage temperature	- 40 °C to + 70 °C	
Tightening torque	1.2 - 1.5 Nm	
Weight	0.122 kg	
Standards	EN 60669-1; EN 60669-2-2	
Approval	VDE; EAC	
Power circuit		
Rated current I _n	16 A	
Rated voltage U _n	250 VAC	
Frequency	50-60 Hz	
Short circuit withstand capacity I _{nc}	3 kA	
Back-up fuses (gL)	max. 16 A	
Installation relay contact configurations	1NO; 2NO; 1NO+1NC	
Additional Power contacts 16A (attachable)	1CO; 2NO; 1NO+1NC	
Max. DC current per contact with 24 VDC	8 A	
Min. switching load	24 V; 10 mA	
Bounce time	< 3 ms	
Power loss in W per contact	0.50 W	
Rated Impulse withstand voltage U _{imp}	4 kV	
Max. lamp load		
Glow lamps (20 W-200 W)	3000 W	
Fluorescent lamps, uncorrected power factor (cos. 0.5)	1800 W	
Fluorescent lamps, corrected power factor (cos. 0.9)	serial	3000 W
	parallel	2500 W
	single	1800 W
	double	2500 W
(see also lamp load table)		
Lifetime (switching cycles)		
Electrical (AC1 rated current load)	150,000	
Mechanical	250,000	

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

E297 Installation Relays

Application categories		
Switching capacity in accordance with	AC-1 (based on EN 60947)	16 A
	AC-5b (based on EN 60947)	5 A
	AC-7a (based on EN 61095)	16 A
	AC-7c (based on EN 61095)	5 A
Connector cross-sections		
Main connecting terminals	solid from 1 x 1 mm ² to 1 x 10 mm ² or 2 x 2.5 mm ² flexible from 1 x 0.75 mm ² up to 1 x 6 mm ² (Cu) with end ferrule or pin cable lug	
Control circuit		
Coil rated voltages Un AC/DC	8 VAC; 12 VAC; 24 VAC/24 VDC; 48 VAC/48 VDC; 115 VAC/110 VDC; 230 VAC	
AC/DC ratio 3)	1 : 1	
Operation limits	+/- 10% = 0.9 - 1.1 x Un	
Switching noise	60 dB (A) (distance 1 m)	
Max. switching operations	15 x per min. at In 16 A	
Coil power loss		
	AC	DC
Pick up	< 2.8 VA	< 2.0 W
Holding	< 2.6 VA	< 1.8 W

Switching components for E297

E298 Contact Module	
Max. no. attachable 2) (additional main contacts)	1 unit (attachable on the right side of the main module)
Rated current In per E298 contact	16 A
Rated voltage Un	250 VAC
Frequency	50 Hz
Number of contacts	1CO; 2NO; 1NO+1NC
Max. DC current per contact with 24 VDC	5 A
Min. switching load	24 V; 10 mA
E299-11 Auxiliary Contacts	
Max. no. attachable 2) (signalling or control contacts)	1 unit (attachable on the right side of the main module)
Number of contacts	1 NO+1 NC
Max. current per contact with AC	5.0 A
Max. current per contact with 24 VDC	5.0 A

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

2) See overview of chapter 3

Command and signalling

E290 Latching relays



E290

Latching Relay

This 18 mm wide DIN rail mounted device is designed for direct installation in main distribution or sub-distribution systems (mounted on 35 mm DIN mounting rails). The devices are activated by means of control pulses and guarantee energy-optimized lighting control. As a rule, installations with latching relays are used where the lighting control system can be operated from at least three points in different locations. Those latching relays are designed for a rated current of 16 A or 32 A.

Standard number of contacts:

1 NO contact, 2 NO contacts or 1 NO contact + 1 NC contact

The number of switching contacts can be increased by a maximum of two main contacts using a snap-on main module (E292-...-...). As a result, up to four lighting sets can be switched by a single device. A signalling and/or indicating facility can be created using the additional snap-on auxiliary contact module (E299-11).

The various standard AC/DC coil voltages complete the comprehensive and interesting product range. The additional devices can be snapped onto the latching relay on the left or right side.

Rated current = 16 A

Contact config.	Power loss [W]	Width [mm]	Coil control voltage [VAC/VDC]	Bbn 7612270 EAN	Order details		Price 1 piece	Weight kg.	Pack unit pc.
					Type code	Order code			
1NO	0.32	18	8VAC	939558	E290-16-10/8	2TAZ312000R2061		0.114	10
	0.32	18	12VAC	939565	E290-16-10/12	2TAZ312000R2051		0.114	10
	0.32	18	24VAC/12VDC	939572	E290-16-10/24	2TAZ312000R2041		0.114	10
	0.32	18	48VAC/24VDC	939589	E290-16-10/48	2TAZ312000R2031		0.114	10
	0.32	18	115VAC/60VDC	939596	E290-16-10/115	2TAZ312000R2021		0.114	10
	0.32	18	230VAC/110VDC	939602	E290-16-10/230	2TAZ312000R2011		0.114	10

Rated current = 32 A

Contact config.	Power loss [W]	Width [mm]	Coil control voltage [VAC/VDC]	Bbn 7612270 EAN	Order details		Price 1 piece	Weight kg.	Pack unit pc.
					Type code	Order code			
1NO	1.20	18	8VAC	939619	E290-32-10/8	2TAZ322000R2061		0.114	10
	1.20	18	12VAC	939626	E290-32-10/12	2TAZ322000R2051		0.114	10
	1.20	18	24VAC/12VDC	939633	E290-32-10/24	2TAZ322000R2041		0.114	10
	1.20	18	48VAC/24VDC	939640	E290-32-10/48	2TAZ322000R2031		0.114	10
	1.20	18	115VAC/60VDC	939657	E290-32-10/115	2TAZ322000R2021		0.114	10
	1.20	18	230VAC/110VDC	939664	E290-32-10/230	2TAZ322000R2011		0.114	10

Rated current = 16 A

Contact config.	Power loss [W]	Width [mm]	Coil control voltage [VAC/VDC]	Bbn 7612270 EAN	Order details		Price 1 piece	Weight kg.	Pack unit pc.
					Type code	Order code			
2NO	0.64	18	8VAC	939671	E290-16-20/8	2TAZ312000R2062		0.122	10
	0.64	18	12VAC	939688	E290-16-20/12	2TAZ312000R2052		0.122	10
	0.64	18	24VAC/12VDC	939695	E290-16-20/24	2TAZ312000R2042		0.122	10
	0.64	18	48VAC/24VDC	939701	E290-16-20/48	2TAZ312000R2032		0.122	10
	0.64	18	115VAC/60VDC	939718	E290-16-20/115	2TAZ312000R2022		0.122	10
	0.64	18	230VAC/110VDC	939725	E290-16-20/230	2TAZ312000R2012		0.122	10

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

Rated current = 32 A

Contact config.	Power loss	Width [mm]	Coil control voltage	Bbn 7612270	Order details		Price 1 piece	Weight kg.	Pack unit pc.
	[W]			[VAC/VDC]	EAN	Type code			
2NO	2.40	18	8VAC	939732	E290-32-20/8	2TAZ322000R2062		0.122	10
	2.40	18	12VAC	939749	E290-32-20/12	2TAZ322000R2052		0.122	10
	2.40	18	24VAC/12VDC	939756	E290-32-20/24	2TAZ322000R2042		0.122	10
	2.40	18	48VAC/24VDC	939763	E290-32-20/48	2TAZ322000R2032		0.122	10
	2.40	18	115VAC/60VDC	939770	E290-32-20/115	2TAZ322000R2022		0.122	10
	2.40	18	230VAC/110VDC	939787	E290-32-20/230	2TAZ322000R2012		0.122	10

Rated current = 16 A

Contact config.	Power loss	Width [mm]	Coil control voltage	Bbn 7612270	Order details		Price 1 piece	Weight kg.	Pack unit pc.
	[W]			[VAC/VDC]	EAN	Type code			
1NO+1NC	0.50	18	8VAC	939794	E290-16-11/8	2TAZ312000R2063		0.122	10
	0.50	18	12VAC	939800	E290-16-11/12	2TAZ312000R2053		0.122	10
	0.50	18	24VAC/12VDC	939817	E290-16-11/24	2TAZ312000R2043		0.122	10
	0.50	18	48VAC/24VDC	939824	E290-16-11/48	2TAZ312000R2033		0.122	10
	0.50	18	115VAC/60VDC	939831	E290-16-11/115	2TAZ312000R2023		0.122	10
	0.50	18	230VAC/110VDC	939848	E290-16-11/230	2TAZ312000R2013		0.122	10

Rated current = 32 A

Contact config.	Power loss	Width [mm]	Coil control voltage	Bbn 7612270	Order details		Price 1 piece	Weight kg.	Pack unit pc.
	[W]			[VAC/VDC]	EAN	Type code			
1NO+1NC	1.20	18	8VAC	939855	E290-32-11/8	2TAZ322000R2063		0.122	10
	1.20	18	12VAC	939862	E290-32-11/12	2TAZ322000R2053		0.122	10
	1.20	18	24VAC/12VDC	939879	E290-32-11/24	2TAZ322000R2043		0.122	10
	1.20	18	48VAC/24VDC	939886	E290-32-11/48	2TAZ322000R2033		0.122	10
	1.20	18	115VAC/60VDC	939893	E290-32-11/115	2TAZ322000R2023		0.122	10
	1.20	18	230VAC/110VDC	939909	E290-32-11/230	2TAZ322000R2013		0.122	10

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

Command and signalling

E290 Latching relays



E291S

Sequential Latching Relay

The sequential latching relay is an 18 mm wide device which has two NO contacts. The preset switching sequence for the main contacts enables the switching on and off, of different lighting sets to be „programmed“. The E291S has an easily visible switch position display on the front.

Standard number of contacts:
2 NO contacts

Rated current = 16 A									
Contact config.	Power loss [W]	Width [mm]	Coil control voltage [VAC/VDC]	Bbn 7612270	Order details		Price 1 piece	Weight kg.	Pack unit pc.
				EAN	Type code	Order code			
2NO	0.64	18	8VAC	939916	E291S-16-20/8	2TAZ313000R2062		0.110	10
	0.64	18	12VAC	939923	E291S-16-20/12	2TAZ313000R2052		0.110	10
	0.64	18	24VAC/12VDC	939930	E291S-16-20/24	2TAZ313000R2042		0.110	10
	0.64	18	230VAC/110VDC	939947	E291S-16-20/230	2TAZ313000R2012		0.110	10



E292

Accessories for E290 Latching Relays

Accessories and additional devices for combinations with Latching Relays

Main Contact Module

Rated current = 16 A									
Contact config.	Power loss [W]	Width [mm]	Coil control voltage [VAC/VDC]	Bbn 7612270	Order details		Price 1 piece	Weight kg.	Pack unit pc.
				EAN	Type code	Order code			
2NO	0.64	9		939480	E292-16-20	2CCA704300R0001		0.045	10
1NO+1NC	0.32	9		939503	E292-16-11	2CCA704301R0001		0.045	10
1CO	0.32	9		939527	E292-16-001	2CCA704302R0001		0.045	10



E293/X

Central On-Off Control Module

		9	same control voltage	939381	E293/X	2TAZ312004R1003		0.041	10
--	--	---	----------------------	--------	--------	-----------------	--	-------	----

Central On-Off Control Module (with different control voltages)

		18	24VAC	939411	E294/24	2TAZ312001R2043		0.110	5
		18	230VAC	939442	E294/230	2TAZ312001R2013		0.110	5



E294

Permanent Signal Module

		18		939459	E295-PS	2TAZ312005R1003		0.041	10
--	--	----	--	--------	---------	-----------------	--	-------	----

Group Module

		18		939466	E295-GM	2TAZ310002R1000		0.059	10
--	--	----	--	--------	---------	-----------------	--	-------	----



E295

Compensator

		18		939473	E296-CP	2TAZ310003R1000		0.055	10
--	--	----	--	--------	---------	-----------------	--	-------	----

Auxiliary Contact for Latching and Installation relays

Rated current = 5 A									
1NO+1NC	0.10	9		939985	E299-11	2CCA704340R0001		0.045	10

Intermediate piece (for heating dissipation - bag contains 5 items)

		18		100989	ZLS725	2CCS500900R0181		0.100	1 bag
		9		104703	ZLS726	2CCS400900R0091		0.070	1 bag



E299

Command and signalling

E297 Installation relay



E297

E297 Installation Relays

The E297 installation relay is an electromechanical switching device controlled by means of a continuous pulse. The coils have a low level of switching noise, are optimized for low power loss and therefore ensure safe and fault-free use in various applications. Either AC or DC control voltage can be applied. The installation relay is designed for a rated current of 16 A.

Standard number of contacts:

1 NO contact, 2 NO contacts or 1 NO contact + 1 NC contact

In addition, the number of main contacts can be increased to four contact lines using the snap-on E298 Main contact module so that three different groups of loads can be switched and controlled safely. The various AC/DC coil voltages complete the comprehensive and interesting product range. The additional devices can be snapped onto the installation relay on the right side.

Rated current = 16 A

Contact config.	Power loss	Width [mm]	Coil control voltage	Bbn 7612270	Order details		Price 1 piece	Weight	Pack unit
	[W]				[VAC/VDC]	EAN			
1NO	0.50	18	8VAC	940004	E297-16-10/8	2TAZ311000R2061		0.113	10
	0.50	18	12VAC	940011	E297-16-10/12	2TAZ311000R2051		0.113	10
	0.50	18	24VAC/24VDC	940028	E297-16-10/24	2TAZ311000R2041		0.113	10
	0.50	18	48VAC/48VDC	940035	E297-16-10/48	2TAZ311000R2031		0.113	10
	0.50	18	115VAC/110VDC	940042	E297-16-10/115	2TAZ311000R2021		0.113	10
	0.50	18	230VAC	940059	E297-16-10/230	2TAZ311000R2011		0.113	10

Rated current = 16 A

Contact config.	Power loss	Width [mm]	Coil control voltage	Bbn 7612270	Order details		Price 1 piece	Weight	Pack unit
	[W]				[VAC/VDC]	EAN			
1NO+1NC	0.50	18	8VAC	940066	E297-16-11/8	2TAZ311000R2063	940066	0.121	10
	0.50	18	12VAC	940073	E297-16-11/12	2TAZ311000R2053	940073	0.121	10
	0.50	18	24VAC/24VDC	940080	E297-16-11/24	2TAZ311000R2043	940080	0.121	10
	0.50	18	48VAC/48VDC	940097	E297-16-11/48	2TAZ311000R2033	940097	0.121	10
	0.50	18	115VAC/110VDC	940103	E297-16-11/115	2TAZ311000R2023	940103	0.121	10
	0.50	18	230VAC	940110	E297-16-11/230	2TAZ311000R2013	940110	0.121	10

Rated current = 16 A

Contact config.	Power loss	Width [mm]	Coil control voltage	Bbn 7612270	Order details		Price 1 piece	Weight	Pack unit
	[W]				[VAC/VDC]	EAN			
2NO	1.00	18	8VAC	940127	E297-16-20/8	2TAZ311000R2062		0.121	10
	1.00	18	12VAC	940134	E297-16-20/12	2TAZ311000R2052		0.121	10
	1.00	18	24VAC/24VDC	940141	E297-16-20/24	2TAZ311000R2042		0.121	10
	1.00	18	48VAC/48VDC	940158	E297-16-20/48	2TAZ311000R2032		0.121	10
	1.00	18	115VAC/110VDC	940165	E297-16-20/115	2TAZ311000R2022		0.121	10
	1.00	18	230VAC	940172	E297-16-20/230	2TAZ311000R2012		0.121	10

Command and signalling

E297 Installation relay



E298

Accessories for E297 Installation Relays

Accessories and additional devices for combinations with Installation Relays

Main Contact Module 16A

Rated current = 16 A

Contact config.	Power loss [W]	Width [mm]	Coil control voltage [VAC/VDC]	Bbn 7612270 EAN	Order details		Price 1 piece	Weight kg.	Pack unit pc.
					Type code	Order code			
2NO	0.64	9		939961	E298-16-20	2CCA704320R0001		0.045	10
1NO+1NC	0.32	9		939954	E298-16-11	2CCA704321R0001		0.045	10
1CO	0.32	9		939978	E298-16-001	2CCA704322R0001		0.045	10

Contact config.	Power loss [W]	Width [mm]	Coil control voltage [VAC/VDC]	Bbn 7612270 EAN	Order details		Price 1 piece	Weight kg.	Pack unit pc.
					Type code	Order code			

Auxiliary Contact for Latching and Installation relays

Rated current = 5 A

1NO+1NC	0.10	9		939985	E299-11	2CCA704340R0001		0.045	10
---------	------	---	--	--------	---------	-----------------	--	-------	----

Intermediate piece (for heating dissipation - bag contains 5 items)

		18		100989	ZLS725	2CCS500900R0181		0.100	1 bag
		9		104703	ZLS726	2CCS400900R0091		0.070	1 bag

Where to find more:

Technical details for E290:
Chapter 5 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals -
chapter 15

Command and signalling FLR latching relays



FLR

2CSC400726F0201

Technical features		FLR1	FLR5
Contact type		1NO	2NO
Number of sequences	[No.]	2	4
Rated voltage	[V]	12 / 230 AC	
Rated load		10 A / 250 V AC	
Max. Peak current	[A]	15	
Max. switching power	[VA]	2500	
Max. switching voltage	[V]	250 AC	
Incandescent lamp load	[W]	805	
Fluorescent lamp load	[W]	345	
Frequency	[Hz]	50-60	
Type of operation		sequential - mechanical	
Protection degree		IP20	
Max. number of electrical operations	[No.]	100000	
Max. number of mechanical operations	[No.]	300000	
Insulation resistance	[MW]	100 (500 V DC)	
Dielectric strength (contacts)	[V]	2000 AC	
Dielectric strength (coil)	[V]	3500 AC	
Power dissipation	[VA]	4.5	
Operating temperature	[°C]	-25...+55	
Max. Cable section at terminals	[mm ²]	1...2.5	
Terminals		screw	
Tightening torque	[Nm]	0.5	
Installation type		wall/flush mounting	
Dimensions (LxWxH)	[mm]	45 x 22 x 45	
Standards		EN 60669-1 ; EN 60669-2-1	

Characteristics of the contact

Type	No. of pulses	Sequences			
		1	2	3	4
FLR1-12	2	∪	∩		
FLR1-230	2	∪	∩		
FLR5-12	2	∪∪	∩∩	∪∩	∩∪
FLR5-230	2	∪∪	∩∩	∪∩	∩∪

Flush mounting latching relays

Speed and ease of assembly, along with their compact size, make the FLR flush mounting latching relays suitable for installation inside flush mount or junction boxes. They are ideal for implementing multipoint command of lighting systems in residential and commercial installations, so as to simplify and reduce the cost of wiring.

Contacts	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
1	063650	FLR1-12	2CSM206365R0241		0.06	20
1	063759	FLR1-230	2CSM206375R0241		0.06	20
2	063858	FLR5-12	2CSM206385R0241		0.06	20
2	063957	FLR5-230	2CSM206395R0241		0.06	20

Command and signalling

E 260 latching relays



E 260

5

Technical features	
	E 260/E 260 C
Rated load at 250 V AC	8 A
Incandescent lamp load	1000 W
Fluorescent lamp load in twin-lamp circuit	1000 W
Fluorescent lamp load shunt compensated	350 W ①
Fluorescent lamp load inductive or capacitive	500 W
Electronic ballast	Ion m 70 A/10 ms ②
Inductive load, $\cos\phi = 0.6/230\text{ V} \sim$	5 A
Contact rating at DC	100 W
Minimum contact rating	4 V AC/10 mA
Contact gap/contact material	0.5 mm/Ag Sn02
Service life mechanical switchover at 103/h	$> 10^7$
Service life at rated load $\cos\phi = 1$ and 103/h	$> 10^5$
Service life with filament lamps at 103/h	800 W $> 10^5$, 1000 W $> 0.8 \times 10^5$
Service life at rated load $\cos\phi = 0.6$ and 103/h	$> 10^4$
Max. switching rate	$10^3/\text{h}$
Bounce time	3 ms
Connection capacity	2 x 1.5 mm ² with connector sleeve
Tightening torque	0.5 ... 0.8 Nm
ON duration at rated voltage	100 %
Coil voltage range	0.9 to 1.1 Un
Minimum command time/interval between commands	50/1000 ms
Ambient temperature	-20 °C / -4 °F to 50 °C / 122 °F
Control current when controlled locally	230 V AC 115 mA, after 10s 8 mA $\pm 20\%$
Control current when controlled centrally	230 V AC 8 mA, after 10s 3 mA $\pm 20\%$
Max. parallel capacity of individual control wire at 230 V \sim	0.7 μF (ca. 2000 m)
Max. parallel capacity of central control wire at 230 V \sim	0.2 μF (ca. 700 m)
Max. glow lamp current – parallel to 230 V control buttons	10 mA
Max. induced voltage at 230 V control inputs	0.2 Un

Latching relays for lamp installations on request.

① E 260 C can not be used with fluorescent lamp load shunt compensated.

② In the case of electronic control gear, take into account a 40-fold inrush current.

Where to find more:

Technical details for E260:
Chapter 5 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals of
MDRCs - chapter 15



E 260

2CSC000066R0201

E 260 electronic latching relays

The electronic version of latching relays guarantees maximum reliability, life, and noiseless operation. The E 260 C version also allows centralized reset function (ON/OFF).

Latching relays with control electronics Coil voltage UC = 24 V AC/DC

Contacts	Power loss W ①	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		EAN	Type code	Order code			
1 NO	2.4 (3.0)	57592 8	E 261-24	2CDE441000R0301		0.085	1
1 NO+1 NC	2.4 (3.5)	57595 9	E 266-24	2CDE444000R0301		0.096	1
2 NO	2.4 (3.5)	57593 5	E 262-24	2CDE442000R0301		0.096	1

Coil voltage UC = 230 V AC

Contacts	Power loss W ①	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		EAN	Type code	Order code			
1 NO	1.5 (2.0)	57596 6	E 261-230	2CDE141000R0301		0.085	1
1 NO+1 NC	1.7 (3.6)	57598 0	E 266-230	2CDE144000R0301		0.096	1
2 NO	1.7 (3.6)	57597 3	E 262-230	2CDE142000R0301		0.096	1

Latching relays with control electronics for central ON/OFF switch

The central commands have always priority and reliably switch on/off any given number of devices connected in parallel, irrespective of their previous switching position. Local control inputs are blocked when a central command is received. Same potential at central / local control input.

Coil voltage UC = 24 V AC/DC

Contacts	Power loss W ①	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		EAN	Type code	Order code			
1 NO	2.4 (3.0)	57599 7	E 261 C-24	2CDE441000R0311		0.085	1
1 NO+1 NC	2.4 (3.5)	57601 7	E 266 C-24	2CDE444000R0311		0.096	1
2 NO	2.4 (3.5)	57600 0	E 262 C-24	2CDE442000R0311		0.096	1

Coil voltage UC = 230 V AC

Contacts	Power loss W ①	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		EAN	Type code	Order code			
1 NO	1.5 (2.0)	57602 4	E 261 C-230	2CDE141000R0311		0.085	1
1 NO+1 NC	1.7 (3.0)	57604 8	E 266 C-230	2CDE144000R0311		0.096	1
2 NO	1.7 (3.0)	57603 1	E 262 C-230	2CDE142000R0311		0.096	1

Where to find more:

Technical details for E260:
Chapter 5 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals of
MDRCs - chapter 15

Command and signalling STD50 dimmers



STD 50

26SC400438F0201



STD-EP

26SC400448F0201

Technical features

Rated voltage	230 V ~ 50 Hz
Ambient temperature	0 °C to + 35 °C
Interference suppression	CE

STD50 dimmers for the control of lamps and ballast

Dimmer for brightness control of filament lamps , 230 V tungsten halogen lamps, Iv halogen lamps with conventional transformers (phase control)

Description/ application	Power loss W	Bbn 4016779 EAN 02790 6	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
	5 ①		STD 50-3	GH V021 1370 R0074		0.155	1

Dimmer for brightness control of filament lamps , 230 V tungsten halogen lamps, Iv halogen lamps with ABB electronic transformers (reverse phase)

Description/ application	Power loss W	Bbn 4016779 EAN 03300 8	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
	4 ①		STD 50-4	GH V021 1370 R0075		0.105	1

① power loss = 1% of connected load (4 or 5 W max)

Electronic potentiometer for electronic control gear with control input 0/1 - 10 V DC, control current 50 mA DC Rated current (terminal 3 and 4) 4 A $\cos\phi = 0.9$; switching capacity 700 VA

Description/ application	Power loss W	Bbn 4016779 EAN 27050 2	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
	5 ②		STD-EP	GH V021 1370 R0076		0.073	1

Memory touch controller for electronic control gear Rated voltage/switching output 4 A (~ 10 electronic control gear units) $\cos\phi = 0.9$; 3 A $\cos\phi = 0.5$, switching capacity 700 VA

Description/ application	Power loss W	Bbn 4016779 EAN 27070 0	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
for electronic control gear with control input 1 – 10 V DC control current 50 mA max.	1		STD-MTS	GH V021 0881 R0004		0.110	1

② power loss = 1% of connected load (7 W max)

Where to find more:

Connected load/ambient temperature diagrams for STD: Chapter 5 of Solutions for electrical installation in buildings - technical details

Command and signalling

STD universal dimmer for phase control and reverse phase control



STD-500 U

2CDC051101F0006



STD-420 E

2CDC051102F0006



2CDC051167F0006



2CDC051104F0006



2CDC051103F0006

STD OCP, STD-OCD,
STD-OCT

Technical features

Rated voltage		230 V ~ ± 10%, 50/60 Hz
Rated current	STD U	2.17 A
	STD E	1.83 A
Max. connected load	U	500 W/VA
	E	420 W/VA
Power extension		1 U + max. 6 E/phase = > max. 3 kVA
Min. connected load	STD U	60 W/VA
	STD E	200 W/VA
Max. line length		100m pushbutton cable, 2m data line
Interference suppression		CE
Ambient temperature		0 ... + 45 °C, higher temperatures reduce the power

Electronic protection against short circuit, overload, excessive temperature, automatic load recognition, soft-OFF function optional, memory function, minimum brightness control, visual overload indication

Universal dimmer for phase control and reverse phase control

Universal dimmer STD-500 U and the connected power extension unit STD-420 E are suitable for the brightness control of:

- glow lamps
- 230 V halogen glow lamps
- lv halogen glow lamps with conventional transformer (phase control)
- electronic transformers for lv halogen glow lamps (reverse phase control) e.g.: ABB ETR-70-230, 105-230, 150-230

The STD-500 U dimmer can be operated by one or more unlit pushbuttons (N- or L-controlled) or via a data line:

- EIB control element SB/S
- Powernet control element PSB

Power unit STD-420 E is used to boost the connected load and is controlled exclusively by the preset command of the STD-500 U dimmer. The parallel connection of the outputs of the universal high-performance dimmer and the pertaining power extensions (up to 6 units; connection with enclosed RJ 12 line cut to length) allow for a dimming power of 3,000 W/VA at one load line.

Not suitable for dimming fluorescent lamps, transformers with current monitor and high-reactance transformers.

Contacts	Power loss W	Bbn 4016779 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
high-performance dimmer	6	06692 8	STD-500 U	GJB0 006 590 A0178			1
extension	6	06693 5	STD-420 E	GJB0 006 590 A0179			1
rotary operation element	–	06698 0	STD-OCD	GJB0 006 590 A0183			1
button operation element	–	06695 9	STD-OCP	GJB0 006 590 A0181			1
timer operation element	–	07056 7	STD-OCT	GJB0 006 590 A0185			1

Note: Load and control cables must not be laid in one cable

Where to find more:

Connected load/ambient temperature diagrams for STD: Chapter 5 of Solutions for electrical installation in buildings - technical details

Command and signalling

STD universal dimmer for phase control and reverse phase control

Plug-in operation elements:

- pushbutton operation element (STD-OCP)
- rotary operation element (STD-OCD)
- timer (STD-OCT)

Application

Remove dimmer cap and snap on operation element to provide for control of dimmer with central pushbutton or rotary operation. Local operation elements are still active. Apart from the manual local control feature, the timer also allows for time-programmed operations.

Basic timer functions:

- year time switch with 48 time programs
- optional with/without decentralized pushbutton control
- special programs: adjustable background brightness, cycle, display and emergency light, holiday program
- running reserve: 5 hours

The new universal Master dimmer for LED retrofit Lamps. 6586-500

Product advantages

- Reliable and comfortable dimming of LED lamps
- Tuned to replacement lamps (retrofit LEDs)
- Brightness regulator downward compatible also suitable for conventional incandescent lamps, 230 V halogen lamps and low-voltage halogen lamps with conventional inductive and electronic transformers.
- Touch-dimmer with local operation
- Adjustable minimum / maximum brightness Staircase light function with automatic switch-off function and pre-warning function according to DIN 18015-2
- Perfect function and comfortable operation
- Harmonious and flicker-free dimming process
- No humming or buzzing due to transistor technology
- Numerous practical special functions
- Extremely compact construction as MDRC device (1 MW)

Technical features

Max. connected load	2 - 100 W/VA (Retrofit-LED-load).
Max. connected load	10 - 200 W/VA (Non-LED-load).
Rated voltage	230 V-, +10 % / -10 %, 50 Hz - 60 Hz
Ambient temperature	0 °C bis 35 °C
Standards	IEC 60669-2-1, British Standard EN 60669-2-1

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	208519	6586-500	6590-0-0191			1



6586-500

Is it possible to keep the lights on? Absolutely.



Thanks to continuous innovation on surge protection. ABB improves the protection of the lighting systems equipment by launching the new OVR T2-T3 N1 15-2758 SL. OVR SL is a very compact SPD, equipped with a patented thermal disconnecter and a safety reserve system. This new range is specifically designed in order to prevent the risks of overheating and fires in LED lighting systems.

www.abb.com/lowvoltage

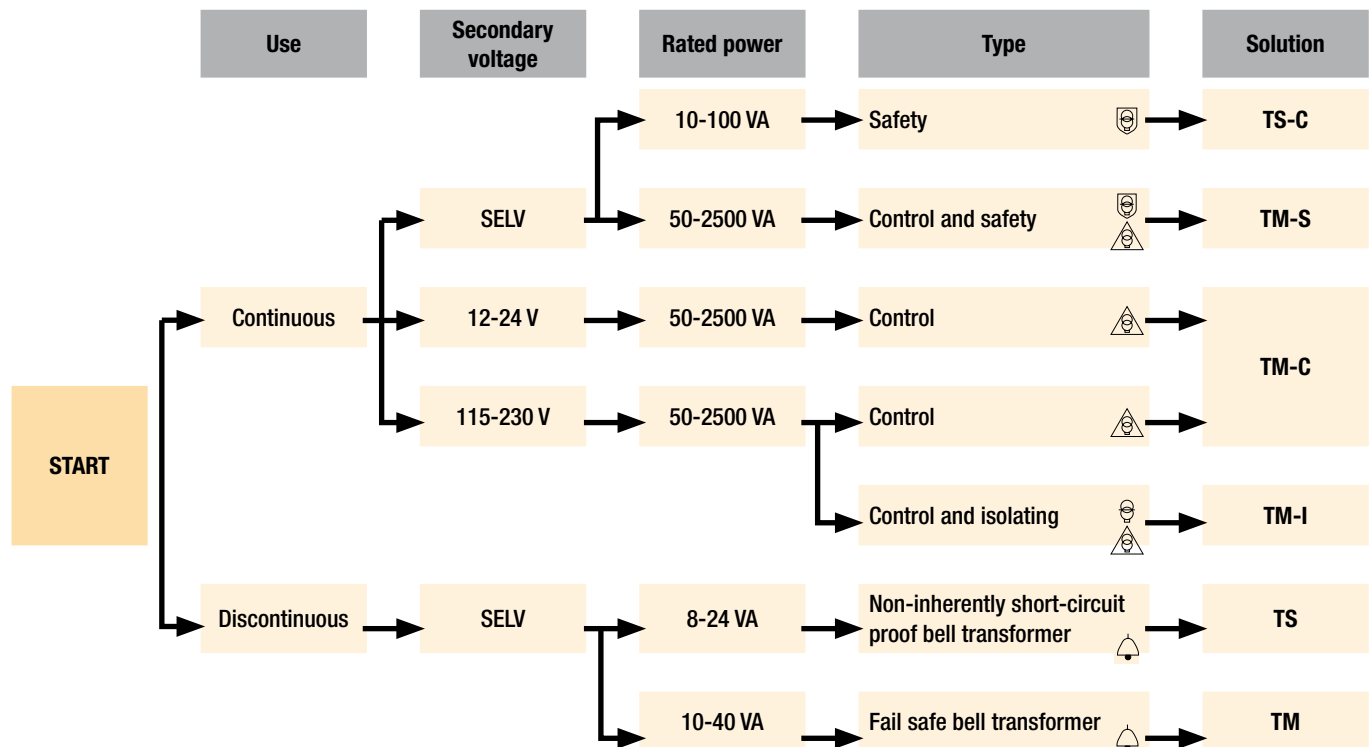






Command and signalling Transformers selection table





5

	Bell transformers for discontinuous use	
		
Series	TM	TS
Reference standard	IEC EN 61558-2-8	IEC EN 61558-2-8
Classification	Fail safe	Non-inherently short-circuit proof
Thermal protection integrated in secondary		■
Rated power	10, 15, 30, 40 VA	8, 16, 24 VA
Operation	Discontinuous	Discontinuous
Primary circuit voltage ratings	230 V a.c.	230 V a.c.
Secondary circuit characteristics	Double insulation between primary and secondary windings	■
	Full power on all outputs	
	SELV secondary (no-load output voltage <50 V a.c.)	■
Dimensions	2 modules [10, 15 VA]	2 modules [8, 16 VA]
	3 modules [30, 40 VA]	3 modules [24 VA]

① See page 6/58 for the choice of the protections.



Safety transformers for general use	Control transformers for general use	Control and Safety transformers for general use	Control and Isolating transformers for general use
			
TS-C	TM-C	TM-S	TM-I
IEC EN 61558-2-6	CEI EN 61558-2-2	CEI EN 61558-2-2 CEI EN 61558-2-6	CEI EN 61558-2-2 CEI EN 61558-2-4
Non-inherently short-circuit proof	Non-short-circuit proof control transformer a	Non-short-circuit-proof control and safety transformer a	Non-short-circuit-proof control and isolating transformer a
■			
10, 16, 25, 40, 63, 100 VA	50 to 2500 VA	50 to 2500 VA	50 to 2500 VA
Continuous	Continuous	Continuous	Continuous
230 V a.c.	230/400 V a.c.	230/400V a.c.	230/400 V a.c.
■		■	■
■	■	■	■
■		■	
2 modules [10 VA] 3 modules [16 VA] 4 modules [25 VA, 40 VA] 5 modules [63 VA] 6 modules [100 VA]	See overall dimensions 13/60	See overall dimensions 13/60	See overall dimensions 13/60

	Bell transformer	TM, TS
	Transformers for supplying extra low voltage, suitable for loads that require a discontinuous supply, in particular door-bells and chimes. The primary and secondary circuits are perfectly isolated and separated. Reference standard: IEC EN 61558-2-8	
	Control transformer	TM-C, TM-S*, TM-I*
	Transformer for supplying control circuits, for example commands, signalling, interlocks, etc. Reference standard: CEI EN 61558-2-2	
	Safety transformer	TS-C, TM-S*
	Isolation transformer for supplying safety extra low voltage circuits (<50 V on no load). Accidental contact with the secondary winding phases can be withstood without any danger. Reference standard: CEI EN 61558-2-6	
	Isolating transformer	TM-I*
	Transformer in which the primary and secondary windings are electrically separated by a double or reinforced insulation, to protect the circuit supplied by the secondary against hazards due to accidental simultaneous contact with earth and live parts, or grounded parts that may become live in the event of an insulation fault. Reference standard: CEI EN 61558-2-4	

* TM-S and TM-I both comply to two standards.

Command and signalling

Control, isolating and safety transformers selection table

Selection table of products and secondary protections

Primary protection: see in Chapter 6 of Solutions for electrical installation in buildings - Technical details



Power VA	Secondary voltage	TM-C Control				TM-S Control/Safety				TM-I Control/Isolating	
		12 V	24 V	115 V	230 V	12 V	24 V	24 V	48 V	115 V	230 V
50	Transformer	2CSM207113R0801		2CSM207213R0801		2CSM236893R0801		2CSM204653R0801 ②		2CSM204583R0801	
	Fuse gauge ①	4 A	2 A	0.4 A	0.2 A	4 A	2 A	2 A	1 A	0.4 A	0.2 A
100	Transformer	2CSM207103R0801		2CSM236933R0801		2CSM207163R0801		2CSM204643R0801		2CSM201123R0801	
	Fuse gauge ①	8 A	4 A	0.8 A	0.4 A	8 A	4 A	4 A	2 A	0.8 A	0.4 A
	Breaker type	S202 C8	S202 C4	S202 C1	S202 C0,5	S202 C8	S202 C4	S202 C4	S202 C2	S202 C1	S202 C0,5
160	Transformer	2CSM236853R0801		2CSM207203R0801		2CSM202073R0801		2CSM204633R0801		2CSM204533R0801	
	Fuse gauge ①	12 A	6.3 A	1.25 A	0.63 A	12 A	6.3 A	6.3 A	3.15 A	1.25 A	0.63 A
	Breaker type	S202 C13	S202 C8	S202 C1.6	S202 C-	S202 C13	S202 C8	S202 C8	S202 C4	S202 C1.6	-
200	Transformer	2CSM236823R0801		2CSM236883R0801		2CSM260043R0801				2CSM204513R0801	
	Fuse gauge ①	16 A	8 A	1.6 A	0.8 A	16 A	8 A			1.6 A	0.8 A
	Breaker type	S202 C16	S202 C8	S202 C2	S202 C1	S202 C16	S202 C8			S202 C2	S202 C1
250	Transformer	2CSM207093R0801		2CSM236923R0801		2CSM260063R0801		2CSM204673R0801		2CSM204493R0801	
	Fuse gauge ①	20 A	10 A	2 A	1 A	20 A	10 A	10 A	5 A	2 A	1 A
	Breaker type	S202 C20	S202 C10	S202 C2	S202 C1	S202 C20	S202 C10	S202 C10	S202 C6	S202 C2	S202 C1
320	Transformer	2CSM236843R0801		2CSM236923R0801		2CSM260063R0801		2CSM204673R0801		2CSM204493R0801	
	Fuse gauge ①	25 A	12 A	2.5 A	1.25 A	25 A	12 A	12 A	6.3 A	2.5 A	1.25 A
	Breaker type	S202 C25	S202 C13	S202 C3	S202 C1,6	S202 C25	S202 C13	S202 C13	S202 C8	S202 C3	S202 C1,6
400	Transformer	2CSM289703R0801		2CSM207193R0801		2CSM260103R0801		2CSM204613R0801		2CSM201073R0801	
	Fuse gauge ①	32 A	16 A	3.15 A	1.6 A	32 A	16 A	16 A	8 A	3.15 A	1.6 A
	Breaker type	S202 C32	S202 C16	S202 C4	S202 C2	S202 C32	S202 C16	S202 C16	S202 C8	S202 C4	S202 C2
630	Transformer	2CSM236813R0801		2CSM207183R0801		2CSM260053R0801		2CSM204603R0801		2CSM204423R0801	
	Fuse gauge ①	50 A	25 A	5 A	2.5 A	50 A	25 A	25 A	12 A	5 A	2.5 A
	Breaker type	S202 C50	S202 C25	S202 C6	S202 C3	S202 C50	S202 C25	S202 C25	S202 C13	S202 C6	S202 C3
1000	Transformer	2CSM292873R0801		2CSM236913R0801		2CSM260093R0801				2CSM204413R0801	
	Fuse gauge ①	80 A	40 A	8 A	4 A	80 A	40 A			8 A	4 A
	Breaker type	S292 C80	S202 C40	S202 C8	S202 C4	S292 C80	S202 C40			S202 C8	S202 C4
1600	Transformer	2CSM292863R0801		2CSM201813R0801		2CSM260083R0801				2CSM204403R0801	
	Fuse gauge ①	125 A	63 A	16 A	8 A	125 A	63 A			16 A	8 A
	Breaker type	S292 C125	S202 C63	S202 C16	S202 C8	S292 C125	S202 C63			S202 C16	S202 C8
2000	Transformer	2CSM292853R0801		2CSM236903R0801		2CSM260073R0801				2CSM204383R0801	
	Fuse gauge ①	160 A	80 A	16 A	8 A	160 A	80 A			16 A	8 A
	Breaker type	-	S292 C80	S202 C20	S202 C10	-	S292 C80			S202 C20	S202 C10
2500	Transformer	2CSM236943R0801		2CSM207173R0801		2CSM204663R0801				2CSM204363R0801	
	Fuse gauge ①	200 A	100 A	20 A	10 A	200 A	100 A			20 A	10 A
	Breaker type	-	S292 C100	S202 C25	S202 C13	-	S292 C100			S202 C25	S202 C13

① FUSES

- Gauge ≤ 6.3 A use aM fuses with high breaking capacity and IEC601256-compliant
- Gauge > 6.3 A use gG fuses IEC60269-2 or IEC60269-3-compliant

② TM-S 50/24-48 P complies with IEC EN 61558-2-4 on the secondary circuit at 48 V and with IEC EN 61558-2-6 on the secondary circuit at 24 V

Command and signalling

TM-C, TM-S, TM-I control, isolating and safety transformers



TM

Technical characteristics		TM-C	TM-S	TM-I
Rated primary voltage Un	[V]	230/400 a.c.	230/400 a.c.	230/400 a.c.
Primary voltage adjustment outlets ± 15 V		No	Yes	Yes
Max ambient temperature ③	[°C]	40	40	40
Rated secondary voltage Un	[V]	12-24, 115-230 a.c.	12-24, 24-48 a.c. b	115-230 a.c.
Rated frequency	[Hz]	50/60	50/60	50/60
Isolation voltage between primary and secondary	[kV]	3.5	4.8	4.8
Rated powers	[VA]	50-2500	50-2500	50-2500
Primary cable section (\varnothing max)	[mm ²]	6	6	6
Operating temperature	[°C]	①	①	①
Approvals		ENEC (Up to 1000 VA), UR, CSA	ENEC (Up to 1000 VA), UR, CSA	ENEC (Up to 1000 VA), UR, CSA
Standards		CEI EN 61558-2-2	CEI EN 61558-2-2 CEI EN 61558-2-6	CEI EN 61558-2-2 CEI EN 61558-2-6

① See technical details

② TM-S 50/24-48 P complies to CEI EN 61558-2-4 on the 48 V secondary and to CEI EN 61558-2-6 on the 24 V secondary

③ Maximum temperature without any power draw. See technical details for power draw according to temperature.

Where to find more:

Technical details for modular transformers: Chapter 5 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

CP-D primary switch mode power supplies - chapter 5

Command and signalling

TM-C, TM-S, TM-I control, isolating and safety transformers



TM-I

TM-C control transformer

Transformer for supplying control circuits, for example commands, signalling, interlocks, etc. Reference standard: CEI EN 61558-2-2.

TM-S safety transformer

Isolation transformer for supplying safety extra low voltage circuits (<50 V on no load). Accidental contact with the secondary winding phases can be withstood without any danger. Reference standard: CEI EN 61558-2-6

TM-I isolating transformer

Transformer in which the primary and secondary windings are electrically separated by a double or reinforced insulation, to protect the circuit supplied by the secondary against hazards due to accidental simultaneous contact with earth and live parts, or grounded parts that may become live in the event of an insulation fault.

Reference standard: CEI EN 61558-2-4



TM-S



TM-C



TM-C

Since TM-C, TM-S and TM-I transformers are not provided with built-in protection, they must therefore be protected according with these rules:

- Primary: line protection must reach or exceed the recommended value in Chapter 6 of Solutions for electrical installation in buildings - Technical details. This device guarantees line protection and service continuity but doesn't protect the transformer.
- Secondary: transformer protection must be chosen according to tables in the previous pages. This device protect the transformer.

TM-C single phase control transformers, primary 230-400 V

Rated power	Secondary voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
VA	V a.c.	EAN	Type code	Order code		kg	pc.
50	12-24	071136	TM-C 50/12-24	2CSM207113R0801		1.1	1
100	12-24	071037	TM-C 100/12-24	2CSM207103R0801		2	1
160	12-24	368533	TM-C 160/12-24	2CSM236853R0801		3	1
200	12-24	368236	TM-C 200/12-24	2CSM236823R0801		3.2	1
250	12-24	070931	TM-C 250/12-24	2CSM207093R0801		3.6	1
320	12-24	368434	TM-C 320/12-24	2CSM236843R0801		4.4	1
400	12-24	897033	TM-C 400/12-24	2CSM289703R0801		5.5	1
630	12-24	368137	TM-C 630/12-24	2CSM236813R0801		7.8	1
1000	12-24	928737	TM-C 1000/12-24	2CSM292873R0801		13.2	1
1600	12-24	928638	TM-C 1600/12-24	2CSM292863R0801		21.2	1
2000	12-24	928539	TM-C 2000/12-24	2CSM292853R0801		25.5	1
2500	12-24	369431	TM-C 2500/12-24	2CSM236943R0801		26.8	1
50	115-230	072133	TM-C 50/115-230	2CSM207213R0801		1.1	1
100	115-230	369332	TM-C 100/115-230	2CSM236933R0801		2	1
160	115-230	072034	TM-C 160/115-230	2CSM207203R0801		3	1
200	115-230	368830	TM-C 200/115-230	2CSM236883R0801		3.2	1
250	115-230	071532	TM-C 250/115-230	2CSM207153R0801		3.6	1
320	115-230	369233	TM-C 320/115-230	2CSM236923R0801		4.4	1
400	115-230	071938	TM-C 400/115-230	2CSM207193R0801		5.5	1
630	115-230	071839	TM-C 630/115-230	2CSM207183R0801		7.8	1
1000	115-230	369134	TM-C 1000/115-230	2CSM236913R0801		13.2	1
1600	115-230	018131	TM-C 1600/115-230	2CSM201813R0801		21.2	1
2000	115-230	369035	TM-C 2000/115-230	2CSM236903R0801		25.5	1
2500	115-230	071730	TM-C 2500/115-230	2CSM207173R0801		26.8	1

Where to find more:

Technical details for modular transformers: Chapter 5 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in: CP-D primary switch mode power supplies - chapter 5

TM-S single phase control and safety transformers, primary 230-400 V ±15

Rated power	Secondary voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
VA	V a.c.	EAN	Type code	Order code		kg	pc.
50	12-24	368939	TM-S 50/12-24 P	2CSM236893R0801		1.1	1
100	12-24	071631	TM-S 100/12-24 P	2CSM207163R0801		2	1
160	12-24	020738	TM-S 160/12-24 P	2CSM202073R0801		3	1
200	12-24	600435	TM-S 200/12-24 P	2CSM260043R0801		3.2	1
250	12-24	601135	TM-S 250/12-24 P	2CSM260113R0801		3.6	1
320	12-24	600633	TM-S 320/12-24 P	2CSM260063R0801		4.4	1
400	12-24	601036	TM-S 400/12-24 P	2CSM260103R0801		5.5	1
630	12-24	600534	TM-S 630/12-24 P	2CSM260053R0801		7.8	1
1000	12-24	600930	TM-S 1000/12-24 P	2CSM260093R0801		13.2	1
1600	12-24	600831	TM-S 1600/12-24 P	2CSM260083R0801		21.2	1
2000	12-24	600732	TM-S 2000/12-24 P	2CSM260073R0801		25.5	1
2500	12-24	046639	TM-S 2500/12-24 P	2CSM204663R0801		26.8	1
50	24-48	046530	TM-S 50/24-48 P	2CSM204653R0801		1.1	1
100	24-48	046431	TM-S 100/24-48 P	2CSM204643R0801		2	1
160	24-48	046332	TM-S 160/24-48 P	2CSM204633R0801		3	1
250	24-48	046837	TM-S 250/24-48 P	2CSM204683R0801		3.2	1
320	24-48	046738	TM-S 320/24-48 P	2CSM204673R0801		3.6	1
400	24-48	046134	TM-S 400/24-48 P	2CSM204613R0801		4.4	1
630	24-48	046035	TM-S 630/24-48 P	2CSM204603R0801		5.5	1

TM-I single phase control and isolating transformers, primary 230-400 V ±15

Rated power	Secondary voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
VA	V a.c.	EAN	Type code	Order code		kg	pc.
50	115-230	045830	TM-I 50/115-230 P	2CSM204583R0801		1.1	1
100	115-230	011231	TM-I 100/115-230 P	2CSM201123R0801		2	1
160	115-230	045335	TM-I 160/115-230 P	2CSM204533R0801		3	1
200	115-230	045137	TM-I 200/115-230 P	2CSM204513R0801		3.2	1
250	115-230	045038	TM-I 250/115-230 P	2CSM204503R0801		3.6	1
320	115-230	044932	TM-I 320/115-230 P	2CSM204493R0801		4.4	1
400	115-230	010739	TM-I 400/115-230 P	2CSM201073R0801		5.5	1
630	115-230	044239	TM-I 630/115-230 P	2CSM204423R0801		7.8	1
1000	115-230	044130	TM-I 1000/115-230 P	2CSM204413R0801		13.2	1
1600	115-230	044031	TM-I 1600/115-230 P	2CSM204403R0801		21.2	1
2000	115-230	043836	TM-I 2000/115-230 P	2CSM204383R0801		25.5	1
2500	115-230	043638	TM-I 2500/115-230 P	2CSM204363R0801		26.8	1

Accessories

	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Mounting bracket for DIN rail (up to 160 VA)	010333	TM-C-DIN	2CSM201033R0801		0.10	10

Command and signalling

TS-C safety isolating transformers for general use




TS 25 C



TS 100 C

5

TS-C		TS 10 C	TS 16 C	TS 25 C	TS 40 C	TS 63 C	TS 100 C
Primary rated voltage Un	[V]	230 a.c.	230 a.c.	230 a.c.	230 a.c.	230 a.c.	230 a.c.
Secondary rated voltage Un	[V]	12 - 24 V a.c.	12 - 24 V a.c.	12 - 24 V a.c.	12 - 24 V a.c.	12 - 24 V a.c.	12 - 24 V a.c.
Tolerance on secondary voltage (full load)	[%]	< +/- 5% (according to standards)					
Tolerance on secondary voltage (off load)	[%]	<100% rated secondary voltage (according to standards)					
Rated frequency	[Hz]	50/60	50/60	50/60	50/60	50/60	50/60
Rated power (continuous use)	[VA]	10	16	25	40	63	100
Maximum output current (at 24 V)	[A]	0.42	0.67	1.04	1.67	2.63	4.17
Power loss (off load)	[W]	< 2.5	< 3	< 4	< 4.5	< 4.5	< 1
Power loss (full load)	[W]	< 5	< 5	< 5	< 10	< 15	< 20
Modules	[No.]	2	3	4	4	5	6
Cable section	[mm ² -AWG]	2.5					
Tightening torque	[Nm]	0.5					
Protection degree		IP 20					
Standards		IEC/EN 61558-2-6					
Approvals							
Temperature class resistance		B (corresponding to maximum 120 °C)					

TS-C safety isolating transformers for general use

These transformers are non-inherently short-circuit proof. In fact they are equipped with a thermal protective device which automatically restores the power when the transformer is sufficiently cooled down. So even during an overload or a short-circuit they maintain their temperature below the specified limits and they continue functioning after the fault's removal. They are ideal for supplying permanent power to meters, auxiliary electronic devices (e.g. measurement, video-entry phone systems, BUS communication) and circuits with safety extremely-low voltage (SELV) for bathrooms and showers, lighting, fountains, electro-medical devices and suchlike. These devices take up very little space, from 2-module size for the 10 VA version up to 6-module size for the 100 VA version.

Rated power (continuous)	Secondary rated voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
VA	V	EAN	Type code	Order code		kg	pc.
10	12-24	285557	TS 10/12-24 C	2CSM228555R0812		0.35	1
16	12-24	285656	TS 16/12-24 C	2CSM228565R0812		0.45	1
25	12-24	928508	TS 25/12-24 C	2CSM251043R0811		0.92	1
40	12-24	928607	TS 40/12-24 C	2CSM401043R0811		1.1	1
63	12-24	928706	TS 63/12-24 C	2CSM631043R0811		1.15	1
100	12-24	285755	TS 100/12-24 C	2CSM228575R0812		1.45	1

Where to find more:

Technical details for modular transformers: Chapter 5 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

CP-D primary switch mode power supplies - chapter 5

Command and signalling

TM bell transformers



TM 15/12



2CSC400399F0201



TM 40/12

2CSC400399F0201

Technical characteristics

Primary rated voltage Un	[V]	230 a.c.
Secondary rated voltage Un	[V]	4, 8, 12, 24
Tolerance on secondary voltage (with load)	[%]	+/- 15% (according to standards)
Rated frequency	[Hz]	50/60
Rated power (discontinuous use)	[VA]	10, 15, 30, 40
Power loss (off load)	[W]	<2.5 (TM10, TM15), <3 (TM30, TM40), <1.25 (TM15 ES)
Modules	[No.]	2 (TM10, TM15), 3 (TM30, TM40)
Cable section	[mm ² -AWG]	2.5 - 14
Tightening torque	[Nm]	0.5
Protection degree		IP 20
Standards		IEC/EN 61558-2-8
Approvals		 

5

TM fail safe bell transformers

These transformers, with safety extremely-low voltage secondary (SELV), are suitable for loads that require a discontinuous supply, and in particular doorbells and chimes.

Fail safe operation and excellent safety are assured thanks to the perfect isolation and separation between the primary and secondary circuits. In addition, the Energy Saving TM-ES version allows reducing power losses by 50%.

Maximum rated power a (discontinuous) VA	Secondary voltage rating V c.a.	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
10	4-8-12	287155	TM10/12	2CSM228715R0802		0.30	6
10	12-24	287254	TM10/24	2CSM228725R0802		0.30	6
15	4-8-12	287353	TM15/12	2CSM228735R0802		0.30	6
15	12-24	287452	TM15/24	2CSM228745R0802		0.30	6
15	4-8-12	285854	TM15/12 ES	2CSM228585R0802		0.30	1
30	4-8-12	287551	TM30/12	2CSM228755R0802		0.45	4
30	12-24	287650	TM30/24	2CSM228765R0802		0.45	4
40	4-8-12	287759	TM40/12	2CSM228775R0802		0.45	4
40	12-24	287858	TM40/24	2CSM228785R0802		0.45	4

① See diagrams below for the RMS power on each secondary output

Where to find more:

Technical details for modular transformers: Chapter 5 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

CP-D primary switch mode power supplies - chapter 5

Command and signalling TS bell transformers



TS 8/8





TS 8/12 SW



TS 24/8-12-24

Technical characteristics

Primary rated voltage Un	[V]	230 a.c.
Secondary rated voltage Un	[V]	4, 6, 8, 12, 24
Tolerance on secondary voltage (with load)	[%]	± 15% (according to standards)
Rated frequency	[Hz]	50/60
Rated power (discontinuous use)	[VA]	8, 16, 24
Power loss (off load)	[W]	<2.5 (TS8, TS16), <3 (TS24), <0.8 (TS8/8 ES), <1.2 (TS16/8-12 ES)
Modules	[No.]	2 (TS8, TS16), 3 (TS24)
Cable section	[mm ² -AWG]	2.5 - 14
Tightening torque	[Nm]	0.5
Protection degree		IP 20
Standards		IEC/EN 61558-2-8
Approvals		 

TS non-inherently short-circuit proof bell transformers

These transformers, with safety extremely-low voltage secondary (SELV), are suitable for driving loads that call for a discontinuous supply, and in particular doorbells and chimes. In addition to perfect isolation and separation between the primary and secondary circuits, the TS transformers have a thermal protection device integrated into the secondary that makes them resistant to short circuit currents (non-inherently short-circuit proof).

The TS range is extended with the Energy Saving TS-ES series, which allows reducing power losses by 50%, and the TS8/SW series, that is equipped with a switch for controlling loads connected to the secondary.

Maximum rated power a (discont.) VA	Secondary voltage rating V c.a.	Switch 0-1	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
8	8		285953	TS8/8 ES	2CSM228595R0812		0.35	1
8	8		286653	TS8/8	2CSM228665R0812		0.35	6
8	12		286851	TS8/12	2CSM228685R0812		0.35	6
8	24		286752	TS8/24	2CSM228675R0812		0.35	6
8	8	■	368304	TS8/8 SW	2CSM081302R0811		0.35	6
8	12	■	368403	TS8/12 SW	2CSM081402R0811		0.35	6
8	4-6-8	■	368601	TS8/4-6-8 SW	2CSM081012R0811		0.35	6
8	4-8-12	■	368700	TS8/4-8-12 SW	2CSM081022R0811		0.35	6
16	8-12		286059	TS16/8-12 ES	2CSM228605R0812		0.35	1
16	8		286455	TS16/8	2CSM228645R0812		0.35	6
16	12		286356	TS16/12	2CSM228635R0812		0.35	6
16	24		286158	TS16/24	2CSM228615R0812		0.35	6
16	4-6-8		286554	TS16/4-6-8	2CSM228655R0812		0.35	6
16	4-8-12		286257	TS16/4-8-12	2CSM228625R0812		0.35	6
24	4-8-12		287056	TS24/4-8-12	2CSM228705R0812		0.45	4
24	8-12-24		286950	TS24/8-12-24	2CSM228695R0812		0.45	4

① See diagrams below for the RMS power on each secondary output

Where to find more:

Technical details for modular transformers: Chapter 5 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Maybe you are also interested in:

CP-D primary switch mode power supplies - chapter 5

Command and signalling

SM, RM, TSM, TSR bells and buzzers



SM 1-230

2CSC400407F0001



TSM

2CSC400518F0001

Technical characteristics							
		SM1-12, RM1-12	SM1-230, RM1-230	SM2-12, RM2-12	SM2-24, RM2-24	SM2-230, RM2-230	TSM, TSR
Rated Voltage Un	[V c.a.]	8-12	230	12	24	230	230
Rated frequency	[Hz]	50	50	50	50	50	50
Power consumption	[VA]	2,5-6,5	4,5	4,5	4,5	4,5	5,5
Sound level at 1 meter	Bell [dB]	82	82	82	82	82	80
	Buzzer [dB]	80	80	80	80	80	70
	Three-tones [dB]						84
Max permanent working time		15 min	15 min	12 h ①	12 h a	12 h a	TSM: 1 min TSR: 5 min
Max cable cross-section	[mm ²]	10	10	10	10	10	10
Mounting position		vertical only					
Protection degree		IP20-IP40, switchboard mounting					
Modules	[No.]	1	1	1	1	1	2

① Continuitive work for more than 12 hours could affect the sound level

Bells and buzzers

The range of bells and buzzers includes modular versions for discontinuous use SM1, RM1, TSM and TSR, suitable for acoustic signalling in residential and commercial sectors, and versions for continuous use SM2 and RM2, which are able to operate continuously for up to 12 hours while maintaining the quality and level of the sound. RM2 and SM2 are dedicated to specific applications such as acoustic signalling in the industry, alarms notification, supervision and intensive use (schools, factories etc...). TSM and TSR versions also include a transformer: the input is 230V a.c. and the bell is supplied in 12 or 24 V.

SM electro-mechanical modular bells

Rated voltage	Use	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
V AC		EAN	Type code	Order code		kg	pc.
8/12	Discontinuous	886204	SM1-12	2CSM111000R0821		0.076	12
230	Discontinuous	886303	SM1-230	2CSM131000R0821		0.076	12
12	Continuous	886600	SM2-12	2CSM112000R0821		0.076	12
24	Continuous	886709	SM2-24	2CSM122000R0821		0.076	12
230	Continuous	886808	SM2-230	2CSM132000R0821		0.076	12

RM electro-mechanical modular buzzers

Rated voltage	Use	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
V AC		EAN	Type code	Order code		kg	pc.
8/12	Discontinuous	886419	RM1-12	2CSM211000R0821		0.076	12
230	Discontinuous	886518	RM1-230	2CSM231000R0821		0.076	12
12	Continuous	886907	RM2-12	2CSM212000R0821		0.076	12
24	Continuous	887003	RM2-24	2CSM222000R0821		0.076	12
230	Continuous	887102	RM2-230	2CSM232000R0821		0.076	12

Where to find more:

Worldwide marks and approvals of MDRCs - chapter 15

Command and signalling

SM, RM, TSM, TSR bells and buzzers



TSR

TSM modular electronic bell (two-tones) + transformer included							
Rated voltage	Use	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
V AC		EAN	Type code	Order code		kg	pc.
230	Discontinuous	007005	TSM	2CSM100000R0841		0.300	6

TSR bell + buzzer + transformer included							
Rated voltage	Use	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
V AC		EAN	Type code	Order code		kg	pc.
230	Discontinuous	369608	TSR	2CSM100000R0831		0.300	1

Where to find more:

Worldwide marks and approvals of
MDRCs - chapter 15

Command and signalling

CP-D primary switch mode power supplies



CP-D

Technical features

		CP-D 12/0.83	CP-D 12/2.1	CP-D 24/0.42	CP-D 24/1.3	CP-D 24/2.5	CP-D 24/4.2	
Input circuit								
Rated voltage	[V] a.c.	100-240						
Voltage range	[V] a.c.	90-264						
	[V] d.c.	120-370						
Frequency range	[Hz]	47-63						
Backup battery for voltage drop	[ms]	>30	>30	>30	>30	>60	>60	
Built-in fuse rating (250 V AC)	[A]	1	2	1	2	2	3,15	
Power dissipation	at 110 V AC	[mA]	200	502	184	600	1120	1800
	at 230 V AC	[mA]	128.3	277	120.6	344	660	900
Starting current (max 3ms)	[A]	30	50	30	50	60	60	
Output circuit								
Rated voltage	[V] d.c.	12	12	24	24	24	24	
Output voltage tolerance		±1%						
Adjustable output voltage		12-14 V d.c.			24-28 V d.c.	24-28 V d.c.	24-28 V d.c.	
Rated current	[A]	0.83	2.10	0.42	1.30	2.50	4.20	
Rated power	[W]	10	30	10	30	60	100	
Resistance to reverse feed		18	18	35	35	35	35	
		V d.c. / 1 s	V d.c. / 1 s	V d.c. / 1 s	V d.c. / 1 s	V d.c. / 1 s	V d.c. / 1 s	
Parallel connection		Yes, using CP-D RU						
Series connection		Allowed, to increase output voltage						
Output circuit: no-load, overload, and short-circuit behaviour								
Output curve		U/I Curve a						
Behaviour in case of short-circuit/ overload		Operation with power limitation						
Power limit in case of short-circuit	[A]	1.4	5.9	0.78	4.2	6.05	11.5	
No-load behaviour		Stable operations						
LED status indicator								
Green LED (DC ON)		Output voltage supplied correctly						
Red LED (DC Low)		Output voltage too low						
Operating temperature	[°C]	-10...+70						
Output current derating for temperature of 60°C < ta < 70°C		2.5% / degree						
Marks		UR, CSA, CCC, GOST						

Maybe you are also interested in:

EPD24 - Electronic Protection
Devices for use behind 24 V DC
Switch Mode Power Supplies -
chapter 4

Command and signalling

CP-D primary switch mode power supplies



CP-D 12/0.83,
CP-D 24/0.42



CP-D 12/2.1
CP-D 24/1.3



CP-D 24/2.5



CP-D 24/4.2

Primary switch mode power supplies

- Output voltages 12 V, 24 V
- Adjustable output voltages (devices > 10 W)
- Output currents 0.42 A / 0.83 A / 1.3 A / 2.1 A / 2.5 A / 4.2 A
- Power range 10 W, 30 W, 60 W, 100 W
- Wide range input 100-240 V AC (90-264 V AC, 120-370 V DC)
- High efficiency of up to 89%
- Low power dissipation and low heating
- Free convection cooling (no forced cooling with ventilators)
- Ambient temperature range during operation -10...+70 °C
- Open-circuit, overload and short-circuit stable
- Integrated input fuse
- U/I characteristic (fold-forward behaviour at overload – no switch-off)
- LEDs for status indication
- Light-grey enclosure in RAL 7035

Rated input voltage	Rated output voltage/current	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
V	V / A	EAN	Type code	Order code		kg	pc.
100-240 V AC	12 V DC / 0.83 A		CP-D 12/0.83	1SVR 427 041 R1000		1	0.06/0.13
100-240 V AC	12 V DC / 2.1 A		CP-D 12/2.1	1SVR 427 043 R1200		1	0.19/0.41
100-240 V AC	24 V DC / 0.42 A		CP-D 24/0.42	1SVR 427 041 R0000		1	0.06/0.13
100-240 V AC	24 V DC / 1.3 A		CP-D 24/1.3	1SVR 427 043 R0100		1	0.19/0.41
100-240 V AC	24 V DC / 2.5 A		CP-D 24/2.5	1SVR 427 044 R0200		1	0.25/0.55
100-240 V AC	24 V DC / 4.2 A		CP-D 24/4.2	1SVR 427 045 R0400		1	0.32/0.71

CP-D RU for decoupling of two CP-D power supply units

Rated input voltage	Rated input current	Rated output voltage/current	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
V	A	V / A	EAN	Type code	Order code		kg	pc.
9-35 V DC	2 x 5 A	24 V DC / 1 x 10 A		CP-D RU	1SVR 427 049 R0000		1	0.075 / 0.165

Maybe you are also interested in:

EPD24 - Electronic Protection
Devices for use behind 24 V DC
Switch Mode Power Supplies -
chapter 4

Command and signalling

Modular sockets selection table

Series selection

For further information about sockets selection by country please see in Chapter 6 of Solutions for electrical installation in buildings - Technical details

		M1175	M1173	M1170	M1174	M1363	M1011
	EU 10A	■	■	■	■		■
	Schuko 10 A / 16 A	■	■	■			
	Italian 10 A		■	■			
	Italian 16 A			■			
	French 10 A / 16 A	Pluggable but not earthed	Pluggable but not earthed	Pluggable but not earthed	■		
	British 13 A					■	
	Swiss						■
							■
							■
							■









Command and signalling

Modular sockets selection table


Model selection

■ RAL 7035


German Schuko Standard

	M1175			2CSM210000R0721	
	M1175-L		Indicator light	2CSM212000R0721	
	M1175-FL		Indicator light	 Fuse 6.3 A aM	2CSM214000R0721
	M1175-C		Cover IP30	2CSM211000R0721	


Italian P30 standard

	M1173			2CSM110000R0701
	M1173-L		Indicator light	2CSM112000R0701

Italian dual standard

	M1170			2CSM210000R0701
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French Standard

	M1174	2CSM110000R0711		2CSM110000R0711
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



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■ RAL 7035

British Standard

	M1363	2CSM259343R0721	2CSM259343R0721
	M1363-L	 Indicator light	2CSM258163R0721

Swiss standard SEV 2011

	M1011-T13	Single-phase 10 A Type 13	2CSM220685R0721
	M1011-T23	Single-phase 16 A Type 23	2CSM220695R0721
	M1011-T15	Three-phase 10 A Type 15	2CSM220705R0721
	M1011-T25	Three-phase 16 A Type 25	2CSM220715R0721

Command and signalling

Modular sockets



Modular sockets

5

Technical specifications							
Rated voltage Un	[V]	250 a.c.					
Rated current In	[A]	16 (M1170, M1173, M1174, M1175), 13 (M1363),					
Rated frequency	[Hz]	50/60					
Power loss	[W]	0,6					
Modules	[No.]	2.5 for M117x 3 for M1011, M1363					
Safety shutters		yes, on entire range					
Cable section (ø min./max.)	[mm ²]	2.5 / 16					
Tightening torque	[Nm]	1.2					
Temperature	storage	[°C]	-40 ... +70				
	operating	[°C]	-25 ... +35				
Protection degree		IP20 / IP30 versions with cover, when cover is closed					
Reference standards		M1011	M1175	M1173	M1170	M1174	M1363
		SEV 1011	DIN VDE 0620-1	CEI 23-50		NF C 61 314	BS1363
Approvals		SEV	VDE, EAC	IMQ, EAC	EAC	LCIE, CEBEC, EAC	BSI

Indicator light technical specifications

Type		fluorescent torpedo-shaped lamp
Function		Indication of power supply presence (M1363, M1173, M1175)
Light colour		green
Power consumption	[W]	0.25

Fuse technical specifications

Type		5 x 20 mm up to 6.3 A aM
Function		phase protection
Breaking capacity	[A]	1500
Reference standard		IEC EN 60127

Where to find more:

Technical Details for Modular Sockets:
Chapter 5 of
Solutions for electrical installation in
buildings - technical details

Worldwide Marks and Approvals -
chapter 15

Frequently asked question - FAQ:

Why do modular sockets not have the
CE mark?

ABB modular sockets are not "CE"
marking as this is not required by
European Directive 2005/95/EC,
which indicates (Annex II) that
products identified as "Domestic
plugs and sockets" are out of the
scope of the european directive.



M1175



M1175-C



M1175-C



M1175-FL



M1173

Modular sockets

Modular sockets allow the connection of devices, tools or electrical and electronic non modular equipments in civil and industrial electrical switchboards.

The range is composed by standard versions as well as upgraded versions with additional features as light indicator, protection fuse and cover.

German Shuko standard modular sockets

Color	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
grey	027850	M1175	2CSM210000R0721		0,120	4
grey with cover	029052	M1175-C	2CSM211000R0721		0,140	4

German Shuko standard modular sockets with integrated indicator light and fuse

Color	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
grey with light	028253	M1175-L	2CSM212000R0721		0,140	4
grey with light and fuse	028659	M1175-FL	2CSM214000R0721		0,160	4

Italian P30 standard modular sockets

Color	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
grey	004103	M1173	2CSM110000R0701		0,120	4

Italian P30 standard modular sockets with integrated indicator light

Color	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
grey with light	027058	M1173-L	2CSM112000R0701		0,140	4

Command and signalling

Modular sockets



M1170

Italian dual standard modular sockets						
Color	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
grey	027454	M1170	2CSM210000R0701		0,120	4



M1174

French standard modular sockets						
Color	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
grey	006602	M1174	2CSM110000R0711		0,140	4



M1363

British standard modular sockets.						
Color	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
grey	593430	M1363	2CSM259343R0721		0,140	4
grey with light	581635	M1363-L	2CSM258163R0721		0,140	4

Where to find more:

Technical Details for Modular Sockets:
Chapter 5 of
Solutions for electrical installation in
buildings - technical details

Worldwide Marks and Approvals -
chapter 15

Frequently asked question - FAQ:

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M1011-T13



M1011-T23



M1011-T15



M1011-T25

Swiss standard modular sockets

The M1011 series, with SEV certification, allows to plug four types of swiss standard plugs, single- and three-phase e with currents up to 10 A or 16 A.

They can be mounted on DIN rail or Smissline rails without supply connection.

Color		Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code			
■ grey	Single-phase 10 A	206873	M1011-T13	2CSM220685R0721		0.140	4
■ grey	Single-phase 16 A	206972	M1011-T23	2CSM220695R0721		0.140	4
■ grey	Three-phase 10 A	207078	M1011-T15	2CSM220705R0721		0.170	4
■ grey	Three-phase 16 A	207177	M1011-T25	2CSM220715R0721		0.170	4

Command and signalling

MA1-8001 DIN rail adapter



MA1-8001



MA1-8121

MA1-8001 DIN rail adapter

Through an appropriate kit, this product born with the Modular Range of Pilot devices is the perfect case for alongside Ø 22 mm pilot devices with “System pro M compact” products. The Ø 22 mm pilot devices can now find a greater use even within distribution or automation switchboards with modular panels maintaining an high aesthetic level.

The MA1-8001 offers a lot of advantages:

- Fast and easy mounting
- Simple wiring
- Simple maintenance
- Less depth of operators
- Perfect harmony alongside the “System pro M compact” products

Using MA1-8001 it's possible to put together “System pro M compact” products with LED pilot light, potentiometer, key selectors , toggle switches, selector switches, push- buttons, mushroom buttons and emergency stop, illuminated or not.

For detailed description of the industrial devices that can be installed using this kit, see technical catalogue 1SFC151003C0201

Color	Bbn	Order details		Price	Weight	Pack
	7320500	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
DIN rail adapter KIT (2 modules) ① ②	357880	MA1-8001	1SFA611920R8001		0.023	1
DIN rail adapter (2 modules) ①	357702	MA1-8131	1SFA611920R8131		0.020	10

① Can be used only with Modular range pilot devices units; it cannot be used with the old CBK range or Compact range products.

② KIT includes one Din rail adapter, one empty block and 2 pins

Technical notes

- To assemble the new housing with push-buttons, selector switch and indicator lamps, contact blocks and lamp blocks for DIN rails must be used.
- The MCBH-00 holder is not necessary, because the housing hooks directly to contact blocks.
- To line up with “System pro M compact” products, a maximum of 3 blocks must be used.
- In the configuration with 3 contacts, it is advisable to use securing pins to make the blocks more solid.
- In making up actuators or indicator lamps that use a single contact, one or two MDB-2 empty blocks must be used.

Solutions for electrical installation in buildings

Control and automation

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USB Modular DIN rail device	6/39

D Line. Simply precise

An ideal range for automating the functions of the installation

Sealable glass and keypad lock to prevent tampering by unauthorised personnel.

Inputs for the connection of remote controls (i.e. switches and buttons) and for DCF77 or GPS receiver connection

6

Clear display of each contact status

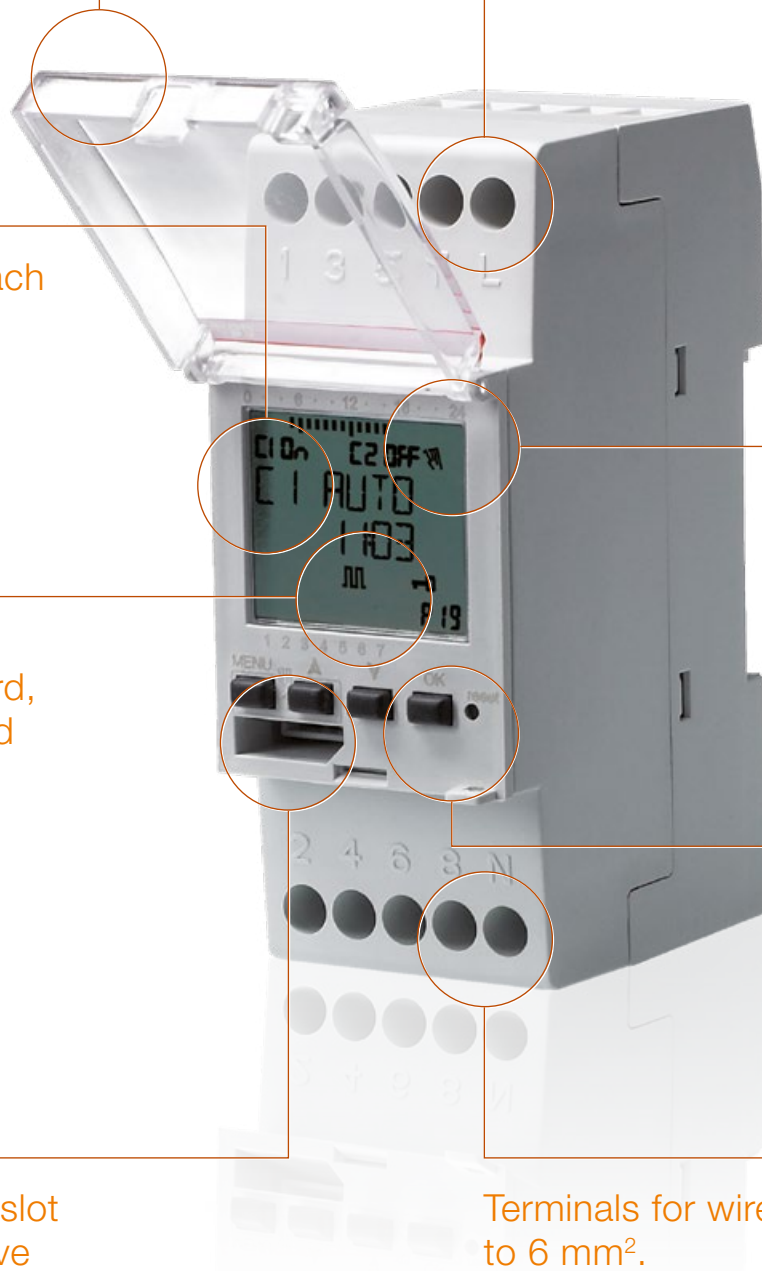
High contrast LCD monitor for excellent visibility in all conditions due to timed back-lighting

Wide range of programs: standard, cyclic, random and holiday

Permanent or temporary manual deviation, directly activated with a single touch

Programming key slot to run, copy or save programs

Terminals for wires up to 6 mm².



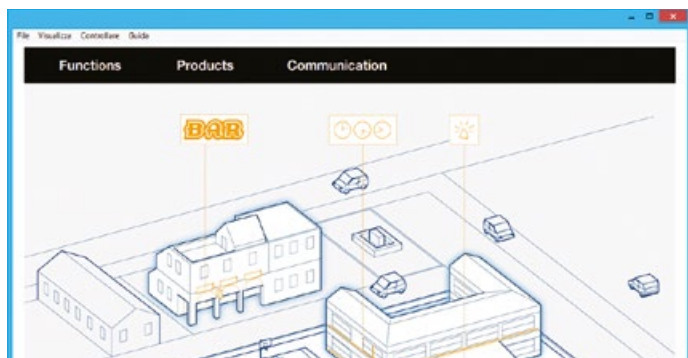


Wide range of programs: standard, cyclic, random and holiday

- Permanent or temporary manual deviation, directly activated with a single touch
- Graphical display of the complete sequence of switchings provided by the program in memory, for each of the channels in the day in question
- External inputs for the connection of one or more remote commands, for example: switches or buttons
- 64 memory locations
- Accuracy of $\pm 0,5$ seconds/day
- Switching change solar time/daylight saving time
- Load reserves for 6 years (lithium battery)



Programming key D KEY allows to run a program in EMD external memory automatically, to save the programs in the time switch or created by the D SW programming software, on the D KEY external memory and viceversa. Furthermore, the holiday programs can be loaded and unloaded on D KEY.



D Line time switches' programming can be executed directly on your PC thanks to D SW software that lets you quickly, simply and easily create complex programs from your desktop.

Indeed, it is possible to transfer the program to the memory unit and then copy it on multiple devices, avoiding any errors in reprogramming.

Once created, the program can be printed or saved to file as pdf.



Time synchronization via DCF77 or GPS antennas. The D DCF77 antenna receives scheduled messages transmitted by the atomic clock installed c/o Mainflingen (Germany), near Frankfurt. Thanks to this signal, the time switches are automatically set to: hour, date and proper daylight saving time. The D GPS antenna receives time from the Global Positioning System, providing an accurate location and time information for an unlimited number of people in all weathers, day or night, anywhere in the world; time is derived from different sources simultaneously that allow the time switch to compensate for propagation delays.

Control and automation

D Line digital time switches



D Line

		Technical specifications D Line					
		D1	D1 PLUS	D1 SYNCHRO	D2	D2 PLUS	D2 SYNCHRO
Rated voltage	[V]	230 AC ± 10%					
Rated pulsating voltage	[kV]	4					
Contact type		Contact relay in free exchange from potential					
Programming key		-	■	■	-	■	■
External input		■	■	-	■	■	-
DCF77 antenna		-	-	■	-	-	■
GPS antenna		-	-	■	-	-	■
Programming software		-	■	■	-	■	■
250 V contact capacity							
Ohm loads	[A]	16	16				
Inductive loads	[A]	10	2				
Rated frequency	[Hz]	50-60					
Time base		quartz					
Minimum switching	[sec.]	1					
Max programs per cycle	[n°]	64 (can be coupled in day blocks)					
Running reserve	[year]	6 from the first start-up (lithium battery)					
External input	[n°]	1		-	2		-
Activity suspension		From 1 day to 12 months					
Operating precision	[sec./day]	± 0.5					
Max. dissipated power	[VA]	6.5			7.8		
Max. switch power	[VA]	3500					
Incandescent lamps	[W]	3000					
Non-rephased fluorescent lamps	[W]	1100					
Fluorescent tube lamps rephased in parallel	[W]	900					
Fluorescent tube lamps with electronic reactor	[W]	7 ÷ 23 (max. 23 lamp.)					
Fluorescent tube lamps rephased in series	[W]	1100					
Protection degree	[IP]	20					
Max. terminal cross-section	[mm²]	6					
Terminals		In positive safety with captive screw					
Tightening torque	[Nm]	0.5					
Installation type		DIN rail					
Operating temperature	[°C]	-5 ... +55					
Storage temperature	[°C]	-10 ... +65					
Modules	[n°]	2					
Reference standards		EN 60730-1; EN 60730-2-7					

Technical features Accessories for D Line

		D DCF77	D GPS
Rated supply voltage	[V]	230 AC \pm 20%	
Rated frequency	[Hz]	50/60	
Power loss	[W]	0.1	2
Operating temperature	[°C]	-10...+70	-10...+40
Storage temperature	[°C]	-30...+90	-40...+85
Power consumption	[VA]	9.2	2
Time of the signal		1 sending / min.	min 30 sendings/hour; max 50 sendings/hour
Protection degree	[IP]	65	65
Max. number of connected devices	[No.]	10	10
Max. wiring length	[m]	1000	1000
Terminal size for cable	[mm ²]	0.5...2.5	0.5...2.5
Mounting		pole/wall	pole/wall

Technical features D 365 Line

		D 365	D 365 CE
Rated voltage Un	[V AC]	230	110..230
Contact type		2 NO/NC	2 NO/NC
Switching capacity	ohmic loads	[A]	16
	inductive loads	[A]	10
Rated frequency	[Hz]	50/60	
Power dissipation	[VA]	5	
Incandescent lamps	[W]	2600	2600
Halogen lamps	[W]	2600	2600
Compensated fluorescent lamps	[W]	1000	1000
Non-compensated fluorescent lamps	[W]	1000	1000
Time base		quartz	quartz
Minimum ON/OFF switching time	[sec.]	1	1
Max. no. of commands per cycle	[n°]	800	-
Pulse duration		1 sec ... 99 min	1 sec ... 99 min
Running reserve	[years]	10	-
Operating accuracy at 20 °C	[sec./day]	+1	+1
Operating temperature	[°C]	-5...+55	
Ambient temperature	[°C]	-10...+55	
Protection degree	[IP]	20	
Terminals		loss-proof screw	
Max. terminal cross-section	[mm ²]	4	
Sealable		yes	
Installation type		on DIN rail	
Modules	[n°]	3	2
Standards		EN 60730-1	

Control and automation

D Line digital time switches



D1

1CSC2400081F0202



D1 PLUS

1CSC2400081F0202

Technical features Accessories for D 365 Line

		D 365 DCF77
Rated voltage Un	[V]	230 AC
Rated frequency	[Hz]	50/60
Power dissipation	[mW]	3
Ambient temperature	[°C]	-20...+60
Degree of protection	[IP]	54
Max. distance from programmer	[m]	3000
Installation		pole/wall

D Line weekly digital time switches

The unique design, with white backlit LCD display, and extreme ease of use with two lines of text menu and only four buttons, make D Line ideal to automate the installation functions. Thanks to the innovative management of time vacation, the D Line digital time switches allow the exclusion of the normal weekly program in one or more periods of several years or between two different years.

The range includes 1 and 2 channel versions, equipped with large capacity internal battery to maintain operation without power supply and permanent memory EEPROM, to avoid the risk of program loss and to maintain the date and time settings in the event of power failure, irrespective of its duration.

The "Plus" version can transfer different type of program by using a D KEY to be quickly copied in No digital time switches, avoiding the errors due to future modification. The "SYNCHRO" version can be coupled to the D DCF77 antenna, that allows an automatic synchronization of the digital time switch with the Frankfurt DCF77 time signal, or can be coupled to the D GPS antenna to allows synchronization received from the Global Positioning System.

The D Line is particularly useful in environments and situations where user management is required with a time schedule flexible enough to predict or exclude activities according to time and day of week or month.

Channels no.	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
1	587637	D1	2CSM258763R0621		0.140	1
1	575832	D1 PLUS	2CSM257583R0621		0.140	1
1	574934	D1 SYNCHRO	2CSM257493R0621		0.140	1
2	563136	D2	2CSM256313R0621		0.140	1
2	775836	D2 PLUS	2CSM277583R0621		0.140	1
2	773634	D2 SYNCHRO	2CSM277363R0621		0.140	1

Accessories for D Line digital time switches

Version	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Programming key	771432	D KEY	2CSM277143R0621		0.005	1
Programming software	999737	D SW	2CSM299973R0621		0.020	1
DCF77 antenna	999836	D DCF77	2CSM299983R0621		0.150	1
GPS antenna	999935	D GPS	2CSM299993R0621		0.150	1

Where to find more:

Technical details for D Line:
Chapter 6 of
Solutions for electrical installation in
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D 365

2CSC400108F0004



D 365 CE

2CSC400108F0004



D 365 DCF77

2CSC400110F0004



D 365 KEY

2CSC400111F0004

D 365 Line yearly digital time switches

The D 365 yearly digital time switch, thanks to its extreme flexibility in use characterized by the extensive availability of 800 memory spaces and the possibility to manage up to 8 independent contacts, is especially suitable for managing small automated systems, allowing you to control multiple utilities or utility groups that require time differentiated commands, but with a common clock reference.

The backlit display provides a clear view even in the dark. The lithium battery, with a 6 year life, can be replaced thus extending the lifetime of the device. Like the weekly version, D 365 is equipped with various functions such as the impulse, cyclic, holiday, random, hour counter, countdown function, in addition to being able to maintain the hour and date synchronized with the hourly signal received by the DCF77 antenna.

Channels no.	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
2	569732	D 365	2CSM256973R0621		0,250	1

Accessories for D 365 Line yearly digital time switches

D 365 yearly digital clocks can be programmed directly on your PC thanks to the programming software which makes it quick and easy to create programs. The program can in fact be transferred to a D 365 KEY portable memory unit and then copied from there to multiple devices, thus avoiding reprogramming errors. Always using the programming software, you can use the digital time switch as a conventional astronomical time switch. By defining the latitude and longitude of the geographical place of installation, it is possible to automatically control the circuit lighting based on sunrise and sunset times.

The D 365 CE channel extension unit, in 2 changeover contacts, is instead coupled to the D 365 yearly time switch to expand the number of contacts managed from 2 to a maximum of 8. The D 365 DCF77 antenna, used in conjunction with the device, enables it to be automatically synchronized with the official DCF77 Frankfurt time signal, broadcast via long wave radio, with a maximum range of about 2500 km from Frankfurt.

	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Programming key	582830	D 365 KEY	2CSM258283R0621			1
Channel extension	594635	D 365 CE	2CSM259463R0621			1
DCF77 antenna	571032	D 365 DCF77	2CSM257103R0621			1

Control and automation

AT electro-mechanical time switches



2CSC00735F0001

AT1

Technical features			AT1	AT1-R	AT3	AT3-R	AT3-7R
Rated supply voltage	[V]		230 AC + 10%				
Contact type			1NO	1NO	1CO	1 CO	1CO
Switching capacity	resistive load	[A]	16				
	inductive load	[A]	4	4	3	3	3
Rated frequency	[Hz]		50-60				
Time base			quartz				
Minimum switching time	[min]		15	15	15	15	120
Max number of commands per cycle			96	96	96	96	84
Running reserve	[h]		-	200	-	200	200
Accuracy			± 1sec / 24h				
Power consumption	[VA]		0.5				
Max. switching power	[W]		4000				
Max. terminal cross-section	[mm ²]		4				
Terminals			loss-proof screw				
Tightening torque	[Nm]		1.2				
Mounting			on DIN rail				
Operating temperature	[°C]		-10...+55				
Storage temperature	[°C]		-10...+55	-10...+55	-20 ...+70	-10...+55	-10...+55
Modules			1	1	3	3	3
Reference standards			EN 60730-1 ; EN 60730-2-7				

AT electro-mechanical time switches

They control circuit opening and closing according to the scheduled program. Available both on daily and weekly version and equipped with a 16A contact, they can be set on the scheduled program or on the permanent ON function (ON-OFF only for three modules versions). The AT1-R, AT3-R and AT3-7R versions are equipped with a built-in battery, generally charged by the network voltage, which allows the devices to maintain the set time also in case of long (up to 200h) power supply failures. The products fit applications such as shop lighting systems, public buildings, schools, heating and irrigation systems and so forth.

Contacts	Running reserve	Version	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
1NO	-	daily	042051	AT1	2CSM204205R0601		0,095	1
1NO	200h	daily	042150	AT1-R	2CSM204215R0601		0,095	1
1CO	-	daily	042259	AT3	2CSM204225R0601		0,180	1
1CO	200h	daily	042358	AT3-R	2CSM204235R0601		0,180	1
1CO	200h	weekly	042457	AT3-7R	2CSM204245R0601		0,180	1

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Control and automation

AT2 electro-mechanical time switches



AT2



AT2-7R

Technical features

		AT2	AT2-R	AT2-7R
Rated supply voltage	[V]	230 AC		
Contact type		1 CO		
Switching capacity	resistive load	[A]	16	
	inductive load	[A]	4	
Rated frequency	[Hz]	50-60		
Time base		quartz		
Minimum switching time	[min]	30	30	210
Max number of commands per cycle		48		
Running reserve	[h]	-	150	150
Accuracy		± 1sec / 24h		
Power consumption	[VA]	0.5		
Max. switching power	[W]	3500		
Max. terminal cross-section	[mm ²]	2.5		
Terminals		loss-proof screw		
Tightening torque	[Nm]	0.5		
Mounting		on DIN rail		
Operating temperature	[°C]	-10 ...+50		
Storage temperature	[°C]	-10 ...+50		
Modules		2		
Reference standards		EN 60730-1 ; EN 60730-2-7		

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AT2 electro-mechanical time switches

The AT2 versions are particularly useful where there is the need to have a complete visibility of the programmable dial in only two modules. They control, as well as the AT1 and AT3 ones, circuit opening and closing according to a scheduled program and are available both on daily and weekly version with a 16A change-over contact. They can be set on the scheduled program or on permanent ON and the versions AT2-R and AT2-7R are equipped with a built-in battery, generally charged by the network voltage, which allows the devices to maintain the set time also in case of long (up to 150h) power supply failures. The products fit applications such as store lighting system, public buildings, schools, heating and irrigation systems and so forth.

Contacts	Running reserve	Version	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece	Pack unit
				Type code	Order code		kg	pc.
1 CO	-	daily	041054	AT2	2CSM204105R0601		0,118	1
1 CO	150h	daily	041153	AT2-R	2CSM204115R0601		0,118	1
1 CO	150h	weekly	041252	AT2-7R	2CSM204125R0601		0,118	1

Where to find more:

Technical details for AT2:
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Control and automation

ATP electro-mechanical time switches



2CSM400108F0004

ATP

6

Technical features		ATP	ATP-R	ATP-7R
Rated voltage	[V]	230 AC + 10%		
Contact type		1NO/NC		
Switching capacity	ohmic loads	[A]	16	
	inductive loads	[A]	3	
Rated frequency	[Hz]	50-60		
Time base		quartz		
Minimum switching time	[min]	10		60
Max. no. of commands per cycle		72		84
Running reserve	[h]	-	200	
Operating accuracy		+ 1 sec / 24 h		
Switching accuracy		1,5		10
Power dissipation	[VA]	0,5		
Max. switching power	[W]	1.000		
Min./Max. terminal cross-section	[mm ²]	1...6		
Terminals		loss-proof screw		
Tightening torque	[Nm]	1.2		
Installation type		wall/panel		
Operating temperature	[°C]	-10 ...+50		
Storage temperature	[°C]	-20 ...+60		
Standards		EN 60730		

ATP electro-mechanical time switches

These switches are used to control circuit opening and closing according to a preset program. Available in daily or weekly versions, with or without running reserve, they are characterized by the settings on the front, which during the holding time of the load, allows for the contact status in ON/OFF to be forced until the next switch time. The ATP range is the perfect solution for lighting systems in shops, public buildings, in heating and irrigation systems, etc.

Contacts	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
1NO/1NC	592334	ATP	2CSM259233R0601			1
1NO/1NC	580539	ATP-R	2CSM258053R0601			1
1NO/1NC	568735	ATP-7R	2CSM256873R0601			1

Where to find more:

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Control and automation

E 232 staircase lighting time-delay switches

Technical features					
	E 232-230	E 232E-230N	E 232E-8/230N	E 232E-230 Multi 10	E 232E-8/230 Multi 10
Time range (stepless)	1 – 7 min. in 15 sec. increments	0.5 – 20 min. stepless	0.5 – 20 min. stepless	0.5 – 20 min. stepless	0.5 – 20 min. stepless
Control voltage 230 V AC	■	■	■	■	■
Universal voltage in addition			8 ... 240 V AC/DC		8 ... 240 V AC/DC
Glow lamp load	50 mA	150 mA	150 mA	150 mA	150 mA
3/4 conductor operated	switches	automatically	automatically	automatically	automatically
Resettable	■	■	■	■	■
Steady-light switch	■	■	■	■	■
Advance warning acc. DIN 18015-2				■	■
Long-time range of 60 min.				■	■
Multi-functional (10 functions)				■	■
Rated voltage	230 V AC 50Hz	240 V AC 50 / 60 Hz	240 V AC 50 / 60 Hz	240 V AC 50 / 60 Hz	240 V AC 50 / 60 Hz
Control voltage range	0.9 ... 1.1 Un	0.85 ... 1.1 Un	0.85 ... 1.1 Un	0.85 ... 1.1 Un	0.85 ... 1.1 Un
Power loss	1 VA	6 VA	6 VA	6 VA	6 VA
Rated switching capacity	16 A, 230 V AC	16 A, 230 V AC	16 A, 230 V AC	16 A, 230 V AC	16 A, 230 V AC
Filament lamp load	2,300 W	2,300 W	2,300 W	3,600 W	3,600 W
Halogen lamp load	2,300 W	2,300 W	2,300 W	3,600 W	3,600 W
Fluorescent lamps series compensated / uncorrected	2,300 VA	2,300 VA	2,300 VA	3,600 VA *	3,600 VA *
Fluorescent lamps inductive or capacitive	2,300 VA	2,300 VA	2,300 VA	3,600 VA *	3,600 VA *
Fluorescent lamps shunt compensated	1,300 VA (70 µF)	400 VA (42 µF)	400 VA (42 µF)	1,200 VA (120 µF) *	1,200 VA (120 µF) *
Electronic controlgear	9x7 W, 6x11 W 5x15 W, 5x20 W	9x7 W, 7x11 W, 7x20 W, 7x23 W	9x7 W, 7x11 W, 7x20 W, 7x23 W	34x7 W, 27x11 W, 24x15 W, 22x23 W	34x7 W, 27x11 W, 24x15 W, 22x23 W
Inductive load (cos φ = 0.6/230 V AC)	2,300	2,300	2,300	2,300	2,300
Contact material	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2
Contact gap	≥ 3 mm	< 3 mm	< 3 mm	< 3 mm	< 3 mm
Mech. serviceable life	> 106	> 107	> 107	> 107	> 107
Serviceable life at rated load, cos φ =1	> 105	> 2x105	> 2x105	> 2x105	> 2x105
Serviceable life at rated load, cos φ =0.6	> 104	> 4x104	> 4x104	> 4x104	> 4x104
Terminal capacity	10.7 mm ²	13 mm ²	13 mm ²	13 mm ²	13 mm ²
Max. conductor capacity	6 mm ²	4 mm ²	4 mm ²	4 mm ²	4 mm ²
ON duration	Resettable after 30 sec.	100 %	100 %	100 %	100 %
Ambient temperature	- 10 °C to + 50 °C	- 25 °C to + 50 °C	- 25 °C to + 50 °C	- 25 °C to + 50 °C	- 25 °C to + 50 °C
Housing and insulation material	heat resistant, self-extinguishing thermoplast	heat resistant, self-extinguishing thermoplast	heat resistant, self-extinguishing thermoplast	heat resistant, self-extinguishing thermoplast	heat resistant, self-extinguishing thermoplast
Control current at 230 V AC	4.5 mA	26 mA	26 mA	26 mA (min. 8 mA at 8 V AC)	26 mA (min. 8 mA at 8 V AC)
Minimum command duration	10 ms	20 ms	20 ms	20 ms / 50 ms for multi voltage input	20 ms / 50 ms for multi voltage input

* no disconnection advance warning possible for this application.

Control and automation

E 232 staircase lighting time-delay switches



E 232-230

2CSC400470F0201



E 232 E-230N

2CDE051105F0201

E 232 staircase lighting time-delay switches

Staircase lighting time-delay switches are usually operated by pushbuttons, often fitted with a glow lamp. Switches are designed for a glow lamp current of up to 150 mA and thus perfectly suitable for installations in multi-storey buildings.

The E 232-230 staircase lighting time-delay switch includes an electro-mechanical timer with a synchronous motor drive to ensure high operational safety in whatever mounting position. The time range is adjustable in increments of 15 seconds from 1 to seven minutes. Resettable after 30 seconds.

E 232E-230N and E 232E-8/230N devices feature electronic time delays. A high switching capacity,

150 mA glow lamp current parallel to the pushbuttons, steplessly adjustable time range from 0.5 to 20 min, as well as low switching noise make these devices so special.

Devices of the E 232E-230 Multi 10 and E 232E-8/230 Multi 10 series are multi-functional products with 10 functions to choose from that can be adjusted from the front. Through an electronically controlled connection of the load at voltage zero, a very high switching capacity of 3,600 W (load of filament lamp) is reached.

The devices include an integrated warning feature (warning by blinking) according to DIN 18015-2 as well as a 60 minute long-time function.

The E 232E-8/230N and E 232E-8/230 Multi 10 staircase lighting time-delay switches offer an additional metallicly separated control input for 8...240 V AC/DC.

Time range	Power loss	Bbn 4013614	Order details		Price 1 piece	Weight 1 piece	Pack unit
	W	EAN	Type code	Order code			
1 ... 7 min.	1 V A	54824 3	E 232-230	2CDE 110 000 R0501		0.081	10
20 min	6 V A	65416 6	E 232 E-230N	2CDE 110 003 R0511		0.095	10
20 min	6 V A	65417 3	E 232 E-8/230N	2CDE 010 003 R0511		0.1	10
20 min	6 V A	65418 0	E 232 E-230 Multi 10	2CDE 110 013 R0511		0.095	10
20 min	6 V A	65419 7	E 232 E-8/230 Multi 10	2CDE 010 013 R0511		0.1	10

Where to find more:

Technical details for E 232:
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Control and automation

E 234 electronic timers



E 234

Technical data

Data at $T_a = 25\text{ °C}$ and rated values, if nothing else indicated

Type		CT-D with 1 c/o contact	CT-D with 2 c/o contacts	
Input circuit - Supply circuit				
Rated control supply voltage US	A1-A2	24-240 V AC / 24-48 V DC		
	A1-A2	-	12-240 V AC/DC (CT-MFD.21)	
Rated control supply voltage US tolerance		-15...+10 %		
Rated frequency	AC/DC versions	DC or 50/60 Hz		
	AC versions	50/60 Hz		
Frequency range	AC/DC versions	DC or 47/63 Hz		
	AC versions	47/63 Hz		
Typical power consumption	24 V DC	0.6 W	on request	
	230 V AC	1.3 VA	on request	
	115 V AC	1.3 VA	on request	
Power failure buffering time		min. 20 ms	min. 30 ms	
Input circuit - Control circuit				
Voltage-related triggering	Control input, Control function	A1-Y1/B1	start timing external	
	Maximum cable length to the control input		50 m - 100 pF/m	
	Minimum control pulse length		30 ms	
	Control voltage potential		see rated control supply voltage	
	Current consumption of the control input		max. 4 mA	on request
	Parallel load / polarized		yes / yes	
Timing circuit				
Time ranges	7 time ranges 0.05 s - 100 h	1.) 0.05-1 s 2.) 0.5-10 s 3.) 5-100 s 4.) 0.5-10 min 5.) 5-100 min 6.) 0.5-10 h 7.) 5-100 h		
	4 time ranges 0.05 s - 10 min (CT-SDD, CT-SAD)	1.) 0.05-1 s 2.) 0.5-10 s 3.) 5-100 s 4.) 0.5-10 min		
Recovery time		< 50 ms		
Repeat accuracy (constant parameters)		$\Delta t < \pm 0.5\%$		
Accuracy within the rated control supply voltage tolerance		$\Delta t < 0.005\% / V$		
Accuracy within the temperature range		$\Delta t < 0.06\% / \text{°C}$		
Star-delta transition time	CT-SDD	fixed 50 ms		
	CT-SAD	adjustable: 20-100 ms in steps of 10 ms		
Star-delta transition time tolerance	CT-SDD, CT-SAD	$\pm 3\text{ ms}$		
Indication of operational states				
Control supply voltage / timing	U: green LED	: control supply voltage applied : timing		
Relay status	R: yellow LED	: output relay 1 or 2 energized		
Output circuit				
Kind of output	15-16/18	relay, 1 c/o contact	-	
	15-16/18; 25-26/28	-	relay, 2 c/o contacts	
	17-18; 17-28	relay, 2 n/o contacts (CT-SDD, CT-SAD)		

Control and automation

E 234 electronic timers

Technical data

Data at Ta = 25 °C and rated values, if nothing else indicated

Type		CT-D with 1 c/o contact	CT-D with 2 c/o contacts
Contact material		Cd-free, see data sheet	
Rated operational voltage Ue		250 V	
Minimum switching voltage / minimum switching current		12 V / 100 mA	
Maximum switching voltage / maximum switching current		see load limit curves	
Rated operational current Ie (IEC 60947-5-1) for category	AC12 (resistive) at 230 V	6 A	5 A
	AC15 (inductive) at 230 V	3 A	3 A ①
	DC12 (resistive) at 24 V	6 A	5 A
	DC13 (inductive) at 24 V	2 A	3 A ①
Mechanical lifetime		30 x 10 ⁶ switching cycles	
Electrical lifetime	at AC12, 230 V, 4 A	0.1 x 10 ⁶ switching cycles	
Short-circuit proof / maximum fuse rating (IEC/EN 60947-5-1)	n/c contact	6 A fast-acting	
	n/o contact	10 A fast-acting	
General data			
Duty time		100%	
Dimensions (W x H x D)		17.5 mm x 70 mm x 58 mm	17.5 mm x 80 mm x 58 mm
		(0.69 x 2.76 x 2.28 inches)	(0.69 x 3.15 x 2.28 inches)
Weight		see ordering details	
Mounting		DIN rail (EN 60715), snap-mounting without any tool	
Mounting position		any	
Minimum distance to other units horizontal / vertical		no / no	
Degree of protection enclosure / terminals		IP50 / IP20	
Electrical connection			
Wire size	fine-strand	with wire end ferrule	2 x 0.5-1.5 mm ² (2 x 20-16 AWG)
		without wire end ferrule	1 x 0.5-2.5 mm ² (1 x 20-14 AWG)
	rigid	with wire end ferrule	2 x 0.5-1.5 mm ² (2 x 20-16 AWG)
		without wire end ferrule	1 x 0.5-4 mm ² (1 x 20-12 AWG)
Stripping length		7 mm (0.28 inches)	
Tightening torque		0.5-0.8 Nm	
Environmental data			
Ambient temperature range	operation	-20 ... +60 °C	
	storage	-40 ... +85 °C	
Damp heat (cyclic) (IEC/EN 60068-2-30)		6 x 24 h cycles, 55 °C, 95 % RH	
Vibration (sinusoidal) (IEC/EN 60068-2-6)		40 m/s ² , 20 cycles, 10...150...10 Hz	
Shock (half-sine) (IEC/EN 60068-2-27)		100 m/s ² , 11 ms	

① CT-MFD.2x on request

Technical data

Data at Ta = 25 °C and rated values, if nothing else indicated

Type		CT-D with 1 c/o contact	CT-D with 2 c/o contacts
Isolation data			
Rated impulse withstand voltage Uimp between all isolated circuits (VDE 0110, IEC/EN 60664-1)			4 kV; 1.2/50 µs
Pollution category (IEC/EN 60664-1, VDE 0110, UL 508)		3	
Overvoltage category (IEC/EN 60664-1, VDE 0110, UL 508)		III	
Rated insulation voltage Ui	input circuit / output circuit	300 V	
	output circuit 1 / output circuit 2	300 V	
Basic insulation (IEC/EN 61140) input circuit / output circuit		300 V	
Protective separation (VDE 0106 part 101 and part 101/A1; IEC/EN 61140)	input circuit / output circuit	250 V	
Test voltage between all isolated circuits (type test)		2.5 kV, 50 Hz, 1 s	
Standards			
Product standard		IEC 61812-1, EN 61812-1 + A11, DIN VDE 0435 part 2021	
Low Voltage Directive		2006/95/EC	
EMC Directive		2004/108/EC	
RoHS Directive		2002/95/EC	
Electromagnetic compatibility			
Interference immunity		IEC/EN 61000-6-1, IEC/EN 61000-6-2	
	electrostatic discharge (ESD)	IEC/EN 61000-4-2	Level 3 (6 kV / 8 kV)
	electromagnetic field (HF radiation resistance)	IEC/EN 61000-4-3	Level 3 (10 V/m)
	fast transients (Burst)	IEC/EN 61000-4-4	Level 3 (2 kV / 5 kHz)
	powerful impulses (Surge)	IEC/EN 61000-4-5	Level 4 (2 kV L-L)
	HF line emission	IEC/EN 61000-4-6	Level 3 (10 V)
Interference emission		IEC/EN 61000-6-3, IEC/EN 61000-6-4	
	electromagnetic field (HF radiation resistance)	IEC/CISPR 22, EN 55022	B
	HF line emission	IEC/CISPR 22, EN 55022	B

Control and automation

E 234 electronic timers



E 234 CT-MFD



E 234 CT-ERD

Description

The CT-D range in MDRC design with a width of only 17.5 mm fits into all domestic installation and distribution panels.

The CT-D range represents a link between industry and the installation types. For maximum flexibility in operation, 10 single-function as well as 2 multifunction devices with 7 timing functions are available. The devices offer 4 or 7 time ranges from 0.05 seconds up to 100 hours. Their wide input range allows the use in applications worldwide.

Timing function	Rated control supply voltage	Time ranges	Control input	Out-put	Bbn EAN	Type	Order code	Price 1 piece	Weight 1 piece kg (lb)
Multifunctional ¹⁾	24-240 V AC 24-48 V DC	7 (0.05 s - 100 h)	■	1 c/o		CT-MFD.12	1SVR500020R0000		0.060 (0.132)
Multifunctional ¹⁾	12-240 V AC/DC	7 (0.05 s - 100 h)	■	2 c/o		CT-MFD.21	1SVR500020R1100		0.065 (0.143)
ON-delay			-	1 c/o		CT-ERD.12	1SVR500100R0000		0.060 (0.132)
			-	1 c/o		CT-ERD.22	1SVR500100R0100		0.065 (0.143)
OFF-delay		7 (0.05 s - 100 h)	■	1 c/o		CT-AHD.12	1SVR500110R0000		0.060 (0.132)
			■	2 c/o		CT-AHD.22	1SVR500110R0100		0.065 (0.143)
Impulse-ON	24-240 V AC 24-48 V DC		-	1 c/o		CT-VWD.12	1SVR500130R0000		0.060 (0.132)
Flasher starting with ON			-		CT-EBD.12	1SVR500150R0000		0.060 (0.132)	
Pulse generator		2x7 (0.05 s - 100 h)	■			CT-TGD.122)	1SVR500160R0000		0.060 (0.132)
			■	2 c/o		CT-TGD.222)	1SVR500160R0100		0.065 (0.143)
Star-delta change-over		4 (0.05 s - 10 min)	-	2 c/o		CT-SDD.223)	1SVR500211R0100		0.065 (0.143)
			-			CT-SAD.224)	1SVR500210R0100		0.065 (0.143)

1) Functions: ON-delay, OFF-delay with auxiliary voltage, Impulse-ON, Impulse-OFF with auxiliary voltage, Flasher starting with ON, Flasher starting with OFF, Pulse former

2) ON and OFF times adjustable independently: 2 x 7 time ranges 0.05 s - 100 h

3) Transition time 50 ms fixed

4) Transition time adjustable

■ Control input with voltage-related triggering
- no triggering

	ON-delay
	OFF-delay
	Impulse-ON
	Impulse-OFF
	Flasher starting with ON
	Flasher starting with OFF
	Pulse former
	Pulse generator
	Star-delta change-over

Synonyms

used expression	alternative expression(s)	used expression	alternative expression(s)
1 c/o contact	SPDT	voltage-related	wet / non-floating
2 c/o contacts	DPDT	volt-free	dry / floating

Where to find more:

Technical details for E 234:

Chapter 6 of

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Control and automation

T Line twilight switches



T1

Technical features			T1	T1 PLUS
Rated supply voltage	[V]		110 ÷ 230 AC	
Contact type			1NO	
Switching capacity				
resistive load $\cos\phi$ 1	[A]		16	
inductive load $\cos\phi$ 0.6	[A]		3	
incandescent lamps	$\cos\phi$ 1		max 3600 W	
fluorescent lamps	$\cos\phi$ 0.8		max 3600 W	
fluorescent - duo./electronic lamps	$\cos\phi$ 0.9		max 300 W	
Rated frequency	[Hz]		50-60	
Switching delay				
ON	[s]		30 ±10%	15...120 ±10%
OFF	[s]		40 ±10%	15...120 ±10%
Brightness range	[lx]		2:200	2:40 20:200 200:2000 2000:15000
Protection degree				
twilight switch			IP20	IP20
sensor			IP65	IP65
Operating temperature				
twilight switch	[°C]		-25...+55	
sensor	[°C]		-40...+70	
Storage temperature				
twilight switch	[°C]		-40...+70	
sensor	[°C]		-50...+80	
Power consumption	[VA]		4.5	
Max. commutable power	[W]		3500	
Max. terminal cross-section	[mm ²]		2.5	
Terminals			loss-proof screw	
Tightening torque	terminals	[Nm]	0.5	
	sensor screw	[Nm]	0.4	
Mounting			on DIN rail	
Switching status indication/brightness range			red Led / green Led	
Max wiring length	[m]		100	
Modules			1	
Reference standards			EN 60669-1; EN 60669-2-1; EN 60730-1	

Where to find more:

Technical details for T Line:
Chapter 6 of
Solutions for electrical installation
in buildings - technical details

Worldwide marks and approvals
of MDRCs - chapter 15

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manuals on www.abb.com/abblibrary/
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Control and automation

T Line twilight switches



T1



T1 PLUS



LS-D

T Line modular twilight switches

These twilight switches allow to switch ON and switch OFF lighting devices according to a scheduled level of the ambient light. They are used in combination with an external sensor to detect if the ambient light is higher or lower than the set level . A switching delay prevents them from operating unnecessarily when the light intensity suddenly changes (e.g. lightning, moving vehicles, etc.). The T1 twilight switch in 1 channel is preset a 10 LUX from factory and is equipped with 2 signalling LEDs that indicate the setpoint value and display the status of the contact . The operating instructions are printed on the side of the product. T1 PLUS switches feature a setpoint that can be adjusted for 4 different scale values (2:40, 20:200, 200:2000, 2000:15000).This makes them ideal for daytime applications where the Lux values are very high. With a 10 lux preset factory setting, they are equipped with 2 signalling LEDs that indicate the setpoint value and display the status of the contact.

Brightness range	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
lx	EAN	Type code	Order code		kg	pc.
2 : 200	955634	T1	2CSM295563R1341		0.076	1
2 : 15000	957935	T1 PLUS	2CSM295793R1341		0.078	1

Accessories for T Line modular twilight switches

The external sensor is supplied in the same package of the switch, but it's also available separately as spare part. The upper part of the external case (with screw locking), made up of thermoplastic material, bears up against ultraviolet rays to guarantee an homogeneous diffusion of the daylight internally. LS-D is also equipped with a cable gland.

	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
External sensor	957232	LS-D	2CSM295723R1341		0.069	1

Where to find more:

Technical details for T Line:
Chapter 6 of
Solutions for electrical installation in
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Control and automation

T1 POLE twilight switches



T1 POLE

Technical features		
T1 POLE		
Rated supply voltage	[V]	110 ÷ 230 AC
Contact type		1NO polarized
Switching capacity		
resistive load $\cos\phi$ 1	[A]	16
inductive load $\cos\phi$ 0.6	[A]	3
incandescent lamps	$\cos\phi$ 1	max 3600 W
fluorescent lamps	$\cos\phi$ 0.8	max 3600 W
fluorescent - duo./electronic lamps	$\cos\phi$ 0.9	max 300 W
Rated frequency	[Hz]	50-60
Switching delay		
ON	[s]	30 ± 10%
OFF	[s]	40 ± 10%
Brightness range	[lx]	2:200
Protection degree		IP65
Operating temperature	[°C]	-40...+70
Storage temperature	[°C]	-50...+80
Power consumption	[VA]	4.5
Max. commutable power	[W]	3500
Max. terminal cross-section	[mm ²]	2.5
Terminals		loss-proof screw
Tightening torque	[Nm]	0.4
Mounting		pole/wall
Switching status indication/ brightness range		- / red Led
Reference standards		EN 60669-1; EN 60669-2-1; EN 60730-1

6

T1 pole mounting twilight switch

The T1 POLE version is designed for installation on the pole/wall, with photocell inputs and integrated cabling including cable gland seals to ensure a high degree of protection. Thanks also to the high quality, T1 POLE provides excellent resistance to atmospheric agents and a long service life. T1 POLE is also equipped internally with a preset sensor of 10 Lux. The sensor is extractable from the base and allows an easy and efficient maintenance without needing further wiring. T1 POLE is the ideal solution to management the external light systems such as the public ones, more precisely, in cases where there is a need of having to control the lighting of public or private roads, gardens, courtyards to the decline of solar radiation during precisely the twilight.

Brightness range	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
lx	EAN	Type code	Order code		kg	pc.
2 : 200	957539	T1 POLE	2CSM295753R1341		0.140	1

Where to find more:

Technical details for T1 POLE:
Chapter 6 of
Solutions for electrical installation in
buildings - technical details

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manuals on www.abb.com/abblibrary/
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Control and automation

TWA twilight switches



TWA

2CSC4007.25F0001

6

Technical features

		TWA-1	TWA-2
Rated supply voltage	[V]	230 ±15% AC	
Contact type		1NO/NC	2 NO/NC
Switching capacity			
resistive load	[A]	16	
inductive load cosφ 0.6	[A]	10	
Max. number of lamps			
incandescent and halogen lamps	[W]	2300	
compensated (max. 45 µF)	[W]	400	
non compensated, series compensated	[W]	1000	
compact fluorescent	[W]	500	
Rated frequency	[Hz]	50-60	
Programs ON-OFF		56	
Accuracy		±1.5 sec/24h	
Time base		quartz	
Minimum switch between two steps	[min]	1	
Running reserve	[year]	5	
Astronomical time accuracy	[min]	±10	
Protection degree		IP20	
Operating temperature	[°C]	-10...+55	
Storage temperature	[°C]	-20...+60	
Power consumption	[VA]	6	
Max. commutable power	[W]	4000	
Min./Max. terminal cross-section			
flexible	[mm ²]	1 to 6	
rigid	[mm ²]	1.5 to 10	
Terminals		loss-proof screw	
Tightening torque	[mm ²]	1.2	
Mounting		on DIN rail	
Modules		2	
Reference standards		EN 60730-1 EN 60730-2-7	



TWA-1

TWA twilight astronomical switches

The twilight astronomical switches TWA-1 and TWA-2, respectively, in 1 and 2 channels, they automatically control lighting circuits depending on the time of sunrise and sunset, greatly increasing energy efficiency.

The programming is in fact based on a mathematical algorithm able to calculate the time of the rising and setting of the sun in a certain location for each day of the year. Once powered the device, simply insert date, time, geographical coordinates and time zone because it is ready to work. The installation of these devices is particularly useful when using a twilight switch with external sensor is not recommended because it may be subject to malfunctions caused by air pollution, excessive brightness or vandalism. TWA-1 and TWA-2 are also indicated for the control of public lighting, shop windows of shops, neon signs, monuments, facades and illuminated fountains.

Brightness range	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
Ix	EAN	Type code	Order code		kg	pc.
1NO/NC	043652	TWA-1	2CSM204365R1341		0.160	1
2NO/NC	043751	TWA-2	2CSM295723R1341		0.160	1

Where to find more:

Technical details for TWA:
Chapter 6 of
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Control and automation

THS modular thermostats



THS

2BSC100719F0001

Technical features		THS-C	THS-W	THS-S
Rated voltage	[V]	230 AC		
Type of contact		1 NO/NC		2NO
Contact capacity				
ohmic load	[A]	16		
inductive load $\cos\phi$ 0.6	[A]	3		
Frequency	[Hz]	50-60		
Number of temperature set-points		1 continuously adjustable		2 continuously adjustable
Adjustment range	[°C]	-20...+40	0...+60	0...+10 / +20...+60
Max switching power	[W]	3500		
Differential	[°C]	fixed $\Delta t = 1$		fixed $\Delta t = 2$
Thermal gradient		1 °K / 15 minutes		
Type of operation		ON / OFF fixed differential		
Max cable section at terminals	[mm ²]	2.5		
Protection degree		IP20		
Relay ON/OFF indication		LED indicator		
Temperature tolerance	[°C]	±1		
T limits in operation	[°C]	0 ÷ +50		0 ÷ +70
Storage temperature	[°C]	-10...+65		-10...+70
Type of installation		DIN rail		
Case / color		thermoplastic / grey RAL 7035		
Power consumption	[VA]	3		
Terminals		Loss-proof screw		
Max. terminal cross-section	[mm ²]	2.5		
Tightening torque	[Nm]	0.5		
Application type		services / industrial		
Programming		graduated scale with mechanical pointer		

Where to find more:

Controls and indicator technical details for THS: Chapter 6 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

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2CSC400718F0001

THS-C



2CSC400718F0001

THS-S

THS modular thermostats

The THS series modular thermostats are suited for a wide array of refrigeration and heating applications. The THS-C and THS-W models, both with a potential-free switching contact, are ideal for controlling temperature in heating systems, industrial settings or difficult-to-access locations, as well as for temperature regulation in refrigeration systems, refrigerated counters, greenhouses, dryers, etc....

The THS-S model, with two independent potential-free contacts, allows regulation of cooling between +20 and +60 °C and anti-condensation between 0 and +10 °C. The THS-S thermostat is supplied with remote sensor and is ideal for temperature control of electrical cabinets.

Temperature	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
°C	EAN	Type code	Order code		kg	pc.
-20...+40	511632	THS-C	2CSM251163R1380		0.20	1
0...+60	070832	THS-W	2CSM207083R1380		0.20	1
*+20...+60 / 0...+10	368038	THS-S	2CSM236803R1380		0.17	1

* cooling / anticondensation

Temperature sensors for THS-C and THS-W thermostats

The remote sensors (supplied separately) are used in conjunction with the THS-C and THS-W series thermostats to detect temperature overshoot or undershoot from the programmed set-point. The THS-1 and THS-4 models work in a temperature range between -30 °C and +130 °C and are respectively 1.5 and 4 meters long.

Lenght	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
m	EAN	Type code	Order code		kg	pc.
1.5	020332	THS-1	2CSM202033R1380		0.05	1
4	776031	THS-4	2CSM277603R1380		0.12	1

Control and automation

ATT GSM modules



ATT GSM

6

Technical characteristics						
GSM module		Quad band GSM / GPRS / EDGE communication with manual / automatic selection on bands 850 / 900 / 1800 / 1900 MHz for data, sms and voice applications.				
Output power		Class 4 (2W for GSM850 and EGSM900) Class 1 (1W for DCS1800 and PCS1850)				
Commands sent by		SMS, call rings, extended SMS, DTMF tones, (GSM / GPRS / EDGE connection)				
Incoming alarms		SMS, call rings, e-mail				
Inputs	digital	input voltage 3...9 V d.c., 5 mA @ 5 V, output voltage 3.3 V d.c.				
	analog	Select input mode by means of the dipswitch. NTC temperature sensor can be directly connected to the analog inputs (range -10 °C...60 °C).				
		Mode 1	Mode 2	Mode 3	Mode 4	
	Input range	0...20 mA	0...10 V	0...2 V	0...2V	
	Voltage drop	2 V @ 20 mA				
	Resolution	0.02 mA	0.01 V	0.02 V	0.1 °C	
	Accuracy	±1%	±1%	±1%	±1 °C	
	Impedance	100 Ω	25 Ω	5 Ω	NTC: 10 Ω @ 25 °C	
Outputs	relay	NO 3 A 250 V a.c. - max 750 VA				
	minimum load	1 mA, 5 V d.c.				
Power supply		[V]	12-24 V a.c./d.c.			
Power consumption	when transmitting	[W]	5			
	in stand-by	[W]	0.2			
Terminal section	2.5 mm ²					
Temperature	ambient	[°C]	-30...60			
	storage	[°C]	-40...85			
Relative humidity	ambient	5...95% non condensing				
	storage	5...95% only external condensation				
Modules	4					
Protection degree	IP40					

Where to find more:

Technical details for ATT GSM:
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Solutions for electrical installation in
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ATT-22

2CHC0000731F0001

ATT GSM modules

The ATT modules are GSM telephone actuators for remotely controlling electrical loads over the mobile phone network, which answer the installation requirements of a variety of application settings. In particular, the ATT-42 version consists of a control module with 2 relay outputs, 2 digital programmable inputs and 2 digital counter inputs for residential, services-sector and industrial installations. The ATT-122 alarm module, with 2 analogue inputs, 8 digital programmable inputs, 2 digital counter inputs and 2 relay outputs, is suitable for status and alarm monitoring in industrial and services-sector installations. Instructions and alarms can be sent via SMS message, free phone call ring or e-mail according to need. Configuration can be accomplished by SMS messages or using the ATT-Tool22 software. All the ATT modules are supplied with backup lithium battery, ATT-Tool programming software and PC connecting cable. In addition, the range is equipped with an external antenna – essential if the module is installed in locations that do not assure adequate GSM coverage, such as cellars, enclosed metal structures, etc.

The modules can be supplied with an ABB type TS 25/12-24 C modular transformer and are compatible with the GSM SIM cards of all mobile telephone operators.

Inputs	Outputs	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code			
2 analog and 2 digital	2 NO	178521	ATT-42	2CSM217852R1371		0.200	1
2 analog and 8 digital and 2 digital/counter	2 NO	349327	ATT-122	2CSM234932R1371		0.200	1

Accessories

	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
	178422	Cable ATT USB/RJ45	2CSM217842R1371		0.05	1
	945109	Optional battery for ATT	2CSM100100R1371		0.05	1
	750321	External antenna	2CSM275232R1371		0.05	1

Control and automation

CL logic relays, display system



CL

2CDC31103-4F0008

Technical Data overview

Logic relays

8 or 12 digital inputs
4 or 6 digital relay outputs
optionally with 4 or 8 transistor outputs
128 rungs
3 contacts as n/o or n/c contacts in series plus 1 coil per rung
optionally with 2 or 4 analog inputs (not 100-240 V AC version)
power flow display for checking the circuit diagram (devices with display)
expansions for local or remote level
enclosure color RAL 7035
DIN rail mounting

Display system

useable as compact HMI logic relay
fully graphic, backlit display module
12 digital inputs
4 digital relay outputs
optionally with 4 transistor outputs
265 rungs
4 contacts as n/o or n/c contacts in series plus 1 coil per rung
optionally with 4 analog inputs (not 100-240 V AC version)
networking-compatible via CL-NET
front panel mounting
expansion for local

Remote display

Remote display up to a distance of 5 m
Illustration of text and status displays
Remote adjustment via keypad
Front panel mounting

Software

16 timing relays 0.01-99:59 h
16 counting relays for up-, down counting
8 weekly timer, 8 annual timers
16 analog value comparators
16 freely editable text display
32 markers or auxiliary relays

Further Documentation

(download from the internet: www.abb.com/lowvoltage > Control Products > Electronic Relays and Controls)

Technical catalogue

Electronic Products and Relays 2CDC 110 004 C0205

Manuals

Logic relay manual	1SVC 440 795 M0100
Remote display manual	1SVC 440 795 M2100
Display system manual	1SVC 440 795 M1100



CL-LSR

2CD0311034F0006



CL-LST

2CD0311033F0006

CL concept

CL range logic relays are suitable for small and medium-sized control tasks and are able to substitute logic wiring in a quick and simple manner.

They can be used for applications in control as well as for timing functions, e.g.

- in buildings, lighting systems, air-conditioning systems, general control functions,
- in small machines and systems or
- as stand-alone control module for small applications.

Steps to the application of CL range

- CL range can be used easily, rapidly and comfortably without any time-consuming planning and programming.
- The user can discover the advantages and the benefit of these logic relays in no time at all.
- CL range provides for the control statements according to a simple circuit diagram.
- Setup, storage, simulation and documentation are performed using the compact and user-friendly CL-SOFT software (CL-LAS.PS002).

Software characteristics (CL-SOFT)

- display on a PC monitor according to IEC, ANSI
- up to 10 languages to choose from
- easy installation on all Microsoft Windows™ operating systems

Logic relays

Logic relays – 8 inputs, 4 relay outputs

Rated operational voltage	Display + Keypad	Timer	Ex-pan-dable	Bbn EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
24 V AC	■	■			CL-LSR.C12AC1	1SVR 440 712 R0300		0.20/0.44	1
24 V AC		■			CL-LSR.CX12AC1	1SVR 440 712 R0200		0.20/0.44	1
100-240 V AC	■				CL-LSR.12AC2	1SVR 440 713 R0100		0.20/0.44	1
100-240 V AC	■	■			CL-LSR.C12AC2	1SVR 440 713 R0300		0.20/0.44	1
100-240 V AC		■			CL-LSR.CX12AC2	1SVR 440 713 R0200		0.20/0.44	1
12 V DC	■	■			CL-LSR.C12DC1	1SVR 440 710 R0300		0.20/0.44	1
12 V DC		■			CL-LSR.CX12DC1	1SVR 440 710 R0200		0.20/0.44	1
24 V DC	■				CL-LSR.12DC2	1SVR 440 711 R0100		0.20/0.44	1
24 V DC	■	■			CL-LSR.C12DC2	1SVR 440 711 R0300		0.20/0.44	1
24 V DC		■			CL-LSR.CX12DC2	1SVR 440 711 R0200		0.20/0.44	1

Logic relays – 8 inputs, 4 transistor outputs

Rated operational voltage	Display + Keypad	Timer	Ex-pan-dable	Bbn EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
24 V DC	■	■			CL-LST.C12DC2	1SVR 440 711 R1300		0.20/0.44	1
24 V DC		■			CL-LST.CX12DC2	1SVR 440 711 R1200		0.20/0.44	1

Control and automation

CL logic relays, display system



2CDC311036F0006

CL-LMR



2CDC311036F0006

CL-LMT



2CDC311037F0006

CL-LER



2CDC311038F0006

CL-LEC

Logic relays – 12 inputs, 6 relay outputs

Rated operational voltage	Display + Keypad	Timer	Ex-pand-able	Bbn EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
24 V AC	■	■	■		CL-LMR.C18AC1	1SVR 440 722 R0300		0.36/0.79	1
24 V AC		■	■		CL-LMR.CX18AC1	1SVR 440 722 R0200		0.36/0.79	1
100-240 V AC	■	■	■		CL-LMR.C18AC2	1SVR 440 723 R0300		0.36/0.79	1
100-240 V AC		■	■		CL-LMR.CX18AC2	1SVR 440 723 R0200		0.36/0.79	1
12 V DC	■	■	■		CL-LMR.C18DC1	1SVR 440 720 R0300		0.36/0.79	1
12 V DC		■	■		CL-LMR.CX18DC1	1SVR 440 720 R0200		0.36/0.79	1
24 V DC	■	■	■		CL-LMR.C18DC2	1SVR 440 721 R0300		0.36/0.79	1
24 V DC		■	■		CL-LMR.CX18DC2	1SVR 440 721 R0200		0.36/0.79	1

Logic relays – 12 inputs, 8 transistor outputs

Rated operational voltage	Display + Keypad	Timer	Ex-pand-able	Bbn EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
					Type code	Order code			
24 V DC	■	■	■		CL-LMT.C20DC2	1SVR 440 721 R1300		0.36/0.79	1
24 V DC		■	■		CL-LMT.CX20DC2	1SVR 440 721 R1200		0.36/0.79	1

Expansion – 2 relays outputs

Rated operational voltage	Bbn EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		Type code	Order code			
-		CL-LER.20	1SVR 440 709 R5000		0.07/0.15	1

Expansions – 12 inputs, 6 relay outputs

Rated operational voltage	Bbn EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		Type code	Order code			
100-240 V AC		CL-LER.18AC2	1SVR 440 723 R0000		0.26/0.57	1
24 V DC		CL-LER.18DC2	1SVR 440 721 R0000		0.22/0.49	1

Expansion - 12 inputs, 8 transistor outputs

Rated operational voltage	Bbn EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		Type code	Order code			
24 V DC		CL-LET.20DC2	1SVR 440 721 R1000		0.21/0.46	1

Coupler unit for remote expansion with a distance of up to 30 m

Rated operational voltage	Bbn EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
		Type code	Order code			
-		CL-LEC.CI000	1SVR 440 709 R0000		0.07/0.15	1



CL-LAS.PS002

2C0C311012F0607



CL-LAS.MD003

2C0C311015F0607



CL-LAS.TK001

2C0C311014F0607



CL-LAS.TK011

2C0C311031F0607

Accessories for logic relays

Software CL-SOFT for programming and control of CL range devices

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Installation CD-ROM for Microsoft Windows™		CL-LAS.PS002	1SVR 440 799 R8000		0.10/0.21	

Memory module for logic relays

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Memory size: 32 kB		CL-LAS.MD003	1SVR 440 799 R7000		0.02/0.04	1

Connecting cable with serial interface to connect PC and logic relay

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Length: 2 m		CL-LAS.TK001	1SVR 440 799 R6000		0.10/0.22	1

Connecting cable with USB interface to connect PC and logic relay

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Length:		CL-LAS.TK002	1SVR 440 799 R6100			1

Connecting cable for point-to-point connection of remote-display connection module and logic relay

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Length: 5 m, adaptable		CL-LAD.TK007	1SVR 440 899 R6600		0.20/0.44	1

Fixing brackets for screw mounting of logic relay, expansion, display base module

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
content: 9 fixing brackets		CL-LAS.FD001	1SVR 440 799 R5000		0.01/0.01	1

Connecting plug CL-LINK for connection of logic relay to expansion

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
CL-LINK		CL-LAS.TK011	1SVR 440 799 R5100		0.10/0.22	1

Control and automation

CL logic relays, display system



2CDC311018F007

CL-LAS.SD..



2CDC311017F007

CL-LDC.S..



2CDC311028F006

CL-LDD.K



2CDC311031F006

CL-LDC.LN..

Input-/ output simulator with wall power supply, fits to CL-LSR and CL-LST

Rated input voltage	Rated output voltage/current	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code			
100-240 V AC	24 V DC		CL-LAS.TD001	1SVR 440 793 R0000		0.19/0.43	1

Primary switch mode power supplies

Rated input voltage	Rated output voltage/current	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code			
100-240 V AC	24 V DC / 0.35 A 12 V DC / 20 mA		CL-LAS.SD001	1SVR 440 703 R0000		0.10/0.22	1
100-240 V AC	24 V DC / 1.25 A		CL-LAS.SD002	1SVR 440 713 R0000		0.20/0.44	1

Remote display connection modules to displace the display from the logic relay, incl. connecting cable CL-LAD.TK007, 5 m, length adaptable

Rated operational voltage	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
24 V DC		CL-LDC.SDC2	1SVR 440 841 R0000		0.16/0.36	1
100-240 V AC		CL-LDC.SAC2	1SVR 440 843 R0000		0.16/0.36	1

Display system

Graphic Display modules 132 x 64 pixel

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
without keyboard		CL-LDD.XK	1SVR 440 839 R4500		0.14/0.30	1
with keyboard		CL-LDD.K	1SVR 440 839 R4400		0.13/0.29	1

Display base modules - CPU / power supply

Rated operational voltage	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
24 V DC		CL-LDC.LDC2	1SVR 440 821 R0000		0.16/0.36	1
100-240 V AC		CL-LDC.LAC2	1SVR 440 823 R0000		0.16/0.36	1

Display base modules - CPU / power supply, networking-compatible (CL-NET)

Rated operational voltage	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
24 V DC		CL-LDC.LNDC2	1SVR 440 821 R1000		0.17/0.38	1
100-240 V AC		CL-LDC.LNAC2	1SVR 440 823 R1000		0.17/0.38	1

Display I/O modules - 8 inputs, 4 relay outputs

Rated operational voltage	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
100-240 V AC		CL-LDR.16AC2	1SVR 440 853 R0000		0.17/0.38	1
24 V DC		CL-LDR.16DC2	1SVR 440 851 R0000		0.17/0.38	1



CL-LDR

2CDC311032F0606

Display I/O modules - 8 inputs, 4 relay outputs, 1 analog output

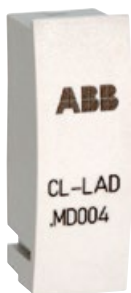
Rated operational voltage	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
24 V DC		CL-LDR.17DC2	1SVR 440 851 R2000		0.17/0.38	1

Display I/O module - 8 inputs, 4 transistor outputs

Rated operational voltage	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
24 V DC		CL-LDT.16DC2	1SVR 440 851 R1000		0.14/0.30	1

Display I/O module - 8 inputs, 4 transistor outputs, 1 analog output

Rated operational voltage	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
24 V DC		CL-LDT.17DC2	1SVR 440 851 R3000		0.14/0.30	1



CL-LAD.MD004

2CDC311018F0607

Accessories for display system

Memory module for display base modules

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Memory size: 256 kB		CL-LAD.MD004	1SVR 440 899 R7000		0.02/0.03	1

Connecting cable with serial interface to connect PC and display base module

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Length: 2 m		CL-LAD.TK001	1SVR 440 899 R6000		0.11/0.23	1



CL-LAD.TK009

2CDC311021F0607

Connecting cable with USB interface to connect PC and display base module

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Length:		CL-LAD.TK011	1SVR 440 899 R6700			1

Network cable (CL-NET) to connect 2 display base modules

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Length: 0.3 m		CL-LAD.TK002	1SVR 440 899 R6100		0.05/0.12	1
Length: 0.8 m		CL-LAD.TK003	1SVR 440 899 R6200		0.07/0.14	1
Length: 1.5 m		CL-LAD.TK004	1SVR 440 899 R6300		0.08/0.18	1

Connecting cable for point-to-point connection of remote display connection modules and display base module

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Length: 5 m, adaptable		CL-LAD.TK005	1SVR 440 899 R6400		0.20/0.44	1

Control and automation

CL logic relays, display system

Connecting cable for point-to-point connection of 2 display base modules, length adaptable						
Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
Length: 5 m		CL-LAD.TK006	1SVR 440 899 R6500		0.12/0.26	1

Termination resistor						
Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
content: 2 pieces		CL-LAD.TK009	1SVR 440 899 R6900		0.01/0.02	1

Protective covers, transparent						
Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
for harsh environmental conditions and application in the food industry		CL-LAD.FD001	1SVR 440 899 R1000		0.03/0.07	1
sealable		CL-LAD.FD011	1SVR 440 899 R2000		0.03/0.07	1

Assembly tool for mounting of display modules						
Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
-		CL-LAD.FD002	1SVR 440 899 R3000			1

Control and automation

E 450 priority switches



E 450

2CSC000457F0201

Technical characteristics		
	E 451-5.7	E 452-5.7
Operating coil		
Range of rated current equivalent to	6.7 ... 39 A correlates 1.5 ... 9 kW at 230 V, 4.6 ... 27 kW at 230/400 V	
Threshold current	3.1 ... 5.3 A	
OFF delay (max.)	0 main half waves	2 main half waves
Max. continuous current	43 A	
Therm. continuous capacity at 40 °C/104 °F	5 W	
Contact assembly		
Control contact	1 NC contact	
Rated contact current at 250 V	1 A	
Contact material	solid silver	
Max. switching voltage	400 V	
Max. switching capacity	230 VA	
Max. switched current	1 A	
Max. inrush current peak	5 A	
Electr. service life	> 10 ⁵ operations	
Mechanical service life	app. 2 x 10 ⁶ operations	
Max. electrical switching rate	app. 1800 operations/hour	
ON duration	100 %	
Ambient temperature	- 20 °C/- 4 °F to + 40 °C/104 °F	
Response time	10 ... 20 ms	
Release time	5 ... 20 ms	≥ 20 ms
Test voltage contact/coil	2.5 kV	
Clearance and creepage distance	C/250 V AC cording to IEC 669-1-23	
Degree of protection	IP 40	
Protection against electric shock	according to DIN VDE 0106 Part 100 (BGV A2)	
Terminal contact	series coil up to 16 mm ² , control contact up to 2.5 mm ²	

6

E 450 priority switches

The priority switch is used in wiring systems where existing lead cross sections or the size of the power supply service box do not allow for simultaneous operation of two powerful loads (e.g. storage heating and flow-type heater).

The priority switch disconnects the long-term load (storage heating) for as long as the short-term consumer (flow-type heater) is switched on.

The coil of the priority switch is connected in series to the short-term load. When this load is switched on, the NC contact of the priority switch disconnects e.g. the heating system contactor.

For pneumatically controlled flow-type heaters							
Rated current range	Power loss	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	W	EAN	Type code	Order code		kg	pc.
6,7 ... 39 A	2.4	41590 3	E 451- 5.7 A	2CDE160000R0901		0.1	10

For electronically controlled flow-type heaters							
Rated current range	Power loss	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	W	EAN	Type code	Order code		kg	pc.
6.7 ... 39 A	2.4	20950 2	E 452-5.7 A	2CDE160010R0901		0.1	10

Control and automation

RAL overload relays



RAL

Technical characteristics		RAL3	RAL6
Rated voltage Un	[V]	a.c. 230	
Rated current In	[A]	18.3	27.5
Rated contact capacity In	[A]	12 cosφ=1; 4 cosφ=0.8	
Rated frequency	[Hz]	50	
Adjustment ranges	[A]	0 ...18.3	0...27.5
Power consumption	[W]	10	
Modules	[No.]	2	
Intervention delay		instantaneous	

RAL overload relays

Installed downstream of the main circuit-breaker in a single-phase system, they constantly compare the actual power consumption to the preset threshold. An acoustic alarm alerts that some appliances must be switched off to avoid tripping the main circuit-breaker whenever the preset threshold is exceeded. The device calibration is 3 kW.

RAL built in relay output contact allows the following functions to be implemented:

- remote signalling (acoustic or lighting)
 - opening a divisional circuit-breaker to disable a non essential electrical appliance.
- Function b) allows one or more appliances to be automatically switched off in order to keep the power consumption within the preset limit and avoid unwanted tripping of the current-limiting device installed outside the home (e.g. in the basement). RAL must be reset manually.

Adjustable range	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	8012542	Type code	Order code			
kW	EAN				kg	pc.
0/3	400509	RAL 3	2CSM111200R1301		0.200	1
0/6	400608	RAL 6	2CSM121200R1301		0.200	1

Where to find more:

Load release technical details for RAL: Chapter 6 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

Control and automation

LSS1/2 load shedding switch



LSS1/2

2CSC00611F0201

Technical characteristics

Rated voltage Un	[V]	a.c. 230
Rated capacity In	[A]	90
Rated contact capacity In	[A]	16 each
NPL1 and NPL2		(terminals 12 and 14)
Rated frequency	[Hz]	50/60
Regulating thresholds	[A]	5...30 10...60 15...90
Load reinsertion delay		5-7 min. (NPL1); 4-5, 50 min. (NPL2)
Load disinsertion delay		about 2 sec.
Indicators		1 green LED = supply voltage available 2 red LEDs = loads switched off
Load OFF remote signalling	[A]	1 (terminals 11 and 13)
Terminals	Primary load	35 mm ²
	Non priority loads	10 mm ²
Power consumption	[W]	5
Modules	[No.]	5

LSS1/2 load shedding switch

Installed downstream of the main circuit-breaker, it compares the actual power consumption of the system to a preset maximum permitted value, and prevents tripping of the main circuit-breaker by sequentially switching off a maximum of two non-priority loads (NPL1 and NPL2) when the preset threshold is exceeded. A green LED indicates the presence of the supply voltage, and two red LEDs indicate the load OFF conditions. At preset time intervals, the device automatically attempts to reconnect the previously disabled loads.

Note: In unbalanced three-phase systems same function of LSS1/2 can be implemented via DMTME multimeters. Digital outputs of the multimeter can be set to trip with an user defined delay to switch off - by means of external contactors - non priority loads of arbitrary consumption. See for details in Chapter 7 of Solutions for electrical installation in buildings - Technical details.

	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	274407	LSS1/2	2CSM112500R1311		0.400	1

Where to find more:

Load release technical details for LSS1/2: Chapter 6 of Solutions for electrical installation in buildings - technical details

Worldwide marks and approvals of MDRCs - chapter 15

You can find all ABB instruction manuals on www.abb.com/abblibrary/download-center

Control and automation

E 235 mains disconnection relays



E 235

Technical features	
Short circuit rupturing capacity	16 A/230 V a.c.
Rated frequency	50/60 Hz
Range of control voltage	0.9 to 1.1 Un
Load of filament lamps	2300 W
Fluorescent lamp load:	
twin lamp circuit	100 W
shunt compensated	56 W
electronic ballast	max. 36 W, dependent on manufacturer
Induce load	6 A $\cos\phi = 0.6$
Max. switching capacity ($\cos\phi 0.5$)	3500 VA
Intrinsic consumption ca.	1 W
Control voltage	5 V a.c.
Adjustable making capacity	2 - 15 VA
Breaking capacity	0.66 x making capacity
ON delay	50 ms
OFF delay	ca. 3 sec.
Contact assembly	1 NO contact
Service life at rated load	> 100000 switching cycles
Ambient temperature	- 10 °C/14 °F to +45 °C/113 °F
Connection capacity (clamping terminal)	max 2.5 mm ²



E 235-NFS

2CSC40046FR0201



E 235-GLE

2CSC40046FR0201

E 235 Mains disconnection relay

Application and method of operation

According to building biologists, electrical interference fields emitted from live cables can impair well-being when the human organism is exposed to them for longer periods, e.g. in the bedroom. The E 235 demand switch automatically cuts off the mains voltage of an electric circuit when the last consumer in that circuit has been switched off. When the first consumer is switched on, the device switches the mains voltage back on with almost no delay. A low voltage of approx. 3 V is used to monitor whether consumers are switched on. As alternating voltage is used for this, it is virtually certain that even small consumer units with a capacitor and transformer power pack - e.g. charging stations for rechargeable devices, standard lamps, etc. - will be reliably detected and switched. Interference fields emitted by the monitoring voltage are so small that they cannot be registered. The mains is switched on when the consumer load exceeds the making capacity set in the demand switch. It is cut off when the consumer load falls to 2/3 of the set making capacity. The ON state is indicated by the integrated LED. You can choose between „Automatic monitoring“ and „Permanent ON“ using a rotary switch on the E 235.

Accessories

The E 235-GLA base load adapter is also available, and is used for switching the demand switch on manually. The adapter is plugged into a socket that is monitored by the demand switch. The toggle switch switches the base load, which is used to switch on the demand switch.

Some consumers require an initial voltage equal to the mains voltage in order to be switched on. These include brightness controllers, and fluorescent and energy-saving lamps. The PTC base load element E 235-GLE and base load adapter E 235-GLA are available for ensuring reliable switch-on of the mains field relay. The indicator light on the adapter displays the switched on mains voltage, irrespective of the position of the toggle switch. It tells you whether the mains voltage has been cut off or whether other consumers are still switched on. If you wish to connect a dimmer to the output of the demand switch, this must feature an additional switching contact. A base load element is also switched in parallel.

Description	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
mains disconnection relay	571821	E 235-NFS	2CDE110000R1701		0.065	1
base load element	571814	E 235-GLE	2CDE100500R1711		0.001	1
base load adapter	571869	E 235-GLA	2CDE100510R1711		0.070	1

Control and automation

LEE 230 extractable power failure signalling lamp



LEE-230

2CSC400265F0201

Technical characteristics		
2P 10 A plug		distance between pins 19 mm, pin ø 4 mm
Supply	[V]	230 a.c., 50-60 Hz
Recharge time	[h]	24
Endurance	[h]	3
Lighting level	[mcd]	3000
Operating temperature	[°C]	0...+45
Min. life cycle		5 years (battery)

Additional technical features

LEE-230 lamp automatically switches on when the voltage fails; the built-in rechargeable battery guarantees the supply.

It is particularly useful thanks to its construction and functional characteristics:

- it can be extracted from the socket and used as a torch with ON-OFF button on its frontal side
- when necessary it can work with standard sockets
- it can be moved when it is needed
- it has a long operation endurance, up to three hours
- it is ready to use, it does not require installation
- with a screw (ø 3.5 mm, L 16 mm) it is possible to fix it preventing the extraction from the M1173 ABB sockets with central hole
- the projecting part of the Schuko profile is very small (8 mm).

The two LEDs placed on the frontal side of the lamp indicate its operation condition:

- the red LED indicates the recharge activity and that, in the case of a network voltage back-out, the lamp will remain off
- the green LED indicates the recharge activity and that, in the case of a network voltage black-out, the lamp will switch on (it will automatically switch off when the voltage returns).

By pushing the frontal pushbutton it is possible to change the status; if you do not use the lamp for a prolonged time it is suggested to set the first condition in order to preserve the battery life.

LEE 230 extractable power failure signalling lamp

The LEE 230 lamp is an automatic electronic lamp that can be installed in any modular socket or wiring accessory socket conforming to the German VDE Schuko standard (e.g. ABB M1173 or M1175), to the Italian standard P11 10A, or to the 10/16 A Italian dual standard.

The device functions both as a power failure signalling lamp and as a lighting device, to be used for example during maintenance activities or when seeking faults in the panel.

Pack	Bbn	Order details		Price	Weight	Pack
	8012542	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
Blister	507406	LEE-230	2CSCM111000R1361		0.100	1

Where to find more:

Worldwide marks and approvals of MDRCS - chapter 15

Control and automation

USB Modular DIN rail device



1CSC400050F0013

MeMo4

USB Modular DIN rail device

Function: Modular DIN rail device to store electronic information, files and applications. All the data required will be available in the switchboard. No supply is required.

ATTENTION!

MeMo4 is available with USB port (USB cable not included).

Description	Storage	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
		8012542	Type code	Order code			
Modular data memory	4 GB	EAN 144656	MeMo4	2CSS200960R0002		0.200	kg 1



1CSC400051F0013

MeMo4

Solutions for electrical installation in buildings

Energy efficiency

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M2M. The measure of efficiency

Measurement and advanced analysis of electrical parameters

Easy fixing system with clips which ensure the device is held reliably on the front-panel.

Multi-voltage auxiliary power supply range, from 24 V DC to 230 V AC

Real time display of energy consumption also in Euros and kg CO₂



Multilingual backlit display with two lines of scrolling text to guide and help the user in reading data and programming.

Communication without limits thanks to the availability of different protocols for any types of network

Reduced depth: only 57 mm inside the panel.

Intuitive and easy-to-use front keypad for navigating in the menu and configuring the device.



The fixing system allows the device to be installed safely and reliably on the panel, not only upon installation but also during the working period when the unit is subject to vibrations and temperature fluctuations.



The removable terminals, accessible from three sides, along with wiring parallel to the panel guarantee ease of installation. The screw fastenings of the amperometric measurement circuits offer reliability and precision. The network analyser performs constant verification of correct wiring thanks to its autodiagnostic function, signalling any operating errors.



With the M2M analyser it is possible to keep the electrical consumption of all types of system under control, measuring them in real time both in economic and environmental impact terms, thanks to the immediate conversion into Euros and CO₂ kg.



All the information gathered by the M2M analyzer can be transmitted quickly to remote locations through specific communication interfaces – RS485, RJ45 - with the support of numerous protocols including Modbus RTU, Modbus TCP/IP and Profibus DP. Interaction with the control and supervision systems is possible via digital inputs and digital, relay or analogue outputs, all programmable.



The reduced depth of only 57 mm inside the panel makes the analyser ideal for installation even in switchboard with reduced space. At only 96 mm x 96 mm x 77 mm it still contains everything necessary to measure power quality parameters in real time.



Advanced functionalities to optimise consumptions like monitoring of absorbed power by measuring maximum demand to avoid paying penalties to the electricity distributor, bidirectional reading to display the amount of produced and consumed energy and verification of energy quality through THD measurement.

Energy efficiency

DMTME, M2M and ANR selection table

	Modular and front panel multimeters			Front panel network analysers	
					
	DMTME	DMTME-72	DMTME-96	M2M	ANR96
Overall dimensions	6 DIN modules	72x72x90	96x96x103	96x96x77	96x96x130
Display	LED			LCD backlit	LCD graphic backlit
Power supply	110 V a.c. 230 V a.c.	230 V a.c. 400 V a.c.	110 V a.c. 230 V a.c.	24-240 V a.c./d.c.	20-60 V a.c./d.c.
TRMS voltage	Electrical parameters measurement				
TRMS current					
Frequency					
Power factor					
Cosφ					
Active power					
Reactive power					
Apparent power					
Active energy					
Reactive energy					
Apparent energy					
Peak value Min/Max/Avg					
Timer and count-down					
Power 4Q					
Energy 4Q					
Current THD					
Voltage THD					
Password set up					
Neutral current				Energy management	
Tariff					
Maximum demand					
Harmonic analysis up to 31°					
Wave form visualisation					
Memory 1 MB	Digital			Digital Electromechanical relays Analogue	Digital
Outputs					
Inputs	RS485			Digital	
Serial port					
Protocols				Modbus RTU	

Energy efficiency M2M network analyser



M2M

Technical features

Auxiliary power supply

Voltage range	[V]	From 24 to 240 V AC/DC From 48 to 240 V AC/DC M2M I/O From 24 to 240 V DC and from 48 to 240 V AC M2M ETHERNET, M2M PROFIBUS
Frequency range	[Hz]	45 - 65
Protection fuse		T 0.5 A from 24 V to 100 V T 0.25 A from 100 V to 240 V
Power consumption	[VA]	7 max
Measurement type		Sampling TRMS

Measurement accuracy

Voltage		±0.5% F.S. ±1 digit
Current		±0.5% F.S. ±1 digit
Frequency		40.0 - 99.9 Hz: ± 0.2% ± 0,1 100 - 500 Hz: ± 0.2% ± 1
Power factor		± 1% ± 1 digit (from $\cos\phi = 0.3$ Inductive to $\cos\phi = 0.3$ Capacitive)
Active power		± 1% ± 0.1% F.S (from $\cos\phi = 0.3$ Inductive to $\cos\phi = 0.3$ Capacitive)
Active energy		Class 1

Measurement range

Voltage	[V]	From 10 to 500 V AC phase to neutral; From 17 to 865 V AC phase to phase. No decimal places.
Current		From 50 mA to 5 A TRMS 2 decimal places displayed
Frequency	[Hz]	From 40 to 500 1 decimal place displayed up to 99,9 and in integers above 100
Power factor		2 decimal places displayed

Installation

Distribution networks		Low and medium voltage Low voltage M2M LV, M2M LV MODBUS Single-phase connection Three-phase with neutral - Three-phase without neutral
Current inputs	[A]	Always use external CT Primary from 1 to 10,000 A AC approx. Secondary 5 A and 1 A AC approx. N.B.: in case of CT secondary at 1 A the accuracy class is reduced to 2.5% F.S. ±1 digit, in the range 5-100% F.S.
Voltage inputs	[V]	Direct insertion up to 500 AC approx. Indirect insertion with VT: Primary from 60 to 60,000 V AC approx - secondary from 60 to 190 V AC N.B.: In case of VT secondary at less than 100 V the accuracy class is reduced to 2.5% F.S. ±1 digit, in the range 5-100% F.S.
Protection fuse for voltage inputs	[A]	0.1
Data update frequency		2 times/second

Where to find more:

Technical details for M2M:
Chapter 7 of
Solutions for electrical installation in
buildings - technical details

You can find all ABB instruction
manuals on [www.abb.com/abblibrary/
download-center](http://www.abb.com/abblibrary/download-center)

Maybe you are also interested in:

Current and voltage transformers -
chapter 7
CUS serial converter - chapter 7

Energy efficiency

M2M network analyser

7

Harmonic distortion count	[Hz]	Band measurement up to 500
Energy measurement		
Single-phase maximum value counted		10 GWh / GVarh / GVAh
Three-phase maximum value counted		30 GWh / GVarh / GVAh
Energy balance maximum value counted		10 GWh / GVarh / GVAh with sign
Input pulses maximum energy value counted		40 GWh / GVarh
Terminal characteristics		
Current inputs		Cross section 6 mm ² - Step 6.35 mm
Voltage inputs		Cross section 2.5 mm ² - Step 7.62 mm
Impulsive outputs		Cross section 2.5 mm ² - Step 5.08 mm
RS485 Serial port		Cross section 2.5 mm ² - Step 5.08 mm
Relay outputs		Cross section 2.5 mm ² - Step 5.08 mm
Overall dimensions		96 mm x 96 mm x 77 mm (Depth inside switchboard: 57 mm)
Weight	[Kg]	0.400 max
Standards		
Overall dimensions		IEC 61554
Protection degree		IEC 60529
Accuracy class		IEC 60688, IEC 61326-1, IEC 62053-21 , IEC 62053-23, IEC 62053-31.
Electrical safety		IEC 61010-1
User interface		
Display		Scrolling text in user-selectable language
Display type		LCD with backlighting which can be set by user
Display dimensions	[mm]	72x57
Communication interface		
RS485 (M2M MODBUS, M2M LV MODBUS, M2M ALARM, M2M I/O)		
- Protocol		Modbus RTU
- Electrical standard		RS485 with optical isolation
- Baud rate		4.8, 9.6, 19.2 kbps
- Parity number		Odd, Even, None
- Stop bit		1, 2
- Address		1-247
- Connectors		4-pole terminal (integrated 120 Ohm termination)
Profibus (M2M PROFIBUS)		
- Protocol		Profibus with slave DP-V0 function in compliance with IEC 61158 regulations
- Electrical standard		RS485 with optical isolation
- Baud rate		Automatic detection [9.6 - 12 Mbps]
- LED indicators		Green for communication status and Red for communication error
- Address		0-126
- Connectors		DB 9 female connector (do not use connectors with 90° cable outlet)
Ethernet (M2M ETHERNET)		
- Protocol		Modbus TCP/IP
- Connectors		RJ45

Where to find more:

Technical details for M2M:
Chapter 7 of
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Digital output programmed as pulse		
Contact supply external voltage	[V]	48 max (peak AC/DC)
Maximum current	[mA]	100 (peak AC/DC)
Pulse duration	[ms]	50 OFF (min) / 50 ON closed contact
Pulse frequency		10 pulses/s (max)
Digital output programmed as alarm		
Contact supply external voltage	[V]	48 max (peak AC/DC)
Maximum current	[mA]	100 (peak AC/DC)
Alarm activation delay	[s]	1 - 900 s (programmable)
Alarm return hysteresis		0 - 40% (programmable)
Relay output (M2M ALARM)		
Normal current	[A]	16 AC1 - 3 AC15
Max. instantaneous current	[A]	30
Nominal voltage	[V]	250 V AC
Max. instantaneous voltage	[V]	400 V AC
Nominal load	[VA]	4000 AC1 - 750 AC15
Analogue output (M2M I/O)		
Programmable electrical parameters		Span [0 - 20 mA or 4 - 20 mA]
Load		Typical 250 Ohm, max 600 Ohm
Digital inputs (M2M I/O)		
Nominal voltage	[V]	24 V DC (absorption = 13 mA)
Maximum voltage	[V]	32 V DC (absorption = 22 mA)
Max. voltage for OFF status	[V]	8 V DC
Min. voltage for ON status	[V]	18 V DC
Hour counters		
Countdown timer		Countdown of system operating time with the activation of a programmable threshold on total current. Upon expiry of the maintenance period set an icon will appear on the display.
Count-up timer		Operational time of device
Climatic conditions		
Storage	[°C]	from -10 to +60
Operation	[°C]	from -5 to +55
Relative humidity		Max 93% (non-condensing) at 40°C
Protection degree		
Frontal		IP54
At terminals		IP25

Energy efficiency

M2M network analyser



M2M

The new M2M network analyser has advanced analysis functions which allow effective measurement of the main single-phase or three-phase electrical parameters: voltage, current, frequency, power factor, active and reactive power, active and reactive energy. Fitted to low- and medium-voltage electrical panels (except for LV versions, suitable only for low voltage applications), the new analyser allows the measurement and analysis in real time of electrical parameters, also verifying the quality of the energy thanks to THD measurement.

M2M keeps the system's consumption under control, giving figures in CO₂ kg and Euros to ensure more efficient and rational use of energy. Bidirectional metering of energy and power on the 4 quadrants allows both production and consumption of energy to be monitored with a single device.

Aside from optimising the use of loads, real time measurement contributes to containing both environmental and budgetary impact.

All information gathered by the analyser can be transmitted quickly to remote locations through specific communication interfaces (RS485, RJ45), with the support of numerous protocols including Modbus RTU, Modbus TCP/IP and Profibus DP.

For interaction with control and supervision systems are available digital pulse outputs to remotely control active and reactive energy consumption, digital outputs programmable as threshold alarms with activation delay and return hysteresis, relay outputs with nominal current up to 16 A, and analogue outputs with programmable span (0 - 20 mA or 4 - 20 mA) for re-moting status and events. Digital inputs allow pulse acquisition from other energy counters or users.

Communication protocol and interface	2 relay outputs	3 digital inputs, 2 analogue outputs	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			EAN	Type code	Order code			
			998839	M2M	2CSG299883R4052		0.300	1
Modbus RTU RS485			998938	M2M MODBUS	2CSG299893R4052		0.350	1
Ethernet RJ45			999034	M2M ETHERNET	2CSG299903R4052		0.400	1
Profibus RS485			999133	M2M PROFIBUS	2CSG299913R4052		0.400	1
Modbus RTU RS485	■		999232	M2M ALARM	2CSG299923R4052		0.400	1
Modbus RTU RS485		■	999331	M2M I/O	2CSG299933R4052		0.400	1
			999430	M2M LV	2CSG299943R4052		0.300	1
Modbus RTU RS485			969921	M2M LV MODBUS	2CSG296992R4052		0.350	1

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Energy efficiency

ANR network analyser



ANR

Technical features

Dimensions

Overall dimensions	[mm]	96 x 96 x 130	IEC 61554
Max cable section	[mm ²]	2.5	
Protection degree		IP52 on front - IP20 on terminal	EN 60529
Weight	[g]	430	

Display

Graphic LCD		Backlit 128 x 128 pixel graphic LCD display	
Display dimensions	[mm]	ANR96: 50 x 50	

Voltage (TRMS)

Direct measurement	[V]	10-600 Vrms between phase-phase.	
Ratio transformer range kVT	[V]	0.01 - 5,000.00	
Max over voltage	[V]	750, beyond this value must use VT	
Consumption	[VA]	0.2	
Input resistor	[MW]	>2	

Current (TRMS). always use external CT .../5A

3 isolated inputs	[A]	0.01 - 5	
Min current value	[mA]	10	
Consumption	[VA]	0.2	
Max over current	[A]	10 (100 A for 1 second)	
Ratio transformer range kCT		0.01 - 5,000.00	

THD

Voltage and current		Up to 31st harmonic	
---------------------	--	---------------------	--

Frequency

Range	[Hz]	30 - 500	
-------	------	----------	--

Accuracy class

Current	[%]	<0.5	
Voltage	[%]	<0.5	
Power	[%]	<1	
Power factor	[%]	<1	
Active energy	[%]	<1	IEC 62052-11
			IEC 62053-11
Reactive energy	[%]	2	IEC 62053-23

Auxiliary supply

ANR96-230, ANR96P-230, ANR96LAN-230, ANR96PRF-230, ANR96- 230 02	[V]	85 ±265 a.c./d.c.	
ANR96-24, ANR96P-24, ANR96LAN-230, ANR96PRF-230, ANR96- 230 02	[V]	20 ÷ 60 a.c./d.c.	
Internal fuse		5x20 mm 315 mA 250 V Fast	
Frequency	[Hz]	50-60	

Operating environment

Operating temperature	[°C]	-10 ÷ +50	
Storage temperature	[°C]	-15 ÷ +70	
Operating humidity	[°C]	90% without condensation	

Insulation

Voltage insulation		3,700 V a.c. rms for 1 minute	
--------------------	--	-------------------------------	--

Remote communication

RS485, RJ45			
Baud rate	[bps]	1,200 - 19,200	
Protocols		Modbus RTU, ASCII, Modbus TCP/IP, Profibus DP	

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Energy efficiency

ANR network analyser

Internal memory		
For ANR96	[kbytes]	128 (usable: 80)
For ANR96P	[Mbytes]	1
Memory		Non-volatile data storage using internal battery
Data retention		5 years at 25 °C
Internal clock		
RTC clock		IEC 61038
Class of accuracy	[ppm]	5
Digital output		
Connection area	[mm ²]	0 ÷ 2.5
External pulse voltage	[V]	12 ÷ 230 V a.c./d.c.
Max current	[mA]	150
Digital input		
Voltage	[V]	12 - 24 d.c.

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ANR96

2CSG400753F0001

ANR Network analyser

In highly demanding applications, where the need is to monitor not only the electrical parameters of the network, but also the network quality, ABB has in its range of front-panel devices the ANR network analysers - measuring instruments that permit advanced analysis of single- and three-phase electrical distribution networks.

In particular, the ANR devices are able to measure and also record network parameters and alarms, associating them to a time-stamp for the retrieval of load profiles and exact time and date of occurrence of pre-programmed events; it finally allows routing data towards supervision and monitoring systems.

It also works as panel manager thanks to its digital inputs; the latter allows to have in a central unit the information about more devices like breakers, fuses and energy meters which convey to it the information about their status, alarms and energy pulses (whether equipped with output relays).

Available in 96 x 96 mm front-panel format, ANRs are equipped with a backlit graphic LCD display, allowing clear and immediate readings even in unlighted environments.

The ANR analysers measure TRMS current, TRMS voltage, frequency and temperature of the connected phases; they calculate concatenate voltages and three-phase system voltage and current, power factor and $\cos\phi$, apparent, active and reactive power, THD total harmonic distortion up to the 31st harmonic, and measure active energy consumed and produced. All codes have built-in communication features allowing remote communication via Modbus RTU, Modbus TCP/IP and Profibus DP.

All the parameters can be stored in the 128 kbyte internal memory, expanded to 1 Mbyte in the ANR96P version. All the measures can be stored in the internal memory; the amount of information that can be stored is further specified in the specific manual.

The devices come with the calibration certificate of the specific S/N and a mini-CD containing:

- Instruction manual
- Technical datasheet
- SW-01 software for managing the recorded data: the software can be used as first-hand tool to retrieve and record the measures, to set alarms and to create load profile.

For more detailed information about its features and use, refer to the software's manual.

All ANR versions have 2 programmable digital outputs and RS485/RS232 serial port.

ANR96PRF models have built-in Profibus DP protocol. ANR96LAN models have built-in Modbus TCP/IP protocol and RJ45 port. ANR96 02 models have improved 0,2% accuracy class of measures.

Auxiliary supply	Program. display input	Storage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
V a.c./d.c.			EAN	Type code	Order code		kg	pc.
20÷60	2	128 Kb	943402	ANR96-24	2CSG113000R4051		0.430	1
85÷265	2	128 Kb	943501	ANR96-230	2CSG213000R4051		0.430	1
20÷60	4	1 Mb	943600	ANR96P-24	2CSG123000R4051		0.430	1
85÷265	4	1 Mb	943709	ANR96P-230	2CSG223000R4051		0.430	1
20÷60	2	128 kb	583332	ANR96PRF-24	2CSG258333R4051		0.430	1
85÷265	2	128 kb	571537	ANR96PRF-230	2CSG257153R4051		0.430	1
20÷60	2	128 kb	772538	ANR96LAN-24	2CSG277253R4051		0.430	1
85÷265	2	128 kb	770336	ANR96LAN-230	2CSG277033R4051		0.430	1
20÷60	2	128 kb	573838	ANR96-24 02	2CSG257383R4051		0.430	1
85÷265	2	128 kb	562030	ANR96-230 02	2CSG256203R4051		0.430	1

Energy efficiency

DMTME multimeters



DMTME

Technical characteristics

Auxiliary supply	[V rms]	230 +15% - 10%	DMTME, DMTME-72 and DMTME-96
[V rms]		400 +15% - 10%	DMTME-72
[V rms]		115 +15% - 10%	DMTME, DMTME-96
Frequency	[Hz]	45...65	
Power consumption	[VA]	<6	
Fuse protection		T0.1A	

Voltage measuring inputs

Range	[V rms]	From 10 to 500 V AC phase to neutral; From 17 to 865 V AC phase to phase.
Max. non destructive	[V rms]	550
Impedance (L-N)	[MΩ]	>8

Current measuring inputs (only external CTs .../5 A)

Range	[A rms]	0.05...5
Overload		1.1 permanent

Measurement accuracy

Voltage		±0.5% F.S. ±1 digit in range
Current		±0.5% F.S. ±1 digit in range
Active power		±1% ±0.1% F.S. from $\cos\phi = 0.3$ to $\cos\phi = -0.3$
Frequency		±0.2% ±0.1Hz from 40.0 to 99.9 Hz ±0.2% ±1Hz from 100 to 500 Hz

Energy metering

Maximum metered value for single phase		4,294.9 MWh (MVarh) with $K_A = K_V = 1$
Maximum metered value for three phase		4,294.9 MWh (MVarh) with $K_A = K_V = 1$
Accuracy		Class 1
Max. power consumption	[VA]	1.4 for each input (with $I_{max} = 5A$ rms)

Digital outputs

Pulse duration		50 ms OFF (min)/ 50 ms ON
Vmax on contact		48 V (d.c. or a.c. peak)
Wmax dissipation		450 mW
Max frequency		10 pulses/sec
I _{max} contact		100 mA (d.c. or a.c. peak value)
Insulation		750 Vmax

Programmable parameters

kVT transformer ratio V_{prim}/V_{sec}		1...500	
kCT transformer ratio I_{prim}/I_{sec}		1...1,250	
Free hour counter	[h]	0...10,000,000, resettable	
Countdown	[h]	1...32,000	
Operating temperature	[°C]	0...+50	
Storage temperature	[°C]	-10...+60	
Relative humidity		90% max. (non condensing) at 40°C	
Overall dimensions	[mm]	105x90x58	DMTME
	[mm]	96x96x103	DMTME-96
	[mm]	72x72x90	DMTME-72

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DMTME

2CSG400759F0001



DMTME-96

2CSG400751F0001



DMTME-72

2CSG400759F0001

DMTME multimeters

The instruments DMTME are digital multimeters that allow the measurement, in TRMS mode, of the principal electrical parameters in three-phase and single-phase 110/230/400 Vac networks, including the max/min/average detection of the main electrical parameters and the active and reactive energy count. The multiple measured variables are displayed locally on four red 7-segment LED displays providing easy readability and simultaneous display of the measures of the electrical parameters of the phases individually and of the whole network.

The instruments DMTME combine, in a single instrument, the functions of multiple devices: voltmeter, ammeter, power factor meter, wattmeter, varmeter, frequency meter, active and reactive energy meters; it allows remarkable financial savings thanks to the reduction of space taken up in the panel and also of time required for cabling, along with the advantage of providing clear readings on a single device.

The DMTME-I-485, DMTME-I-485-96 and DMTME-I-485-72 models are additionally equipped with two digital relays, fully programmable as either pulse outputs for remote metering of energy consumption, or as alarm outputs. The output relay can be set as NO or NC.

There is also an RS485 port for communicating the measured parameters and alarms over Modbus network. Used in addition to a converter of the CUS series, it allows direct connection to a central PC for remote supervision and control of the electrical network.

All versions come complete with Mini CD containing the instruction manual, technical documentation, Modbus communication protocol and the DMTME-SW tool, intended to be a first-hand PC-based application for the remote visualization of the measures.

DMTME modular multimeters

TRMS measure of VL-L, VL-N, A, W, Var, VA, kWh, kVar, PF in 230/400 V a.c. lines. Indirect connection through CT .../5 A. Auxiliary supply at 110 V a.c. and 230 V a.c.

Auxiliary supply	RS485 serial port	Program. digital output	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
V a.c.			EAN	Type code	Order code		kg	pc.
110-230	-	-	975700	DMTME	2CSM170040R1021		0.450	1
110-230	■	2	975809	DMTME-I-485	2CSM180050R1021		0.450	1

DMTME-96 panel multimeters

Auxiliary supply 230 V a.c. and 110 V a.c.

RS485 serial port	Program. digital output	Dimansions	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
-	-	96x96	046752	DMTME-96	2CSG133030R4022		0.450	1
■	2	96x96	046851	DMTME-I-485-96	2CSG163030R4022		0.450	1

DMTME-72 panel multimeters

Auxiliary supply 230 V a.c. and 400 V a.c.

RS485 serial port	Program. digital output	Dimansions	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
-	-	72x72	046554	DMTME-72	2CSG132030R4022		0.450	1
■	2	72x72	046653	DMTME-I-485-72	2CSG162030R4022		0.450	1

Energy efficiency

CUS serial converter



CSC4012BFC0202

CUS

Technical features CUS RS485/232

Supply voltage	[V]	230 V ac \pm 20%
Frequency	[Hz]	50-60
Power consumption	[VA]	7 max
Power loss	[W]	3.5
Fuse		500 mA internal
Supply terminal dimensions	[mm ²]	2.5 max
RS485-422 terminal dimensions	[mm ²]	2.5 max
RS232 connection		Sub-D 9 female poles (DB9)
Max RS232 line length	[m]	15
Max RS485-422 line length	[m]	1200
Connection of multidrop units		Max 32
Operating temperature	[°C]	-20...+60
Storage temperature	[°C]	-20...+80
Modules	[No.]	6

Technical features CUS 485 TCP/IP

Supply voltage	[V]	220-240 a.c. \pm 15%
Power consumption	[VA]	4 max
Ethernet		100 base -T, RJ45 connector, TCP/IP protocol
RS485 serial port		standard, baudrate from 4800 to 19200 bps
Display, buttons		3 LED (1 green: ON, 1 red: LINK, 1 yellow: DATA) programming button
Mechanical features		protection degree: IP52 front - IP20 case and terminals - weight: 0.40 kg, connections with screw terminal for cable max. 2.5 mm ² , self extinguishing plastic case, DIN rail mounting, 3 modules-17,5 mm each
Environmental features		operating temperature: -10 +60 °C, humidity <90% storage temperature: -25 +70 °C
Standards		IEC EN 50081-2
		IEC EN 50082-1
		IEC EN 61010-1



CUS

2CSC400128F0202

RS485 / RS232 serial converter

The CUS multifunction serial converter has applications in all those situations which require converting or managing EIA -232 (RS-232) , EIA-485 (RS-485) or EIA-422 (RS-422) serial lines. The communication links between devices that use these types of buses (for example PLCs, measurement and control instruments, peripherals and computers running specific software applications, etc.) often call for converting between different serial interfaces, amplifying the signal on the line, isolating different parts of the communication network, etc. These diverse application requirements are readily met by the CUS converter, thanks to its configurability and operational flexibility.

The CUS assures galvanically-isolated interface conversion between the RS-232 side, the RS422-485 side and the power supply source.

Its versatility permits following operating modes:

- Full duplex conversion of RS-232 to RS-422
- Half duplex conversion of RS-232 to single-pair RS-485
- Half duplex conversion of RS-232 to two-pair RS-485
- RS-485 repeater (and monitoring function on RS-232)

The principal applications are:

- Multipoint data transmission networks
- Long distance serial links
- Galvanic separation of peripherals
- Extension of RS-485 lines



CUS 485

2CSC400128F0202

CUS 485 TCP/IP converter

The CUS 485 TCP/IP converter allows the conversion of an RS485 serial communication port into a TCP/IP ethernet bus.

The CUS 485 TCP/IP converter acts as a bridge between Modbus/TCP/IP and Modbus/ASCII/RTU.

The serial port is linked to a device using Modbus/ASCII or Modbus/RTU communication or to a network of devices, while the ethernet port is linked to server/PC or PLC systems.

Server commands are sended via ethernet to CUS 485 TCP/IP that convert and send the commands to the slave device.

Version	Bbn	Order details		Price	Weight	Pack
	8012542	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
serial converter - signal repeater	333807	CUS	2CSM200000R1031		0.5	1
serial converter - LAN TCP/IP network	585633	CUS 485 TCP/IP	2CSG258563R4051		0.5	1

Electricity meters

The details make the difference

Infrared port for communication between communications adapter and meter

Seals for terminals

DIN-Rail mounted and pro M design



7

Pixel or Segment LCD back-lit display

Configurable for both 3 and 4 wire networks

MID approved and verified

Energy efficiency

Selection guide EQ meters

How do I select the best meter for my application?

There are many versions of EQ meters in order to meet your requests. The EQ program comprises meters with different functionalities such as tariffs, communication interfaces or advanced clock functions. Spend a little time to evaluate the functions and imagine how they could add extra value to your metering. For example, the input counter (from Silver level) on an EQ meter can be used to count products produced by a machine and be read out together with the energy consumption of the same machine. In one easy go you can allocate energy to any produced product from one source. Another useful function is previous values (from Gold level). If you charge users in intervals the meter can secure the data even in the event of a broken communication link. You can collect the correct interval data later and also make it visible for your counterpart immediately on the meters display in case of any discussions.

Make the meter to an asset.

Take the step from passive meter reading to an active user of the data you can retrieve. The meter can be an important asset for you in order to avoid costs like penalties or extra charge for reactive energy (from Bronze level). Keep track of your maximum demand and reduce them to avoid charges. EQ meters can tell you the value of the maximum/minimum demand and also when it occurred. Harmonics is the source of many problems for all sorts of equipment connected to the low voltage network. Use an EQ meter (Platinum level) to measure the THD and isolate the source before you have to take the cost and consequences of poor power quality.

Function	Single phase				Three phase				
	C11	B21	A41	A42	C13	B23	B24	A43	A44
Direct connected	1	1 3	1 2 3 4 5		1	1 2 3		1 2 3 4 5	
Transformer connected				1 2 3 4 5			1 2 3		1 2 3 4 5
2 element metering						1 2 3	1 2 3	2 3 4 5	1 2 3 4 5
3 element metering					1	1 2 3	1 2 3	1 2 3 4 5	1 2 3 4 5
Accuracy 1%, Class 1, Class B	1	1 3	1 2 3 4 5	1 2 3 4	1	1 2 3	1 2	1 2 3 4 5	1 2 3
Accuracy 0,5%, Class 0.5s, Class C				5			3		3 4 5
Active energy	1	1 3	1 2 3 4 5	1 2 3 4 5	1	1 2 3	1 2 3	1 2 3 4 5	1 2 3 4 5
Reactive energy		3	2 3 4 5	2 3 4 5		2 3	2 3	2 3 4 5	2 3 4 5
Apparent energy		3	2 3 4 5	2 3 4 5		2 3	2 3	2 3 4 5	2 3 4 5
Import/Export energy		3	2 3 4 5	2 3 4 5		2 3	2 3	2 3 4 5	2 3 4 5
Tariff registers, 1-4		3	3 4 5	3 4 5		3	3	3 4 5	3 4 5
Instrument values	1	1 3	1 2 3 4 5	1 2 3 4 5	1	1 2 3	1 2 3	1 2 3 4 5	1 2 3 4 5
Alarm function	1	1 3	1 2 3 4 5	1 2 3 4 5	1	1 2 3	1 2 3	1 2 3 4 5	1 2 3 4 5
Harmonics, 2th-16th and THD				5				5	5
Previous values - day, week, month			4 5	4 5				4 5	4 5
Max and min demand			4 5	4 5				4 5	4 5
Load profiles - 8 channels			5	5				5	5
Pulse output	1	1	1 2	1 2	1	1 2	1 2	1 2	1 2
I/O board - 2 in, 2 out		3	3 4	3 4		3	3	3 4	3 4
Configurable I/O - 4 I/O channels			5	5				5	5
Tariffs controlled by input		3	3 4 5	3 4 5		3	3	3 4 5	3 4 5
Tariffs controlled by communication		3	3 4 5	3 4 5		3	3	3 4 5	3 4 5
Tariffs controlled by clock			4 5	4 5				4 5	4 5
MID approved, verified	optional	1 3	1 2 3 4 5	1 2 3 4 5	optional	1 2 3	1 2 3	1 2 3 4 5	1 2 3 4 5
IEC approved	1	1 3	1 2 3 4 5	1 2 3 4 5	1	1 2 3	1 2 3	1 2 3 4 5	1 2 3 4 5
Communication - Infrared (M-Bus)		1 3	1 2 3 4 5	1 2 3 4 5		1 2 3	1 2 3	1 2 3 4 5	1 2 3 4 5
Communication - M-Bus		optional	optional	optional		optional	optional	optional	optional
Communication - RS-485 Modbus		optional	optional	optional		optional	optional	optional	optional
Communication - RS-485 EQ bus		optional	optional	optional		optional	optional	optional	optional

- 1 = Steel
- 2 = Bronze
- 3 = Silver
- 4 = Gold
- 5 = Platinum
- = Not available
- Optional = Available on some order codes

Energy efficiency

Energy meters selection table



	EQ meters C11	EQ meters C13	EQ meters B21	EQ meters B23	EQ meters B24				
Overall dimensions	1 DIN module	3 DIN modules	2 DIN modules	4 DIN modules					
Display	LCD		Backlit LCD						
Operating voltage	230 V AC	3x230/400 V AC	220...240 V AC	3x220/380...240/415 V AC					
Frequency	50 / 60 Hz								
Max current	40 A		65 A		6 A				
CTVT connection	Direct	Direct	Direct	Direct	CT				
Active energy	-								
Reactive energy						-	-	optional	
Apparent energy						-	-		
Accuracy	Cl. 1 (B)				Cl. 1 (B), Cl. 0,5 S (C)				
Up to 4 tariffs	-	-	Energy management (optional)						
Max/min demand	-	-	-	-	-				
Previous values	-	-	-	-	-				
Load profiles	-	-	-	-	-				
Alarm function	-								
Harmonic analysis	-	-	-	-	-				
Event log	-	-	-						
Active power	Instrumentation parameters								
Voltage									
Current									
Power factor									
Frequency	-	-	Instrumentation parameters						
Pulse output	-								
I/O	1 Output*		1 Output or 2 outputs/2 inputs (optional)						
Built-in serial communication	-	-	IR / M-Bus (optional) / RS-485 (optional)						
Protocols	-	-	M-Bus, Modbus RTU, EQ bus						

*) The pulse output can be assigned as an output if it is not used for pulses

**) For 16,7 Hz meters



EQ meters A41	EQ meters A42	EQ meters A43	EQ meters A44	EQ meters G13
4 DIN modules		7 DIN modules		4 DIN modules
Backlit Pixel (LCD)				No display
57.7...288 V AC	57.7...288 V AC	3x57.7/100 ... 288/500	3x57.7/100 ... 288/500 or 3x57.7/100 ... 400/690	100...240 V AC
50 / 60 Hz	50 / 60 Hz (or 16,7 / 50 / 60 Hz)		50 / 60 Hz	
80 A	6 A	80 A	6 A	-
Direct	CTVT	Direct	CTVT	-
optional				-
Cl. 1 (B)	Cl. 1 (B), Cl. 0,5 S (C)	Cl. 1 (B)	Cl.1 (B), Cl. 0,5 S (C)	-
Energy management (optional)				-
Energy management (optional)				-
Power quality (optional)				-
Instrumentation parameters				-
Instrumentation parameters (optional)				-
1 output or 2 outputs/2 inputs (optional) or 4 configurable inputs and outputs (optional)				-
IR / M-Bus (optional) / RS-485 (optional)				IR, RS-485, M-Bus, Ethernet
M-Bus, Modbus, EQ bus				HTTPS, EQ bus, M-Bus, JSON

Energy efficiency

EQ meters A series



A-series

Technical features	
	A41
Voltage/current inputs	
Nominal voltage	230 V AC
Voltage range	57.7 - 288 V AC (-20% - +15%)
Power dissipation voltage circuits	0.8 VA (0.8 W) total at 230 V AC
Power dissipation current circuits	0.007 VA (0.007 W) at I_{ref} and I_b
Base current I_b	5 A
Rated current I_n	-
Reference current I_{ref}	5 A
Transitional current I_{tr}	0.5 A
Maximum current I_{max}	80 A
Minimum current I_{min}	0.25 A
Starting current I_{st}	< 20 mA
Terminal wire area	1 - 25 mm ²
Recommended tightening torque	2 Nm
Communication	
Terminal wire area	0.5 - 1 mm ²
Recommended tightening torque	0.25 Nm
Transformer ratios	
Configurable current ratio (CT)	-
Configurable voltage ratio (VT)	-
Pulse indicator (LED)	
Pulse frequency	1000 imp/kWh
Pulse length	40 ms
Frequency	
Accuracy Class	B (Cl.1) and Reactive Cl. 2
Active energy	1%
Display of energy	Pixel oriented display (LCD)
Environmental	
Operating temperature	-40°C - +70°C
Storage temperature	-40°C - +85°C
Humidity	75% yearly average, 95% on 30 days/year
Resistance to fire and heat	Terminal 960°C, cover 650°C (IEC 60695-2-1)
Resistance to water and dust	IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529.
Mechanical environment	Class M2 in accordance with the Measuring Instrument Directive (MID). (2014/32/EU).
Electromagnetic environment	Class E2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU).

A42	A43	A44
57.7 - 288 or 100 ... 288 V AC (-20% - +15%)	3x230/400 V AC 3x57.7/100 ... 288/500 V AC (-20% - +15%)	3x57.7/100 ... 288/500 or 3x100/173 ... 400/690 V AC (-20% - +15%)
0.001 VA (0.001 W) at I_{ref} and I_n	0.007 VA (0.007 W) per phase at I_{ref} and I_b	0.001 VA (0.001 W) per phase at I_{ref} and I_n
-	5 A	-
1 A	-	1 A
1 A	5 A	1 A
0.05 A	0.5 A	0.05 A
6 A	80 A	6 A
0.02 A	0.25 A	0.01 A
< 1 mA	< 20 mA	< 1 mA
0.5 - 10 mm ²	1 - 25 mm ²	0.5 - 10 mm ²
1.2 Nm	2 Nm	1.2 Nm
		0.5 - 1 mm ² 0.25 Nm
1/9 - 9999/1	-	1/9 - 9999/1
1/999 - 999999/1	-	1/999 - 999999/1
5000 imp/kWh	1000 imp/kWh	5000 imp/kWh
40 ms		
50 or 60 Hz ± 5%		
B (Cl.1), C (Cl. 0,5 S) and Reactive Cl. 2	A (Cl.2), B (Cl.1) and Reactive Cl. 2	B (Cl.1), C (Cl. 0,5 S) and Reactive Cl. 2
0.5%, 1%	1%	0.5%, 1%
-40°C - +70°C		
-40°C - +85°C		
75% yearly average, 95% on 30 days/year		
Terminal 960°C, cover 650°C (IEC 60695-2-1)		
IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529.		
Class M2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU).		
Class E2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU).		

Energy efficiency

EQ meters A series

The A series meters ranges from single phase to three phase meters and from basic up to advanced functionality without any comparison. The A series meters are mounted on a DIN rail and are suitable for installation in distribution boards and small enclosures such as consumer units. With the main terminals in accordance with DIN 43857 and accessible from the below the meters, the A series is suitable for many applications.

The low rated or base currents of these products ensures high dynamic performance with superior accuracy even at low currents. The meters support a wide voltage range as well as a wide temperature range. The display is pixel-oriented and can display up to four quantities at the same time. Navigating the meter is easily done via the push-buttons below the display. To configure the meter settings, the set button must be accessed and this button is protected against unauthorized use when the "glass lid" on the front of the meter is closed and sealed. The exceptional low power consumption of the meters makes them economical in the long run - an important feature specially for large meter populations.

Data from the A series meters can be collected via pulse output or serial communication. The pulse output is a solid state relay that generates pulses proportionally to the measured energy. The meters can also be equipped with built-in serial communication interfaces for M-Bus or Modbus RTU (RS-485). Meters with RS-485 interface can also be set to communicate over the new EQ bus with the gateway G13. All meters in the A series come with an infrared port for communication with an external Serial Communication Adapter (SCA) such as the KNX adapter.

A series supports following instrumentation values dependent on version of meter:

- Active energy
- Apparent power
- Current
- Frequency
- Voltage
- Harmonics
- Power factor
- Total harmonic distortion
- Reactive power

A series meters with a functionality level of Gold or Platinum have an internal clock for advanced functionality:

- Event log
- Previous values
- Load profile
- Maximum and minimum demand

The tariffs are controlled via inputs, via communication or via an internal clock in Gold and Platinum versions.

The A series support up to four I/O's. It can be two inputs and two outputs in a fixed configuration or four I/O points that are freely configured to input or output. Inputs can be used for counting pulses from e.g. a water meter, or reading status from external devices. Outputs can be used as pulse outputs or controlling external apparatus like a contactor or an alarm (connected via an external relay). Outputs need an external voltage supply.

The A series meters are type approved according to IEC and they are both type approved and verified according to MID. MID is the Measuring Instruments Directive 2016 2014/32/EU from the European Commission. MID type approval and verification is mandatory for meters in billing applications within EU and EEA. The type approval is according to standards that covers all relevant technical aspects of the meter. These include climate conditions, electromagnetic compatibility (EMC), electrical requirements, mechanical requirements and accuracy.

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A series

Technical features

		A series
Outputs		
Current	2 - 100 mA	
Voltage	5 - 240 V AC/DC. For meters with only 1 output, 5 - 40 V DC.	
Pulse output frequency	Programmable: 1 - 999999 imp/kWh	
Pulse length	Programmable: 10 - 990 ms	
Terminal wire area	0.5 - 1 mm ²	
Recommended tightening torque	0.25 Nm	
EMC compatibility		
Impulse voltage test	6 kV 1.2/50 μs (IEC 60060-1)	
Surge voltage test	4 kV 1.2/50 μs (IEC 61000-4-5)	
Fast transient burn test	4 kV (IEC 61000-4-4)	
Immunity to electromagnetic HF-fields	80 MHz - 2 GHz at 10 V/m (IEC 61000-4-3)	
Immunity to conducted disturbance	150 kHz - 80 MHz, (IEC 61000-4-6)	
Immunity to disturbance with harmonics	2kHz - 150kHz	
Radio frequency emission	EN 55022, class B (CISPR22)	
Electrostatic discharge	15 kV (IEC 61000-4-2)	
Standards	EC 62052-11, IEC 62053-21 class 1 & 2, IEC 62053-22 class 0,5 S, IEC 62053-23 class 2, IEC 62054-21, GB/T 17215.211-2006, GBT 17215.321-2008 class 1 & 2, GB/T 17215.322-2008 class 0,5 S, GB 4208-2008, EN 50470-1, EN 50470-3 category A, B & C EQ meters.	
Mechanical		
Material	Polycarbonate in transparent front glass, bottom case, upper case and terminal cover, Glass reinforced polycarbonate in terminal block.	
Dimensions		A41 / A42 A43 / A44
Width	70 mm	123 mm
Height	97 mm	97 mm
Depth	65 mm	65 mm
DIN modules	4	7

Energy efficiency

EQ meters A series



A41

Direct connected electricity meter up to 80 A. Verified and approved according to MID. IEC approval. Instrument values. Alarm function. Communication - Infrared (M-Bus).
Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

EQ meters single phase electricity meter, 4 DIN with IR port, 80 A

Class B (Cl. 1) with functionality level Steel. Active energy

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696	Type code	Order code			
	EAN					
57.7...288 V AC, Pulse output	705547	A41 111 - 100	2CMA170554R1000		0.230	1
57.7...288 V AC, Pulse output, RS-485	705004	A41 112 - 100	2CMA170500R1000		0.230	1
57.7...288 V AC, Pulse output, M-Bus	002400	A41 113 - 100	2CMA100240R1000		0.230	1

Class 1 (Reactive Class 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff control via inputs and communication.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696	Type code	Order code			
	EAN					
57.7...288 V AC, 2 output, 2 input, RS-485	705035	A41 312 - 100	2CMA170503R1000		0.230	1
57.7...288 V AC, 2 output, 2 input. M-Bus	705042	A41 313 - 100	2CMA170504R1000		0.230	1

Class B (Cl. 1) (Reactive Cl. 2) with functionality level Gold. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock, previous values, max and min demand.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696	Type code	Order code			
	EAN					
57.7...288 V AC, 2 output, 2 input, RS-485	705059	A41 412 - 100	2CMA170505R1000		0.230	1

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A42

Transformer CTVT connected electricity meter up to 6 A. Verified and approved according to MID. IEC approval. Voltage V - 57...288 V AC. Instrument values. Alarm function. Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

EQ meters single phase electricity meter, 4 DIN with IR port, 6 A

Class B (Cl. 1) with functionality level Steel. Active energy

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	7392696	Type code	Order code			
	EAN				kg	pc.
57.7...288 V AC, Pulse output	705554	A42 111 - 100	2CMA170555R1000		0.200	1
57.7...288 V AC, Pulse output, RS-485	705103	A42 112 - 100	2CMA170510R1000		0.200	1
57.7...288 V AC, Pulse output, M-Bus	002424	A42 113 - 100	2CMA100242R1000		0.200	1

Class B (Cl. 1) (Reactive Cl. 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff control via inputs and communication.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	7392696	Type code	Order code			
	EAN				kg	pc.
57.7...288 V AC, 2 output, 2 input, RS-485	705127	A42 312 - 100	2CMA170512R1000		0.200	1

Class C (Cl. 0.5 S) (Reactive Cl. 2) with functionality level Platinum. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock, previous values, max and min demand, advanced load profiles, harmonics and THD.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	7392696	Type code	Order code			
	EAN				kg	pc.
57.7...288 V AC, Configurable 4 I/O channels, RS-485	002387	A42 552 - 100	2CMA100238R1000		0.200	1

Energy efficiency

EQ meters A series



A43

Direct connected electricity meter up to 80 A. Verified and approved according to MID. IEC approval. 2- and 3-element metering. Instrument values. Alarm function. Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

EQ meters three phase electricity meter, 7 DIN with IR port, 80 A

Class B (Cl. 1) with functionality level Steel. Active energy

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	7392696	Type code	Order code			
	EAN				kg	pc.
3 x 57.7/100...288/500 V AC, Pulse output	705202	A43 111 - 100	2CMA170520R1000		0.440	1
3 x 57.7/100...288/500 V AC, Pulse output, RS-485	002448	A43 112 - 100	2CMA100244R1000		0.440	1
3 x 57.7/100...288/500 V AC, Pulse output, M-Bus	002455	A43 113 - 100	2CMA100245R1000		0.440	1

Class B (Cl. 1) (Reactive Cl. 2) with functionality level Bronze. Active and reactive energy, import/export.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	7392696	Type code	Order code			
	EAN				kg	pc.
3 x 57.7/100...288/500 V AC, Pulse output, RS-485	705226	A43 212 - 100	2CMA170522R1000		0.440	1
3 x 57.7/100...288/500 V AC, Pulse output, M-Bus	705233	A43 213 - 100	2CMA170523R1000		0.440	1

Class B (Cl. 1) (Reactive Cl. 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff control via inputs and communication.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	7392696	Type code	Order code			
	EAN				kg	pc.
3 x 57.7/100...288/500 V AC, 2 output, 2 input, RS-485	705257	A43 312 - 100	2CMA170525R1000		0.440	1
3 x 57.7/100...288/500 V AC, 2 output, 2 input, M-Bus	705264	A43 313 - 100	2CMA170526R1000		0.440	1

Class B (Cl. 1) (Reactive Cl. 2) with functionality level Platinum. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock, previous values, max and min demand, advanced load profiles, harmonics and THD.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	7392696	Type code	Order code			
	EAN				kg	pc.
3 x 57.7/100...288/500 V AC, Configurable 4 I/O channels, RS-485	705318	A43 512 - 100	2CMA170531R1000		0.440	1
3 x 57.7/100...288/500 V AC, Configurable 4 I/O channels, M-Bus	705325	A43 513 - 100	2CMA170532R1000		0.440	1

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A44

Transformer CT/VT connected electricity meter up to 6 A. Verified and approved according to MID. IEC approval. 2- and 3-element metering. Instrument values. Alarm function. Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

EQ meters three phase electricity meter, 7 DIN with IR port, 6 A

Class B (Cl. 1) with functionality level Steel. Active energy

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696 EAN	Type code	Order code			
3 x 57.7/100...288/500 V AC, Pulse output	705332	A44 111 - 100	2CMA170533R1000		0.350	1
3 x 57.7/100...288/500 V AC, Pulse output, RS-485	002486	A44 112 - 100	2CMA100248R1000		0.350	1
3 x 57.7/100...288/500 V AC, Pulse output, M-Bus	002493	A44 113 - 100	2CMA100249R1000		0.350	1

Class B (Cl. 1) (Reactive Cl. 2) with functionality level Bronze. Active and reactive energy, import/export.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696 EAN	Type code	Order code			
3 x 57.7/100...288/500 V AC, Pulse output	000130	A44 211 - 100	2CMA100013R1000		0.350	1
3 x 57.7/100...288/500 V AC, Pulse output, RS-485	705349	A44 212 - 100	2CMA170534R1000		0.350	1
3 x 57.7/100...288/500 V AC, Pulse output, M-Bus	705356	A44 213 - 100	2CMA170535R1000		0.350	1

Class B (Cl. 1) (Reactive Cl. 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff control via inputs and communication.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696 EAN	Type code	Order code			
3 x 57.7/100...288/500 V AC, 2 output, 2 input	705363	A44 311 - 100	2CMA170536R1000		0.350	1

Class C (Cl. 0.5 S) (Reactive Cl. 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff control via inputs and communication.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696 EAN	Type code	Order code			
3 x 57.7/100...288/500 V AC, 2 output, 2 input, RS-485	705370	A44 352 - 100	2CMA170537R1000		0.350	1
3 x 57.7/100...288/500 V AC, 2 output, 2 input, M-Bus	705387	A44 353 - 100	2CMA170538R1000		0.350	1

Class C (Cl. 0.5 S) (Reactive Cl. 2) with functionality level Gold. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock, previous values, max and min demand.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696 EAN	Type code	Order code			
3 x 57.7/100...288/500 V AC, 2 output, 2 input, RS-485	705400	A44 452 - 100	2CMA170540R1000		0.350	1

Class C (Cl. 0.5 S) (Reactive Cl. 2) with functionality level Platinum. Active and reactive energy, import/export, tariffs 1-4, tariff controlled via inputs, communication or clock, previous values, max and min demand, advanced load profiles, harmonics and THD.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696 EAN	Type code	Order code			
3 x 57.7/100...288/500 V AC, Configurable 4 I/O channels, RS-485	705455	A44 552 - 100	2CMA170545R1000		0.350	1
3 x 57.7/100...288/500 V AC, Configurable 4 I/O channels, M-Bus	705462	A44 553 - 100	2CMA170546R1000		0.350	1
3 x 57.7/100...400/690 V AC, one I + one O channel, RS-485	705493	A44 552 - 110	2CMA170549R1000		0.350	1
3 x 57.7/100...400/690 V AC, one I + one O channel, M-Bus	705486	A44 553 - 110	2CMA170548R1000		0.350	1

Energy efficiency

EQ meters B series



B series

7

Technical features	
	B21
Voltage/current inputs	
Nominal voltage	230 V AC
Voltage range	220...240 VAC (-20% - +15%)
Power dissipation voltage circuits	0.9 VA (0,4 W) total at 230 V AC
Power dissipation current circuits	0.014 VA (0.014 W) at I_{ref} and I_b
Base current I_b	5 A
Rated current I_n	-
Reference current I_{ref}	5 A
Transitional current I_{tr}	0.5 A
Maximum current I_{max}	65 A
Minimum current I_{min}	0.25 A
Starting current I_{st}	< 20 mA
Terminal wire area	1 - 25 mm ²
Recommended tightening torque	2 Nm
Communication	
Terminal wire area	0.5 - 1 mm ²
Recommended tightening torque	0.25 Nm
Transformer ratios	
Configurable current ratio (CT)	-
Pulse indicator (LED)	
Pulse frequency	1000 imp/kWh
Pulse length	40 ms
General data	
Frequency	50 or 60 Hz ± 5%
Accuracy Class	B (Cl. 1) and Reactive Cl. 2
Active energy	1%
Display of energy	6 digit LCD
Environmental	
Operating temperature	-40°C - +70°C
Storage temperature	-40°C - +85°C
Humidity	75% yearly average, 95% on 30 days/year
Resistance to fire and heat	Terminal 960 °C, cover 650°C (IEC 60695-2-1)
Resistance to water and dust	IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529.
Mechanical environment	Class M2 in accordance with the Measuring Instrument Directive (MID). (2014/32/EU).
Electromagnetic environment	Class E2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU).

B23	B24
3x230/400 V AC	
3x220/380...240/415 VAC (-20% - +15%)	
1.6 VA (0,7 W) total at 230 V AC	
0.007 VA (0.007 W) per phase at I_{ref} and I_b	
	-
	1 A
	-
	0.05 A
	6 A
	0.02 A
	< 1 mA
	0.5 - 10 mm ²
	1.2 Nm
	1/9 - 9999/1
	5000 imp/kWh
B (Cl. 1) or C (Cl. 0.5 S) and Reactive Cl. 2	
	0.5%, 1%
7 digit LCD	
IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529.	
Class M2 in accordance with the Measuring Instrument Directive (MID). (2014/32/EU).	
Class E2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU).	

Energy efficiency

EQ meters B series

The EQ meters, B series is a range of meters for single phase and three phase metering. The B series meters are mounted on a DIN rail and are suitable for installation in distribution boards and small enclosures such as consumer units. The B series are suitable in applications where there is a need for reliable energy measurements and where space is limited.

The low rated or base currents of these products ensures high dynamic performance with superior accuracy even at low currents. The B series meters are meters for many applications and installations. Navigating the meter is easily done via the push-buttons below the display. To configure the meter settings, the set button must be accessed and this button is protected against unauthorized use when the "glass lid" on the front of the meter is closed and sealed. The exceptional low power consumption of the meters, less than 0.9 VA and 1.6 VA, makes them economical in the long run - an important feature specially for large meter populations.

Data from the B series meters can be collected via pulse output or serial communication. The pulse output is a solid state relay that generates pulses proportionally to the measured energy. The meters can also be equipped with built-in serial communication interfaces for M-Bus or Modbus RTU (RS-485). Meters with RS-485 interface can also be set to communicate over the new EQ bus with the new gateway G13. All meters in the B series come with an infrared port for communication with an external Serial Communication Adapter (SCA) such as the KNX adapter.

The B series meters support reading of instrument values. A large number of electrical properties can be read. Depending on version of the meter the following data is available:

- Active power
- Apparent power
- Reactive power
- Current
- Voltage
- Frequency
- Power factor

Up to 4 tariffs are controlled via inputs or communication.

The B series support two inputs and two outputs in a fixed configuration. Inputs can be used for counting pulses from e.g. a water meter, or reading status from external devices. Outputs can be used as pulse outputs or controlling external apparatus like a contactor or an alarm (connected via an external relay).

The B series meters are type approved according to IEC and they are both type approved and verified according to MID. MID is the Measuring Instruments Directive 2016 2014/32/EU from the European Commission. MID type approval and verification is mandatory for meters in billing applications within EU and EEA. The type approval is according to standards that covers all relevant technical aspects of the meter. These include climate conditions, electromagnetic compatibility (EMC), electrical requirements, mechanical requirements and accuracy.

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B series

Technical features		B series	
Outputs			
Current	2 - 100 mA		
Voltage	5 - 240 V AC/DC. For meters with only 1 output 5 - 40 VDC.		
Pulse output frequency	Programmable 1 - 999999 imp/kWh		
Pulse length	Programmable 10 - 990 ms		
Terminal wire area	0.5 - 1 mm ²		
Recommended tightening torque	0.25 Nm		
Inputs			
Voltage	0 - 240 V AC/DC		
OFF	0 - 12 V AC/DC		
ON	57 - 240 V AC/24 - 240 V DC		
Min. pulse length	30 ms		
Terminal wire area	0.5 - 1 mm ²		
Recommended tightening torque	0.25 Nm		
EMC compatibility			
Impulse voltage test	6 kV 1.2/50µs (IEC 60060-1)		
Surge voltage test	4 kV 1.2/50µs (IEC 61000-4-5)		
Fast transient burn test	4kV (IEC 61000-4-4)		
Immunity to electromagnetic HF-fields	80 MHz - 2 GHz (IEC 61000-4-6)		
Immunity to conducted disturbance	150kHz - 80MHz (IEC 61000-4-6)		
Immunity to disturbance with harmonics	2kHz - 150kHz		
Radio frequency emission	EN 55022, class B (CISPR22)		
Electrostatic discharge	15 kV (IEC 61000-4-2)		
Standards	IEC 62052-11, IEC 62053-21 class 1 & 2, IEC 62053-22 class 0,5 S, IEC 62053-23 class 2, IEC 62054-21, GB/T 17215.211-2006, GB/T 17215.312-2008 class 1 & 2, GB/T 17215.322-2008 class 0,5 S, GB 4208-2008, EN 50470-1, EN 50470-3 category A, B & C		
Mechanical			
Material	Polycarbonate in transparent front glass. Glass reinforced polycarbonate in bottom case and upper case. Polycarbonate in terminal cover.		
Dimensions		B21	B23/B24
Width	35 mm	70 mm	
Height	97 mm	97 mm	
Depth	65 mm	65 mm	
DIN modules	2	4	

Energy efficiency

EQ meters B series



B21

Direct connected electricity meter up to 65 A. Verified and approved according to MID. IEC approval. Instrument values. Alarm function. - Communication - Infrared (M-Bus).
Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

EQ meters single phase electricity meter, 2 DIN with IR port, 65 A

**For direct connection up to 65 A. Class B (Cl. 1) with functionality level Steel.
Active energy**

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696 EAN	Type code	Order code			
1 x 230 V AC, Pulse output	001496	B21 111 - 100	2CMA100149R1000		0.140	1
1 x 230 V AC, Pulse output, RS-485	001502	B21 112 - 100	2CMA100150R1000		0.150	1
1 x 230 V AC, Pulse output, M-Bus	001519	B21 113 - 100	2CMA100151R1000		0.150	1

**For direct connection up to 65 A. Class B (Cl. 1) (Reactive Cl. 2) with functionality level Silver.
Active and reactive energy, import/export, tariffs 1-4, tariff controll via inputs and communication.**

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696 EAN	Type code	Order code			
1 x 230 V AC, 2 output, 2 input	001540	B21 311 - 100	2CMA100154R1000		0.140	1
1 x 230 V AC, 2 output, 2 input, RS-485	001557	B21 312 - 100	2CMA100155R1000		0.150	1
1 x 230 V AC, 2 output, 2 input, M-Bus	001564	B21 313 - 100	2CMA100156R1000		0.150	1

Where to find more:

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Maybe you are also interested in:

Current and voltage transformers - chapter 7



B23

Direct connected electricity meter up to 65 A. Verified and approved according to MID. IEC approval. 2- and 3-element metering. Instrument values. Alarm function. Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

EQ meters three phase electricity meter, 4 DIN with IR port, 65 A

Class B (Cl. 1) with functionality level Steel. Active energy

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696	Type code	Order code			
	EAN					
3 x 230/400 V AC, Pulse output	001632	B23 111 - 100	2CMA100163R1000		0.310	1
3 x 230/400 V AC, Pulse output, RS-485	001649	B23 112 - 100	2CMA100164R1000		0.320	1
3 x 230/400 V AC, Pulse output, M-Bus	001656	B23 113 - 100	2CMA100165R1000		0.330	1

Class B (Cl. 1) (Reactive Cl. 2) with functionality level Bronze. Active and reactive energy, import/export.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696	Type code	Order code			
	EAN					
3 x 230/400 V AC, Pulse output, RS-485	001663	B23 212 - 100	2CMA100166R1000		0.320	1

Class B (Cl. 1) (Reactive Cl. 2) with functionality level Silver. Active and reactive energy, import/export, tariffs 1-4, tariff control via inputs and communication.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696	Type code	Order code			
	EAN					
3 x 230/400 V AC, 2 output, 2 input	001687	B23 311 - 100	2CMA100168R1000		0.330	1
3 x 230/400 V AC, 2 output, 2 input, RS-485	001694	B23 312 - 100	2CMA100169R1000		0.340	1
3 x 230/400 V AC, 2 output, 2 input, M-Bus	001700	B23 313 - 100	2CMA100170R1000		0.350	1

Energy efficiency

EQ meters B series



B24

Transformer CT connected electricity meter up to 6 A. Verified and approved according to MID. IEC approval. 2- and 3-element metering. Instrument values. Alarm function. Communication - Infrared (M-Bus). Optional - Communication with M-Bus, RS-485 Modbus, RS-485 EQ bus.

EQ meters three phase electricity meter, 4 DIN with IR port, 6 A

Class B (Cl. 1) with functionality level Steel. Active energy

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	7392696	Type code	Order code			
	EAN				kg	pc.
3 x 230/400 V AC, Pulse output	001779	B24 111 - 100	2CMA100177R1000		0.250	1
3 x 230/400 V AC, Pulse output, RS-485	001786	B24 112 - 100	2CMA100178R1000		0.250	1
3 x 230/400 V AC, Pulse output, M-Bus	001793	B24 113 - 100	2CMA100179R1000		0.270	1

Class B (Cl. 1) (Reactive Cl. 2) with functionality level Bronze.

Active and reactive energy, import/export.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	7392696	Type code	Order code			
	EAN				kg	pc.
3 x 230/400 V AC, Pulse output, RS-485	001809	B24 212 - 100	2CMA100180R1000		0.250	1

Class C (Cl. 0.5 S) (Reactive Cl. 2) with functionality level Silver.

Active and reactive energy, import/export, tariffs 1-4, tariff control via inputs and communication.

Description	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	7392696	Type code	Order code			
	EAN				kg	pc.
3 x 230/400 V AC, 2 output, 2 input, RS-485	001830	B24 352 - 100	2CMA100183R1000		0.270	1
3 x 230/400 V AC, 2 output, 2 input, M-Bus	001847	B24 353 - 100	2CMA100184R1000		0.290	1

Energy efficiency

EQ meters C series

The EQ meters, C series are truly compact meters for single phase and three phase metering. The C series is mounted on a DIN rail and is suitable for installation in distribution boards and small consumer units.

Only one to three module wide, the C series is a very compact meter for single phase and three phase applications. The meters have an LCD with large digits showing energy register and instrumentation values. The meters have a wide temperature range which makes it possible to install the meters in many locations. Navigating the meters are easily done via the push-button below the display. The exceptional low power consumption of the meters, less than 0,3 W and 0,6 W at 230 V AC, makes them economical in the long run - an important feature specially for large meter populations.

The C series meters support reading of instrument values. A number of electrical properties can be read:

- Power factor
- Active power
- Current
- Voltage

The C series meters have an output that can be used as pulse output or alarm output. The alarm quantity and levels is easily configured on the meter with the push button. The output can be used for controlling external apparatus like a contactor or an alarm indicator (connected via an external relay).

The C series meters are type approved according to IEC and MID. MID is the Measuring Instruments Directive 2016 2014/32/EU from the European Commission. The type approval is according to standards that covers all relevant technical aspects of the meter. These include climate conditions, electromagnetic compatibility (EMC), electrical requirements, mechanical requirements and accuracy.

MID versions have initial verification according to annex F of the Measuring Instruments Directive.

Where to find more:

You can find all ABB instruction manuals on www.abb.com/abblibrary/download-center

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Current and voltage transformers - chapter 7

Energy efficiency

EQ meters C series



C series

7

Technical features		
	C11	C13
Voltage/current inputs		
Nominal voltage	230 V AC	3x230/400 V AC
Voltage range	230 V AC (-20% - +15%)	3x230/400 V AC (-20% - +15%)
Power dissipation voltage circuits	7.4 VA (0.3 W) at 230 V	1.5 VA (0.6 W) total at 230 V
Power dissipation current circuits	0.04 VA (0.04 W) at I_b and I_{ref}	0.04 VA (0.04 W) per phase at I_b and I_{ref}
Base current I_b	5 A	
Rated current I_n	-	
Reference current I_{ref}	5 A	
Transitional current I_{tr}	0.5 A	
Maximum current I_{max}	40 A	
Minimum current I_{min}	0.25 A	
Starting current I_{st}	< 20 mA	
Terminal wire area	0.5 - 10 mm ²	0.5 - 10 mm ²
Recommended tightening torque	0.8 Nm	
General data		
Frequency	50 or 60 Hz ± 5%	
Accuracy Class	B (Cl.1)	
Active energy	1%	
Display of energy	6 digit LCD	7 digits LCD
Communication		
Terminal wire area	-	
Recommended tightening torque	-	
Pulse indicator (LED)		
Pulse frequency	1000 imp/kWh	
Pulse length	40 ms	
Environmental		
Operating temperature	- 25°C - +70°C	
Storage temperature	- 25°C - +85°C	
Humidity	75% yearly average, 95% on 30 days/year	
Resistance to fire and heat	Terminal 960°C, cover 650°C (IEC 60695-2-1)	
Resistance to water and dust	IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529.	
Mechanical environment	Class M2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU).	
Electromagnetic environment	Class E2 in accordance with the Measuring Instrument Directive (MID), (2014/32/EU).	

Technical features		
	C11	C13
Outputs		
Current	2 - 100 mA	
Voltage	5 - 40 V DC	
Pulse output frequency	1000 (imp/kWh)	
Pulse length	100 ms	
Terminal wire area	0.5 - 10 mm ²	0.5 - 6 mm ²
Recommended tightening torque	0.8 Nm	0.25 Nm
EMC compatibility		
Impulse voltage test	6 kV 1.2/50 μs (IEC 60060-1)	
Surge voltage test	4 kV 1.2/50 μs (IEC 61000-4-5)	
Fast transient burn test	4 kV (IEC 61000-4-4)	
Immunity to electromagnetic HF-fields	80 MHz - 2 GHz at 10 V/m (IEC 61000-4-3)	
Immunity to conducted disturbance	150 kHz - 80 MHz, (IEC 61000-4-6)	
Immunity to disturbance with harmonics	2kHz - 150kHz	
Radio frequency emission	EN 55022, class B (CISPR22)	
Electrostatic discharge	15 kV (IEC 61000-4-2)	
Standards	IEC 62052-11, IEC 62053-21 class 1, GB/T 17215.211-2006, GBT 17215.321-2008 class 1, GB 4208-2008, EN 50470-1, EN 50470-3 category B	
Mechanical		
Material	Glass reinforced polycarbonate	
Dimensions		
Width	17,5 mm	54 mm
Height	111 mm	122 mm
Depth	65 mm	65 mm
DIN modules	1	3

Energy efficiency

EQ meters C series



C11

Direct connected electricity meter up to 40 A. IEC approval. Instrument values. Alarm function. Optional - Verified and approved according to MID.

EQ meters single phase electricity meter, 1 DIN, 40 A

Class B (Cl.1) with functionality level Steel. Active energy

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696	Type code	Order code			
1 x 230 V AC, Pulse output	EAN 035712	C11 110 - 100*)	2CMA103571R1000		0.070	1

Class 1 with functionality level Steel. Active energy

1 x 230 V AC, Pulse output	035729	C11 110 - 300	2CMA103572R1000		0.070	1
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C13

Direct connected electricity meter. IEC approval. 3 element metering. Instrument values. Alarm function. Optional - Verified and approved according to MID.

EQ meters three phase electricity meter, 3 DIN, 40 A

For direct connection up to 40 A. Class B (Cl.1) with functionality level Steel. Active energy

Description	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	7392696	Type code	Order code			
3 x 230/400 V AC, Pulse output	EAN 035743	C13 110 - 100*)	2CMA103574R1000		0.170	1

For direct connection up to 40 A. Class 1 with functionality level Steel. Active energy

3 x 230/400 V AC, Pulse output	035750	C13 110 - 300	2CMA103575R1000		0.170	1
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*) MID approval

Energy efficiency

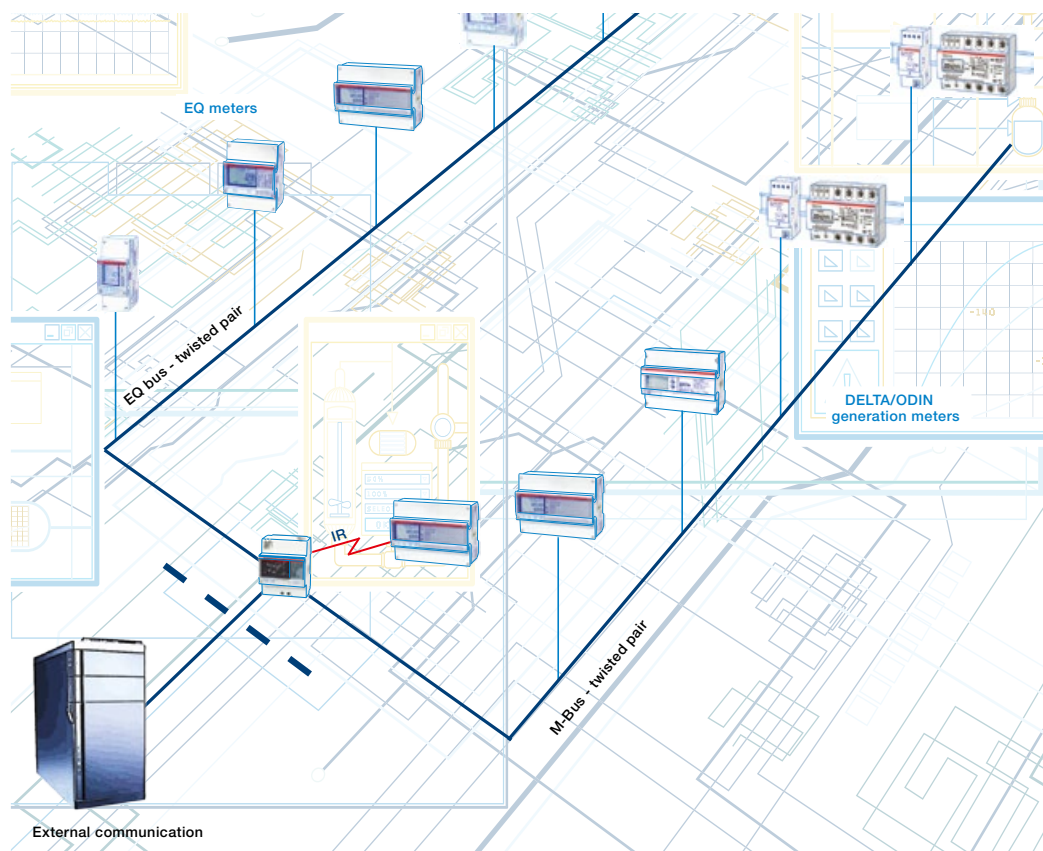
EQ meters G series



G13

G13 is the new Ethernet gateway that will make data collection from a meter network very convenient. Communication is performed using JSON (JavaScript Object Notation) on the Ethernet side. The gateway is also equipped with a webserver that provides a detailed overview of all meters installed in a network as well as the possibility to perform advanced configurations of the meters and read-out data. High data security is obtained by encryption using SSL (Secure Sockets Layer).

The gateway communicates with EQ meters over EQ bus, a communication protocol based on the IEC standards (DLMS/cosem), using RS-485, and can also work as an M-Bus master for M-Bus enabled ABB meters.



7

Gateway for routing and protocol conversion between system and meter network with up to 32 meters.

Communication protocols on the meter side: EQ bus over RS-485, M-Bus and ABB IR port. Communication protocols on the system side: Ethernet with JSON. Built-in webserver for meter reading and meter management.

Communication products

Description	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code			
100 - 240 V AC	7392696705523	G13 100-000	2CMA170552R1000	0.190	1
KNX meter module	4016779662079	ZS/S 1.1	2CDG110083R0011	0.100	1

Where to find more:














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Energy efficiency

Analogue and digital instruments selection table

Measure	Technology	Mounting	Insertion	Characteristics	Accessories	Type	
Voltage	Analogue	3 modules	Direct	a.c. and d.c. Auxiliary supply 230 V a.c.	MCV voltage switches	VLM page 8/45	
		48x48, 72x72, 96x96	Direct		MCV voltage switches	VLM-1 VLM-2 page 8/50	
		48x48, 72x72, 96x96	Indirect		TV voltage transformers MCV voltage switches	VLM1-TV VLM2-TV page 8/50	
	Digital	3 modules	Direct		MCV voltage switches	VLMD page 8/42	
		36x72	Direct		MCV voltage switches	VLMD P page 8/43	
	Current	Analogue	3 modules		Direct	MCA current switches	AMT page 8/45
Indirect				CT a.c. current transformer SNT shunt for d.c. SCL interchangeable scale MCA current switches	AMT1/A AMT2 page 8/46		
48x48, 72x72, 96x96			Direct	MCA current switches	AMT1-A1 AMT2-A2 page 8/52		
			Indirect	CT a.c. current transformer SNT shunt for d.c. SCL interchangeable scale MCA current switches	AMT1-A1 AMT1-A5 AMT2-A2 page 8/52		
Digital		3 modules	Indirect	CT a.c. current transformer SNT shunt for d.c. MCA current switches	AMTD page 8/42		
		36x72	Indirect	CT a.c. current transformer SNT shunt for d.c. MCA current switches	AMTD P page 8/43		
Frequency		Analogue	3 modules	Direct	a.c.	FRZ1 page 8/46	
			48x48, 72x72, 96x96	Direct		FRZ page 8/54	
	Digital	3 modules	Direct	Auxiliary supply 230 V a.c.		FRZ-DIG page 8/42	

Energy efficiency

Modular digital instruments



Digital instruments

Technical features		
Power supply	[V]	230 V a.c.
Rated frequency	[Hz]	50÷60
Ammeter full scale value	[A]	5, 20, 25, 40, 60, 100, 150, 200, 250, 400, 600, 999
Voltmeter full scale value	[V]	600
Frequency meter range	[Hz]	35...400
Tripping delay	[s]	1, 5, 10, 20, 30
Hysteresis	[%]	5, 10, 20, 30 set threshold
Output pins		3-4
Output relay		NO
Rated voltage relay	[V]	230 V a.c.
Rated current relay	[A]	AC1 16, AC15 3
Relay configuration		NO relay closes in alarm status NC relay opens in alarm status, positive safety
Overload	[In/Vn]	1, 2
Accuracy class	[%]	±0,5 full scale ±1digit at 25 °C
Max. signal input value for ammeters		5 A a.c./60 mV d.c.
Display		3 digit LED display
Operating temperature	[°C]	-10...+55
Storage temperature	[°C]	-40...+70
Protection degree		IP20
Power consumption	[VA]	4
Modules		3
Overall dimensions front panel devices	[mm]	36x72x61.5 (51.5 depth inside the switchboard)
Standard		IEC EN 61010

Energy efficiency

Modular digital instruments



VLMD

2CSM400745F0001



AMTD

2CSM400755F0001

7



FRZ

2CSM400748F0001

Modular digital instruments

The wide range of modular digital instruments starts with single-phase mono-function measurement devices for measuring voltage, current and frequency.

The range is composed by a voltmeter for a.c./d.c. voltage monitoring, two ammeters for a.c. and d.c. current, and a frequency meter. Ammeters measure in indirect insertion thanks to measuring accessories, like current transformer for a.c. and shunt for d.c.

The full-scale value is programmable by the user, according to the current flow on the primary windings.

Version	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
a.c./d.c. digital voltmeter	620402	VLMD-1-2	2CSM110000R1011		0,300	1
a.c. digital ammeter	620501	AMTD-1	2CSM320000R1011		0,300	1
d.c. digital ammeter	620600	AMTD-2	2CSM420000R1011		0,300	1
Digital frequency meter	620709	FRZ-DIG	2CSM710000R1011		0,300	1

Modular digital instruments with alarm relay

The range is widened by three additional devices with extended features: one voltmeter and two ammeters, trip the internal relay to signal an alarm condition if the measured parameter exceeds or falls below a programmable threshold. The measured maximum and minimum peak values are stored in the non-volatile instrument's memory.

The contact type is NO, so that the contact is open when the instrument is powered off, but it is possible to obtain positive safety operation setting, directly on the instrument, the NC relay contact type.

The instrument with relay can be used to signal the exceeding or the fall below a certain threshold, but not for both functions simultaneously.

Version	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
a.c./d.c. digital voltmeter with alarm relay	746935	VLMD-1-2-R	2CSM274693R1011		0,300	1
a.c. digital ammeter with alarm relay	747734	AMTD-1-R	2CSM274773R1011		0,300	1
d.c. digital ammeter with alarm relay	610731	AMTD-2-R	2CSM261073R1011		0,300	1

Maybe you are also interested in:

Current and voltage transformers -
chapter 7

Voltmetric and current switches -
chapter 7

Energy efficiency

Front panel digital instruments



VLMD P

2CSG400130P0202



AMTD-2 P

2CSG400131P0202

Front-panel digital instruments

The wide range of front-panel digital instruments starts with single-phase mono-function measurement devices for measuring voltage and current.

The range is composed by a voltmeter for a.c./d.c. voltage monitoring, and two ammeters for a.c. and d.c. current. Ammeters measure in indirect insertion thanks to measuring accessories, like current transformer for a.c. and shunt for d.c.

The full-scale value is programmable by the user, according to the current flow on the primary windings.

Version	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
a.c./d.c. digital voltmeter	136057	VLMD P	2CSG213605R4011		0,300	1
a.c. digital ammeter	136156	AMTD-1 P	2CSG213615R4011		0,300	1
d.c. digital ammeter	136255	AMTD-2 P	2CSG213625R4011		0,300	1

Front-panel digital instruments with alarm relay

The range is widened by three additional devices with extended features: one voltmeter and two ammeters that trip the internal relay to signal an alarm condition if the measured parameter exceeds or falls below a programmable threshold. The measured maximum and minimum peak values are stored in the non-volatile instrument's memory.

The contact type is NO, so that the contact is open when the instrument is powered off, but it is possible to obtain positive safety operation setting, directly on the instrument, the NC relay contact type.

The instrument with relay can be used to signal the exceeding or the fall below a certain threshold, but not for both functions simultaneously.

Version	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
a.c./d.c. digital voltmeter with alarm relay	136354	VLMD-R P	2CSG213635R4011		0,300	1
a.c. digital ammeter with alarm relay	136453	AMTD-1-R P	2CSG213645R4011		0,300	1
d.c. digital ammeter with alarm relay	136552	AMTD-2-R P	2CSG213655R4011		0,300	1

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chapter 7

Voltmetric and current switches -
chapter 7

Energy efficiency

Analogue instruments selection table

Instrument mounting	a.c / d.c.	Size	Full-scale value Visualization	Instrument type	Scale type	
Modular	a.c.	-	90°	AMT1/A1	 SCL 1 	
		-	78°	AMT1/A5	 SCL 1/A5 	
	d.c.	-	90°	AMT2	 SCL 2 	
Front-panel	a.c.	48x48 mm	90°	AMT1-A1/48	 SCL-A1 ... /48 	
			78°	AMT1-A5/48	 SCL-A5 ... /48 	
		72x72 mm	90°	AMT1-A1/72	 SCL-A1 ... /72 	
			78°	AMT1-A5/72	 SCL-A5 ... /72 	
		96x96 mm	90°	AMT1-A1/96	 SCL-A1 ... /96 	
			78°	AMT1-A5/96	 SCL-A5 ... /96 	
	d.c.	48x48 mm	90°	AMT2-A2/48	 SCL-A2 ... /48 	
			72x72 mm	90°	AMT2-A2/72	 SCL-A2 ... /72 
			96x96 mm	90°	AMT2-A2/96	 SCL-A2 ... /96 

Analogue instruments with scales

The range of mono-function analogue instruments, employable in single-phase networks, is composed of measurement devices performing the measure and visualization of one electrical parameter: voltage, current and frequency.

The range of voltmeters, both in modular and front-panel versions, is composed by devices fully equipped with the proper scale, even when the use of a voltage transformer is required. The connection, whether it's direct or indirect using VT, allows the immediate visualization of the measures on the display.

The range of ammeters is composed of devices for direct and indirect connection to the network. The devices directly connected to the network are fully equipped with proper scale, while the devices that require a current transformer or a shunt, need to be combined with a separate scale to be mounted on the front of the instrument.

The wide range of scales for ammeters allows the employability of the latter even in application with high nominal current, up to 10000 A a.c.

Energy efficiency

Modular analogue instruments



2CSC-400497F001

VLM1



2CSC-400517F0201

AMT1

Technical features

Rated voltage Un	[V]	a.c. 300, 500; d.c. 100, 300
Rated currents in a.c.	Direct reading	full scale values 5...30
	Indirect reading	full scale values 5...2500
Rated currents in d.c.	Direct reading	full scale values 0.1...30
	Indirect reading	full scale values 5...500
Frequency	[Hz]	50/60
Overload capacity	[%]	20 compared to the voltage or to the rated current
Accuracy class	[%]	1.5 (0.5 for frequency meters)
Ammeters power consumption	[VA]	5 A: 0.3 VA; 10 A: 0.6 VA; 25 A: 1 VA; 30 A: 1.2 VA
Voltmeters power consumption	[VA]	300 V: 1.5 VA; 500 V: 4 VA
Frequency meters power consumption	[VA]	<1.5 VA
Modules	[No.]	3
Protection degree		IP20
Standards		EN 60051

The range of modular analogue instruments is composed by mono-function measurement devices employable in single-phase networks. It includes voltmeters, ammeters and frequency meters.

In particular, the range of ammeters is composed of devices fully equipped with the appropriate scale in the range between 5 A and 30 A. In case of greater current values, the range features devices to be used together with the proper scale and CT according to the application.

Modular analogue instruments for alternating current

Suitable for direct or indirect measurement through the appropriate accessories.

Voltmeters: direct connection

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
300 V	007906	VLM1/300	2CSM110190R1001		0.200	1
500 V	000006	VLM1/500	2CSM110220R1001		0.200	1

Ammeters: direct connection

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
5 A	000709	AMT1/5	2CSM310030R1001		0.200	1
10 A	000105	AMT1/10	2CSM310040R1001		0.200	1
15 A	000204	AMT1/15	2CSM310050R1001		0.200	1
20 A	000303	AMT1/20	2CSM310060R1001		0.200	1
25 A	000402	AMT1/25	2CSM310070R1001		0.200	1
30 A	000501	AMT1/30	2CSM310080R1001		0.200	1

Maybe you are also interested in:

Current and voltage transformers - chapter 7

Voltmetric and current switches - chapter 7

Energy efficiency

Modular analogue instruments



VLM2

2CSC40049/F0001



AMT2

2CSC40051/F0001

7

Ammeters without scale: connection using CT.../5

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
A1	000600	AMT1/A1	2CSM320250R1001		0.200	1
A5	000808	AMT1/A5	2CSM320260R1001		0.200	1

Frequency meters: 45-65 Hz, 100/280 V

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
	008606	FRZ1	2CSM810310R1001		0.200	1

Modular analogue instruments for direct current

Voltmeters: direct connection

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
100 V	008002	VLM2/100	2CSM210130R1001		0.200	1
300 V	008101	VLM2/300	2CSM210190R1001		0.200	1

Ammeters: direct connection

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
10 mA	028307	AMT2/0.01	2CSM410330R1001		0.200	1
100 mA	028406	AMT2/0.1	2CSM410340R1001		0.200	1
1000 mA	028505	AMT2/1	2CSM410020R1001		0.200	1
5 A	028604	AMT2/5	2CSM410030R1001		0.200	1
10 A	028703	AMT2/10	2CSM410040R1001		0.200	1
15 A	028802	AMT2/15	2CSM410050R1001		0.200	1
20 A	028901	AMT2/20	2CSM410060R1001		0.200	1
25 A	029007	AMT2/25	2CSM410070R1001		0.200	1
30 A	029106	AMT2/30	2CSM410080R1001		0.200	1

Ammeters without scale: connection using shunt

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
	029205	AMT2	2CSM420270R1001		0.200	1

Maybe you are also interested in:

Current and voltage transformers -
chapter 7

Voltmetric and current switches -
chapter 7

Energy efficiency

Scales for modular analogue ammeters



2CHC000001FD0201

SCL

Scales for modular analogue ammeters

Scales SCL 1/A1 for AMT1

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
A1-5A	001201	SCL 1/5	2CSM110021R1041		0.010	10
A1-10A	001300	SCL 1/10	2CSM110032R1041		0.010	10
A1-20A	001409	SCL 1/20	2CSM110075R1041		0.010	10
A1-25A	030706	SCL 1/25	2CSM110096R1041		0.010	10
A1-30A	001508	SCL 1/30	2CSM110107R1041		0.010	10
A1-40A	030805	SCL 1/40	2CSM110128R1041		0.010	10
A1-50A	001607	SCL 1/50	2CSM110149R1041		0.010	10
A1-60A	030904	SCL 1/60	2CSM110159R1041		0.010	10
A1-75A	031000	SCL 1/75	2CSM110169R1041		0.010	10
A1-80A	001706	SCL 1/80	2CSM110179R1041		0.010	10
A1-100A	001805	SCL 1/100	2CSM110189R1041		0.010	10
A1-150A	001904	SCL 1/150	2CSM110209R1041		0.010	10
A1-200A	002000	SCL 1/200	2CSM110229R1041		0.010	10
A1-250A	031109	SCL 1/250	2CSM110249R1041		0.010	10
A1-300A	002109	SCL 1/300	2CSM110259R1041		0.010	10
A1-400A	002208	SCL 1/400	2CSM110279R1041		0.010	10
A1-500A	002307	SCL 1/500	2CSM110299R1041		0.010	10
A1-600A	031208	SCL 1/600	2CSM110309R1041		0.010	10
A1-800A	002406	SCL 1/800	2CSM110329R1041		0.010	10
A1-1000A	002505	SCL 1/1000	2CSM110339R1041		0.010	10
A1-1500A	274704	SCL 1/1500	2CSM110359R1041		0.010	10
A1-2000A	274803	SCL 1/2000	2CSM110379R1041		0.010	10
A1-2500A	274902	SCL 1/2500	2CSM110389R1041		0.010	10

Scale SCL 1/A5 for AMT1

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
A5-5A	031307	SCL 1/A5/5	2CSM120021R1041		0.010	10
A5-10A	031406	SCL 1/A5/10	2CSM120032R1041		0.010	10
A5-20A	031505	SCL 1/A5/20	2CSM120075R1041		0.010	10
A5-30A	031604	SCL 1/A5/30	2CSM120107R1041		0.010	10
A5-50A	031703	SCL 1/A5/50	2CSM120149R1041		0.010	10
A5-80A	031802	SCL 1/A5/80	2CSM120179R1041		0.010	10
A5-100A	031901	SCL 1/A5/100	2CSM120189R1041		0.010	10
A5-150A	032007	SCL 1/A5/150	2CSM120209R1041		0.010	10

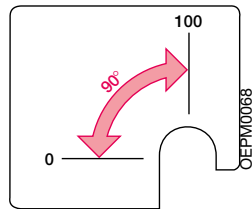
Energy efficiency

Scales for modular analogue ammeters

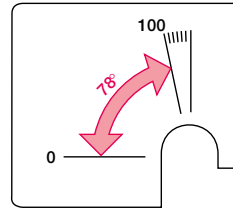
Scales SCL 2/A1 for AMT2						
Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
A1-5A	032106	SCL 2/5	2CSM230025R1041		0.010	10
A1-6A	032205	SCL 2/6	2CSM230345R1041		0.010	10
A1-10A	032304	SCL 2/10	2CSM230035R1041		0.010	10
A1-20A	032403	SCL 2/20	2CSM230075R1041		0.010	10
A1-30A	032502	SCL 2/30	2CSM230105R1041		0.010	10
A1-50A	032601	SCL 2/50	2CSM230145R1041		0.010	10
A1-80A	032700	SCL 2/80	2CSM230179R1041		0.010	10
A1-100A	032809	SCL 2/100	2CSM230189R1041		0.010	10
A1-150A	032908	SCL 2/150	2CSM230209R1041		0.010	10
A1-200A	033004	SCL 2/200	2CSM230229R1041		0.010	10
A1-250A	033103	SCL 2/250	2CSM230249R1041		0.010	10
A1-300A	033202	SCL 2/300	2CSM230259R1041		0.010	10
A1-400A	033301	SCL 2/400	2CSM230279R1041		0.010	10
A1-500A	033400	SCL 2/500	2CSM230299R1041		0.010	10

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SCL1/A1/100
Full scale at 90°



SCL1/A5/100
Full scale at 78°
(with extra scale)



Energy efficiency

Front-panel analogue instruments



2CSC445000F0001

Front panel analogue instruments

Technical features		
Rated max. reference voltage for insulation	[V]	600 (a.c meters), 300 (d.c. meters)
Test voltage	[V]	2000 eff. (50 Hz/1 min)
Accuracy class		1.5 (0.5 for frequency meters)
Overload capacity ①		
- ammetric windings		up to $I_n \times 10$ / < 5 sec. up to $I_n \times 2$ / permanent
- voltmetric windings		up to $U_n \times 2$ / < 5 sec. up to $U_n \times 1.2$ / permanent
Operating temperature	[°C]	-10...+55
Storage temperature	[°C]	-40...+70
Average and max. relative humidity (DIN 40040) ②		65% (yearly average) 85% (+35 °C/60 days a year)
Vibration resistance (IEC 50-1)	[g (9.81 m/s)]	0.08-1.8 (0.35 mm/10-55 Hz; 3 axis/6 h)
Degree of protection		
		IP52 indoors
		IP00 on the terminals (IEC 144. DIN 40050)
		IP20 with suitable terminal covers
Materials		
- cases and front edge		self-extinguishing thermosetting material in accordance with UL94 V-0, fungus and termite resistant
- pointers (DIN 43802) ③		molded aluminium
- terminals		brass
Assembly		
Dimensions W x H x D (DIN 43700/43718)	[mm]	48 x 48 X 53 72 x 72 x 53 96 x 96 X 53
Applicable standards		IEC EN 61010-1

① The overload can be greater for instruments enabled by a CT because the transformer generally keeps secondary current peaks to within 10 I_n .

② Tropicalization enables the instruments to withstand up to 95% max. relative humidity (+35 °C/60 days). In accordance with DIN standard 40040, they must be protected against any penetration of humidity inside the device. Terminals, screws, washers, bolts and magnets are galvanically protected against rust, while the electrical circuits are painted with the special Multicolor PC52 varnish.

③ The pointer damping time is 1 second. The recorded values are cleared by pressing the control provided.

d With 0.5 mm - 19 mm thick panels, the screws must be attached in the fixing position nearest to the front edge of the measuring device, whereas the 20 mm - 39 mm thick panels require the screws to be fixed in the position furthest away from the front edge.

Energy efficiency

Front-panel analogue instruments



VLM-1 48

Available in both alternating current and direct current versions, the front-panel mono-function measurement devices come in three standard sizes, 48 mm x 48 mm, 72 mm x 72 mm and 96 mm x 96 mm (special versions available on request), employable in single-phase networks. The range is composed of voltmeters and ammeters for a.c. and d.c. applications, and frequency meters for a.c. applications.

Ammeters without scale for indirect connection must be completed with the appropriate scale, chosen according to the full-scale value.

Front-panel analogue voltmeters for alternating current

Size	Insertion	Scale	VT type	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm		V a.c.		EAN	Type code	Order code		kg	pc.
48	D	50		541707	VLM-1-50/48	2CSG111100R4001			1
48	D	60		541806	VLM-1-60/48	2CSG111110R4001			1
48	D	80		541905	VLM-1-80/48	2CSG111120R4001			1
48	D	100		542001	VLM-1-100/48	2CSG111130R4001			1
48	D	150		542100	VLM-1-150/48	2CSG111150R4001			1
48	D	200		542209	VLM-1-200/48	2CSG111160R4001			1
48	D	250		542308	VLM-1-250/48	2CSG111180R4001			1
48	D	300		542407	VLM-1-300/48	2CSG111190R4001			1
48	D	400		542506	VLM-1-400/48	2CSG111210R4001			1
48	D	500		542605	VLM-1-500/48	2CSG111220R4001			1
48	D	600		542704	VLM-1-600/48	2CSG111230R4001			1
48	I	200	110/100	743705	VLM1-TV-110-100/200/48	2CSG121140R4001			1
48	I	300	230/100	542803	VLM1-TV-230-100/300/48	2CSG121170R4001			1
48	I	500	380/100	542902	VLM1-TV-380-100/500/48	2CSG121200R4001			1
48	I	500	400/100	743804	VLM1-TV-400-100/500/48	2CSG121210R4001			1
48	I	600	500/100	543008	VLM1-TV-500-100/600/48	2CSG121220R4001			1
48	I	800	600/100	743903	VLM1-TV-600-100/800/48	2CSG121230R4001			1
48	I	1100	1000/100	744009	VLM1-TV-1000-100/1100/48	2CSG121240R4001			1

Size	Insertion	Scale	VT type	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
mm		V a.c.		EAN	Type code	Order code		kg	pc.
72	D	50		544104	VLM-1-50/72	2CSG112100R4001			1
72	D	60		544203	VLM-1-60/72	2CSG112110R4001			1
72	D	80		544302	VLM-1-80/72	2CSG112120R4001			1
72	D	100		544401	VLM-1-100/72	2CSG112130R4001			1
72	D	150		544500	VLM-1-150/72	2CSG112150R4001			1
72	D	200		544609	VLM-1-200/72	2CSG112160R4001			1
72	D	250		544708	VLM-1-250/72	2CSG112180R4001			1
72	D	300		544807	VLM-1-300/72	2CSG112190R4001			1
72	D	400		544906	VLM-1-400/72	2CSG112210R4001			1
72	D	500		545002	VLM-1-500/72	2CSG112220R4001			1
72	D	600		545101	VLM-1-600/72	2CSG112230R4001			1
72	I	200	110/100	744108	VLM1-TV-110-100/200/72	2CSG122140R4001			1
72	I	300	230/100	545200	VLM1-TV-230-100/300/72	2CSG122170R4001			1
72	I	500	380/100	545309	VLM1-TV-380-100/500/72	2CSG122200R4001			1
72	I	500	400/100	744207	VLM1-TV-400-100/500/72	2CSG122210R4001			1
72	I	600	500/100	545408	VLM1-TV-500-100/600/72	2CSG122220R4001			1
72	I	800	600/100	744306	VLM1-TV-600-100/800/72	2CSG122230R4001			1
72	I	1100	1000/100	744405	VLM1-TV-1000-100/1100/72	2CSG122240R4001			1

Maybe you are also interested in:

Current and voltage transformers - chapter 7

Voltmetric and current switches - chapter 7

D: direct connection

I: indirect connection with VT, CT and shunt, according to the type



VLM-1 96

2CSC445096F001



VLM-2 48

2CSC445096F001

Size	Insertion	Scale	VT type	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm		V a.c.		EAN	Type code		kg	pc.
					Order code			
96	D	50		546702	VLM-1-50/96			1
96	D	60		546801	VLM-1-60/96			1
96	D	80		546900	VLM-1-80/96			1
96	D	100		547006	VLM-1-100/96			1
96	D	150		547105	VLM-1-150/96			1
96	D	200		547204	VLM-1-200/96			1
96	D	250		547303	VLM-1-250/96			1
96	D	300		547402	VLM-1-300/96			1
96	D	400		547501	VLM-1-400/96			1
96	D	500		547600	VLM-1-500/96			1
96	D	600		547709	VLM-1-600/96			1
96	I	200	110/100	744504	VLM1-TV-110-100/200/96			1
96	I	300	230/100	547808	VLM1-TV-230-100/300/96			1
96	I	500	380/100	547907	VLM1-TV-380-100/500/96			1
96	I	500	400/100	744603	VLM1-TV-400-100/500/96			1
96	I	600	500/100	548003	VLM1-TV-500-100/600/96			1
96	I	800	600/100	744702	VLM1-TV-600-100/800/96			1
96	I	1100	1000/100	744801	VLM1-TV-1000-100/1100/96			1

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Front-panel analogue voltmeters for direct current

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm		V d.c.	EAN	Type code		kg	pc.
				Order code			
48	D	10	549307	VLM-2-10/48			1
48	D	15	549406	VLM-2-15/48			1
48	D	25	549505	VLM-2-25/48			1
48	D	40	549604	VLM-2-40/48			1
48	D	60	549703	VLM-2-60/48			1
48	D	80	549802	VLM-2-80/48			1
48	D	100	549901	VLM-2-100/48			1
48	D	150	550006	VLM-2-150/48			1
48	D	200	550105	VLM-2-200/48			1
48	D	250	550204	VLM-2-250/48			1
48	D	400	550303	VLM-2-400/48			1
48	D	600	550402	VLM-2-600/48			1

D: direct connection

I: indirect connection with VT, CT and shunt, according to the type

Energy efficiency

Front-panel analogue instruments



VLM-2 96

ZCSG445069F0001

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm		V d.c.	EAN	Type code	Order code	kg	pc.
72	D	10	551003	VLM-2-10/72	2CSG212040R4001		1
72	D	15	551102	VLM-2-15/72	2CSG212050R4001		1
72	D	25	551201	VLM-2-25/72	2CSG212070R4001		1
72	D	40	551300	VLM-2-40/72	2CSG212090R4001		1
72	D	60	551409	VLM-2-60/72	2CSG212110R4001		1
72	D	80	551508	VLM-2-80/72	2CSG212120R4001		1
72	D	100	551607	VLM-2-100/72	2CSG212130R4001		1
72	D	150	551706	VLM-2-150/72	2CSG212150R4001		1
72	D	200	551805	VLM-2-200/72	2CSG212160R4001		1
72	D	250	551904	VLM-2-250/72	2CSG212180R4001		1
72	D	400	552000	VLM-2-400/72	2CSG212210R4001		1
72	D	600	552109	VLM-2-600/72	2CSG212230R4001		1

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm		V d.c.	EAN	Type code	Order code	kg	pc.
96	D	10	552703	VLM-2-10/96	2CSG213040R4001		1
96	D	15	552802	VLM-2-15/96	2CSG213050R4001		1
96	D	25	552901	VLM-2-25/96	2CSG213070R4001		1
96	D	40	553007	VLM-2-40/96	2CSG213090R4001		1
96	D	60	553106	VLM-2-60/96	2CSG213110R4001		1
96	D	80	553205	VLM-2-80/96	2CSG213120R4001		1
96	D	100	553304	VLM-2-100/96	2CSG213130R4001		1
96	D	150	553403	VLM-2-150/96	2CSG213150R4001		1
96	D	200	553502	VLM-2-200/96	2CSG213160R4001		1
96	D	250	553601	VLM-2-250/96	2CSG213180R4001		1
96	D	400	553700	VLM-2-400/96	2CSG213210R4001		1
96	D	600	553809	VLM-2-600/96	2CSG213230R4001		1

D: direct connection

I: indirect connection with VT, CT and shunt, according to the type



AMT1-A1 48

ZCSG445069F0001

Front-panel analogue ammeters for alternating current

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm		A a.c.	EAN	Type code	Order code	kg	pc.
48	D	1	543107	AMT1-A1-1/48	2CSG311020R4001		1
48	D	5	543206	AMT1-A1-5/48	2CSG311030R4001		1
48	D	10	543305	AMT1-A1-10/48	2CSG311040R4001		1
48	D	15	543404	AMT1-A1-15/48	2CSG311050R4001		1
48	D	20	543503	AMT1-A1-20/48	2CSG311060R4001		1
48	D	25	543602	AMT1-A1-25/48	2CSG311070R4001		1
48	D	30	543701	AMT1-A1-30/48	2CSG311080R4001		1
48	D	40	543800	AMT1-A1-40/48	2CSG311090R4001		1
48	I	SCL-A1	543909	AMT1-A1/48	2CSG321250R4001		1
48	I	SCL-A5	544005	AMT1-A5/48	2CSG321260R4001		1

Maybe you are also interested in:

Current and voltage transformers - chapter 7

Voltmetric and current switches - chapter 7



AMT1-A1 72

2CSG44508FF0001



AMT1-A1 96

2CSG44506FF0001



AMT2-A2 48

2CSG44506FF0001

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm		A a.c.	EAN	Type code	Order code	kg	pc.
72	D	1	545507	AMT1-A1-1/72			1
72	D	5	545606	AMT1-A1-5/72			1
72	D	10	545705	AMT1-A1-10/72			1
72	D	15	545804	AMT1-A1-15/72			1
72	D	20	545903	AMT1-A1-20/72			1
72	D	25	546009	AMT1-A1-25/72			1
72	D	30	546108	AMT1-A1-30/72			1
72	D	40	546207	AMT1-A1-40/72			1
72	D	50	546306	AMT1-A1-50/72			1
72	D	60	546405	AMT1-A1-60/72			1
72	I	SCL-A1	546504	AMT1-A1/72			1
72	I	SCL-A5	546603	AMT1-A5/72			1

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm		A a.c.	EAN	Type code	Order code	kg	pc.
96	D	1	548102	AMT1-A1-1/96			1
96	D	5	548201	AMT1-A1-5/96			1
96	D	10	548300	AMT1-A1-10/96			1
96	D	15	548409	AMT1-A1-15/96			1
96	D	20	548508	AMT1-A1-20/96			1
96	D	25	548607	AMT1-A1-25/96			1
96	D	30	548706	AMT1-A1-30/96			1
96	D	40	548805	AMT1-A1-40/96			1
96	D	50	548904	AMT1-A1-50/96			1
96	D	60	549000	AMT1-A1-60/96			1
96	I	SCL-A1	549109	AMT1-A1/96			1
96	I	SCL-A5	549208	AMT1-A5/96			1

D: direct connection

I: indirect connection with VT, CT and shunt, according to the type

Front-panel analogue ammeters for direct current

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm		A d.c.	EAN	Type code	Order code	kg	pc.
48	D	0,5	550501	AMT2-A2-0,5/48			1
48	D	1	550600	AMT2-A2-1/48			1
48	D	5	550709	AMT2-A2-5/48			1
48	D	10	550808	AMT2-A2-10/48			1
48	I	SCL-A2	550907	AMT2-A2/48			1

Energy efficiency

Front-panel analogue instruments



AMT2-A2 72

2CSG445089F0001

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm		A d.c.	EAN	Type code	Order code	kg	pc.
72	D	0,5	552208	AMT2-A2-0,5/72			1
72	D	1	552307	AMT2-A2-1/72			1
72	D	5	552406	AMT2-A2-5/72			1
72	D	10	552505	AMT2-A2-10/72			1
72	I	SCL-A2	552604	AMT2-A2/72			1



AMT2-A2 96

2CSG445089F0001

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm		A d.c.	EAN	Type code	Order code	kg	pc.
96	D	0,5	553908	AMT2-A2-0,5/96			1
96	D	1	554004	AMT2-A2-1/96			1
96	D	5	554103	AMT2-A2-5/96			1
96	D	10	554202	AMT2-A2-10/96			1
96	I	SCL-A2	554301	AMT2-A2/96			1

D: direct connection

I: indirect connection with VT, CT and shunt, according to the type

7

Front-panel analogue frequency meters



FRZ 48

2CSG445079F0001

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm			EAN	Type code	Order code	kg	pc.
48	D	90°	555605	FRZ-90/48			1



FRZ 72

2CSG445079F0001

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm			EAN	Type code	Order code	kg	pc.
72	D	90°	555704	FRZ-90/72			1
72	D	240°	555902	FRZ-240/72			1



FRZ 96

2CSG445079F0001

Size	Insertion	Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
mm			EAN	Type code	Order code	kg	pc.
96	D	90°	555803	FRZ-90/96			1
96	D	240°	556008	FRZ-240/96			1

D: direct connection

I: indirect connection with VT, CT and shunt, according to the type

Maybe you are also interested in:

Current and voltage transformers - chapter 7

Voltmetric and current switches - chapter 7

Energy efficiency

Scales for front-panel analogue instrument



SCL

Scales for front-panel analogue ammeters

Scales 48 x 48 mm: SCL-A1 for AMT1-A1/48 a.c. ammeters

Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
A a.c.	EAN	Type code	Order code	kg	pc.
1	769408	SCL-A1-1/48	2CSG111010R5011	0.010	10
5	769507	SCL-A1-5/48	2CSG111021R5011	0.010	10
10	769606	SCL-A1-10/48	2CSG111032R5011	0.010	10
15	769705	SCL-A1-15/48	2CSG111054R5011	0.010	10
20	769804	SCL-A1-20/48	2CSG111075R5011	0.010	10
25	769903	SCL-A1-25/48	2CSG111096R5011	0.010	10
30	770008	SCL-A1-30/48	2CSG111107R5011	0.010	10
40	770107	SCL-A1-40/48	2CSG111128R5011	0.010	10
50	770206	SCL-A1-50/48	2CSG111149R5011	0.010	10
60	770305	SCL-A1-60/48	2CSG111159R5011	0.010	10
80	770404	SCL-A1-80/48	2CSG111179R5011	0.010	10
100	560500	SCL-A1-100/48	2CSG111189R5011	0.010	10
150	560609	SCL-A1-150/48	2CSG111209R5011	0.010	10
200	560708	SCL-A1-200/48	2CSG111229R5011	0.010	10
250	560807	SCL-A1-250/48	2CSG111249R5011	0.010	10
300	560906	SCL-A1-300/48	2CSG111259R5011	0.010	10
400	561002	SCL-A1-400/48	2CSG111279R5011	0.010	10
500	561101	SCL-A1-500/48	2CSG111299R5011	0.010	10
600	561200	SCL-A1-600/48	2CSG111309R5011	0.010	10
800	561309	SCL-A1-800/48	2CSG111329R5011	0.010	10
1000	561408	SCL-A1-1000/48	2CSG111339R5011	0.010	10
1500	561507	SCL-A1-1500/48	2CSG111359R5011	0.010	10
2000	561606	SCL-A1-2000/48	2CSG111379R5011	0.010	10
2500	561705	SCL-A1-2500/48	2CSG111389R5011	0.010	10
3000	561804	SCL-A1-3000/48	2CSG111399R5011	0.010	10
4000	561903	SCL-A1-4000/48	2CSG111409R5011	0.010	10
5000	562009	SCL-A1-5000/48	2CSG111419R5011	0.010	10
6000	562108	SCL-A1-6000/48	2CSG111429R5011	0.010	10
8000	562207	SCL-A1-8000/48	2CSG111439R5011	0.010	10
10000	562306	SCL-A1-10000/48	2CSG111449R5011	0.010	10

Energy efficiency

Scales for front-panel analogue instrument



SCL

Scales 48 x 48 mm: SCL-A5 for AMT1-A5/48 a.c. ammeters

Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
A a.c.	EAN	Type code	Order code	kg	pc.
1	770503	SCL-A5-1/48	2CSG121010R5011	0.010	10
5	770602	SCL-A5-5/48	2CSG121021R5011	0.010	10
10	770701	SCL-A5-10/48	2CSG121032R5011	0.010	10
15	770800	SCL-A5-15/48	2CSG121054R5011	0.010	10
20	770909	SCL-A5-20/48	2CSG121075R5011	0.010	10
25	771005	SCL-A5-25/48	2CSG121096R5011	0.010	10
30	771104	SCL-A5-30/48	2CSG121107R5011	0.010	10
40	771203	SCL-A5-40/48	2CSG121128R5011	0.010	10
50	771302	SCL-A5-50/48	2CSG121149R5011	0.010	10
60	771401	SCL-A5-60/48	2CSG121159R5011	0.010	10
80	771500	SCL-A5-80/48	2CSG121179R5011	0.010	10
100	562405	SCL-A5-100/48	2CSG121189R5011	0.010	10
150	562504	SCL-A5-150/48	2CSG121209R5011	0.010	10
200	562603	SCL-A5-200/48	2CSG121229R5011	0.010	10
250	562702	SCL-A5-250/48	2CSG121249R5011	0.010	10
300	562801	SCL-A5-300/48	2CSG121259R5011	0.010	10
400	562900	SCL-A5-400/48	2CSG121279R5011	0.010	10
500	563006	SCL-A5-500/48	2CSG121299R5011	0.010	10
600	563105	SCL-A5-600/48	2CSG121309R5011	0.010	10
800	563204	SCL-A5-800/48	2CSG121329R5011	0.010	10
1000	563303	SCL-A5-1000/48	2CSG121339R5011	0.010	10
1500	563402	SCL-A5-1500/48	2CSG121359R5011	0.010	10
2000	563501	SCL-A5-2000/48	2CSG121379R5011	0.010	10
2500	563600	SCL-A5-2500/48	2CSG121389R5011	0.010	10
3000	563709	SCL-A5-3000/48	2CSG121399R5011	0.010	10
4000	563808	SCL-A5-4000/48	2CSG121409R5011	0.010	10
5000	563907	SCL-A5-5000/48	2CSG121419R5011	0.010	10
6000	564003	SCL-A5-6000/48	2CSG121429R5011	0.010	10
8000	564102	SCL-A5-8000/48	2CSG121439R5011	0.010	10
10000	564201	SCL-A5-10000/48	2CSG121449R5011	0.010	10



SCL

Scales 72 x 72 mm: SCL-A1 for AMT1-A1/72 a.c. ammeters

Scale	Bbn 8012542	Order details	Price 1 piece	Weight 1 piece	Pack unit
A a.c.	EAN	Type code	Order code	kg	pc.
1	771609	SCL-A1-1/72	2CSG112010R5011	0.010	10
5	771708	SCL-A1-5/72	2CSG112021R5011	0.010	10
10	771807	SCL-A1-10/72	2CSG112032R5011	0.010	10
15	771906	SCL-A1-15/72	2CSG112054R5011	0.010	10
20	772002	SCL-A1-20/72	2CSG112075R5011	0.010	10
25	772101	SCL-A1-25/72	2CSG112096R5011	0.010	10
30	772200	SCL-A1-30/72	2CSG112107R5011	0.010	10
40	772309	SCL-A1-40/72	2CSG112128R5011	0.010	10
50	772408	SCL-A1-50/72	2CSG112149R5011	0.010	10
60	772507	SCL-A1-60/72	2CSG112159R5011	0.010	10
80	772606	SCL-A1-80/72	2CSG112179R5011	0.010	10
100	572305	SCL-A1-100/72	2CSG112189R5011	0.010	10
150	572404	SCL-A1-150/72	2CSG112209R5011	0.010	10
200	572503	SCL-A1-200/72	2CSG112229R5011	0.010	10
250	572602	SCL-A1-250/72	2CSG112249R5011	0.010	10
300	572701	SCL-A1-300/72	2CSG112259R5011	0.010	10
400	572800	SCL-A1-400/72	2CSG112279R5011	0.010	10
500	572909	SCL-A1-500/72	2CSG112299R5011	0.010	10
600	573005	SCL-A1-600/72	2CSG112309R5011	0.010	10
800	573104	SCL-A1-800/72	2CSG112329R5011	0.010	10
1000	573203	SCL-A1-1000/72	2CSG112339R5011	0.010	10
1500	573302	SCL-A1-1500/72	2CSG112359R5011	0.010	10
2000	573401	SCL-A1-2000/72	2CSG112379R5011	0.010	10
2500	573500	SCL-A1-2500/72	2CSG112389R5011	0.010	10
3000	573609	SCL-A1-3000/72	2CSG112399R5011	0.010	10
4000	573708	SCL-A1-4000/72	2CSG112409R5011	0.010	10
5000	573807	SCL-A1-5000/72	2CSG112419R5011	0.010	10
6000	573906	SCL-A1-6000/72	2CSG112429R5011	0.010	10
8000	574002	SCL-A1-8000/72	2CSG112439R5011	0.010	10
10000	574101	SCL-A1-10000/72	2CSG112449R5011	0.010	10

Energy efficiency

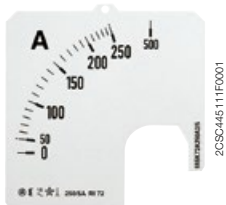
Scales for front-panel analogue instrument



SCL

Scales 72 x 72 mm: SCL-A5 for AMT1-A5/72 a.c. ammeters

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
A a.c.	EAN	Type code	Order code		kg	pc.
1	772705	SCL-A5-1/72	2CSG122010R5011		0.010	10
5	772804	SCL-A5-5/72	2CSG122021R5011		0.010	10
10	772903	SCL-A5-10/72	2CSG122032R5011		0.010	10
15	773009	SCL-A5-15/72	2CSG122054R5011		0.010	10
20	773108	SCL-A5-20/72	2CSG122075R5011		0.010	10
25	773207	SCL-A5-25/72	2CSG122096R5011		0.010	10
30	773306	SCL-A5-30/72	2CSG122107R5011		0.010	10
40	773405	SCL-A5-40/72	2CSG122128R5011		0.010	10
50	773504	SCL-A5-50/72	2CSG122149R5011		0.010	10
60	773603	SCL-A5-60/72	2CSG122159R5011		0.010	10
80	773702	SCL-A5-80/72	2CSG122179R5011		0.010	10
100	574200	SCL-A5-100/72	2CSG122189R5011		0.010	10
150	574309	SCL-A5-150/72	2CSG122209R5011		0.010	10
200	574408	SCL-A5-200/72	2CSG122229R5011		0.010	10
250	574507	SCL-A5-250/72	2CSG122249R5011		0.010	10
300	574606	SCL-A5-300/72	2CSG122259R5011		0.010	10
400	574705	SCL-A5-400/72	2CSG122279R5011		0.010	10
500	574804	SCL-A5-500/72	2CSG122299R5011		0.010	10
600	574903	SCL-A5-600/72	2CSG122309R5011		0.010	10
800	575009	SCL-A5-800/72	2CSG122329R5011		0.010	10
1000	575108	SCL-A5-1000/72	2CSG122339R5011		0.010	10
1500	575207	SCL-A5-1500/72	2CSG122359R5011		0.010	10
2000	575306	SCL-A5-2000/72	2CSG122379R5011		0.010	10
2500	575405	SCL-A5-2500/72	2CSG122389R5011		0.010	10
3000	575504	SCL-A5-3000/72	2CSG122399R5011		0.010	10
4000	575603	SCL-A5-4000/72	2CSG122409R5011		0.010	10
5000	575702	SCL-A5-5000/72	2CSG122419R5011		0.010	10
6000	575801	SCL-A5-6000/72	2CSG122429R5011		0.010	10
8000	575900	SCL-A5-8000/72	2CSG122439R5011		0.010	10
10000	576006	SCL-A5-10000/72	2CSG122449R5011		0.010	10



SCL

Scales 96 x 96 mm: SCL-A1 for AMT1-A1/96 a.c. ammeters

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
A a.c.	EAN	Type code	Order code		kg	pc.
1	773801	SCL-A1-1/96	2CSG113010R5011		0.010	10
5	773900	SCL-A1-5/96	2CSG113021R5011		0.010	10
10	774006	SCL-A1-10/96	2CSG113032R5011		0.010	10
15	774105	SCL-A1-15/96	2CSG113054R5011		0.010	10
20	774204	SCL-A1-20/96	2CSG113075R5011		0.010	10
25	774303	SCL-A1-25/96	2CSG113096R5011		0.010	10
30	774402	SCL-A1-30/96	2CSG113107R5011		0.010	10
40	774501	SCL-A1-40/96	2CSG113128R5011		0.010	10
50	774600	SCL-A1-50/96	2CSG113149R5011		0.010	10
60	774709	SCL-A1-60/96	2CSG113159R5011		0.010	10
80	774808	SCL-A1-80/96	2CSG113179R5011		0.010	10
100	584100	SCL-A1-100/96	2CSG113189R5011		0.010	10
150	584209	SCL-A1-150/96	2CSG113209R5011		0.010	10
200	584308	SCL-A1-200/96	2CSG113229R5011		0.010	10
250	584407	SCL-A1-250/96	2CSG113249R5011		0.010	10
300	584506	SCL-A1-300/96	2CSG113259R5011		0.010	10
400	584605	SCL-A1-400/96	2CSG113279R5011		0.010	10
500	584704	SCL-A1-500/96	2CSG113299R5011		0.010	10
600	584803	SCL-A1-600/96	2CSG113309R5011		0.010	10
800	584902	SCL-A1-800/96	2CSG113329R5011		0.010	10
1000	585008	SCL-A1-1000/96	2CSG113339R5011		0.010	10
1500	585107	SCL-A1-1500/96	2CSG113359R5011		0.010	10
2000	585206	SCL-A1-2000/96	2CSG113379R5011		0.010	10
2500	585305	SCL-A1-2500/96	2CSG113389R5011		0.010	10
3000	585404	SCL-A1-3000/96	2CSG113399R5011		0.010	10
4000	585503	SCL-A1-4000/96	2CSG113409R5011		0.010	10
5000	585602	SCL-A1-5000/96	2CSG113419R5011		0.010	10
6000	585701	SCL-A1-6000/96	2CSG113429R5011		0.010	10
8000	585800	SCL-A1-8000/96	2CSG113439R5011		0.010	10
10000	585909	SCL-A1-10000/96	2CSG113449R5011		0.010	10

Energy efficiency

Scales for front-panel analogue instrument



SCL

Scales 96 x 96 mm: SCL-A5 for AMT1-A5/96 a.c. ammeters						
Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
A a.c.	EAN	Type code	Order code		kg	pc.
1	774907	SCL-A5-1/96	2CSG123010R5011		0.010	10
5	775003	SCL-A5-5/96	2CSG123021R5011		0.010	10
10	775102	SCL-A5-10/96	2CSG123032R5011		0.010	10
15	775201	SCL-A5-15/96	2CSG123054R5011		0.010	10
20	775300	SCL-A5-20/96	2CSG123075R5011		0.010	10
25	775409	SCL-A5-25/96	2CSG123096R5011		0.010	10
30	775508	SCL-A5-30/96	2CSG123107R5011		0.010	10
40	775607	SCL-A5-40/96	2CSG123128R5011		0.010	10
50	775706	SCL-A5-50/96	2CSG123149R5011		0.010	10
60	775805	SCL-A5-60/96	2CSG123159R5011		0.010	10
80	775904	SCL-A5-80/96	2CSG123179R5011		0.010	10
100	586005	SCL-A5-100/96	2CSG123189R5011		0.010	10
150	586104	SCL-A5-150/96	2CSG123209R5011		0.010	10
200	586203	SCL-A5-200/96	2CSG123229R5011		0.010	10
250	586302	SCL-A5-250/96	2CSG123249R5011		0.010	10
300	586401	SCL-A5-300/96	2CSG123259R5011		0.010	10
400	586500	SCL-A5-400/96	2CSG123279R5011		0.010	10
500	586609	SCL-A5-500/96	2CSG123299R5011		0.010	10
600	586708	SCL-A5-600/96	2CSG123309R5011		0.010	10
800	586807	SCL-A5-800/96	2CSG123329R5011		0.010	10
1000	586906	SCL-A5-1000/96	2CSG123339R5011		0.010	10
1500	587002	SCL-A5-1500/96	2CSG123359R5011		0.010	10
2000	587101	SCL-A5-2000/96	2CSG123379R5011		0.010	10
2500	587200	SCL-A5-2500/96	2CSG123389R5011		0.010	10
3000	587309	SCL-A5-3000/96	2CSG123399R5011		0.010	10
4000	587408	SCL-A5-4000/96	2CSG123409R5011		0.010	10
5000	587507	SCL-A5-5000/96	2CSG123419R5011		0.010	10
6000	587606	SCL-A5-6000/96	2CSG123429R5011		0.010	10
8000	587705	SCL-A5-8000/96	2CSG123439R5011		0.010	10
10000	587804	SCL-A5-10000/96	2CSG123449R5011		0.010	10



SCL

Scales 48 x 48 mm: SCL-A2 for AMT2-A2/48 d.c. ammeters

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
A d.c.	EAN	Type code	Order code		kg	pc.
20	595908	SCL-A2-20/48	2CSG231075R5011		0.010	10
100	596004	SCL-A2-100/48	2CSG231189R5011		0.010	10
150	596103	SCL-A2-150/48	2CSG231209R5011		0.010	10
200	596202	SCL-A2-200/48	2CSG231229R5011		0.010	10
250	596301	SCL-A2-250/48	2CSG231249R5011		0.010	10
300	596400	SCL-A2-300/48	2CSG231259R5011		0.010	10
400	596509	SCL-A2-400/48	2CSG231279R5011		0.010	10
500	596608	SCL-A2-500/48	2CSG231299R5011		0.010	10
600	596707	SCL-A2-600/48	2CSG231309R5011		0.010	10
800	596806	SCL-A2-800/48	2CSG231329R5011		0.010	10
1000	596905	SCL-A2-1000/48	2CSG231339R5011		0.010	10

Scales 72 x 72 mm: SCL-A2 for AMT2-A2/72 d.c. ammeters

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
A d.c.	EAN	Type code	Order code		kg	pc.
20	597001	SCL-A2-20/72	2CSG232075R5011		0.010	10
100	597100	SCL-A2-100/72	2CSG232189R5011		0.010	10
150	597209	SCL-A2-150/72	2CSG232209R5011		0.010	10
200	597308	SCL-A2-200/72	2CSG232229R5011		0.010	10
250	597407	SCL-A2-250/72	2CSG232249R5011		0.010	10
300	597506	SCL-A2-300/72	2CSG232259R5011		0.010	10
400	597605	SCL-A2-400/72	2CSG232279R5011		0.010	10
500	597704	SCL-A2-500/72	2CSG232299R5011		0.010	10
600	597803	SCL-A2-600/72	2CSG232309R5011		0.010	10
800	597902	SCL-A2-800/72	2CSG232329R5011		0.010	10
1000	598008	SCL-A2-1000/72	2CSG232339R5011		0.010	10

Scales 96 x 96 mm: SCL-A2 for AMT2-A2/96 d.c. ammeters

Scale	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
A d.c.	EAN	Type code	Order code		kg	pc.
20	598107	SCL-A2-20/96	2CSG233075R5011		0.010	10
100	598206	SCL-A2-100/96	2CSG233189R5011		0.010	10
150	598305	SCL-A2-150/96	2CSG233209R5011		0.010	10
200	598404	SCL-A2-200/96	2CSG233229R5011		0.010	10
250	598503	SCL-A2-250/96	2CSG233249R5011		0.010	10
300	598602	SCL-A2-300/96	2CSG233259R5011		0.010	10
400	598701	SCL-A2-400/96	2CSG233279R5011		0.010	10
500	598800	SCL-A2-500/96	2CSG233299R5011		0.010	10
600	598909	SCL-A2-600/96	2CSG233309R5011		0.010	10
800	599005	SCL-A2-800/96	2CSG233329R5011		0.010	10
1000	599104	SCL-A2-1000/96	2CSG233339R5011		0.010	10

Energy efficiency

Voltmetric and current switches



MCV

Technical features		
Insulation voltage	[V]	600
Rated thermal current	[A]	12
Mechanic operations	[No.]	1000000
Power consumption	[VA]	0.23
Modules	[No.]	3

MCV - MCA voltmetric and current switches

Cam rotary switches are suitable for mounting on EN 50022 rail. In three-phase systems they enable the use of a single measurement instrument (single-phase) for viewing the current or voltage value set through the switch itself.



MCA

Voltmeter switches							
Range	Power loss	Bbn 7392696	Order details		Price 1 piece	Weight 1 piece	Pack unit
	W	EAN	Type code	Order code		kg	pc.
L1, L2, L3	0.5	52246 9	MCV 4	1SCA 022 404 R4740		0.095	1
L1, L2, L3, N	0.5	52243 8	MCV 7	1SCA 022 647 R7840		0.110	1

7



QCA 48

Current switches							
Range	Power loss	Bbn 7392696	Order details		Price 1 piece	Weight 1 piece	Pack unit
	W	EAN	Type code	Order code		kg	pc.
0-1-2-3	0.5	52245 2	MCA 4	1SCA 022 404 R4821		0.110	1

Front panel QCV - QCA voltage and current switches

For use in three-phase systems, to allow a single device to measure the voltage and current settings adjusted by the switches.



QCV 48

Measure	Position	Bbn 7392696	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code		kg	pc.
Voltage	4	527990	QCV-4/48	1SCA022780R0770		0.150	1
Current	4	528003	QCA-4/48	1SCA022780R0690		0.150	1
Voltage	7	527983	QCV-7/48	1SCA022780R0850		0.150	1

Energy efficiency

E 233 hour counters



Technical features		
	AC equipment	DC equipment
Rated voltage	50 Hz: 24 V, 230 V 60 Hz: 24 V, 120 V, 240 V	DC 12 V ... 48 V
Voltage tolerance	±15 %	±10 %
Power consumption	1.5 VA	ca. 20 mW (at 12 V DC)
Ambient temperature	-15 °C/5 °F... +50 °C/122 °F	-10 °C/14 °F ... +50 °C/122 °F
Counting capacity	99.999 h	99.999 h
Reading accuracy	0.01 h	0.1 h
Operation display	fast running	LED blinking
Protection against electric shock	according to DIN VDE 0106 Part 100 (BGV A2)	according to DIN VDE 0106 Part 100 (BGV A2)
Terminal size	up to 10 mm ²	up to 10 mm ²

E 233 electro-mechanical hour counters

Hour counters are used to record operating times as well as to determine idle times and off times of industrial machinery and plant, for commercial purposes or in domestic installations. No reset functionality.

Rated voltage	Bbn 4012233	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
AC 230 V/50 Hz	63000 4	E 233-230	2CDE100000R1601		0.05	10
AC 24 V/50 Hz	63010 3	E 233-24	2CDE400000R1601		0.05	10
DC 12 V ... 48 V	63020 2	E 233-12/48	2CDE300010R1601		0.05	10
AC 240 V/60 Hz	36590 1 ①	E 233-240/60 Hz	2CDE100021R1601		0.05	10
AC 120 V/60 Hz	36600 7 ①	E 233-120/60 Hz	2CDE600021R1601		0.05	10
AC 24 V/60 Hz	36610 6 ①	E 233- 24/60 Hz	2CDE400021R1601		0.05	10

① Bbn No. 4016779

Energy efficiency HMT hour counters



HMT

Technical features		
Rated voltage Un	[V]	a.c. 24 a.c. 110 a.c. 230
Displayed digits (in hours)	[n°]	99,999.9 (for HMT1 and HMT11)
Accuracy class	[%]	0.5
Frequency	[Hz]	50
Power consumption	[W]	1.1...2.2
Modules	[No.]	2

HMT electro-mechanical hour counters

Equipped with 7-digit indicator (99.999,99) and available in two modules. They cannot be reset.

Rated voltage	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
V AC	EAN	Type code	Order code		kg	pc.
24	030300	HMT 1/24	2CSM111000R1601		0.200	6
110	030409	HMT 1/110	2CSM121000R1601		0.200	6
220	030508	HMT 1/220	2CSM131000R1601		0.200	6
230	030607	HMT 11	2CSM133000R1601		0.200	1

Energy efficiency

TMD temperature control units



TMD

Technical features			
Auxiliary supply	Alternating current	[V]	20÷250 ±15%
	Direct current	[Hz]	115-230-400 50-60
Power consumption		[VA]	4 max
Input	Sensor		PT100 RTD (not included)
	Type		3 wires (2 and 4 wires types are also supported)
	Error		1 degree every 0,39 Ω
	Measure range	[°C]	0...220 ± 2
	Compensation	[Ω]	20 max
	Trip delay/hysteresis	[s/°C]	5/2
Output	Number		4
	Type		NO-CO-NC
	Vmax	[V]	12 d.c.
	Imax	[A]	8 (resistive load)
	Functions		Alarm, trip, cooling, auto-test
	Programmable functions		Alarm, tip, hold, fan, temp. max
Display			7 segments LED
Connections	Terminals		removable screw
	Max section	[mm ²]	2.5
Insulation voltage		[V]	2500/50 Hz - 1 min
Protection degree	Front		IP52
	Rear		IP20
Operation temperature		[°C]	-10...+55, relative humidity max 90%
Storage temperature		[°C]	-25...+80
Reference			IEC EN 50081-2, IEC EN 50082-2, IEC EN 60255

Temperature control units

TMD are used measure and control the temperature levels and efficiency of electric machines, power transformers, motors, etc.

The temperature is measured by four PT100 type sensors. Each measuring channel has two programmable alarm thresholds which trip two output relays to remotely signal that a critical temperature has been reached.

The measured values and any alarm conditions are shown on the dual 3-digit display on the front of the device, which also has five programming keys for configuring its operation.

The control unit is also able to store in memory maximum values and a log of all trip-events.

Temperature measured	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
4	560203	TMD-4/96	2CSG524000R2021		0.8	1

Where to find more:

Technical details for TMD:
Chapter 7 of
Solutions for electrical installation in
buildings - technical details

Energy efficiency

Current transformers selection table

Breaker choice

Modular	S200, S280, S290, S700, S750DR, S800		
Tmax	XT1, XT2, XT3, XT4, T4320	T5	
Emax			

Installation choice

Fixing system	DIN rail	DIN rail	DIN rail, cable or bus bar	Bus bar	DIN rail, cable or bus bar, base mounted with feet
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Rated current (A)	CTA	TRF M	CT PRO XT		CT30	CT MAX	
			Standard	SELV version		Standard	SELV version
5	2CSG111020R1141 CTA/5						
10	2CSG111030R1141 CTA/10						
15	2CSG111040R1141 CTA/15						
20	2CSG111050R1141 CTA/20						
25	2CSG111060R1141 CTA/25						
40	2CSG111080R1141 CTA/40 (cl. 0.5)	2CSM100050R1111 TRFM/40	2CSG225745R1101 CT PRO XT 40	2CSG225845R1101 CT PRO XT 40 SELV			
50	2CSG111090R1141 CTA/50 (cl. 0.5)		2CSG225755R1101 CT PRO XT 50	2CSG225855R1101 CT PRO XT 50 SELV			
60	2CSG111100R1141 CTA/60 (cl. 0.5)	2CSM100070R1111 TRFM/60 (cl. 1)	2CSG225765R1101 CT PRO XT 60	2CSG225865R1101 CT PRO XT 60 SELV			
80	2CSG111110R1141 CTA/80 (cl. 0.5)		2CSG225775R1101 CT PRO XT 80	2CSG225875R1101 CT PRO XT 80 SELV			
100	2CSG111120R1141 CTA/100 (cl. 0.5)	2CSM100090R1111 TRFM/100	2CSG225785R1101 CT PRO XT 100	2CSG225885R1101 CT PRO XT 100 SELV	2CSG101100R1101 CT30/100 (cl. 3)		
150		2CSM100100R1111 TRFM/150	2CSG225795R1101 CT PRO XT 150	2CSG225895R1101 CT PRO XT 150 SELV	2CSG101110R1101 CT30/150 (cl. 3)		
200			2CSG225805R1101 CT PRO XT 200	2CSG225905R1101 CT PRO XT 200 SELV			
250		2CSM100120R1111 TRFM/250	2CSG225815R1101 CT PRO XT 250	2CSG225915R1101 CT PRO XT 250 SELV	2CSG101130R1101 CT30/250		
300			2CSG225825R1101 CT PRO XT 300	2CSG225925R1101 CT PRO XT 300 SELV		2CSG225945R1101 CT MAX 300	2CSG226005R1101 CT MAX 300 SELV
400		2CSM100140R1111 TRFM/400	2CSG225835R1101 CT PRO XT 400	2CSG225935R1101 CT PRO XT 400 SELV	2CSG101150R1101 CT30/400	2CSG225955R1101 CT MAX 400	2CSG226015R1101 CT MAX 400 SELV
500						2CSG225965R1101 CT MAX 500	2CSG226025R1101 CT MAX 500 SELV
600		2CSM100160R1111 TRFM/600				2CSG225975R1101 CT MAX 600	2CSG226035R1101 CT MAX 600 SELV
800						2CSG225985R1101 CT MAX 800	2CSG226045R1101 CT MAX 800 SELV

	T6,T7		T6,T7				
	E1.2, E2.2, E4.2			E2, E3, E4, E6	E2.2, E4.2, E6.2	E2.2, E4.2	E1.2



CT6	CT8	CT8V	CT80	CT12	CT12V	CT120	Class
							0,5
							0,5
							0,5
							0,5
							0,5
							3
							3
							3
							3
							1
							0,5
							0,5
							0,5
							0,5
							0,5
2CSG421130R1101 CT6/250			2CSG201130R1101 CT80/250				0,5
2CSG421140R1101 CT6/300	2CSG521140R1101 CT8/300						0,5
2CSG421150R1101 CT6/400	2CSG521150R1101 CT8/400	2CSG631150R1101 CT8-V/400	2CSG201150R1101 CT80/400			2CSG401150R1101 CT120/400	0,5
2CSG421160R1101 CT6/500	2CSG521160R1101 CT8/500	2CSG631160R1101 CT8-V/500	2CSG201160R1101 CT80/500	2CSG721160R1101 CT12/500		2CSG401160R1101 CT120/500	0,5
2CSG421170R1101 CT6/600	2CSG521170R1101 CT8/600	2CSG631170R1101 CT8-V/600	2CSG201170R1101 CT80/600	2CSG721170R1101 CT12/600		2CSG401170R1101 CT120/600	0,5
2CSG421180R1101 CT6/800	2CSG521180R1101 CT8/800	2CSG631180R1101 CT8-V/800	2CSG201180R1101 CT80/800	2CSG721180R1101 CT12/800	2CSG831180R1101 CT12-V/800	2CSG401180R1101 CT120/800	0,5






Energy efficiency

Current transformers selection table

Breaker choice

Modular	S200, S280, S290, S700, S750DR, S800		
Tmax	XT1, XT2, XT3, XT4, T4320	T5	
Emax			

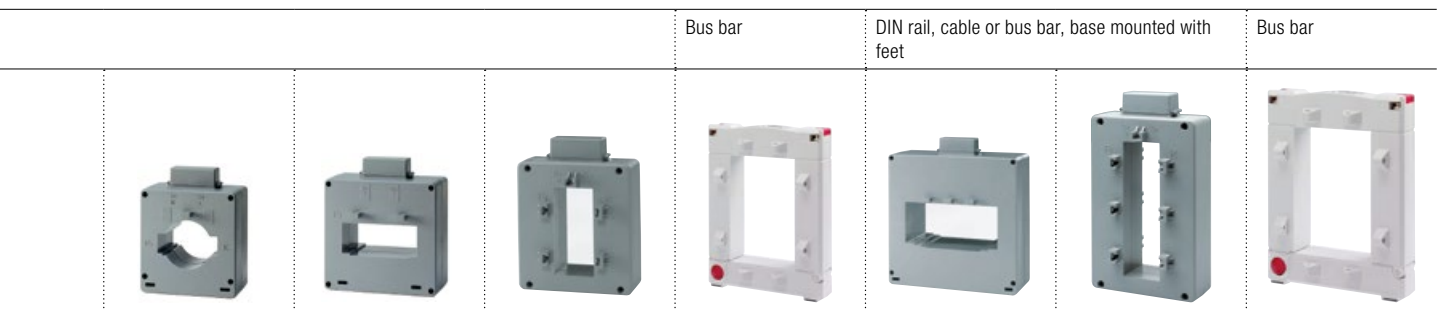
Installation choice

Fixing system	DIN rail	DIN rail	DIN rail, cable or bus bar		Bus bar	DIN rail, cable or bus bar, base mounted with feet	
							
Rated current (A)	CTA	TRF M	CT PRO XT		CT30	CT MAX	
			Standard	SELV version		Standard	SELV version
1000						2CSG225995R1101 CT MAX 1000	2CSG226055R1101 CT MAX 1000 SELV
1200							
1250							
1500							
2000							
2500							
3000							
4000							
5000							
6000							

Primary choice

	CTA	TRF M	CT PRO XT		CT30	CT MAX	
	Wound primary	Through primary			Split core trough primary	Through primary	
Through primary max	8	29	18	18	–	30	30
section [mm]	–	–	20x10	20x10	–	30x15; 40x10	30x15; 40x10
	–	–	–	–	3x80x10	–	–

	T6,T7		T6,T7				
	E1.2, E2.2, E4.2			E2, E3, E4, E6	E2.2, E4.2, E6.2	E2.2, E4.2	E1.2



CT6	CT8	CT8V	CT80	CT12	CT12V	CT120	Class
2CSG421190R1101 CT6/1000	2CSG521190R1101 CT8/1000	2CSG631190R1101 CT8-V/1000	2CSG201190R1101 CT80/1000	2CSG721190R1101 CT12/1000	2CSG831190R1101 CT12-V/1000	2CSG401190R1101 CT120/1000	0,5
2CSG421200R1101 CT6/1200	2CSG521200R1101 CT8/1200	2CSG631200R1101 CT8-V/1200		2CSG721200R1101 CT12/1200	2CSG831200R1101 CT12-V/1200	2CSG401200R1101 CT120/1200	0,5
					2CSG831210R1101 CT12-V/1250		0,5
2CSG421220R1101 CT6/1500	2CSG521220R1101 CT8/1500	2CSG631220R1101 CT8-V/1500		2CSG721220R1101 CT12/1500	2CSG831220R1101 CT12-V/1500	2CSG401220R1101 CT120/1500	0,5
2CSG421230R1101 CT6/2000	2CSG521230R1101 CT8/2000	2CSG631230R1101 CT8-V/2000	2CSG301230R1101 CT80/2000	2CSG721230R1101 CT12/2000	2CSG831230R1101 CT12-V/2000		0,5
2CSG421240R1101 CT6/2500	2CSG521240R1101 CT8/2500	2CSG631240R1101 CT8-V/2500	2CSG301240R1101 CT80/2500	2CSG721240R1101 CT12/2500	2CSG831240R1101 CT12-V/2500		0,5
	2CSG521250R1101 CT8/3000			2CSG721250R1101 CT12/3000	2CSG831250R1101 CT12-V/3000		0,5
				2CSG721260R1101 CT12/4000	2CSG831260R1101 CT12-V/4000		0,5
				2CSG721270R1101 CT12/5000			0,5
				2CSG721280R1101 CT12/6000			0,5

CT6	CT8	CT8V	CT80	CT12	CT12V	CT120
Through primary			Split core trough primary	Through primary		Split core trough primary
50	2x30	2x35	–	2x50	3x35	–
60x20	80x30	–	–	80x50; 100x50; 125x50	–	–
–	–	80x30; 3x80x5	2x30x10	–	125x30, 3x100x10, 4x100x5, 4x125x5	4x120x10

Energy efficiency

CT measurement current transformers with through primary



CT

Technical features		CT...	CTO	TRFM
Standard secondary current	[A]	5 A		
Max. voltage for operation	[kV]	1,2		
Test voltage	[kV]	3 a 50 Hz/1min		
Residual current voltage at secondary terminals when security circuit intervenes (only SELV versions)		< 25 V rms		
Short circuit rated thermal current	[IpN]	40 per 1 sec.	60 per 1 sec.	40 per 1 sec.
Short circuit rated dynamic current	[Ith]	2,5 per 1 sec.		
Permanent overload	[IpN]	1,2		
Safety factor	[Fs]	from ≤ 2 to ≤ 10 depending on the type and capacity		
Frequency	[Hz]	50-60		
Air insulation class		Class E	B	E
Terminals		primary P1 - P2 (K - L); secondary s1 - s2 (k - l)		
		P1 (K) primary winding input		
		s1 (k) secondary winding input		
		P2 (L) primary winding output		
		s2 (l) secondary winding output		
Housing		Self-extinguishing thermoplastic resin V0		
Protection degree		IP30	IP20	IP20
Operating temperature	[°C]	-5...+50	-5...+50	-25...+50
Max. temperature on bars	[°C]	70°C		
Storage temperature	[°C]	-20...+80	-20...+80	-40...+80
Relative humidity		80%		
Reference standard		IEC EN 60044-1, IEC EN 61010-1		
Secondary protection circuit reference standards (only SELV versions)		IEC60364; IEC473.1.4; IEC556.3; CEI64-8-4; CEI411.1.4.3; CEI411.5.2; CEI411.2; CEI473.1.4; CEI473.2.3		

CT and CTA current transformers

Used to transform primary currents (max. 6000 A) into .../5 A low secondary currents indirectly supplying power to analogue and digital measurement devices. They are available both with wound and through primary. In the first case they are provided along with the bar or the primary terminal; in the second case they have a hole to insert in the bar or the cable which forms the primary.

The rated current to the secondary windings is 5 A, in line with the offer of measuring devices. CT/1 are not employable with ABB mono-function and multifunction measuring devices. The use of CT/1 is needed in case of long wirings from CT secondary windings to the measuring device; nowadays, the wide use of communication protocols doesn't require the instrument to be installed far from the line to measure.

The new SELV versions of the CT PRO XT and CT MAX guarantee maximum safety against overvoltage and switchboard internal overheating thanks to the innovative electronic protection circuit which automatically short-circuit the CT secondary winding in case of accidental disconnection of its secondary terminals.

Maybe you are also interested in:

Network analysers and DMTME multimeter - chapter 7
Energy meters - chapter 7
Analogue and digital instrument - chapter 7



CT PRO XT

Standard type current transformers .../5 A with through primary

CT PRO XT .../5 A series, through primary

Primary rated current I _{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
40	3	2	257455	CT PRO XT 40	2CSG225745R1101		0.32	1
50	3	2	257554	CT PRO XT 50	2CSG225755R1101		0.32	1
60	3	2	257653	CT PRO XT 60	2CSG225765R1101		0.32	1
80	3	2	257752	CT PRO XT 80	2CSG225775R1101		0.32	1
100	1	3	257851	CT PRO XT 100	2CSG225785R1101		0.32	1
150	1	5	257950	CT PRO XT 150	2CSG225795R1101		0.32	1
200	1	5	258056	CT PRO XT 200	2CSG225805R1101		0.32	1
250	0.5	5	258155	CT PRO XT 250	2CSG225815R1101		0.32	1
300	0.5	5	258155	CT PRO XT 300	2CSG225825R1101		0.32	1
400	0.5	5	258353	CT PRO XT 400	2CSG225835R1101		0.32	1

CT PRO XT SELV .../5 A series, through primary

Primary rated current I _{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
40	3	2	258452	CT PRO XT 40 SELV	2CSG225845R1101		0.37	1
50	3	2	258551	CT PRO XT 50 SELV	2CSG225855R1101		0.37	1
60	3	2	258650	CT PRO XT 60 SELV	2CSG225865R1101		0.37	1
80	3	2	258650	CT PRO XT 80 SELV	2CSG225875R1101		0.37	1
100	1	3	258858	CT PRO XT 100 SELV	2CSG225885R1101		0.37	1
150	1	5	258957	CT PRO XT 150 SELV	2CSG225895R1101		0.37	1
200	1	5	259053	CT PRO XT 200 SELV	2CSG225905R1101		0.37	1
250	0.5	5	259152	CT PRO XT 250 SELV	2CSG225915R1101		0.37	1
300	0.5	5	259251	CT PRO XT 300 SELV	2CSG225925R1101		0.37	1
400	0.5	5	259350	CT PRO XT 400 SELV	2CSG225935R1101		0.37	1

CT PRO XT series

Through primary

		max section [mm]
cable	○	18
horizontal bar	▬	20x10
vertical bar	▮	-

Energy efficiency

CT measurement current transformers with through primary



CT MAX

CT MAX .../5 A series, through primary

Primary rated current I_{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
300	0,5	4	259459	CT MAX 300	2CSG225945R1101		0,32	1
400	0,5	5	259558	CT MAX 400	2CSG225955R1101		0,32	1
500	0,5	6	259558	CT MAX 500	2CSG225965R1101		0,32	1
600	0,5	10	259657	CT MAX 600	2CSG225975R1101		0,32	1
800	0,5	10	259657	CT MAX 800	2CSG225985R1101		0,32	1
1000	0,5	10	259954	CT MAX 1000	2CSG225995R1101		0,32	1

CT MAX SELV .../5 A series, through primary

Primary rated current I_{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
300	0,5	4	260059	CT MAX 300 SELV	2CSG226005R1101		0,37	1
400	0,5	5	260158	CT MAX 400 SELV	2CSG226015R1101		0,37	1
500	0,5	6	260257	CT MAX 500 SELV	2CSG226025R1101		0,37	1
600	0,5	10	260356	CT MAX 600 SELV	2CSG226035R1101		0,37	1
800	0,5	10	260455	CT MAX 800 SELV	2CSG226045R1101		0,37	1
1000	0,5	10	260554	CT MAX 1000 SELV	2CSG226055R1101		0,37	1

CT MAX series

Through primary		max section [mm]
cable	○	30
horizontal bar	▬	30x15, 40x10
vertical bar	▮	-

Maybe you are also interested in:

Network analysers and DMTME
multimeter - chapter 7
Energy meters - chapter 7
Analogue and digital instrument -
chapter 7



CT6

2CSG400124FR0201



CT8

2CSG400125FR0201



CT8/V

2CSG400155FR0201

CT6 .../5 A series, through primary

Primary rated current I _{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
250	0.5	5	605508	CT6/250	2CSG421130R1101		1.000	1
300	0.5	5	605607	CT6/300	2CSG421140R1101		1.000	1
400	0.5	6	605706	CT6/400	2CSG421150R1101		1.000	1
500	0.5	6	605805	CT6/500	2CSG421160R1101		1.000	1
600	0.5	10	605904	CT6/600	2CSG421170R1101		1.000	1
800	0.5	10	606000	CT6/800	2CSG421180R1101		1.000	1
1000	0.5	20	606109	CT6/1000	2CSG421190R1101		1.000	1
1200	0.5	20	606208	CT6/1200	2CSG421200R1101		1.000	1
1500	0.5	30	606307	CT6/1500	2CSG421220R1101		1.000	1
2000	0.5	30	606406	CT6/2000	2CSG421230R1101		1.000	1
2500	0.5	30	606505	CT6/2500	2CSG421240R1101		1.000	1

CT8 .../5 A series, through primary

Primary rated current I _{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
300	0.5	5	606604	CT8/300	2CSG521140R1101		1.000	1
400	0.5	6	606703	CT8/400	2CSG521150R1101		1.000	1
500	0.5	10	606802	CT8/500	2CSG521160R1101		1.000	1
600	0.5	10	606901	CT8/600	2CSG521170R1101		1.000	1
800	0.5	10	607007	CT8/800	2CSG521180R1101		1.000	1
1000	0.5	10	607106	CT8/1000	2CSG521190R1101		1.000	1
1200	0.5	15	607205	CT8/1200	2CSG521200R1101		1.000	1
1500	0.5	20	607304	CT8/1500	2CSG521220R1101		1.000	1
2000	0.5	20	607403	CT8/2000	2CSG521230R1101		1.000	1
2500	0.5	20	607502	CT8/2500	2CSG521240R1101		1.000	1
3000	0.5	20	607601	CT8/3000	2CSG521250R1101		1.000	1

CT8-V .../5 A series, through primary

Primary rated current I _{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
400	0.5	6	608707	CT8-V/400	2CSG631150R1101		0.800	1
500	0.5	10	608806	CT8-V/500	2CSG631160R1101		0.800	1
600	0.5	10	608905	CT8-V/600	2CSG631170R1101		0.800	1
800	0.5	10	609001	CT8-V/800	2CSG631180R1101		0.800	1
1000	0.5	10	609100	CT8-V/1000	2CSG631190R1101		0.800	1
1200	0.5	10	609209	CT8-V/1200	2CSG631200R1101		0.800	1
1500	0.5	10	609308	CT8-V/1500	2CSG631220R1101		0.800	1
2000	0.5	20	609407	CT8-V/2000	2CSG631230R1101		0.800	1
2500	0.5	20	609506	CT8-V/2500	2CSG631240R1101		0.800	1

**CT6 series
Through primary**

		max section [mm]
cable	○	50
horizontal bar	▬	60x20
vertical bar	▮	-

**CT8 series
Through primary**

		max section [mm]
cable	○	2x30
horizontal bar	▬	80x30
vertical bar	▮	-

**CT8-V series
Through primary**

		max section [mm]	
cable	○	2x35	
horizontal bar	▬	-	
vertical bar	▮	80x30	3x80x5

Energy efficiency

CT measurement current transformers with through primary



CT12

2CSG400166FD021



CT12/V

2CSG400120FD022

CT12 .../5 A series, through primary

Primary rated current I_{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
500	0.5	10	607700	CT12/500	2CSG721160R1101		1.600	1
600	0.5	10	607809	CT12/600	2CSG721170R1101		1.600	1
800	0.5	15	607908	CT12/800	2CSG721180R1101		1.600	1
1000	0.5	20	608004	CT12/1000	2CSG721190R1101		1.600	1
1200	0.5	20	608103	CT12/1200	2CSG721200R1101		1.600	1
1500	0.5	20	608202	CT12/1500	2CSG721220R1101		1.600	1
2000	0.5	30	608301	CT12/2000	2CSG721230R1101		1.600	1
2500	0.5	40	608400	CT12/2500	2CSG721240R1101		1.600	1
3000	0.5	40	608509	CT12/3000	2CSG721250R1101		1.600	1
4000	0.5	50	608608	CT12/4000	2CSG721260R1101		2.000	1
5000	0.5	50	745600	CT12/5000	2CSG721270R1101		3.000	1
6000	0.5	50	745709	CT12/6000	2CSG721280R1101		3.000	1




CT12-V .../5 A series, through primary

Primary rated current I_{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
800	0.5	10	609605	CT12-V/800	2CSG831180R1101		0.700	1
1000	0.5	10	609704	CT12-V/1000	2CSG831190R1101		0.700	1
1200	0.5	10	609803	CT12-V/1200	2CSG831200R1101		0.700	1
1250	0.5	10	609902	CT12-V/1250	2CSG831210R1101		0.700	1
1500	0.5	12	610007	CT12-V/1500	2CSG831220R1101		0.700	1
2000	0.5	15	610106	CT12-V/2000	2CSG831230R1101		1.000	1
2500	0.5	20	610205	CT12-V/2500	2CSG831240R1101		1.000	1
3000	0.5	20	610304	CT12-V/3000	2CSG831250R1101		1.000	1
4000	0.5	20	745808	CT12-V/4000*	2CSG831260R1101		1.000	1

* Air insulation class: Class B




CT12 series

Through primary

	max section [mm] up to 4000A	max section [mm] 5000 and 6000 A
cable 	2x50	-
horizontal bar 	125x50	120x10, 2x120x10, 3x120x10
vertical bar 	-	200x10, 2x200x10, 3x200x10

CT12-V series

Through primary

	max section [mm]
cable 	3x35
horizontal bar 	-
vertical bar 	125x30, 3x100x10, 4x125x5

Maybe you are also interested in:

Network analysers and DMTME
multimeter - chapter 7
Energy meters - chapter 7
Analogue and digital instrument -
chapter 7

Energy efficiency

CTA measurement current transformers with wound primary



CTA/25

Standard type current transformers .../5 A with wound primary

CTA .../5 A series, wound primary with insertion on Ø8 MA bolt								
Primary rated current I_{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
5	0.5	5	661306	CTA/5	2CSG111020R1141		0.290	1
10	0.5	5	661405	CTA/10	2CSG111030R1141		0.290	1
15	0.5	5	661504	CTA/15	2CSG111040R1141		0.290	1
20	0.5	5	661603	CTA/20	2CSG111050R1141		0.290	1
25	0.5	5	661702	CTA/25	2CSG111060R1141		0.290	1
40	0.5	5	661801	CTA/40	2CSG111080R1141		0.290	1
50	0.5	5	661900	CTA/50	2CSG111090R1141		0.290	1
60	0.5	5	662006	CTA/60	2CSG111100R1141		0.290	1
80	0.5	5	662105	CTA/80	2CSG111110R1141		0.290	1
100	0.5	5	662204	CTA/100	2CSG111120R1141		0.290	1

CTA series

Wound primary		max section [mm]
cable	○	8
horizontal bar	▬	-
vertical bar	▮	-

Maybe you are also interested in:

Network analysers and DMTME
multimeter - chapter 7
Energy meters - chapter 7
Analogue and digital instrument -
chapter 7

Energy efficiency

CTO split core measurement current transformers



CT30

2CSG4001414F0202



CT80

2CSG400142F0202



CT120

2CSG400142F0202

Split core measurement current transformers with through primary

Split core measurement current transformers are used in distribution panels or power centers for maintenance or system expansion. They can be installed easily and they allows to save a lot of time, avoiding bar disconnection. All transformers are complete with terminal caps and fastening accessories, both on bar and on wall.

CT30/...5 A Split core current transformers

Primary rated current I _{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
100	3	1.5	887805	CT30/100	2CSG101100R1101		0.85	1
150	3	2	887904	CT30/150	2CSG101110R1101		0.85	1
250	0.5	1.5	888109	CT30/250	2CSG101130R1101		0.85	1
400	0.5	2.5	888000	CT30/400	2CSG101150R1101		0.85	1




CT80/...5 A Split core current transformers

Primary rated current I _{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
250	0.5	1	888208	CT80/250	2CSG201130R1101		1.1	1
400	0.5	1.5	888307	CT80/400	2CSG201150R1101		1.1	1
500	0.5	2.5	888406	CT80/500	2CSG201160R1101		1.1	1
600	0.5	2.5	888505	CT80/600	2CSG201170R1101		1.1	1
800	0.5	3	888604	CT80/800	2CSG201180R1101		1.1	1
1000	0.5	5	888703	CT80/1000	2CSG201190R1101		1.1	1




CT120/...5 A Split core current transformers

Primary rated current I _{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
400	0.5	1.5	889007	CT120/400	2CSG401150R1101		1.3	1
500	0.5	2.5	889106	CT120/500	2CSG401160R1101		1.3	1
600	0.5	2.5	889205	CT120/600	2CSG401170R1101		1.3	1
800	0.5	3	889304	CT120/800	2CSG401180R1101		1.3	1
1000	0.5	5	889403	CT120/1000	2CSG401190R1101		1.3	1
1200	0.5	6	889502	CT120/1200	2CSG401200R1101		1.3	1
1500	0.5	8	889601	CT120/1500	2CSG401220R1101		1.3	1




CT30 series

Through primary	max section [mm]
cable 	
horizontal bar 	
vertical bar 	2x30x10

CT80 series

Through primary	max section [mm]
cable 	
horizontal bar 	
vertical bar 	3x80x10

CT120 series

Through primary	max section [mm]
cable 	
horizontal bar 	
vertical bar 	4x120x10

Maybe you are also interested in:

Network analysers and DMTME
multimeter - chapter 7
Energy meters - chapter 7
Analogue and digital instrument -
chapter 7

Energy efficiency

TRF M measurement modular current transformers



TRF M

Modular current transformers with Ø 29 mm through primary, secondary .../5A

TRF M are modular current transformers with through primary for measuring instruments. Their compact size and quick DIN rail plug allow easy installation along with great measurement precision.

Primary rated current I_{prim} A	Accuracy class	Rated power VA	Bbn 8012542 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
40	3	1	046912	TRFM/40	2CSM100050R1111		0.250	1
60	1	2	047018	TRFM/60	2CSM100070R1111		0.250	1
100	0.5	2	047117	TRFM/100	2CSM100090R1111		0.250	1
150	0.5	3	047216	TRFM/150	2CSM100100R1111		0.250	1
250	0.5	4	047315	TRFM/250	2CSM100120R1111		0.250	1
400	0.5	6	047407	TRFM/400	2CSM100140R1111		0.250	1
600	0.5	8	047506	TRFM/600	2CSM100160R1111		0.250	1

Maybe you are also interested in:

Network analysers and DMTME
multimeter - chapter 7
Energy meters - chapter 7
Analogue and digital instrument -
chapter 7

Energy efficiency

SNT current transformer for d.c. applications



SNT

2CSM10052370201

Technical features

Voltage	[mV]	60
Current rating	[A]	from 5 to 1000
Accuracy class		0.5 (from 10 to 30 °C)
Max. load	[Ω]	0.25
Overload for 5 sec.		from 10 to 500 A : 1xIn from 600 to 1000 A: 5xIn

Shunts

Shunts have 60 mV voltage and must be used with a maximum load of 0.25 Ω in combination with measurement instruments in d.c.

For an appropriate operation:

- both horizontal and vertical mounting are possible (the horizontal position enables a greater heat consumption)
- the faying surface must be completely used and clean; cover with specific grease after the connection
- screws and bolts must be perfectly tight
- shunts must be sufficiently ventilated; as they are not insulated, it is a good rule to protect them against accidental contacts.

60 mV shunts

Rated current	Bbn	Order details		Price	Weight	Pack
	8012542	Type code	Order code			
A	EAN			1 piece	1 piece	unit
					kg	pc.
5	047605	SNT 1/5	2CSM100010R1121		1.300	1
6	047704	SNT 1/6	2CSM100020R1121		1.800	1
10	047803	SNT 1/10	2CSM100030R1121		1.800	1
15	047902	SNT 1/15	2CSM100040R1121		1.800	1
20	048008	SNT 1/20	2CSM100050R1121		1.800	1
25	048107	SNT 1/25	2CSM100060R1121		1.800	1
30	048206	SNT 1/30	2CSM100070R1121		1.300	1
40	048305	SNT 1/40	2CSM100080R1121		1.300	1
50	048404	SNT 1/50	2CSM100090R1121		2.200	1
60	048503	SNT 1/60	2CSM100100R1121		2.200	1
80	048602	SNT 1/80	2CSM100110R1121		1.300	1
100	048701	SNT 1/100	2CSM100120R1121		1.300	1
150	048800	SNT 1/150	2CSM100130R1121		1.300	1
200	048909	SNT 1/200	2CSM100140R1121		1.300	1
250	049005	SNT 1/250	2CSM100150R1121		1.900	1
400	049104	SNT 1/400	2CSM100160R1121		1.900	1
500	049203	SNT 1/500	2CSM100170R1121		1.900	1
600	049302	SNT 1/600	2CSM100180R1121		1.900	1
800	049401	SNT 1/800	2CSM100190R1121		2.200	1
1000	049500	SNT 1/1000	2CSM100200R1121		2.200	1

Maybe you are also interested in:

Network analysers and DMTME
multimeter - chapter 7
Energy meters - chapter 7
Analogue and digital instrument -
chapter 7

Energy efficiency

TV voltage transformers



TV2

Voltage transformers

They are used for transforming primary voltages up to 500 V into secondary voltages of.../100 V max. for indirect supply of analogue as well as digital measurement instruments.

R3 voltage transformers are used in three-phase distribution systems with neutral.

Voltage transformers with metallic housing, precision class 0.5

Primary/secondary voltage	Power	Bbn 8012542	Order details		Price 1 piece	Weight 1 piece	Pack unit
V/V	VA	EAN	Type code	Order code		kg	pc.
230/100	10	730101	TV2-230/100	2CSG324070R5021		2.100	1
380/100	10	730200	TV2-380/100	2CSG324090R5021		2.100	1
400/100	10	730309	TV2-400/100	2CSG324110R5021		2.100	1
440/100	10	730408	TV2-440/100	2CSG324130R5021		2.100	1
500/100	10	730507	TV2-500/100	2CSG324150R5021		2.100	1
600/100	10	730606	TV2-600/100	2CSG324170R5021		2.100	1
$(230/\sqrt{3})/100$	5	731009	TV2-230R3/100	2CSG323080R5021		2.100	1
$(380/\sqrt{3})/100$	5	731108	TV2-380R3/100	2CSG323100R5021		2.100	1
$(400/\sqrt{3})/100$	5	731207	TV2-400R3/100	2CSG323120R5021		2.100	1
$(440/\sqrt{3})/100$	5	731306	TV2-440R3/100	2CSG323140R5021		2.100	1
$(500/\sqrt{3})/100$	5	731405	TV2-500R3/100	2CSG323160R5021		2.100	1
$(600/\sqrt{3})/100$	5	731504	TV2-600R3/100	2CSG323180R5021		2.100	1

Maybe you are also interested in:

Network analysers and DMTME multimeter - chapter 7
 Energy meters - chapter 7
 Analogue and digital instrument - chapter 7

Energy efficiency

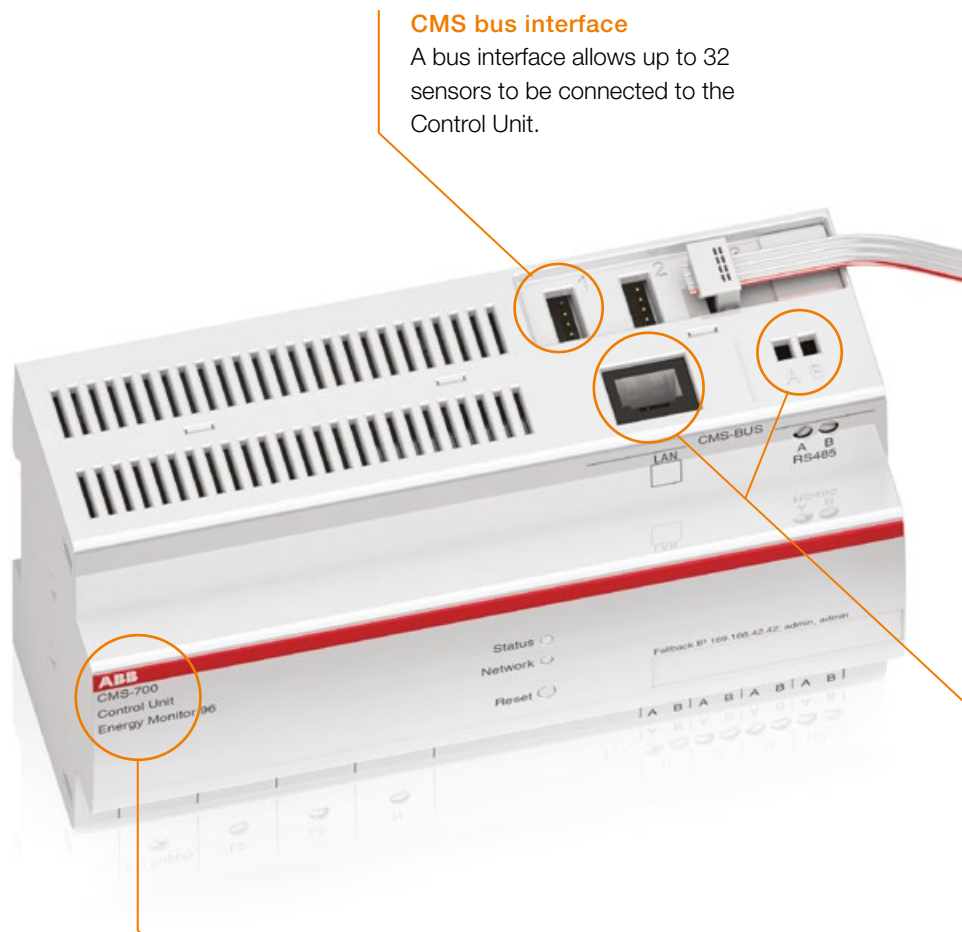
CMS – Current Measurement System overview

The quality of a Circuit Monitoring System is dependent on the strengths of the individual components and how well they interact. ABB's CMS sets the bar particularly high. Regardless of whether we're talking compactness, technology, measure-

ment results, user friendliness or flexibility, every component and every feature of this CMS has been fully optimized in terms of practicality and functionality.

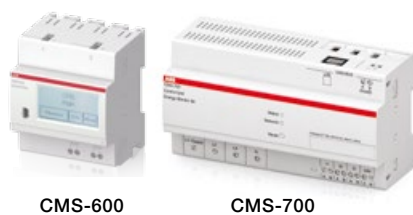
7

Example illustration:
Control Unit CMS-700 in combination with CMS open-core sensors



CMS bus interface

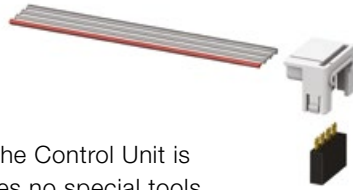
A bus interface allows up to 32 sensors to be connected to the Control Unit.



Control Units

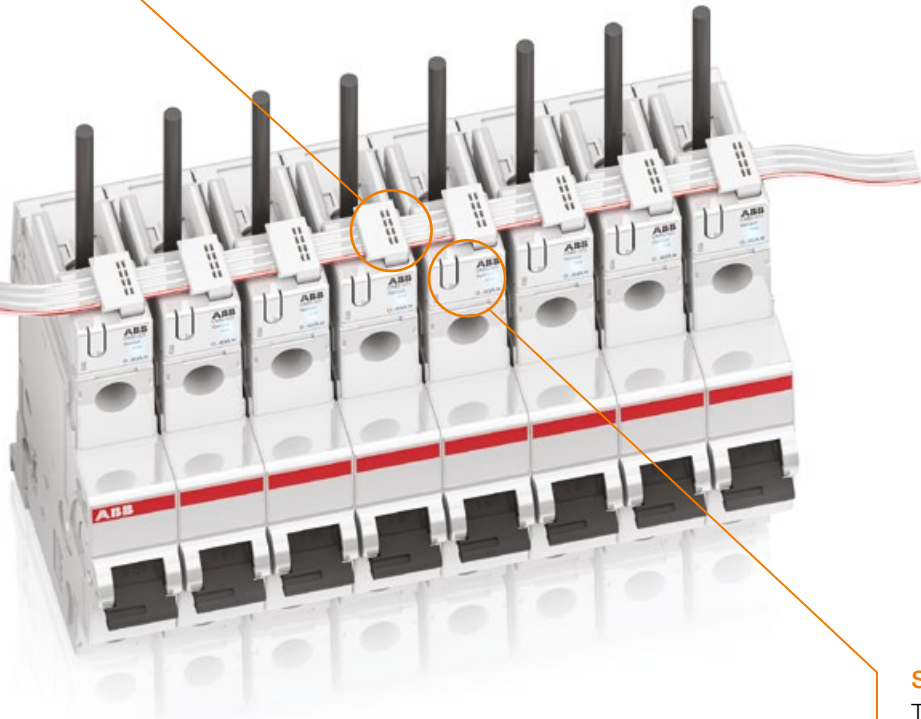
The Control Unit is a kind of computing and communication center that, depending on the equipment connected to it, evaluates the different data picked up by the sensors and makes it available via the built-in interfaces.

You have a choice of three different units depending on your applications: CMS-600 and CMS-700.



Connection technology

Connecting the sensors to the Control Unit is extremely simple and requires no special tools. All sensors are connected to the Control Unit by means of a flexible flat cable and insulation displacement connectors. The positioning of sensors is fully customizable so that they sit exactly where a measurement is required.



Sensors

The CMS sensors form the heart of the system and they can be mounted anywhere without any problem. Initializing the sensors is also child's play, with the desired identifier being assigned to each individual sensor via the Control Unit in just a few simple steps. The entire configuration and commissioning procedure takes just a matter of minutes. All measurement functions are available immediately following initialization.

Serial interfaces

Depending on the unit, numerous interfaces and protocols are available to ensure smooth network implementation: RS485 (Modbus RTU), LAN (TCP/IP and Modbus TCP), SNMP v1/v2 and encrypted v3.



Thanks to the built-in web server, an internet browser or a free Android or iOS app can be used to visualize the values measured. What's more, the measured values can also be exported to CSV files.

Energy efficiency Current Measurement System

Integrate however you want thanks to multiple mounting options.

Depending on the application, choose between up to four different mounting options to make integrating the CMS sensors in your installation as simple and as uncomplicated as possible.

Special sensors for ABB installation devices



7



System pro M, SMISLINE installation
CMS-120PS and CMS-100PS series sensors can be mounted on all ABB installation devices with twin terminals.



Installation on S800 installation devices
CMS-100S8 and CMS-200S8 series sensors can be mounted on all S800 high performance circuit breakers with cage terminals.

Universally usable sensor designs



Mounting on a DIN rail
CMS-120DR, CMS-100DR, and CMS-200DR series sensors can be mounted on all DIN rails with the aid of a DIN rail mounting.



Cable tie mounting
If space is at a real premium, CMS-120CA, CMS-100CA, and CMS-200CA series sensors can be secured directly to the cable(s) to be measured by means of cable ties.

Tangible value added for you
ABB circuit monitoring pays off twofold



**Early warning system (predictive maintenance)
for increasing the availability of critical consumers**

Continuous monitoring of the current flow at the circuit breaker makes it possible to detect overloaded lines before they lead to a service interruption. Apart from this, monitoring individual circuits indicates whether the loads are in the desired operating mode or not. In this way, system deviations can be ascertained instantaneously. What's more, the CMS can be used to detect unbalanced loads before they result in failure of the neutral conductor and consequently load failure.

Cost analysis to reduce and assign energy costs

The cost of energy will rise continuously. In order to cut costs, you first have to know where they arise. The Control Unit helps illustrate and analyze the instantaneous energy consumption levels. Furthermore, the calculated active energy can be used to roughly allocate the costs at the output level.

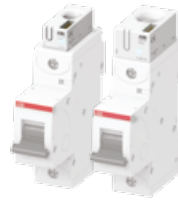
Energy efficiency Current Measurement System

Sensor mounting methods



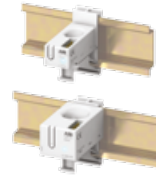
**System pro M,
SMISLINE**

for all LS, FI & FI-LS
with twin terminals



S800

for all S800 devices
with cage terminals



DIN rail

universally usable



Cable tie

universally usable

Open-core sensors

AC accuracy* of $\leq \pm 1.0\%$

The laying method influences
the accuracy.



18-mm overall width

CMS-120xx (80 A)
CMS-121xx (40 A)
CMS-122xx (20 A)

CMS-120PS
CMS-121PS
CMS-122PS



CMS-120DR
CMS-121DR
CMS-122DR



CMS-120CA
CMS-121CA
CMS-122CA

Solid-core sensors

AC accuracy* $\leq \pm 0.5\%$



18-mm overall width

CMS-100xx (80 A)
CMS-101xx (40 A)
CMS-102xx (20 A)

CMS-100PS
CMS-101PS
CMS-102PS



CMS-100S8
CMS-101S8
CMS-102S8



CMS-100DR
CMS-101DR
CMS-102DR



CMS-100CA
CMS-101CA
CMS-102CA



25-mm overall width

CMS-200xx (160 A)
CMS-201xx (80 A)
CMS-202xx (40 A)

CMS-200S8
CMS-201S8
CMS-202S8



CMS-200DR
CMS-201DR
CMS-202DR



CMS-200CA
CMS-201CA
CMS-202CA

* All accuracy specifications refer to the relevant full scale value and apply to 25 °C.



Control units		
Characteristics	Control Unit CMS-700	Control Unit CMS-600
CMS Sensors		
Sensors	96 (3x32)	64 (2x32)
Control Unit		
Integrated power supply	●	
Voltage measurement	●	
Current (External CTs are required) measurement	●	
Active, reactive and apparent power (External CTs are required) measurement	●	
Calculated values for the branches		
Energy (Using branch currents, mains voltage and power factor over time)	●	
Power (Using branch currents, mains voltage and power factor)	●	
Interfaces		
RS485	●	●
LAN	●	
Protocols		
Modbus RTU	●	●
Modbus TCP	●	
SNMP (v1, v2 and encrypted v3)	●	
Visualization		
Built-in web server	●	
Touch display		●
CSV data export	●	
Approvals		
IEC 61010-1	●	●
UL 508 / CSA C22.2 No. 14	●	●

Energy efficiency Control units

CMS-700



2CC0481194#F0001



CMS-700
User Manual

Control Unit CMS-700

Supply voltage	[VAC]	80 – 277 (L1-N, +5%)
Frequency	[Hz]	50/60
Power input (L1-N)	[W]	5 ... 40 (dep. on number of sensors)
Power input, current transformer, secondary side	[VA]	Current circuit <2 (per phase)
Voltage measurement range	[VAC]	80 – 277 (L1, L2, L3-N)
Measurement range, current transformer, secondary side	[A]	nominal: 5 max.: 6
Harmonic component	[Hz]	up to 2000
Data rate of Modbus RTU	[Baud]	RS485 2-wire, 2400... 115200
Refresh time		≤1 sec with max. 96 sensors
LAN	[Mbit/s]	100
Conductor cross-section	[mm ²]	0.5 ... 2.5
Mounting method		35 mm DIN rail (DIN 50022)
Degree of protection		IP20
Dimensions	[mm]	161.5 x 87.0 x 64.9 (9 WM)
Operating temperature	[°C]	-25 ... +60
Bearing temperature	[°C]	-40 ... +85
Standards		IEC61010-1 UL 508/ CSA C22.2 No. 14

Main circuit accuracy

Voltage		± 1 %
Current		± 1 %
Harmonic component		1 %
Active power		± 2 %
Apparent power		± 2 %
Reactive power		± 2 %
Power factor		± 0.2 %

CMS-600



2CC0481070#F0001



CMS-600
User Manual

Control Unit CMS-600 – «Modbus RTU»

Supply voltage	[VDC]	24 (± 10%)
Power input	[W]	4 – 24 (dep. on number of sensors)
Interface		RS485 2-wire
Protocol		Modbus RTU
Data rate	[Baud]	2400 ... 115200
Refresh time		≤1 sec with max. 64 sensors
Insulation strength	[VAC]	400
Screw-type terminals		0.5 ... 2.5 mm ² , max. 0.6 Nm
Mounting method		35 mm DIN rail (DIN 50022) or SMISLINE TP plug base
Dimensions	[mm]	71.8 x 87.0 x 64.9 (4 WM)
Operating temperature	[°C]	-25 ... +70
Bearing temperature	[°C]	-40 ... +85
Standards		IEC 61010-1 UL 508/ CSA C22.2 No. 14

CMS-700



2CCA81194R0001



CMS-700
User Manual

CMS-700

The CMS-700 measures the AC and DC currents in the outgoing circuits via up to 3 x 32 sensors and calculates the energy and output data (line-side active and reactive power) of up to 96 sensors simultaneously.

Remotely monitoring of the system is made possible by a digital communication that supports different protocols: Modbus RTU, TCP or SNMP v1 and v2 and the encrypted v3.

The Control Unit CMS-700 stands out thanks to its built-in web server that offers easy access not only to the measured data but also to the system parameters. The two interfaces – LAN (TCP/IP or Modbus TCP) and RS485 (Modbus RTU) – guarantee straight-forward integration into any IT infrastructure. What's more, the data can be read out by means of an encrypted SNMP protocol.

The Control Unit CMS-700 has been developed specifically to meet the requirements of critical power applications, such as those of computing centers. In addition, however, professional energy monitoring is becoming ever more important when it comes to identifying savings potentials in functional buildings such as office buildings.

CMS-600



2CCA48107R0001



CMS-600
User Manual

CMS-600

The CMS-600 system enables you to measure AC and DC currents in up to 64 branches. For simple and fast operation, the Control Unit is equipped with an illuminated touch display that makes not only initialization but also control of the sensors extremely simple.

A 2-wire RS485 Modbus RTU interface enables users to remotely query and process the measurement data. As such, the CMS-600 Control Unit can be very easily integrated into an existing Modbus architecture. As an option, the measured values can also be visualized and processed by means of a programmable logic control (PLC).

CMS-600 is equipped with an integrated CMS software for which great care has been taken to ensure that the navigation concept is highly intuitive

The Control Unit CMS-600 are put to use in the critical power systems of hospitals and in similar industrial applications, too. Furthermore, these devices can also be found in functional buildings such as airports, hotels, office buildings, universities/colleges and museums or in industrial photovoltaics.

Description	GTIN 7612271 EAN	Ordering details		Unit price	Weight of 1 unit (kg)	Packaging unit (pce.)
		Brief description	Product no.			
Control units						
Control Unit CMS-700	453138	CMS-700	2CCA880700R0001		0.329	1
Control Unit CMS-600	418700	CMS-600	2CCA880000R0001		0.153	1

Energy efficiency Sensors and Accessories

CMS-120PS



20CC481154F0001

CMS-120DR



20CC481142F0001

CMS-120CA



20CC481141F0001

CMS-100PS



20CC481030F0001

CMS-100S8



20CC481032F0001

CMS-100DR



20CC481038F0001

CMS-100CA



20CC481040F0001

CMS-200S8



20CC481034F0001

CMS-200DR



20CC481039F0001

CMS-200CA



20CC481042F0001

Open-core sensors 18 mm

Sensor type		CMS-120xx	CMS-121xx	CMS-122xx
Measurement range	[A]	80	40	20
Measuring method		TRMS, AC 50/60 Hz, DC		
Peak factor, distorted waveform		≤ 1.5	≤ 3	≤ 6
AC accuracy (TA = +25 °C)*		≤ ± 1 %		
AC temperature coefficient*		≤ ± 0.04 %		
DC accuracy (TA = +25 °C)*		≤ ± 1.2 %	≤ ± 1.4 %	≤ ± 1.8 %
DC temperature coefficient*		≤ ± 0.14 %	≤ ± 0.24 %	≤ ± 0.44 %
Resolution	[A]	0.01		
Sampling rate, internal	[Hz]	5000		
Response time (±1 %)	[sec]	typ. 0.34		
Conductor penetration	[mm]	9,6		
Insulation strength		690 AC/1500 DC		
Operating/storage temperature	[°C]	-25 ... +70 / -40 ... +85		
Dimensions	CMS-120PS Serie	17.4 x 41.0 x 26.5		
	CMS-120CA Serie	17.4 x 41.0 x 29.0		
	CMS-120DR Serie	17.4 x 51.5 x 43.2		
Standards	IEC 61010-1 UL508 / CSA C22.2 No 14			

Solid-core sensors 18 mm

Sensor type		CMS-100xx	CMS-101xx	CMS-102xx
Measurement range	[A]	80	40	20
Measuring method		TRMS, AC 50/60 Hz, DC		
Peak factor, distorted waveform		≤ 1.5	≤ 3	≤ 6
AC accuracy (TA = +25 °C)*		≤ ± 0.5 %		
AC temperature coefficient*		≤ ± 0.036 %		
DC accuracy (TA = +25 °C)*		≤ ± 0.7 %	≤ ± 1.0 %	≤ ± 1.7 %
DC temperature coefficient*		≤ ± 0.047 %	≤ ± 0.059 %	≤ ± 0.084 %
Resolution	[A]	0.01		
Sampling rate, internal	[Hz]	5000		
Response time (±1 %)	[sec]	typ. 0.25		
Conductor penetration	[mm]	10		
Insulation strength	[V]	690 VAC/1500 VDC		
Operating/storage temperature	[°C]	-25 ... +70 / -40 ... +85		
Dimensions	CMS-100PS Serie	17.4 x 41.0 x 26.5		
	CMS-100S8 Serie	26.5 x 45.5 x 31.8		
	CMS-100DR Serie	17.4 x 51.5 x 43.2		
	CMS-100CA Serie	17.4 x 41.0 x 29.0		
Standards	IEC 61010-1 UL508 / CSA C22.2 No 14			

Solid-core sensors 25 mm

Sensor type		CMS-200xx	CMS-201xx	CMS-202xx
Measurement range	[A]	160	80	40
Measuring method		TRMS, AC 50/60 Hz, DC		
Peak factor, distorted waveform		≤ 1.5	≤ 3	≤ 6
AC accuracy (TA = +25 °C)*		≤ ± 0.5 %		
AC temperature coefficient*		≤ ± 0.036 %		
DC accuracy (TA = +25 °C)*		≤ ± 0.7 %	≤ ± 1.0 %	≤ ± 1.7 %
DC temperature coefficient*		≤ ± 0.047 %	≤ ± 0.059 %	≤ ± 0.084 %
Resolution	[A]	0.01		
Sampling rate, internal	[Hz]	5000		
Response time (±1 %)	[sec]	typ. 0.25		
Conductor penetration	[mm]	15		
Insulation strength	[V]	690 VA/1500 VDC		
Operating/storage temperature	[°C]	-25 ... +70 / -40 ... +85		
Dimensions	CMS-200S8 Serie	26.5 x 43.0 x 38.5		
	CMS-200DR Serie	25.4 x 43.0 x 43.2		
	CMS-200CA Serie	25.4 x 43.0 x 35.7		
Standards	IEC 61010-1 UL508 / CSA C22.2 No 14			

* All accuracy specifications refer to the relevant full scale value and apply to 25 °C.
In the case of open-core sensors, the position of the cable influences the precision.



Open-core sensors
Installation manual

Open-core sensors

The open-core sensors are able to measure all types of current, whether AC, DC or mixed, up to 80 A in TRMS, enabling exact and effective measurements. As each sensor is equipped with its own microprocessor for processing the signal, the measurement data is transmitted digitally to the Control Unit via bus interface, maximizing data reliability. Disturbances like those experienced with analog data now most definitely belong to the past.

With this solution a faster cabling is guaranteed, since wiring cables are directly inserted in the sensors without the aid of a screwdriver. No special tools are needed for the entire connection process.

With AC accuracy* of $\leq \pm 1.0\%$, they can be used in a multitude of applications without any problem: System pro M, DIN rail and Cable tie.

Thanks to their U shape, the open-core sensors can be retrofitted to existing installations, without the need to disconnect the cabling or shut down the equipment, being the key for brownfield extension.

Solid-core sensors

Alternating (AC), direct (DC) or mixed (TRMS) currents – the CMS sensors monitor and measure all types of current over a measurement range of up to 160 A (TRMS). They even measure harmonic components in the signal curve. The measurements are digitally transmitted through bus interface, enabling reliability of data and removing disturbance effects.

Maximum secure insertion of wiring cables is guaranteed by this sensors solution.

Everything is built into an 18 or 25 mm wide unit to enable precise and effective measurements. This makes these CMS sensors the most compact and most powerful on the market.

Depending on the application, solid-core sensors are chosen between up to four different mounting options to making this solution as flexible as possible.

The solid-core units feature an enclosed structure and AC measurement accuracy* of $\leq \pm 0.5\%$, and are therefore suitable for all applications in which maximum-precision measurement is crucial.

* All accuracy specifications refer to the relevant full-scale value and apply to 25 °C.

Accessories

The Control Unit of the circuit monitoring system need a flat cable for receive branches measurements from sensors. The flat cable should be a 4-pin cable, flexible in length. Flat cable are available in several lengths in order to cover the most kind of application. Cables with the greater length are designed with the purpose of being adapted, through cutting, to the various lengths required by the applications.



Solid-core sensors
Installation manual

Energy efficiency Sensors and Accessories

Description	GTIN 7612271 EAN	Ordering details Brief description	Product no.	Unit price	Weight of 1 unit (kg)	Packaging unit (pce.)
Open-core sensors						
Open-core sensors 18 mm for pro M & SMISLINE installation devices with twin terminals						
80 A	452957	CMS-120PS	2CCA880210R0001		0.012	1
40 A	452971	CMS-121PS	2CCA880211R0001		0.012	1
20 A	452995	CMS-122PS	2CCA880212R0001		0.012	1
Open-core sensors 18 mm for DIN rail mounting (universally usable)						
80 A	453077	CMS-120DR	2CCA880240R0001		0.015	1
40 A	453091	CMS-121DR	2CCA880241R0001		0.015	1
20 A	453114	CMS-122DR	2CCA880242R0001		0.015	1
Open-core sensors 18 mm for cable tie mounting (universally usable)						
80 A	453015	CMS-120CA	2CCA880220R0001		0.011	1
40 A	453039	CMS-121CA	2CCA880221R0001		0.011	1
20 A	453053	CMS-122CA	2CCA880222R0001		0.011	1
Solid-core sensors						
Solid-core sensors 18 mm for pro M & SMISLINE installation devices with twin terminals						
80 A	419202	CMS-100PS	2CCA880100R0001		0.012	1
40 A	419219	CMS-101PS	2CCA880101R0001		0.012	1
20 A	419226	CMS-102PS	2CCA880102R0001		0.012	1
Solid-core sensors 18 mm for S800 installation devices with cage terminals						
80 A	426552	CMS-100S8	2CCA880124R0001		0.014	1
40 A	426569	CMS-101S8	2CCA880125R0001		0.014	1
20 A	426576	CMS-102S8	2CCA880126R0001		0.014	1
Solid-core sensors 18 mm for DIN rail mounting (universally usable)						
80 A	426583	CMS-100DR	2CCA880128R0001		0.015	1
40 A	426590	CMS-101DR	2CCA880129R0001		0.015	1
20 A	426606	CMS-102DR	2CCA880130R0001		0.015	1
Solid-core sensors 18 mm for cable tie mounting (universally usable)						
80 A	426613	CMS-100CA	2CCA880107R0001		0.011	1
40 A	426620	CMS-101CA	2CCA880108R0001		0.011	1
20 A	426637	CMS-102CA	2CCA880109R0001		0.011	1
Solid-core sensors 25 mm for S800 installation devices with cage terminals						
160 A	426644	CMS-200S8	2CCA880136R0001		0.028	1
80 A	426651	CMS-201S8	2CCA880137R0001		0.028	1
40 A	426668	CMS-202S8	2CCA880138R0001		0.028	1
Solid-core sensors 25 mm for DIN rail mounting (universally usable)						
160 A	426675	CMS-200DR	2CCA880132R0001		0.030	1
80 A	426682	CMS-201DR	2CCA880133R0001		0.030	1
40 A	426699	CMS-202DR	2CCA880134R0001		0.030	1
Solid-core sensors 25 mm for cable tie mounting (universally usable)						
160 A	426705	CMS-200CA	2CCA880117R0001		0.026	1
80 A	426712	CMS-201CA	2CCA880118R0001		0.026	1
40 A	426729	CMS-202CA	2CCA880119R0001		0.026	1
Accessories						
Flat cable 2 m	419233	CMS-800	2CCA880148R0001		0.017	1
Flat cable 5 m	474225	CMS-802	2CCA880331R0001		0.045	1
Flat cable 10 m	475758	CMS-803	2CCA880332R0001		0.090	1
Flat cable 30 m	468880	CMS-805	2CCA880333R0001		0.270	1
Connector set (35 pcs.)	419240	CMS-820	2CCA880145R0001		0.024	35

Solutions for electrical installation in buildings

SMISLINE TP plug-in system

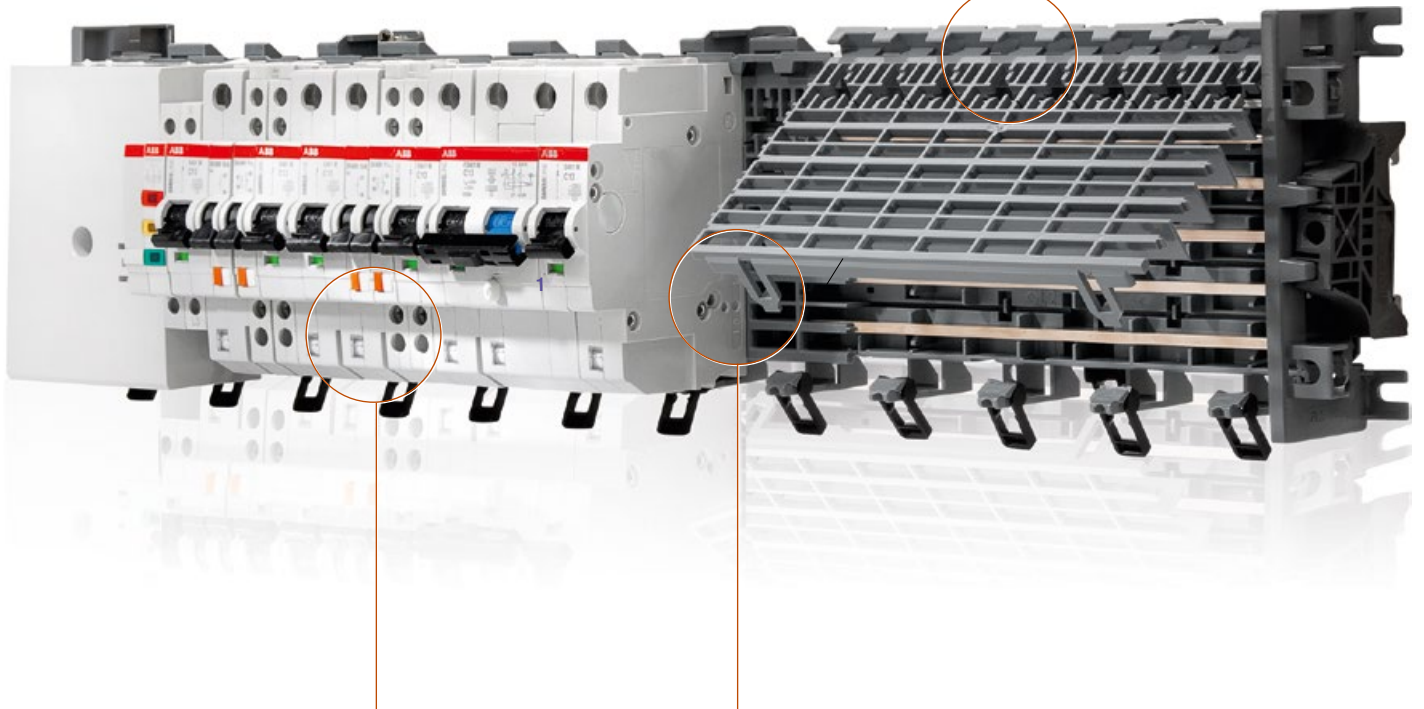
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SMISLINE TP plug-in system

Changes are never been easier

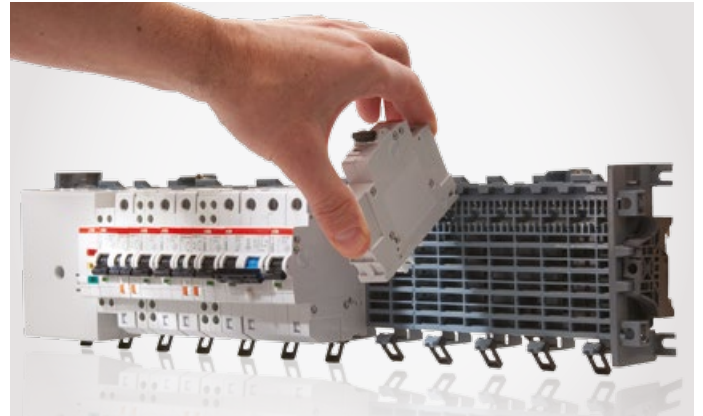
SMISLINE TP ensures that load-free devices and components can be snapped on and off under voltage without the need for additional personal protective equipment to guard against electrical hazards.



8

It opens up to a completely new prospects for you when it comes to installation, operation and flexibility.

The world's first pluggable socket system.



Even safer: Protection against electrical hazards

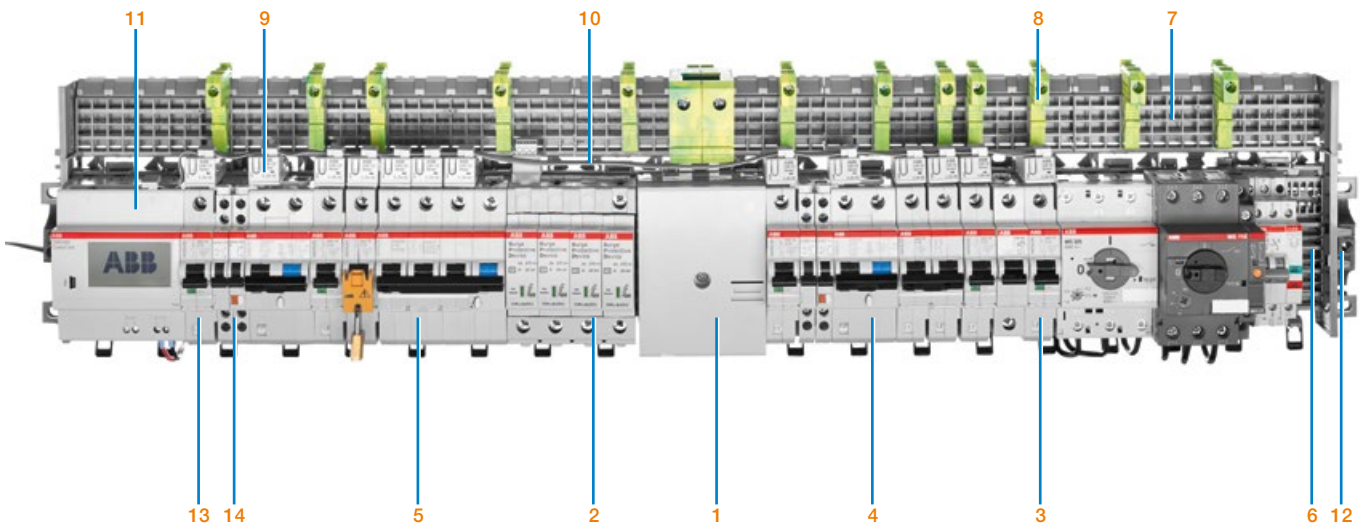
We have upgraded our unique SMISLINE socket system even further through the addition of a pioneering innovation. With the new SMISLINE TP system, components can now be plugged in or unplugged load-free without any risk from electrical current running through the body.

The SMISLINE TP pluggable socket system is completely finger-safe (IP2XB) – when devices are plugged in and unplugged, the system is always touch-proof. This means that SMISLINE TP prevents any danger to personnel from switching arcs or accidental arcing.

Even more flexible: make additions and changes during ongoing operation

Pluggable devices can be added and changed quickly, safely and simply during ongoing operation. And this can be done without any need for personal protective equipment.

This means that you benefit from more flexibility, savings on installation and maintenance – and improved safety. SMISLINE TP provides greater availability and operating safety than conventional systems.



- | | | | | | |
|---|---------------------------|----|---------------------------------------|----|-------------------|
| 1 | Supply terminal | 6 | Socket IP20 | 11 | Control unit CMS |
| 2 | Surge arrester OVR404 | 7 | Additional socket IP20 | 12 | Socket end piece |
| 3 | Miniature circuit breaker | 8 | Terminals | 13 | Auxillary contact |
| 4 | RCBO FS401 | 9 | Sensor for current measurement system | 14 | Signal contact |
| 5 | RCBO FS403 | 10 | Cabel Bus system CMS | | |

SMISLINE TP plug-in system

MCBs S 400 series

		S400M and S400 UC		
General Data			IEC/EN 60898-1 S400 B,C,D,K IEC/EN 60947-2 S400 C,K,UCC, UCK	
	Poles		1P, 1P+NP, 2P, 3P, 3P+NP	
	Tripping characteristics		B,C,D,K, UCC, UCZ	
	Rated current I _n	A	0.5 ... 63	
	Rated frequency f	Hz	50/60 Hz (16 ² /3 on request)	
	Rated insulation voltage U _i acc. to DIN EN 60664-1	V	400 VAC	
	Rated impulse withstand voltage U _{imp} . (1.2/50 μs)	kV	4 kV	
	Overvoltage category		III	
	Pollution degree		2	
	Data acc. to IEC/EN 60898-1	Rated operational voltage U _e	V	1P: 230/400 V AC; 1P+N: 230 V AC ; 2...4P: 400 V AC; 3P+N: 400 V AC
Max. power frequency recovery voltage (U _{max})		V	1P: 253 V AC; 1P+N: 253 V AC; 2P: 440 V AC; 3...4P: 440 V AC; 3P+N: 440 V AC; 1P: 72 V DC; 2P: 125 V DC	
Rated short-circuit capacity I _{cn}		kA	6 kA S400E 10 kA S400M	
Energy limiting class			3	
Reference temperature for tripping characteristics		°C	B, C, D: 30 °C K: 40 °C	
Electrical and Mechanical Endurance		ops.	I _n < 32 A: 20 000 ops (AC), I _n ≥ 32 A: 10 000 ops. (AC)	
Data acc. to IEC/EN 60947-2	Max. power frequency recovery voltage (U _{max})	V	254/440 V AC 1P: 60 V DC 2P: 125 V DC for S400M 1P: 125 V DC 2P: 250 V DC for S400 UCC and UCZ	
	Rated ultimate short-circuit capacity I _{cu}	kA	25 kA (0,5 up to 16 A, 240/415 V)0,5 to 2 A 50 kA on request 15 kA (20 up to 63 A, 240/415 V) 15 kA (0,5 up to 16 A, 254/440 V) 6 kA (20 up to 63 A, 254/440 V) S400UC: 10 kA (0,5.63A, 220 V d.c. 1pole) S400UC: 20 kA (0,5.63A, 110 V d.c. 1pole) S400UC: 25 kA (0,5.63A, 220 V d.c. 2pole) S400UC: 10 kA (0,5.63A, 440 V d.c. 2pole) S400UC: 10 kA (0,5.63A, 230/400 V)	
	Rated service short-circuit capacity I _{cs}	kA	15 kA (0,5 up to 16 A, 240/415 V) 7,5 kA (20 up to 63 A, 240/415 V) 6 kA (0,5 up to 16 A, 254/440 V) 3 kA (20 up to 63 A, 254/440 V) S400UC: 10 kA (0,5.63A, 220 V d.c. 1pole) S400UC: 10 kA (0,5.63A, 110 V d.c. 1pole) S400UC: 20 kA (0,5.63A, 220 V d.c. 2pole) S400UC: 10 kA (0,5.63A, 440 V d.c. 2pole) S400UC: 6 kA (0,5.63A, 230/400 V)	
	Dielectric test voltage	kV		
	Reference temperature for tripping characteristics	°C	C: 30 °C K: 40 °C	
	Electrical and Mechanical Endurance	ops.	I _n < 32 A: 20 000 operating cycles I _n ≥ 32 A: 10 000 operating cycles	
	Mechanical Data	Housing		Insulation group I, RAL 7035
		Toggle		Insulation group II, black, sealable
		Classification acc. To NF F 126-101, NF F 16-102		
		Protection degree acc. to EN 60529		IP20*, IP40 in enclosure with cover
Mechanical endurance		ops.	20 000 ops.	
Shock resistance acc. to IEC/EN 60068-2-30				
Vibration resistance acc. to IEC/EN 60068-2-6			5 g – 20 cycles at 5 ... 150 ... 5 Hz with load 0.8 I _n	
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55 °C/90–96% and 25 °C/95–100%	
Ambient temperature		°C	–25 ... +55 °C	
Storage temperature		°C	–40 ... +70 °C	
Installation	Standed Cross-section of conductors (top/bottom)	mm ²	top 0.75–25 mm ² /bottom no terminal pluggable MCB	
	Flexible Cross-section of conductors (top/bottom)	mm ²		
	Tightening torque	Nm In-lbs.	2.8 Nm	
	Screwdriver		No. 2 Pozidrive	
	Mounting		plug in on bus bar system SMISLINE	
	Mounting position		any	
	Supply		any	
Dimensions and weight	Mounting dimensions acc. to DIN 43880			
	Pole dimensions (H x D x W)	mm	91x18x82	
	Pole weight	g	110	

SMISLINE TP plug-in system

MCBs S 400 M series 10000 B characteristic



S 401 M



S 402 M



S 403 M

S400M Characteristic B

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems.

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898

Icn =10 kA

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
	In A	EAN	Type code	Order code				
1	4	0101214	S401 M-B 4	2CCS571001R0045		0.110	10	
	6	0101221	S401 M-B 6	2CCS571001R0065		0.110	10	
	8	0108411	S401 M-B 8	2CCS571001R0085		0.110	10	
	10	0101238	S401 M-B 10	2CCS571001R0105		0.110	10	
	13	0101245	S401 M-B 13	2CCS571001R0135		0.110	10	
	16	0101252	S401 M-B 16	2CCS571001R0165		0.110	10	
	20	0101269	S401 M-B 20	2CCS571001R0205		0.110	10	
	25	0101276	S401 M-B 25	2CCS571001R0255		0.110	10	
	32	0101283	S401 M-B 32	2CCS571001R0325		0.110	10	
	40	0101290	S401 M-B 40	2CCS571001R0405		0.110	10	
	50	0101306	S401 M-B 50	2CCS571001R0505		0.110	10	
	63	0101313	S401 M-B 63	2CCS571001R0635		0.110	10	
	2	4	0101986	S402 M-B 4	2CCS572001R0045		0.221	5
		6	0101993	S402 M-B 6	2CCS572001R0065		0.221	5
8		0108428	S402 M-B 8	2CCS572001R0085		0.221	5	
10		0102006	S402 M-B 10	2CCS572001R0105		0.221	5	
13		0102013	S402 M-B 13	2CCS572001R0135		0.221	5	
16		0102020	S402 M-B 16	2CCS572001R0165		0.221	5	
20		0102037	S402 M-B 20	2CCS572001R0205		0.221	5	
25		0102044	S402 M-B 25	2CCS572001R0255		0.221	5	
32		0102051	S402 M-B 32	2CCS572001R0325		0.221	5	
40		0102068	S402 M-B 40	2CCS572001R0405		0.221	5	
50		0102075	S402 M-B 50	2CCS572001R0505		0.221	5	
63		0102082	S402 M-B 63	2CCS572001R0635		0.221	5	
3		4	0102754	S403 M-B 4	2CCS573001R0045		0.322	3
		6	0102761	S403 M-B 6	2CCS573001R0065		0.322	3
	8	0108435	S403 M-B 8	2CCS573001R0085		0.322	3	
	10	0102778	S403 M-B 10	2CCS573001R0105		0.322	3	
	13	0102785	S403 M-B 13	2CCS573001R0135		0.322	3	
	16	0102792	S403 M-B 16	2CCS573001R0165		0.322	3	
	20	0102808	S403 M-B 20	2CCS573001R0205		0.322	3	
	25	0102815	S403 M-B 25	2CCS573001R0255		0.322	3	
	32	0102822	S403 M-B 32	2CCS573001R0325		0.322	3	
	40	0102839	S403 M-B 40	2CCS573001R0405		0.322	3	
	50	0102846	S403 M-B 50	2CCS573001R0505		0.322	3	
	63	0102853	S403 M-B 63	2CCS573001R0635		0.322	3	

Where to find more:

Technical details of SMISLINE:
Chapter 8 of
Solutions for electrical installation in
buildings - technical details

Worldwide marks and approvals of
MCBs - chapter 15

Maybe you are also interested in:

SMISLINE auxiliary elements and
accessories - chapter 8
SMISLINE busbar systems - chapter 8

SMISLINE TP plug-in system

MCBs S 400 M series 10000 C characteristic



S 401 M



S 402 M



S 403 M

S400M Characteristic C

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898, IEC/EN 60947-2

Icn = 10 kA

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.5	0101320	S401 M-C 0.5	2CCS571001R0984		0.110	10
	1	0101337	S401 M-C 1	2CCS571001R0014		0.110	10
	1.6	0101344	S401 M-C 1.6	2CCS571001R0974		0.110	10
	2	0101351	S401 M-C 2	2CCS571001R0024		0.110	10
	3	0101368	S401 M-C 3	2CCS571001R0034		0.110	10
	4	0101375	S401 M-C 4	2CCS571001R0044		0.110	10
	6	0101382	S401 M-C 6	2CCS571001R0064		0.110	10
	8	0101399	S401 M-C 8	2CCS571001R0084		0.110	10
	10	0101405	S401 M-C 10	2CCS571001R0104		0.110	10
	13	0101412	S401 M-C 13	2CCS571001R0134		0.110	10
	16	0101429	S401 M-C 16	2CCS571001R0164		0.110	10
	20	0101436	S401 M-C 20	2CCS571001R0204		0.110	10
	25	0101443	S401 M-C 25	2CCS571001R0254		0.110	10
	32	0101450	S401 M-C 32	2CCS571001R0324		0.110	10
	40	0101467	S401 M-C 40	2CCS571001R0404		0.110	10
	50	0101474	S401 M-C 50	2CCS571001R0504		0.110	10
63	0101481	S401 M-C 63	2CCS571001R0634		0.110	10	
2	0.5	0102099	S402 M-C 0.5	2CCS572001R0984		0.221	5
	1	0102105	S402 M-C 1	2CCS572001R0014		0.221	5
	1.6	0102112	S402 M-C 1.6	2CCS572001R0974		0.221	5
	2	0102129	S402 M-C 2	2CCS572001R0024		0.221	5
	3	0102136	S402 M-C 3	2CCS572001R0034		0.221	5
	4	0102143	S402 M-C 4	2CCS572001R0044		0.221	5
	6	0102150	S402 M-C 6	2CCS572001R0064		0.221	5
	8	0102167	S402 M-C 8	2CCS572001R0084		0.221	5
	10	0102174	S402 M-C 10	2CCS572001R0104		0.221	5
	13	0102181	S402 M-C 13	2CCS572001R0134		0.221	5
	16	0102198	S402 M-C 16	2CCS572001R0164		0.221	5
	20	0102204	S402 M-C 20	2CCS572001R0204		0.221	5
	25	0102211	S402 M-C 25	2CCS572001R0254		0.221	5
	32	0102228	S402 M-C 32	2CCS572001R0324		0.221	5
	40	0102235	S402 M-C 40	2CCS572001R0404		0.221	5
	50	0102242	S402 M-C 50	2CCS572001R0504		0.221	5
63	0102259	S402 M-C 63	2CCS572001R0634		0.221	5	
3	0.5	0102860	S403 M-C 0.5	2CCS573001R0984		0.322	3
	1	0102877	S403 M-C 1	2CCS573001R0014		0.322	3
	1.6	0102884	S403 M-C 1.6	2CCS573001R0974		0.322	3
	2	0102891	S403 M-C 2	2CCS573001R0024		0.322	3
	3	0102907	S403 M-C 3	2CCS573001R0034		0.322	3
	4	0102914	S403 M-C 4	2CCS573001R0044		0.322	3
	6	0102921	S403 M-C 6	2CCS573001R0064		0.322	3
	8	0102938	S403 M-C 8	2CCS573001R0084		0.322	3
	10	0102945	S403 M-C 10	2CCS573001R0104		0.322	3
	13	0102952	S403 M-C 13	2CCS573001R0134		0.322	3
	16	0102969	S403 M-C 16	2CCS573001R0164		0.322	3
	20	0102976	S403 M-C 20	2CCS573001R0204		0.322	3
	25	0102983	S403 M-C 25	2CCS573001R0254		0.322	3
	32	0102990	S403 M-C 32	2CCS573001R0324		0.322	3
	40	0103003	S403 M-C 40	2CCS573001R0404		0.322	3
	50	0103010	S403 M-C 50	2CCS573001R0504		0.322	3
63	0103027	S403 M-C 63	2CCS573001R0634		0.322	3	

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MCBs S 400 M series 10000 D characteristic



S 401 M



S 402 M



S 403 M

S400M Characteristic D

Function: protection and control of the circuits against overloads and short-circuits; protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, breakdown lamps).

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898

Icn =10 kA

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
	In A	EAN	Type code	Order code				
1	6	0101498	S401 M-D 6	2CCS571001R0061		0.110	10	
	8	0101504	S401 M-D 8	2CCS571001R0081		0.110	10	
	10	0101511	S401 M-D 10	2CCS571001R0101		0.110	10	
	13	0101528	S401 M-D 13	2CCS571001R0131		0.110	10	
	16	0101535	S401 M-D 16	2CCS571001R0161		0.110	10	
	20	0101542	S401 M-D 20	2CCS571001R0201		0.110	10	
	25	0101559	S401 M-D 25	2CCS571001R0251		0.110	10	
	32	0101566	S401 M-D 32	2CCS571001R0321		0.110	10	
	40	0101573	S401 M-D 40	2CCS571001R0401		0.110	10	
	50	0101580	S401 M-D 50	2CCS571001R0501		0.110	10	
	63	0101597	S401 M-D 63	2CCS571001R0631		0.110	10	
	2	6	0102266	S402 M-D 6	2CCS572001R0061		0.221	5
		8	0102273	S402 M-D 8	2CCS572001R0081		0.221	5
10		0102280	S402 M-D 10	2CCS572001R0101		0.221	5	
13		0102297	S402 M-D 13	2CCS572001R0131		0.221	5	
16		0102303	S402 M-D 16	2CCS572001R0161		0.221	5	
20		0102310	S402 M-D 20	2CCS572001R0201		0.221	5	
25		0102327	S402 M-D 25	2CCS572001R0251		0.221	5	
32		0102334	S402 M-D 32	2CCS572001R0321		0.221	5	
40		0102341	S402 M-D 40	2CCS572001R0401		0.221	5	
50		0102358	S402 M-D 50	2CCS572001R0501		0.221	5	
63		0102365	S402 M-D 63	2CCS572001R0631		0.221	5	
3		6	0103034	S403 M-D 6	2CCS573001R0061		0.322	3
		8	0103041	S403 M-D 8	2CCS573001R0081		0.322	3
	10	0103058	S403 M-D 10	2CCS573001R0101		0.322	3	
	13	0103065	S403 M-D 13	2CCS573001R0131		0.322	3	
	16	0103072	S403 M-D 16	2CCS573001R0161		0.322	3	
	20	0103089	S403 M-D 20	2CCS573001R0201		0.322	3	
	25	0103096	S403 M-D 25	2CCS573001R0251		0.322	3	
	32	0103102	S403 M-D 32	2CCS573001R0321		0.322	3	
	40	0103119	S403 M-D 40	2CCS573001R0401		0.322	3	
	50	0103126	S403 M-D 50	2CCS573001R0501		0.322	3	
	63	0103133	S403 M-D 63	2CCS573001R0631		0.322	3	

SMISLINE TP plug-in system

MCBs S 400 M series 5000-15000 K characteristic



S 401

S400M Characteristic K

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits. Advantages: no nuisance tripping in the case of functional peak currents up to 10xI_n, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the over-current range; it also provides the best protection to cables and lines.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

I_{cu} = 50 kA ≤ 2A, 25 kA for 3 A ≤ 16A, 15 kA for 32 A ≤ 63 A



S 402 M

8



S 403 M

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
1	0.5	0101603	S401 M-K 0.5	2CCS571001R0157		0.110	10
	1	0101610	S401 M-K 1	2CCS571001R0217		0.110	10
	1.6	0101627	S401 M-K 1.6	2CCS571001R0257		0.110	10
	2	0101634	S401 M-K 2	2CCS571001R0277		0.110	10
	3	0101641	S401 M-K 3	2CCS571001R0317		0.110	10
	4	0101658	S401 M-K 4	2CCS571001R0337		0.110	10
	6	0101665	S401 M-K 6	2CCS571001R0377		0.110	10
	8	0101672	S401 M-K 8	2CCS571001R0407		0.110	10
	10	0101689	S401 M-K 10	2CCS571001R0427		0.110	10
	13	0101696	S401 M-K 13	2CCS571001R0447		0.110	10
	16	0101702	S401 M-K 16	2CCS571001R0467		0.110	10
	20	0101719	S401 M-K 20	2CCS571001R0487		0.110	10
	25	0101726	S401 M-K 25	2CCS571001R0517		0.110	10
	32	0101733	S401 M-K 32	2CCS571001R0537		0.110	10
	40	0101740	S401 M-K 40	2CCS571001R0557		0.110	10
50	0101757	S401 M-K 50	2CCS571001R0577		0.110	10	
63	0101764	S401 M-K 63	2CCS571001R0597		0.110	10	
2	0.5	0102372	S402 M-K 0.5	2CCS572001R0157		0.221	5
	1	0102389	S402 M-K 1	2CCS572001R0217		0.221	5
	1.6	0102396	S402 M-K 1.6	2CCS572001R0257		0.221	5
	2	0102402	S402 M-K 2	2CCS572001R0277		0.221	5
	3	0102419	S402 M-K 3	2CCS572001R0317		0.221	5
	4	0102426	S402 M-K 4	2CCS572001R0337		0.221	5
	6	0102433	S402 M-K 6	2CCS572001R0377		0.221	5
	8	0102440	S402 M-K 8	2CCS572001R0407		0.221	5
	10	0102457	S402 M-K 10	2CCS572001R0427		0.221	5
	13	0102464	S402 M-K 13	2CCS572001R0447		0.221	5
	16	0102471	S402 M-K 16	2CCS572001R0467		0.221	5
	20	0102488	S402 M-K 20	2CCS572001R0487		0.221	5
	25	0102495	S402 M-K 25	2CCS572001R0517		0.221	5
	32	0102501	S402 M-K 32	2CCS572001R0537		0.221	5
	40	0102518	S402 M-K 40	2CCS572001R0557		0.221	5
50	0102525	S402 M-K 50	2CCS572001R0577		0.221	5	
63	0102532	S402 M-K 63	2CCS572001R0597		0.221	5	
3	0.5	0103140	S403 M-K 0.5	2CCS573001R0157		0.322	3
	1	0103157	S403 M-K 1	2CCS573001R0217		0.322	3
	1.6	0103164	S403 M-K 1.6	2CCS573001R0257		0.322	3
	2	0103171	S403 M-K 2	2CCS573001R0277		0.322	3
	3	0103188	S403 M-K 3	2CCS573001R0317		0.322	3
	4	0103195	S403 M-K 4	2CCS573001R0337		0.322	3
	6	0103201	S403 M-K 6	2CCS573001R0377		0.322	3
	8	0103218	S403 M-K 8	2CCS573001R0407		0.322	3
	10	0103225	S403 M-K 10	2CCS573001R0427		0.322	3
	13	0103232	S403 M-K 13	2CCS573001R0447		0.322	3
	16	0103249	S403 M-K 16	2CCS573001R0467		0.322	3
	20	0103256	S403 M-K 20	2CCS573001R0487		0.322	3
	25	0103263	S403 M-K 25	2CCS573001R0517		0.322	3
	32	0103270	S403 M-K 32	2CCS573001R0537		0.322	3
	40	0103287	S403 M-K 40	2CCS573001R0557		0.322	3
50	0103294	S403 M-K 50	2CCS573001R0577		0.322	3	
63	0103300	S403 M-K 63	2CCS573001R0597		0.322	3	

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SMISLINE TP plug-in system

MCBs S 400 M series 10000 B characteristic



S 402 M



S 403 M

S400M Characteristic B-NP

Function: protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems. The neutral is full protected.

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898

Icn =10 kA

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.	
	In A	EAN	Type code	Order code				
2	6	0103317	S401 M-B 6NP	2CCS571103R8065		0.221	5	
	8	0108473	S401 M-B 8NP	2CCS571103R8085		0.221	5	
	10	0103324	S401 M-B 10NP	2CCS571103R8105		0.221	5	
	13	0103331	S401 M-B 13NP	2CCS571103R8135		0.221	5	
	16	0103348	S401 M-B 16NP	2CCS571103R8165		0.221	5	
	20	0103355	S401 M-B 20NP	2CCS571103R8205		0.221	5	
	25	0103362	S401 M-B 25NP	2CCS571103R8255		0.221	5	
	32	0103379	S401 M-B 32NP	2CCS571103R8325		0.221	5	
	40	0103386	S401 M-B 40NP	2CCS571103R8405		0.221	5	
	50	0103393	S401 M-B 50NP	2CCS571103R8505		0.221	5	
	63	0103409	S401 M-B 63NP	2CCS571103R8635		0.221	5	
	4	6	0103782	S403 M-B 6NP	2CCS573103R8065		0.428	2
		8	0108510	S403 M-B 8NP	2CCS573103R8085		0.428	2
10		0103799	S403 M-B 10NP	2CCS573103R8105		0.428	2	
13		0103805	S403 M-B 13NP	2CCS573103R8135		0.428	2	
16		0103812	S403 M-B 16NP	2CCS573103R8165		0.428	2	
20		0103829	S403 M-B 20NP	2CCS573103R8205		0.428	2	
25		0103836	S403 M-B 25NP	2CCS573103R8255		0.428	2	
32		0103843	S403 M-B 32NP	2CCS573103R8325		0.428	2	
40		0103850	S403 M-B 40NP	2CCS573103R8405		0.428	2	
50		0103867	S403 M-B 50NP	2CCS573103R8505		0.428	2	
63		0103874	S403 M-B 63NP	2CCS573103R8635		0.428	2	

SMISLINE TP plug-in system

MCBs S 400 M series 10000 C characteristic



S 402 M



S 403 M

S400M Characteristic C-NP

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current. The neutral is full protected.

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898, IEC/EN 60947-2

Icn = 10 kA

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	2	0108480	S401 M-C 2NP	2CCS571103R8024		0.221	5
	3	0108497	S401 M-C 3NP	2CCS571103R8034		0.221	5
	4	0108503	S401 M-C 4NP	2CCS571103R8044		0.221	5
	6	0103416	S401 M-C 6NP	2CCS571103R8064		0.221	5
	8	0103423	S401 M-C 8NP	2CCS571103R8084		0.221	5
	10	0103430	S401 M-C 10NP	2CCS571103R8104		0.221	5
	13	0103447	S401 M-C 13NP	2CCS571103R8134		0.221	5
	16	0103454	S401 M-C 16NP	2CCS571103R8164		0.221	5
	20	0103461	S401 M-C 20NP	2CCS571103R8204		0.221	5
	25	0103478	S401 M-C 25NP	2CCS571103R8254		0.221	5
	32	0103485	S401 M-C 32NP	2CCS571103R8324		0.221	5
	40	0103492	S401 M-C 40NP	2CCS571103R8404		0.221	5
	50	0103508	S401 M-C 50NP	2CCS571103R8504		0.221	5
	63	0103515	S401 M-C 63NP	2CCS571103R8634		0.221	5
4	2	0108527	S403 M-C 2NP	2CCS573103R8024		0.564	2
	3	0108534	S403 M-C 3NP	2CCS573103R8034		0.564	2
	4	0108541	S403 M-C 4NP	2CCS573103R8044		0.564	2
	6	0103881	S403 M-C 6NP	2CCS573103R8064		0.564	2
	8	0103898	S403 M-C 8NP	2CCS573103R8084		0.564	2
	10	0103904	S403 M-C 10NP	2CCS573103R8104		0.564	2
	13	0103911	S403 M-C 13NP	2CCS573103R8134		0.564	2
	16	0103928	S403 M-C 16NP	2CCS573103R8164		0.564	2
	20	0103935	S403 M-C 20NP	2CCS573103R8204		0.564	2
	25	0103942	S403 M-C 25NP	2CCS573103R8254		0.564	2
	32	0103959	S403 M-C 32NP	2CCS573103R8324		0.564	2
	40	0103966	S403 M-C 40NP	2CCS573103R8404		0.564	2
	50	0103973	S403 M-C 50NP	2CCS573103R8504		0.564	2
	63	0103980	S403 M-C 63NP	2CCS573103R8634		0.564	2

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SMISLINE TP plug-in system

MCBs S 400 M series 10000 D characteristic



S 402 M



S 403 M

S400M Characteristic D-NP

Function: protection and control of the circuits against overloads and short-circuits; protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, breakdown lamps). The neutral is full protected.

Applications: residential, commercial and industrial.

Standard: IEC/EN 60898

Icn =10 kA

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	10	0103522	S401 M-D 10NP	2CCS571103R8101		0.221	5
	13	0103539	S401 M-D 13NP	2CCS571103R8131		0.221	5
	16	0103546	S401 M-D 16NP	2CCS571103R8161		0.221	5
	20	0103553	S401 M-D 20NP	2CCS571103R8201		0.221	5
	25	0103560	S401 M-D 25NP	2CCS571103R8251		0.221	5
	32	0103577	S401 M-D 32NP	2CCS571103R8321		0.221	5
	40	0103584	S401 M-D 40NP	2CCS571103R8401		0.221	5
	50	0103591	S401 M-D 50NP	2CCS571103R8501		0.221	5
	63	0103607	S401 M-D 63NP	2CCS571103R8631		0.221	5
4	10	0103997	S403 M-D 10NP	2CCS573103R8101		0.428	2
	13	0104000	S403 M-D 13NP	2CCS573103R8131		0.428	2
	16	0104017	S403 M-D 16NP	2CCS573103R8161		0.428	2
	20	0104024	S403 M-D 20NP	2CCS573103R8201		0.428	2
	25	0104031	S403 M-D 25NP	2CCS573103R8251		0.428	2
	32	0104048	S403 M-D 32NP	2CCS573103R8321		0.428	2
	40	0104055	S403 M-D 40NP	2CCS573103R8401		0.428	2
	50	0104062	S403 M-D 50NP	2CCS573103R8501		0.428	2
	63	0104079	S403 M-D 63NP	2CCS573103R8631		0.428	2

SMISLINE TP plug-in system

MCBs S 400 M series 5000-15000 K characteristic



S 402 M

S400M Characteristic K-NP

Function: protection and control of the circuits like motors, transformer and auxiliary circuits, against overloads and short-circuits.

Advantages: no nuisance tripping in the case of functional peak currents up to $10 \times I_n$, depending on the series; through its highly sensitive thermostatic bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range; it also provides the best protection to cables and lines. The neutral is full protected

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

Icu = 50 kA \leq 2A, 25 kA for 3 A \leq 16A, 15 kA for 32 A \leq 63 A



S 403 M

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	In A	EAN	Type code	Order code			
2	0.5	0103614	S401 M-K 0.5NP	2CCS571103R8157		0.221	5
	1	0103621	S401 M-K 1NP	2CCS571103R8217		0.221	5
	1.6	0103638	S401 M-K 1.6NP	2CCS571103R8257		0.221	5
	2	0103645	S401 M-K 2NP	2CCS571103R8277		0.221	5
	3	0103652	S401 M-K 3NP	2CCS571103R8317		0.221	5
	4	0103669	S401 M-K 4NP	2CCS571103R8337		0.221	5
	6	0103676	S401 M-K 6NP	2CCS571103R8377		0.221	5
	8	0103683	S401 M-K 8NP	2CCS571103R8407		0.221	5
	10	0103690	S401 M-K 10NP	2CCS571103R8427		0.221	5
	13	0103706	S401 M-K 13NP	2CCS571103R8447		0.221	5
	16	0103713	S401 M-K 16NP	2CCS571103R8467		0.221	5
	20	0103720	S401 M-K 20NP	2CCS571103R8487		0.221	5
	25	0103737	S401 M-K 25NP	2CCS571103R8517		0.221	5
	32	0103744	S401 M-K 32NP	2CCS571103R8537		0.221	5
	40	0103751	S401 M-K 40NP	2CCS571103R8557		0.221	5
50	0103768	S401 M-K 50NP	2CCS571103R8577		0.221	5	
63	0103775	S401 M-K 63NP	2CCS571103R8597		0.221	5	
4	0.5	0104086	S403 M-K 0.5NP	2CCS573103R8157		0.428	2
	1	0104093	S403 M-K 1NP	2CCS573103R8217		0.428	2
	1.6	0104109	S403 M-K 1.6NP	2CCS573103R8257		0.428	2
	2	0104116	S403 M-K 2NP	2CCS573103R8277		0.428	2
	3	0104123	S403 M-K 3NP	2CCS573103R8317		0.428	2
	4	0104130	S403 M-K 4NP	2CCS573103R8337		0.428	2
	6	0104147	S403 M-K 6NP	2CCS573103R8377		0.428	2
	8	0104154	S403 M-K 8NP	2CCS573103R8407		0.428	2
	10	0104161	S403 M-K 10NP	2CCS573103R8427		0.428	2
	13	0104178	S403 M-K 13NP	2CCS573103R8447		0.428	2
	16	0104185	S403 M-K 16NP	2CCS573103R8467		0.428	2
	20	0104192	S403 M-K 20NP	2CCS573103R8487		0.428	2
	25	0104208	S403 M-K 25NP	2CCS573103R8517		0.428	2
	32	0104215	S403 M-K 32NP	2CCS573103R8537		0.428	2
	40	0104222	S403 M-K 40NP	2CCS573103R8557		0.428	2
50	0104239	S403 M-K 50NP	2CCS573103R8577		0.428	2	
63	0104246	S403 M-K 63NP	2CCS573103R8597		0.428	2	

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SMISLINE TP plug-in system

MCBs S 400 M-UC series 10000-25000 C characteristic, DC application



1 P 220V d.c.

S400UC Characteristic C

Function: protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

Applications: residential, commercial and industrial.

Standard: IEC/EN 60947-2

10 kA (0,5 up to 63 A, 220 V d.c. 1pole), 20 kA (0,5 up to 63 A, 110 V d.c. 1pole)

25 kA (0,5 up to 63 A, 220 V d.c. 2pole), 10 kA (0,5 up to 63 A, 440 V d.c. 2pole)

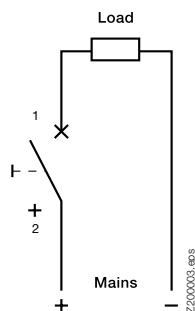
10 kA (0,5 up to 63 A, 230/400 V) a.c.



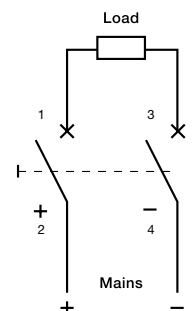
2 P 440V d.c.

Number of poles	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code		kg	pc.
1	0.5	0109746	S401M-UCC0.5	2CCS561001R1984		0.110	10
	1	0109753	S401M-UCC1	2CCS561001R1014		0.110	10
	1.6	0109760	S401M-UCC1.6	2CCS561001R1974		0.110	10
	2	0109777	S401M-UCC2	2CCS561001R1024		0.110	10
	3	0109784	S401M-UCC3	2CCS571001R1034		0.110	10
	4	0109791	S401M-UCC4	2CCS571001R1044		0.110	10
	6	0109807	S401M-UCC6	2CCS571001R1064		0.110	10
	8	0109814	S401M-UCC8	2CCS571001R1084		0.110	10
	10	0109821	S401M-UCC10	2CCS571001R1104		0.110	10
	13	0109838	S401M-UCC13	2CCS571001R1134		0.110	10
	16	0109845	S401M-UCC16	2CCS571001R1164		0.110	10
	20	0109852	S401M-UCC20	2CCS571001R1204		0.110	10
	25	0109869	S401M-UCC25	2CCS571001R1254		0.110	10
	32	0109876	S401M-UCC32	2CCS571001R1324		0.110	10
	40	0109883	S401M-UCC40	2CCS571001R1404		0.110	10
	50	0109890	S401M-UCC50	2CCS571001R1504		0.110	10
63	0109906	S401M-UCC63	2CCS571001R1634		0.110	10	
2	0.5	0109913	S402M-UCC0.5	2CCS562001R1984		0.221	5
	1	0109920	S402M-UCC1	2CCS562001R1014		0.221	5
	1.6	0109937	S402M-UCC1.6	2CCS562001R1974		0.221	5
	2	0109944	S402M-UCC2	2CCS562001R1024		0.221	5
	3	0109951	S402M-UCC3	2CCS572001R1034		0.221	5
	4	0109968	S402M-UCC4	2CCS572001R1044		0.221	5
	6	0109975	S402M-UCC6	2CCS572001R1064		0.221	5
	8	0109982	S402M-UCC8	2CCS572001R1084		0.221	5
	10	0109999	S402M-UCC10	2CCS572001R1104		0.221	5
	13	0110001	S402M-UCC13	2CCS572001R1134		0.221	5
	16	0110018	S402M-UCC16	2CCS572001R1164		0.221	5
	20	0110025	S402M-UCC20	2CCS572001R1204		0.221	5
	25	0110032	S402M-UCC25	2CCS572001R1254		0.221	5
	32	0110049	S402M-UCC32	2CCS572001R1324		0.221	5
	40	0110056	S402M-UCC40	2CCS572001R1404		0.221	5
	50	0110063	S402M-UCC50	2CCS572001R1504		0.221	5
63	0110070	S402M-UCC63	2CCS572001R1634		0.221	5	

Connection diagram, single-pole (max. 220V d.c.) S401M-UCC



Connection diagram, two-pole (max. 440V d.c.) S402M-UCC



SMISLINE TP plug-in system

MCBs S 400 M-UC series 10000-25000 Z characteristic, DC application



1 P 220V d.c.



2 P 440V d.c.

S400UC Characteristic Z

Function: protection and control of the electronic circuits against weak and long duration overloads and short-circuits.

Applications: commercial and industrial.

Standard: IEC/EN 60947-2

10 kA (0,5 up to 63 A, 220 V d.c. 1pole), 20 kA (0,5 up to 63 A, 110 V d.c. 1pole)

25 kA (0,5 up to 63 A, 220 V d.c. 2pole), 10 kA (0,5 up to 63 A, 440 V d.c. 2pole)

10 kA (0,5 up to 63 A, 230/400 V) a.c.

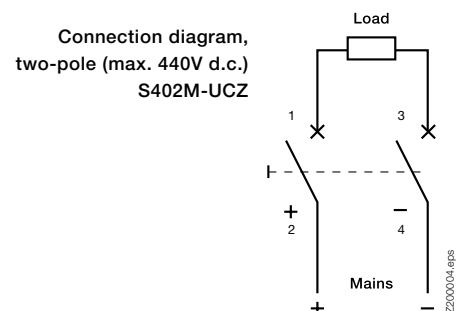
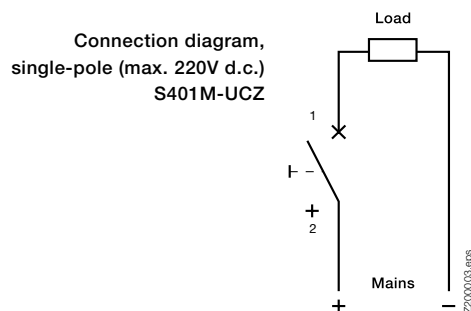
Number of poles	Rated current In A	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
			Type code	Order code			
1	0.5	0110087	S401M-UCZ0.5	2CCS561001R1988		0.110	10
	1	0110094	S401M-UCZ1	2CCS561001R1018		0.110	10
	1.6	0110100	S401M-UCZ1.6	2CCS561001R1978		0.110	10
	2	0110117	S401M-UCZ2	2CCS561001R1028		0.110	10
	3	0110124	S401M-UCZ3	2CCS571001R1038		0.110	10
	4	0110131	S401M-UCZ4	2CCS571001R1048		0.110	10
	6	0110148	S401M-UCZ6	2CCS571001R1068		0.110	10
	8	0110155	S401M-UCZ8	2CCS571001R1088		0.110	10
	10	0110162	S401M-UCZ10	2CCS571001R1108		0.110	10
	13	0110179	S401M-UCZ13	2CCS571001R1138		0.110	10
	16	0110186	S401M-UCZ16	2CCS571001R1168		0.110	10
	20	0110193	S401M-UCZ20	2CCS571001R1208		0.110	10
	25	0110209	S401M-UCZ25	2CCS571001R1258		0.110	10
	32	0110216	S401M-UCZ32	2CCS571001R1328		0.110	10
	40	0110223	S401M-UCZ40	2CCS571001R1408		0.110	10
	50	0110230	S401M-UCZ50	2CCS571001R1508		0.110	10
63	0110247	S401M-UCZ63	2CCS571001R1638		0.110	10	
2	0.5	0110254	S402M-UCZ0.5	2CCS562001R1988		0.221	10
	1	0110261	S402M-UCZ1	2CCS562001R1018		0.221	10
	1.6	0110278	S402M-UCZ1.6	2CCS562001R1978		0.221	10
	2	0110285	S402M-UCZ2	2CCS562001R1028		0.221	10
	3	0110292	S402M-UCZ3	2CCS572001R1038		0.221	10
	4	0110308	S402M-UCZ4	2CCS572001R1048		0.221	10
	6	0110315	S402M-UCZ6	2CCS572001R1068		0.221	10
	8	0110322	S402M-UCZ8	2CCS572001R1088		0.221	10
	10	0110339	S402M-UCZ10	2CCS572001R1108		0.221	10
	13	0110346	S402M-UCZ13	2CCS572001R1138		0.221	10
	16	0110353	S402M-UCZ16	2CCS572001R1168		0.221	10
	20	0110360	S402M-UCZ20	2CCS572001R1208		0.221	10
	25	0110377	S402M-UCZ25	2CCS572001R1258		0.221	10
	32	0110384	S402M-UCZ32	2CCS572001R1328		0.221	10
	40	0110391	S402M-UCZ40	2CCS572001R1408		0.221	10
	50	0110407	S402M-UCZ50	2CCS572001R1508		0.221	10
63	0110414	S402M-UCZ63	2CCS572001R1638		0.221	10	

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SMISLINE TP plug-in system

RCCBs F400 series, A type



F402

	F402	F404
Rated voltage Un:	230 V	230/400 V
Number of poles:	2	4
Rated frequency fn:	50/60 Hz	50/60 Hz (for Type LF 16 ² / ₃ Hz)
Rated breaking capacity Im:		1000 A
Total trip time (average value)		
– at IΔn	≤ 300 ms	≤ 300 ms
– at 5 IΔn	≤ 40 ms	≤ 40 ms
Delay time at 5 IΔn:	–	–
Resistance to short circuits (kA):	10 kA in conjunction with an upstream fuse gL / gG 100 A or a high performance MCB S800, 100 A	10 kA in conjunction with an upstream fuse gL / gG 100 A or a high performance MCB S800, 100 A
Connection load side terminal	Double lift terminal touch finger-proof, suitable for connecting single-, multi- and fine-wire conductors of up to 25 mm ²	
Degree of protection:	IP20 inside panel IP40	IP20 inside panel IP40
Endurance:	> 5000 operating cycles	> 5000 operating cycles
Resistance to climate acc. to:	EN 61008	EN 61008
Mounting position:	any	any
Ambient temperature:	–25 °C ... +40 °C	–25 °C ... +55 °C acc. to EN 61009
Vibration resistance:	5 g 5 ... 150 ... 5 Hz	5 g 5 ... 150 ... 5 Hz
Plastic parts:	halogen-free	halogen-free
Contacts:	cadmium-free	cadmium-free

SMISLINE TP plug-in system

RCCBs F400 series, A type



F402



F404

F402 A type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct (with $I_{\Delta n} = 30 \text{ mA}$) contacts.

Application: residential, commercial, industrial.

Standard: IEC/EN 61008

Marking: according to EN 61008

Number of poles	Rated residual current I_n mA	Rated current I_n A	Bbn 801254 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	10	25	2037033	F402 A 25/0.01	2CSF502110R0250		0.250	2
	30	25	2034339	F402 A 25/0.03	2CSF502110R1250		0.250	2
	30	40	2036937	F402 A 40/0.03	2CSF502110R1400		0.250	2
	100	40	2034230	F402 A 40/0.1	2CSF502110R2400		0.250	2

F404 A type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct (with $I_{\Delta n} = 30 \text{ mA}$) contacts. Product helpful where for installation habits, for wiring with busbars or cables, for special needs neutral on the left is needed.

Application: residential, commercial, industrial.

Standard: IEC/EN 61008

Marking: according to EN 61008

Number of poles	Rated residual current I_n mA	Rated current I_n A	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	25	0104253	F404 A 25/0.03	2CCF544110E0250		0.430	1
	30	40	0104260	F404 A 40/0.03	2CCF544110E0400		0.430	1
	100	40	0104277	F404 A 40/0.1	2CCF544120E0400		0.430	1
	300	40	0104284	F404 A 40/0.3	2CCF544130E0400		0.430	1
	30	63	0104291	F404 A 63/0.03	2CCF544110E0630		0.430	1
	100	63	0104307	F404 A 63/0.1	2CCF544120E0630		0.430	1
	300	63	0104314	F404 A 63/0.3	2CCF544130E0630		0.430	1
	500	63	1401566	F404 A 63/0.5	2CCF600517E0630		0.430	1

F404 A type $16\frac{2}{3}$ Hz

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct (with $I_{\Delta n} = 30 \text{ mA}$) contacts.

The RCCB F200 $16\frac{2}{3}$ Hz can work at rated frequency of $16\frac{2}{3}$ Hz which is common in railways applications

Application: railways

Standard: IEC/ EN 61008

Marking: according to EN 61008

Number of poles	Rated residual current I_n mA	Rated current I_n A	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	63	0104376	F404 A-LF 63/0.03	2CCF544110E0631		0.430	1
	300	63	0104383	F404 A-LF 63/0.3	2CCF544130E0631		0.430	1

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RCCBs F400 series, A APR type



F402

2CHC45 1022F0002

	F402...K	F404...K	F404...S
Rated voltage Un:	230 V	230/400 V	230/400 V
Number of poles:	2	4	4
Rated frequency fn:	45 ... 60 Hz	45 ... 60 Hz	45 ... 60 Hz
Resistance to surge current:	3 kA 8/20 µs	3 kA 8/20 µs	5 kA 8/20 µs
Total trip time (average value)			
– at IΔn	240 ms	120 ... 300 ms	150 ... 500 ms
– at 5 IΔn	≤ 40 ms		40 ... 150 ms
Delay time at 5 IΔn:	10 ms	10 ms	90 ms
Resistance to short circuits (kA):	10 kA in conjunction with an upstream fuse gL / gG 100 A or a high performance MCB S800 100 A	10 kA	10 kA
Connection load side terminal	Double lift terminal touch finger-proof, suitable for connecting single-, multi- and fine-wire conductors of up to 25 mm ²		
Degree of protection:	IP20 in panel IP40	IP20 in panel IP40	IP20 in panel IP40
Endurance:	> 5000 operating cycles	> 5000 operating cycles	> 5000 operating cycles
Resistance to climate acc. to:	EN 61008	EN 61008	EN 61008
Mounting position:	any	any	any
Ambient temperature:	–25°C ... +40°C	–25°C ... +55°C	–25°C ... +40°C
Vibration resistance:	5 g 5 ... 150 ... 5 Hz	5 g 5 ... 150 ... 5 Hz	5 g 5 ... 150 ... 5 Hz
Plastic parts:	halogen-free	halogen-free	halogen-free
Contacts:	cadmium-free	cadmium-free	cadmium-free

SMISLINE TP plug-in system

RCCBs F400 series, A K type



F402

F402 A K type, short-time delayed

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct ($I_{\Delta n} = 30 \text{ mA}$) contacts.

Application: residential, commercial, industrial.

Standard: IEC/EN 61008

Surge current resistance (wave 8/20) = 3000 A

Marking: according to EN 61008

Number of poles	Rated residual current I_n mA	Rated current I_n A	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2	30	40	0104482	F402 A-K 40/0.03	2CCF552310E0400		0.250	2



FS 404 K and S

F404 A K type, short-time delayed

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct ($I_{\Delta n} = 30 \text{ mA}$) contacts.

Application: residential, commercial, industrial.

Standard: IEC/EN 61008

Surge current resistance (wave 8/20) = 3000 A

Marking: according to EN 61008

Number of poles	Rated residual current I_n mA	Rated current I_n A	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	30	40	0104321	F404 A-K 40/0.03	2CCF544310E0400		0.430	1
	100	40	0104338	F404 A-K 40/0.1	2CCF544320E0400		0.430	1
	30	63	0104345	F404 A-K 63/0.03	2CCF544310E0630		0.430	1

F404 A selective type

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents with an intentional tripping delay, which permits to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide); protection against indirect contacts.

Application: commercial, industrial.

Standard: IEC/EN 61008

Surge current resistance (wave 8/20)=5000 A

Marking: according to EN 61008

Number of poles	Rated residual current I_n mA	Rated current I_n A	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4	100	63	0104352	F404 A-S 63/0.1	2CCF544220E0630		0.430	1
	300	63	0104369	F404 A-S 63/0.3	2CCF544230E0630		0.430	1

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SMISLINE TP plug-in system

RCBOs FS401 series 10000-6000 A and F type



FS 401 M

	FS401	FS401 Type A and F, short delay ARP
Rated voltage Un:	240 V~	
Upstream fuses and Selectivity limits:	For backup and selectivity, the details for the miniature circuit breakers S400 E and S400 M.	
Number of poles:	2-pole (1PN)	
Rated frequency fn:	50/60 Hz	
Rated breaking capacity Icn:	10 kA – 240 V~ 6 kA – 240 V~	
Current limitation class:	3	
Total cut-off time (average value) acc. to	EN 61009-1 EN 61009 max. 300 ms; 10 – 300 ms Type F max. 40 ms; 10 – 400 ms Type F	EN 61009-1 EN 61009 max. 300 ms; 10 – 300 ms Type F max. 40 ms; 10 – 400 ms Type F
Connection cross-sections	Opposing action stroke clamp on cylinder, touch finger-proof. Suitable for connecting	
Terminal at load end	single, multi- and fine-wire conductors of up to 25 mm ²	
Degree of protection:	IP20 inside panel IP40	
Endurance:	> 5000 operating cycles	
Resistance to climate, acc. to:	EN 61009	
Mounting position:	any	
Ambient temperature:	–25 °C ... +40 °C	
Vibration resistance:	5 g 5 ... 150 ... 5 Hz	
Plastic parts:	halogen-free	
Contacts:	cadmium-free	

Please notice:

For the influence of the ambient temperature and the thermal influences of row mounted RCBO's it is necessary to calculate with the same correction factors like with MCB's.

Residual current operated circuit breakers with overcurrent protection (RCBO)

The SMISLINE residual current operated circuit breakers with overcurrent protection (RCBO) are ideal for protecting people and property in all new and existing distribution systems. The combination of standby current and cable protection in one single device greatly simplifies planning and offers cost benefits. Using a RCBO can e.g. satisfy the minimum level of protection required by regulations in an apartment or in a particular distribution system. Should a residual current arise, only the circuit directly affected is switched off while all other circuits remain in operation.

The short time-delayed residual current operated circuit breaker with overcurrent protection FS401 K is a version particularly suited to unfavourable distribution and load situations. Without limiting the personal protection function in any way, the electronic short time delay prevents nuisance tripping which may arise as a result of capacitive discharge currents.

SMISLINE TP plug-in system

RCBOs FS401 series 10000-6000 A type



FS 401 M

FS401E A type, B and C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30\text{mA}$).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009, $I_{cn}=6\text{ kA}$, $I_{cn}=10\text{ kA}$

FS401 M A type, B and C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30\text{mA}$).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009, $I_{cn}=10\text{ kA}$

B, 6 kA according to EN 61009-1

	$I_{\Delta n}$	I_n	I_{cn}	Bbn 761227	Order details		Module	Weight 1 piece	Pack unit
	[mA]	[A]	[kA]	EAN	Type code	Order code			
new	30	10	6	1472825	FS401 E-B 10/0.03	2CCL562111E1105	2	0.2	1
	30	13	6	0108558	FS401 E-B 13/0.03	2CCL562111E0135	2	0.2	1
	30	16	6	0108565	FS401 E-B 16/0.03	2CCL562111E0165	2	0.2	1
	30	20	6	0109692	FS401 E-B 20/0.03	2CCL562111E0205	2	0.2	1
	30	25	6	0109708	FS401 E-B 25/0.03	2CCL562111E0255	2	0.2	1
	30	32	6	0109715	FS401 E-B 32/0.03	2CCL562111E0325	2	0.2	1

C, 6 kA according to EN 61009-1

new	30	6	6	1472788	FS401 E-C 6/0.03	2CCL562111E1064	2	0.2	1
new	30	10	6	1472801	FS401 E-C 10/0.03	2CCL562111E1104	2	0.2	1
	30	13	6	0108572	FS401 E-C 13/0.03	2CCL562111E0134	2	0.2	1
	30	16	6	0108589	FS401 E-C 16/0.03	2CCL562111E0164	2	0.2	1
	30	20	6	0104574	FS401 E-C 20/0.03	2CCL562110E0204	2	0.2	1
	30	25	6	0104581	FS401 E-C 25/0.03	2CCL562110E0254	2	0.2	1
	30	32	6	0104598	FS401 E-C 32/0.03	2CCL562110E0324	2	0.2	1

B, 10 kA according to EN 61009-1

	30	6	10	1472641	FS401 M-B 6/0.03	2CCL562110E1065	2	0.2	1
	30	10	10	0109685	FS401 M-B 10/0.03	2CCL562110E0105	2	0.2	1
	30	13	10	0104505	FS401 M-B 13/0.03	2CCL562110E0135	2	0.2	1
	30	16	10	0104512	FS401 M-B 16/0.03	2CCL562110E0165	2	0.2	1
new	30	20	10	1472689	FS401 M-B 20/0.03	2CCL562110E1205	2	0.2	1
new	30	25	10	1472726	FS401 M-B 25/0.03	2CCL562110E1255	2	0.2	1
new	30	32	10	1472764	FS401 M-B 32/0.03	2CCL562110E1325	2	0.2	1

C, 10 kA according to EN 61009-1

	30	6	10	1406905	FS401 M-C 6/0.03	2CCL562010E0064	2	0.2	1
	30	10	10	0104543	FS401 M-C 10/0.03	2CCL562110E0104	2	0.2	1
	30	13	10	0104550	FS401 M-C 13/0.03	2CCL562110E0134	2	0.2	1
	30	16	10	0104567	FS401 M-C 16/0.03	2CCL562110E0164	2	0.2	1
new	30	20	10	1472665	FS401 M-C 20/0.03	2CCL562110E1204	2	0.2	1
new	30	25	10	1472702	FS401 M-C 25/0.03	2CCL562110E1254	2	0.2	1
new	30	32	10	1472740	FS401 M-C 32/0.03	2CCL562110E1324	2	0.2	1

SMISLINE TP plug-in system

RCBOs FS401 series 10000 A K Type F



F401 M A K type, short-time delayed

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal compromise between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct ($I_{\Delta n} = 30\text{ mA}$) contact; protection and isolation of resistive and inductive loads.

Application: residential, commercial, industrial.

Standard: IEC/EN 61009

$I_{cn} = 10\text{ kA}$

B, 10 kA according to EN 61009-1

	$I_{\Delta n}$	I_n	I_{cn}	Bbn 761227	Order details	Module	Weight 1 piece	Pack unit	
	[mA]	[A]	[kA]	EAN	Type code	Order code	kg	pc.	
new	30	6	10	1472849	FS401 M K-B 6/0.03	2CCL562130E1035	2	0.2	1
new	30	10	10	1472887	FS401 M K-B 10/0.03	2CCL562310E1105	2	0.2	1
new	30	13	10	1472900	FS401 M K-B 13/0.03	2CCL562310E1135	2	0.2	1
new	30	16	10	1472924	FS401 M K-B 16/0.03	2CCL562310E1165	2	0.2	1
new	30	20	6	1472962	FS401 M K-B 20/0.03	2CCL562310E1205	2	0.2	1
new	30	25	6	1473006	FS401 M K-B 25/0.03	2CCL562310E1255	2	0.2	
new	30	32	6	1473044	FS401 M K-B 32/0.03	2CCL562310E1325	2	0.2	1

C, 10 kA according to EN 61009-1

new	30	6	10	1404031	FS401 M K-C 6/0.03	2CCL562330E1064	2	0.2	1
new	30	10	10	1404031	FS401 M K-C 10/0.03	2CCL562310E0104	2	0.2	1
new	30	13	10	0104604	FS401 M K-C 13/0.03	2CCL562310E0134	2	0.2	1
new	30	16	10	0104611	FS401 M K-C 16/0.03	2CCL562310E0164	2	0.2	1
new	30	20	6	0104642	FS401 M K-C 20/0.03	2CCL562310E1204	2	0.2	1
new	30	25	6	0104642	FS401 M K-C 25/0.03	2CCL562310E1254	2	0.2	1
new	30	32	6	0104642	FS401 M K-C 32/0.03	2CCL562310E1324	2	0.2	1

C, 10 kA according to EN 61009-1

new	30	6	10	1473068	FS401 M K-C 6/0.3	2CCL562130E3034	2	0.2	1
new	30	10	10	1473082	FS401 M K-C 10/0.3	2CCL562330E1104	2	0.2	1
new	30	13	10	1473105	FS401 M K-C 13/0.3	2CCL562330E1134	2	0.2	1
new	30	16	10	1473143	FS401 M K-C 16/0.3	2CCL562330E1164	2	0.2	1
new	30	20	6	1473181	FS401 M K-C 20/0.3	2CCL562330E1204	2	0.2	1
new	30	25	6	1473228	FS401 M K-C 25/0.3	2CCL562330E1254	2	0.2	1
new	30	32	6	1473266	FS401 M K-C 32/0.3	2CCL562330E1324	2	0.2	1

SMISLINE TP plug-in system

RCBOs FS403 series 10000-6000 A type and short time delay Type F



FS 403 M

	FS403
Rated voltage Un	240/415V
Number of poles	4
Rated frequency fn	50/60 Hz
Rated breaking capacity Icn	10 kA (10 A to 16 A) 6 kA (20 A to 32 A)
Current limitation class	3
Total cut-off time acc. to EN 61009	
at In	40 ms
at 5x In	25 ms
Connection cross-section	max. 25 mm ² flexible wire with wire end sleeve
Terminal at load side	Possible to connect 2 wires in one chamber. Both chambers could be used with two different cross-sections.
Tightening torque	2.8 Nm
Degree of protection	IP20
Endurance	>5000
Resistance to climate	EN 61009
Ambient temperature	-25° C ... +40° C
Mounting position	any
Vibration resistance	EN 61009
Plastic parts	halogen-free
Contacts	cadmium-free
Standard	EN61009-1, S+ (in preparation)

Accessory:

Auxiliary- and signal contacts are to attach on to the left of the device through the customer.

Please notice:

For the influence of the ambient temperature and the thermal influences of row mounted RCBO's it is necessary to calculate with the same correction factors like with MCBs.

Please see in Chapter 2 of Solutions for electrical installation in buildings - Technical details.

4-pole RCBO from the ABB SMISLINE protective devices range

The combination of circuit protection and a residual current protection in one device as 4-pole RCBO simplifies both – planning and installation. It enables you to provide perfect protection in one device. This protection consists of:

- Short circuit protection
- Overload protection
- Residual current protection
- Preventive fire protection

High rated short-circuit breaking capacity of 10 kA, conforming to EN 61009-1

The I_{cn} 10 kA short-circuit breaking capacity of the RCBO complies with standard EN 61009-1. This standard specifies testing and usage of RCBO's for household and similar uses. The devices can also be used by non-professionals.

Features and benefits of the new devices:

- Overall width of 72 mm (4 modules)
- Rated sensitivity 30 mA
- Current rating 10 A to 32 A
- B and C tripping characteristics
- Easy Drive double deck terminals on the output side for connecting two conductors in one chamber. The two chambers can accommodate conductors with different cross sections.

Where to find more:

Technical details of SMISLINE:
Chapter 8 of
Solutions for electrical installation in
buildings - technical details

Maybe you are also interested in:

SMISLINE auxiliary elements and
accessories - chapter 8
SMISLINE busbar systems - chapter 8



2CCL5611509F0002

FS 403 M

FS403 M A type, B and C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I\Delta n = 30 \text{ mA}$).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009

Icn = 6 kA, Icn = 10 kA

B, 10 kA according to EN 61009-1

Poles	Sensitivity	Rated current	Rated breaking capacity	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	$I\Delta n \text{ mA}$	In A	Icn kA	EAN	Type code	Order code			
4	30	6	10	143 4434	FS403M-B6/0.03	2CCL564110E0065		425	1
		10	10	140 7612	FS403M-B10/0.03	2CCL564110E0105		425	1
		13	10	140 7629	FS403M-B13/0.03	2CCL564110E0135		425	1
		16	10	140 7636	FS403M-B16/0.03	2CCL564110E0165		425	1
		20	10	144 2576	FS403M-B20/0.03	2CCL563110E0205		425	1
		25	10	144 2590	FS403M-B25/0.03	2CCL563110E0255		425	1
		32	10	144 2613	FS403M-B32/0.03	2CCL563110E0325		425	1


C, 6 kA according to EN 61009-1

Poles	Sensitivity	Rated current	Rated breaking capacity	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	$I\Delta n \text{ mA}$	In A	Icn kA	EAN	Type code	Order code			
4	30	6	6	141 9141	FS403E-C6/0.03	2CCL564111E0064		425	1
		10	6	143 4489	FS403E-C10/0.03	2CCL564111E0104		425	1
		13	6	143 4519	FS403E-C13/0.03	2CCL564111E0134		425	1
		16	6	143 4601	FS403E-C16/0.03	2CCL564111E0164		425	1
		20	6	140 9609	FS403E-C20/0.03	2CCL564111E0203		425	1
		25	6	140 8770	FS403E-C25/0.03	2CCL564111E0254		425	1
		32	6	140 8787	FS403E-C32/0.03	2CCL564111E0324		425	1

C, 10 kA according to EN 61009-1

Poles	Sensitivity	Rated current	Rated breaking capacity	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	$I\Delta n \text{ mA}$	In A	Icn kA	EAN	Type code	Order code			
4	30	6	10	141 9127	FS403M-C6/0.03	2CCL564110E0064		425	1
		10	10	140 7674	FS403M-C10/0.03	2CCL564110E0104		425	1
		13	10	140 7681	FS403M-C13/0.03	2CCL564110E0134		425	1
		16	10	140 7698	FS403M-C16/0.03	2CCL564110E0164		425	1
		20	10	144 2569	FS403M-C20/0.03	2CCL563110E0204		425	1
		25	10	144 2583	FS403M-C25/0.03	2CCL563110E0254		425	1
		32	10	144 2606	FS403M-C32/0.03	2CCL563110E0324		425	1

SMISLINE TP plug-in system

RCBOs FS403 series 10000-6000 A  type and short time delay Type F



FS 403 M

C, 10 kA according to EN 61009-1

Poles	Sensitivity	Rated current In A	Rated breaking capacity Icn kA	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	IΔn mA				Type code	Order code			
4	100	6	10	142 4527	FS403M-C6/0.1	2CCL564121E0064		0.425	1
		10	10	142 4510	FS403M-C10/0.1	2CCL564121E0104		0.425	1
		13	10	144 2620	FS403M-C13/0.1	2CCL563120E0134		0.425	1
		16	10	142 0109	FS403M-C16/0.1	2CCL564120E0164		0.425	1
		20	10	144 2637	FS403M-C20/0.1	2CCL563120E0204		0.425	1
		25	10	144 2644	FS403M-C25/0.1	2CCL563120E0254		0.425	1
		32	10	144 2651	FS403M-C32/0.1	2CCL563120E0324		0.425	1

B, 10 kA according to EN61009-1 short time delayed (APR) Type F

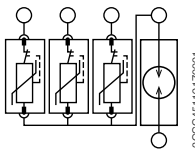
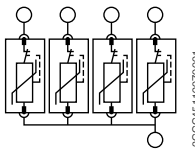
Poles	Sensitivity	Rated current In A	Rated breaking capacity Icn kA	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	IΔn mA				Type code	Order code			
4	30	6	10	1470951	FS403MK-B6/0.03	2CCL564310E0065		0.425	1
		10	10	1470999	FS403MK-B10/0.03	2CCL564310E0105		0.425	1
		13	10	1471033	FS403MK-B13/0.03	2CCL564310E0135		0.425	1
		16	10	1471071	FS403MK-B16/0.03	2CCL564310E0165		0.425	1
		20	10	1470777	FS403MK-B20/0.03	2CCL564310E0205		0.425	1
		25	10	1470814	FS403MK-B25/0.03	2CCL564310E0255		0.425	1
		32	10	1470852	FS403MK-B32/0.03	2CCL564310E0325		0.425	1

C, 10 kA according to EN61009-1 short time delayed (APR) Type F

Poles	Sensitivity	Rated current In A	Rated breaking capacity Icn kA	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	IΔn mA				Type code	Order code			
4	30	6	10	1470937	FS403MK-C6/0.03	2CCL564310E0064		0.425	1
		10	10	1470975	FS403MK-C10/0.03	2CCL564310E0104		0.425	1
		13	10	1471019	FS403MK-C13/0.03	2CCL564310E0134		0.425	1
		16	10	1471057	FS403MK-C16/0.03	2CCL564310E0164		0.425	1
		20	10	1470753	FS403MK-C20/0.03	2CCL564310E0204		0.425	1
		25	10	1470791	FS403MK-C25/0.03	2CCL564310E0254		0.425	1
		32	10	1470838	FS403MK-C32/0.03	2CCL564310E0324		0.425	1

SMISLINE TP plug-in system

Surge arrester



The type 2 surge arresters in the QuickSafe product range are suitable for protecting electrical low voltage systems and terminals in the 240/415 V system. The devices can be used as type 2 surge arresters within the scope of the lightning protection zone concept at zone transition 0B-1 and higher. The high nominal discharge capability of 20 kA makes it possible for the equipment to have a longer service life in comparison to the minimum requirements of the standard. The devices consist of a basic unit and pluggable protection modules, which can be removed extremely easily to carry out insulation measurement. They are fully compatible with SMISLINE installation devices and the surge arresters in the ABB System pro M model series. The surge arresters are tested as type 2 arresters in accordance with the EN/IEC 61643-11 test standard.

Mounting

Installation and electrical connection

The over voltage protection device “OVR” will be installed near the front of the protected consumers conditioning.

The surge arrester is to be mounted right after the Incoming block of the socket system. The OVR404 is snapped directly onto the SMISLINE bus bar system.

SMISLINE TP plug-in system

Surge arrester

Type	OVR404 4L 40-275 P TS QS	OVR404 3N 40-275 P TS QS
Technologie	varistor	Varistor/gaz tube (N)
System network	TNS	TT – TNS
Electrical features		
Standard	IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Type / test class	Type 2	Type 2
Number of pole	4	4
Nominal voltage UN (L-N, L-L)	240/415V	240/415V
Type of voltage	a. c. 45–65Hz	a. c. 45–65 Hz
Max. cont. operating voltage U_c	275 V AC	275 V AC
Nominal discharge current I_n (8/20)	20 kA	20 kA
Maximum discharge current I_{max} (8/20)	40 kA	40 kA
Maximum impulse current I_{imp} (10/350)	2 kV	2 kA
Voltage protection level U_p at I_n (L-N / N-PE / L-PE)	1.5 kV	1.25/1.4/1.5 kV
Voltage protection level U_p at 3 kA (L-N / N-PE / L-PE)	0.5 kV	0.8/1.4/0.85 kV
Voltage protection level U_p at 5 kA (L-N / N-PE / L-PE)	0.7 kV	0.85/1.4/0.95 kV
Voltage protection level U_p at 10 kA (L-N / N-PE / L-PE)	0.9 kV	1/1.4/1.15 kV
TOV (Temporary overvoltage) withstand U_t (L-N: 5s./N-PE: 200 ms)	337/-V	337/1200V
Response time	≤ 25 ns	≤ 25 ns
Short-circuit withstand capability I_{sc}	100 kA	100 kA
Back up protection circuit breaker	≤ 125A; S800S B	≤ 125A; S800S B
Pluggable cartridge	Yes	Yes
Integrated QuickSafe® technology	Yes	Yes
State indicator	Yes	Yes
Auxiliary contact (TS)	Yes	Yes
Installation		
Wire range (L, N, PE)	2.5...25 mm ² cable or rope	2.5...25 mm ² cable or rope
Connection cross-section	2.5...16 mm ² litz wire with ferrule	2.5...16 mm ² litz wire with ferrule
Tightening torque	2.8 Nm	2.8 Nm
Auxiliary contact (TS)		
Contacts information	1 NO – 1 NC	1 NO – 1 NC
Max. load/current	12 V DC – 10 mA	12 V DC – 10 mA
Min. load/current	250 V AC – 1 A	250 V AC – 1 A
	1.5 mm ²	1.5 mm ²
Operating temperature	–25 °C – +60 °C	–25 °C – +60 °C
Stocking temperature	–25 °C – +80 °C	–25 °C – +80 °C

Back up protection

Typ 2 QuickSafe® Surge Protective Devices	Prospective short circuit current at SPD location (I_p)	Circuit breaker maximum ratings 1) curve B or C	Fuse 2) (gL - gG)
Maximum ratings			
I_n : 5, 20, 30 kA	$0,625 \text{ kA} < I_p < 100 \text{ kA}$	S800S B or C – 125 A ²⁾	125 A fuse
U_c : 275, 350, 440, 600 V			

1) Maximum ratings, must be in accordance with the installation to follow coordination rules with main or upstream short circuit protection(s).

2) up to $I_p \leq 50 \text{ kA}$

SMISLINE TP plug-in system

Surge arrester



OVR404

Surge arrester OVR404

Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
Isn (8/20 μ s) kA	EAN	Type code	Order code		kg	pc.
20	1455491	OVR404 4L 40- 275 P TS QS	2CCF606000R0001		0.470	1
20	1455507	OVR404 3N 40- 275 P TS QS	2CCF606002R0001		0.450	1

Where to find more:

Technical details of OVR 454:
Chapter 8 of
Solutions for electrical installation in
buildings - technical details

SMISLINE TP plug-in system

Switch disconnecter



IS404 63

Technical data for switch disconnecter IS404

Rated voltage Un	230/400 V ~
Rated current In	63 A
Rated frequency fn	50 Hz
Number of poles	4
Rated impulse withstand voltage	6 kV
Connection cross-sections Cu	At top, touch finger-proof. Suitable for connecting up single-, multi- and fine-wire conductors of up to 25 mm ²
Degree of protection	IP40
Endurance, mechanical/electrical	5000 operating cycles
Mounting position	any
Ambient temperature	-25 °C ... +40 °C
Specifications	EN/IEC 60947-3
Approvals	SEV
Weight (approx.)	250 g
Switching duty	AC-22A
Plastic parts	halogen-free
Contacts	cadmium-free

General switch disconnecter

When used in a smissline socket system, the switch disconnecter can be used instead of the incoming terminal block for up to 63 A.

With the smissline IS404 switch disconnecter, individual loads, groups of loads or entire system parts can be separated or connected to the input supply.

The key features of the switch disconnecter

- Input supply switch
- On-Off function
- Clear indication of switching position
- Snap-on auxiliary switch available
- Uniform smissline design

SMISLINE TP plug-in system

Switch disconnecter



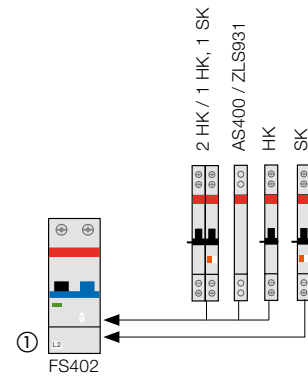
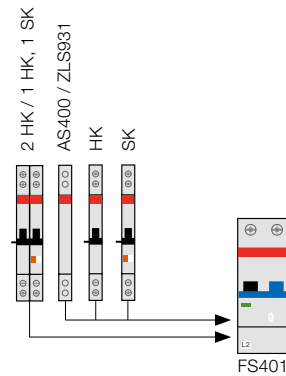
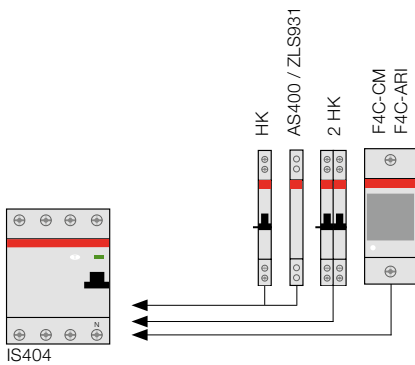
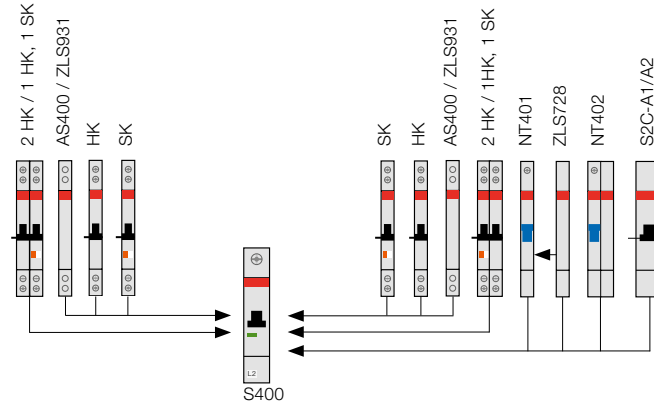
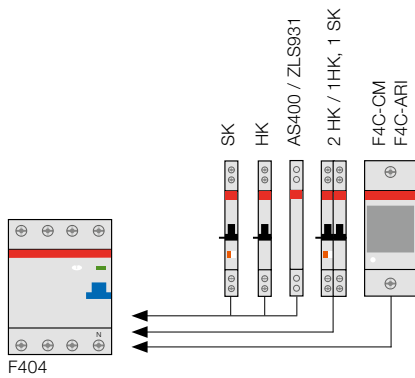
IS404 63

Switch disconnecter IS404

	Rated current	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	In kA	EAN	Type code	Order code		kg	pc.
	63	0104390	IS404 63	2CCF544160E0630		0.380	1

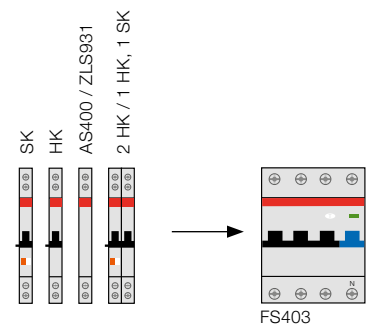
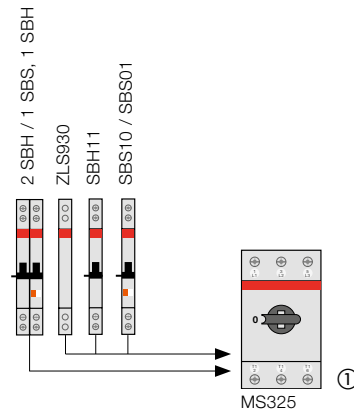
SMISLINE TP plug-in system

Auxiliary elements and accessories

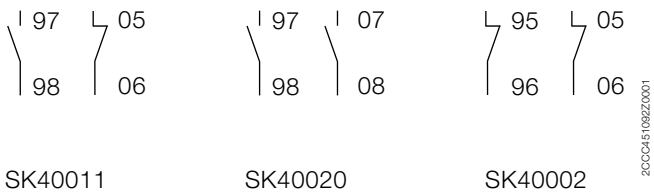


On each protective device can be mounted:

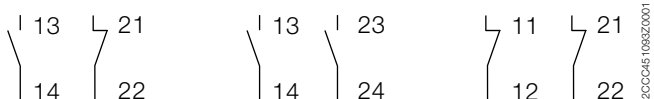
- or 1 auxiliary switch
- or 1 signal contact
- or 2 auxiliary contact switches
- or 1 auxiliary switch and 1 signal contact



Contact description signal contact



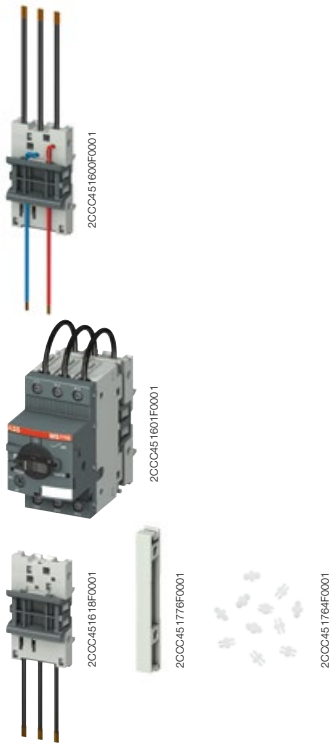
Contact description auxiliary switch



① If you use an auxiliary switch and a signal contact you must connect first the signal contact on the MS325

SMISLINE TP plug-in system

Adapter for motor starter MS116, MS132, MS325



Adapter for MS116, MS132

Designation	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
Adapter MS116/132 L123 wire bottom feed	1414597	ZMS930	2CCA182520R0001		0.030	1
Adapter MS116/132 L123LALB wire bottom feed	1414580	ZMS931	2CCA182522R0001		0.062	1
Adapter MS116/132 L123 wire top feed	1414573	ZMS932	2CCA182524R0001		0.030	1
Adapter MS116/132 L123LALB wire top feed	1414566	ZMS933	2CCA182526R0001		0.062	1
Adapter MS116/132 empty	1414559	ZMS934	2CCA182512R0001		0.034	1
Intermediate piece 9 mm	1414412	ZMS935	2CCA182616R0001		0.007	1
Adapter MS116/132 L123LA wire top feed	1424626	ZMS937	2CCA182525R0001		0.058	1
Adapter MS116/132 L123LA wire bottom feed	1424619	ZMS936	2CCA182521R0001		0.058	1



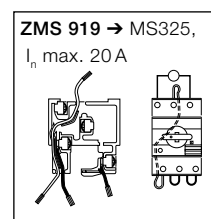
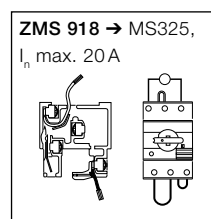
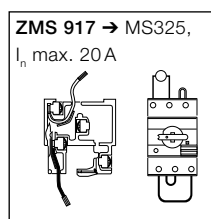
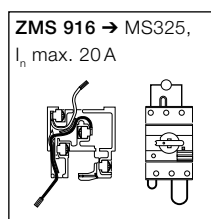
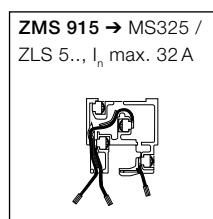
Adapter plate for MS325 contact to busbars with plug contacts

	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
3L	0021215	ZMS915	2CCF002817R0001		0.030	1
L1, N(20 A)	0021222	ZMS916	2CCF002818R0001		0.030	1
L2, N(20 A)	0021239	ZMS917	2CCF002819R0001		0.030	1
L3, N(20 A)	0021246	ZMS918	2CCF002820R0001		0.030	1
2L (reversible)	0021253	ZMS919	2CCF010620R0001		0.030	1

Auxiliary switch and signal contacts, connection support

Contact pin, short

	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
for power supply via auxiliary busbars	0019526		2CCF002794R0001		0.002	1



SMISLINE TP plug-in system

Auxiliary switch and signal contacts

MCB S400, RCCB F404, RCCB F402, RCBO FS401

Technical data for auxiliary switch and signal contact

	Signal contact SK400	Auxiliary switch HK400
Rated voltage Un	400 V	400 V
Rated impulse withstand voltage	4 kV	4 kV
Rated current		
– Ith	6 A	6 A
– AC15	2 A/230 V / 1 A/400 V	2 A/230 V / 1 A/400 V
– DC13	0.55 A/125 V=	0.55 A/125 V=
– DC13	0.27 A/250 V=	0.27 A/250 V=
Minimum current/voltage (to ensure reliable electrical operation)	10 mA 12 V=	10 mA 12 V=
Connection cross-sections	2 x 1.5 mm ² strand with sleeve	2 x 1.5 mm ² strand with sleeve
Plastic parts	Free of halogen und cadmium	Free of halogen und cadmium
Internal resistance Ri	0.0065 Ω	0.0065 Ω
Power loss at rated current Pv	0.24 W	0.24 W
Ambient temperature	Tmax. +55 °C Tmin –25 °C	Tmax. +55 °C Tmin –25 °C
Tightening torque	1 Nm	1 Nm



HK400..L

Auxiliary switch

The auxiliary switch and signal contacts are supplied with one contacting piece. The signal contact collective alarm are supplied with two contacting pieces.

for left side mounting on MCB S400, RCCB F402, RCBO FS401, FS403

	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
1NO and 1NC	0100910	HK40011-L	2CCS500900R0081		0.045	10
2NO	0111183	HK40020-L	2CCF201112R0001		0.040	10
2NC	0111190	HK40002-L	2CCF201114R0001		0.040	10



HK400..R

for right side mounting on RCCB F404, MCB S400 and IS404

1NO and 1NC	0108619	HK40011-R	2CCS500900R0214		0.045	10
2NO	0111206	HK40020-R	2CCF201113R0001		0.040	10
2NC	0111213	HK40002-R	2CCF201115R0001		0.040	10

Signal contacts

for left side mounting on MCB S400, RCCB F402, RCBO FS401, FS403

	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
1NO and 1NC	0100934	SK40011-L	2CCS500900R0101		0.045	10
2NO	0111107	SK40020-L	2CCF201162R0001		0.040	10
2NC	0111114	SK40002-L	2CCF201164R0001		0.040	10



SK400..L

for right side mounting on RCCB F404 and MCB S400

1NO and 1NC	0108626	SK40011-R	2CCS500900R0215		0.045	10
2NO	0111121	SK40020-R	2CCF201163R0001		0.040	10
2NC	0111138	SK40002-R	2CCF201165R0001		0.040	10

Signal contact collective alarm and auxiliary contact

for left side mounting

	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
1NO	0107964	SK40010-L SA	2CCS500900R0141		0.045	10
1NO	1407902	HK40010-L SA	2CCF201212R0001		0.045	10



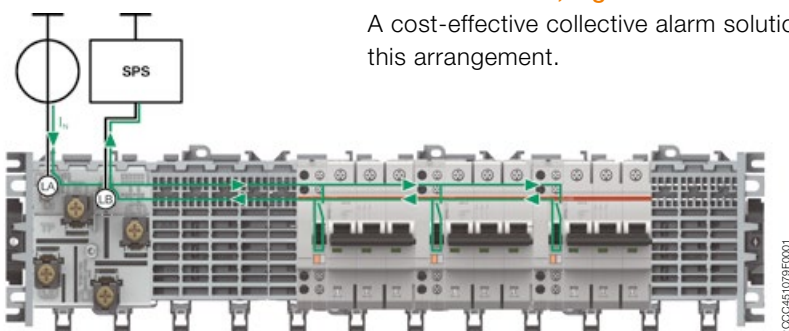
SK400..R

for right side mounting

1NO	0108633	SK40010-R SA	2CCS500900R0216		0.045	10
1NO	1407919	HK40010-R SA	2CCF201213R0001		0.045	10

Collective alarm, signal contact contacts the auxiliary busbars LA, LB

A cost-effective collective alarm solution can be implemented without additional wiring by using this arrangement.



SMISLINE TP plug-in system

Dummy, housing, Neutral disconnecter, shunt trip



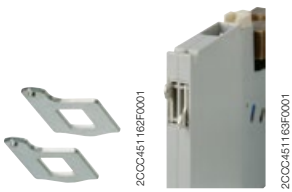
Connection support dummy housing

for left or right side mounting on MCB S400, RCCB F402, RCCB F404, RCBO FS401

Connection support	Bbn	Order details		Price	Weight	Pack
	761227	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
	0100958	AS400	2CCS500900R0151		0.045	10

Dummy housing

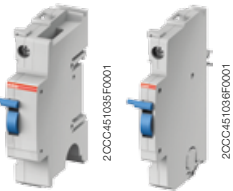
Compensation to 18 mm	0100965	ZLS931	2CCS500900R0161		0.035	10
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Contacting pieces for auxiliary switch and signal contacts

Connection support	Bbn	Order details		Price	Weight	Pack
	761227	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
Contacting piece for HK/SK LA, LB Pack contains 100 items	0100972	ZLS632	2CCS500900R0171		0.200	Pack contains 100 items
Contacting piece for HK/SK LA, LB Pack contains 10 items	0109265	ZLS635	2CC5201307R0171		0.020	Pack contains 10 items
Contact Pin	0108640	ZLS633	2CCS500900R0201			Pack contains 10 items

8



Neutral disconnecter

On the load side terminal two separate conductors can be clamped

Connection support	Bbn	Order details		Price	Weight	Pack
	761227	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
Neutral disconnecter 9 mm	0100859	NT401 63	2CCS500900R0021		0.045	10
Neutral disconnecter 18 mm	0100842	NT402 63	2CCS500900R0011		0.058	10
Compensation to 18 mm for NT401 63	0104710	ZLS728	2CCS400900R0101		0.015	1 Bag contains 5 items



S2C-A

Shunt trip

Function: remote opening of the device when a voltage is applied.

Suitable for MCBs S400 series.

Rated voltage	Bbn	Order details		Price	Weight	Pack
	801254	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
12–60 VAC/DC	2570992	S 2C-A1	2CDS200909R0001		0.150	1
110–415 VAC/DC, 110–250 VDC	2571005	S 2C-A2	2CDS200908R0002		0.150	1

Orders for this two types can be done over DESTO

SMISLINE TP plug-in system

F4C-CM motor operating and F4C-ARI auto-reclosing devices



F4C-CM

2CC451492R0001

Motor operating devices for residual current circuit breakers F404 25 ... 63 A

Supply voltage 12 ... 30 VAC; 12 ... 48 VDC

1 integrated auxiliary contact

	Bbn	Order details		Price	Weight	Pack
	801254	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
	2998730	F4C-CM	2CSF204986R0013		0.166	1

For Supply voltage 230V it is needed to use a safety transformer TS16/12 (2CSM161401R401R0811).

Motor operating auto-reclosing unit for residual current circuit breakers F404 25 ... 63 A

Supply voltage 12 ... 30 VAC; 12 ... 48 VDC

1 integrated auxiliary contact

	Bbn	Order details		Price	Weight	Pack
	801254	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
	2998631	F4C-ARI	2CSF204987R0013		0.166	1

For Supply voltage 230V it is needed to use a safety transformer TS16/12 (2CSM161401R401R0811).

Safety transformer

	Bbn	Order details		Price	Weight	Pack
	801254	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
	2368908	TS16/12	2CSM161401R0811		0.355	1

Where to find more:

Technical details of F4C CM:
Chapter 8 of
Solutions for electrical installation in
buildings - technical details

SMISLINE TP plug-in system

Busbar system data according to EN/IEC 61439-6

Busbar system touch proof:

Use only for wall mounted application (horizontal or vertical)

Number of poles:	max. 6 to 110 3p+N / 2 additional bars PE+N
Rated operational voltage (Ue):	690 VAC, 1000 VDC (400 VAC, 250 VDC when use for load-free snapped devices under power)
Rated insulation voltage (Ui):	690 VAC, 1000 VDC
Rated impulse withstand voltage (Uimp):	8 kV
Rated current:	Max. 100 A (side feeding), max. 125 A (max. 35 °C Ambient air temperature for 125 A continuously) Max. 200 A (center feeding) Max. 250 A (max. 35 °C Ambient air temperature for 250 A continuously)
Rated short-time withstand current (Icw):	10 kA/300 ms 10 kA/50 ms for auxiliary circuit
Rated peak withstand current (Ipk):	35kA Main circuit 6kA Auxiliary circuit
Rated fused short-circuit current (Icf):	50 kA, 690 VAC
Rated peak fused short-circuit current (Ipk):	105 kA, 690 VAC
SCPD:	S800 High performance MCB 160 A gG DIN 00 with 50 mm ² feeder unit 200 A gG DIN 1 with 95 mm ² feeder unit 40 A gG DIN 00 with 10 mm ² feeder unit 40 A gG DIN 00 for auxiliary circuit (La+Lb)
Rated conditional short-circuit current (Icc):	50kA: Incoming current of busbars L123N 200A: Fuse NH3 gG/200A ABB Tmax 250A Incoming current of busbars L123N 160A: Fuse NH2 gG/160a ABB Tmax 250A Incoming current of busbars L123N 63AA: Fuse NH1 gG/63A ABB S803S in combination with S803S-SCL63-R Incoming current of busbars Auxiliary 40A: Fuse NH3 gG/40A ABB S803S in combination with S803S-SCL63-R
Rated peak short-circuit current (Ipk):	68.25 kApk, 400 VAC
Back-up: circuit breaker SACE Tmax 250A	high performance circuit breaker S800, circuit breaker SACE Tmax 250A
Protection degree:	IP20B
Rated frequency:	50/60 Hz
Ambient air temperature:	max. 55 °C
Size of CU bars 3P+N+PE:	3 x 10 mm (30 mm ²)
Size of CU auxiliary bars La Lb:	2 x 5 mm (10 mm ²)

8

	Maximum rated voltage	Maximum rated current	Borne principale
Incoming terminal block ZLS224/225/228/229	690 VAC 1000 VDC	160 A LLLN, 40 A LA, LB	6 mm ² –50 mm ² , 2 x 25 mm ² LLLN, 10 mm ² LA, LB
Incoming terminal block ZLS250–253	690 VAC 1000 VDC	200 A	10 mm ² –95 mm ² max. 1 wire
Incoming terminal block ZLS260–262	690 VAC 1000 VDC	63 A LLLN, 6 A LA, LB	2 mm ² –25 mm ² LLLN, LA, LB max. 1 wire
Busbar ZLS200	690 VAC 1000 VDC	100 A	
Busbar ZLS202	690 VAC 600 VDC	40 A	
Universal adapters 32 A	690 VAC 600 VDC	32 A LLN	
Universal adapters 63 A	690 VAC 600 VDC	63 A LLN	
Combi module	690 VAC 600 VDC	32 A LLN 6A LA, LB	

The SMISLINE system and components are tested for vibration according to IEC 60068-2-6 (2–13.2Hz/1 mm displacement, 13.2–100Hz/0.7g) and for Miniature circuit breakers (5g, 20 frequency cycles 5 ... 150 ... 5 Hz at 0.8 rated current)

Governing standard: IEC 60068-2-6

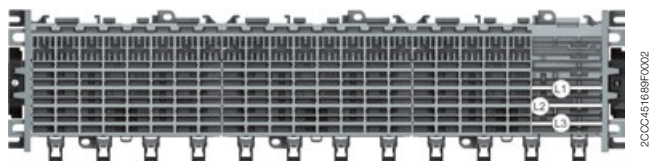
Environmental testing – Part 2–6: Test Fc. Vibration (sinusoidal)

Technical data according to

	Busbar	Incoming terminal block ZLS224, 224R, 225, 225R	Incoming terminal component ZLS250, 251, 252, 253	Universal adapter 30 A	Universal adapter 60 A	Combi module
Maximum rated voltage:		600 VAC	600 VAC	600 VAC	600 VAC	
Maximum rated current:	100 A	150 A	200 A	30 A	60 A	30 A
Rated current for supply, left or right:	100 A	100 A	100 A	–	–	–
Rated current for supply, center:	100 A	150 A	200 A	–	–	–
Resistance to Short circuits:			50 kA	with 200 A back-up fuse		
Supply cable size:		14 to 0, 1/0 AWG	8 to 3/0 AWG	–	–	–

SMISLINE TP plug-in system

Starter pack Touch proof 3L

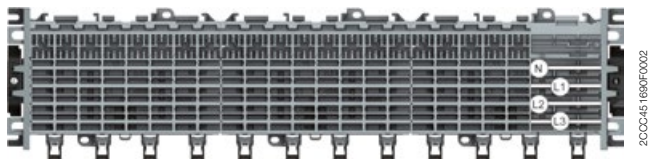


Starter Pack 3L: L1, L2, L3 inclusive socket end piece

Solutions available	Busbars length incl. Socket end piece mm	Busbars length mm	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
18 PLE 3L	364	320	1426514	ZLS905E18-3L	2CCA183232R0001		0.530	1
20 PLE 3L	401	357	1413231	ZLS905E20-3L	2CCA183100R0001		0.637	1
22 PLE 3L	437	393	1413255	ZLS905E22-3L	2CCA183102R0001		0.693	1
24 PLE 3L	473	429	1413279	ZLS905E24-3L	2CCA183104R0001		0.749	1
26 PLE 3L	509	465	1413293	ZLS905E26-3L	2CCA183106R0001		0.813	1
28 PLE 3L	545	501	1413415	ZLS905E28-3L	2CCA183108R0001		0.848	1
30 PLE 3L	581	537	1413439	ZLS905E30-3L	2CCA183110R0001		0.933	1
32 PLE 3L	617	573	1413453	ZLS905E32-3L	2CCA183112R0001		0.981	1
34 PLE 3L	653	609	1413477	ZLS905E34-3L	2CCA183114R0001		1.044	1
36 PLE 3L	689	645	1413491	ZLS905E36-3L	2CCA183116R0001		1.100	1
38 PLE 3L	725	681	1413514	ZLS905E38-3L	2CCA183118R0001		1.156	1
40 PLE 3L	761	717	1413538	ZLS905E40-3L	2CCA183120R0001		1.212	1
42 PLE 3L	797	753	1413552	ZLS905E42-3L	2CCA183122R0001		1.276	1
44 PLE 3L	833	789	1413576	ZLS905E44-3L	2CCA183124R0001		1.332	1
46 PLE 3L	869	825	1413590	ZLS905E46-3L	2CCA183126R0001		1.388	1
48 PLE 3L	905	861	1413613	ZLS905E48-3L	2CCA183128R0001		1.444	1
50 PLE 3L	941	897	1413637	ZLS905E50-3L	2CCA183130R0001		1.508	1
52 PLE 3L	977	933	1413651	ZLS905E52-3L	2CCA183132R0001		1.564	1
54 PLE 3L	1013	969	1413675	ZLS905E54-3L	2CCA183134R0001		1.620	1
56 PLE 3L	1049	1005	1413699	ZLS905E56-3L	2CCA183136R0001		1.675	1
58 PLE 3L	1058	1041	1413712	ZLS905E58-3L	2CCA183138R0001		1.739	1
60 PLE 3L	1122	1078	1413736	ZLS905E60-3L	2CCA183140R0001		1.795	1
62 PLE 3L	1158	1114	1413750	ZLS905E62-3L	2CCA183142R0001		1.851	1
64 PLE 3L	1194	1150	1413774	ZLS905E64-3L	2CCA183144R0001		1.907	1
66 PLE 3L	1230	1186	1413798	ZLS905E66-3L	2CCA183146R0001		1.971	1
68 PLE 3L	1266	1222	1413811	ZLS905E68-3L	2CCA183148R0001		2.027	1
70 PLE 3L	1302	1258	1413835	ZLS905E70-3L	2CCA183150R0001		2.083	1
72 PLE 3L	1338	1294	1413859	ZLS905E72-3L	2CCA183152R0001		2.139	1
74 PLE 3L	1374	1330	1413873	ZLS905E74-3L	2CCA183154R0001		2.203	1
76 PLE 3L	1410	1366	1413897	ZLS905E76-3L	2CCA183156R0001		2.269	1
78 PLE 3L	1446	1402	1413910	ZLS905E78-3L	2CCA183158R0001		2.314	1
80 PLE 3L	1482	1438	1413934	ZLS905E80-3L	2CCA183160R0001		2.370	1

SMISLINE TP plug-in system

Starter pack Touch proof 3LN

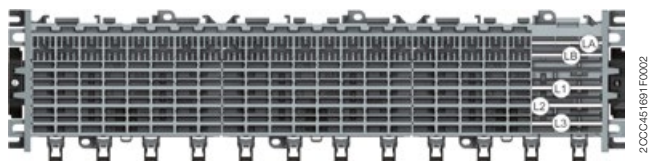


Starter Pack 3LN: L1, L2, L3, N inclusive socket end piece

Solutions available	Busbars length incl. Socket end piece mm	Busbars length mm	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
18 PLE 3LN	364	320	1426521	ZLS905E18-3LN	2CCA183234R0001		0.615	1
20 PLE 3LN	401	357	1413248	ZLS905E20-3LN	2CCA183101R0001		0.724	1
22 PLE 3LN	437	393	1413262	ZLS905E22-3LN	2CCA183103R0001		0.789	1
24 PLE 3LN	473	429	1413286	ZLS905E24-3LN	2CCA183105R0001		0.800	1
26 PLE 3LN	509	465	1413408	ZLS905E26-3LN	2CCA183107R0001		0.926	1
28 PLE 3LN	545	501	1413422	ZLS905E28-3LN	2CCA183109R0001		0.970	1
30 PLE 3LN	581	537	1413446	ZLS905E30-3LN	2CCA183111R0001		1.046	1
32 PLE 3LN	617	573	1413460	ZLS905E32-3LN	2CCA183113R0001		1.120	1
34 PLE 3LN	653	609	1413484	ZLS905E34-3LN	2CCA183115R0001		1.193	1
36 PLE 3LN	689	645	1413507	ZLS905E36-3LN	2CCA183117R0001		1.257	1
38 PLE 3LN	725	681	1413521	ZLS905E38-3LN	2CCA183119R0001		1.322	1
40 PLE 3LN	761	717	1413545	ZLS905E40-3LN	2CCA183121R0001		1.387	1
42 PLE 3LN	797	753	1413569	ZLS905E42-3LN	2CCA183123R0001		1.459	1
44 PLE 3LN	833	789	1413583	ZLS905E44-3LN	2CCA183125R0001		1.524	1
46 PLE 3LN	869	825	1413606	ZLS905E46-3LN	2CCA183127R0001		1.589	1
48 PLE 3LN	905	861	1413620	ZLS905E48-3LN	2CCA183129R0001		1.653	1
50 PLE 3LN	941	897	1413644	ZLS905E50-3LN	2CCA183131R0001		1.726	1
52 PLE 3LN	977	933	1413668	ZLS905E52-3LN	2CCA183133R0001		1.791	1
54 PLE 3LN	1013	969	1413682	ZLS905E54-3LN	2CCA183135R0001		1.855	1
56 PLE 3LN	1049	1005	1413705	ZLS905E56-3LN	2CCA183137R0001		1.920	1
58 PLE 3LN	1058	1041	1413729	ZLS905E58-3LN	2CCA183139R0001		1.992	1
60 PLE 3LN	1122	1078	1413743	ZLS905E60-3LN	2CCA183141R0001		2.057	1
62 PLE 3LN	1158	1114	1413767	ZLS905E62-3LN	2CCA183143R0001		2.122	1
64 PLE 3LN	1194	1150	1413781	ZLS905E64-3LN	2CCA183145R0001		2.186	1
66 PLE 3LN	1230	1186	1413804	ZLS905E66-3LN	2CCA183147R0001		2.259	1
68 PLE 3LN	1266	1222	1413828	ZLS905E68-3LN	2CCA183149R0001		2.324	1
70 PLE 3LN	1302	1258	1413842	ZLS905E70-3LN	2CCA183151R0001		2.388	1
72 PLE 3LN	1338	1294	1413866	ZLS905E72-3LN	2CCA183153R0001		2.453	1
74 PLE 3LN	1374	1330	1413880	ZLS905E74-3LN	2CCA183155R0001		2.526	1
76 PLE 3LN	1410	1366	1413903	ZLS905E76-3LN	2CCA183157R0001		2.590	1
78 PLE 3LN	1446	1402	1413927	ZLS905E78-3LN	2CCA183159R0001		2.655	1
80 PLE 3LN	1482	1438	1413941	ZLS905E80-3LN	2CCA183161R0001		2.719	1

SMISLINE TP plug-in system

Starter pack Touch proof 3L LA LB

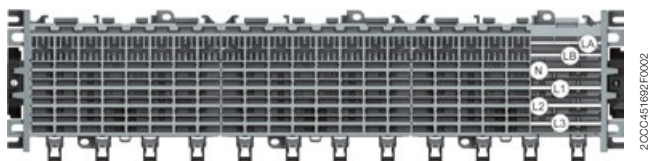


Starter Pack 3LLALB: L1, L2, L3, LA, LB inclusive socket end piece

Solutions available	Busbars length incl. Socket end piece mm	Busbars length mm	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
18 PLE 3L LA LB	364	320	1426538	ZLS905E18-3LLALB	2CCA183233R0001		0.586	1
20 PLE 3L LA LB	401	357	1416904	ZLS905E20-3LLALB	2CCA183162R0001		0.753	1
22 PLE 3L LA LB	437	393	1416911	ZLS905E22-3LLALB	2CCA183164R0001		0.821	1
24 PLE 3L LA LB	473	429	1416928	ZLS905E24-3LLALB	2CCA183166R0001		0.835	1
26 PLE 3L LA LB	509	465	1416935	ZLS905E26-3LLALB	2CCA183168R0001		0.964	1
28 PLE 3L LA LB	545	501	1416942	ZLS905E28-3LLALB	2CCA183170R0001		1.011	1
30 PLE 3L LA LB	581	537	1416959	ZLS905E30-3LLALB	2CCA183172R0001		1.107	1
32 PLE 3L LA LB	617	573	1416966	ZLS905E32-3LLALB	2CCA183174R0001		1.167	1
34 PLE 3L LA LB	653	609	1416973	ZLS905E34-3LLALB	2CCA183176R0001		1.242	1
36 PLE 3L LA LB	689	645	1416980	ZLS905E36-3LLALB	2CCA183178R0001		1.310	1
38 PLE 3L LA LB	725	681	1416997	ZLS905E38-3LLALB	2CCA183180R0001		1.377	1
40 PLE 3L LA LB	761	717	1417000	ZLS905E40-3LLALB	2CCA183182R0001		1.445	1
42 PLE 3L LA LB	797	753	1417017	ZLS905E42-3LLALB	2CCA183184R0001		1.520	1
44 PLE 3L LA LB	833	789	1417024	ZLS905E44-3LLALB	2CCA183186R0001		1.588	1
46 PLE 3L LA LB	869	825	1417031	ZLS905E46-3LLALB	2CCA183188R0001		1.656	1
48 PLE 3L LA LB	905	861	1417048	ZLS905E48-3LLALB	2CCA183190R0001		1.723	1
50 PLE 3L LA LB	941	897	1417055	ZLS905E50-3LLALB	2CCA183192R0001		1.799	1
52 PLE 3L LA LB	977	933	1417062	ZLS905E52-3LLALB	2CCA183194R0001		1.866	1
54 PLE 3L LA LB	1013	969	1417079	ZLS905E54-3LLALB	2CCA183196R0001		1.934	1
56 PLE 3L LA LB	1049	1005	1417086	ZLS905E56-3LLALB	2CCA183198R0001		2.001	1
58 PLE 3L LA LB	1058	1041	1417093	ZLS905E58-3LLALB	2CCA183200R0001		2.077	1
60 PLE 3L LA LB	1122	1078	1417109	ZLS905E60-3LLALB	2CCA183202R0001		2.144	1
62 PLE 3L LA LB	1158	1114	1417116	ZLS905E62-3LLALB	2CCA183204R0001		2.212	1
64 PLE 3L LA LB	1194	1150	1417123	ZLS905E64-3LLALB	2CCA183206R0001		2.279	1
66 PLE 3L LA LB	1230	1186	1417130	ZLS905E66-3LLALB	2CCA183208R0001		2.355	1
68 PLE 3L LA LB	1266	1222	1417147	ZLS905E68-3LLALB	2CCA183210R0001		2.423	1
70 PLE 3L LA LB	1302	1258	1417154	ZLS905E70-3LLALB	2CCA183212R0001		2.490	1
72 PLE 3L LA LB	1338	1294	1417161	ZLS905E72-3LLALB	2CCA183214R0001		2.558	1
74 PLE 3L LA LB	1374	1330	1417178	ZLS905E74-3LLALB	2CCA183216R0001		2.633	1
76 PLE 3L LA LB	1410	1366	1417185	ZLS905E76-3LLALB	2CCA183218R0001		2.701	1
78 PLE 3L LA LB	1446	1402	1417192	ZLS905E78-3LLALB	2CCA183220R0001		2.768	1
80 PLE 3L LA LB	1482	1438	1417208	ZLS905E80-3LLALB	2CCA183222R0001		2.836	1

SMISLINE TP plug-in system

Starter pack Touch proof 3LN LA LB

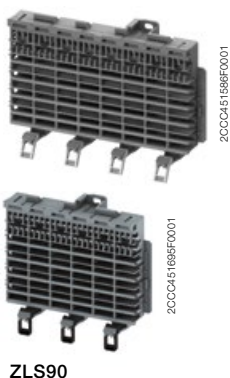


Starter Pack 3LNLALB: L1, L2, L3, N, LA, LB inclusive socket end piece

Solutions available	Busbars length incl. Socket end piece mm	Busbars length mm	Bbn 761227 EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
18 PLE 3LN LA LB	364	320	1426545	ZLS905E18-3LNLALB	2CCA183235R0001		0.671	1
20 PLE 3LN LA LB	401	357	1417215	ZLS905E20-3LNLALB	2CCA183163R0001		0.841	1
22 PLE 3LN LA LB	437	393	1417222	ZLS905E22-3LNLALB	2CCA183165R0001		0.917	1
24PLE 3LN LA LB	473	429	1417239	ZLS905E24-3LNLALB	2CCA183167R0001		0.939	1
26PLE 3LN LA LB	509	465	1417246	ZLS905E26-3LNLALB	2CCA183169R0001		1.078	1
28PLE 3LN LA LB	545	501	1417253	ZLS905E28-3LNLALB	2CCA183171R0001		1.133	1
30PLE 3LN LA LB	581	537	1417260	ZLS905E30-3LNLALB	2CCA183173R0001		1.238	1
32PLE 3LN LA LB	617	573	1417277	ZLS905E32-3LNLALB	2CCA183175R0001		1.306	1
34PLE 3LN LA LB	653	609	1417284	ZLS905E34-3LNLALB	2CCA183177R0001		1.391	1
36PLE 3LN LA LB	689	645	1417291	ZLS905E36-3LNLALB	2CCA183179R0001		1.467	1
38PLE 3LN LA LB	725	681	1417307	ZLS905E38-3LNLALB	2CCA183181R0001		1.543	1
40PLE 3LN LA LB	761	717	1417314	ZLS905E40-3LNLALB	2CCA183183R0001		1.619	1
42PLE 3LN LA LB	797	753	1417321	ZLS905E42-3LNLALB	2CCA183185R0001		1.704	1
44PLE 3LN LA LB	833	789	1417338	ZLS905E44-3LNLALB	2CCA183187R0001		1.780	1
46PLE 3LN LA LB	869	825	1417345	ZLS905E46-3LNLALB	2CCA183189R0001		1.856	1
48PLE 3LN LA LB	905	861	1417352	ZLS905E48-3LNLALB	2CCA183191R0001		1.933	1
50PLE 3LN LA LB	941	897	1417369	ZLS905E50-3LNLALB	2CCA183193R0001		2.017	1
52PLE 3LN LA LB	977	933	1417376	ZLS905E52-3LNLALB	2CCA183195R0001		2.093	1
54PLE 3LN LA LB	1013	969	1417383	ZLS905E54-3LNLALB	2CCA183197R0001		2.169	1
56PLE 3LN LA LB	1049	1005	1417390	ZLS905E56-3LNLALB	2CCA183199R0001		2.246	1
58PLE 3LN LA LB	1058	1041	1417406	ZLS905E58-3LNLALB	2CCA183201R0001		2.330	1
60PLE 3LN LA LB	1122	1078	1417413	ZLS905E60-3LNLALB	2CCA183203R0001		2.406	1
62PLE 3LN LA LB	1158	1114	1417505	ZLS905E62-3LNLALB	2CCA183205R0001		2.482	1
64PLE 3LN LA LB	1194	1150	1419172	ZLS905E64-3LNLALB	2CCA183207R0001		2.559	1
66PLE 3LN LA LB	1230	1186	1417420	ZLS905E66-3LNLALB	2CCA183209R0001		2.643	1
68PLE 3LN LA LB	1266	1222	1417437	ZLS905E68-3LNLALB	2CCA183211R0001		2.719	1
70 PLE 3LN LA LB	1302	1258	1417444	ZLS905E70-3LNLALB	2CCA183213R0001		2.796	1
72PLE 3LN LA LB	1338	1294	1417451	ZLS905E72-3LNLALB	2CCA183215R0001		2.872	1
74PLE 3LN LA LB	1374	1330	1417468	ZLS905E74-3LNLALB	2CCA183217R0001		2.956	1
76PLE 3LN LA LB	1410	1366	1417475	ZLS905E76-3LNLALB	2CCA183219R0001		3.032	1
78PLE 3LN LA LB	1446	1402	1417482	ZLS905E78-3LNLALB	2CCA183221R0001		3.109	1
80PLE 3LN LA LB	1482	1438	1417499	ZLS905E80-3LNLALB	2CCA183223R0001		3.185	1

SMISLINE TP plug-in system

Socket



Socket bases ZLS906, ZLS908

The SMISLINE socket system is a totally new kind of assembly and connection technology for the construction of distributions. Besides the classic method of snapping the devices onto 35-mm mounting rails, the new family of devices can be directly attached to the socket bases with integrated busbars. The time-consuming process of connecting up the supply is thereby no longer needed. In addition, in the event of rearrangement or expansion, the replacement of devices in existing systems is made significantly easier.

The socket sections and the wide range of accessories make it possible to plan with the capability for expansion and to construct distribution systems of any desired size in a short period of time.

6- and 8-module sockets are installed either by screwing them onto any flat surface or by snapping them onto a 35 mm DIN mounting rail. Lateral movement or detachment of the sockets again is possible before final fixing.

In order to determine the required socket length, the space necessary for

- the devices required
- the incoming terminal block and
- any reserve spaces needed must be determined.

Snap mounting

Pull down the slide with a screwdriver until it latches (socket can be moved).

Press on front of slid:

Fixed position

(Sockets fixed)

The key features

- System of any desired length (even number of poles)
- Integrated busbars
- Simple device change
- Long-term planning and problem free extension possible
- Significant time savings during assembly and connection

Socket base

Description/ application	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
8-module socket Length 144 mm (includes base and cover)	1413965	ZLS908	2CCA183030R0001		0.092	10
6-module socket Length 108 mm (includes base and cover)	1413958	ZLS906	2CCA183035R0001		0.071	10

Where to find more:

Technical details of socket:
Chapter 8 of
Solutions for electrical installation in
buildings - technical details

SMISLINE TP plug-in system

Busbars, Socket end piece



Busbars for the sockets and additional socket ZLS200

The busbars of size 10x3 mm can be loaded with currents up to 100 A. They are plated for perfect contact with the devices plug-in contacts. The maximum available busbar length is 1979 mm. The same busbar type is used, regardless whether it is fitted in the socket (L1, L2, L3, N) or in the additional socket (N, PE). The busbars are inserted in to the socket from the front.

Auxiliary busbars for the socket ZLS202

The 5x2 mm auxiliary busbars are intended for a common power supply of auxiliary switches and signal contacts. They are also plated and their max. delivery length is 1979 mm. Like the main busbars, the auxiliary busbars are inserted in holders LA and LB from the front. Of course, only on auxiliary busbar can be fitted.

Busbars for the sockets

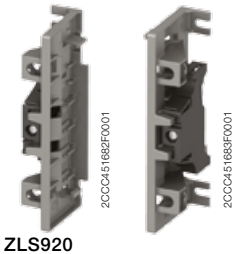
Description/ application	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
100 A busbar plated, 10x3 mm, for L1, L2, L3, N and PE – Delivery length 1979 mm	0015702	ZLS200	2CCF002772R0001		0.640	10
40 A auxiliary busbar plated, 5x2 mm, for LA und LB – Delivery length 1979 mm	0015719	ZLS202	2CCF002773R0001		0.240	10

Socket end piece ZLS920

To prevent displacement of sockets and busbars (particular when installed vertically) end pieces can be fitted at the start and finish of each row of sockets. These simultaneously ensure electrically protected covering of the busbar end faces and mechanical fixing of the sockets on the mounting rail.

Socket end piece

Description/ application	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
To prevent displacement of sockets and busbars	1415617	ZLS920	2CCA183017R0001			1



Where to find more:

Technical details of socket:
Chapter 8 of
Solutions for electrical installation in
buildings - technical details

SMISLINE TP plug-in system

Incoming terminal block and components



ZLS26



ZLS25



ZLS95

Incoming terminal blocks ZLS260 to 262

Compact terminal block with the construction width of 18 mm for 2 poles. The maximum rated current is 63A for L1, L2, L3N and 6 A for LA, LB.

Incoming terminal block 18 mm, 63 A 2,5 mm² to 25 mm² max. 1 wire

1 contact above 1 contact bottom

Version	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
L1, L3 63A	0111572	ZLS260	2CCA205305R0001		0.090	1
L2, N 63A	0111589	ZLS261	2CCA205306R0001		0.090	1
LA, LB 6A	0111596	ZLS262	2CCA205307R0001		0.090	1

Incoming terminal component ZLS250-253; 954, 955

The incoming terminal component, with an installation width of 36 mm is available as a single-pole component for the line conductors L1, L2, L3 and as neutral. The terminals act directly on the busbars and thereby fix the incoming terminal component. The incoming terminal component, L1, L2, L3 and N can be combined to meet specific needs. A maximum cable cross-section of 95 mm² can be connected to the incoming terminal component.

Incoming terminal component 10 mm² to 95 mm² max. 1 wire

Version	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
Feeder component L1	0505319	ZLS251	2CCV672501R0001		0.120	1
Feeder component L2	0505326	ZLS252	2CCV672502R0001		0.120	1
Feeder component L3	0505333	ZLS253	2CCV672503R0001		0.120	1
Feeder component N	0505340	ZLS250	2CCV672500R0001		0.120	1
Feeder component N additional socket	1424404	ZLS954	2CCV672508R0001		0.100	1
Feeder component PE additional socket	1424411	ZLS955	2CCV672509R0001		0.100	1

Where to find more:

Technical details of terminal block:
Chapter 8 of
Solutions for electrical installation in
buildings - technical details

SMISLINE TP plug-in system

Incoming terminal block and components

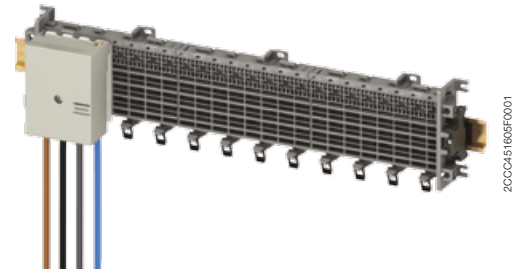
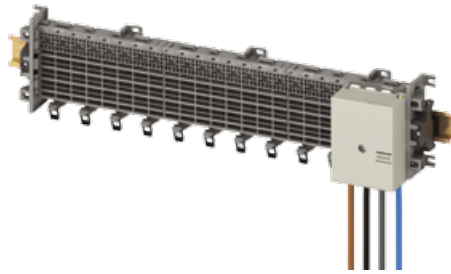


General

The incoming terminal block is used to connect cables directly to the busbars. The terminals act directly on the busbars and therefore fix the incoming terminal block. Removable terminal tops permit the connection of continuous conductors (risers) while horizontal or vertical cable entry is also possible.

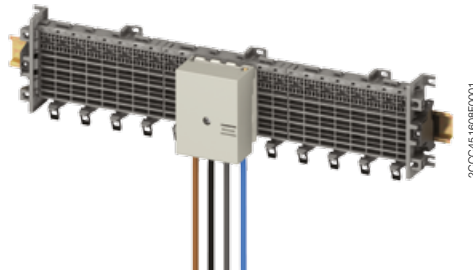
Instead of using the incoming terminal block, the power supply can also be realized via a device (e.g. residual current operated circuit breaker, miniature circuit breaker or switch disconnector).

Power supply left or right, maximum 100 A.



Power supply in centre, maximum 160 A.

A maximum of 100 A is permitted on either side. A total of 160 A must not be exceeded.



Incoming terminal blocks ZLS224, 225

A standard incoming terminal block whose cover provides protection against accidental contact. Construction height 50 mm. The base plate can be fitted with a maximum of 4 main terminals L1, L2, L3 and N for the busbars, and 2 auxiliary terminals LA and LB for the auxiliary busbars.

Where to find more:

Technical details of terminal block:
Chapter 8 of
Solutions for electrical installation in
buildings - technical details

Incoming terminal blocks 6 mm² to 50 mm² (2 x 25 mm²) + 2 x 10 mm² (LA, LB)

Standard incoming terminal block, complete with main terminals and cover, construction height 50 mm

Version	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
50 mm ² (2 x 25 mm ²) 3LN left	0019816	ZLS224	2CCF015196R0001		0.180	1
50 mm ² (2 x 25 mm ²) 3LN right	0510726	ZLS224R	2CCA180152R0001		0.180	1
50 mm ² (2 x 25 mm ²) + 2 x 10 mm ² 3LNAB (auxiliary busbars)	0054251	ZLS224LAB	2CCA180154R0001		0.200	1
50 mm ² (2 x 25 mm ²) 3L left	0019823	ZLS225	2CCF015197R0001		0.150	1
50 mm ² (2 x 25 mm ²) 3L right	0510733	ZLS225R	2CCA180153R0001		0.150	1
50 mm ² (2 x 25 mm ²) + 2 x 10 mm ² 3LAB (auxiliary busbars)	0054220	ZLS225LAB	2CCA180155R0001		0.170	1

Cover for standard incoming terminal block

	0021543	ZLS235	2CCA180069R0001		0.037	1
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Additional parts for standard incoming terminal block

Auxiliary terminal max. 2 items 10 mm ² (for auxiliary bus bars LA, LB)	0019151	ZLS233	2CCF002786R0001		0.010	2
N terminal for incoming terminal block	0019144	ZLS232	2CCF002785R0001		0.030	

Incoming terminal blocks, low ZLS228, 229

Incoming terminal block with construction height of 36 mm.

Incoming terminal block, low, complete with main terminals, construction height 36 mm

50 mm ² (2 x 25 mm ²), 3LN	0019854	ZLS228	2CCF015200R0001		0.180	1
50 mm ² (2 x 25 mm ²), 3L	0019861	ZLS229	2CCF015201R0001		0.150	1
50 mm ² (2 x 25 mm ²), 3LN right	1465254	ZLS228R	2CCF180157R0001		0.180	1
50 mm ² (2 x 25 mm ²), 3L right	1465261	ZLS229R	2CCF180158R0001		0.150	1

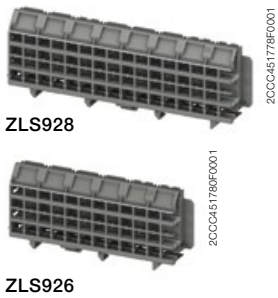


SMISLINE TP plug-in system

Terminals for additional socket

Additional socket

The additional socket can easily be fitted onto the socket base to accommodate the external N and/or PE busbars. This enables neutral connections to be made where single-pole miniature circuit breakers are used with unswitched neutral. Neutral terminals are clipped onto the additional socket and can be used as detachable neutral connections. One N busbar and/or one PE busbar can be fitted. Each socket base can be equipped with an additional socket. Because it contains an integrated 35 mm DIN-rail snap-on feature, the external N or PE busbars can be fitted anywhere in the distribution panel, even separately from the system. The additional sockets can be covered to prevent accidental contact with live parts.



Additional socket for external N and PE busbars

Description/ application	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
- 8-module socket (suitable for 8-module socket)	1420444	ZLS928	2CCA183630R0001		0.034	10
- 6-module socket (suitable for 6-module socket)	1420437	ZLS926	2CCA183635R0001		0.026	10

SMISLINE TP plug-in system

Terminals TP, additional socket

N terminals and PE terminals

Corresponding N terminals (blue) or PE terminals (yellow-green) are available for the power supply and the outgoing conductors of the external N and PE busbars for cross sections. The terminals are fitted with label holders which can be used with the marking adapter or the self-adhesive marking label (Phoenix Contact type Cipline UC-TM):

Connection for the terminals

ZLS912, 915	0,75 mm ² up to 10 mm ² litz wire with ferrule 1 mm ² up to 10 mm ² strand 2 x 1,5 mm ² or 2 x 2,5 mm ² allowed, all other combinations it is only allowed with one wire
ZLS913, 916	16 mm ² up to 35 mm ² wire with ferrule, max. 1 wire
ZLS954, 955	50 mm ² up to 95 mm ² wire with ferrule, max. 1 wire



20CC451789F0001



20CC451792F0001



20CC451794F0001



20CC451793F0001



20CC451788F0001



20CC451795F0001



20CC451785F0001



20CC451794F0001



20CC451782F0001

N terminal for additional socket light blue, for external busbars

Description/ application	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
N 10 mm ²	1421090	ZLS912	2CCA183460R0001		0.012	10
N 35 mm ²	1421304	ZLS913	2CCA183470R0001		0.030	10
N 95 mm ²	1424404	ZLS954	2CCV672508R0001		0.100	1

PE terminal for additional socket yellow-green, for external busbars

Description/ application	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
PE 10 mm ²	1421311	ZLS915	2CCA183461R0001		0.012	10
PE 35 mm ²	1421328	ZLS916	2CCA183471R0001		0.030	10
PE 95 mm ²	1424411	ZLS955	2CCV672509R0001		0.100	1

Red/orange terminals for additional socket

Description/ application	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
10 mm ²	1421335	ZLS912/ Red	2CCA183475R0001		0.012	10
10 mm ²	1421359	ZLS915/ Orange	2CCA183476R0001		0.012	10
35 mm ²	1421342	ZLS913/ Red	2CCA183465R0001		0.030	10
35 mm ²	1421366	ZLS916/ Orange	2CCA183466R0001		0.030	10

Insulator block

The dark grey insulator block isolates the interrupted bus bar ends from one another and simultaneously marks the disconnection point externally.

Description/ application	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
	1421373	ZLS917	2CCA183463R0001		0.006	10

SMISLINE TP plug-in system

Socket accessories



Intermediate piece ZLS725

The light grey intermediate piece matches the device profile and fills empty module spaces. The busbars are safely covered, so that they cannot be touched and at the same time the corresponding openings in the cover are closed up.



Intermediate piece

Description/ application	Bbn 761227	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
light grey, fills shock-proof empty module spaces 18 mm – bag containing 5 items	0100989	ZLS725	2CCS500900R0181		0.100	1
Compensation piece to 18 mm for NT 9 mm – bag containing 5 items	0104710	ZLS728	2CCS400900R0101		0.070	1

Busbar insulator ZLS938

The dark grey busbar insulator electrically isolates the separated busbar ends from each other (e.g. when using several RCD protected groups) and also identifies the isolation point from outside. It conforms with the device profile and its space requirement is 1 module.

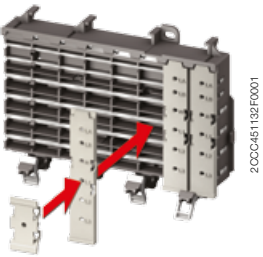


Busbar insulator

dark grey, for isolation and spacing of separate busbar sections, 18 mm	1418205	ZLS938	2CCA205611R0001		0.001	1
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Busbar cover ZLS100

If component modules or spare modules are not required, the busbar cover ensures electrically protected covering of the main and auxiliary busbars. The cover (4 modules) can be divided anywhere. The openings allow voltage measurements on the busbars without removing the cover.



Busbar cover

electrically protected covering of main and auxiliary busbars. The 4 modules cover can be divided. Suitable to accept extension adapter ZLS 101 4x18 mm – bag containing 5 items	0015603	ZLS100	2CCF002762R0001		0.095	1
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Extension adapter ZLS101

The extension adapter, single or several side by side, can be plugged into the busbar cover via the built-in holding device. This enables conventional DIN devices with 45 mm cap size to be snapped onto the SMISLINE socket. By plugging in several extension adapters one on top of the other, heights can be adjusted in multiples of 7 mm

Add-on adapter

18 mm wide, can be plugged on busbar cover ZLS100. To mount conventional DIN devices with 45 mm cap size. – bag containing 10 items	0015610	ZLS101	2CCF002763R0001		0.002	10
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SMISLINE TP plug-in system

Combi module 32 A (I_N), 6 A (I_A , I_B)

MS116/132 + AF contactor



Combi module for MS116/MS132 and AF contactor

Description/ application	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Combi module L1,L2,L3 top feed	1414641	ZMS132-3L	2CCA182500R0001		0.095	1
Combi module L1,L2,L3 top feed	1414634	ZMS132-3LA	2CCA182502R0001		0.098	1
Combi module L1,L2,L3 top feed	1414627	ZMS132-3LB	2CCA182504R0001		0.098	1
Combi module L1,L2,L3 top feed	1414610	ZMS132-3LAB	2CCA182506R0001		0.102	1
Combi module without plug-in contacts	1414603	ZMS137	2CCA182508R0001		0.075	1
Connection pin to mont 2 combi moduls together	1414801	E210-SPV	2CCC703715R0001			Set à 30
Intermediate piece 9 mm	1414412	ZMS935	2CCA182616R0001		0.006	1



Adapter for manual motor starter MS116 and MS132

Description/ application	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
Adapter MS116/132 L123 wire bottom feed	1414597	ZMS930	2CCA182520R0001		0.030	1
Adapter MS116/132 L123LALB wire bottom feed	1414580	ZMS931	2CCA182522R0001		0.062	1
Adapter MS116/132 L123 wire top feed	1414573	ZMS932	2CCA182524R0001		0.030	1
Adapter MS116/132 L123LALB wire top feed	1414566	ZMS933	2CCA182526R0001		0.062	1
Adapter MS116/132 empty	1414559	ZMS934	2CCA182512R0001		0.034	1
Intermediate piece 9 mm	1414412	ZMS935	2CCA182616R0001		0.006	1
Adapter MS116/132 L123LA wire bottom feed	1424619	ZMS936	2CCA182521R0001		0.058	1
Adapter MS116/132 L123LA wire top feed	1424626	ZMS937	2CCA182525R0001		0.058	1

Top feed Bottom feed

The 9 mm wide additional housing is need to use when an unequal number (1, 3, 5, ...) of combi modules or adapter are plugged on the socket. This is needed to fill the space into a full module (18 mm).

The 9 mm wide additional housing can be also use when on one side of the manual motor starter an auxiliary contact is mounted. The order codes of manual motor starter and the contactors auf in the ABB catalogue DOC 1SBC100155C0202 or in the local ABB catalogue.

SMISLINE TP plug-in system

Universal adapters 32 A and 63 A

32 A and 63 A universal adapters

Adapter 32A

Designation	Module	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code			
L1/L2/L3 wire top	1	144 4563	ZLS970	2CCA180551R0001		0.020	1
L1/L2/L3 wire bottom ZLS971	1	144 4570	ZLS971	2CCA180552R0001		0.020	1
N wire top ZLS970N	1	144 4587	ZLS970N	2CCA180553R0001		0.020	1
N wire bottom ZLS971N	1	144 4570	ZLS971N	2CCA180554R0001		0.020	1

Adapter 63A

L1/L2/L3 wire top ZLS972	1	144 4709	ZLS972	2CCA180555R0001		0.024	1
L1/L2/L3 wire bottom ZLS973	1	144 4716	ZLS973	2CCA180556R0001		0.024	1
N wire top ZLS972N	1	144 4808	ZLS972N	2CCA180557R0001		0.024	1
N wire bottom ZLS973N	1	144 4730	ZLS973N	2CCA180558R0001		0.024	1

Adapter 32A with 300mm wire

L1/L2/L3 wire top ZLS970	1	144 4747	ZLS970300	2CCA180559R0001		0.026	1
L1/L2/L3 wire bottom ZLS971	1	144 4754	ZLS971300	2CCA180560R0001		0.026	1
N wire top ZLS970N	1	144 4761	ZLS970N300	2CCA180561R0001		0.026	1
N wire bottom ZLS971N	1	144 4778	ZLS971N300	2CCA180562R0001		0.026	1

Adapter 63A with 300mm wire

L1/L2/L3 Litze o. ZLS972	1	144 4785	ZLS972300	2CCA180563R0001		0.037	1
L1/L2/L3 Litze u. ZLS973	1	144 4792	ZLS973300	2CCA180564R0001		0.037	1
N wire top ZLS972N	1	144 4808	ZLS972N300	2CCA180565R0001		0.037	1
N wire bottom ZLS973N	1	144 4815	ZLS973N300	2CCA180566R0001		0.037	1

Adapter 25A UL489, adapter can be only used together with ABB Pro M MCB S200 UL489

L1/L2/L3 Litze o. ZLS970 UL	1	144 4822	ZLS970UL	2CCA337020R0001		0.021	1
L1/L2/L3 Litze u. ZLS971 UL	1	144 4839	ZLS971UL	2CCA337021R0001		0.021	1

Adapter 45A UL489, adapter can be only used together with ABB Pro M MCB S200 UL489

L1/L2/L3 Litze o. ZLS972 UL	1	144 4860	ZLS972UL	2CCA337024R0001		0.025	1
L1/L2/L3 Litze u. ZLS973 UL	1	144 4877	ZLS973UL	2CCA337025R0001		0.025	1

Dummy housing

	1	144 4556	ZLS964	2CCA180550R0001		0.011	1
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Connector for multi- pole adapter

Bag with 30 pcs.		1414801	E210-SPV	2CCC703715R0001		0.050	Set of
10							30 pcs.



SMISLINE TP plug-in system

Locking device



Locking device

Padlock adapter 3 mm – Bag containing 10 items	0104833	SA 1	GJF1101903R0001		0.023	1
Padlock	0104857	SA 2	GJF1101903R0002		0.020	1

SMISLINE TP plug-in system

Busbars 40 A and 100 A

40 A and 100 A busbars / selection table for sockets

Bbn 761227	Order details		Price 1 piece	ZLS908	ZLS906	Module	Length incl. end piece	Busbar length mm	Bbn 761227	Order details		Price 1 piece
EAN	busbar 100 A Type code	Order code								busbar 40 A Type code	Order code	
006778	ZLS201E6	2CCF800158R0001	–	1	6	148	103	007966	ZLS203E6	2CCF800218R0001		
006983	ZLS201E8	2CCF800159R0001	1	–	8	186	139	008178	ZLS203E8	2CCF800219R0001		
006211	ZLS201E12	2CCF800160R0001	–	2	12	256	211	007409	ZLS203E12	2CCF800220R0001		
006310	ZLS201E14	2CCF800161R0001	1	1	14	292	247	007508	ZLS203E14	2CCF800221R0001		
006334	ZLS201E16	2CCF800162R0001	2	–	16	328	283	007522	ZLS203E16	2CCF800222R0001		
006358	ZLS201E18	2CCF800163R0001	–	3	18	364	319	007546	ZLS203E18	2CCF800223R0001		
006372	ZLS201E20	2CCF800164R0001	1	2	20	401	355	007560	ZLS203E20	2CCF800224R0001		
006396	ZLS201E22	2CCF800165R0001	2	1	22	437	391	007584	ZLS203E22	2CCF800225R0001		
006419	ZLS201E24	2CCF800166R0001	3	–	24	473	427	007607	ZLS203E24	2CCF800226R0001		
006433	ZLS201E26	2CCF800167R0001	1	3	26	509	463	007621	ZLS203E26	2CCF800227R0001		
006457	ZLS201E28	2CCF800168R0001	2	2	28	545	499	007645	ZLS203E28	2CCF800228R0001		
006471	ZLS201E30	2CCF800169R0001	3	1	30	581	535	007669	ZLS203E30	2CCF800229R0001		
006495	ZLS201E32	2CCF800170R0001	4	–	32	617	571	007683	ZLS203E32	2CCF800230R0001		
006518	ZLS201E34	2CCF800171R0001	2	3	34	653	607	007706	ZLS203E34	2CCF800231R0001		
006532	ZLS201E36	2CCF800172R0001	3	2	36	689	643	007720	ZLS203E36	2CCF800232R0001		
006556	ZLS201E38	2CCF800173R0001	4	1	38	725	679	007744	ZLS203E38	2CCF800233R0001		
006570	ZLS201E40	2CCF800174R0001	5	–	40	761	715	007768	ZLS203E40	2CCF800234R0001		
006594	ZLS201E42	2CCF800175R0001	3	3	42	797	751	007782	ZLS203E42	2CCF800235R0001		
006617	ZLS201E44	2CCF800176R0001	4	2	44	833	787	007805	ZLS203E44	2CCF800236R0001		
006631	ZLS201E46	2CCF800177R0001	5	1	46	869	823	007829	ZLS203E46	2CCF800237R0001		
006655	ZLS201E48	2CCF800178R0001	6	–	48	905	859	007843	ZLS203E48	2CCF800238R0001		
006679	ZLS201E50	2CCF800179R0001	4	3	50	941	895	007867	ZLS203E50	2CCF800239R0001		
006693	ZLS201E52	2CCF800180R0001	5	2	52	977	932	007881	ZLS203E52	2CCF800240R0001		
006716	ZLS201E54	2CCF800181R0001	6	1	54	1013	968	007904	ZLS203E54	2CCF800241R0001		
006730	ZLS201E56	2CCF800182R0001	7	–	56	1049	1004	007928	ZLS203E56	2CCF800242R0001		
006754	ZLS201E58	2CCF800183R0001	5	3	58	1085	1040	007942	ZLS203E58	2CCF800243R0001		
006785	ZLS201E60	2CCF800184R0001	6	2	60	1122	1076	007973	ZLS203E60	2CCF800244R0001		
006808	ZLS201E62	2CCF800185R0001	7	1	62	1158	1112	007997	ZLS203E62	2CCF800245R0001		
006822	ZLS201E64	2CCF800186R0001	8	–	64	1194	1148	008017	ZLS203E64	2CCF800246R0001		
006846	ZLS201E66	2CCF800187R0001	6	3	66	1230	1184	008031	ZLS203E66	2CCF800247R0001		
006860	ZLS201E68	2CCF800188R0001	7	2	68	1266	1220	008055	ZLS203E68	2CCF800248R0001		
006884	ZLS201E70	2CCF800189R0001	8	1	70	1302	1256	008079	ZLS203E70	2CCF800249R0001		
006907	ZLS201E72	2CCF800190R0001	9	–	72	1338	1292	008093	ZLS203E72	2CCF800250R0001		
006921	ZLS201E74	2CCF800191R0001	7	3	74	1374	1328	008116	ZLS203E74	2CCF800251R0001		
006945	ZLS201E76	2CCF800192R0001	8	2	76	1410	1364	008130	ZLS203E76	2CCF800252R0001		
006969	ZLS201E78	2CCF800193R0001	9	1	78	1446	1400	008154	ZLS203E78	2CCF800253R0001		
006990	ZLS201E80	2CCF800194R0001	10	–	80	1482	1436	008185	ZLS203E80	2CCF800254R0001		
007010	ZLS201E82	2CCF800195R0001	8	3	82	1518	1472	008208	ZLS203E82	2CCF800255R0001		
007034	ZLS201E84	2CCF800196R0001	9	2	84	1554	1508	008222	ZLS203E84	2CCF800256R0001		
007058	ZLS201E86	2CCF800197R0001	10	1	86	1590	1544	008246	ZLS203E86	2CCF800257R0001		
007072	ZLS201E88	2CCF800198R0001	11	–	88	1626	1580	008260	ZLS203E88	2CCF800258R0001		
007096	ZLS201E90	2CCF800199R0001	9	3	90	1662	1616	008284	ZLS203E90	2CCF800259R0001		
007119	ZLS201E92	2CCF800200R0001	10	2	92	1698	1652	008307	ZLS203E92	2CCF800260R0001		
007133	ZLS201E94	2CCF800201R0001	11	1	94	1734	1688	008321	ZLS203E94	2CCF800261R0001		
007157	ZLS201E96	2CCF800202R0001	12	–	96	1770	1724	008345	ZLS203E96	2CCF800262R0001		
007171	ZLS201E98	2CCF800203R0001	10	3	98	1806	1760	008369	ZLS203E98	2CCF800263R0001		
006006	ZLS201E100	2CCF800204R0001	11	2	100	1843	1796	007195	ZLS203E100	2CCF800264R0001		
006020	ZLS201E102	2CCF800205R0001	12	1	102	1879	1832	007218	ZLS203E102	2CCF800265R0001		
006044	ZLS201E104	2CCF800206R0001	13	–	104	1915	1868	007232	ZLS203E104	2CCF800266R0001		
006068	ZLS201E106	2CCF800207R0001	11	3	106	1951	1904	007256	ZLS203E106	2CCF800267R0001		
006082	ZLS201E108	2CCF800208R0001	12	2	108	1987	1940	007270	ZLS203E108	2CCF800268R0001		

Planning for the incorporation of feeder block and spare places should be taken into account.
 The total lengths given above were calculated taking socket spacings and tolerances into account.
 For this reason, the indicated busbar length is not necessarily a multiple of 18 mm (1 Module).

SMISLINE TP plug-in system

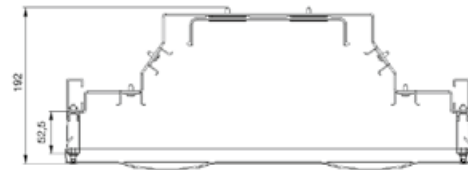
View of the CombiLine modules

Horizontal modules are suitable for mounting on WR or EDF profiles. Minimum cabinet depth 215 mm. The WR or EDF mounting frames must be ordered separately.

Vertical modules are suitable for mounting in cabinets with a minimum depth of 275 mm. The mounting frame must be ordered separately. Cable laying grid is included for cable fixing. With DIN rail for PE/N disconnection terminals.



Sectional view from above, example MC203HS

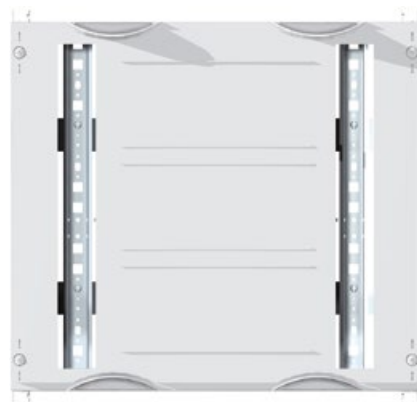


Sectional view from above, example MC203VS

Front view



Front view



SMISLINE TP plug-in system

View of the combination sets

Horizontal combination sets are already mounted to EDF profiles (the same arrangement as a distribution board panel). Suitable for mounting in cabinets with a minimum depth of 215 mm.



Sectional view from above,
example ED203HS

Vertical combination sets are already mounted to EDF profiles. Suitable for mounting in cabinets with a minimum depth of 215 mm. A cable laying grid is included for cable fixing. Without DIN rail for PE/N disconnection terminals.



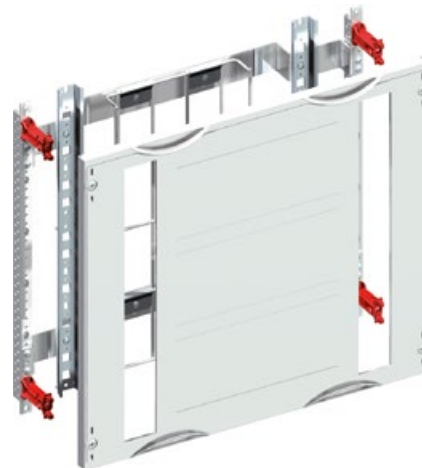
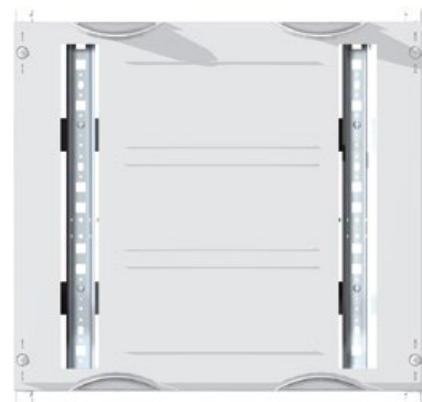
Sectional view from above
example ED203VS

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Front view



Front view



SMISLINE TP plug-in system

Options for assembly in an enclosure

With horizontal device arrangement in conjunction with mounting adapters, it is possible to assemble the DIN rail further back. The busbar systems cannot be connected through from one panel to the next. The DIN rail is mounted to a 2-level bracket (in front upon delivery). The front position is for mounting the socket base to which the SMISLINE TP devices will directly be mounted. The back position is for mounting the socket bases for devices with universal adapters.

With vertical device arrangement in conjunction with mounting adapters, the standard cover holders have to be replaced by the cover holders ED137P4 with the spacer ED135P4. A cover raising frame is also required, so that there is more space under the cover. Devices using mounting adapters must always be mounted under a separate cover in this way. Modules for a vertical device arrangement have cable laying grids for fastening the cables. The DIN rails are designed to be equipped with the SMISLINE TP socket base rows; it is also possible to connect the SMISLINE TP additional sockets (N/PE terminals).

Horizontal device arrangement



Vertical device arrangement



Important: We recommend that you plan at least a 150 mm high terminal or wiring space on the cable entry side.

> For cover raising frames, see page 9/61

SMISSLINE TP plug-in system

For horizontal and vertical device arrangement



MC203HS



MC303HS

- SMISSLINE TP modules for horizontal device arrangement
- Extension with DIN rails 35 x 15 mm
- Distance between DIN rails 150 mm
- From 3 panels on the DIN rails are equipped with an additional stabilization rail
- Important: The SMISSLINE TP busbar system cannot be connected through from one module to the next.
- Planning aid for SMISSLINE TP socket bases
- The mounting frame must be ordered separately

Height	Width		Stecksockellänge			EDF ¹	WR ²	From cabinet depth	FLATPACK Unmounted			MOUNTED Installed in the cabinet		
	RE	mm	FB	mm	PLE				Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	2	500	2 x 22		■	■	215	MBC202HS	2CPX042155R9999		MC202HS	2CPX042132R9999	
	300	3	750	2 x 36		■	■	215	MBC302HS	2CPX042156R9999		MC302HS	2CPX042133R9999	
3	450	2	500	3 x 22		■	■	215	MBC203HS	2CPX042157R9999		MC203HS	2CPX042134R9999	
	450	3	750	3 x 36		■	■	215	MBC303HS	2CPX042158R9999		MC303HS	2CPX042135R9999	
4	600	2	500	4 x 22		■	■	215	MBC204HS	2CPX042159R9999		MC204HS	2CPX042136R9999	
	600	3	750	4 x 36		■	■	215	MBC304HS	2CPX042160R9999		MC304HS	2CPX042137R9999	
5	750	2	500	5 x 22		■	■	215	MBC205HS	2CPX042161R9999		MC205HS	2CPX042138R9999	
	750	3	750	5 x 36		■	■	215	MBC305HS	2CPX042162R9999		MC305HS	2CPX042139R9999	

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MC103VS



MC203VS



MC305VS

- SMISSLINE TP modules for vertical device arrangement
- Extension with DIN rails 35 x 15 mm
- The DIN rails in the back are designed for standard N (N disconnection terminals) and PE terminals
- A cable laying grid is included for cable fixing
- The DIN rails and cable laying grids are flush with the module
- Important: Vertical modules cannot be mounted directly adjacent to horizontal cross members or centre support rails
- Planning aid for SMISSLINE TP socket bases
- The mounting frame must be ordered separately

3	450	1	250	1 x 22		■	■	275	MBC103VS	2CPX042163R9999		MC103VS	2CPX042140R9999	
	450	2	500	2 x 22		■	■	275	MBC203VS	2CPX042164R9999		MC203VS	2CPX042141R9999	
4	600	1	250	1 x 30		■	■	275	MBC104VS	2CPX042165R9999		MC104VS	2CPX042142R9999	
	600	2	500	2 x 30		■	■	275	MBC204VS	2CPX042166R9999		MC204VS	2CPX042143R9999	
5	750	1	250	1 x 38		■	■	275	MBC105VS	2CPX042167R9999		MC105VS	2CPX042144R9999	
	750	2	500	2 x 38		■	■	275	MBC205VS	2CPX042168R9999		MC205VS	2CPX042145R9999	
	750	3	750	2 x 38		■	■	275	MBC305VS	2CPX042911R9999		MC305VS	2CPX042910R9999	

¹ Module for EDF mounting frame ² Module for WR mounting frame

SMISLINE TP plug-in system

Options for assembly in an enclosure

With horizontal device arrangement in conjunction with mounting adapters, it is possible to assemble the DIN rail further back. The busbar systems cannot be connected through from one panel to the next. The DIN rail is mounted to a 2-level bracket (in front upon delivery). The front position is for mounting the socket base to which the SMISLINE TP devices will directly be mounted. The back position is for mounting the socket bases for devices with universal adapters.

With vertical device arrangement in conjunction with mounting adapters, the standard cover holders have to be replaced by the cover holders ED137P4 with the spacer ED135P4. A cover raising frame is also required, so that there is more space under the cover. Devices using mounting adapters must always be mounted under a separate cover in this way. Modules for a vertical device arrangement have cable laying grids for fastening the cables. The DIN rails are designed to be equipped with the SMISLINE TP socket base rows; it is also possible to connect the SMISLINE TP additional sockets (N/PE terminals).



To join combination sets with one another, one set of panel connectors ED30P2 is required per joint.

Horizontal device arrangement



Vertical device arrangement



Important: We recommend that you plan at least a 150 mm high terminal or wiring space on the cable entry side.

> For cover raising frames, see page 9/61

SMISSLINE TP plug-in system

For horizontal and vertical device arrangement



- Touch guard for horizontal combination sets or panel combinations to be installed on top of each other
- The EDF profile rails are included in the scope of delivery

Height		Width		Socket base length		From cabinet depth		Type	Ord. no.	Price
RE	mm	FB	mm	PLE	EDF ¹	WR ²	mm			
1	150	2	500		■		215	ED2SHV	2CPX061630R9999	
	150	3	750		■		215	ED3SHV	2CPX061635R9999	



- SMISSLINE TP combination sets for horizontal device arrangement
- Extension with DIN rails 35 x 15 mm
- Distance between DIN rails 150 mm
- From 3 panels on the DIN rails are equipped with an additional stabilization rail
- Important: The SMISSLINE TP socket base rows cannot be connected through from one module to the next.
- Planning aid for SMISSLINE TP socket base rows, see page 9/64
- The EDF profile rails are included in the scope of delivery

3	450	2	500	3 x 22	■		215	ED203HS	2CPX066517R9999	
	450	3	750	3 x 36	■		215	ED303HS	2CPX066520R9999	
4	600	2	500	4 x 22	■		215	ED204HS	2CPX066518R9999	
	600	3	750	4 x 36	■		215	ED304HS	2CPX066521R9999	
5	750	2	500	5 x 22	■		215	ED205HS	2CPX066519R9999	
	750	3	750	5 x 36	■		215	ED305HS	2CPX066522R9999	



- SMISSLINE TP combination sets for vertical device arrangement
- Extension with DIN rails 35 x 15 mm
- A cable laying grid is included for cable fixing
- The DIN rails and cable laying grids are flush with the module
- Important: Vertical modules cannot be mounted directly adjacent to horizontal cross members or centre support rails
- Planning aid for SMISSLINE TP socket base rows, see page 9/64
- The EDF profile rails are included in the scope of delivery

3	450	1	250	1 x 22	■		215	ED103VS	2CPX066523R9999	
	450	2	500	2 x 22	■		215	ED203VS	2CPX066526R9999	
4	600	1	250	1 x 30	■		215	ED104VS	2CPX066524R9999	
	600	2	500	2 x 30	■		215	ED204VS	2CPX066527R9999	
5	750	1	250	1 x 38	■		215	ED105VS	2CPX066525R9999	
	750	2	500	2 x 38	■		215	ED205VS	2CPX066528R9999	



Article	Pieces	Type	Ord. no.	Price
Panel connector Used to join combination sets. Maximum size must not exceed 5 (9 GU)	2	ED30P2	2CPX062302R9999	

SMISLINE TP plug-in system

Cable laying grids, DIN rails, fixing brackets



ZW430

Article	To be used for ...	PU/pcs.	Type	Ord. no.	Price
Cable laying grids width 100 mm					
Length					
450 mm	M(B)C103VS	1	ZW430	2CPX042170R9999	
600 mm	M(B)C104VS	1	ZW431	2CPX042171R9999	
750 mm	M(B)C105VS	1	ZW432	2CPX042172R9999	
900 mm	-	1	ZW433	2CPX042173R9999	
1050 mm	-	1	ZW434	2CPX042174R9999	
2000 mm	-	1	ZW435	2CPX042175R9999	



ZW436

Cable laying grids width 200 mm					
Length					
450 mm	M(B)C203VS	1	ZW436	2CPX042176R9999	
600 mm	M(B)C204VS	1	ZW437	2CPX042177R9999	
750 mm	M(B)C205VS	1	ZW438	2CPX042178R9999	
900 mm	-	1	ZW439	2CPX042179R9999	
1050 mm	-	1	ZW440	2CPX042180R9999	
2000 mm	-	1	ZW441	2CPX042181R9999	
3000 mm	-	1	ZW460	2CPX073256R9999	



ZW470

Cable laying grids width 300 mm					
Length					
3000 mm	-	1	ZW470	2CPX073257R9999	

SMISLINE TP plug-in system

Cable laying grids, DIN rails, fixing brackets



ZW257



ZW359



ED73



ED52



ZX399

Mounting brackets for cable laying grids					
For min. cabinet depths of 275 mm					
1 panel wide	M(B)C1...VS	1	ZW257	2CPX042182R9999	
2 panel wide	M(B)C2...VS	1	ZW258	2CPX042183R9999	
3 panel wide	M(B)C3...VS	1	ZW359	2CPX042912R9999	
DIN rails vertical					
For a module height of					
450 mm	M(B)C...03VS	1	ED73	2CPX042184R9999	
600 mm	M(B)C...04VS	1	ED74	2CPX042185R9999	
750 mm	M(B)C...05VS	1	ED75	2CPX042186R9999	
DIN rail, horizontal mounting					
2 panel wide	M(B)C2...HS	1	ED52	2CPX039252R9999	
3 panel wide	M(B)C3...HS	1	ED53	2CPX039253R9999	
Fixing brackets for horizontal DIN rails					
1 set left / right	M(B)C...HS	1	ZX399	2CPX062669R9999	

SMISLINE TP plug-in system

Cover holders, panel connectors, raising frames



ED137P4



ED138P12



ED135P4



ED50P12



ED30P2



ED213

Article	PU/pcs.	Type	Ord. no.	Price
Cover holder 45 mm high, required to alter the height of the cover when using mounting adapters in vertical modules	4	ED137P4	2CPX062600R9999	
Cover holder 52.5 mm high	12	ED138P12	2CPX062602R9999	
	40	ED138P40	2CPX062603R9999	
Space Used to extend the cover holder by 25 mm	4	ED135P4	2CPX062610R9999	
90° press and turn closure	12	ED50P12	2CPX062337R9999	
Panel connector Used to join distribution panels or combination sets with each other. Maximum total panel size must not exceed OH 5 (9 GU)	2	ED30P2	2CPX062302R9999	
Raising frames for covers 45 mm high, required to alter the height of the cover when using mounting adapters in vertical modules				
External dimension				
450 x 250 mm	1	ED213	2CPX062783R9999	
600 x 250 mm	1	ED214	2CPX062784R9999	
750 x 250 mm	1	ED215	2CPX062785R9999	
450 x 500 mm	1	ED223	2CPX062788R9999	
600 x 500 mm	1	ED224	2CPX062789R9999	
750 x 500 mm	1	ED225	2CPX062790R9999	
450 x 750 mm	1	ED233	2CPX062793R9999	
600 x 750 mm	1	ED234	2CPX062794R9999	
750 x 750 mm	1	ED235	2CPX062795R9999	

SMISLINE TP plug-in system

Plastic cover horizontal



AS22H

Article	To be used for ...	PU/pcs.	Type	Ord. no.	Price
Plastic cover horizontal					
with device slot, 2 panel wide					
300 x 500 mm	M(B)C202HS	1	AS22H	2CPX062764R9999	
450 x 500 mm	M(B)C203HS	1	AS23H	2CPX062765R9999	
600 x 500 mm	M(B)C204HS	1	AS24H	2CPX062766R9999	
750 x 500 mm	M(B)C205HS	1	AS25H	2CPX062767R9999	



AS32H

Plastic cover horizontal					
with device slot, 3 panel wide					
300 x 750 mm	M(B)C302HS	1	AS32H	2CPX062768R9999	
450 x 750 mm	M(B)C303HS	1	AS33H	2CPX062769R9999	
600 x 750 mm	M(B)C304HS	1	AS34H	2CPX062770R9999	
750 x 750 mm	M(B)C305HS	1	AS35H	2CPX062771R9999	

SMISLINE TP plug-in system

Plastic cover vertical



AS13V



AS23V

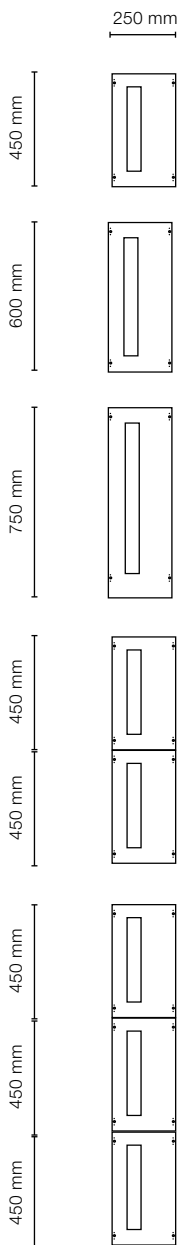


AS35V

Article	To be used for ...	PU/pcs.	Type	Ord. no.	Price
Plastic cover vertical					
with device slot, 1 panel wide					
450 x 250 mm	M(B)C103VS	1	AS13V	2CPX062772R9999	
600 x 250 mm	M(B)C104VS	1	AS14V	2CPX062773R9999	
750 x 250 mm	M(B)C105VS	1	AS15V	2CPX062774R9999	
Plastic cover vertical					
with device slot, 2 panel wide					
450 x 500 mm	M(B)C203VS	1	AS23V	2CPX062775R9999	
600 x 500 mm	M(B)C204VS	1	AS24V	2CPX062776R9999	
750 x 500 mm	M(B)C205VS	1	AS25V	2CPX062777R9999	
Plastic cover vertical					
with device slot, 3 panel wide					
750 x 750 mm	M(B)C305VS	1	AS35V	2CPX062796R9999	

SMISLINE TP plug-in system

Assignment of CombiLine modules / Combination sets



Modules for cabinets min. cabinet depth 215 mm	Modules for cabinets min. cabinet depth 275 mm		Grid units	Socket base length
Combination set type	CombiLine mounted	CombiLine flatpack	GU	SU
1 x ED103VS	1 x MC103VS	1 x MBC103VS	3	22
1 x ED104VS	1 x MC104VS	1 x MBC104VS	4	30
1 x ED105VS	1 x MC105VS	1 x MBC105VS	5	38
2 x ED103VS	2 x MC103VS	2 x MBC103VS	6	46
3 x ED103VS	3 x MC103VS	3 x MBC103VS	9	72

Planning note

When positioning incoming terminal blocks under cover joints, use the lower terminal blocks ZLS228 or ZLS229.

Vertical modules cannot be mounted directly adjacent to horizontal cross members or centre support rails.

SMISLINE TP plug-in system

Starter kit or socket base in individual parts

Socket base starter kit			Socket base in individual parts			
Pieces	Type	Article no.	Pieces	Space units	Type	Article no.
1	ZLS905E22-3L	2CCA183102R0001	2	8	ZLS908	2CCA183030R0001
			1	6	ZLS906	2CCA183035R0001
			1	-	ZLS920 (End part)	2CCA183017R0001
1	ZLS905E22-3LN*	2CCA183103R0001	3 / 4*	-	ZLS201E22 (Cu bus bar)	2CCF800169R0001
1	ZLS905E30-3L	2CCA183110R0001	3	8	ZLS908	2CCA183030R0001
			1	6	ZLS906	2CCA183035R0001
			1	-	ZLS920 (End part)	2CCA183017R0001
1	ZLS905E30-3LN*	2CCA183111R0001	3 / 4*	-	ZLS201E38 (Cu bus bar)	2CCF800173R0001
1	ZLS905E38-3L	2CCA183118R0001	4	8	ZLS908	2CCA183030R0001
			1	6	ZLS906	2CCA183035R0001
			1	-	ZLS920 (End part)	2CCA183017R0001
1	ZLS905E38-3LN*	2CCA183119R0001	3 / 4*	-	ZLS201E46 (Cu bus bar)	2CCF800177R0001
1	ZLS905E46-3L	2CCA183126R0001	5	8	ZLS908	2CCA183030R0001
			1	6	ZLS906	2CCA183035R0001
	ZLS905E46-3LN*	2CCA183127R0001	1	-	ZLS920 (End part)	2CCA183017R0001
1	ZLS905E72-3L	2CCA183152R0001	9	8	ZLS908	2CCA183030R0001
			1	-	ZLS920 (End part)	2CCA183017R0001
1	ZLS905E72-3LN*	2CCA183153R0001	3 / 4*	-	ZLS201E72 (Cu bus bar)	2CCF800190R0001

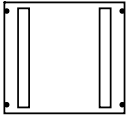
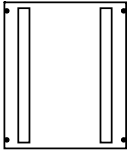
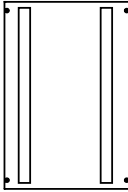
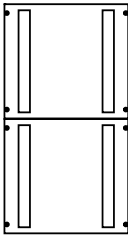
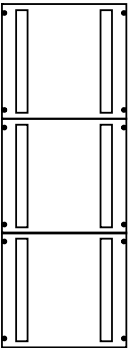
* For version with N (4-pole)

Planning note

Additional starter kit with AB-bus bar on demand.

SMISLINE TP plug-in system

Assignment of CombiLine modules / Combination sets

		Modules for cabinets min. cabinet depth 215 mm	Modules for cabinets min. cabinet depth 275 mm		Grid units	Socket base length
		Combination set type	CombiLine mounted	CombiLine flatpack	GU	SU
450 mm		1 x ED203VS	1 x MC203VS	1 x MBC203VS	3	2 x 22
600 mm		1 x ED204VS	1 x MC204VS	1 x MBC204VS	4	2 x 30
750 mm		1 x ED205VS	1 x MC205VS 1 x MC305VS	1 x MBC205VS 1 x MBC305VS	5	2 x 38
8 450 mm 450 mm		2 x ED203VS	2 x MC203VS	2 x MBC203VS	6	2 x 46
450 mm 450 mm 450 mm		3 x ED203VS	3 x MC203VS	3 x MBC203VS	9	2 x 72

Planning note

When positioning incoming terminal blocks under cover joints, use the lower terminal blocks ZLS228 or ZLS229.

Vertical modules cannot be mounted directly adjacent to horizontal cross members or centre support rails.

SMISLINE TP plug-in system

Starter kit or socket base in individual parts

Socket base starter kit			Socket base in individual parts			
Pieces	Type	Article no.	Pieces	Space units	Type	Article no.
2	ZLS905E22-3L	2CCA183102R0001	4	8	ZLS908	2CCA183030R0001
			2	6	ZLS906	2CCA183035R0001
			2	-	ZLS920 (End part)	2CCA183017R0001
2	ZLS905E22-3LN*	2CCA183103R0001	6 / 8*	-	ZLS201E22 (Cu bus bar)	2CCF800165R0001
2	ZLS905E30-3L	2CCA183110R0001	6	8	ZLS908	2CCA183030R0001
			2	6	ZLS906	2CCA183035R0001
			2	-	ZLS920 (End part)	2CCA183017R0001
2	ZLS905E30-3LN*	2CCA183111R0001	6 / 8*	-	ZLS201E30 (Cu bus bar)	2CCF800169R0001
2	ZLS905E38-3L	2CCA183118R0001	8	8	ZLS908	2CCA183030R0001
			2	6	ZLS906	2CCA183035R0001
			2	-	ZLS920 (End part)	2CCA183017R0001
2	ZLS905E38-3LN*	2CCA183119R0001	6 / 8*	-	ZLS201E38 (Cu bus bar)	2CCF800173R0001
2	ZLS905E46-3L	2CCA183126R0001	10	8	ZLS908	2CCA183030R0001
			2	6	ZLS906	2CCA183035R0001
			2	-	ZLS920 (End part)	2CCA183017R0001
2	ZLS905E46-3LN*	2CCA183127R0001	6 / 8*	-	ZLS201E46 (Cu bus bar)	2CCF800177R0001
2	ZLS905E72-3L	2CCA183152R0001	18	8	ZLS908	2CCA183030R0001
			2	-	ZLS920 (End part)	2CCA183017R0001
2	ZLS905E72-3LN*	2CCA183153R0001	6 / 8*	-	ZLS201E72 (Cu bus bar)	2CCF800190R0001

* For version with N (4-pole)

Planning note

Additional starter kit with AB-bus bar on demand.

SMISLINE TP plug-in system

Assignment of CombiLine modules / combination sets

		Modules for cabinets min. cabinet depth 215 mm	Modules for cabinets min. cabinet depth 215 mm	Grid units	Socket base length		
		CombiLine mounted	CombiLine flatpack	GU	SU		
	300 mm	–	1 x MC202HS	1 x MBC202HS	2	2 x 22	
	450 mm	1 x ED203HS	1 x MC203HS	1 x MBC203HS	3	3 x 22	
	600 mm	1 x ED204HS	1 x MC204HS	1 x MBC204HS	4	4 x 22	
	750 mm	1 x ED205HS	1 x MC205HS	1 x MBC205HS	5	5 x 22	
		300 mm	–	1 x MC302HS	1 x MBC302HS	2	2 x 36
		450 mm	1 x ED303HS	1 x MC3032HS	1 x MBC303HS	3	3 x 36
		600 mm	1 x ED304HS	1 x MC304HS	1 x MBC304HS	4	4 x 36
750 mm		1 x ED305HS	1 x MC305HS	1 x MBC305HS	5	5 x 36	

8

Planning note

For modules of 3 panel width the incoming terminal block serves as centre supply.

SMISLINE TP plug-in system

Starter kit or socket base in individual parts

Socket base starter kit			Stecksocket in Einzelteilen			
Pieces	Type	Article no.	Pieces	Space units	Type	Article no.
2	ZLS905E22-3L	2CCA183102R0001	4	8	ZLS908	2CCA183030R0001
			2	6	ZLS906	2CCA183035R0001
			2	-	ZLS920 (End part)	2CCA183017R0001
2	ZLS905E22-3LN*	2CCA183103R0001	6 / 8*	-	ZLS201E22 (Cu bus bar)	2CCF800165R0001
3	ZLS905E22-3L	2CCA183102R0001	6	8	ZLS908	2CCA183030R0001
			3	6	ZLS906	2CCA183035R0001
			3	-	ZLS920 (End part)	2CCA183017R0001
3	ZLS905E22-3LN*	2CCA183103R0001	9 / 12*	-	ZLS201E22 (Cu bus bar)	2CCF800165R0001
4	ZLS905E22-3L	2CCA183102R0001	8	8	ZLS908	2CCA183030R0001
			4	6	ZLS906	2CCA183035R0001
			4	-	ZLS920 (End part)	2CCA183017R0001
4	ZLS905E22-3LN*	2CCA183103R0001	12 / 16*	-	ZLS201E22 (Cu bus bar)	2CCF800165R0001
5	ZLS905E22-3L	2CCA183102R0001	10	8	ZLS908	2CCA183030R0001
			5	6	ZLS906	2CCA183035R0001
			5	-	ZLS920 (End part)	2CCA183017R0001
5	ZLS905E22-3LN*	2CCA183103R0001	15 / 20*	-	ZLS201E22 (Cu bus bar)	2CCF800165R0001
2	ZLS905E36-3L	2CCA183116R0001	6	8	ZLS908	2CCA183030R0001
			4	6	ZLS906	2CCA183035R0001
			2	-	ZLS920 (End part)	2CCA183017R0001
2	ZLS905E36-3LN*	2CCA183117R0001	6 / 8*	-	ZLS201E36 (Cu bus bar)	2CCF800172R0001
3	ZLS905E36-3L	2CCA183116R000	9	8	ZLS908	2CCA183030R0001
			6	6	ZLS906	2CCA183035R0001
			3	-	ZLS920 (End part)	2CCA183017R0001
3	ZLS905E36-3LN*	2CCA183117R0001	9 / 12*	-	ZLS201E36 (Cu bus bar)	2CCF800172R0001
4	ZLS905E36-3L	2CCA183116R000	12	8	ZLS908	2CCA183030R0001
			8	6	ZLS906	2CCA183035R0001
			4	-	ZLS920 (End part)	2CCA183017R0001
4	ZLS905E36-3LN*	2CCA183117R0001	12 / 16*	-	ZLS201E36 (Cu bus bar)	2CCF800172R0001
5	ZLS905E36-3L	2CCA183116R000	15	8	ZLS908	2CCA183030R0001
			10	6	ZLS906	2CCA183035R0001
			5	-	ZLS920 (End part)	2CCA183017R0001
5	ZLS905E36-3LN*	2CCA183117R0001	15 / 20*	-	ZLS201E36 (Cu bus bar)	2CCF800172R0001

* For version with N (4-pole)

Planning note

Additional starter kit with AB-bus bar on demand.

SMISLINE TP plug-in system

Vertical installation on ArTu K switchboards



ArTu K

Kit for ArTu K switchboard, height 1800 mm and specular switch rows

Description	EAN	Order details	Price 1 piece	Pack unit	Weight 1 piece
	8015649	Type		pc.	kg
Width 600 mm, right hand opening	631695	PM1636		1	17,84
Width 600 mm, left hand opening	728517	PM1646		1	18,20
Width 800 mm, right hand opening	632777	PM1637		1	23,78
Width 800 mm, left hand opening	728524	PM1647		1	24,27

Kit for ArTu K switchboard, height 2000 mm and specular switch rows

Description	EAN	Order details	Price 1 piece	Pack unit	Weight 1 piece
	8015649	Type		pc.	kg
Width 600 mm, right hand opening	631695	PM1636		1	17,84
Width 600 mm, left hand opening	728517	PM1646		1	18,20
Width 800 mm, right hand opening	632777	PM1637		1	23,78
Width 800 mm, left hand opening	728524	PM1647		1	24,27

Kit for ArTu K switchboard, height 2000 mm and switch rows with same orientation

Description	EAN	Order details	Price 1 piece	Pack unit	Weight 1 piece
	8015649	Type		pc.	kg
Width 800 mm, right hand opening	632791	PM1639		1	23,78
Width 800 mm, left hand opening	728548	PM1649		1	24,27



Right hand opening Left hand opening

Solutions for electrical installation in buildings

Industrial plugs and sockets

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Industrial plugs and sockets

Reliable, durable and safe. Perfect for your application.

These products are used for connection of equipment in all kind of applications where it needs to be possible to connect and disconnect. ABB industrial plugs and sockets are chosen when safety, reliability and durability is requested.

Durable equipment prevents time and cost lost due to maintenance.



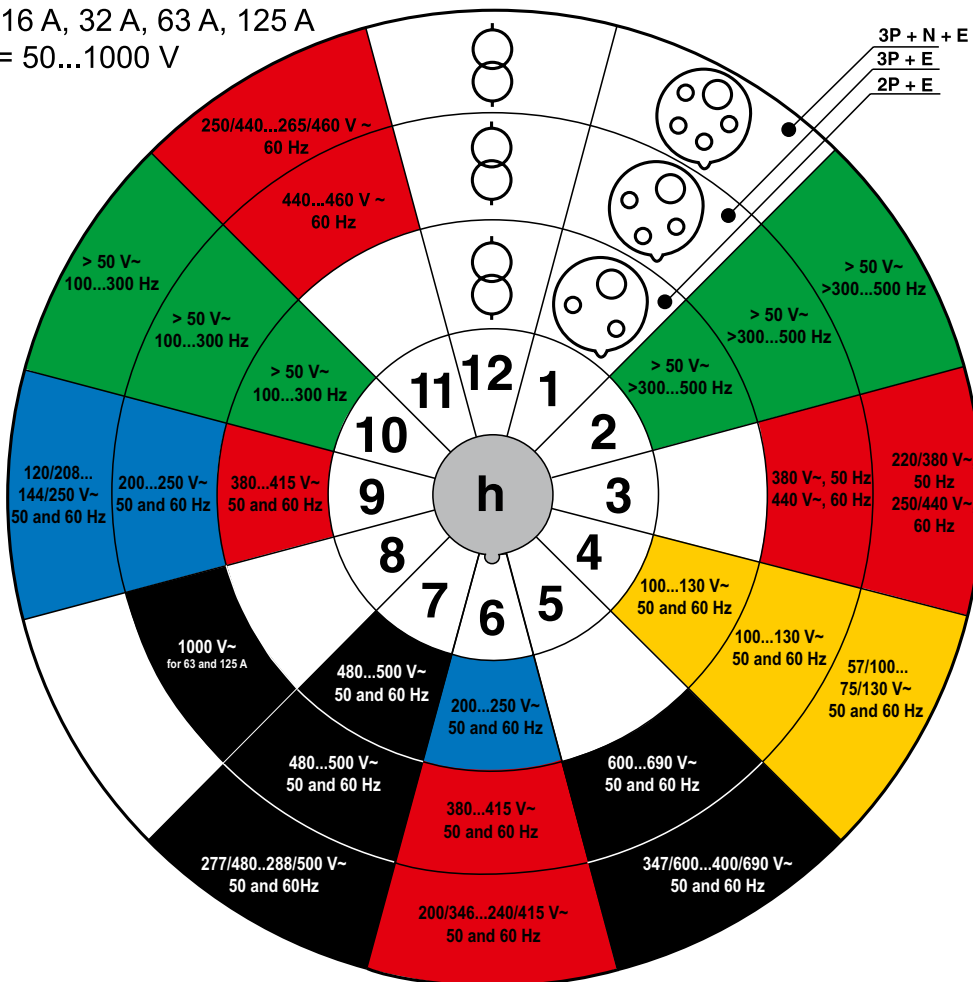
Reliable contacts prevent stops and power breaks, which leads to increased productivity.

Safe connections prevent accidents.

Industrial plugs and sockets

IEC 60 309-2 "clock"

$I_e = 16 \text{ A}, 32 \text{ A}, 63 \text{ A}, 125 \text{ A}$
 $U_e = 50 \dots 1000 \text{ V}$



Standard voltages

Color codes according to IEC60309-1, -2

Position of earthing sleeve according to IEC 60309-2 (clock)	2P+E	3P+E	3P+N+E
1	<input type="checkbox"/> Optional voltage (not stated below)	<input type="checkbox"/> Optional voltage (not stated below)	<input type="checkbox"/> Optional voltage (not stated below)
2	<input checked="" type="checkbox"/> >50 V~ >300...500 Hz	<input checked="" type="checkbox"/> >50 V~ >300...500 Hz	<input checked="" type="checkbox"/> >50 V~ >300...500 Hz
3	<input type="checkbox"/> Not used	<input checked="" type="checkbox"/> 380 V~ 50 Hz, 440 V 60 Hz	<input checked="" type="checkbox"/> 220/380 V~ 50 Hz, 250/440 V 60 Hz
4	<input checked="" type="checkbox"/> 100...130 V~ 50 and 60 Hz	<input checked="" type="checkbox"/> 100...130 V~ 50 and 60 Hz	<input checked="" type="checkbox"/> 57/100...75/130 V~ 50 and 60 Hz
5	<input type="checkbox"/> Not used	<input checked="" type="checkbox"/> 600...690 V~ 50 and 60 Hz	<input checked="" type="checkbox"/> 347/600...400/690 V~ 50 and 60 Hz
6	<input checked="" type="checkbox"/> 200...250 V~ 50 and 60 Hz	<input checked="" type="checkbox"/> 380...415 V~ 50 and 60 Hz	<input checked="" type="checkbox"/> 200/346...240/415 V~ 50 and 60 Hz
7	<input checked="" type="checkbox"/> 480...500 V~ 50 and 60 Hz	<input checked="" type="checkbox"/> 480...500 V~ 50 and 60 Hz	<input checked="" type="checkbox"/> 277/480...288/500 V~ 50 and 60 Hz
8	<input type="checkbox"/> Not used	<input checked="" type="checkbox"/> 1000 V~ (for 63 A and 125 A)	<input type="checkbox"/> Not used
9	<input checked="" type="checkbox"/> 380...415 V~ 50 and 60 Hz	<input checked="" type="checkbox"/> 200...250 V~ 50 and 60 Hz	<input checked="" type="checkbox"/> 120/208...144/250 V~ 50 and 60 Hz
10	<input checked="" type="checkbox"/> >50 V~ 100...300 Hz	<input checked="" type="checkbox"/> >50 V~ 100...300 Hz	<input checked="" type="checkbox"/> >50 V~ 100...300 Hz
11	Mainly for marine installations <input type="checkbox"/> Not used	<input checked="" type="checkbox"/> 440...460 V~ 60 Hz	<input checked="" type="checkbox"/> 250/440...265/460 V~ 60 Hz
12	Supply from isolating transformer <input type="checkbox"/> Supply from isolating transformer	Supply from isolating transformer <input type="checkbox"/> Supply from isolating transformer	Supply from isolating transformer <input type="checkbox"/> Supply from isolating transformer

Industrial plugs and sockets

New Easy & Safe



Main features and benefits:

- IP 67 protection guarantees water and dust tightness
- Water and dust protection of contacts avoids overheating and burning; thus prolonging plug and socket lifetime
- Self cleaning contacts
- Minimizes the risk of accidents, injuries and damage of the connected equipment
- Modern robust design
- Reliable, safe and easy to work with
- Perfect for food and beverage industries, construction sites, various industrial applications, infrastructure applications, mines, connection of reefer containers, etc.

Plugs IP 44



16 A. IP 44. Watertight



























Enclosure in plastic (PA). Cable entry with compression gland. Cable area 1...2.5 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	216EP1	2CMA101943R1000	10	0.11
	Green	>50	>300...500	216EP2	2CMA101944R1000		
	Yellow	100...130	50 and 60	216EP4	2CMA101946R1000		
	Blue	200...250		216EP6	2CMA101947R1000		
	Red	380...415		216EP9	2CMA101948R1000		
	Grey	transf		216EP12	2CMA101950R1000		
3P+E							
3	Grey		AC	316EP1	2CMA101951R1000	10	0.16
	Green	>50	>300...500	316EP2	2CMA101952R1000		
	Red	380/440	50/60	316EP3	2CMA101953R1000		
	Yellow	100...130	50 and 60	316EP4	2CMA101954R1000		
	Black	600...690		316EP5	2CMA101955R1000		
	Red	380...415		316EP6	2CMA101956R1000		
	Black	480...500		316EP7	2CMA101957R1000		
	Blue	200...250		316EP9	2CMA101958R1000		
	Green	>50	100...300	316EP10	2CMA101959R1000		
	Red	440...460	60	316EP11	2CMA101960R1000		
	Grey	transf	50 and 60	316EP12	2CMA101961R1000		
	3P+N+E						
5	Grey		AC	416EP1	2CMA101962R1000	10	0.18
	Green	>50	>300...500	416EP2	2CMA101963R1000		
	Red	380/440	50/60	416EP3	2CMA101964R1000		
	Yellow	100...130	50 and 60	416EP4	2CMA101965R1000		
	Black	600...690		416EP5	2CMA101966R1000		
	Red	346...415		416EP6	2CMA101967R1000		
	Black	480...500		416EP7	2CMA101968R1000		
	Blue	208...250		416EP9	2CMA101969R1000		
	Red	440...460	60	416EP11	2CMA101970R1000		



32 A. IP 44. Watertight

Enclosure in plastic (PA). Cable entry with compression gland. Cable area 2.5...6 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code		Pkg qty	Weight pkg (1pce) kg
2P+E								
3	 Grey		AC	232EP1	2CMA101971R1000		10	0.21
	 Green	>50	>300...500	232EP2	2CMA101972R1000			
	 Yellow	100...130	50 and 60	232EP4	2CMA101974R1000			
	 Blue	200...250		232EP6	2CMA101975R1000			
	 Red	380...415		232EP9	2CMA101976R1000			
	 Grey	transf		232EP12	2CMA101978R1000			
3P+E								
4	 Grey		AC	332EP1	2CMA101979R1000		10	0.23
	 Green	>50	>300...500	332EP2	2CMA101980R1000			
	 Red	380/440	50/60	332EP3	2CMA101981R1000			
	 Yellow	100...130	50 and 60	332EP4	2CMA101982R1000			
	 Black	600...690		332EP5	2CMA101983R1000			
	 Red	380...415		332EP6	2CMA101984R1000			
	 Black	480...500		332EP7	2CMA101985R1000			
	 Blue	200...250		332EP9	2CMA101986R1000			
	 Green	>50	100...300	332EP10	2CMA101987R1000			
	 Red	440...460	60	332EP11	2CMA101988R1000			
	 Grey	transf	50 and 60	332EP12	2CMA101989R1000			
	3P+N+E							
5	 Grey		AC	432EP1	2CMA101990R1000		10	0.24
	 Green	>50	>300...500	432EP2	2CMA101991R1000			
	 Red	380/440	50/60	432EP3	2CMA101992R1000			
	 Yellow	100...130	50 and 60	432EP4	2CMA101993R1000			
	 Black	600...690		432EP5	2CMA101994R1000			
	 Red	346...415		432EP6	2CMA101995R1000			
	 Black	480...500		432EP7	2CMA101996R1000			
	 Blue	208...250		432EP9	2CMA101997R1000			
	 Red	440...460	60	432EP11	2CMA101998R1000			

Connectors IP 44



16 A. IP 44. Watertight

Enclosure in plastic (PA). Cable entry with compression gland. Cable area 1...2.5 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	216EC1	2CMA101999R1000	10	0.16
	Green	>50	>300...500	216EC2	2CMA102000R1000		
	Yellow	100...130	50 and 60	216EC4	2CMA102002R1000		
	Blue	200...250		216EC6	2CMA102003R1000		
	Red	380...415		216EC9	2CMA102004R1000		
	Grey	transf		216EC12	2CMA102006R1000		
3P+E							
3	Grey		AC	316EC1	2CMA102007R1000	10	0.21
	Green	>50	>300...500	316EC2	2CMA102008R1000		
	Red	380/440	50/60	316EC3	2CMA102009R1000		
	Yellow	100...130	50 and 60	316EC4	2CMA102010R1000		
	Black	600...690		316EC5	2CMA102011R1000		
	Red	380...415		316EC6	2CMA102012R1000		
	Black	480...500		316EC7	2CMA102013R1000		
	Blue	200...250		316EC9	2CMA102014R1000		
	Green	>50	100...300	316EC10	2CMA102015R1000		
	Red	440...460	60	316EC11	2CMA102016R1000		
	Grey	transf	50 and 60	316EC12	2CMA102017R1000		
	3P+N+E						
5	Grey		AC	416EC1	2CMA102018R1000	10	0.23
	Green	>50	>300...500	416EC2	2CMA102019R1000		
	Red	380/440	50/60	416EC3	2CMA102020R1000		
	Yellow	100...130	50 and 60	416EC4	2CMA102021R1000		
	Black	600...690		416EC5	2CMA102022R1000		
	Red	346...415		416EC6	2CMA102023R1000		
	Black	480...500		416EC7	2CMA102024R1000		
	Blue	208...250		416EC9	2CMA102025R1000		
	Red	440...460	60	416EC11	2CMA102026R1000		

Connectors IP 44



32 A. IP 44. Watertight

Enclosure in plastic (PA). Cable entry with compression gland. Cable area 2.5...6 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	232EC1	2CMA102027R1000	10	0.26
	Green	>50	>300...500	232EC2	2CMA102027R1000		
	Yellow	100...130	50 and 60	232EC4	2CMA102030R1000		
	Blue	200...250		232EC6	2CMA102031R1000		
	Red	380...415		232EC9	2CMA102032R1000		
	Grey	transf		232EC12	2CMA102034R1000		
3P+E							
4	Grey		AC	332EC1	2CMA102035R1000	10	0.28
	Green	>50	>300...500	332EC2	2CMA102036R1000		
	Red	380/440	50/60	332EC3	2CMA102037R1000		
	Yellow	100...130	50 and 60	332EC4	2CMA102038R1000		
	Black	600...690		332EC5	2CMA102039R1000		
	Red	380...415		332EC6	2CMA102040R1000		
	Black	480...500		332EC7	2CMA102041R1000		
	Blue	200...250		332EC9	2CMA102042R1000		
	Green	>50	100...300	332EC10	2CMA102043R1000		
	Red	440...460	60	332EC11	2CMA102044R1000		
	Grey	transf	50 and 60	332EC12	2CMA102045R1000		
	3P+N+E						
5	Grey		AC	432EC1	2CMA102046R1000	10	0.30
	Green	>50	>300...500	432EC2	2CMA102047R1000		
	Red	380/440	50/60	432EC3	2CMA102048R1000		
	Yellow	100...130	50 and 60	432EC4	2CMA102049R1000		
	Black	600...690		432EC5	2CMA102050R1000		
	Red	346...415		432EC6	2CMA102051R1000		
	Black	480...500		432EC7	2CMA102052R1000		
	Blue	208...250		432EC9	2CMA102053R1000		
	Red	440...460	60	432EC11	2CMA102054R1000		



16 A. IP 67. Watertight

Enclosure in plastic (PA). Cable entry with compression gland. Cable area 1...2.5 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	216EP1W	2CMA101069R1000	10	0.13
	Yellow	100...130	50 and 60	216EP4W	2CMA101071R1000		
	Blue	200...250		216EP6W	2CMA101072R1000		
	Red	380...415		216EP9W	2CMA101073R1000		
	Grey	transf		216EP12W	2CMA101074R1000		
3P+E							
3	Grey		AC	316EP1W	2CMA101075R1000	10	0.19
	Green	>50	>300...500	316EP2W	2CMA101076R1000		
	Red	380/440	50/60	316EP3W	2CMA101077R1000		
	Yellow	100...130	50 and 60	316EP4W	2CMA101078R1000		
	Black	600...690		316EP5W	2CMA101079R1000		
	Red	380...415		316EP6W	2CMA101080R1000		
	Black	480...500		316EP7W	2CMA101081R1000		
	Blue	200...250		316EP9W	2CMA101082R1000		
	Green	>50	100...300	316EP10W	2CMA101083R1000		
	Red	440...460	60	316EP11W	2CMA101084R1000		
	3P+N+E						
5	Grey		AC	416EP1W	2CMA101085R1000	10	0.21
	Green	>50	>300...500	416EP2W	2CMA101086R1000		
	Red	380/440	50/60	416EP3W	2CMA101087R1000		
	Yellow	100...130	50 and 60	416EP4W	2CMA101088R1000		
	Red	346...415		416EP6W	2CMA101089R1000		
	Black	480...500		416EP7W	2CMA101090R1000		
	Blue	208...250		416EP9W	2CMA101091R1000		
	Red	440...460		60	416EP11W		



32 A. IP 67. Watertight

Enclosure in plastic (PA). Cable entry with compression gland. Cable area 2.5...6 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code		Pkg qty	Weight pkg (1pce) kg
2P+E								
3	Grey		AC	232EP1W	2CMA101093R1000		10	0.23
	Yellow	100...130	50 and 60	232EP4W	2CMA101094R1000			
	Blue	200...250		232EP6W	2CMA101095R1000			
	Red	380...415		232EP9W	2CMA101096R1000			
	Grey	transf		232EP12W	2CMA101097R1000			
3P+E								
4	Grey		AC	332EP1W	2CMA101098R1000		10	0.25
	Green	>50	>300...500	332EP2W	2CMA101099R1000			
	Red	380/440	50/60	332EP3W	2CMA101100R1000			
	Yellow	100...130	50 and 60	332EP4W	2CMA101101R1000			
	Black	600...690		332EP5W	2CMA101102R1000			
	Red	380...415		332EP6W	2CMA101103R1000			
	Black	480...500		332EP7W	2CMA101104R1000			
	Blue	200...250		332EP9W	2CMA101105R1000			
	Green	>50	100...300	332EP10W	2CMA101106R1000			
	Red	440...460	60	332EP11W	2CMA101106R1000			
	3P+N+E							
5	Grey		AC	432EP1W	2CMA101108R1000		10	0.25
	Green	>50	>300...500	432EP2W	2CMA101109R1000			
	Red	380/440	50/60	432EP3W	2CMA101110R1000			
	Yellow	100...130	50 and 60	432EP4W	2CMA101111R1000			
	Red	346...415		432EP6W	2CMA101112R1000			
	Black	480...500		432EP7W	2CMA101113R1000			
	Blue	208...250		432EP9W	2CMA101114R1000			
	Red	440...460	60	432EP11W	2CMA101115R1000			



16 A. IP 67. Watertight

Enclosure in plastic (PA). Cable entry with compression gland. Cable area 1...2.5 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	216EC1W	2CMA101116R1000	10	0.17
	Yellow	100...130	50 and 60	216EC4W	2CMA101118R1000		
	Blue	200...250		216EC6W	2CMA101119R1000		
	Red	380...415		216EC9W	2CMA101120R1000		
	Grey	transf		216EC12W	2CMA101121R1000		
3P+E							
3	Grey		AC	316EC1W	2CMA101122R1000	10	0.23
	Green	>50	>300...500	316EC2W	2CMA101123R1000		
	Red	380/440	50/60	316EC3W	2CMA101124R1000		
	Yellow	100...130	50 and 60	316EC4W	2CMA101125R1000		
	Black	600...690		316EC5W	2CMA101126R1000		
	Red	380...415		316EC6W	2CMA101127R1000		
	Black	480...500		316EC7W	2CMA101128R1000		
	Blue	200...250		316EC9W	2CMA101129R1000		
	Green	>50	100...300	316EC10W	2CMA101130R1000		
	Red	440...460	60	316EC11W	2CMA101131R1000		
	3P+N+E						
5	Grey		AC	416EC1W	2CMA101132R1000	10	0.26
	Green	>50	>300...500	416EC2W	2CMA101133R1000		
	Red	380/440	50/60	416EC3W	2CMA101134R1000		
	Yellow	100...130	50 and 60	416EC4W	2CMA101135R1000		
	Red	346...415		416EC6W	2CMA101136R1000		
	Black	480...500		416EC7W	2CMA101137R1000		
	Blue	208...250		416EC9W	2CMA101138R1000		
	Red	440...460	60	416EC11W	2CMA101139R1000		

Connectors IP 67



32 A. IP 67. Watertight

Enclosure in plastic (PA). Cable entry with compression gland. Cable area 2.5...6 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	232EC1W	2CMA101140R1000	10	0.28
	Yellow	100...130	50 and 60	232EC4W	2CMA101141R1000		
	Blue	200...250		232EC6W	2CMA101142R1000		
	Red	380...415		232EC9W	2CMA101143R1000		
	Grey	transf		232EC12W	2CMA101144R1000		
3P+E							
4	Grey		AC	332EC1W	2CMA101145R1000	10	0.30
	Green	>50	>300...500	332EC2W	2CMA101146R1000		
	Red	380/440	50/60	332EC3W	2CMA101147R1000		
	Yellow	100...130	50 and 60	332EC4W	2CMA101148R1000		
	Black	600...690		332EC5W	2CMA101149R1000		
	Red	380...415		332EC6W	2CMA101150R1000		
	Black	480...500		332EC7W	2CMA101151R1000		
	Blue	200...250		332EC9W	2CMA101152R1000		
	Green	>50	100...300	332EC10W	2CMA101153R1000		
	Red	440...460	60	332EC11W	2CMA101154R1000		
	3P+N+E						
5	Grey		AC	432EC1W	2CMA101155R1000	10	0.30
	Green	>50	>300...500	432EC2W	2CMA101156R1000		
	Red	380/440	50/60	432EC3W	2CMA101157R1000		
	Yellow	100...130	50 and 60	432EC4W	2CMA101158R1000		
	Red	346...415		432EC6W	2CMA101159R1000		
	Black	480...500		432EC7W	2CMA101160R1000		
	Blue	208...250		432EC9W	2CMA101161R1000		
	Red	440...460	60	432EC11W	2CMA101162R1000		

Surface inlets for wall mounting, IP 67



16 A. IP 67. Watertight

Enclosure in plastic (PA). Cable gland included. Cable area 1...2.5 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	216EBS1W	2CMA101163R1000	10	0.20
	Yellow	100...130	50 and 60	216EBS4W	2CMA101165R1000		
	Blue	200...250		216EBS6W	2CMA101166R1000		
	Red	380...415		216EBS9W	2CMA101167R1000		
	Grey	transf		216EBS12W	2CMA101168R1000		
3P+E							
3	Grey		AC	316EBS1W	2CMA101169R1000	10	0.23
	Green	>50	>300...500	316ESB2W	2CMA101170R1000		
	Red	380/440	50/60	316EBS3W	2CMA101171R1000		
	Yellow	100...130	50 and 60	316EBS4W	2CMA101172R1000		
	Black	600...690		316EBS5W	2CMA101173R1000		
	Red	380...415		316EBS6W	2CMA101174R1000		
	Black	480...500		316EBS7W	2CMA101175R1000		
	Blue	200...250		316EBS9W	2CMA101176R1000		
	Green	>50	100...300	316EBS10W	2CMA101177R1000		
	Red	440...460	60	316EBS11W	2CMA101178R1000		
	3P+N+E						
5	Grey		AC	416EBS1W	2CMA101179R1000	10	0.25
	Green	>50	>300...500	416EBS2W	2CMA101180R1000		
	Red	380/440	50/60	416EBS3W	2CMA101181R1000		
	Yellow	100...130	50 and 60	416EBS4W	2CMA101182R1000		
	Red	346...415		416EBS6W	2CMA101183R1000		
	Black	480...500		416EBS7W	2CMA101184R1000		
	Blue	208...250		416EBS9W	2CMA101185R1000		
	Red	440...460	60	416EBS11W	2CMA101186R1000		

Surface inlets for wall mounting, IP 67



32 A. IP 67. Watertight

Enclosure in plastic (PA). Cable gland included. Cable area 2.5...6 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	232EBS1W	2CMA101187R1000	10	0.26
	Yellow	100...130	50 and 60	232EBS4W	2CMA101188R1000		
	Blue	200...250		232EBS6W	2CMA101189R1000		
	Red	380...415		232EBS9W	2CMA101190R1000		
	Grey	transf		232EBS12W	2CMA101191R1000		
3P+E							
4	Grey		AC	332EBS1W	2CMA101192R1000	10	0.27
	Green	>50	>300...500	332EBS2W	2CMA101193R1000		
	Red	380/440	50/60	332EBS3W	2CMA101194R1000		
	Yellow	100...130	50 and 60	332EBS4W	2CMA101195R1000		
	Black	600...690		332EBS5W	2CMA101196R1000		
	Red	380...415		332EBS6W	2CMA101197R1000		
	Black	480...500		332EBS7W	2CMA101198R1000		
	Blue	200...250		332EBS9W	2CMA101199R1000		
	Green	>50	100...300	332EBS10W	2CMA101200R1000		
	Red	440...460	60	332EBS11W	2CMA101201R1000		
	3P+N+E						
5	Grey		AC	432EBS1W	2CMA101202R1000	10	0.28
	Green	>50	>300...500	432EBS2W	2CMA101203R1000		
	Red	380/440	50/60	432EBS3W	2CMA101204R1000		
	Yellow	100...130	50 and 60	432EBS4W	2CMA101205R1000		
	Red	346...415		432EBS6W	2CMA101206R1000		
	Black	480...500		432EBS7W	2CMA101207R1000		
	Blue	208...250		432EBS9W	2CMA101208R1000		
	Red	440...460	60	432EBS11W	2CMA101209R1000		

Surface socket outlet for wall mounting, IP 67



16 A. IP 67. Watertight

Enclosure in plastic (PA). Cable gland included. Cable area 1...2.5 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	216ERS1W	2CMA101210R1000	10	0.24
	Yellow	100...130	50 and 60	216ERS4W	2CMA101212R1000		
	Blue	200...250		216ERS6W	2CMA101213R1000		
	Red	380...415		216ERS9W	2CMA101214R1000		
	Grey	transf		216ERS12W	2CMA101215R1000		
3P+E							
3	Grey		AC	316ERS1W	2CMA101216R1000	10	0.27
	Green	>50	>300...500	316ERB2W	2CMA101217R1000		
	Red	380/440	50/60	316ERS3W	2CMA101218R1000		
	Yellow	100...130	50 and 60	316ERS4W	2CMA101219R1000		
	Black	600...690		316ERS5W	2CMA101220R1000		
	Red	380...415		316ERS6W	2CMA101221R1000		
	Black	480...500		316ERS7W	2CMA101222R1000		
	Blue	200...250		316ERS9W	2CMA101223R1000		
	Green	>50	100...300	316ERS10W	2CMA101224R1000		
	Red	440...460	60	316ERS11W	2CMA101225R1000		
	3P+N+E						
5	Grey		AC	416ERS1W	2CMA101226R1000	10	0.30
	Green	>50	>300...500	416ERS2W	2CMA101227R1000		
	Red	380/440	50/60	416ERS3W	2CMA101228R1000		
	Yellow	100...130	50 and 60	416ERS4W	2CMA101229R1000		
	Red	346...415		416ERS6W	2CMA101230R1000		
	Black	480...500		416ERS7W	2CMA101231R1000		
	Blue	208...250		416ERS9W	2CMA101232R1000		
	Red	440...460	60	416ERS11W	2CMA101233R1000		

Surface socket outlet for wall mounting, IP 67



32 A. IP 67. Watertight

Enclosure in plastic (PA). Cable gland included. Cable area 2.5...6 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code		Pkg qty	Weight pkg (1pce) kg
2P+E								
3	Grey		AC	232ERS1W	2CMA101234R1000		10	0.31
	Yellow	100...130	50 and 60	232ERS4W	2CMA101235R1000			
	Blue	200...250		232ERS6W	2CMA101236R1000			
	Red	380...415		232ERS9W	2CMA101237R1000			
	Grey	transf		232ERS12W	2CMA101238R1000			
3P+E								
4	Grey		AC	332ERS1W	2CMA101239R1000		10	0.32
	Green	>50	>300...500	332ERS2W	2CMA101240R1000			
	Red	380/440	50/60	332ERS3W	2CMA101241R1000			
	Yellow	100...130	50 and 60	332ERS4W	2CMA101242R1000			
	Black	600...690		332ERS5W	2CMA101243R1000			
	Red	380...415		332ERS6W	2CMA101244R1000			
	Black	480...500		332ERS7W	2CMA101245R1000			
	Blue	200...250		332ERS9W	2CMA101246R1000			
	Green	>50	100...300	332ERS10W	2CMA101248R1000			
	Red	440...460	60	332ERS11W	2CMA101247R1000			
	3P+N+E							
5	Grey		AC	432ERS1W	2CMA101249R1000		10	0.32
	Green	>50	>300...500	432ERS2W	2CMA101250R1000			
	Red	380/440	50/60	432ERS3W	2CMA101251R1000			
	Yellow	100...130	50 and 60	432ERS4W	2CMA101252R1000			
	Red	346...415		432ERS6W	2CMA101253R1000			
	Black	480...500		432ERS7W	2CMA101254R1000			
	Blue	208...250		432ERS9W	2CMA101255R1000			
	Red	440...460	60	432ERS11W	2CMA101256R1000			

Sockets inlets for panel mounting, IP 67



16 A. IP 67. Watertight

Enclosure in plastic (PA). Cable area 1...2.5 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	216EBU1W	2CMA101257R1000	10	0.11
	Yellow	100...130	50 and 60	216EBU4W	2CMA101258R1000		
	Blue	200...250		216EBU6W	2CMA101259R1000		
	Red	380...415		216EBU9W	2CMA101260R1000		
3P+E							
3	Grey		AC	316EBU1W	2CMA101261R1000	10	0.14
	Yellow	100...130	50 and 60	316EBU4W	2CMA101262R1000		
	Black	600...690		316EBU5W	2CMA101263R1000		
	Red	380...415		316EBU6W	2CMA101264R1000		
	Black	480...500		316EBU7W	2CMA101265R1000		
	Blue	200...250		316EBU9W	2CMA101266R1000		
	Red	440...460	60	316EBU11W	2CMA101267R1000		
3P+N+E							
5	Grey		AC	416EBU1W	2CMA101268R1000	10	0.16
	Yellow	100...130	50 and 60	416EBU4W	2CMA101269R1000		
	Red	346...415		416EBU6W	2CMA101270R1000		
	Black	480...500		416EBU7W	2CMA101271R1000		
	Blue	208...250		416EBU9W	2CMA101812R1000		
	Red	440...460	60	416EBU11W	2CMA101272R1000		

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32 A. IP 67. Watertight

Enclosure in plastic (PA). Cable area 2.5...6 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	232EBU1W	2CMA101273R1000	10	0.17
	Yellow	100...130	50 and 60	232EBU4W	2CMA101274R1000		
	Blue	200...250		232EBU6W	2CMA101275R1000		
	Red	380...415		232EBU9W	2CMA101813R1000		
3P+E							
4	Grey		AC	332EBU1W	2CMA101276R1000	10	0.18
	Red	380/440	50/60	332EBU3W	2CMA101277R1000		
	Yellow	100...130	50 and 60	332EBU4W	2CMA101278R1000		
	Red	380...415		332EBU6W	2CMA101279R1000		
	Black	480...500		332EBU7W	2CMA101280R1000		
	Blue	200...250		332EBU9W	2CMA101281R1000		
	Red	440...460	60	332EBU11W	2CMA101282R1000		
3P+N+E							
5	Grey		AC	432EBU1W	2CMA101283R1000	10	0.19
	Yellow	100...130	50 and 60	432EBU4W	2CMA101284R1000		
	Red	346...415		432EBU6W	2CMA101285R1000		
	Black	480...500		432EBU7W	2CMA101286R1000		
	Blue	208...250		432EBU9W	2CMA101287R1000		
	Red	440...460	60	432EBU11W	2CMA101288R1000		

Socket outlet for panel mounting, IP 67



16 A. IP 67. Watertight

Enclosure in plastic (PA). Cable area 1...2.5 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	216ERU1W	2CMA101289R1000	10	0.15
	Yellow	100...130	50 and 60	216ERU4W	2CMA101290R1000		
	Blue	200...250		216ERU6W	2CMA101291R1000		
	Red	380...415		216ERU9W	2CMA101292R1000		
3P+E							
3	Grey		AC	316ERU1W	2CMA101293R1000	10	0.18
	Yellow	100...130	50 and 60	316ERU4W	2CMA101294R1000		
	Black	600...690		316ERU5W	2CMA101295R1000		
	Red	380...415		316ERU6W	2CMA101296R1000		
	Black	480...500		316ERU7W	2CMA101297R1000		
	Blue	200...250		316ERU9W	2CMA101298R1000		
	Red	440...460	60	316ERU11W	2CMA101299R1000		
3P+N+E							
5	Grey		AC	416ERU1W	2CMA101300R1000	10	0.21
	Yellow	100...130	50 and 60	416ERU4W	2CMA101301R1000		
	Red	346...415		416ERU6W	2CMA101302R1000		
	Black	480...500		416ERU7W	2CMA101303R1000		
	Blue	208...250		416ERU9W	2CMA101304R1000		
	Red	440...460	60	416ERU11W	2CMA101305R1000		



32 A. IP 67. Watertight

Enclosure in plastic (PA). Cable area 2.5...6 mm²

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	232ERU1W	2CMA101306R1000	10	0.22
	Yellow	100...130	50 and 60	232ERU4W	2CMA101307R1000		
	Blue	200...250		232ERU6W	2CMA101308R1000		
	Red	380...415		232ERU9W	2CMA101309R1000		
3P+E							
4	Grey		AC	332ERU1W	2CMA101310R1000	10	0.23
	Red	380/440	50/60	332ERU3W	2CMA101311R1000		
	Yellow	100...130	50 and 60	332ERU4W	2CMA101312R1000		
	Red	380...415		332ERU6W	2CMA101313R1000		
	Black	480...500		332ERU7W	2CMA101314R1000		
	Blue	200...250		332ERU9W	2CMA101315R1000		
Red	440...460	60	332ERU11W	2CMA101316R1000			
3P+N+E							
5	Grey		AC	432ERU1W	2CMA101317R1000	10	0.23
	Yellow	100...130	50 and 60	432ERU4W	2CMA101318R1000		
	Red	346...415		432ERU6W	2CMA101319R1000		
	Black	480...500		432ERU7W	2CMA101320R1000		
	Blue	208...250		432ERU9W	2CMA101321R1000		
	Red	440...460	60	432ERU11W	2CMA101322R1000		

Industrial plugs and sockets

The most frequent used socket outlets



416RS6

It is all about service and simplicity, availability and efficiency, plug and play. Some things should just be there when you need them. Like when you can not find the charger for your phone while the battery is low and you have to make an important call, the same feeling of crisis appears when you do not have the correct plug and socket for the equipment you need to use to do your job.

Surface socket outlets 16 A, IP 44 Splashproof

Terminals/ Poles	Voltage	Frequency	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V	Hz	EAN	Type code	Order code			
2P+E	200-250	50 and 60		216RS6	2CMA193098R1000		0.22	1
3P+E	380-415			316RS6	2CMA193106R1000		0.24	1
3P+N+E	346-415			416RS6	2CMA193115R1000		0.26	1



463MHS6

Surface socket outlets 32 A, IP 44 Splashproof

Terminals/ Poles	Voltage	Frequency	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V	Hz	EAN	Type code	Order code			
2P+E	200-250	50 and 60		232RS6	2CMA193122R1000		0.30	1
3P+E	380-415			332RS6	2CMA193130R1000		0.32	1
3P+N+E	346-415			432RS6	2CMA193139R1000		0.34	1



CUE 416-6+R/UJP

Surface socket outlet 63 A, IP 44 Splashproof

Terminals/ Poles	Voltage	Frequency	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V	Hz	EAN	Type code	Order code			
3P+N+E	346-415	50 and 60		463RS6	2CMA167484R1000		1.05	1

9

Switched interlocked socket outlets 16 A, IP 44, Splashproof

Terminals/ Poles	Voltage	Frequency	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V	Hz	EAN	Type code	Order code			
2P+E	200-250	50 and 60		216MHS6	2CMA167623R1000		0.55	1
3P+N+E	346-415			416MHS6	2CMA167640R1000		0.61	1

Switched interlocked socket outlet 32 A, IP 44, Splashproof

Terminals/ Poles	Voltage	Frequency	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V	Hz	EAN	Type code	Order code			
3P+N+E	346-415	50 and 60		432MHS6	2CMA167686R1000		0.66	1

Switched interlocked socket outlet 63 A, IP 44, Splashproof

Terminals/ Poles	Voltage	Frequency	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V	Hz	EAN	Type code	Order code			
3P+N+E	346-415	50 and 60		463MHS6	2CMA167727R1000		2.10	1

Surface socket outlet with schuko, 16 A, IP 44, Splashproof

Terminals/ Poles	Voltage	Frequency	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	V	Hz	EAN	Type code	Order code			
3P+N+E	400/230	50 and 60		CUE 416-6+R/UJP	2C2CMA178301R1000		0.34	1

Industrial plugs and sockets

Modular Combi



Modular Combi is a system consisting of compact units replacing outlets, that traditionally has been scattered around the walls. Modular Combi is a cost effective system with different types of outlets, RCDs and MCBs in one location. Modular Combi is very easy to install and, thanks to the solutions and design, it saves time and money.

Easy to modify in the future for additional needs. Modular Combi can easily be customized for special applications.

For 16 A, IP 44 Splashproof

Box size WxHxD: 250x300x160

Socket outlet	RCD 30 mA	MCB	Bbn EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
2x10/16 A	yes	-		MPR16 *	2CMA168997R1000		2.3	
IEC 60309, 1x16 A, 3P+N+E	yes	3P						

*) Indicates standard product.

For 32 A, IP 44 Splashproof

Box size WxHxD: 250x300x160

Socket outlet	RCD 30 mA	MCB	Bbn EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
4x10/16 A	yes	2x1P		MPR32 *	2CMA168991R1000		4.0	
IEC 60309, 1x16 A, 3P+N+E	yes	3P						
IEC 60309, 1x32 A, 3P+N+E	-	3P						

*) Indicates standard product.

For 63 A, IP 44 Splashproof

Box size WxHxD: 250x430x160

Socket outlet	RCD 30 mA	MCB	Bbn EAN	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
				Type code	Order code			
3x10/16 A	-	2x1P		MP63 *	2CMA168990R1000		4.0	
IEC 60309, 1x16 A, 3P+N+E	-	3P						
IEC 60309, 1x32 A, 3P+N+E	-	3P						
IEC 60309, 1x63 A, 3P+N+E	-	-						

*) Indicates standard product.

Technical features

Operating voltage	230/400 V ~
Enclosure	Plastic (PBT)
Dimensions	According to table or customer order
Outlets	Combi Plastic is designed for different types of single phase domestic outlets and for IEC outlets up to and including 63 A. With or without mechanical interlocked IEC outlets.
Cable entry	4 knock-outs at the top, suitable for 2xØ 40 mm and 2xØ 25 mm At the bottom 3xØ 47 mm
Cable area	2x16 mm ² Cu. Designed for looping
Covers	For MCB/RCD, maximum 13 modules, 2 opened and knock-outs for the rest of the modules row. DIN-rail in bottom for terminals and MCB/RCDs. With a distance at the bottom to allow wiring behind the rail. The lid is pad lockable.

See full offer of industrial plugs and sockets in specialized Industrial plugs and sockets catalogue or at www.abb.com/industrialplugs.

Solutions for electrical installation in buildings

Light switches and socket outlets

Index

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Light switches and socket outlets

A piece of design in your interior.

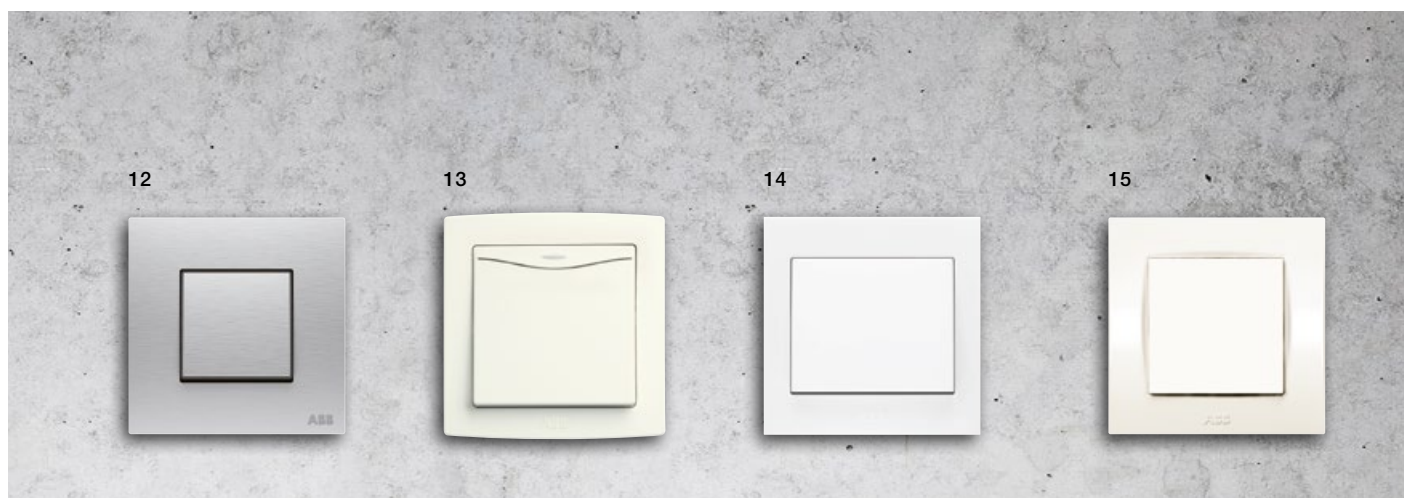
Discover the wide range of designs, colours, finishes and functions and find the best solutions with innovative technology. Let modern light switches highlight the individual design of your living space.

VDE-standard

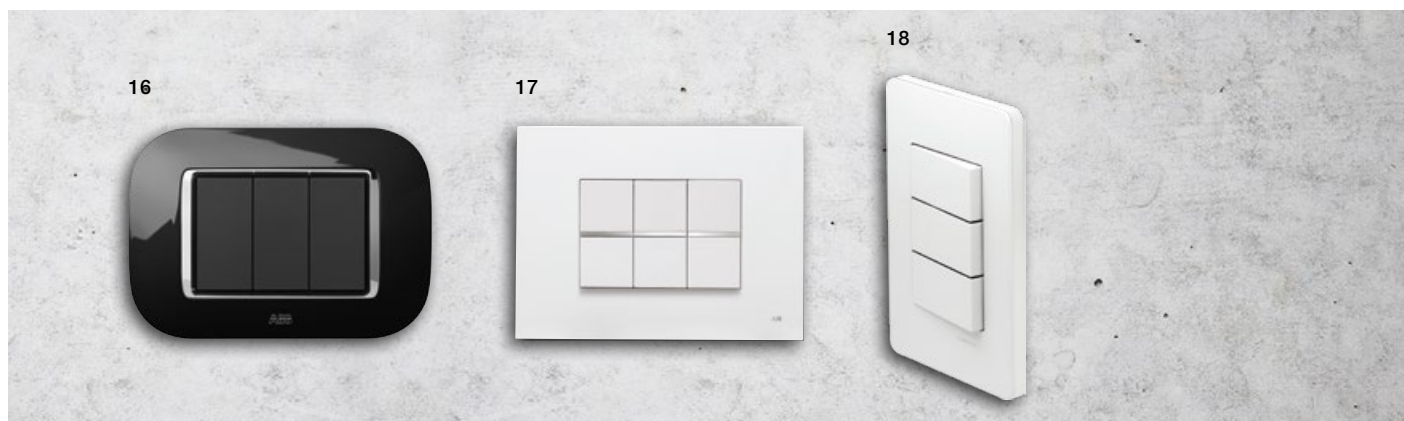


Light switches and socket outlets

British standard



IT-standard



- 01 carat®
- 02 Busch-dynasty®
- 03 pure stainless steel
- 04 solo®
- 05 Busch-axcent®
- 06 future® linear
- 07 basic55®

- 08 Sky Niessen
- 09 Zenit
- 10 Impressivo
- 11 Swing®L
- 12 Millenium
- 13 concept bs
- 14 Kalo

- 15 Uni-art
- 16 Mylos
- 17 Zenit
- 18 Unno

For design range availability on the local market contact your local sales team.

carat®

Extraordinary and noble.

carat®. The clear commitment to high-quality design. It combines straight lines and authentic materials to make it a unique object. And the switch takes on an equivalent position within representative architecture.

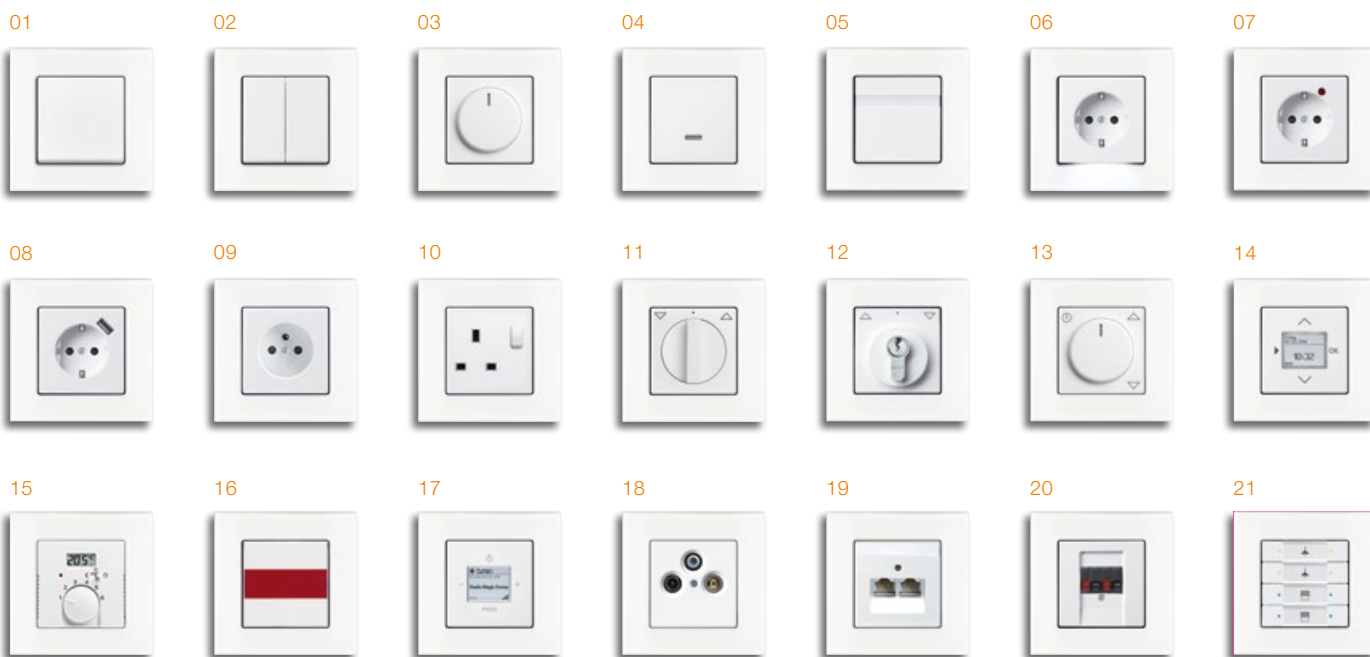


- 01 ivory white / bronze
- 02 studio white / glass black
- 03 anthracite / stainless steel
- 04 studio white / chrome
- 05 ivory white / gold
- 06 studio white / white glass

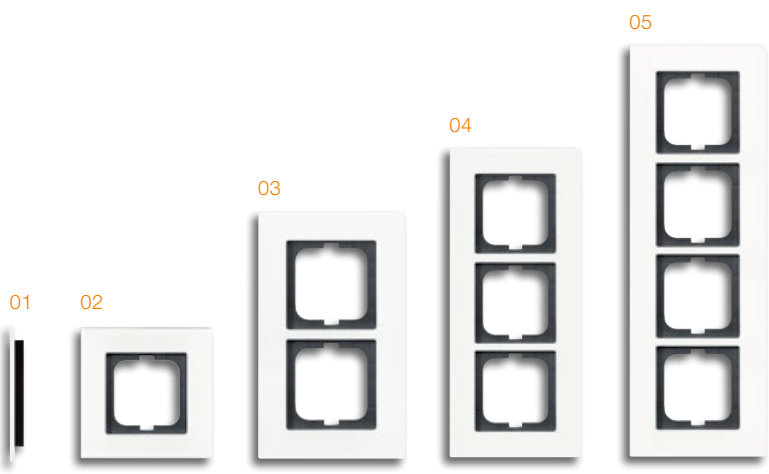
Materials
UV-resistant, free of PVC and halogen.
Frame: genuine materials.

carat®

Selected functions.



- | | |
|--|--|
| <ul style="list-style-type: none"> 01 Rocker switch 1gang 02 Rocker switch 2gang 03 Busch Universal Rotary Dimmer 04 Touch dimmer 05 Busch-Comfort switch 06 Busch-steplight® 07 Busch-Protector® SCHUKO® socket outlet with overvoltage protection 08 SCHUKO® USB socket outlet 09 Socket outlet with earthing pin 10 13 A Switched socket outlet 11 Blind switch with rotary knob | <ul style="list-style-type: none"> 12 Busch-Blind control switch with semi-cylindrical lock 13 Busch-Blind comfort switch 14 Comfort timer 15 Room thermostat with display 16 Busch-Infoline® alarm insert 17 Busch-AudioWorld® Busch-Radio iNet 18 Antenna socket for radio/TV/satellite 19 Universal data connection box 20 Stereo loudspeaker connecting box 21 KNX sensor, for more KNX products see part 11 of the catalogue - Intelligent Building Solutions |
|--|--|



- 1 to 4gang cover frame for horizontal and vertical installation.
- | | |
|----|---------------------------|
| 01 | Side view, 11 mm x 107 mm |
| 02 | 107 mm x 107 mm |
| 03 | 107 mm x 178 mm |
| 04 | 107 mm x 249 mm |
| 05 | 107 mm x 320 mm |

For more information about light switch ranges visit ABB global web sites.

Busch-dynasty® Magnificent masterpiece.

Busch-dynasty®. Extraordinary quality distinguishes Busch-dynasty® – from the exclusive design to finest materials and up to perfect processing. Handcrafting turns each individual switch into something unique.



01 polished brass, decor, ivory white

02 polished brass, decor, anthracite

03 antique brass, decor, ivory white

04 antique brass, decor, anthracite

05 polished brass, ivory white

06 polished brass, anthracite

07 antique brass, ivory white

08 antique brass, anthracite

09 ivory white

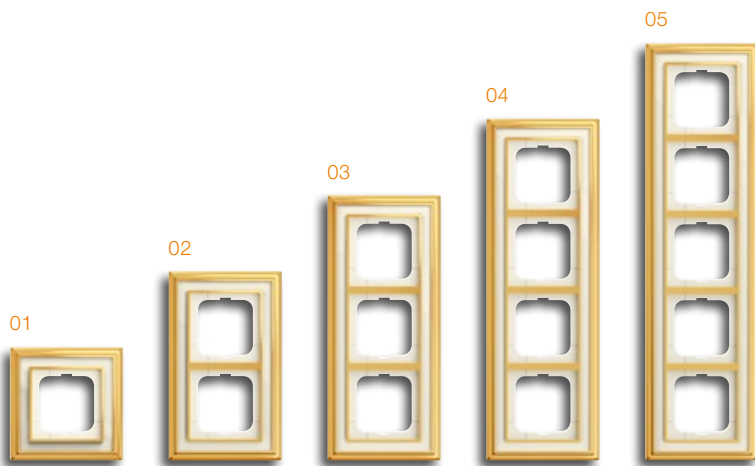
10 anthracite

Busch-dynasty®

Selected functions.



- | | |
|---|--|
| <ul style="list-style-type: none"> 01 2gang switch/double switch 02 Rotary dimmer 03 SCHUKO® socket outlet with LED indicator light 04 SCHUKO® USB socket outlet 05 Socket outlet with earthing pin 06 13 A Switched socket outlet 07 Busch-iceLight® 08 Busch-AudioWorld® Busch-Radio iNet | <ul style="list-style-type: none"> 09 Loudspeaker connection box 10 USB power adapter insert 11 RJ 45 connection socket 12 Busch-iDock 13 Intelligent card switch 14 KNX sensor, for more KNX products see part 11 of the catalogue - Intelligent Building Solutions |
|---|--|



1 to 5gang cover frame for horizontal or vertical installation

- | | |
|----|--------------|
| 01 | 106 x 106 mm |
| 02 | 106 x 177 mm |
| 03 | 106 x 283 mm |
| 04 | 106 x 389 mm |
| 05 | 106 x 495 mm |



For more information about light switch ranges visit ABB global web sites.

pure stainless steel

Aesthetics, function and durability in one.

pure stainless steel. Beautiful. When the unusual attains its objective with such style. And no wonder. Pure stainless steel stands for one hundred percent. For the purity of the thought. For absolute quality. Because design and material of this switch series possess the same characteristics. Durability. Consistency. Conciseness. In this way aesthetics, function and durability are fused into one perfect unit.



01 Switch/push-switch. Colour: stainless steel

02 2gang-1way/2way switch. Colour: stainless steel

03 Busch-Blind control switch. Colour: stainless steel

04 Busch-Comfort switch. Colour: stainless steel

05 20A double pole switch with marking and indicator.
Colour: stainless steel

Materials

The series is surface-coated in a special manufacturing process. This means that fingerprints or other greasy spots are reduced to a minimum (anti-fingerprint).

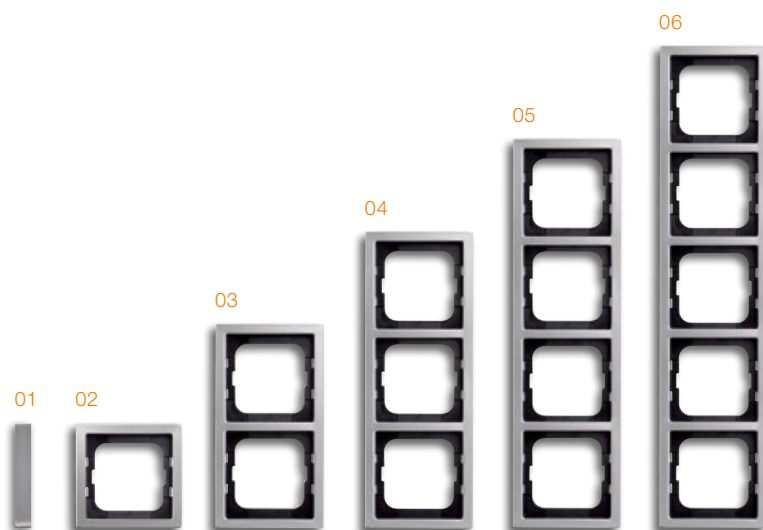


pure stainless steel

Selected functions.



- | | | | |
|----|--|----|---|
| 01 | Rocker switch 1gang | 12 | Busch-Blind control switch with semi-cylindrical lock |
| 02 | Rocker switch 2gang | 13 | Busch-Blind comfort switch |
| 03 | Busch Universal Rotary Dimmer | 14 | Comfort timer |
| 04 | Touch dimmer | 15 | Room thermostat with display |
| 05 | Busch-Comfort switch | 16 | Busch-AudioWorld® Busch-Radio iNet |
| 06 | Busch-steplight® | 17 | Loudspeaker insert |
| 07 | Busch-Protector® SCHUKO® socket outlet with overvoltage protection | 18 | Antenna socket for radio/TV/satellite |
| 08 | SCHUKO® USB socket outlet | 19 | Universal data connection box |
| 09 | Socket outlet with earthing pin | 20 | Stereo loudspeaker connecting box |
| 10 | 13 A Switched socket outlet | 21 | KNX sensor, for more KNX products see part 11 of the catalogue - Intelligent Building Solutions |
| 11 | Blind switch with rotary knob | | |



1 to 5gang cover frame for horizontal and vertical installation

- | | |
|----|--------------------------|
| 01 | Side view, 11 mm x 80 mm |
| 02 | 80 mm x 80 mm |
| 03 | 80 mm x 151 mm |
| 04 | 80 mm x 222 mm |
| 05 | 80 mm x 293 mm |
| 06 | 80 mm x 364 mm |



For more information about light switch ranges visit ABB global web sites.

solo®

Individual in form and colour.

solo®. Distinctive character is often seen in subtleties. In details. In uniqueness. That is also the case with design. This subtle difference connoisseurs find in the switch series solo®. It is just that touch different. Its essence is totally straightforward. An inherent ideal of beauty – rich in contrast of form and colour. Something exceptional.



01 studio white (similar to RAL 9016)/chrome matt

02 ivory (similar to RAL 9013)/chrome matt

03 grey mettalic/chrome gloss

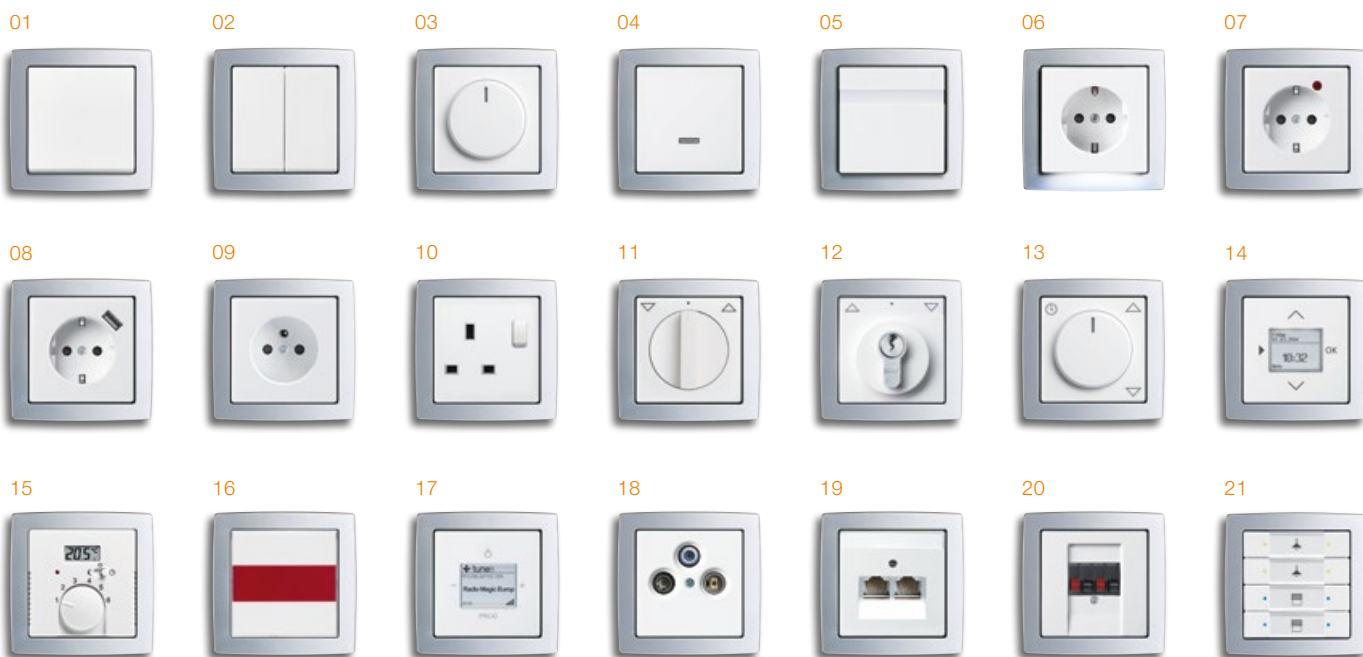
04 studio white (similar to RAL 9016)/studio white

Materials

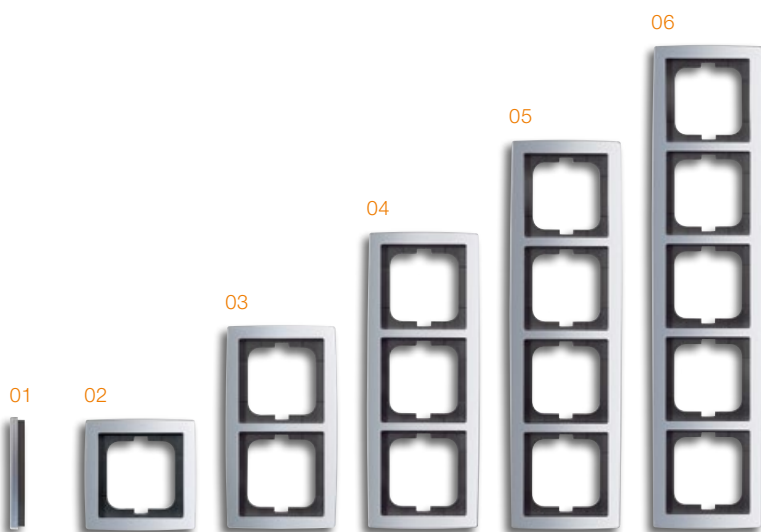
Cover: thermoplastic cover (PC), impact-proof and fracture-resistant, UV-resistant, free of PVC and halogen.

solo®

Selected functions.



- | | | | |
|----|--|----|---|
| 01 | Rocker switch 1gang | 12 | Busch-Blind control switch with semi-cylindrical lock |
| 02 | Rocker switch 2gang | 13 | Busch-Blind comfort switch |
| 03 | Busch Universal Rotary Dimmer | 14 | Comfort timer |
| 04 | Touch dimmer | 15 | Room thermostat with display |
| 05 | Busch-Comfort switch | 16 | Busch-Infoline® alarm insert |
| 06 | Busch-steplight® | 17 | Busch-AudioWorld® Busch-Radio iNet |
| 07 | Busch-Protector® SCHUKO® socket outlet with overvoltage protection | 18 | Antenna socket for radio/TV/satellite |
| 08 | SCHUKO® USB socket outlet | 19 | Universal data connection box |
| 09 | Socket outlet with earthing pin | 20 | Stereo loudspeaker connecting box |
| 10 | 13 A Switched socket outlet | 21 | KNX sensor, for more KNX products see part 11 of the catalogue - Intelligent Building Solutions |
| 11 | Blind switch with rotary knob | | |



1 to 5gang cover frame for horizontal and vertical installation.

- | | |
|----|--------------------------|
| 01 | Side view, 11 mm x 87 mm |
| 02 | 87 mm x 87 mm |
| 03 | 87 mm x 157 mm |
| 04 | 87 mm x 228 mm |
| 05 | 87 mm x 299 mm |
| 06 | 87 mm x 370 mm |

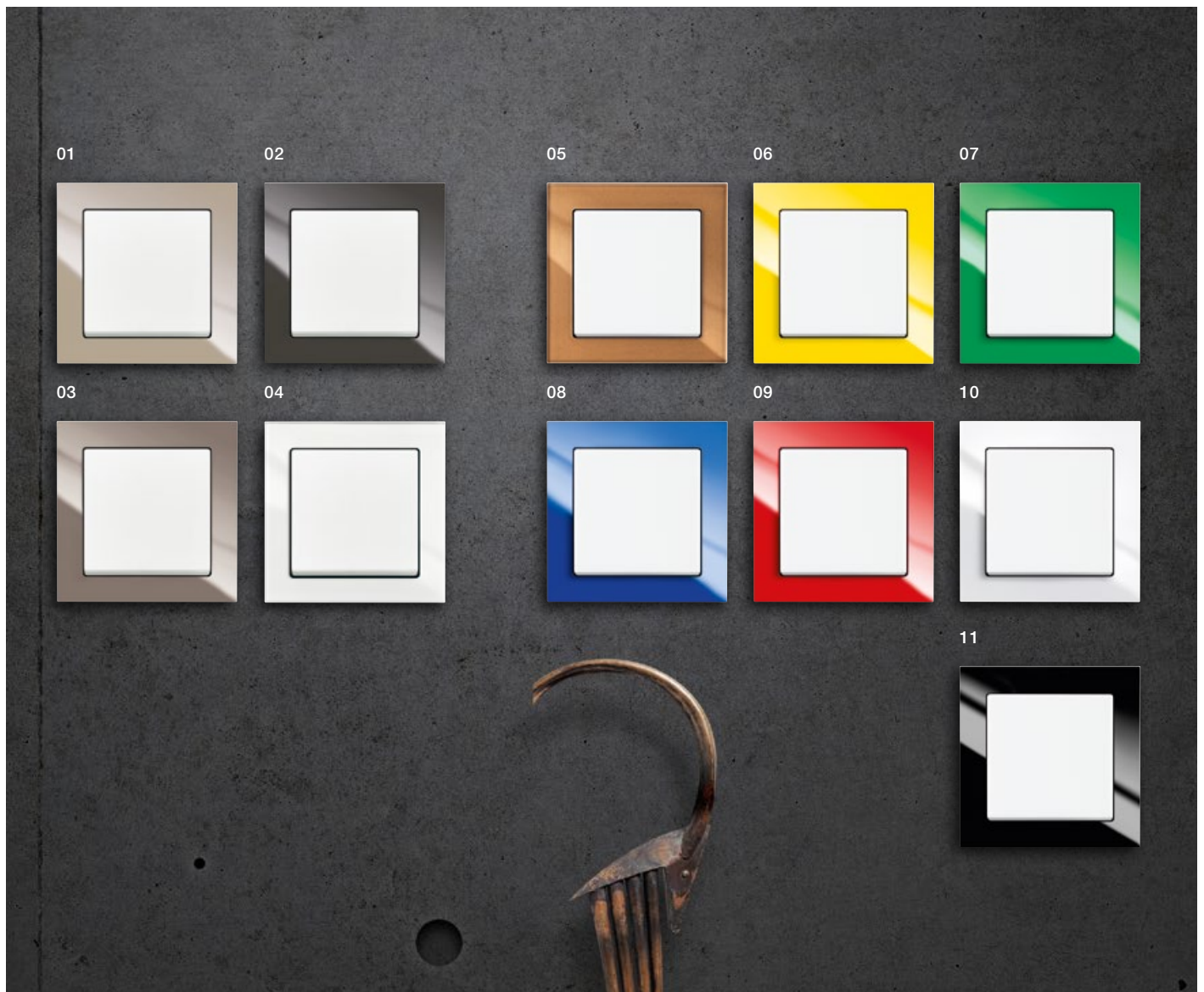


For more information about light switch ranges visit ABB global web sites.

Busch-axcent®

Lively colours, rich in contrast.

Busch-axcent®. Colours and contrasts set the tone. With Busch-axcent® this becomes easy. Because the uncompromising design – with corners and edges – corresponds effortlessly with the modern style of furnishing. While at the same time creating atmosphere and orientation, in a colour guidance system.



01 studio white / maison-beige

02 studio white / château-black

03 studio white / entrée-grey

04 studio white / white glass

05 studio white / brown glass

06 studio white / yellow

07 studio white / green

08 studio white / blue

09 studio white / red

10 studio white / white

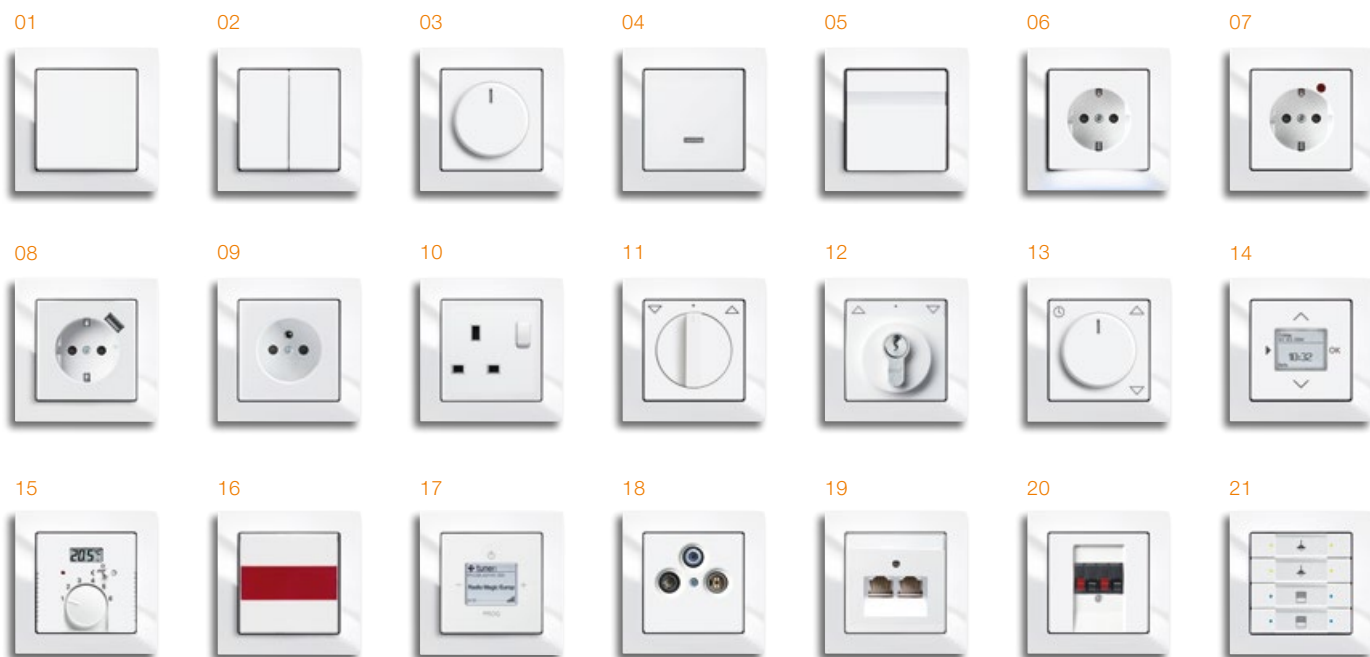
11 studio white / black

Materials

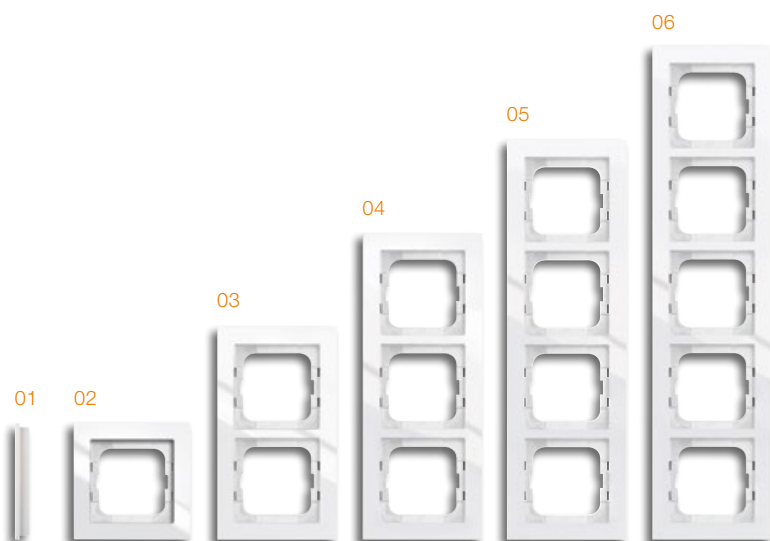
Cover: Thermoplastic cover (PC), impact-proof and fracture-resistant, UV-resistant, free of PVC and halogen.

Busch-axcent®

Selected functions.



- | | | | |
|----|--|----|---|
| 01 | Rocker switch 1gang | 12 | Busch-Blind control switch with semi-cylindrical lock |
| 02 | Rocker switch 2gang | 13 | Busch-Blind comfort switch |
| 03 | Busch Universal Rotary Dimmer | 14 | Comfort timer |
| 04 | Touch dimmer | 15 | Room thermostat with display |
| 05 | Busch-Comfort switch | 16 | Busch-Infoline® alarm insert |
| 06 | Busch-steplight® | 17 | Busch-AudioWorld® Busch-Radio iNet |
| 07 | Busch-Protector® SCHUKO® socket outlet with overvoltage protection | 18 | Antenna socket for radio/TV/satellite |
| 08 | SCHUKO® USB socket outlet | 19 | Universal data connection box |
| 09 | Socket outlet with earthing pin | 20 | Stereo loudspeaker connecting box |
| 10 | 13 A Switched socket outlet | 21 | KNX sensor, for more KNX products see part 11 of the catalogue - Intelligent Building Solutions |
| 11 | Blind switch with rotary knob | | |



1 to 5gang cover frame for horizontal and vertical installation.

- | | |
|----|--------------------------|
| 01 | Side view, 11 mm x 91 mm |
| 02 | 91 mm x 91 mm |
| 03 | 91 mm x 162 mm |
| 04 | 91 mm x 233 mm |
| 05 | 91 mm x 304 mm |
| 06 | 91 mm x 375 mm |



For more information about light switch ranges visit ABB global web sites.

future[®] linear Uncompromisingly clear.

future[®] linear. When the eye comes to rest, it can focus on the essential features. Concentration on plain functionalism fascinates with its clarity and independence. The attraction of future[®] linear lies in its uncompromising, straightforward design. This is combined with definitive colours that harmonize with modern architectural design. Impressive to the eyes and the touch with the Softtouch colours studio white matt and black matt.



01 anthracite

02 ivory white

03 aluminiumsilver

04 studio white

05 black matt*

06 white matt*

Materials

Cover: thermoplastic cover (PC), impact-proof and fracture-resistant, UV-resistant, free of PVC and halogen.

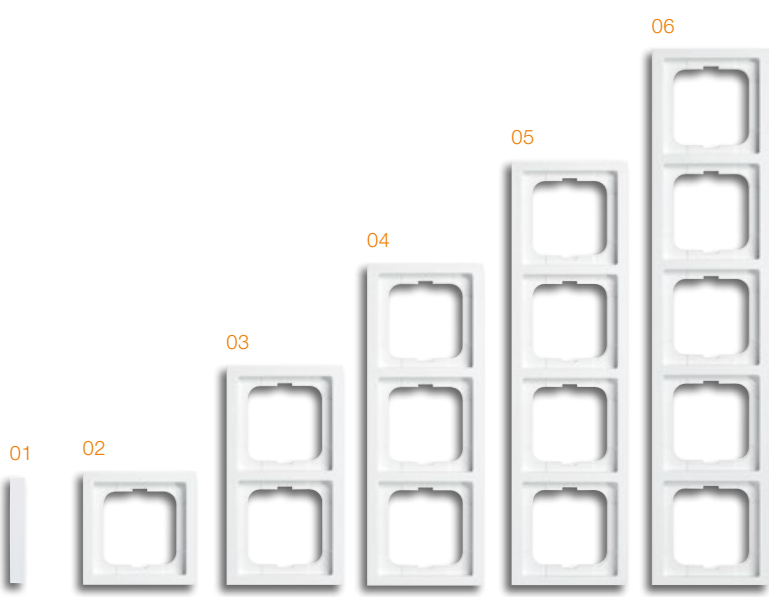
*Softtouch: stimulating colours with pleasant haptics and a hard-wearing surface.

future® linear

Selected functions.



- | | | | |
|----|--|----|---|
| 01 | Rocker switch 1gang | 12 | Busch-Blind control switch with semi-cylindrical lock |
| 02 | Rocker switch 2gang | 13 | Busch-Blind comfort switch |
| 03 | Busch Universal Rotary Dimmer | 14 | Comfort timer |
| 04 | Touch dimmer | 15 | Room thermostat with display |
| 05 | Busch-Comfort switch | 16 | Busch-Infoline® alarm insert |
| 06 | Busch-steplight® | 17 | Busch-AudioWorld® Busch-Radio iNet |
| 07 | Busch-Protector® SCHUKO® socket outlet with overvoltage protection | 18 | Antenna socket for radio/TV/satellite |
| 08 | SCHUKO® USB socket outlet | 19 | Universal data connection box |
| 09 | Socket outlet with earthing pin | 20 | Stereo loudspeaker connecting box |
| 10 | 13 A Switched socket outlet | 21 | KNX sensor, for more KNX products see part 11 of the catalogue - Intelligent Building Solutions |
| 11 | Blind switch with rotary knob | | |



- 1 to 5gang cover frame for horizontal and vertical installation.
- 01 Side view, 11 mm x 80 mm
 - 02 80 mm x 80 mm
 - 03 80 mm x 151 mm
 - 04 80 mm x 222 mm
 - 05 80 mm x 293 mm
 - 06 80 mm x 364 mm



Cover frames for both horizontal and vertical installation in 1-4gang, are also available with labelling field. Colour: studio white



For more information about our future® linear switches, visit our specific web site.

basic55®

Colours of inspiration.

basic55® Trendline range has many facets. And it fulfils every wish for creative design. Six frame colours can be perfectly combined with two rocker colours to meet individual expectations. Plus the luxurious champagne version as alternative. Thirteen exclusive options for combining puristic design with modern, pleasant colours.



01 chalet-white / chalet-white

02 chalet-white / château-black

03 maison-beige / chalet-white

04 maison-beige / château-black

05 bistro-blue / chalet-white

06 bistro-blue / château-black

07 entrée-grey / chalet-white

08 entrée-grey / château-black

09 foyer-red / chalet-white

10 foyer-red / château-black

11 château-black / chalet-white

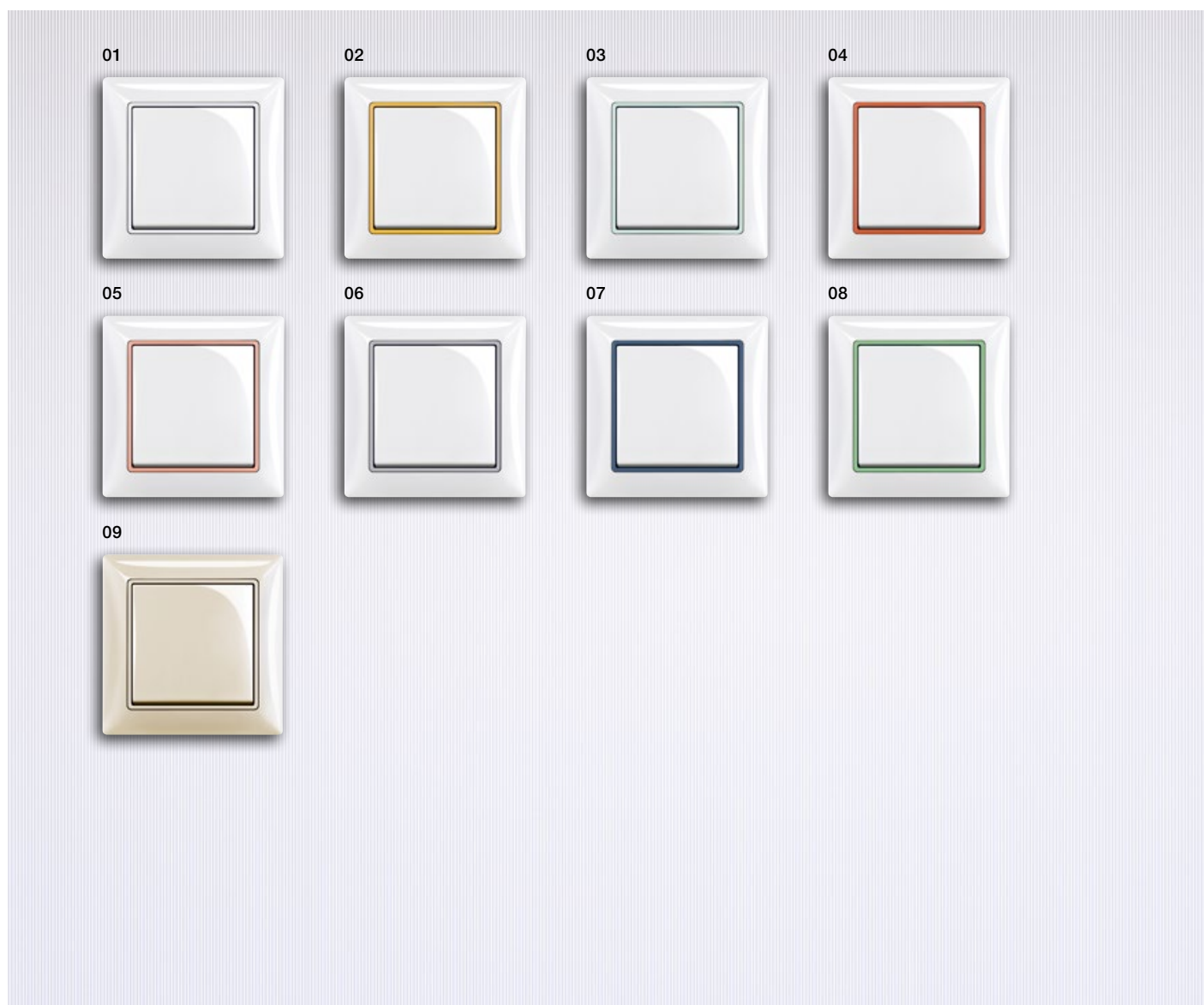
12 château-black / château-black

13 champagne

basic55®

One concept, numerous possibilities.

basic55® Baseline convinces with its clear, white frames and rockers as well as discreet colour rings, adding exciting accents. They consist of nine versions suitable for integrating into any living style. This gives each room its own individual colour concept in which even the light switches become a feast for the eyes.



01 alpine white / alpine white

02 alpine white / yellow

03 alpine white / luminous

04 alpine white / orange

05 alpine white / apricot

06 alpine white / silver

07 alpine white / blue

08 alpine white / light green

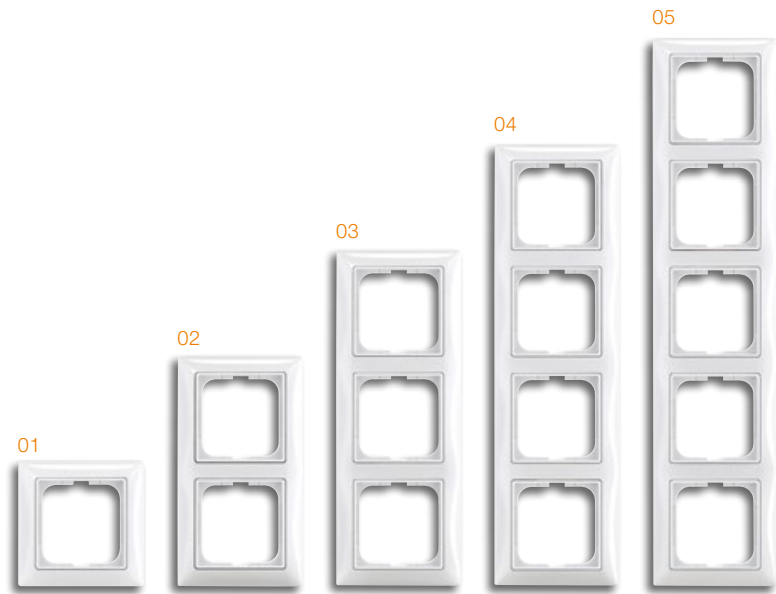
09 white / white

basic55®

Selected functions.



- | | | | |
|----|---|----|--|
| 01 | Switch/button with rocker | 16 | Blind switches/push-buttons with rotary knob |
| 02 | 2gang switch | 17 | Comfort timer |
| 03 | 2gang switch with neon lamp | 18 | Card switch |
| 04 | 3gang 1way switch | 19 | Room temperature controller |
| 05 | Push switch with doorbell symbol and labeling field | 20 | Antenna socket |
| 06 | Rotary dimmer | 21 | Antenna socket for TV |
| 07 | Push switch with illumination | 22 | Antenna socket for Radio/TV/SAT |
| 08 | 20 A DP switch with red neon indicator | 23 | Light signal |
| 09 | Busch-Comfort switch® | 24 | Busch-iDock |
| 10 | SCHUKO® socket outlet, shuttered | 25 | Loudspeaker outlet |
| 11 | SCHUKO® socket outlet and "DATA" marking | 26 | Telephone Single Outlet (TAE) |
| 12 | Socket outlet, shuttered with earthing pin | 27 | Universal data connecting unit |
| 13 | SCHUKO® socket outlet with hinged lid | 28 | Universal data connecting unit, 2gang |
| 14 | SCHUKO® double socket outlet | 29 | Loudspeaker |
| 15 | Blind switches/push-buttons | | |



1 to 5gang cover frame for horizontal and vertical installation.

- 01 84 mm x 84 mm

- 02 84 mm x 155 mm

- 03 84 mm x 226 mm

- 04 84 mm x 297 mm

- 05 84 mm x 368 mm



For more information about light switch ranges visit ABB global web sites.

Sky Niessen

Touch the sky with your hands.

Sky Niessen. A collection of light switches created so that your spaces take on a new dimension. A range of switches that evolved in the shapes and materials used. An object of desire capable of guaranteeing the quality. Feel special everyday, feel that you have the sky in your hands with the Sky Niessen switches.



01 soft white

02 soft black

03 silver

04 ash frame - white switch

05 stainless steel

06 white glass

07 black glass

08 natural wenge frame - silver switch

09 stainless steel frame - chrome switch

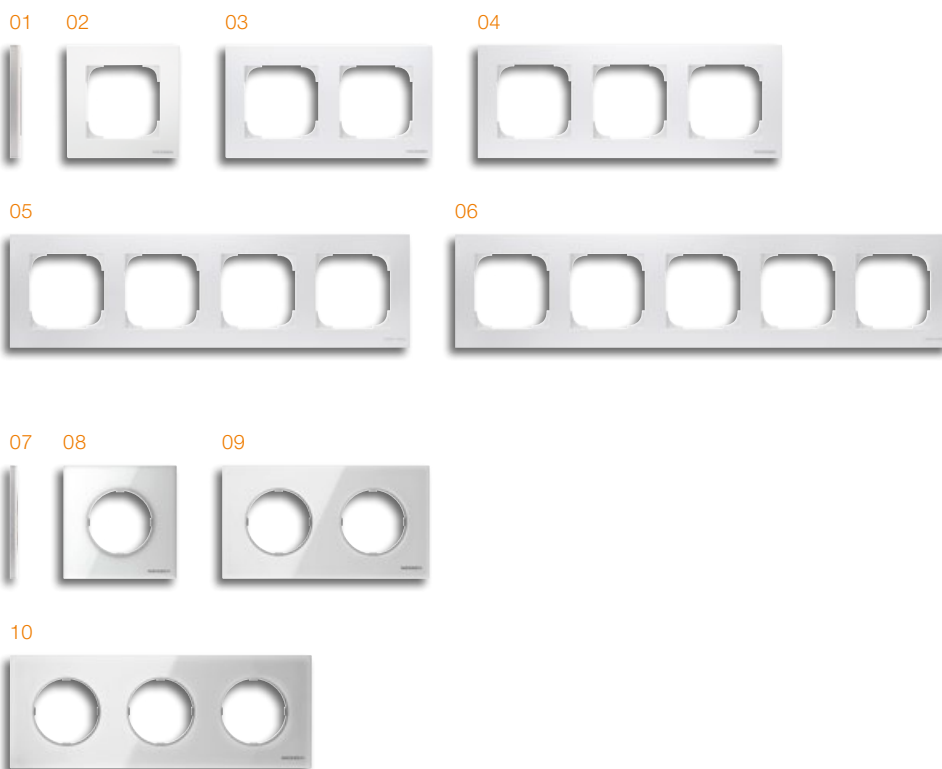
10 black glass frame - chrome switch

11 white glass frame - chrome switch

Sky Niessen Selected functions.



- | | | |
|-------------------------------------|------------------------------------|--|
| 01 Stand-alone FM radio and alarm | 08 Card switch | 15 1gang, 1 way single pole switch with lamp |
| 02 Loudspeaker 2" | 09 Digital timer control | 16 Electronic blind control |
| 03 Universal push dimmer | 10 2way key switch 2 positions | 17 Multiple melody doorbell |
| 04 LED rotatory dimmer | 11 USB charger outlet | 18 USB charger outlet |
| 05 ABB-free@home® movement detector | 12 SCHUKO® socket outlet with lamp | 19 TV-FM & satellite outlet |
| 06 ABB-free@home® room thermostat | 13 Movement detector | 20 Telephone and/or data outlet |
| 07 ABB-free@home® sensors | 14 VDI connectors (HDMI+USB) | 21 LED rotatory dimmer |



- Sky Niessen
1 to 5gang cover frame
- 01 Side view, 8,5 x 86 mm
 - 02 86 x 86 mm
 - 03 86 x 157 mm
 - 04 86 x 228 mm
 - 05 84 mm x 299 mm
 - 06 84 mm x 370 mm

- Skymoon
1 to 3gang cover frame
- 01 Side view, 6,4 x 86 mm
 - 02 86 x 86 mm
 - 03 86 x 157 mm
 - 04 86 x 228 mm

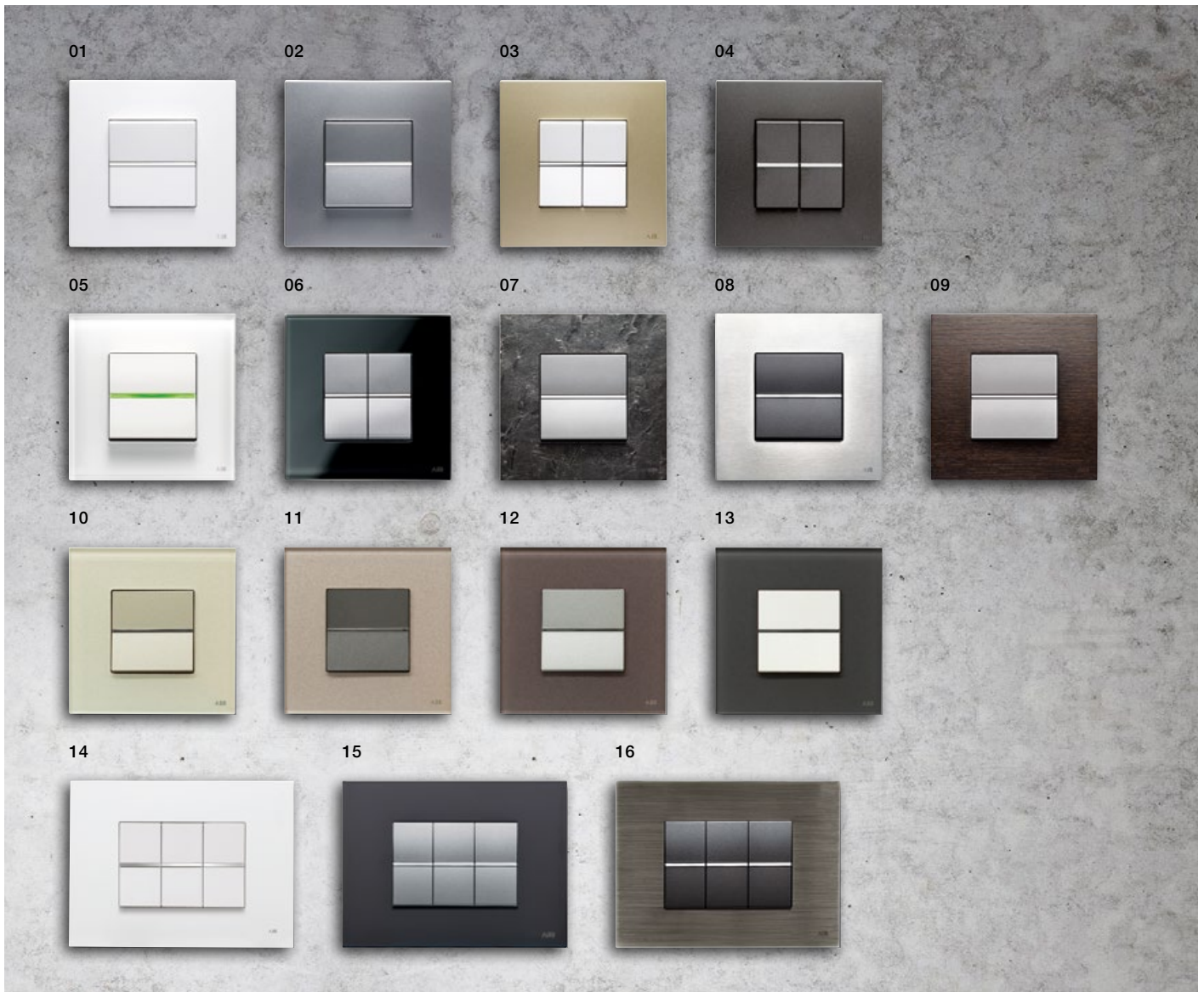


For more information about light switch ranges visit ABB global web sites.

Zenit

The highlight of modular ranges.

Zenit is the most comprehensive modular range for all kind of homes and commercial facilities. A number of appreciated design and beautiful finishes that add value to the facility, with advanced features that provide greater comfort and performance level.



01 white

02 silver

03 champagne frame - white switches

04 anthracite

05 white glass frame - white switch

06 black glass frame - silver switches

07 slate frame - silver switch

08 stainless steel frame - anthracite switch

09 wenge frame - silver switch

10 pearl glass frame - champagne switch

11 champagne frame - anthracite switch

12 coffee glass frame - silver switch

13 graphite glass frame - white switch

14 white

15 silk black frame - silver switches

16 antique steel frame - anthracite switches

Zenit

Selected functions.



01 Stand-alone FM radio and alarm

02 Loudspeaker 2"

03 Universal push dimmer

04 LED rotatory dimmer

05 ABB-free@home® movement detector

06 ABB-free@home® room thermostat

07 KNX room thermostat

08 DND/MUR switch

09 RCD circuit breaker

10 Orientation light

11 USB charger

12 SCHUKO® socket outlet

13 Movement detector

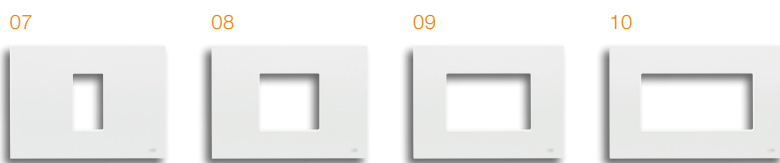
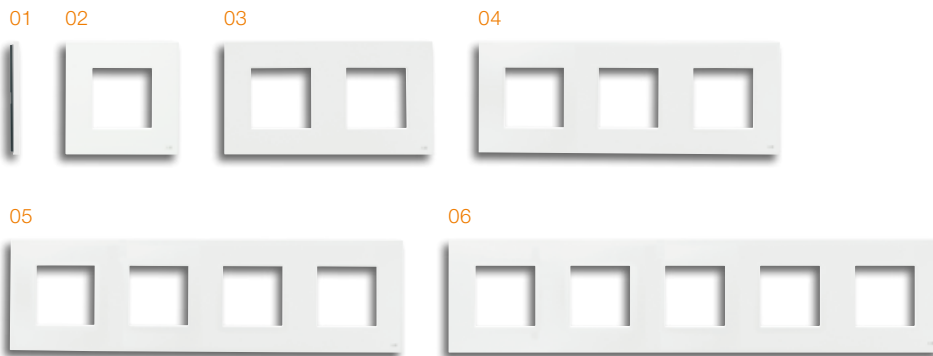
14 VDI connectors (HDMI+USB)

15 Nema duplex socket outlet

16 Euroamerican duplex socket outlet

17 Italian 16A socket outlet

18 Brazilian 20A socket outlet



1 to 5gang cover frame for horizontal and vertical installation

01 Side view, 7,5 x 85 mm

02 Frame 2 modules, 85 x 85 mm

03 Frame 2 + 2 modules, 156 x 85 mm

04 Frame 2 + 2 + 2 modules, 227 x 85 mm

05 Frame 2 + 2 + 2 + 2 modules, 298 x 85 mm

06 Frame 2 + 2 + 2 + 2 + 2 modules, 369 x 85 mm

1 to 7 modules cover frame for horizontal and vertical installation

07 Frame 1 module, 117 x 85 mm

08 Frame 2 modules, 117 x 85 mm

09 Frame 3 modules, 117 x 85 mm

10 Frame 4 modules, 139 x 85 mm

11 Frame 7 modules, 205 x 85 mm



For more information about light switch ranges visit ABB global web sites.

Impressivo

Functional elegancy.

Impressivo. The series includes all the functions required in construction and renovation, from switches and socket outlets to home automation and signal products. The products allow for flush and surface mounting in wet and dry spaces. Impressivo products are available in three colours (white, aluminium and anthracite) and you can freely combine them with carat® and Busch-axcent® cover frames.



01

02

03



10

01 white

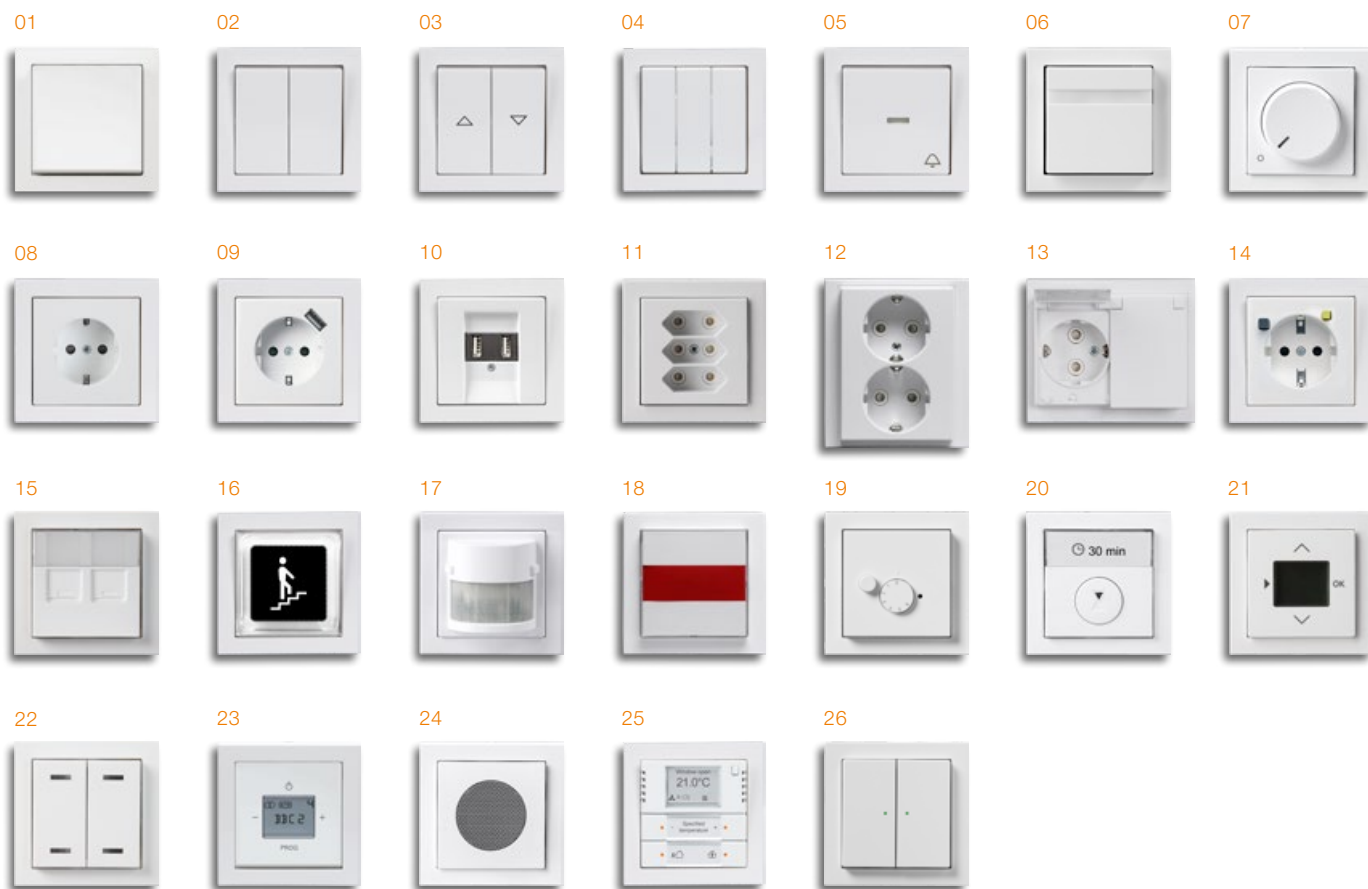
02 aluminium

03 anthracite

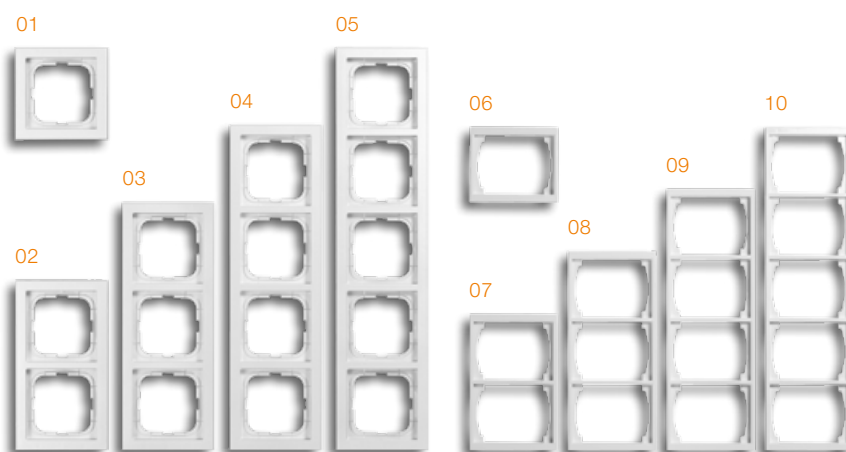
Materials

UV-resistant, free of PVC and halogen.

Impressivo Selected functions.



- | | | |
|--|---|----------------------------------|
| 01 Rocker switch 1gang | 10 USB charging station | 19 Thermostat |
| 02 Rocker switch 2gang | 11 Euro socket outlet | 20 Timer |
| 03 2-gang push switch | 12 Double SCHUKO® socket outlet | 21 Timer |
| 04 3-gang 1-way switch | 13 2-gang SCHUKO® socket outlet, IP 44 | 22 4/2-gang push button panel |
| 05 Switch rocker 1-gang, "bell" symbol | 14 Residual current device | 23 DigitalRadio |
| 06 Comfort switch | 15 RJ45 outlet with sliding dust covers | 24 Loudspeaker for DigitalRadio |
| 07 Rotary dimmer | 16 IceLight with symbol | 25 KNX-thermostat |
| 08 SCHUKO® socket outlet | 17 Movement detector | 26 ABB-free@home®, 2-gang switch |
| 09 SCHUKO® USB socket outlet | 18 LED signal light | |



1 to 5gang cover frame
for horizontal and vertical
installation

- 01 85 mm x 85 mm
- 02 85 mm x 156 mm
- 03 85 mm x 227 mm
- 04 85 mm x 298 mm
- 05 85 mm x 369 mm

1 to 5gang cover frame
for double socket outlets,
for horizontal and vertical
installation

- 06 100 mm x 85 mm
- 07 100 mm x 156 mm
- 08 100 mm x 227 mm
- 09 100 mm x 298 mm
- 10 100 mm x 369 mm



For more information
about light switch
ranges visit ABB global
web sites.

Swing®L

Exquisite and convenient.

Swing®L. Ideal light switches and power socket outlets for your ideal home. An understated combination of colours and white, its greatest strength. It's exquisite.



10

- 01 white / white
- 02 white / light grey
- 03 ivory / ivory
- 04 white / creamy

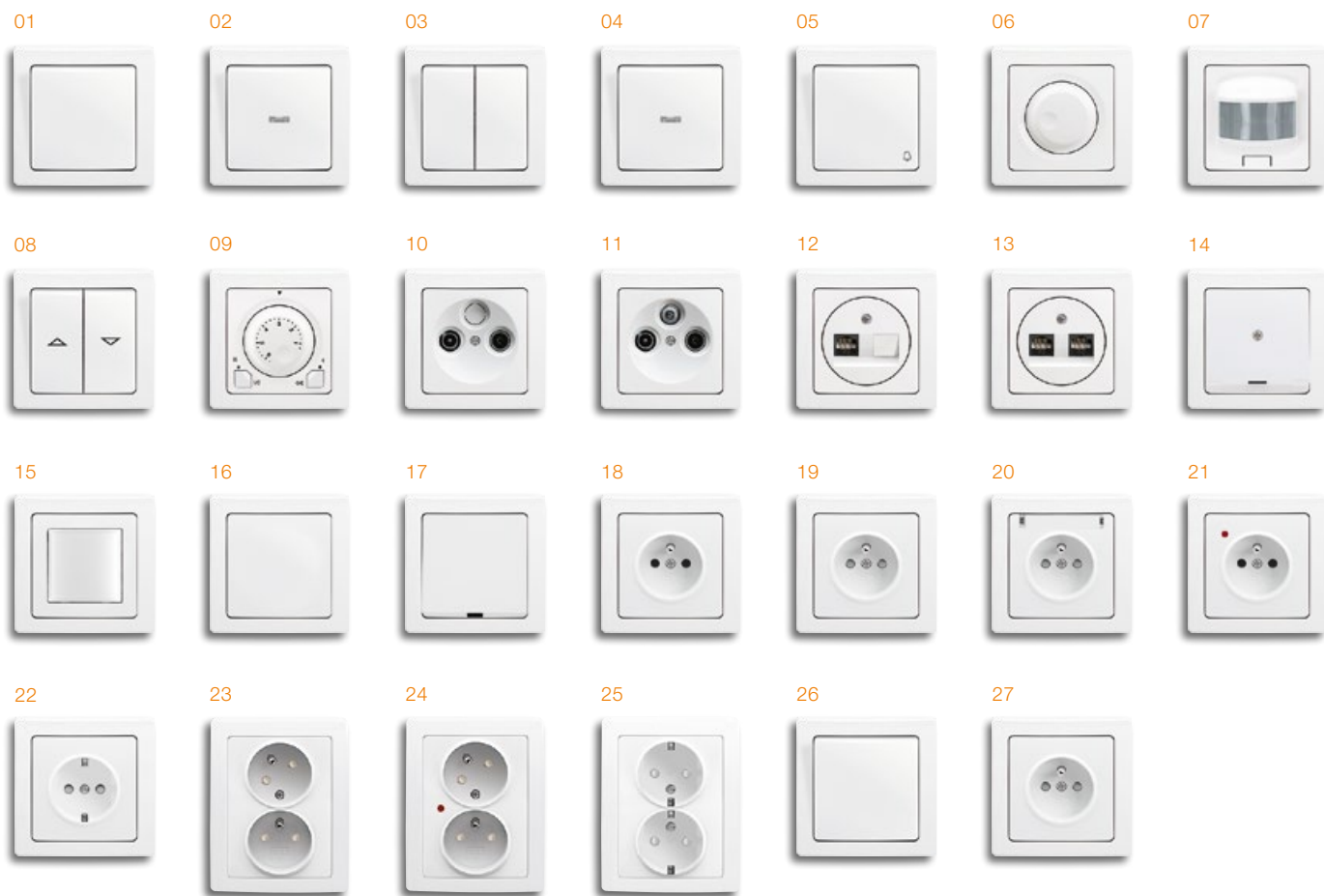
- 05 white / mocca
- 06 white / brick colour
- 07 ivory / titanium
- 08 ivory / champagne



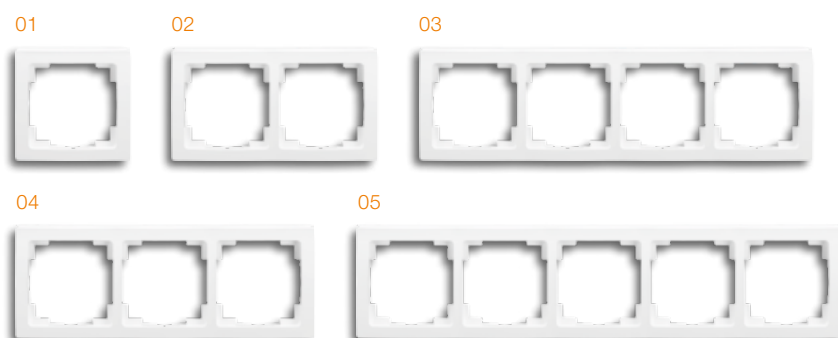
Ideal for blocks of flats and refurbishment projects, due to the small installation depth

Swing®L

Selected functions.



- | | | |
|--|---|---|
| 01 Rocker switch 1gang | 10 Antenna socket TV / radio | 20 Socket outlet with earthing pin, shuttered, with labelling field |
| 02 Rocker switch 1gang, with indication or orientation neon lamp | 11 Antenna socket TV / radio / satellite | 21 Socket outlet with earthing pins, with surge protection |
| 03 Rocker switch 2gang | 12 Data communication outlet 1gang, 1 blank cover | 22 SCHUKO® socket outlet |
| 04 Push switch 1gang, with indication or orientation neon lamp | 13 Data communication outlet 2gang | 23 Double socket outlet with earthing pins |
| 05 Push switch with bell symbol | 14 Telephone connection unit | 24 Double socket outlet with earthing pins, with surge protection |
| 06 Dimmer with rotary control | 15 Illumination LED unit | 25 Double SCHUKO® socket outlet |
| 07 Flush-mounted movement detector | 16 Blank cover | 26 IP 44 rocker switch, 1-gang |
| 08 Push switch / blind control switch | 17 Cable outlet | 27 IP 44 socket outlet with earthing pins |
| 09 Thermostat with rotary temperature setting | 18 Socket outlet with earthing pin | |
| | 19 Socket outlet with earthing pin, shuttered | |



1 to 5gang cover frame for horizontal and vertical installation

- | |
|-------------------|
| 01 85 mm x 85 mm |
| 02 85 mm x 156 mm |
| 03 85 mm x 227 mm |
| 04 85 mm x 298 mm |
| 05 85 mm x 369 mm |



For more information about light switch ranges visit ABB global web sites.

Millenium

Functionality and sophistication.

Millenium. Find exactly what you are looking for. The Millenium series offers control, functionality and convenience that will always fit the desired look and feel of the building.



01 stainless steel

02 silk black

03 antique gold

04 matt gold

05 stainless steel frame - silk black switch

06 silk black frame - stainless steel switch

07 antique gold frame - silk black switch

08 matt gold frame - silk black switch

Millenium

Selected functions.



- | | | |
|--|--|---|
| <ul style="list-style-type: none"> 01 1gang 1 way switch 02 Double pole switch, with status indicator led 03 1gang 2 way switch, premium rocker 04 Switch, with bell symbol, premium rocker 05 Double pole switch, status indicator led, 45A 06 2gang 1 way switch 07 3gang 2 way switch 08 BS single pole switched socket outlet 09 BS double pole round pin switched socket outlet with led | <ul style="list-style-type: none"> 10 Universal socket outlet 11 2gang computer outlet, RJ45 12 TV / SAT outlet 13 1gang double rotary dimmer 14 Rotary dimmer 15 Thermostat controller, 2 pipe system with blue display 16 Bell push switch DND / MUR by LED signalling 17 2gang switch DND / MUR by LED signaling 18 Blind control switch | <ul style="list-style-type: none"> 19 Card switch 20 USB charging socket 21 Movement detector 22 FM stereo receiver with RDS 23 USB and Bluetooth® entry/exit module 24 Switch 1/2gang ABB-free@home® 25 Switch 2/4gang ABB-free@home® 26 Movement detector ABB-free@home® 27 Room temperature controller ABB-free@home® |
|--|--|---|



- 1 to 4gang frame.
- 01 Side view, 4 x 86 mm
- 02 Frame 1gang, 86 x 86 mm
- 03 Frame 1gang, 86 x 86 mm
- 04 Frame 2gang, 86 x 147 mm



For more information about light switch ranges visit ABB global web sites.

Concept bs

Concept in every detail.

Concept bs. Its unique design makes it the perfect range to meet your desired look and feel of switches and sockets with profound technology and comprehensive functionality. A wide colour variety makes it always a perfect fit to the room decor, and sets an elegant accent to the overall look. Because elegance lies in the detail.



01 silver

02 anthracite

03 ivory white

04 pearl gold

05 stainless steel

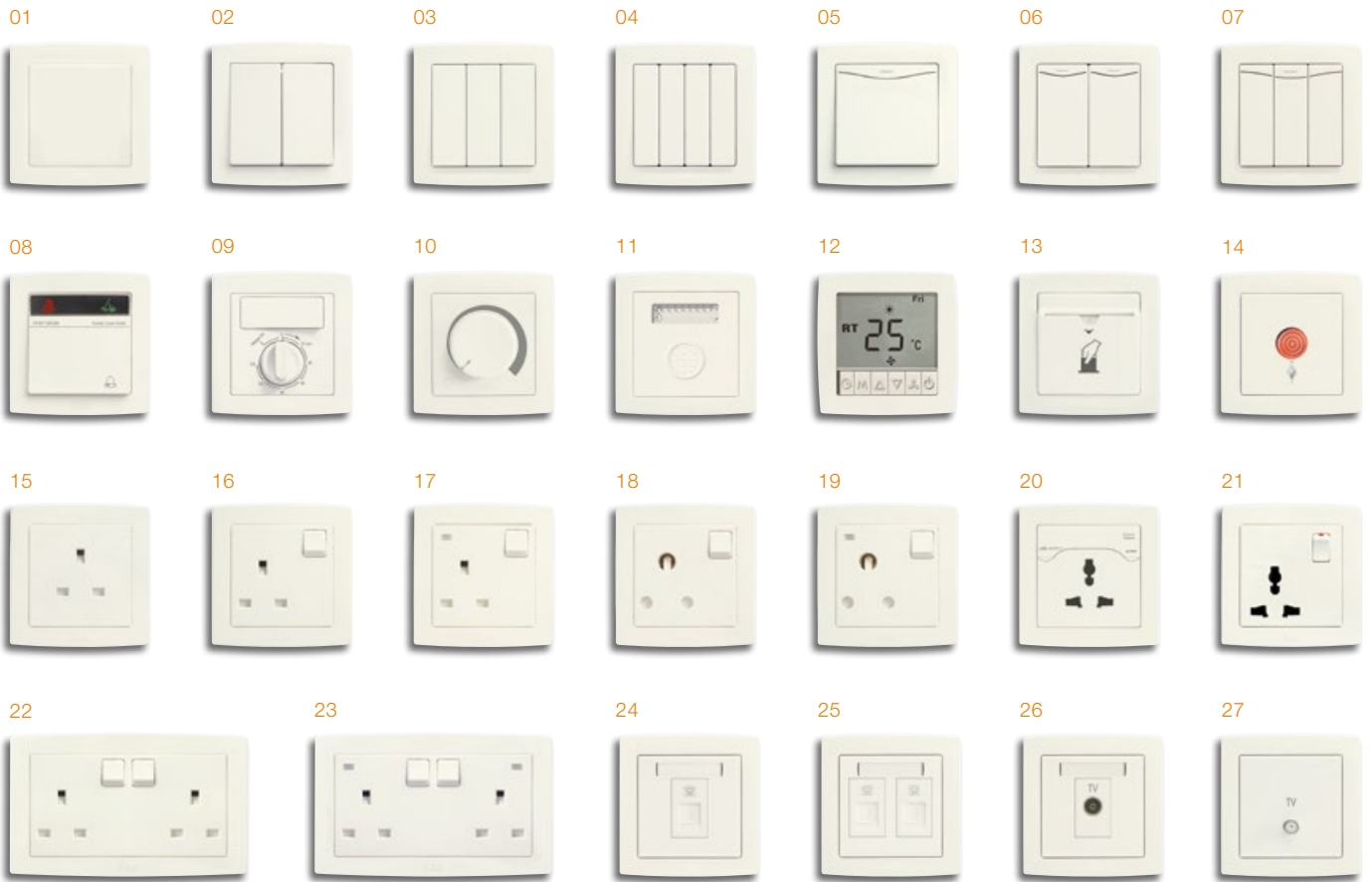
06 elegant grey

Materials

High quality polycarbonate with improved flame-retardant characteristics and colour stability.

Concept bs

Selected functions.



- | | | |
|--------------------------------------|--|---|
| 01 Rocker switch 1gang | 10 Rotary dimmer | 19 BS round pin switched socket outlet with neon |
| 02 Rocker switch 2gang | 11 Sound and light control switch | 20 Multi-function socket outlet with USB charging |
| 03 Rocker switch 3gang | 12 Thermostat controller | 21 1gang switched multi-function socket outlet |
| 04 Rocker switch 4gang | 13 Card switch | 22 2gang BS switched socket outlet |
| 05 Rocker switch 1gang with LED | 14 Emergency switch | 23 2gang BS switched socket outlet with neon |
| 06 Rocker switch 2gang with LED | 15 BS socket outlet | 24 1gang telephone socket outlet |
| 07 Rocker switch 3gang with LED | 16 BS switched socket outlet | 25 2gang telephone and computer socket outlet |
| 08 DND/PW/MUR push switch | 17 BS switched socket outlet with neon | 26 TV socket outlet, dead-end feeder |
| 09 1gang 1 way countdown time switch | 18 BS round pin switched socket outlet | 27 Sat socket outlet, isolated |



1 to 5gang cover frame for horizontal installation.

- 01 88 mm x 90 mm
- 02 175 mm x 90 mm



Thin design, easy installation. The thickness of the functional part is only 12 mm.



LED indicator light makes switches even more attractive.

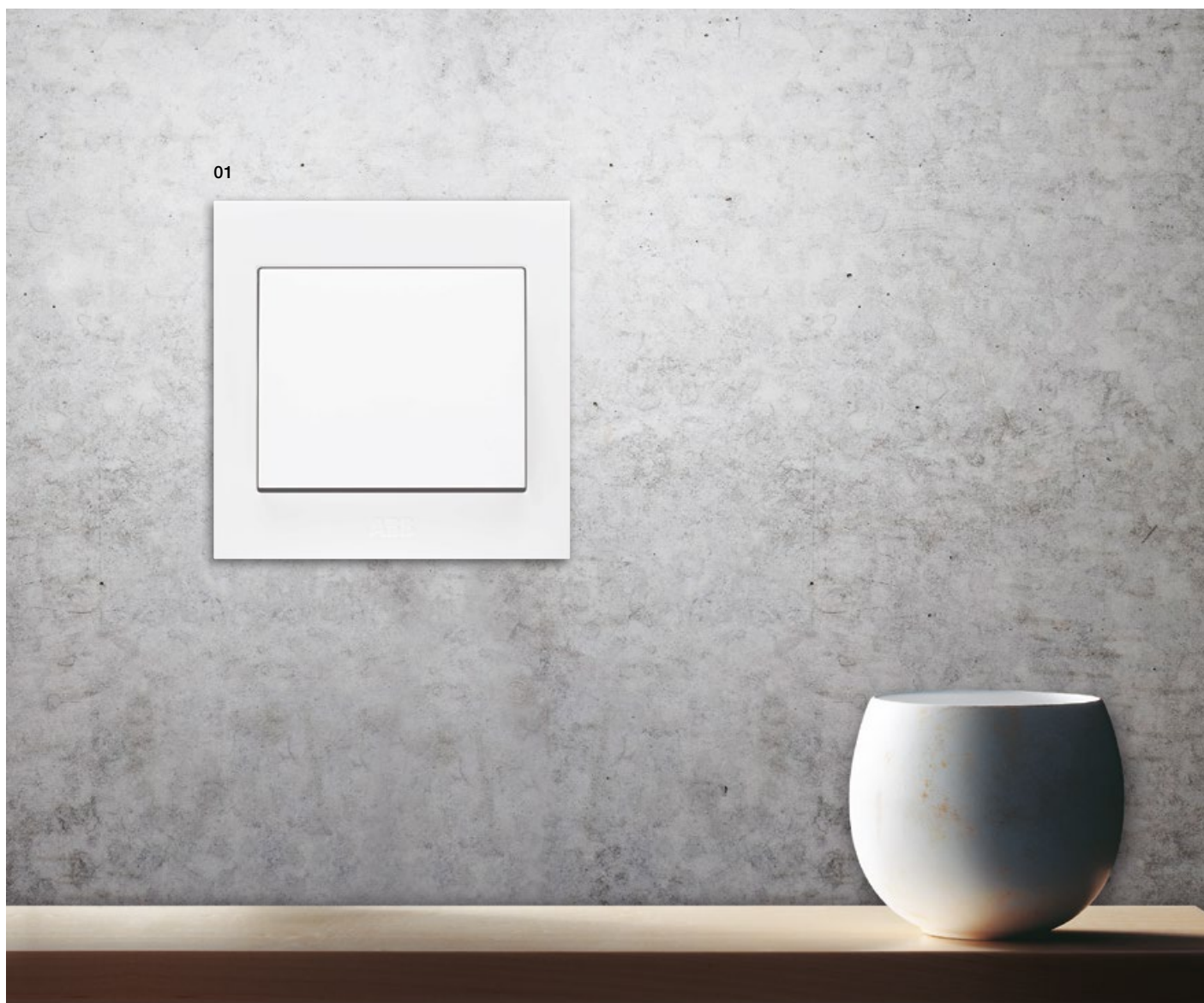


For more information about light switch ranges visit ABB global web sites.

Kalo

Attraction in simplicity.

Kalo. Intelligently designed with simplicity. Pure and attractive design of Kalo will bring style and beauty into your venues.



01

10

01 white

Kalo

Selected functions.



- 01 1gang 1 Way Switch
- 02 2gang 1 Way Switch
- 03 3gang 1 Way Switch
- 04 4gang 1 Way Switch
- 05 1gang 2 Way Switch
- 06 2gang 2 Way Switch
- 07 3gang 2 Way Switch
- 08 4gang 2 Way Switch
- 09 1gang 1 Way 20AX DP Switch Illuminated
- 10 1gang Intermediate Switch
- 11 1gang 1 Way 20AX DP Switch Illuminated - Marked Water Heater
- 12 1gang 1 Way Push Switch - Marked Bell
- 13 1gang 1 Way Push Switch
- 14 1gang 1 Way 32A DP Switch
- 15 1gang 1 Way 45A DP Switch
- 16 1gang 15A Switch Socket SP
- 17 1gang 13A Switch Socket SP
- 18 2gang 13A Switch Socket SP
- 19 1gang 13A Switch Socket SP – Illuminated
- 20 2gang 13A Switch Socket SP - Illuminated
- 21 1gang Universal Switch Socket SP
- 22 Cooker Control Unit
- 23 Shaver Socket
- 24 1gang TV Outlet - End of Line / Loop Through
- 25 1gang Sat Outlet
- 26 1gang Telephone Outlet
- 27 1gang Data Outlet Cat. 5e / Cat. 6
- 28 Flex Outlet
- 29 Fused connection Unit Unswitched with Flex Outlet
- 30 Fused Connection Unit Switched with Flex Outlet – Illuminated
- 31 1gang Rotary Dimmer
- 32 1gang Blank Plate
- 33 2gang Blank Plate



01 Side view, 7 x 86 mm
 02 1gang 1 Way Switch, 86 x 86 mm



For more information about light switch ranges visit ABB global web sites.

Uni-art

Fashion and stylish.

Uni-art. The clearly shaped design with exchangeable colourful eye-catching frames brings stunning visual experience. In addition, the Uni-art series is safe, reliable and made of green material. A perfect combination of quality products and unique style.



10

01 white / red

02 white / leather

03 white / metal wire-drawing silver

04 white / wood

05 white / black

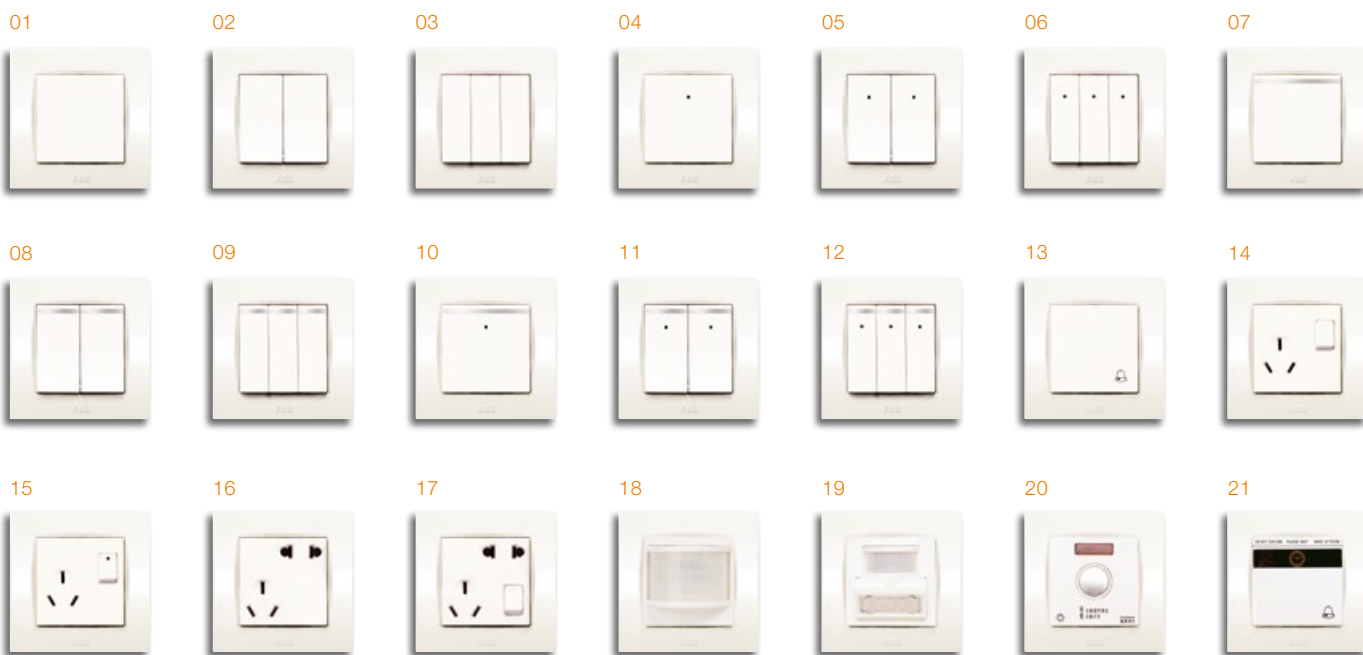
06 white / metal

07 white / grain

08 white / stone

Uni-art

Selected functions.



- | | | |
|--|--|---|
| <p>01 1gang 1 way switch</p> <hr/> <p>02 2gang 1 way switch</p> <hr/> <p>03 3gang 1 way switch</p> <hr/> <p>04 1gang 1 way switch with LED*</p> <hr/> <p>05 2gang 1 way switch with LED*</p> <hr/> <p>06 3gang 1 way switch with LED*</p> <hr/> <p>07 1gang 1 way switch with decorative line**</p> <hr/> <p>08 2gang 1 way switch with decorative line**</p> <hr/> <p>09 3gang 1 way switch with decorative line**</p> <hr/> <p>10 1gang 1 way switch with decorative line** and LED*</p> <hr/> | <p>11 2gang 1 way switch with decorative line** and LED*</p> <hr/> <p>12 3gang 1 way switch with decorative line** and LED*</p> <hr/> <p>13 1gang 1 way bell push switch</p> <hr/> <p>14 Three-hole China socket outlet with switch and LED</p> <hr/> <p>15 Three-hole China socket outlet with switch</p> <hr/> <p>16 Five-hole China socket outlet</p> <hr/> <p>17 Five-hole China socket outlet with switch</p> <hr/> <p>18 Movement detector</p> <hr/> | <p>19 Movement detector with LED indicator</p> <hr/> <p>20 Touch dimmer</p> <hr/> <p>21 Push switch with Bell symbol/"DND"/"PW"/"MUR" indicator</p> <hr/> |
|--|--|---|

* LED lamp in blue, green, yellow or red colour



01



1gang cover frame for horizontal and vertical installation

01 86 x 86 mm

**Decorative line in silver, red, black, light blue, yellow, green, white or fluorescent colour.



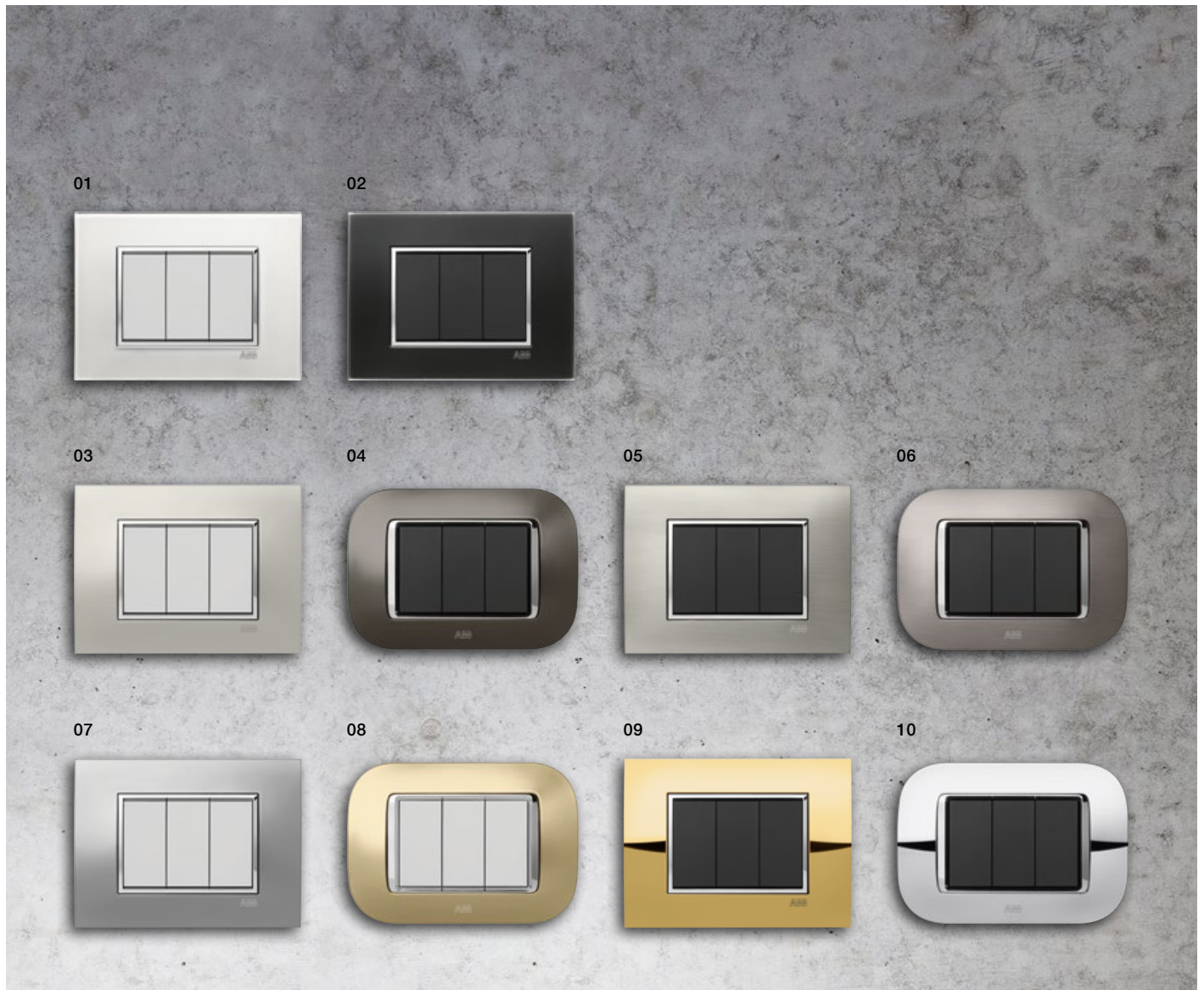
For more information about light switch ranges visit ABB global web sites.

Mylos

The beauty of seeing, touching, living.

Mylos. Your house is your world. And your world reflects you. If you are looking for timeless design and quality materials, Mylos is the best way to express yourself. Even in the smallest details, functionality marries with appeal. And makes your house your home.

Four different materials, two different designs, infinite combinations to choose from to synchronise your environment with your desires.



Crystal finishes

01 satin white (square)

02 satin black (square)

Metal finishes

03 light silver (square*)

04 dark titanium (round*)

05 brushed steel (square*)

06 brushed nickel (round*)

07 satin aluminium (square*)

08 satin gold (round*)

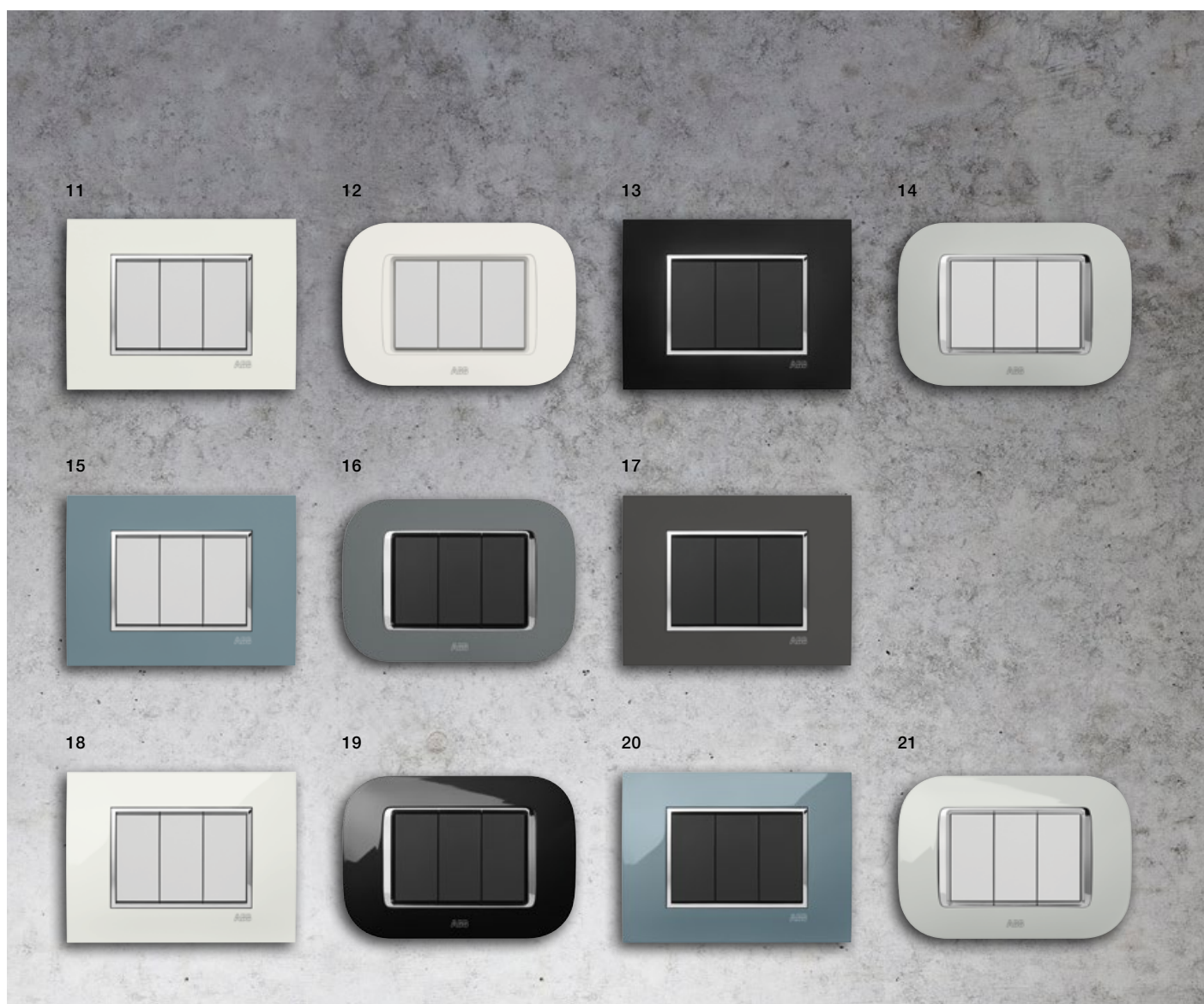
09 glossy gold (square*)

10 glossy chrome (round*)

* Finishes from 03 to 21 are available both versions square and round.

Mylos

Four different materials, two different designs.



Velvet finishes

- 11 white (square*)
- 12 pure white (round*)
- 13 black (square*)
- 14 ice (round*)
- 15 cold grey (square*)
- 16 graphite (round*)

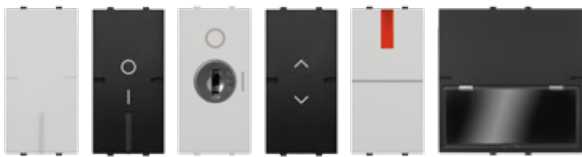
- 17 anthracite (square*)

Lucent finishes

- 18 white alabaster (square*)
- 19 brilliant black (round*)
- 20 cool grey (square*)
- 21 ice (round*)

* Finishes from 03 to 21 are available both versions square and round.

Mylos Appliances.



Control devices

Maximum flexibility in the selection of switches, push switches, two-way switches, intermediate switches, relays and change-over switches.

The most common control devices are available in screwless versions, reducing installation times even further.

All the conventional control devices, except for relays and change-over switches, can be lit. Switches are available with an incorporated LED to enable all types of functional indication.



Socket outlets

The versions with 2P+E 10-16A socket outlets for 250V lines are available in the Italian and German standards, with safety shutters and side/central earth. For telephone and data transmission applications various types of connectors compatible with the most widespread international wiring standards are available.

10



Key covers

The key covers in 1 module or 1/2 module versions allow conventional switches to be customised as desired.



Protection devices

These devices intervene in the event of overloads, short circuits and other phenomena that involve a risk for the safety of persons and which compromise proper operation of connected appliances, performing their protection function directly downstream without impacting the power supply to other points in the electrical installation.

Mylos



Signalling devices

Warning lights to display the operating status of connected appliances, as well as bells and buzzers. The warning lights are supplied with an incorporated 230V LED, which can be replaced for use under different voltages, if necessary.



Comfort devices

To optimize the operation of electrical appliances and increase the liveability of environments, the range includes devices for programming, adjustment and timing such as time-programmed thermostats, electronic thermostats and dimmers. IR presence detectors and receivers for remote controls complete the product range to guarantee the maximum level of comfort.

Removable anti-blackout lights and emergency lights are available with ample operating autonomy.



Home and building automation

Mylos represents also a simple and immediate solution to best meet the needs of both residential and building applications. Mylos free@home® and Mylos KNX are, respectively, the home and building automation systems which are perfectly integrated into Mylos aesthetic and functionalities. Both the ranges includes thermostats, rocker switches, actuators, blind actuators and dimmers.



Access Control for hospitality

Based on transponder technology, and exploiting their flexibility and security, ABB's solution for access control is fully compatible with the KNX-standard Home & Building Automation System. The access control system, perfectly integrated into Mylos conventional wiring accessories range, is particularly suitable for hotel applications and allows construction of flexible systems with advanced functions to optimize the services provided to hotel guests.



For more information about light switch ranges visit ABB global web sites.

Unno

Harmonious and lively.

Unno. You'll find it hard to choose! The great variety of colours in the Unno range is the key to creating a great home, full of life and harmony. Design, technology, respecting the environment, versatility and beauty. Unno makes its mark via a wide range of tones and colours that can create a personalised room or home. Designed to meet your decorative and design expectations, Unno is the winning choice.



White frame

- 01 white
- 02 black
- 03 silver grey
- 04 gold
- 05 chocolate
- 06 tangerine

- 07 blueberry
- 08 lilac
- 09 mint
- 10 mustard
- 11 blue

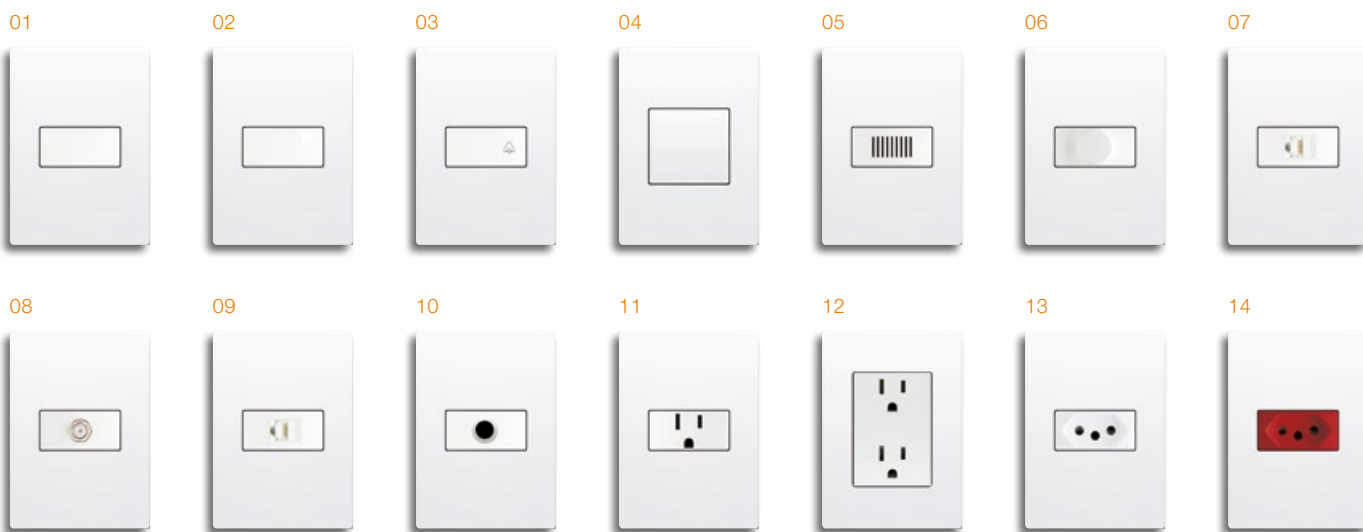
Colour frame

- 12 mustard
- 13 chocolate
- 14 tangerine
- 15 blueberry
- 16 lilac
- 17 mint

- 18 caramel
- 19 blue

Unno

Selected functions.



01 1gang, 1way single pole switch

02 1gang, 2way single pole switch with lamp

03 1gang, 1way push switch with bell symbol

04 1gang, 1way double pole 32A switch

05 Buzzer

06 Universal rotatory dimmer

07 RJ11 telephone outlet

08 Type F TV outlet

09 RJ45 Cat. 5E data outlet

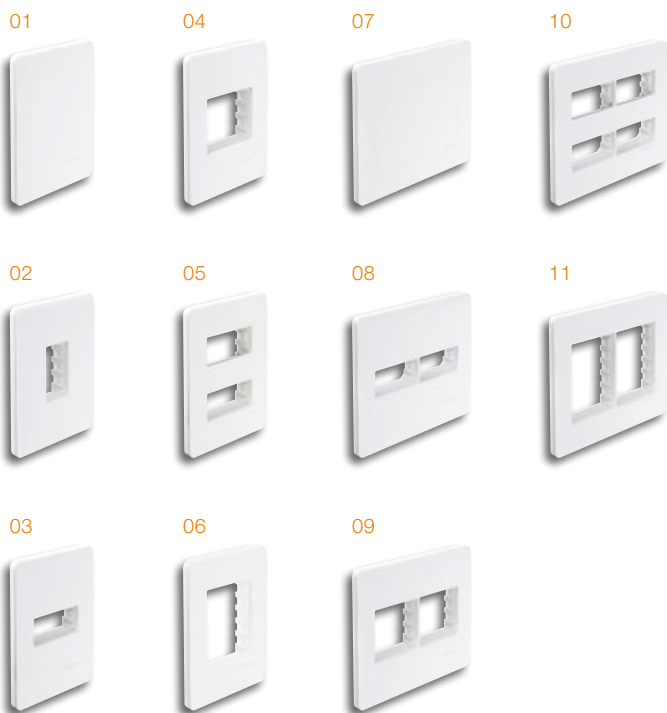
10 Cable outlet

11 Nema simple socket outlet

12 Nema duplex socket outlet

13 Brazilian 10A socket outlet

14 Brazilian 20A socket outlet



Frames 4" x 2"

01 Blank frame, 80 x 115 mm

02 Frame 1 module vertical position, 80 x 115 mm

03 Frame 1 module, 80 x 115 mm

04 Frame 2 modules, 80 x 115 mm

05 Frame 1+1 modules, 80 x 115 mm

06 Frame 3 modules, 80 x 115 mm

Frames 4" x 4"

07 Blank frame, 128 x 115 mm

08 Frame 1+1 modules, 128 x 115 mm

09 Frame 2+2 modules, 128 x 115 mm

10 Frame 1+1+1+1 modules, 128 x 115 mm

11 Frame 3+3 modules, 128 x 115 mm



For more information about light switch ranges visit ABB global web sites.

Solutions for electrical installation in buildings

Intelligent Building Solutions

ABB i-bus® KNX	11/2
Overview	11/2
Power Supplies	11/4
System Components and Interfaces	11/8
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Outputs	11/30
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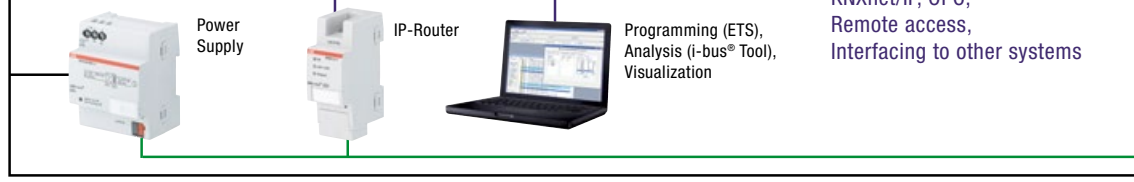
Intelligent Building Solutions

ABB i-bus® KNX – Overview

230 V
Mains Supply

ETHERNET

KNXnet/IP, OPC,
Remote access,
Interfacing to other systems



Energy consumption measurement



- Energy Meter with Meter Interface Module
- Energy Module

Switch energy with and without current detection



- Switch Actuator

Switch energy with energy measurement



- Energy Actuator

Switch, dim and control light



- Universal Dim Actuator
- Switch/Dim Actuator 1–10 V
- Light Controller

Digital lighting control using DALI



- DALI Gateway
- DALI Light Controller
- DALI Gateway with Emergency Lighting Control

Control of shutters, blinds and ventilation flaps with and without automatic travel time detection



- Blind/Roller Shutter Actuator
- SMI Blind-/Roller Shutter Actuator

Heating/cooling via valve control



- Electronic Switch Actuator
- Valve Drive Actuator
- Electromotor Valve Drive

Ventilation/climatization



- Blower/Fan Coil Actuator
- Fan Coil Actuator and Controller

Room solutions with integrated sensor and actuator functions



Room Master devices with different combinations of inputs and outputs and internal logical connections



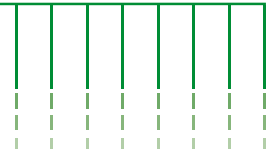
Room Controller with functional modules

KNX-Main Line/TP

Line 1 2 3 4 ... 13 14 15



- 64 devices/line
- 15 lines/area with superordinated main line
- max. 15 areas with superordinated area line



- Binary Input



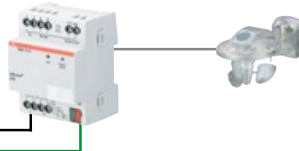
Detect and evaluate switching commands

- Analogue Input



Capture, evaluate and monitor physical values

- Weather Station and Weather Sensor



Evaluate and monitor meteorological data (wind, temperature, rain, etc.)



Display operating conditions and control functions

- Presence Detector
- Movement Sensor
- Light Sensor



Detect presence and movement

Measure brightness levels

- Logic Module
- Application Unit Logic
- Application Unit Time
- Time Switch



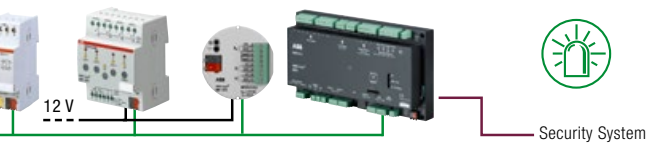
Perform logical operations and trigger timer-controlled functions

- Room Thermostat
- Air Quality Sensor



Capture, evaluate, monitor and control room conditions, temperature, air quality, etc.

- Security Terminal
- Security Module
- KNX Security Panel
- Fault Monitoring Unit
- Monitoring Unit
- Data Logging Unit



Monitor operating conditions, signal technical faults, recognize hazards and trigger alarms

- Transponder Reader
- Transponder Holder
- Transponder Card
- Configuration Software



Access Control system for hotel rooms

Intelligent Building Solutions

ABB i-bus® KNX – Power Supplies



SV/S 30.160.1.1

Power Supply, 160 mA, MDRC

KNX power supplies generate and monitor the KNX system voltage (SELV). The bus line is decoupled from the power supply by an integrated choke. The voltage output is short-circuit and overload protected. The two-color LED indicates device output status. With two-coloured status indicator and wide range input from 85...265 V AC, 50/60 Hz.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	SV/S 30.160.1.1	2CDG110144R0011		1	0.30



SV/S 30.320.1.1

Power Supply, 320 mA, MDRC

KNX power supplies generate and monitor the KNX system voltage (SELV). The bus line is decoupled from the power supply by an integrated choke. The voltage output is short-circuit and overload protected. The two-color LED indicates device output status. With two-coloured status indicator and wide range input from 85...265 V AC, 50/60 Hz.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	SV/S 30.320.1.1	2CDG110166R0011		1	0.30



SV/S 30.640.3.1

Power Supply, 640 mA, MDRC

KNX power supplies generate and monitor the KNX system voltage (SELV). The bus line is decoupled from the power supply by an integrated choke. The voltage output is short-circuit and overload protected. The two-color LED indicates device output status. Device type SV/S 30.640.3.1 has an additional 30 V DC short-circuit and overload protected voltage output that can be used to power an additional bus line (in combination with a separate choke).

With two-coloured status indicator and wide range input from 85...265 V AC, 50/60 Hz.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	SV/S 30.640.3.1	2CDG110167R0011		1	0.30

Intelligent Building Solutions

ABB i-bus® KNX – Power Supplies



SV/S 30.320.2.1

Power Supply with diagnostics, 320 mA, MDRC

Compact Power Supply with integrated choke. Quick diagnostics by LED display and ETS communication objects. Analysis of the operating state and the bus line possible by means of ABB i-bus tool.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	SV/S 30.320.2.1	2CDG110145R0011		1	0.26



SV/S 30.640.5.1

Power Supply with diagnostics, 640 mA, MDRC

Compact Power Supply with integrated choke. Quick diagnostics by LED display and ETS communication objects. Analysis of the operating state and the bus line possible by means of ABB i-bus tool. Additional voltage output to supply an additional line in conjunction with an additional choke.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	SV/S 30.640.5.1	2CDG110146R0011		1	0.26



SU/S 30.640.1

Uninterruptible Power Supply, 640 mA, MDRC

Power supply with integrated choke for supplying a bus line from an uninterrupted supply. Quick diagnostics via LED display for operational readiness, fault and battery level as well as a floating contact for a fault signal indication. The accumulator module or up to 2 rechargeable batteries can be charged in normal operation by the voltage supply. The bus voltage is provided by the batteries in the event of a mains failure.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	8	SU/S 30.640.1	GHQ6310049R0111		1	0.55



AM/S 12.1

Battery Module, 12 V DC, MDRC

With lead-gel battery for use in uninterruptible power supply SU/S 30.640.1 and for maintaining the bus voltage during a mains failure for 10 minutes (at full load). Connection is made via 4-core standard cable.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	8	AM/S 12.1	GHQ6310062R0111		1	0.81

Intelligent Building Solutions

ABB i-bus® KNX – Power Supplies



KS/K 4.1



KS/K 2.1

Cable Sets

For connection of sealed lead gel batteries SAK7, SAK12 and SAK17 to the uninterruptible KNX power supply SU/S 30.640.1 or the uninterruptible power supply NTU/S 12.2000.1. If only one battery is connected, the basic cable set KS/K 4.1 with integrated temperature sensor is to be used. In case two batteries are connected in parallel, the basic cable set KS/K 4.1 is to be used for the first battery and the extension cable set KS/K 2.1 is to be used for the second battery. It is not permitted to connect more than two batteries in parallel.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Basic	–	KS/K 4.1	GHQ6301910R0001		1	0.18
Extension	–	KS/K 2.1	GHQ6301910R0011		1	0.12



SAK17, SAK12, SAK7

Sealed Lead Acid Batteries, 12 V DC

For maintaining the bus voltage during a mains failure. For connection to the uninterruptible power supply SU/S 30.640.1 or the uninterruptible power supply NTU/S 12.2000.1. A maximum of two batteries of the same type can be connected in parallel. For connection, the cable sets KS/K 4.1 and KS/K 2.1 are to be used.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
7 Ah	–	SAK7	GHV9240001V0011		1	2.98
12 Ah	–	SAK12	GHV9240001V0012		1	4.66
17 Ah	–	SAK17	GHV9240001V0013		1	7.15



DR/S 4.1

Choke, MDRS

The device can be used together with the SV/S 30.640.5 to supply a second line. Integrated reset button for resetting the bus devices. Connection via connection terminals.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	DR/S 4.1	2CDG110029R0011		1	0.16



NTI/Z 28.30.1

Commissioning Power Supply, 28 V DC, 30 mA

For temporary power supply of KNX devices during commissioning. The Euroconnector and plug-in terminal provide faster connection and supply of devices with manual operation (e.g. FCA/S).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	NTI/Z 28.30.1	2CDG110096R0011		1	0.14

Intelligent Building Solutions

ABB i-bus® KNX – Power Supplies



CP-D 24/2.5

Power Supply Units, MDRC

The supply units that can be used universally as auxiliary power supply in KNX installations or other SELV applications. The devices supply a regulated output voltage of 12 V DC or 24 V DC with a maximum output current of 0.42 A up to 4.2 A. The units are protected against overload, the output being able to sustain a continuous short circuit. LED indication of the status of the supply and output voltage. With a width between one to five modules only, the CP-D range power supplies are ideally suited for the installation in distribution panels. Optimized for world-wide applications: The CP-D power supplies can be supplied with a rated voltage of 100 – 240 V AC.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
12 V DC, 0.83 A	1	CP-D 12/0.83	NEW 1SVR427041R1000		1	0.07
12 V DC, 2.1 A	3	CP-D 12/2.1	NEW 1SVR427043R1200		1	0.20
24 V DC, 0.42 A	1	CP-D 24/0.42	NEW 1SVR427041R0000		1	0.07
24 V DC, 1.3 A	3	CP-D 24/1.3	NEW 1SVR427043R0100		1	0.20
24 V DC, 2.5 A	4	CP-D 24/2.5	2CDG120037R0011		1	0.25
24 V DC, 4.2 A	5	CP-D 24/4.2	NEW 1SVR427045R0400		1	0.39
Redundancy Unit for decoupling of two CP-D power supply units	2	CP-D RU	NEW 1SVR427049R0000		1	0.08



NT/S 12.1600

Power Supply Units, MDRC

The supply units that can be used universally as the auxiliary power supply in KNX installations or other SELV applications. The devices supply a regulated output voltage of 12 V DC or 24 V DC with a maximum output current of 1.6 A or 0.8 A. The units are protected against overload, the output being able to sustain a continuous short circuit. LED indication of the status of the supply and output voltage.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
12 V DC, 1.6 A	4	NT/S 12.1600	GHQ6050056R0002		1	0.26
24 V DC, 1.6 A	4	NT/S 24.800	GHQ6050057R0002		1	0.26



NTU/S 12.2000.1

Uninterruptible Power Supply, 640 mA, MDRC

Power supply with integrated choke for supplying a bus line from an uninterrupted supply. Quick diagnostics via LED display for operational readiness, fault and battery level as well as a floating contact for a fault signal indication. The accumulator module or up to 2 rechargeable batteries can be charged in normal operation by the voltage supply. The bus voltage is provided by the batteries in the event of a mains failure.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
12 V DC, 2 A	8	NTU/S 12.2000.1	2CDG110070R0011		1	0.43

Intelligent Building Solutions

ABB i-bus® KNX – System Components and Interfaces



LK/S 4.2

Line Coupler, MDRC

The line coupler is used in larger installations to connect KNX lines or areas. The lines or areas are galvanically isolated from one another. Telegrams can be filtered to simultaneously reduce the telegram traffic between lines or areas. With ETS 4 (V4.1.2 and higher) the complete group address range of the main groups 0...31 can be filtered. Within a line, the LK/S 4.2 can also be used as a line amplifier (repeater).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	LK/S 4.2	2CDG110171R0011		1	0.1



IPR/S 3.1.1

IP Router, MDRC

Connects the KNX bus with the Ethernet network. The device uses the KNXnet/IP protocol for communication (Routing and Tunneling). It can be used as a fast line and area coupler. The full filter table for main groups 0-31 is supported. KNX devices can be programmed via the LAN using ETS. For this and further clients 5 Tunneling Server are available. The IP address can be fixed or can be received from a DHCP server. Power supply via 12...30 V DC or PoE. The KNX Standard Communication (Multicast) can be switched off. In this case, up to 10 IPR/S 3.1.1 can communicate using unicast communication.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	IPR/S 3.1.1	2CDG110175R0011		1	0.11



IPR/S 2.1

IP Router, MDRC

The IP Router is the interface between the KNX installations and the IP networks. It can be used as a quick line or area coupler or utilise the local network (LAN) for quick exchange of telegrams between the lines/areas. With ETS 3.0, KNX devices can be programmed via LAN. The device uses the KNXnet/IP protocol of the KNX Association (Routing and Tunneling). The IP address can be fixed or received from a DHCP server. The device requires a 10 to 30 V DC power supply.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	IPR/S 2.1	2CDG110061R0011		1	0.11



IPS/S 3.1.1

IP Interface, MDRC

Connects the KNX bus with the Ethernet network. The device uses the KNXnet/IP protocol for communication (Tunneling). KNX devices can be programmed via the LAN using ETS. For this and further clients 5 Tunneling Server are available. The IP address can be fixed or can be received from a DHCP server. Power supply via 12...30 V DC or PoE.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	IPS/S 3.1.1	2CDG110177R0011		1	0.11

Intelligent Building Solutions

ABB i-bus® KNX – System Components and Interfaces



ISM/S 5.1

IP Switch, Master, MDRC

IP Switch Master for MDRC installation. For networking of up to 5 end devices. Can be extended to 10 end devices by side connection of the IP Switch Slave (ISS/S). One of the ports is a Gigabit Ethernet enabled and can serve as an uplink port.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	6	ISM/S 5.1	2CDG120034R0011		1	0.35



ISS/S 5.1

IP Switch, Slave, MDRC

IP Switch Slave for MDRC installation. For networking of up to 5 end devices. Can be side connected to the IP Switch Master (ISM/S), accordingly can be extended to 10 end devices. The slave is only functional together with the master.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	6	ISS/S 5.1	2CDG120035R0011		1	0.23



8186/03-500

Patch Panel PoE 3gang, MDRC

For the setup of small and medium-sized network installations. For the power supply of up to 3 terminal devices such as IP telephone or IP webcams direct via the network cable. For all PoE applications of class 0 to 3, such as IP telephone, IP cameras, WLAN access points or PoE switches. External power supply via 8186/04 necessary.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	6	8186/03-500	8100-0-0344		1	



8186/04-500

Power supply PoE 48 V, DRA

For the setup of small and medium-sized network installations. For the power supply of patch panel PoE 3gang 8186/03. Nominal voltage: 100 – 240 V.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	6	8186/04-500	8100-0-0346		1	

Intelligent Building Solutions

ABB i-bus® KNX – System Components and Interfaces



IPM/S 1.1

IP Patch Module, MDRC

The IP Patch Module consists of an RJ-45 module and a mounting adapter for rail mounting.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	1	IPM/S 1.1	2CDG120036R0011		1	0.1



USB/S 1.1

USB Interface, MDRC

For connection of a PC via the USB port for programming and diagnostics from ETS3. Display of connection and data transfer via LED.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	USB/S 1.1	2CDG110008R0011		1	0.12



LL/S 1.1

Optical Fibre Interface, MDRC

The device is used to couple two sections of an bus line using an optical fibre link. Ideal for bridging longer distances or to avoid having to implement lightning and overvoltage protection when laying cables between buildings. Two devices are needed to complete a transmission link.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	LL/S 1.1	GHQ6050053R0001		1	0.28



EG/A 32.2.1

KNX/EnOcean Gateway, SM

To connect and integrate EnOcean devices into KNX networks with bidirectional data exchange. The KNX/EnOcean Gateway sends its data within the 868.3 MHz frequency band which is only approved for EnOcean in the European Union incl. Switzerland, Turkey & Norway. Please ensure that the product is suitable for application in the intended country of final installation and use before purchase. Dimensions: (L x W x H) 100 x 70 x 28.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	EG/A 32.2.1	2CDG120047R0011		1	0.1

Intelligent Building Solutions

ABB i-bus® KNX – System Components and Interfaces



MKE/A1.868.1

Magnetic Contact EnOcean

The Magnetic Contact EnOcean is a surface mounted device for windows or doors recognizing opening or closing. The magnetic contact EnOcean communicates on this with a gateway via radio.

The frequency is 868.3 MHz. The interior range is up to 30 m, typically 5 – 10 m, depending on the structural conditions. When using the ABB i-bus® KNX/EnOcean Gateway EG/A 32.2.1, to link to the KNX-Bus, the signal strength can be measured with the ABB i-bus® Tool.

The magnetic contact supplies itself with power via a solar cell and does not require a battery or other supply voltage.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	MKE/A 1.868.1	2CDG120048R0011		1	0.1



SE/K 1.868.1

Valve Drive EnOcean

NEW

The Valve Drive EnOcean is used for efficient room temperature control. It communicates via the wireless, bidirectional EnOcean protocol. The Valve Drive has a large display for showing the current room temperature setpoint and a setting dial for manual setpoint adjustment. Via the ABB i-bus KNX/EnOcean Gateway (EG/A 32.2.1) the Valve Drive EnOcean can easily be included in every KNX system.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SE/K 1.868.1	2CDG120051R0011		1	0.28



6770-500

KNX TP/RF WaveLine Gateway, SM

Media converter with internal antenna for conversion of KNX RF WaveLine radio signals to KNX twisted pair networks with 24 channels. For the evaluation and transfer of up to 24 channels each with 4 sub-channels as transmitter or receiver. Simple operation due to “programming button” and display on the device. Is surface-mounted. The KNX/WaveLine Gateway is powered via KNX and does not require an additional power supply.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6770-500	6770-0-0002		1	

WaveLINE components are available in chapter WaveLINE wireless control.

Intelligent Building Solutions

ABB i-bus® KNX – Connection and Wiring



DSM/S 1.1

Diagnosis and Protection Module, MDRC

Enables quick diagnosis of the bus state and indicates telegram traffic via an LED. A bus fault is indicated by contacts. The DSM also suppresses transient overvoltages and interference voltage spikes on the bus and thus protects the connected devices.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	DSM/S 1.1	2CDG110060R0011		1	0.11



VB/K ...

Wiring Jumpers

For the interconnection of devices with a bus connection terminal. The vertical and horizontal versions are matched to typical wiring applications.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
horizontal, 100 mm	–	VB/K 100.1	GHQ6301908R0003		10	0.06
horizontal, 200 mm	–	VB/K 200.1	GHQ6301908R0001		10	0.07
vertical, 270 mm	–	VB/K 270.1	GHQ6301908R0002		10	0.11
vertical, 360 mm	–	VB/K 360.1	GHQ6301908R0004		10	0.16



PS 1/4/6-KNX

Busbars

For interconnection of the phase supply to multiple input terminals on devices such as SD/S, SA/S, 6197, They reduce the wiring effort and ensure safe interconnection. The PS 1/4/6 is prefabricated and can be used immediately. The PS 1/60/6 is cut to the desired length and sealed with end caps.



PS-END 1-S

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
1 phase, 4 contacts	–	PS 1/4/6-KNX	2CDG924003R0011		10	0.012
1 phase, 60 contacts	–	PS 1/60/6-KNX	2CDG924004R0011		1	0.11
End cap	–	PS-END 1-S	2CDL000001R0001		25	0.001

Connection Terminals

For connecting bus devices as well as for looping through or branching the bus cable. Available in black/red for use as bus connecting terminal, in blue as bus connecting terminal with surge protector and in white/yellow for use as a connecting terminal.



US/E 1

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
black/red	–	BUSKLEMME	GHQ6301901R0001		50	0.1
white/yellow	–	KLEMME	GHQ6301902R0001		50	0.1
with surge protector	–	US/E 1	GHQ6310009R0001		1	0.01

Label Carrier

Snap-on label carrier consisting of transparent carrier plate and insertable blank paper labels.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Label Carrier, 50 pcs.	–	STR/Z 1.50.1	2CDG110149R0011		1	0.04

S800 B. High performance miniature circuit-breakers. Simply innovative. Safety has never been easier.

Limit downtime in industrial electrical systems while ensuring maximum safety for operators and ease of access to devices: S800 B high performance circuit-breakers are efficient products at a reasonable cost and designed for overload and short-circuit protection in distribution systems with 16 kA breaking capacity. They comply with Standard CEI EN 60947-2 and feature 80 to 125 A rated current values with B, C, D and K characteristic curves. Thanks to a red/green signal, showing the position of internal moving contacts, and to a switch lever, that stops in the middle position in case of thermal or magnetic tripping, they show why tripping occurred at a glance, enabling prompt maintenance. Performance similar to moulded case circuit-breakers but with the advantage of the compact dimension, S800 B are available from 1 to 4 poles versions. www.abb.com/lowvoltage



Intelligent Building Solutions

ABB i-bus® KNX – Room Automation – Room Controller



11

Intelligent Building Solutions

ABB i-bus® KNX – Room Automation – Room Controller

The fundamental principle:

One device per room

A single Room Controller controls all the room functions.

This “one device per room” principle economically and flexibly provides KNX functionality: With 4 or 8 modules, which are simply inserted into the basis device, all loads in this room (lights, blinds, heating, etc.) can be controlled.

Economic security from the outset

The installation concept of the Room Controller, particularly the simple plug-in module concept, provides security and reliability.

– When planning the infrastructure of a building:

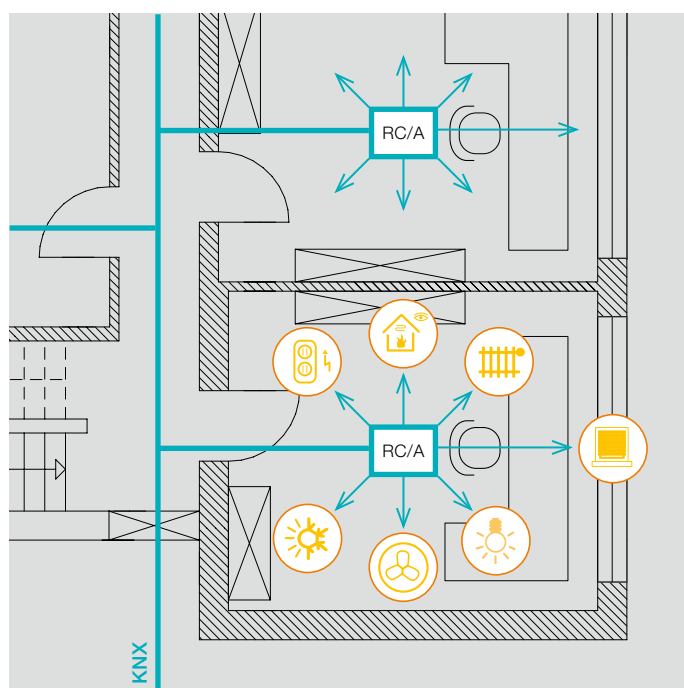
It can be undertaken without exact knowledge of the subsequent user demands.

– During commissioning:

When user demands have been determined, they are implemented by simple insertion of modules.

– In operation in a building:

Modifications to the room utilisation are easy to implement. The changes to the cable routing are limited to the room concerned.



Improved fire protection included

The significant reduction in the wiring also considerably reduces the fire load and thus improves safety for persons and assets.

Save on energy and not on comfort

Each room is used differently. The different module assignments of the Room Controller can be configured accordingly. Just three examples of special building functions that can be implemented with the device.

In the lighting sector

Constant lighting control is not the only conceivable solution. A high level of comfort can be assured by the control of different light scenes.

Blinds and roller shutters

Not only do they provide pleasant shading, they also assist in responsible use of energy. Intelligent facade controls move the blinds to suit the position of the sun.

Heating/Ventilation/Air conditioning

The control of electrothermal valves on radiators is no problem for the “electronic switch actuator” module of the Room Controller. The ventilation can also be integrated into this automatic control.

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ABB i-bus® KNX – Room Automation – Room Controller

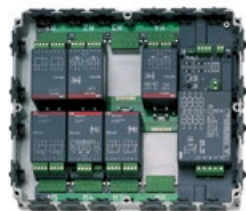
Overview of switching performance

	SA/M 2.6.1	SA/M 2.16.1	SD/M 2.6.2	LR/M 1.6.2	UD/M 1.300.1	ES/M 2.230.1	ES/M 2.24.1
Outputs							
Load circuits	2 relay outputs	2 relay outputs, floating	2 relay outputs	1 relay output	Semiconductor output, dimmed via phase interval or phase control	2 semiconductor outputs for resistive loads, inrush current: max. 1 A, continuous current: max. 700 mA	
U _n rated voltage	250/440 V AC	250/440 V AC	250/440 V AC	250/440 V AC			
I _n rated current	6 AX	16 A	6 AX	6 AX			
Control outputs			2 x 1...10 V DC (passive)	1 x 1...10 V DC (passive)			
Max. control current			30 mA	30 mA	Max. output power 300 VA at 230 V AC 150 VA at 127 V AC Min. output power: 2 VA		
Max. cable length			100 m	100 m			
Switching current per output							
AC3 operation (cos φ = 0.45) EN 60 947-4-1	6 A / 230 V	8 A / 230 V	6 A / 230 V	6 A / 230 V			
AC1 operation (cos φ = 0.45) EN 60 947-4-1	6 A / 230 V	16 A / 230 V	6 A / 230 V	6 A / 230 V			
Fluorescent lighting load AX to EN 60 669	6 A / 250 V (70 μF)	16 A / 250 V (70 μF)	6 A / 250 V (70 μF)	6 A / 250 V (70 μF)			
Minimum switching capacity	100 mA / 12 V 100 mA / 24 V	100 mA / 12 V 100 mA / 24 V	100 mA / 12 V 100 mA / 24 V	100 mA / 12 V 100 mA / 24 V			
DC current switching capacity (resistive load)	6 A / 24 V=	16 A / 24 V=	6 A / 24 V=	6 A / 24 V=			
Lamp loads at 230 V AC							
– Incandescent lamp load	1380 W	2300 W	1380 W	1380 W			
Fluorescent lamps T5 / T8							
– Uncompensated	1380 W	2300 W	1380 W	1380 W			
– Parallel compensated	1380 W	1500 W	1380 W	1380 W			
– DUO connection	1380 W	1500 W	1380 W	1380 W			
Low-volt halogen lamps							
– Inductive transformer	1200 W	1200 W	1200 W	1200 W			
– Electronic transformer	1380 W	1500 W	1380 W	1380 W			
– Halogen lamp 230 V	1380 W	2300 W	1380 W	1380 W			
Dulux lamp							
– Uncompensated	1100 W	1100 W	1100 W	1100 W			
– Parallel compensated	1100 W	1100 W	1100 W	1100 W			
Mercury-vapour lamp							
– Uncompensated	1380 W	2000 W	1380 W	1380 W			
– Parallel compensated	1380 W	2000 W	1380 W	1380 W			
Switching capacity							
– Max. peak inrush-current I _p (150 μs)	400 A	400 A	400 A	400 A			
– Max. peak inrush-current I _p (250 μs)	320 A	320 A	320 A	320 A			
– Max. peak inrush-current I _p (600 μs)	200 A	200 A	200 A	200 A			
Number of electronic ballasts (T5/T8, single element)							
– 18 W (ABB EVG 1x18 CF)	23	23	23	23			
– 24 W (ABB EVG-T5 1x24 CY)	23	23	23	23			
– 36 W (ABB EVG 1x36 CF)	14	14	14	14			
– 58 W (ABB EVG 1x58 CF)	11	11	11	11			
– 80 W (Helvar EL 1x80 SC)	10	10	10	10			

Further technical specifications can be found in the corresponding product manuals at www.abb.com/knx

Intelligent Building Solutions

ABB i-bus® KNX – Room Automation – Room Controller Basis Devices



Configuration example
RC/A 8.1

Room Controller

The Room Controller controls all the functions in the room as a central device. Due to its modular design, it can be adapted flexibly to the required functionality. On-site installation enables short assembly and commissioning times. A structured cable entry creates clarity and flexibility for changes in function – both during planning and operation.

Special features

- Height 50 mm: optimised for underfloor installation or suspended ceilings
- Room Controller counts as just one bus device
- Robust housing, IP 54 degree of protection
- Manual operation for immediate testing – even without bus voltage
- Comprehensive software functionality



RC/A 4.2

Room Controller, Basis Device for 4 Modules, SM

It accommodates up to 4 plug-in modules and controls their functions. The RC/A 4.2 communicates as a bus device. Any module type can be plugged into each module slot. A manual control for module function test is integrated. Dimensions: (H x W x D) 200 x 275 x 50.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code		pc.	kg
	–	RC/A 4.2	2CDG110104R0011		1	0.98



RC/A 8.2

Room Controller, Basis Device for 8 Modules, SM

It accommodates up to 8 plug-in modules and controls their functions. Any module type can be plugged into each module slot. The inserted module is automatically detected. The manual operation facility enables an immediate function test even when bus voltage is not applied. Dimensions: (H x W x D) 270 x 316 x 50.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code		pc.	kg
	–	RC/A 8.2	2CDG110106R0011		1	1.695

Please note: With the new DALI Light Controller 4-fold, SM DLR/A 4.8.1.1 the DALI Lighting Control can be integrated in a decentralised KNX installation too!

Intelligent Building Solutions

ABB i-bus® KNX – Room Automation – Room Controller

Function Modules



BE/M 4.230.1

Binary Input Modules, 4-fold

Each of the modules provides 4 inputs. There are 3 module types available for the connection of 115/230 V, 12/24 V (AC or DC) or floating contacts to cover all demands.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
230 V	–	BE/M 4.230.1	2CDG110005R0011		1	0.13
12/24 V	–	BE/M 4.24.1	2CDG110006R0011		1	0.13
Contact scanning	–	BE/M 4.12.1	2CDG110007R0011		1	0.13



SA/M 2.6.1

Switch Actuator Module, 2-fold, 6 A

For switching loads up to 16 A at a maximum continuous current of 6 A.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SA/M 2.6.1	2CDG110002R0011		1	0.17



SA/M 2.16.1

Switch Actuator Module, 2-fold, 16 A, floating contacts

For switching two loads up to 16 A. The switched voltage is independent of the basic device and is connected directly to the module.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SA/M 2.16.1	2CDG110100R0011		1	0.16



JA/M 2.230.1

Shutter Actuator Modules, 2-fold

For controlling two independent blind or shutter drives. There are two module types available for 115/230 V AC or 24 V DC drives.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
230 V AC	–	JA/M 2.230.1	2CDG110003R0011		1	0.17
24 V DC	–	JA/M 2.24.1	2CDG110004R0011		1	0.17



SD/M 2.6.2

Switch/Dim Actuator Module, 2-fold, 6 AX

It enables the switching and dimming of two groups of luminaires in conjunction with electronic ballasts via a 1...10 V control voltage. Enhanced switching capacity. (Replaces the SD/M 2.6.1).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SD/M 2.6.2	2CDG110107R0011		1	0.17

Intelligent Building Solutions

ABB i-bus® KNX – Room Automation – Room Controller Function Modules



LR/M 1.6.2

Light Controller Module, 1-fold, 6 AX

Enables switching and dimming of a lighting group via 1...10 V control voltage. The device can be used for constant lighting control in conjunction with Light Sensor LF/U 2.1. (Replaces the LR/M 1.6.1).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	LR/M 1.6.2	2CDG110108R0011		1	0.13



UD/M 1.300.1

Universal Dim Actuator Module, 1-fold, 300 VA

For dimming incandescent lamps, 230 V or low-voltage halogen lamps up to 300 W/VA. The automatic load detection detects the connected load and optimises the control. The minimum load is just 2 W.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	UD/M 1.300.1	2CDG110012R0011		1	0.18



ES/M 2.230.1

Electronic Switch Actuator Module, 2-fold

With 2 overload-proof outputs for noiseless control of heating systems and chilled ceilings via thermoelectric valve drives. Two module types for voltages from 115/230 V or 24 V (AC or DC) are available.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
115/230 V	–	ES/M 2.230.1	2CDG110013R0011		1	0.15
24 V	–	ES/M 2.24.1	2CDG110014R0011		1	0.15

Intelligent Building Solutions

ABB i-bus® KNX – Room Automation – Room Master



RM/S 1.1



RM/S 2.1



RM/S 3.1



RM/S 4.1

Room Master

The Room Master is a KNX device with a combination of inputs and outputs. The quantities, technical data and the functions of these inputs and outputs are compiled, so that overall control of all the functions in rooms of a live-in character or apartments, are implemented via a device. Typical areas of application of the Room Master are hotel rooms, hospital rooms as well as apartments in institutions for residential care or in student residential homes. The Room Master with its compact design covers all the basic requirements for

- Lighting control
- Heating/Air conditioning
- Shading control (shutters, blinds or curtains - with the RM/S 2.1)
- Control of further loads via switched electrical sockets

Function extensions are possible at any time, e.g. devices for dimming via ABB i-bus® KNX.

Overview of the inputs and outputs

	RM/S 1.1	RM/S 2.1	RM/S 3.1	RM/S 4.1	Application possibilities
Binary inputs via contact scanning	8	18	12	8	For connection of switches or push-buttons (light on/off, shutter up/down, etc.) or sensors (window contacts, door contacts, water sensors, condensation water sensors, hotel card readers, etc.)
Outputs 20 A (16 AX)	1	3	4	–	Bathroom fan, switching of electrical sockets
Outputs 16 A (10 AX)	2	1	–	–	Auxiliary electrical heating of fan-coil units (at RM/S 1.1 and 2.1), lighting
Outputs 6 A	3	12	–	8	3-speed fan control (at RM/S 1.1 and 2.1), lighting
Outputs 0.5 A electronic	4	4	–	–	Valve control (heating, cooling)
Outputs 6 A changeover contact	–	1	4 (configurable as switch outputs too)	–	Blind or roller blind control

- RM/S 1.1 and RM/S 2.1 are preprogrammed ex factory
- RM/S 3.1 and RM/S 4.1 are programmable with predefined and tested example projects (ETS 4) for different fields of application (office, schools, hotel rooms, ...)
- Commissioning of the preprogrammed devices on the construction site without notebook and ETS programming. With the electrical connection all room functions are available.
- Optional functional extensions via integration into KNX networks with ETS software.

Further information about Room Master on www.abb.com/knx

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Inputs, Outputs, Fan Coil	8	RM/S 1.1	2CDG110094R0011		1	0.45
Inputs, Outputs, Blind Control, Fan Coil	12	RM/S 2.1	2CDG110095R0011		1	0.76
Inputs, Outputs, Blind Control or Outputs	12	RM/S 3.1	2CDG110165R0011		1	0.55
Inputs, Outputs	8	RM/S 4.1	2CDG110170R0011		1	0.3

Intelligent Building Solutions

ABB i-bus® KNX – Room Automation – Flush-mounted Combined Devices



6173/11 U-500

Flush-mounted combined actuator

For controlling blind or awning motors. For connecting thermoelectric actuating drives. With 3 inputs and 2 outputs. A first output (O1) allows the control of electrically-operated Venetian blinds, roller shutters, awnings, venting louvers or similar blinds for 230 V AC mains voltage. One additional electronic switching output (O2) allows silent control of electrothermal valve drives for heating or cooling systems. The bus can be connected via enclosed terminal block. Rated voltage: 230 V~, +10% / -10%, 50 Hz – 60 Hz. Input polling voltage 5V. O1 Rated current 3 A, cos φ 0.8; Output voltage: 250 V~. O2: Rated current: 25 mA, cos φ 1, Output voltage: 250 V~.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6173/11 U-500	6151-0-0249		1	0.11



6151/11 U-500

Switch actuator, 16 A

For switching 230 V~ consumers. Equipped with two extension inputs which depending on parameterization can act directly on the switching output or alternatively as binary inputs on the KNX bus. One Normally open contact, potential free; switching voltage: 230 V AC; 50/60 Hz; max. switching current: 16 A; switching capacity: up to 2.500 W depending on the consumer. Rated voltage: 230 V~, +10% / -10%, 50 Hz – 60 Hz. The bus can be connected via enclosed terminal block.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6151/11 U-500	6151-0-0245		1	0.11



6152/11 U-500

Blind actuator

For controlling blind or awning motors. With 3 inputs and 1 change-over output – normally open contact, potential-bound -. Rated voltage: 230 V~, +10% / -10%, 50 Hz – 60 Hz. Input polling voltage: 5 V. Output rated current: 3 A, cos φ 0.8, Output voltage: 250 V~. The bus can be connected via enclosed terminal block.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6152/11 U-500	6152-0-0040		1	0.11



6164/11 U-500

Heating actuator

1 electronic output (noiseless) For connecting thermoelectric actuating drives. The device possesses three additional input. Rated voltage: 230 V~, +10% / -10%, 50 Hz – 60 Hz. Input polling voltage 5 V. OutputRated current: 25 mA, cos φ 1. Output voltage: 250 V~. The bus can be connected via enclosed terminal block.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6164/11 U-500	6151-0-0247		1	0.09

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ABB i-bus® KNX – Inputs



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Intelligent Building Solutions

ABB i-bus® KNX – Inputs

Wide-range inputs and a streamlined range – The ABB i-bus® KNX Binary Inputs.

ABB i-bus® KNX Binary Inputs serve as an interface for operation of KNX systems via conventional push buttons and switches as well as for processing binary signals (signalling contacts).

In contrast to the existing solutions, where the input voltages of 24 V and 230 V required separate devices, the Binary Inputs now feature **wide-range inputs**, which can process voltage signals ranging from 10 to 230 V AC/DC. This offers the **installer significantly greater flexibility**.

In addition to two devices with 4 and 8 wide-range inputs, the ABB i-bus® KNX Binary Input product range is rounded off by two devices with 4 and 8 inputs with scanning voltage. On these types, a pulsed scanning voltage is provided for connection of floating contacts from the device.

With an identical range of applications, the number of ABB i-bus® KNX Binary Inputs is now reduced from 6 types to 4.

All Binary Inputs feature a **high-quality membrane keypad for comfortable manual operation and display of the device functions**. Input states can be simulated at the device, so that the conventional push buttons, switches or floating contacts do not need to be connected for commissioning purposes. The device functions can be easily tested during commissioning in this way.

The Binary Inputs are powered via the KNX and do not require an additional power supply.

The software functionality of the Binary Inputs has also been extended. It is now possible to send **several switching telegrams with just a single push of a button**.

Especially useful, just as in the case of the Switch Actuators, it is also possible **to copy the channels of the device in the ETS**. The parameters and group addresses of a channel can be simply transferred to other channels in this way. This simplifies project engineering and helps reduce sources of error.



Application

- Operation of KNX systems via conventional push buttons and switches
- Processing of binary signals (signalling contacts)

Benefits

- Flexible application due to wide-range inputs
- Reduced stock requirement due to streamlined product range
- Simplified commissioning using the copy function

Product

- BE/S 4.20.2.1 with 4 inputs for contact scanning and manual operation
- BE/S 4.230.2.1 with 4 wide-range inputs and manual operation
- BE/S 8.20.2.1 with 8 inputs for contact scanning and manual operation
- BE/S 8.230.2.1 with 8 wide-range inputs and manual operation

Intelligent Building Solutions

ABB i-bus® KNX – Inputs

Binary Inputs Selection Table

	BE/S 4.20.2.1	BE/S 4.230.2.1	BE/S 8.20.2.1	BE/S 8.230.2.1	US/U 2.2	US/U 4.2	US/U 12.2
General							
Voltage range	–	10...230 V	–	10...230 V	–	–	–
Voltage type	–	AC/DC	–	AC/DC	–	–	–
Contact scanning	■	–	■	–	■	■	■
Inputs	4	4	8	8	2	4	12
Type of installation	MDRC	MDRC	MDRC	MDRC	FM	FM	FM
Module width (space unit)	2	2	4	4	–	–	–
Switch sensor							
Send switch value after any edge	■	■	■	■	■	■	■
Send switch value after signal length and/or cyclically	■	■	■	■	■	■	■
Send switch value 1 cyclically	■	■	■	■	■	■	■
Send switch value 2	■	■	■	■	–	–	–
Send switch value 3	■	■	■	■	–	–	–
Difference between short and long operation	■	■	■	■	■	■	■
Dim sensor							
Start-stop dimming, step-by-step dimming	■	■	■	■	■	■	■
One-touch dimming	■	■	■	■	■	■	■
Shutter Sensor							
Shutter operation via a push button/switch	■	■	■	■	■	■	■
Shutter operation via two push buttons/switches	■	■	■	■	■	■	■
Value/Forced operation							
1 bit [0/1], 2 bit forced operation	■	■	■	■	■	■	■
1/2/4 bytes	■	■	■	■	■	■	■
Signed	■	■	■	■	–	–	–
3 byte, time, weekday	■	■	■	■	–	–	–
Control scene							
8 bit scene	■	■	■	■	■	■	■
Store scene	■	■	■	■	■	■	■
Switching sequence							
Several preset sequences can be set	■	■	■	■	■	■	■
Link several push buttons in a switching sequence (actuating number)	■	■	■	■	■	■	■
Multiple operation							
Telegram for long operation	■	■	■	■	■	■	■
Multiple operation can be set	■	■	■	■	■	■	■
Pulse counter							
Adjustable data type and threshold values	■	■	■	■	■	■	■
Temporary counter activation	■	■	■	■	■	■	■
Send counter level cyclically	■	■	■	■	■	■	■
Manual operation							
Energy-saving mode	■	■	■	■	–	–	–
Enable/release manual operation	■	■	■	■	–	–	–
Manual operating status	■	■	■	■	–	–	–
Enable/release manual operation button per input	■	■	■	■	–	–	–
Input LED can be inverted	■	■	■	■	–	–	–
Special functions							
Copying and exchanging parameter settings	■	■	■	■	–	–	–
Enable/disable input	■	■	■	■	■	■	■
Adjustable debounce time and minimum signal time	■	■	■	■	■	■	■
Limit the number of telegrams	■	■	■	■	■	■	■
Device sends an "In operation" telegram	■	■	■	■	–	–	–
Heating valve control (electric relay)	–	–	–	–	■	■	■
Switch LEDs	–	–	–	–	■	■	■

■ = Function is supported

Intelligent Building Solutions

ABB i-bus® KNX – Inputs



BE/S 8.230.2.1

Binary Inputs, 10 – 230 V AC/DC, MDRC

Detects AC/DC signals in the voltage range from 12...230 V. The state of the input is displayed via yellow LEDs. The binary inputs enable detection of independent input signals. The devices feature a manual operation pushbutton for each channel. The devices are powered via the ABB i-bus® and do not require an additional power supply.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
4-fold	2	BE/S 4.230.2.1	2CDG110091R0011		1	0.12
8-fold	4	BE/S 8.230.2.1	2CDG110093R0011		1	0.23



BE/S 4.20.2.1

Binary Inputs, Contact Scanning, MDRC

Scans floating contacts with internally generated scanning voltage. The state of the input is displayed via yellow LEDs. The binary inputs enable detection of independent input signals. The devices feature a manual operation pushbutton for each channel. The devices are powered via the ABB i-bus® and do not require an additional power supply.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
4-fold	2	BE/S 4.20.2.1	2CDG110090R0011		1	0.12
8-fold	4	BE/S 8.20.2.1	2CDG110092R0011		1	0.23



US/U 4.2

Universal Interface, FM

The universal interface has 2, 4 or 12 channels which can be parametrised as inputs or outputs with the ETS software. Conventional push-buttons, auxiliary contacts, LEDs and the electronic relay ER/U can be connected. The connecting cables can be extended up to 10 m. The contact scanning voltage and the supply voltage for the LEDs are made available by the device, the series resistors for the LEDs are integrated.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
2-fold	–	US/U 2.2	GHQ6310074R0111		1	0.06
4-fold	–	US/U 4.2	GHQ6310070R0111		1	0.06
12-fold	–	US/U 12.2	2CDG110065R0011		1	0.08



AE/S 4.1.1.3

Analogue Input, 4-fold, MDRC

Analogue Input, 2-fold, SM

Used wherever analogue variables should be detected. The sophisticated housing concept of the surface mounted device and the screw terminals of the MDRC device enable quick and clear wiring and improve the speed of connection of the sensors.

Comprehensive range of adjustment for many typical sensors (1 – 10 V, 0(4) – 20 mA, 0 – 1 V, PT 100, PT 1000,...) for detection of temperature, brightness, fill levels, etc.

For active sensors the auxiliary voltage is supplied by AE/S 4.1.1.3; in case of AE/A 2.1 a separate auxiliary voltage supply is required.



AE/A 2.1

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
4-fold, MDRC	4	AE/S 4.1.1.3	2CDG110190R0011		1	0.27
2-fold, SM	–	AE/A 2.1	2CDG110086R0011		1	0.30

Intelligent Building Solutions

ABB i-bus® KNX – Inputs



WZ/S 1.3.1.2

Weather Unit, MDRC and Weather Sensor, SM

It is used to detect and process weather data from weather sensor. It supplies data for twilight and brightness levels in 3 directions, rain, temperature, information on day/night, wind speed, date and time. An additional input for the connection of a PT - 1000 sensor is provided. Four value memories which can store up to 24 values each are available. The Weather Unit WZ/S 1.3.1.2 can be operated either with the new Weather Sensor WES/A 3.1 or with the former sensor WES/A 2.1. The Weather Unit also provides the supply voltage for the connected sensor. The Weather Unit has to be supplied with a operating voltage of 85 to 265 V AC. The Weather Unit supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.



WES/A 3.1

The Weather Sensor WES/A 3.1 detects twilight, brightness in three directions, rain, temperature, day/night, wind speed and the date and time using a GPS module. An additional heating transformer is not required. The new Weather Sensor WES/A 3.1 can be connected to the new Weather Unit WZ/S 1.3.1.2 or to the former Weather Unit WZ/S 1.1.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
Weather Unit	4	WZ/S 1.3.1.2	2CDG110184R0011			0.20
Weather Sensor	-	WES/A 3.1	2CDG120046R0011			0.17



WS/S 4.1.1.2

Weather Station, 4-fold, MDRC

All common weather sensors for wind speed, wind direction, rain, amount of rain, brightness, light intensity, pyranometers, twilight, air pressure, humidity or temperature can be connected to the device. The power supply generates the 24 V DC voltage for external sensors (max. 300 mA). The device can be operated with 85 to 265 V AC, 50/60 Hz. The application software is configured for the detection of weather based data and enables quick sensor programming. The Weather Station supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
	4	WS/S 4.1.1.2	2CDG110191R0011			0.27

Intelligent Building Solutions

ABB i-bus® KNX – Outputs – A Complete Switch Actuator Range



Switch Actuators are responsible for reliable switching of different electrical loads in the KNX system. Many different load situations are possible. ABB offers a suitable Switch Actuator for all application areas. The range has been rounded off with a series. Now 16/20 AX C-Load Switch Actuators with and without a current detection feature are available; each featuring 2, 4, 8 or 12 outputs.

In the following table, you will find an overview of the ABB i-bus® Switch Actuators and their type designations:

-	SA/S 2.6.2.1	SA/S 2.10.2.1	SA/S 2.16.2.1	SA/S 2.16.5.1	SA/S 2.16.6.1
SA/S 4.6.1.1	SA/S 4.6.2.1	SA/S 4.10.2.1	SA/S 4.16.2.1	SA/S 4.16.5.1	SA/S 4.16.6.1
SA/S 8.6.1.1	SA/S 8.6.2.1	SA/S 8.10.2.1	SA/S 8.16.2.1	SA/S 8.16.5.1	SA/S 8.16.6.1
SA/S 12.6.1.1	SA/S 12.6.2.1	SA/S 12.10.2.1	SA/S 12.16.2.1	SA/S 12.16.5.1	SA/S 12.16.6.1

Note:

The codes represent the following:

SA/S	=	Switch Actuator, DIN Rail mounting
SA/S x.	x =	Number of outputs
SA/S 8.y.	y =	Rated current in Ampere A
SA/S 8.16.1	1 =	Standard without manual operation
SA/S 8.16.2	2 =	With manual operation
SA/S 8.16.5	5 =	C-Load (200 µF)
SA/S 8.16.6	6 =	C-Load with current detection
SA/S 8.16.6.z	z =	Version

Intelligent Building Solutions

ABB i-bus® KNX – Outputs – Switching Capacity Overview

The following table provides an overview of the rated values, switching performance, lamp loads or the number of lamps, which can be connected to a contact:

	SA/S 4.6.1.1	SA/S 2.6.2.1 SA/S 4.6.2.1	SA/S 2.10.2.1 SA/S 4.10.2.1	SA/S 2.16.2.1 SA/S 4.16.2.1	SA/S 2.16.5.1 SA/S 4.16.5.1	SA/S 2.16.6.1 SA/S 4.16.6.1
	SA/S 8.6.1.1	SA/S 8.6.2.1	SA/S 8.10.2.1	SA/S 8.16.2.1	SA/S 8.16.5.1	SA/S 8.16.6.1
	SA/S 12.6.1.1	SA/S 12.6.2.1	SA/S 12.10.2.1	SA/S 12.16.2.1	SA/S 12.16.5.1	SA/S 12.16.6.1
I_n rated current (A)	6 A	6 AX	10 AX	16 A	16/20 AX C-Load	16/20 AX C-Load
U_n rated voltage (V)	250/440 V AC	250/440 V AC	250/440 V AC	250/440 V AC	250/440 V AC	250/440 V AC
AC1 operation (cos φ = 0.8) DIN EN 60947-4-1	6 A	6 A	10 A	16 A	20 A	20 A
AC3 operation (cos φ = 0.45) DIN EN 60947-4-1	6 A	6 A	8 A	– ⁴⁾	16 A	16 A
C-Load switching capacity	–	–	–	–	20 A	20 A
Fluorescent lighting load AX to EN 60669-1	6 A (35 µF) ³⁾	6 AX (140 µF) ³⁾	10 AX (140 µF) ³⁾	16 A (70 µF) ³⁾	20 AX (200 µF) ³⁾	20 AX (200 µF) ³⁾
Minimum switching capacity	10 mA/12 V	100 mA/12 V	100 mA/12 V	100 mA/12 V	100 mA/12 V	100 mA/12 V
DC current switching capacity (resistive load)	6 A/24 V =	6 A/24 V =	10 A/24 V =	16 A/24 V =	20 A/24 V =	20 A/24 V =
Mechanical service life	> 10 ⁷	> 3 x 10 ⁶	> 3 x 10 ⁶	> 3 x 10 ⁶	> 10 ⁶	> 10 ⁶
Electronic endurance to IEC 60947-4-1:						
– Rated current AC1 (240 V/0.8)	100,000	100,000	100,000	100,000	100,000	100,000
– Rated current AC3 (240 V/0.45)	15,000	30,000	30,000	30,000	30,000	30,000
– Rated current AC5a (240 V/0.45)	15,000	30,000	30,000	30,000	30,000	30,000
Incandescent lamp load at 230 V AC	1,200 W	1,380 W	2,500 W	2,500 W	3,680 W	3,680 W
Fluorescent lamp T5 / T8:						
– Uncorrected	800 W	1,380 W	2,500 W	2,500 W	3,680 W	3,680 W
– Parallel compensated	300 W	1,380 W	1,500 W	1,500 W	2,500 W	2,500 W
– DUO circuit	350 W	1,380 W	1,500 W	1,500 W	3,680 W	3,680 W
Low-voltage halogen lamps:						
– Inductive transformer	800 W	1,200 W	1,200 W	1,200 W	2,000 W	2,000 W
– Electronic transformer	1,000 W	1,380 W	1,500 W	1,500 W	2,500 W	2,500 W
Halogen lamp 230 V	1,000 W	1,380 W	2,500 W	2,500 W	3,680 W	3,680 W
Dulux lamps:						
– Uncorrected	800 W	1,100 W	1,100 W	1,100 W	3,680 W	3,680 W
– Parallel compensated	800 W	1,100 W	1,100 W	1,100 W	3,000 W	3,000 W
Mercury-vapour lamps:						
– Uncorrected	1,000 W	1,380 W	2,000 W	2,000 W	3,680 W	3,680 W
– Parallel compensated	800 W	1,380 W	2,000 W	2,000 W	3,000 W	3,000 W
Sodium-vapour lamps:						
– Uncorrected	1,000 W	1,380 W	2,000 W	2,000 W	3,680 W	3,680 W
– Parallel compensated	800 W	1,380 W	2,000 W	2,000 W	3,000 W	3,000 W
Max. peak inrush-current I_p (150 µs)	200 A	400 A	400 A	400 A	600 A	600 A
Max. peak inrush-current I_p (250 µs)	160 A	320 A	320 A	320 A	480 A	480 A
Max. peak inrush-current I_p (600 µs)	100 A	200 A	200 A	200 A	300 A	300 A
Number of electronic ballasts (T5/T8, single element):²⁾						
18 W (ABB ballasts 1 x 18 SF)	10 ballasts	23 ballasts	23 ballasts	23 ballasts	26 ¹⁾ ballasts	26 ¹⁾ ballasts
24 W (ABB ballasts 1 x 24 CY)	10 ballasts	23 ballasts	23 ballasts	23 ballasts	26 ¹⁾ ballasts	26 ¹⁾ ballasts
36 W (ABB ballasts 1 x 36 CF)	7 ballasts	14 ballasts	14 ballasts	14 ballasts	22 ballasts	22 ballasts
58 W (ABB ballasts 1 x 58 CF)	5 ballasts	11 ballasts	11 ballasts	11 ballasts	12 ¹⁾ ballasts	12 ¹⁾ ballasts
80 W (Helvar EL 1 x 80 SC)	3 ballasts	10 ballasts	10 ballasts	10 ballasts	12 ¹⁾ ballasts	12 ¹⁾ ballasts

¹⁾ The number of ballasts is limited by the protection with B16/B20 circuit-breakers.

²⁾ For multiple element lamps or other types, the number of electronic ballasts must be determined using the peak inrush current of the electronic ballasts.

³⁾ The maximum peak inrush current may not be exceeded.

⁴⁾ Not intended for AC3 operation, see Technical Data for maximum AC3 current.

Intelligent Building Solutions

ABB i-bus® KNX – Outputs – An Overview of all Software Functions

The following table provides an overview of the functions possible with the Switch Actuators and their application programs:

	SA/S 4.6.1.1	SA/S 2.6.2.1 SA/S 4.6.2.1	SA/S 2.10.2.1 SA/S 4.10.2.1	SA/S 2.16.2.1 SA/S 4.16.2.1	SA/S 2.16.5.1 SA/S 4.16.5.1	SA/S 2.16.6.1 SA/S 4.16.6.1
	SA/S 8.6.1.1	SA/S 8.6.2.1	SA/S 8.10.2.1	SA/S 8.16.2.1	SA/S 8.16.5.1	SA/S 8.16.6.1
	SA/S 12.6.1.1	SA/S 12.6.2.1	SA/S 12.10.2.1	SA/S 12.16.2.1	SA/S 12.16.5.1	SA/S 12.16.6.1
Type of installation	MDRC	MDRC	MDRC	MDRC	MDRC	MDRC
Number of outputs	4/8/12	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12
Module width (space unit)	4/6/8	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12
Manual operation	–	■	■	■	■	■
Contact position display	–	■	■	■	■	■
I _n rated current (A)	6 A	6 AX	10 AX	16 A	16/20 AX C-Load	16/20 AX C-Load
Current detection	–	–	–	–	–	■
Switch function						
– ON/OFF delay	■	■	■	■	■	■
– Staircase light	■	■	■	■	■	■
– Warning before end of staircase lighting	■	■	■	■	■	■
– Staircase lighting time set via object	■	■	■	■	■	■
– Flashing	■	■	■	■	■	■
– Switch response can be set (N.O./N.C.)	■	■	■	■	■	■
– Thresholds	■	■	■	■	■	■
Current detection						
– Threshold value monitoring	–	–	–	–	–	■
– Measured value detection	–	–	–	–	–	■
Function Scene						
	■	■	■	■	■	■
Function Logic						
– Logic AND function	■	■	■	■	■	■
– Logic OR function	■	■	■	■	■	■
– Logic XOR function	■	■	■	■	■	■
– Gate function	■	■	■	■	■	■
Priority object/forced operation						
	■	■	■	■	■	■
Heating/fan control						
– Switch ON/OFF (2 point control)	■	■	■	■	■	■
– Cyclical fault monitoring	■	■	■	■	■	■
– Automatic purging	■	■	■	■	■	■
Fan Coil control ¹⁾	■	■	■	■	■	■
Special functions						
– Default position on bus voltage failure/recovery	■	■	■	■	■	■
– Status messages	■	■	■	■	■	■

¹⁾ See special ABB i-bus® KNX devices of the HVAC area, e.g. Fan/Fan Coil actuator LFA/S or Fan Coil actuator FCA/S.

■ = possible functions

Intelligent Building Solutions

ABB i-bus® KNX – Outputs



SA/S 8.6.1.1

Switch Actuators, 6 A, MDRC

Using floating contacts it switches 4, 8 or 12 independent electrical loads. The 6 A-AC3 devices are suited for switching resistive, inductive and capacitive loads. Please note: Increased module width compared to previous generation.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
4-fold	4	SA/S 4.6.1.1	2CDG110152R0011		1	0.18
8-fold	6	SA/S 8.6.1.1	2CDG110153R0011		1	0.27
12-fold	8	SA/S 12.6.1.1	2CDG110154R0011		1	0.35



SA/S 8.6.2.1

Switch Actuators, 6 A, MDRC, Manual Operation

Switches 2, 4, 8 and 12 independent electrical loads using floating contacts. Every output can be operated manually and features display of the switching state. The 6 A-AC3 devices are suited for switching resistive, inductive and capacitive loads.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
2-fold	2	SA/S 2.6.2.1	2CDG110180R0011		1	0.18
4-fold	4	SA/S 4.6.2.1	2CDG110181R0011		1	0.29
8-fold	8	SA/S 8.6.2.1	2CDG110182R0011		1	0.51
12-fold	12	SA/S 12.6.2.1	2CDG110183R0011		1	0.74



SA/S 4.10.2.1

Switch Actuators, 10 AX, MDRC

Switches 2, 4, 8 and 12 independent electrical loads using floating contacts. Every output can be operated manually and features display of the switching state. The 10AX-AC1 devices are especially suited for switching resistive, inductive and capacitive loads such as fluorescent lighting (AX) compliant to EN 60669.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
2-fold	2	SA/S 2.10.2.1	2CDG110155R0011		1	0.18
4-fold	4	SA/S 4.10.2.1	2CDG110156R0011		1	0.29
8-fold	8	SA/S 8.10.2.1	2CDG110157R0011		1	0.51
12-fold	12	SA/S 12.10.2.1	2CDG110158R0011		1	0.74



SA/S 8.16.2.1

Switch Actuators, 16 AC1, MDRC

Switches 2, 4, 8 and 12 independent electrical loads using floating contacts. Every output can be operated manually and features display of the switching state. The 16A-AC1 devices are suited for switching resistive, inductive and capacitive loads.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
2-fold	2	SA/S 2.16.2.1	2CDG110159R0011		1	0.18
4-fold	4	SA/S 4.16.2.1	2CDG110160R0011		1	0.29
8-fold	8	SA/S 8.16.2.1	2CDG110161R0011		1	0.51
12-fold	12	SA/S 12.16.2.1	2CDG110162R0011		1	0.74

Intelligent Building Solutions

ABB i-bus® KNX – Outputs



SA/S 12.16.5.1

Switch Actuator, 16/20 AX, C-Load, MDRC

Uses floating contacts to switch independent electrical loads via ABB i-bus® KNX. Every output can be operated manually and features display of the switching state. The 16AX-AC3, C-Load devices are especially suited for switching loads with high surge currents such as luminaries with ballasts or fluorescent lighting (AX) according to EN 60669.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
2-fold	2	SA/S 2.16.5.1	2CDG110132R0011		1	0.19
4-fold	4	SA/S 4.16.5.1	2CDG110133R0011		1	0.31
8-fold	8	SA/S 8.16.5.1	2CDG110134R0011		1	0.59
12-fold	12	SA/S 12.16.5.1	2CDG110137R0011		1	0.85



SA/S 8.16.6.1

Switch Actuator with Current Detection, 16/20 AX, C-Load, MDRC

Switches with floating contacts, 2, 4, 8 or 12 independent electrical loads with high surge currents. The Switch Actuators feature a circuit for high precision current detection for each output that is used to monitor the connected circuits. Every output can be operated manually and features display of the switching state. The 16/20A, C-Load devices are especially suited for switching loads with high surge currents such as luminaries with ballasts or fluorescent lighting (AX) according to EN 60669.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
2-fold	2	SA/S 2.16.6.1	2CDG110112R0011		1	0.21
4-fold	4	SA/S 4.16.6.1	2CDG110113R0011		1	0.38
8-fold	8	SA/S 8.16.6.1	2CDG110114R0011		1	0.69
12-fold	12	SA/S 12.16.6.1	2CDG110138R0011		1	0.90

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ABB i-bus® KNX – Outputs



IO/S 4.6.1.1

I/O Actuator, 6 A, MDRC

For the control of loads in residential areas, typically in hotel rooms and apartments. The I/O Actuators provide binary inputs for the connection of conventional push-buttons and outputs for switching loads. Inputs and outputs can be internally connected by ETS. By integrating the devices into KNX networks further functions can be realised: e.g. central control or room based emergency calls to a control centre.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
4-fold	4	IO/S 4.6.1.1	2CDG110168R0011		1	0.17
8-fold	8	IO/S 8.6.1.1	2CDG110169R0011		1	0.3



AA/S 4.1.2

Analogue Actuator, 4-fold, MDRC

NEW

Analogue Actuator, 2-fold, SM

The Analogue Actuators convert KNX telegrams in voltage or current signals. These analogue output signals are used to influence regulatory processes. For example, devices for heating, air conditioning or ventilation applications can be adjusted in their operation depending on the information, which are transmitted via the bus system. The Analogue Actuators are available in a 4-fold DIN rail version and a 2-fold device with surface mounting housing. The ABB i-bus Tool is supported for advanced diagnosis and improved commissioning.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
4-fold, MDRC	4	AA/S 4.1.2	2CDG110202R0011		1	0,19
2-fold, SM	4	AA/A 2.1.2	2CDG110203R0011		1	0,30



AA/A 2.1.2

Is it possible to keep the lights on? Absolutely.

Thanks to continuous innovation on surge protection. ABB improves the protection of the lighting systems equipment by launching the new OVR T2-T3 N1 15-2758 SL. OVR SL is a very compact SPD, equipped with a patented thermal disconnecter and a safety reserve system. This new range is specifically designed in order to prevent the risks of overheating and fires in LED lighting systems.

www.abb.com/lowvoltage



Intelligent Building Solutions

ABB i-bus® KNX – Shutters and Sun Protection

Modern building installation enables a high degree of functionality and simultaneously complies with increased security requirements. Due to the structured installation of the electrical components, it is possible to carry out rapid planning, installation and setup as well as achieve cost benefits during operation.

Modern sun protection devices have a significant role, as they must fulfil many demands:

- Anti-glare protection (e.g. PC workstations)
- Utilization of daylight by tracking the sun's position and directing available daylight
- Protecting furniture and carpets from fading
- Regulating the room temperature (overheating protection in summer; harvesting the available energy on cold days)
- Providing protection from people looking in from the outside
- Protection against intruders.

With the Blind/Roller Shutter Actuators JRA/S, the complex requirements on a sustainable and energy efficient automatic sun protection control can be implemented in offices, residential and functional buildings via ABB i-bus® KNX.

The Blind/Roller Shutter Actuators are ideal for the control of drives in the area of sun protection:

- Blinds, exterior blinds, slat blinds and panel curtains
- Roller shutters, roller blinds, screens, vertical blinds
- Awnings, pleated blinds, pleated curtains, etc.

Optimum room air quality via automatic ventilation

The demands for the reduction of energy consumption often results in poor ventilation in today's heavily insulated buildings. The quality of the room air does not comply with the desired and required level.

Natural ventilation is often an effective and efficient method for exchanging the "used" room air and improving the air quality in the room. If the air quality in the room is monitored with sensors (temperature, humidity, CO₂ concentration), the ventilation flaps can be opened automatically and in good time ensuring that the air quality is kept in a comfortable range.

Blind/Roller Shutter Actuators are ideal for control of ventilation elements such as

- Ventilation flaps
- Roof hatches, skylights
- Windows, doors and gates



Intelligent Building Solutions

ABB i-bus® KNX – Shutters and Sun Protection



Automatic travel detection

Travel times for the connected drives can be easily determined during operation with the automatic travel detection feature. It saves time during setup. Furthermore, compensation of age and weather-related length changes to blinds or roller shutters is assured. It facilitates precise positioning of the blinds/shutter when using sun position-dependent control.

Diagnostics

Enhanced diagnostic messages can be issued with the Blind/Roller Shutter Actuators. They are particularly useful during setup or in the event of faults. It is possible, for example, to detect and signal if the power supply to a drive is interrupted.

Copy and exchange

This function allows parameter settings of an output to be copied or exchanged with other freely selectable outputs. This is possible within a device or in conjunction with several devices. Copy and exchange is useful particularly on projects, where all drives of a facade are controlled identically. It shortens the setup process and reduces the possible sources of error with parameterization.

Integration in the room temperature control

The intelligent and networked blind and roller shutter control plays an important role in the energy efficient usage of a building. The level of sunlight in the room and heating up due to the sun's energy can be controlled in conjunction with the room climate control. The software function "overheat control" prevents unintentional overheating of a room. The blinds are closed in good time. The shutter control can be actively involved in the room temperature control – a requirement for implementing high-efficient buildings compliant to EN 15232.

Intelligent Building Solutions

ABB i-bus® KNX – Shutters and Sun Protection

The following table provides an overview of technical data and software functions for the shutter actuator range:

	STANDARD				SMI	
	JRA/S X.230.5.1	JRA/S 4.24.5.1	JRA/S X.230.2.1	JRA/S X.230.1.1	SJR/S 4.24.2.1	JA/S 4.SMI.1M
General						
Number of outputs	X = 2, 4, 8	4	X = 2, 4, 8	X = 2, 4, 8	4 x 4 SMI LoVo (broadcast)	4 x 4 SMI (broadcast)
Nominal voltage	230 V AC	24 V DC	230 V AC	230 V AC	LoVo 24 V	230 V
Auxiliary voltage 230 V	–	–	–	–	■	■
Type of installation	MDRC	MDRC	MDRC	MDRC	MDRC	MDRC
Module width (space unit)	2-fold: 4 4-fold: 4 8-fold: 8	4	2-fold: 4 4-fold: 4 8-fold: 8	2-fold: 4 4-fold: 4 8-fold: 8	4	4
Manual functions						
Disable/enable man. operation and status man. operation	■	■	■	–	■	■
Operating modes						
Control with slat adjustment (blinds, etc.)	■	■	■	■	■	■
Control without slat adjustment (roller shutters, awnings, etc.)	■	■	■	■	■	■
Ventilation flaps, switch mode including stair case lighting function	■	■	■	■	–	–
General device functions						
Automatic travel detection	■	■	–	–	–	–
Time-delayed switching of drives	■	■	■	■	■	■
Sending and switching delay time	■	■	■	■	–	–
In operation function	■	■	■	■	–	–
Request status values	■	■	■	■	–	–
Extended setting options for drives and blind/shutter	■	■	■	■	■	■
Direct functions						
UP/DOWN, STOP/Slat adjustment	■	■	■	■	■	■
Position height/slat 0...255	■	■	■	■	■	■
Preset Move to position/Set position	■	■	■	■	■	■
Enable limitation	■	■	■	■	■	■
Trigger travel detection	■	■	–	–	–	–
Trigger reference movement	■	■	■	■	–	–
8 bit scene	■	■	■	■	■	■
Safety functions						
Wind, Rain, Frost alarm	■	■	■	■	■	■
Block	■	■	■	■	■	■
Forced operation (1-Bit and 2-Bit)	■	■	■	■	■	■
Automatic functions						
Activation of automatic control	■	■	■	■	■	■
Position height/slat on sun	■	■	■	■	■	■
Presence	■	■	■	■	■	■
Heating/Cooling	■	■	■	■	■	■
Overheat control	■	■	■	■	–	–
Enable/block automatic	■	■	■	■	■	■
Enable/block direct control	■	■	■	■	■	■
Status messages						
Status height/slat 0...255	■	■	■	■	■	■
Status upper/lower end position	■	■	■	■	■	■
Status of operation	■	■	■	■	■	■
Status automatic control	■	■	■	■	■	■
Status information (2 byte)	■	■	■	■	–	–
Status SMI	–	–	–	–	■	■
Status of positions/limit position	–	–	–	–	■	■
Status auxiliary voltage	–	–	–	–	■	■
SMI diagnostic byte	–	–	–	–	■	■
Sonstiges						
Extended settings for drives and blinds/shutters	■	■	■	■	–	–
Total turning of slats after move down command	■	■	■	■	–	–
Position of slat after arriving on lower end position	■	■	■	■	■	■
Control and diagnosis via i-bus Tool	■	■	■	■	–	–

Intelligent Building Solutions

ABB i-bus® KNX – Shutters and Sun Protection



Blind/Roller Shutter Actuator with Travel Detection and Manual Operation, 230 V AC, MDRC

For the control of independent 230 V AC drives via ABB i-bus® KNX. The devices are designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. The travel times of the drive are detected automatically via current detection. To protect the drives, the output contacts are electromechanically locked against each other. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
2-fold	4	JRA/S 2.230.5.1	2CDG110124R0011		1	0.21
4-fold	4	JRA/S 4.230.5.1	2CDG110125R0011		1	0.25
8-fold	8	JRA/S 8.230.5.1	2CDG110126R0011		1	0.46



JRA/S 4.24.5.1

Blind/Roller Shutter Actuator with Travel Detection and Manual Operation, 4-fold, 24 V DC, MDRC

For the control of up to 4 independent 24 V DC drives via ABB i-bus® KNX. The device is designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. The travel times of the drive are detected automatically via current detection. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	JRA/S 4.24.5.1	2CDG110128R0011		1	0.21



JRA/S 2.230.2.1

Blind/Roller Shutter Actuator with Manual Operation, 230 V AC, MDRC

For the control of independent 230 V AC drives via ABB i-bus® KNX. The devices are designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. To protect the drives, the output contacts are electromechanically locked against each other. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
2-fold	4	JRA/S 2.230.2.1	2CDG110120R0011		1	0.21
4-fold	4	JRA/S 4.230.2.1	2CDG110121R0011		1	0.25
8-fold	8	JRA/S 8.230.2.1	2CDG110122R0011		1	0.46

Intelligent Building Solutions

ABB i-bus® KNX – Shutters and Sun Protection



JRA/S 2.230.1.1

Blind/Roller Shutter Actuator, 230 V AC, MDRC

For the control of independent 230 V AC drives via ABB i-bus® KNX. The devices are designed for positioning blinds, roller shutters, awnings and other shading products as well as for controlling doors, windows and ventilation flaps. Additional auxiliary voltage is not needed. To protect the drives, the output contacts are electromechanically locked against each other.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
2-fold	4	JRA/S 2.230.1.1	2CDG110129R0011		1	0.21
4-fold	4	JRA/S 4.230.1.1	2CDG110130R0011		1	0.25
8-fold	8	JRA/S 8.230.1.1	2CDG110131R0011		1	0.46



JA/S 4.SMI.1M

SMI Shutter Actuator with Manual Operation, 4-fold, MDRC

It controls four independent groups (broadcast) with up to four SMI (Standard Motor Interface) drives (230 V) for positioning blinds, roller shutters, awnings and other shading products. Status signals (motor fault, direction of movement) can also be sent from the SMI drive on the bus. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	JA/S 4.SMI.1M	2CDG110028R0011		1	0.25



SJR/S 4.24.2.1

SMI Blind/Roller Shutter Actuator, 4-fold, LoVo, MDRC

It controls four independent groups (broadcast) with up to four SMI (Standard Motor Interface) LoVo drives for positioning blinds, roller shutters, awnings and other shading products. Status signals (motor fault, direction of movement) can also be sent from the SMI drive on the bus. Push buttons are located at the front of the device to control the outputs e.g. during commissioning. The current status of the output is displayed via LEDs.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	SJR/S4.24.2.1	2CDG110143R0011		1	0.25



JSB/S 1.1

Shutter Control Unit, MDRC

Controls shutter and blind actuators according to the position of the sun. The shutter control unit contains the functions of anti-glare protection and daylight redirection for up to 4 facades. Automatic shading can be implemented for every building and climatic control can be supported by the comprehensive range of parameter settings in the ETS.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	JSB/S 1.1	GHQ6310084R0111		1	0.12

Intelligent Building Solutions

ABB i-bus® KNX Illumination and Light Sensors – DALI

The ABB DALI Gateways are used to interface between DALI (Digital Addressable Lighting Interface) and KNX installations. Two new Gateways will be available in April 2017: DG/S 1.64.1.1 DALI-Gateway (1fold) and DG/S 2.64.1.1 DALI Gateway (2fold). Both incorporate the DALI power supply.

Both Gateways are equipped with emergency lighting function, support the DALI standard EN 62386-202 that specifies DALI emergency lighting (self-contained).

DALI-Gateway DG/S 1.64.1.1

Flexibility by controlling light individually per device or in groups



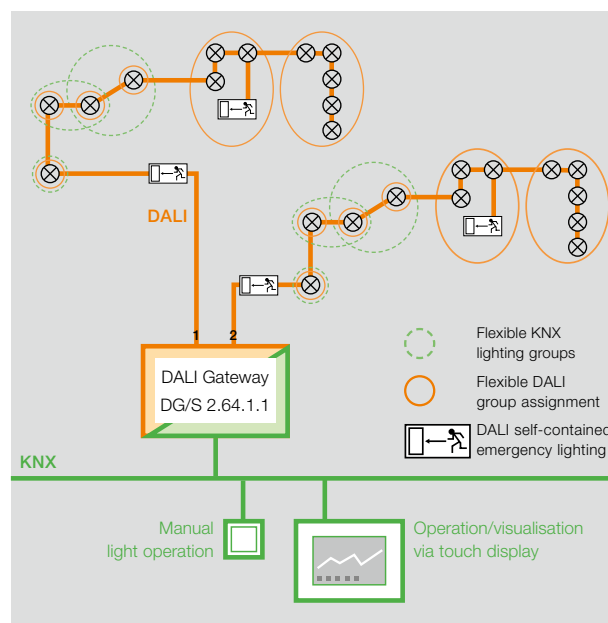
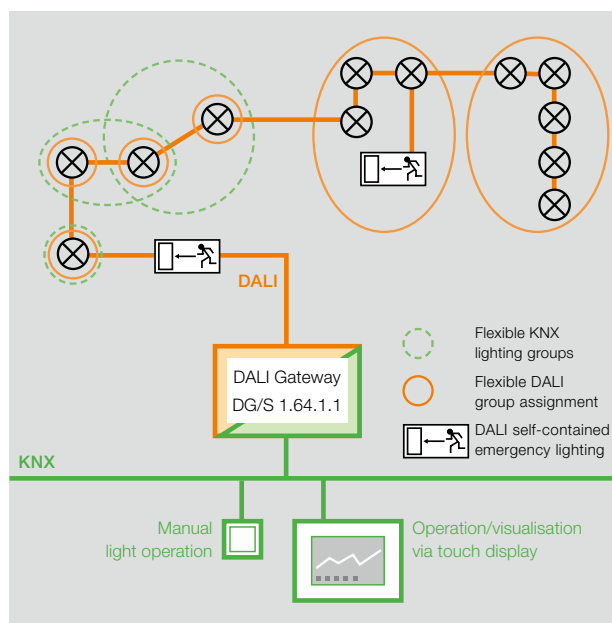
DALI-Gateway DG/S 2.64.1.1

Maximum flexibility combined with highest amount of DALI participants and groups, to meet all customer needs



The DG/S 1.64.1.1 DALI-Gateway (1fold) can install up to 64 DALI devices both via 16 flexible DALI (orange lined group) and KNX lighting groups (green dotted lined group), each with one or more DALI participants. Control and Monitoring via KNX. Control and status feedback can also be carried out via Broadcast. 16 independent Lighting scenes are available.

The DG/S 2.64.1.1 DALI-Gateway (2fold) can install up to 2 x 64 DALI devices both via 2 x 16 flexible DALI (orange lined group) and KNX lighting groups (green dotted lined group), each with one or more DALI participants. Control and Monitoring via KNX. Control and status feedback can also be carried out via Broadcast. 2 x 16 independent Lighting scenes are available.



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ABB i-bus® KNX Illumination and Light Sensors – DALI

DALI Light Controller DLR/S 8.16.1M

Energy through constant lighting control



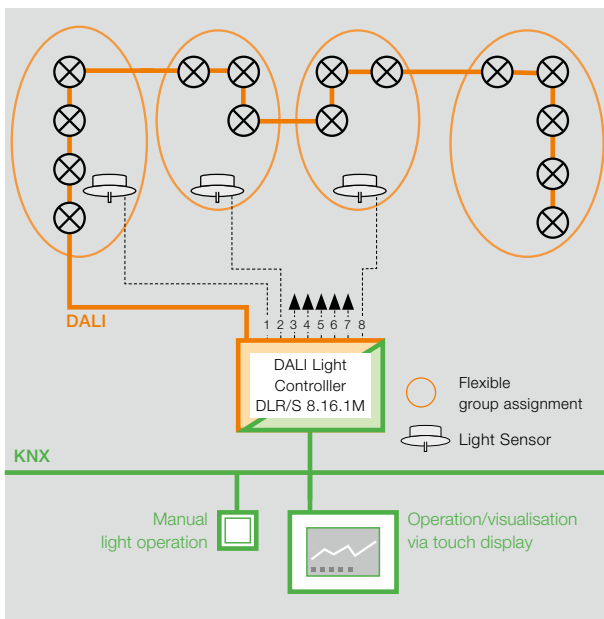
DALI Light Controller DLR/A 4.8.1.1

Decentralized Constant Lighting Control



Control via 16 lighting groups. Up to 8 lighting groups can be controlled with 8 light sensors. Master-slave, staircase light and Scene mode round off the functions.

The new DALI Light Controller DLR/A 4.8.1.1 is a surface mounting device for switching and dimming of 8 independent lighting groups. A maximum of 64 DALI devices can be connected. The device can be used for 4-fold constant lighting control in connection with 4 Light Sensors LF/U 2.1. Furthermore staircase lighting and master / slave functions are provided. Fault feedback messages, e.g. concerning ballast or lamp failures, can be programmed and activated via KNX. The compact surface-mounted housing allows the decentralized installation in the underfloor or in false ceilings – optimal for the use with Room Controller RC/A.



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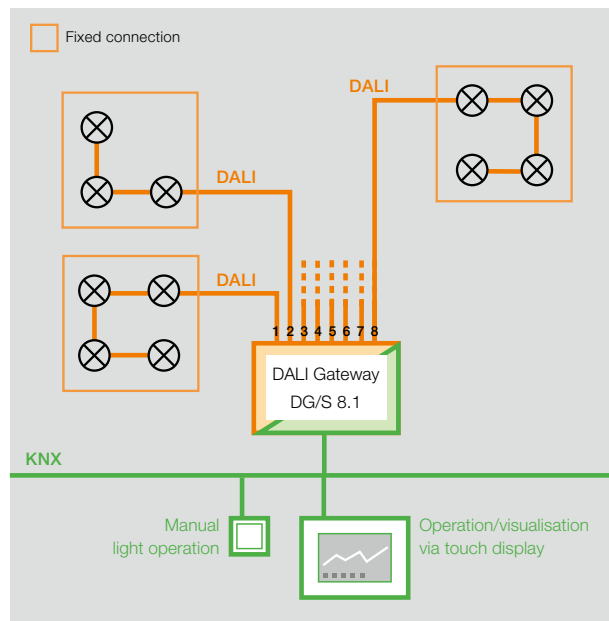
ABB i-bus® KNX Illumination and Light Sensors – DALI

DALI Gateway DG/S 8.1

The proven technology



Lighting groups are formed via “rigid” hardware wiring.
Fast commissioning as no addressing is necessary.
No readdressing when a ballast is exchanged. 8 x 16 DALI devices.



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ABB i-bus® KNX – Illumination and Light Sensors – DALI



DG/S 1.64.1.1

DG/S 1.64.1.1 DALI-Gateway, Basic, 1-fold, MDRC

NEW

The device is used to interface between DALI and KNX installations and incorporates the DALI power supply. One DALI output for up to 64 DALI Slaves. Control and status feedback is carried out via KNX per DALI slave (64), with lighting groups (16), together in broadcast or per scenes (16). Extensive fault and error messages are available. Self-contained emergency converter (64) acc. EN 62386-202 will be supported. By means of KNX and emergency converter, different emergency tests (e.g. function and duration test) can be triggered. Feedback is sent. Slave-, staircase-, force-, block- and scene- function are integrated. DALI telegram rate can change. For diagnostic use and individual change of the DALI address or group assignment a separate ABB i-bus Tool is available.

Expected availability April 2017

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	DG/S 1.64.1.1	2CDG110198R0011		1	0.133



DG/S 2.64.1.1

DG/S 2.64.1.1 DALI-Gateway, Basic, 2-fold, MDRC

NEW

The device is used to interface between DALI and KNX installations and incorporates the DALI power supply. Two DALI output for up to 2 x 64 DALI Slaves. Control and status feedback is carried out via KNX per DALI slave (2 x 64), with lighting groups (2 x 16), together in two broadcasts or per scenes (2 x 16). Extensive fault and error messages are available. Self-contained emergency converter (2 x 64) acc. EN 62386-202 will be supported. By means of KNX and emergency converter, different emergency tests (e.g. function and duration test) can be triggered. Feedback is sent. Slave-, staircase-, force-, block- and scene- function are integrated. DALI telegram rate can change. For diagnostic use and individual change of the DALI address or group assignment a separate ABB i-bus Tool is available.

Expected availability April 2017

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	DG/S 2.64.1.1	2CDG110199R0011		1	0.15

DALI Gateway, 8-fold, MDRC

For controlling up to 128 DALI devices. There are 8 separate, independent DALI outputs/channels available. Up to 16 DALI devices can be connected per channel. The DALI power supply is integrated in the gateway. The functions of switching, dimming, set values and fault indication for lamps and electronic ballasts are available for each output. It is possible to set the lamp burn-in time and 16 light scenes. Commissioning is simplified as no addressing or commissioning of the DALI devices is necessary.



DG/S 8.1

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	6	DG/S 8.1	2CDG110025R0011		1	0.31

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ABB i-bus® KNX – Illumination and Light Sensors – DALI



DG/S 1.1

DALI Gateway, 1-fold, MDRC

to be discontinued

The device is used to interface between DALI and KNX installations and incorporates the DALI power supply. Up to 2 x 64 DALI devices can be connected. 64 devices can be individually switched, dimmed and controlled with a brightness value. The second 64 devices operate in broadcast mode. The DALI functions such as scene control or fault indication can be programmed and activated via the KNX.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	DG/S 1.1	2CDG110026R0011		1	0.22



DG/S 1.16.1

DALI Gateway, 1-fold, Group Control, MDRC

to be discontinued

The device is used to interface between DALI and KNX installations and incorporates the DALI power supply. Up to 64 DALI devices can be assigned to 16 lighting groups. Each group can be switched, dimmed and controlled with a brightness value. Scenes and sequencer functions are available for lighting effects. Fault feedback messages can be programmed and activated via KNX.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	DG/S 1.16.1	2CDG110103R0011		1	0.22



DGN/S 1.16.1

DALI-Gateway with Emergency Lighting Control, 1-fold, Group Control, MDRC

to be discontinued

For controlling DALI devices via the ABB i-bus®. Up to 64 DALI Slaves can be connected. Self contained emergency converter acc. EN 62386-202 will be supported. Control and status feedback is carried out via KNX with 16 lighting groups. By means of KNX and emergency converter different emergency tests (e.g. function and duration test) can be triggered. Feedback is sent. Slave-, staircase- and sequencer- function are integrated. For an individual change of the DALI address or group assignment a separate DGS-Software-Tool is available.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	DGN/S 1.16.1	2CDG110142R0011		1	0.22



DLR/S 8.16.1M

DALI Light Controller, 8-fold, MDRC

For switching and dimming of 16 independent lighting groups. A maximum of 64 DALI devices can be connected. The device can be used for 8-fold constant lighting control in connection with eight Light Sensors LF/U 2.1. Fault feedback messages can be programmed and activated via KNX. With comfortable manual operation and status display.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	6	DLR/S 8.16.1M	2CDG110101R0011		1	0.26

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ABB i-bus® KNX – Illumination and Light Sensors – DALI



DLR/A 4.8.1.1

DALI Light Controller, 4-fold, SM

Surface mounting device for switching and dimming of 16 independent groups of luminaires. Up to 64 DALI participants can be connected to one DALI control line. When combined with the light sensor LF/U 2.1 the device can be used as a 8-fold light controller for constant light control. Additionally a staircase and master/slave function is integrated. A great number of status feedback e.g. lamp and ballast fault can be transferred from DALI to KNX. With this functions the DALI light controller is a key factor in every energy efficient building automation. With his surface mounting housing it is possible to insert the device central in false ceiling or underfloor installation.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
	–	DLR/A 4.8.1.1	2CDG110172R0011		1	0.66

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ABB i-bus® KNX – Illumination and Light Sensors



LR/S 4.16.1

Light Controller, 16 A, MDRC

The device enables the switching and dimming of 2 or 4 independent lighting circuits in conjunction with electronic ballasts. In combination with the Light Sensor LF/U 2.1, the device can be used for constant lighting control. 2 or 4 light sensors can be connected to the controller for precise detection of the lighting conditions.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
2-fold	4	LR/S 2.16.1	2CDG110087R0011		1	0.25
4-fold	6	LR/S 4.16.1	2CDG110088R0011		1	0.40



LF/U 2.1

Light Sensor, FM

Used for implementing constant lighting control applications in conjunction with light controllers LR/S, LR/M, DLR/S 8.16.1M or DLR/A 4.8.1.1. The scope of delivery includes different optical rods, the connection terminals and the cover for discrete fitting in a room.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	LF/U 2.1	2CDG110089R0011		1	0.07



SD/S 8.16.1

Switch/Dim Actuator, 16 A, MDRC

Used for switching and dimming of 2, 4 or 8 independent groups of luminaries with electronic ballasts with 1 – 10 V control interfaces. On each channel the power supply of the ballasts is switched by a floating load relay (16 A – AC1). Every output can be operated manually and features display of the switching state. The device can assume a range of applications thanks to the programming options. The switching load is identical to the SA/S x.16.2.1 range (see capital 6).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
2-fold	4	SD/S 2.16.1	2CDG110079R0011		1	0.21
4-fold	6	SD/S 4.16.1	2CDG110080R0011		1	0.32
8-fold	8	SD/S 8.16.1	2CDG110081R0011		1	0.56



UD/S 2.300.2

Universal Dim Actuator, 2-fold, 300 VA, MDRC

For switching and dimming of incandescent lamps, 230 V halogen lamps or low-voltage halogen lamps which are powered by wound or electronic transformers (automatic load detection). Output power 2 x 300 VA or 1 x 500 VA up to 45 °C ambient temperature at a minimum load of just 2 W. Both outputs are independent of one another and can be supplied by different phases. Comprehensive application program with scene and time functions.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	UD/S 2.300.2	2CDG110074R0011		1	0.24

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ABB i-bus® KNX – Illumination and Light Sensors



6197/13-101-500

Universal Dim Actuator, MDRC

Multi-channel universal dimming actuator for control of incandescent lamps, 230 V halogen lamps, lowvoltage halogen lamps with conventional or electronic transformers and dimmable energy-efficient lamps. Optimized for dimming of Philips retrofit LEDs (LEDi). Parallel connection of channels to increase load capacity via wire jumpers possible. Status/state indication of the outputs via LED. Local operation even without bus voltage or in non-programmed state possible.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
4-fold, 210 VA	8	6197/12-101-500	6197-0-0036		1	0.42
4-fold, 315 VA	8	6197/13-101-500	6197-0-0037		1	0.42
6-fold, 315 VA	12	6197/14-101-500	6197-0-0038		1	0.91
4-fold, 600 VA	12	6197/15-101-500	6197-0-0039		1	0.91
1-fold, 1.260 VA	12	6197/52-101-500	6197-0-0040		1	
1-fold, 2.400 VA	12	6197/53-101-500	6197-0-0041		1	



6155/30-500

LED-Dimmer with constant curve, 1-4gang

NEW

Build-in LED-Dimmer for LED strips with constant curve. To control RGB or RGBW-LEDs. Grouping of channels possible. With Master/Slave-function.

Connections: KNX-line: Bus connection terminal. Rated voltage: 12 - 24 V. Output voltage: 12 V. Secondary: 24 V. Rated frequency: 600 Hz. Outputs: 4x dimming channel. Suitable for: DC. Rated current: 10 A. Rated power: 240 W. Protection class (Device): IP 20.

Temperature range (Device): -5 °C to 45 °C.

Dimensions: (L x W x D): 33 mm x 53 mm x 95 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
-	-	6155/30-500	6151-0-0254		1	

11



6155/40-500

LED-Dimmer with constant curve, with power supply, 1-4gang

NEW

Build-in LED-Dimmer for LED strips with constant curve. To control RGB or RGBW-LEDs. With integrated power adapter. Grouping of channels possible. With Master/Slave-function.

Connections: KNX-line: Bus connection terminal. Rated voltage: 230 V~. Output voltage: 24 V~. Rated frequency: 600 Hz. Outputs: 4x dimming channel. Suitable for: DC.

Rated current: 4 A. Rated power: 100 W. Protection class (Device): IP 20.

Temperature range (Device): -5 °C to 45 °C.

Dimensions: (L x W x D): 45 mm x 53 mm x 226 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
-	-	6155/40-500	6151-0-0256		1	

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ABB i-bus® KNX – Illumination and Light Sensors



HS/S 4.2.1

Interface for Outside Light Sensor, MDRC

The device is used for the connection and evaluation of up to 3 Outside Light Sensors LFO/A 1.1. The Outside Light Sensors can be analysed individually or combined. Amongst others 10 logical switching channels for the evaluation of threshold values are provided. Threshold values can be adjusted directly on the device. The device can be used as a twilight switch (1 ... 100 lux) or as a light value switch (100 ... 20.000 lux). One Outside Light Sensor LFO/A 1.1 is supplied with the device.

Description	Mod. width	Order details		Price	Pack	Weight
		Type	Order code	1 pc.	unit	1 pc.
	–	HS/S 4.2.1	2CDG120044R0011		1 pc.	0.24 kg



LFO/A 1.1

Outside Light Sensor

Outside Light Sensor for the connection with the Interface HS/S 4.2.1.

Description	Mod. width	Order details		Price	Pack	Weight
		Type	Order code	1 pc.	unit	1 pc.
	–	LFO/A 1.1	2CDG120045R0011		1 pc.	

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ABB i-bus® KNX – Illumination and Light Sensors



6131/20-24-500

Busch-Presence detector mini KNX 8 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.

Seated persons Ø: 5 m, 6,5 m and 9 m.

Walking persons Ø: 6,5 m, 8 m and 10,5 m.

Visible height 16 mm. With 2 channels.

Targeted for connection and disconnection of lights bands depending on the room brightness.

Regulation in response to the movement possible. Using the device as presence and/or movement detectors. Detectors application with 2 power off stages. Detectors application with

integrated monitoring function. Constant light switch with up to two independent channels.

Constant light switch with max. 2 outputs for brightnessdependent switching of two light

bands in the area. With integrated KNX bus coupler. Connections: KNX-line: Bus connection

terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m.

Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 80 mm x 80 mm x 45 mm. Mounting depth: 29 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6131/20-24-500	6132-0-0342		1	0.13
aluminium silver	–	6131/20-183-500	6132-0-0343		1	0.13



6131/21-24-500

Busch-Presence detector mini premium KNX 8 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.

Seated persons Ø: 5 m, 6,5 m and 9 m.

Walking persons Ø: 6,5 m, 8 m and 10,5 m.

Visible height 16 mm. With 4 channels. For dimming/brightness of the rules to a defined value

in a designated collection area. HVAC function for controlling heating and/or cooling systems

and ventilation systems in the designated collection area. Detectors application with 2 power

off stages. Detectors application with integrated monitoring function. Constant light controller

with up to two independent channels. Constant light controller with max. 2 outputs for dim-

ming daylight control/rules of two rooflights in the room. Integrated object room temperature

controller. 10 freely programmable IR channels (white). Incl. 5 logic channels (logic gates,

gates, delay and staircase lighting). Weighting of up to 2 external brightness values and the

internal brightness sensor possible. With integrated KNX bus coupler. Connections:

KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height:

2 m – 4 m. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 80 mm x 80 mm x 45 mm. Mounting depth: 29 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6131/21-24-500	6132-0-0344		1	0.13
aluminium silver	–	6131/21-183-500	6132-0-0345		1	0.13

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ABB i-bus® KNX – Illumination and Light Sensors



6131/30-24-500

Busch-Presence detector KNX 12 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.

Seated persons Ø: 8 m, 10 m and 14 m.

Walking persons Ø: 10 m, 12 m and 16 m.

Visible height 23 mm. With 2 channels. Targeted for connection and disconnection of lights bands depending on the room brightness. Regulation in response to the movement possible. Using the device as presence and/or movement detectors. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light switch with up to two independent channels. Constant light switch with max. 2 outputs for brightness-dependent switching of two light bands in the area. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m.

Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 91 mm x 91 mm x 45 mm. Mounting depth: 22 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6131/30-24-500	6132-0-0346		1	0.15
aluminium silver	–	6131/30-183-500	6132-0-0347		1	0.15



6131/31-24-500

Busch-Presence detector premium KNX 12 meter

Detection range (for mounting height 2.5 m, 3 m and 4 m): circular.

Seated persons Ø: 8 m, 10 m and 14 m.

Walking persons Ø: 10 m, 12 m and 16 m.

Visible height 23 mm. With 4 channels. For dimming/brightness of the rules to a defined value in a designated collection area. HVAC function for controlling heating and/or cooling systems and ventilation systems in the designated collection area. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light controller with up to two independent channels. Constant light controller with max. 2 outputs for dimming daylight control/rules of two rooflights in the room. Integrated object room temperature controller. 10 freely programmable IR channels (white). Incl. 5 logic channels (logic gates, gates, delay and staircase lighting). Weighting of up to 2 external brightness values and the internal brightness sensor possible. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal.

Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 91 mm x 91 mm x 45 mm. Mounting depth: 22 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6131/31-24-500	6132-0-0348		1	0.15
aluminium silver	–	6131/31-183-500	6132-0-0349		1	0.15

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ABB i-bus® KNX – Illumination and Light Sensors



6131/40-24-500

Busch-Watchdog Sky KNX 24 meter

Detection range (for mounting height 6 m and 12 m): circular.

Walking persons Ø: 18 m, 24 m.

Visible height 23 mm. With 2 channels. Targeted for connection and disconnection of lights bands depending on the room brightness. Regulation in response to the movement possible. Use of the device as a movement detector. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light switch with up to two independent channels. Constant light switch with max. 2 outputs for brightnessdependent switching of two light bands in the area. With integrated KNX bus coupler. The programming button can be activated with the IR transmitter 6010-25 (-500). Connections: KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 4 m – 12 m. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 91 mm x 91 mm x 45 mm. Mounting depth: 22 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6131/40-24-500	6132-0-0350		1	0.15



6131/50-24-500

Busch-Presence detector Corridor KNX 30 meter

NEW

Detection range: rectangular.

For mounting height 2.5 m: frontal approach max. 18 m x 2.5 m (per side max. 9 m x 2.5 m).

Lateral movement max. 24 m x 2.5 m (per side max. 12 m x 2.5 m).

For mounting height 3 m as well as 4 m: frontal approach max. 20 m x 3 m (per side max. 10 m x 3 m). Lateral movement max. 30 m x 3 m (per side max. 15 m x 3 m).

Visible height 27 mm. With 2 channels. Targeted for connection and disconnection of lights bands depending on the room brightness. Regulation in response to the movement possible. Using the device as presence and/or movement detectors. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light switch with up to two independent channels. Constant light switch with max. 2 outputs for brightnessdependent switching of two light bands in the area. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal. Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m.

Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 91 mm x 91 mm x 49 mm. Mounting depth: 22 mm.

Expected availability February 2017

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6131/50-24-500	6132-0-0399		1	0.16
aluminium silver	–	6131/50-183-500	6132-0-0400		1	0.16

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ABB i-bus® KNX – Illumination and Light Sensors



6131/51-24-500

Busch-Presence detector Corridor premium KNX 30 meter

NEW

Detection range: rectangular.

For mounting height 2.5 m: frontal approach max. 18 m x 2.5 m (per side max. 9 m x 2.5 m).

Lateral movement max. 24 m x 2.5 m (per side max. 12 m x 2.5 m).

For mounting height 3 m as well as 4 m: frontal approach max. 20 m x 3 m (per side max.

10 m x 3 m). Lateral movement max. 30 m x 3 m (per side max. 15 m x 3 m).

Visible height 27 mm. With 4 channels. For dimming/brightness of the rules to a defined value in a designated collection area. HVAC function for controlling heating and/or cooling systems and ventilation systems in the designated collection area. Detectors application with 2 power off stages. Detectors application with integrated monitoring function. Constant light controller with up to two independent channels. Constant light controller with max. 2 outputs for dimming daylight control/rules of two rooflights in the room. Integrated object room temperature controller. 10 freely programmable IR channels (white). Incl. 5 logic channels (logic gates, gates, delay and staircase lighting). Weighting of up to 2 external brightness values and the internal brightness sensor possible. With integrated KNX bus coupler. Connections: KNX-line: Bus connection terminal.

Brightness limit value: 1 Lux – 1000 Lux. Mounting height: 2 m – 4 m.

Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 91 mm x 91 mm x 49 mm. Mounting depth: 22 mm.

Expected availability February 2017

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6131/51-24-500	6132-0-0411		1	0.16
aluminium silver	–	6131/51-183-500	6132-0-0412		1	0.16



6131/29-24-500

Surface-mounting box

For installing a Busch-Presence detector mini KNX 6131/20-xxx(-500) or a Busch-Presence detector mini premium KNX 6131/21-xxx(-500).

Protection class (Device): IP 20. Dimensions: (L x W x D): 80 mm x 80 mm x 35 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6131/29-24-500	6132-0-0351		1	0.08
aluminium silver	–	6131/29-183-500	6132-0-0352		1	0.08



6131/39-24-500

Surface-mounting box

For mounting a Busch-Presence detector KNX 6131/30-xxx(-500), a Busch-Presence detector premium KNX 6131/31-xxx(-500), a Busch-Presence detector Corridor KNX 6131/50-xxx(-500), a Busch-Presence detector Corridor premium KNX 6131/51-xxx(-500) or a Busch-Watchdog Sky KNX 6131/40-24(-500).

Protection class (Device): IP 20. Dimensions: (L x W x D): 91 mm x 91 mm x 33 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6131/39-24-500	6132-0-0353		1	0.10
aluminium silver	–	6131/39-183-500	6132-0-0354		1	0.10

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ABB i-bus® KNX – Illumination and Light Sensors



6131/38-24

Intermediate ring for VDE flush-mounted box

NEW

For mounting a Busch-Presence detector KNX 6131/30-xxx(-500), a Busch-Presence detector premium KNX 6131/31-xxx(-500), a Busch-Presence detector Corridor KNX 6131/50-xxx(-500), a Busch-Presence detector Corridor premium KNX 6131/51-xxx(-500) or a Busch-Watchdog Sky KNX 6131/40-24(-500).

Protection class (Device): IP 20. Dimensions: (L x W x D): 91 mm x 91 mm x 22 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6131/38-24	6132-0-0401		1	0.08
aluminium silver	–	6131/38-183	6132-0-0402		1	0.08



6179/01-204-500

Busch-Watchdog 220 MasterLINE KNX

Sensor angle: 220° Range: approx. 16 m. With 2 movement channels. With 1 twilight channel with 3 switching thresholds. No remote control possible via IR remote control KNX. With integrated KNX bus coupler. No additional power supply necessary. Surveillance density: 92 sectors with 368 switching segments. Twilight sensor: approx. 1 – 1000 lux. Switch-off delay: approx. 10 sec to 1092 min.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
alpine white	–	6179/01-204-500	6132-0-0313		1	0.56
silver metallic	–	6179/01-208-500	6132-0-0314		1	0.56



6179/02-204-500

Busch-Watchdog 220 MasterLINE KNX premium

Sensor angle: 220° Range: approx. 16 m. With 4 movement channels. With 1 twilight / brightness channel with 3 switching thresholds. With 1 temperature channel with three switching thresholds. With 7-channel IR remote control. Remote control possible via IR remote control KNX 6179 (included in scope of delivery). With integrated KNX bus coupler. No additional power supply necessary. Surveillance density: 92 sectors with 368 switching segments. Twilight sensor: approx. 1 – 1000 lux; Brightness sensor: approx. 1 – 80 klux; Temperature sensor: approx. – 25 to + 55 °C; Switch-off delay: approx. 10 sec to 1092 min.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
alpine white	–	6179/02-204-500	6132-0-0317		1	0.56
silver metallic	–	6179/02-208-500	6132-0-0318		1	0.56



6179-500

IR Remote Control KNX

For Busch-Watchdog 220 MasterLINE KNX premium. The functions can be freely assigned. With coded transmission signal. Power supply: lithium button cell battery. Type CR2025 (included in delivery). Battery life: typically 2 years. Rated voltage: 3 V, Protection class (Device): IP 40, Temperature range (Device): 0 °C – 45 °C, Dimensions: (L x W x D): 86 mm x 40 mm x 7 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
grey / anthracite	–	6179-500	6132-0-0320		1	0.58

Intelligent Building Solutions

ABB i-bus® KNX – Heating and Cooling – Influencing Variables on Room Climate

Influencing Variables on Room Temperature

Internal and external factors have an effect on the thermal conditions in a room or a building. As an external factor the solar radiation is important for the indoor temperature – particularly with regard to modern architecture with glass fronts. Besides this, the room temperature is strongly affected by the exchange of thermal energy through windows and walls as well as the loss of thermal energy through open doors and windows.

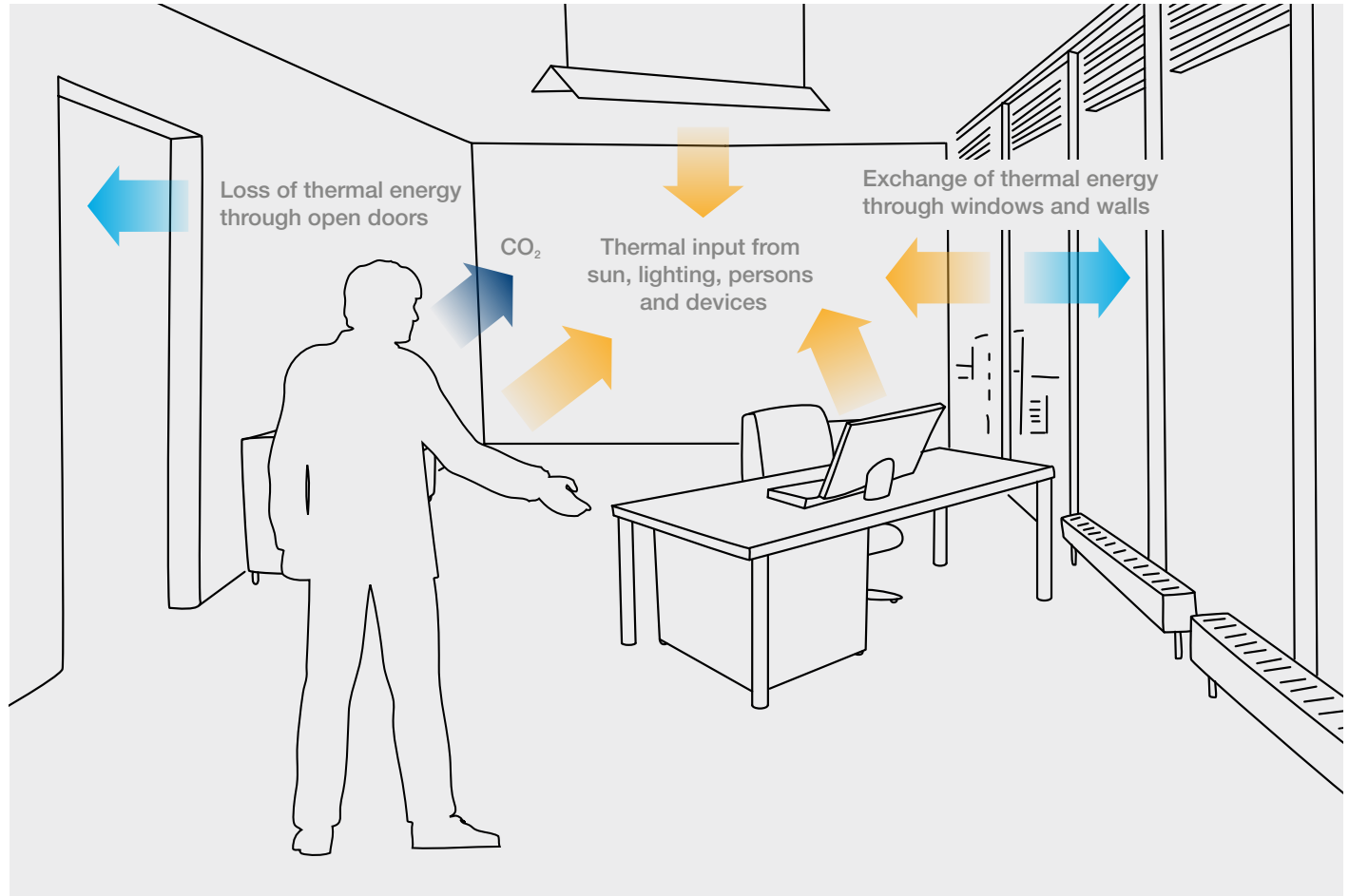
Depending on the intensity, all this interactions influence also the energy efficiency of a building and have therefore to be optimised.

Internal thermal inputs from lighting, devices or persons have also an influence on the room climate. By planning a heating, ventilation or air conditioning system all this internal and external factors have to be considered.

Influencing Variables on Air Quality

The indoor climate in living and working areas has a scientifically proven impact on health, job performance and well-being of people. A suitable indicator for determination of the room air quality is the CO₂ concentration. In addition the values for room temperature and air humidity must be controlled to meet the requirements for a comfortable room climate.

Studies have shown, that high CO₂ concentration in the air influences the well-being as well as the performance and learning ability of people. Besides the normal CO₂ concentration in the air, human respiration is an important factor increasing the CO₂ concentration in a room. Therefore it is important to measure the CO₂ concentration in rooms where many persons are present (schools, conference rooms, open-plan offices). Monitoring of thresholds enables fans to be switched via ABB i-bus KNX allowing automatic control of the CO₂ concentration and sufficient supply of fresh air.



Intelligent Building Solutions

ABB i-bus® KNX – Heating and Cooling – Room Thermostat FanCoil



11

Intelligent Building Solutions

ABB i-bus® KNX – Heating and Cooling – Room Thermostat FanCoil

Living and working with a feeling of well-being.

And here the air in the room is one of the most important factors. Because the body takes an ideal temperature for granted and therefore easily reacts to changes. Heated or air-conditioned rooms can be optimally adjusted – to a consistently pleasant ambience.

The KNX Fan Coil room temperature controller for stand-alone applications.

The Fan Coil room temperature controller with display is a room temperature controller for ventilator convectors or conventional systems for heating and cooling. This option offers complete air-conditioning for rooms. The temperature can be adjusted precisely for personal comfort. The fan speeds can be selected by push buttons. Even very large rooms can be heated or cooled to a comfortable temperature quickly – with additional air-conditioning units. The KNX Fan Coil room temperature controller can be operated individually. The bus coupler is integrated into the control element.

Function

- Temperature sensor
- RTC setting
- Illuminated display
- Fan Coil operation for heating and cooling

Features

- Very easy to operate with large, clear display
- Complete air conditioning
- Fan speeds can be manually selected
- Integrated bus coupler
- Surface-mounted, independent switching program
- Colours: studio white, aluminium silver

Intelligent Building Solutions

ABB i-bus® KNX – Heating and Cooling



ES/S 4.1.2.1

Electronic Switch Actuator, 4-fold, 1 A, MDRC

Controls thermoelectric valve drives (e.g. TSA/K) in heating and cooling systems. Each output (24...230 V AC/DC) is protected against short-circuit and overload. With manual operation and status display for each output.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
4-fold	4	ES/S 4.1.2.1	2CDG110058R0011		1	0.25
8-fold	8	ES/S 8.1.2.1	2CDG110059R0011		1	0.38



ER/U 1.1

Electronic Relay, 1-fold, FM

The device combination with the Universal Interface US/U and a room thermostat noiselessly controls the heating system and chilled ceiling temperature via thermo-electric valve drives e.g. TSA/K, 24 V...230 V AC/DC.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	ER/U 1.1	GHQ6310044R0111		1	0.08
2-fold	–	US/U 2.2	GHQ6310074R0111		1	0.06
4-fold	–	US/U 4.2	GHQ6310070R0111		1	0.06



VAA/S 6.230.2.1

Valve Drive Actuator, 230 V, MDRC

Controls thermoelectric valve drives (e.g. TSA/K) in heating or cooling systems. Each three outputs are protected against short-circuit and overload. With manual operation and status display.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
6-fold	4	VAA/S 6.230.2.1	2CDG110116R0011		1	0.17
12-fold	8	VAA/S 12.230.2.1	2CDG110117R0011		1	0.3



VAA/A 6.24.1

Valve Drive Actuator, 6-fold, 24 V, SM

In conjunction with the thermostat it controls up to 13 thermoelectric valve drives (24 V), max. 4 per channel. The device is suitable for the installation in heating circuit distribution systems where the application of a triac ensures noiseless switching of the drives. Mains plug on the transformer (230 V) for ease of installation.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	VAA/A 6.24.1	2CDG120032R0011		1	1.8

Intelligent Building Solutions

ABB i-bus® KNX – Heating and Cooling



FCL/S 2.6.1.1

Blower Actuator, 6 A, MDRC

to control blowers or fans with up to three fan speeds via step or changeover control. The FCL/S 1.6.1.1 have one fan output and one additional floating switch output. The FCL/S 2.6.1.1 feature two fan outputs plus two floating switch outputs. Alternatively the second fan output can be used as three switch outputs.

The fan speed can be directly chosen, increased and decreased as well as controlled by the control value of a closed-loop controller.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
1-fold	4	FCL/S 1.6.1.1	2CDG110163R0011		1	0.18
2-fold	6	FCL/S 2.6.1.1	2CDG110164R0011		1	0.26



FCA/S 1.1.2.2

Fan Coil Actuator, PWM, MDRC

For the control of typical blower convectors via four electronic outputs for thermoelectric or motor-driven valve drives. Furthermore, three outputs for individual fan speeds are provided. An additional load output switches an additional load (up to 16 A), such as auxiliary heating. Window contacts, condensed water signals and temperature signals can be read via three universal inputs and transferred via KNX bus. The FCA/S 1.1.2.2 features an easy to use manual operation and enables quick commissioning. The Fan Coil Actuator supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Without manual operation	6	FCA/S 1.1.1.2	2CDG110195R0011		1	0.34
With manual operation	6	FCA/S 1.1.2.2	2CDG110194R0011		1	0.34



FCA/S 1.2.2.2

Fan Coil Actuator, 0-10V, MDRC

For the control of typical blower convectors via two analogue outputs for 0...10 V valve drives. Furthermore, three outputs for individual fan speeds are provided. An additional load output switches an additional load (up to 16 A), such as auxiliary heating. Window contacts, condensed water signals and temperature signals can be read via three universal inputs and transferred via KNX bus. The FCA/S 1.2.2.2 features an easy to use manual operation and enables quick commissioning. The Fan Coil Actuator supports the ABB i-bus Tool for advanced diagnosis and improved commissioning.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Without manual operation	6	FCA/S 1.2.1.2	2CDG110196R0011		1	0.34
With manual operation	6	FCA/S 1.2.2.2	2CDG110193R0011		1	0.34

Intelligent Building Solutions

ABB i-bus® KNX – Heating and Cooling



6138/11-84-500

Room Thermostat Fan Coil with Display, SM

Sends control values for the room to the Fan Coil Actuators or devices with the respective outputs (e.g. Room Master). The intuitive control operation allows each user to individually set the room temperature and the fan speed. The large LC display can display the actual and target temperatures, the current operating mode as well as the fan speeds. **With integrated Bus Coupler.**

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
alpine white	–	6138/11-84-500	6138-0-0003		1	0.092
aluminium silver	–	6138/11-83-500	6138-0-0005		1	0.092



FC/S 1.1

Fan Coil Controller, MDRC

It controls motor-driven and thermoelectric valve drives as well as multi-speed fans. Control without further additional components can be undertaken in combination with the optional Temperature Sensor TS/K. There are two binary inputs available for 24 V AC signal contacts for window contact or dew point signals. A 230 V power supply is required.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	6	FC/S 1.1	2CDG120001R0011		1	0.5
Temperature Sensor for FC/S 1.1	–	TS/K 1.1	2CDG120002R0011		1	0.055



LGS/A 1.1

Air Quality Sensor, SM

Accurately measures the CO₂ concentration, humidity and temperature in a room. Three independent thresholds can be set for the CO₂ concentration and the relative humidity in addition to a threshold for the temperature. Exceeding or underrunning the thresholds can trigger a response. Disable object for every threshold. Measured variables can be transmitted directly on the bus. Communication object “Ventilation” is used for RPM control or as a position indicator for the ventilation flaps. Maintenance free sensor. The sensor is powered via the bus. **With integrated Bus Coupler.**

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	LGS/A 1.1	2CDG120038R0011		1	0.136



ST/K 1.1

Electromotor Valve Drive

The drive is a proportional valve drive for controlling heating valves and is mounted on thermostat valve bases. Valve Adapters VA10, VA78 for conventional valves are supplied. The control is carried out via a continuous KNX room thermostat. The actual valve position is indicated by 5 LEDs. The valve drive has two binary inputs for a presence contact and/or window contact and for further signal indication. **With integrated Bus Coupler.**

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	ST/K 1.1	2CDG120004R0011		1	0.32

Intelligent Building Solutions

ABB i-bus® KNX – Heating and Cooling



TSA/K 230.2

Thermoelectric Valve Drives

For opening and closing valves in heating, ventilation and air-conditioning systems. Both variants (230 V and 24 V) feature a plug-in connection cable (1 m) and a splash-proof housing. The mounting on the valve is easily implemented using the Valve Adapter VA/Z xx.1.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
230 V	–	TSA/K 230.2	2CDG120049R0011		1	0.16
24 V	–	TSA/K 24.2	2CDG120050R0011		1	0.16
Valve Adapter for valves from Dumser, Chronatherm, Vescal, KaMo	–	VA/Z 10.1	2CDG120009R0011		1	0.06
Valve Adapter for valves from Honeywell, Reich, Cazzaniga, Landis & Gyr, MNG	–	VA/Z 50.1	2CDG120010R0011		1	0.05
Valve Adapter for valves from Danfoss RA	–	VA/Z 78.1	2CDG120011R0011		1	0.03
Valve Adapter for valves from Heimeier, Herb, Onda, Schlösser (ab 93), Oventrop	–	VA/Z 80.1	2CDG120012R0011		1	0.06

Intelligent Building Solutions

ABB i-bus® KNX – Control, Logic and Time



LM/S 1.1

Logic Module, MDRC

Used to solve a varied range of project-specific control tasks and can implement 3 functions simultaneously. The following functions are available for selection: logic gate, filter, time delay, multiplier, min/max value detector, temperature comparator, toggle values, threshold detection, format converter, scenes, increment/decrement values, staircase lighting.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	LM/S 1.1	GHQ6310080R0111		1	0.1



ABL/S 2.1

Application Unit, Logic, MDRC

Allows the compilation of complex logical functions by simply combining different logic elements and gates using a graphical user interface as an ETS plug-in and does not require additional software. 50 logical elements, 50 gates, 30 timer modules and 10 comparators are available.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	ABL/S 2.1	2CDG110073R0011		1	0.12



ABZ/S 2.1

Application Unit, Time, MDRC

It provides a yearly time clock program with 15 daily routines (800 switching events), a weekly schedule and allowance for 100 special days. Additionally, the unit can control up to 300 participants in 30 macro groups, that can be triggered using a single command. In this way, each time controlled switching event can cause a series of actions. The switching times can be modified with the free PZM software without using ETS. PZM Software and additional information on www.abb.com/knx.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	ABZ/S 2.1	2CDG110072R0011		1	0.12



ABA/S 1.2.1

Logic Controller, MDRC

NEW

The device provides extensive logic functions. The logic is defined via a graphic editor integrated in the ETS. Up to 3000 logic gates are possible.

The generated logic can be tested by a simulation function. User-defined function blocks can be created and saved for taking them over into other projects.

The device requires an auxiliary voltage, either 24 V DC or Power over Ethernet (PoE). If timer functions are used the date and time has to be provided via KNX/TP.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	ABA/S 1.2.1	2CDG110192R0011		1	

Intelligent Building Solutions

ABB i-bus® KNX – Control, Logic and Time



FW/S 8.2.1

Radio Time Switch , 8-channel, MDRC

The Radio Time Switch sends current time and date on the bus. The time can be optionally received via a DCF or GPS antenna. Furthermore the device can be used to easily adjust the time programs.

The device provides 8 channels. Every channel supplies an independent daily, time and/or yearly program. Additionally, special programs (e.g. for vacation or public holiday days) are possible.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	3	FW/S 8.2.1	2CDG120039R0011		1	0.33



FAD/A 1.1

DCF Antenna for Radio Time Switch

For the connection to the Radio Tme Switch FW/S 8.2.1. The time signal from the DCF 77 transmitter can be received within a radius of approx. 1000 km around Frankfurt.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	FAD/A 1.1	2CDG120040R0011		1	0.17



FAG/A 1.1

GPS Antenna for Radio Time Switch

For the connection to the Radio Time Switch FW/S 8.2.1. The device receives time and date via GPS signal which is available worldwide.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	FAG/A 1.1	2CDG120041R0011		1	0.21



PS/E 2.1

Programming Set OBELISK top2 for Radio Time Switch

The programming set contains a CD ROM with the Obelisk top2 for the creation of switching programs for the Radio Time Switch FW/S 8.2.1, a memory card PK/E 2.1 for transferring switching programs to the Radio Time Switch and a USB programming adapter for the memory card.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	PS/E 2.1	2CDG120042R0011		1	0.20



PK/E 2.1

Memory Card OBELISK top2

The memory card can be used for transferring switching programs to Radio Time Switch.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	PK/E 2.1	2CDG120043R0011		1	0.02

Intelligent Building Solutions

ABB i-bus® KNX – Visualisation, Display and Signalling



UK/S 32.2

Universal I/O Concentrator, 32-fold, MDRC

Used to connect push buttons or signal lamps, e.g. to an operating/display tableau. It has 32 channels which can be freely parameterised as inputs/outputs using the ETS software. The device requires an external 12 or 24 V DC auxiliary power supply, (e. g. NT/S 24.800).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	UK/S 32.2	2CDG110071R0011		1	0.18



MT 701.2, WS
with T-RAHM, WS

Control and Display Tableau, LCD

For indication of switching status, fault reports and measurement values. Using the robust push buttons, electrical consumers can be manually switched, values can be set in addition to timer programs and light scenes. The alarms can also issue an acoustic warning. The FM wall box simplifies mounting.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
white	–	MT 701.2, WS	GHQ6050059R0005		1	1.16
silver	–	MT 701.2, SR	GHQ6050059R0006		1	1.24
Coverframe, white	–	T-RAHM, WS	GHQ6050059R0011		1	0.16
Coverframe, silver	–	T-RAHM, SR	GHQ6050059R0012		1	0.17
Wall box	–	UP-KAST 2	GHQ6050059R0014		1	0.44

New DS202C. Protection with unrivalled compactness.

With only 2 modules, the DS202C series of 2P residual current circuit-breakers with overcurrent protection (RCBOs) enables to save 50% of switchboard space compared to the conventional 4-modules solution. Available in a technologically advanced and comprehensive range, the DS202C can be applied in the tertiary sector, in large-sized industrial plants and in naval applications. The new series perfectly integrates with the System pro M compact® range, starting from the same profile, ensuring a nice and functional design in the installation. The maximum protection in only 2 modules.

www.abb.com



Intelligent Building Solutions

ABB i-bus® KNX – Visualisation, Display and Signalling

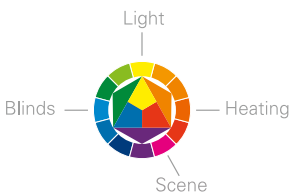
– Busch-ComfortTouch®

The Busch-ComfortTouch® offers not only an extremely versatile range of switching and control functions for KNX systems, but also satisfies the highest design requirements. Its unique colour coding concept makes for particularly easy operation.

Busch-ComfortTouch® unites the functions of a home control system, an information and entertainment centre with the highest design requirements. You can use Busch-ComfortTouch® to switch lamps on and off, dim them, control blinds, room temperature or select scenes comprising a combination of the above-named functions – even via remote control. There is also an integrated audio and video player. These functions are not only of interest for private households – the system is often used in doctor's surgeries, offices, restaurants or stores to provide attractive

lighting, soft background music or comfortable room climates. A presence simulation function and alarm message display provide added security. It is also possible to display images from surveillance cameras. The system can be connected to the Internet, enabling you to call up e-mails, the latest stock market news, the weather forecast or traffic information. Operation is simple and easy via touch screen. A menu created individually for the user with clearly assigned buttons and a unique colour coding concept allow simple and intuitive operation.

01



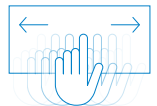
Simplicity and user-friendliness are always the top priorities for operation. Busch-Jaeger has developed a unique colour coding concept for the user interface of its intelligent home control system. Each comfort area is assigned a specific colour. Yellow stands for lighting, blue for the blind control unit, magenta for light scenes and orange for the heating control unit. These colours are also used in the menus on the display.



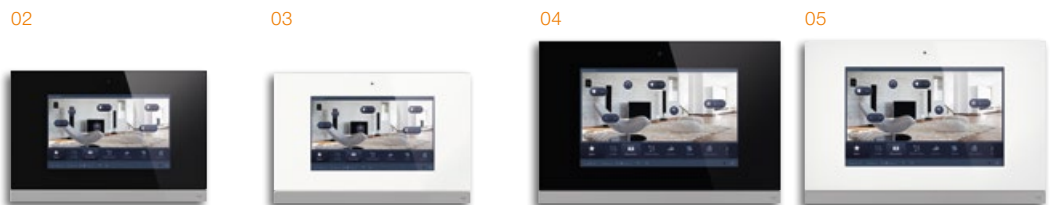
11



reddot design award
winner 2013



- 01 Busch-ComfortTouch® 12.1
Glass black
- 02 Busch-ComfortTouch® 9
Glass black
- 03 Busch-ComfortTouch® 9
White glass
- 04 Busch-ComfortTouch® 12.1
Glass black
- 05 Busch-ComfortTouch® 12.1
White glass



Intelligent Building Solutions

ABB i-bus® KNX – Visualisation, Display and Signalling

– Busch-ComfortTouch®

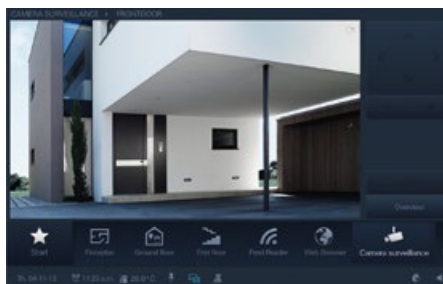
The system is controlled via the Busch-ComfortTouch® – it couldn't be easier. Buttons with text and symbols allow intuitive operation. Just a touch of the finger, and you can call up the MP3-player and play individual titles or playlists. And the volume is regulated via the panel, too. The ideal solution, not only for homes – the system is, for example, popular in restaurants. No more CDs lying around, no more finding

space for a conventional hifi centre. The system can also be used to call up light scenes for various situations, from a cosy dinner at home to night-time lighting for store windows, at the press of a button or via a time-controlled function. Another useful feature is the handy memo field allowing you to write text by hand - use it, for example to write a shopping list or for leaving messages for others. Colour pic-

tures from surveillance cameras on stairways or outside the building can be called up on the display, offering added security. This allows you to keep an eye on the building at all times – handy, for example, for checking the surrounding area before opening the door for customers in the morning or when the doorbell rings.



Media player



Video surveillance



Door communication



Dashboard



Remote control by tablets (APP)



reddot design award
winner 2013



Busch-ComfortTouch®
controllable via app



Intelligent Building Solutions

ABB i-bus® KNX – Visualisation, Display and Signalling



6136/07-811-500

Busch-SmartTouch® 7"

NEW

Free programmable KNX touch display as a control, notification and operation center for the entire house. Works as a video indoor station with the ABB-Welcome Door Entry System. During the conversation a picture of the visitor can be taken and stored in the picture memory. For the display and operation of the following KNX standard functions: switching, dimming, slider, blind, RGBW LED control, step switch, RTC, scene switch, display element, audio control. With scene and logic functions, presence simulation and time programs. Displays alerts and malfunctions. Available with induction loop for connecting to hearing aid devices. Programmable with up to 16 functions per page. External power supply: 20 – 32 V DC (SELV) or through the ABB-Welcome bus. The freely programmable touch display (7") comes with a resolution of 1024 x 600.

Expected availability April 2017

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
white glass	–	6136/07-811-500	6136-0-0205		1	
black	–	6136/07-825-500	6136-0-0206		1	



6136/27-811-500

Surface Mounting Frame for SmartTouch

NEW

Surface mounting frame for mounting the Busch-SmartTouch 7" 6136/07-8xx-500 on:

- standard flush mounted wall box VDE & BS
- flush mounted installation box (6136/UP) or
- to be mounted directly on the wall
- to be mounted on the ABB-Welcome table stand

Expected availability April 2017

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
white	–	6136/27-811-500	6136-0-0209		1	
black	–	6136/27-825-500	6136-0-0210		1	



6136/07 UP-500

Flush Mounted Wall Box for SmartTouch

NEW

For flush mounting and hollow panel mounting of the Busch-SmartTouch 7" 6136/07-8xx-500. Windproof.

Dimensions flush mounting (H x W x D): 152 mm x 235 mm x 60 mm.

Dimensions hollow wall (H x W x D): 146 mm x 227 mm x 50 mm.

Expected availability April 2017

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6136/07 UP-500	6136-0-0212		1	



CP-D 24/2.5

Power Supply, 24 V, 2.5 A, MDRC

For Busch-SmartTouch® 7" 6136/07-8xx-500, Busch-priOn® Power Bus Coupler 6120/13-500 and Busch-ControlTouch® 6136/APP-500.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	CP-D 24/2.5	2CDG120037R0011		1	

Intelligent Building Solutions

ABB i-bus® KNX – Visualisation, Display and Signalling



8136/09-811-500

Busch-ComfortTouch® 9"

Free programmable IP/KNX touch display can be used as a control, infotainment and entertainment centre for the whole house. With a closed capacitive glass surface and a design strip made of stainless steel (brushed). With integrated camera and proximity sensor. Easy control using intuitive navigation concept. House control: switching, dimming, blinds, RTR, scene/sequences, timed controls. Entertainment: Multimedia, remote control RC5 and B&O. Infotainment: IP telephony, RSS reader, intercom with picture, e-mail, voice and graphic memo, consumption data monitoring. Door communication: Indoor station for the ABB-Welcome system in combination with IP gateway 83341. Safety: video surveillance with IP cameras, alarm function, message function, presence simulation. Representation from individual floor plans, room images and operation pages. 23 cm (9") Touch-display with 800 x 480 pixel. Compatible with ABB i-bus® KNX Maintenance via remote control over IP. Control with smartphones and tablets via the ComfortTouch App (Apple iOS /Google Android from Version 4).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
white glass	–	8136/09-811-500	8136-0-0024		1	
black	–	8136/09-825-500	8136-0-0026		1	



8136/12-811-500

Busch-ComfortTouch® 12.1"

Free programmable IP/KNX touch display can be used as a control, infotainment and entertainment centre for the whole house. With a closed capacitive glass surface and a design strip made of stainless steel (brushed). With integrated camera and proximity sensor. Easy control using intuitive navigation concept. House control: switching, dimming, blinds, RTR, scene/sequences, timed controls. Entertainment: Multimedia, remote control RC5 and B&O. Infotainment: IP telephony, RSS reader, intercom with picture, e-mail, voice and graphic memo, consumption data monitoring. Door communication: Indoor station for the ABB-Welcome system in combination with IP gateway 83341. Safety: video surveillance with IP cameras, alarm function, message function, presence simulation. Representation from individual floor plans, room images and operation pages. 31 cm (12.1") touchdisplay with 1280 x 800 pixel. Compatible with ABB i-bus® KNX Maintenance via remote control over IP. Control with smartphones and tablets via the ComfortTouch App (Apple iOS /Google Android from Version 4).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
white glass	–	8136/12-811-500	8136-0-0028		1	
black	–	8136/12-825-500	8136-0-0030		1	



6186/01 UP-500

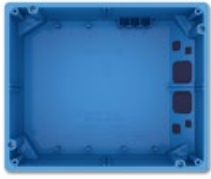
Power adapter module ABB i-bus® KNX

Power adapter for the power supply of Comfort-Touch 8136/09-... and 8136/12-.... With integrated KNX bus coupler for the establishment of the local bus connection to the ABB i-bus® KNX. With integrated audio outputs (LineOut). Rated voltage: 110 V~ – 230 V~, +10% / –10%. Rated frequency: 50 Hz – 60 Hz.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6186/01 UP-500	6186-0-0023		1	

Intelligent Building Solutions

ABB i-bus® KNX – Visualisation, Display and Signalling



8136/01 UP-500

Flush-mounted installation box

For flush-mounted and hollow-wall installation of the Busch-ComfortTouch® 8136/09-..., 8136/12-... . Windproof.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	8136/01 UP-500	8136-0-0032		1	



6136/UP

Flush-mounted installation box

For flush-mounted and hollow-wall installation of the Busch-ComfortTouch 8136/09..., 8136/12-... .

Dimensions (H x W x D): 163.5 mm x 199 mm x 60 mm. Mounting depth: 60 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6136/UP	6136-0-0124		1	



6136/100 C-102-500

Controlpanel SMARTtouch

to be discontinued

The SMARTtouch (210 functions) offers a colour touch display. The panels clearly display switch states, error messages and measured values, and allow comfortable operation and setting of timing programs and light scenes. Acoustic warnings or alarm functions can be programmed. The integrated room thermostat can be integrated into room climate control. Commissioning is via the bus or multimedia card/SD card. For flush mounting in walls and hollow panels the wall box 6136/UP can be used.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
SMARTtouch, colour (210 functions)	–	6136/100 C-102-500	6136-0-0185		1	
Bang & Olufsen, colour (210 functions)	–	6136/100 CB-102	6136-0-0186		1	



6136/15-500

Design Frame for SMARTtouch

to be discontinued

Design frame made of real metal for 6136/100C xxx, 6136/100CB xxx, 6936/100C xxx, 6936/100CB xxx. Real metals: Dark glass with flap in chrome, dark glass with flap in aluminium, white glass satin finish with flap in aluminium.

Dimensions (H x W x D): 184.6 mm x 218 mm x 9 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Dark glass with flap in chrome	–	6136/10-500	6136-0-0139		1	
Dark glass with flap in aluminium	–	6136/11-500	6136-0-0141		1	
White glass, satin finish with flap in aluminium	–	6136/15-500	6136-0-0196		1	

Intelligent Building Solutions

ABB i-bus® KNX – Visualisation, Display and Signalling



6136/APP-500

Busch-ControlTouch®, MDRC

NEW

Freely programmable IP-/KNX gateway as multi-room app control for the KNX system. MDRC devices with associated IOS and Android apps. Easy control using intuitive navigation concept. Representation of individual operating pages with list view. Complete web-based commissioning. Home automation, switching, dimming, blind, RTC control, scene/sequences, timing, Philips Hue. Entertainment: multimedia integration via UPnP. Infotainment: monitoring of usage data for up to 3 years. Safety: video surveillance with IP cameras, message function via push messages or e-mail. Time programs and scenes can be created by the end customer. Access via KNXnet/IP tunnelling. Script editor for logic functions. Compatible with ABB i-bus® KNX Control with smartphones and tablets via the ControlTouch app (Apple iOS /Google Android). External power supply: 5-36 V DC (SELV). Control element: freely programmable touch surfaces, Rated voltage: 5 V- - 36 V-, Bus voltage: 24 V-, Protection class (Device): IP 20, Temperature range (Device): 0 °C to 70 °C, Dimensions: (L x W x D): 90 mm x 72 mm x 60 mm, Module width: 4 MW, Position for installation: Horizontal

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	6136/APP-500	6136-0-0202		1	



CP-D 24/2.5

Power Supply, 24 V, 2.5 A, MDRC

For Busch-SmartTouch® 7" 6136/07-8xx-500, Busch-priOn® Power Bus Coupler 6120/13-500 and Busch-ControlTouch® 6136/APP-500.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	CP-D 24/2.5	2CDG120037R0011		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Unique diversity of the range

01



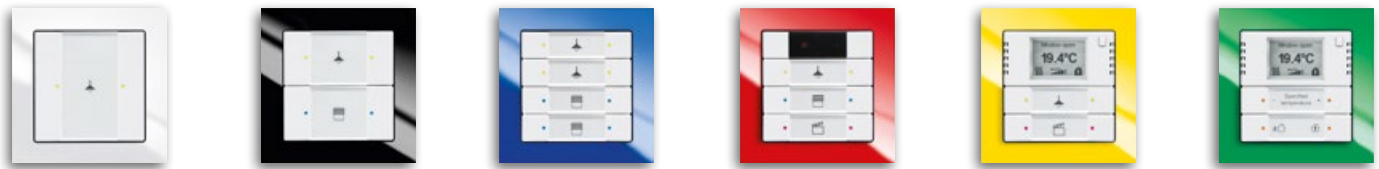
02



03



04

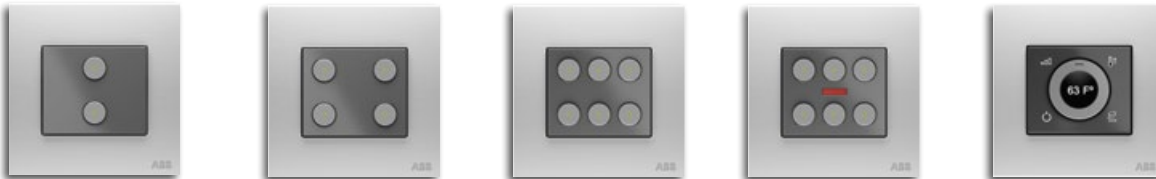


11

05



06



Intelligent Building Solutions

ABB i-bus® KNX – Operation – Unique diversity of the range

07



08



09



10



11



01 carat®

02 pure stainless steel

03 solo®

04 Busch-axcent®

05 future® linear

06 Millenium*

07 Zenit for VDE markets

08 Zenit for NEMA markets

09 Busch-triton®

10 Busch-priOn®

11 Bus Coupling Unit –
for conventional Busch-Jaeger series**

Further information regarding the ABB switch ranges are available on <http://new.abb.com/low-voltage/products/residential-products/switch-ranges>








* Millenium and Zenit series are only available in selected markets.

** Busch-Jaeger switch ranges only available for selected markets. For further information please contact your local ABB office.

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Functional Overview

Program	Standard control elements, bus coupler included with package	Multifunction control elements, suitable for KNX bus coupler				
						
	6125/01 1gang 6126/01 2gang 6127/01 4gang	6125/02 1/2gang 6126/02 2/4gang 6127/02 4/8gang	6129/01 3/6gang with IR	6108/18	6128/28	
KNX function						
Switching, rocker switch total	■	■	■	–	■	
Switching, rocker switch left/right	–	■	■	–	■	
Dimming, rocker switch total	■	■	■	–	■	
Dimming, switch rocker left/right	–	■	■	–	■	
Blind switch rocker total	■	■	■	–	■	
Venetian blind switch rocker total left/right	–	■	■	–	■	
Short-long operation, switch rocker left/right	–	■	■	–	■	
Value sender rocker switch total	■	■	■	–	■	
Value sender switch rocker left/right	–	■	■	–	■	
Value dimming sensor, switch rocker total	–	■	■	–	■	
Red/green LED status illumination (red/green/off)	Two LEDs per switch rocker	–	–	–	–	
RGB LED function illumination + status illumination	–	Two LEDs per switch rocker	Two LEDs per switch rocker	–	Two LEDs per switch rocker	
Setting the RTC operating mode	–	■	■	–	■	
Value sender, 2 objects, switch rocker left/right	■	■	■	–	■	
Light scene extension unit with light scene memory function	■	■	■	–	■	
Level switch, switch rocker total	–	■	■	–	■	
Level switch, switch rocker total left/right	–	■	■	–	■	
Multiple operation, rocker switch left/right	–	■	■	–	■	
IR remote control channels (up to 5 channels)	–	–	■	–	–	
Room temperature controller only						
Temperature reading	–	–	–	■	■	
Master/Slave configuration	–	–	–	■	■	
RTC settings	–	–	–	■	■	
Base-load operation	–	–	–	■	■	
Illuminated display	–	–	–	■	■	
Fan Coil operation for heating and cooling	–	–	–	■	■	
Logic function (including light scenes)	–	■	■	–	■	
Busch-Watchdog 4 channels	–	–	–	–	–	
Design series						
Reflex SI	–	–	–	■	–	
Busch Duro 2000® SI	–	–	–	■	–	
future® linear	■	■	■	■	■	
alpha exclusive / nea	–	–	–	–	–	
Busch-axcent®	■	■	■	■	■	
solo®	■	■	■	■	■	
impuls	–	–	–	–	–	
pure stainless steel	■	■	■	■	■	
carat®	■	■	■	■	■	
ocean®	–	–	–	–	–	
All Weather 44®	–	–	–	–	–	
Busch-priOn®	–	–	–	–	–	
Busch-triton®	–	–	–	–	–	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Functional Overview





6120/12-101 and 6120/13

FM push-button coupling unit with integrated bus coupler

6120/12-101 and 6120/13		FM push-button coupling unit with integrated bus coupler			
					
6122/10 Standard	6122/02 Comfort	6108/06 2gang	6108/07 4gang	6108/06-AP 2gang	6108/07-AP 4gang
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	-	-	1 LED	-
-	-	One LED per switch rocker	One LED per switch rocker	-	-
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	■	■	■	■
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	■	■	-	-
-	-	-	-	-	-
-	-	-	-	-	-
■	■	-	-	-	-
■	■	-	-	-	-
-	-	■	■	■	■
-	-	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
-	-	-	-	-	-
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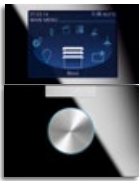




ABB i-bus® KNX – Operation – Functional Overview

Program	Busch-triton® (next generation) Monoblock		Busch-priOn® suitable for KNX bus coupler	
				
	6320/10 1/2gang 6320/30 3/6gang 6320/50 5/10gang	6320/38 3/6gang with RTC 6320/58 5/10gang with RTC	6340-xx-101 1/2gang	6341-xx-101 rotary-control element
KNX function				
Switching, rocker switch total	■	■	■	-
Switching, rocker switch left/right	■	■	■	■
Dimming, rocker switch total	■	■	■	-
Dimming, rocker switch left/right	■	■	■	-
Blind switch rocker total	■	■	■	-
Blind switch rocker total left/right	■	■	■	■
Short-long operation, switch rocker left/right	■	■	■	-
Value sender rocker switch total	■	■	■	-
Value sender switch rocker left/right	■	■	■	-
Value dimming sensor, switch rocker total	■	■	■	■
Red/green LED status illumination (red/green/off)	1 LED per switch rocker	1 LED per switch rocker	-	-
RGB LED function illumination + status illumination	-	-	1 LED per switch rocker	1 LED per button
Setting the RTC operating mode	■	■	■	-
Value sender, 2 objects, rocker switch left/right	■	■	■	-
Light scene extension unit with light scene memory function	■	■	■	-
Level switch, switch rocker total	■	■	■	-
Level switch, switch rocker total left/right	■	■	■	-
Multiple operation, rocker switch left/right	-	-	■	-
IR remote control channels (up to 13 channels)	■	■	-	-
Light scene unit (8 scenes for up to 8 actuators)	■	■	-	-
Light scene unit (10 scenes for up to 10 actuators)	-	-	-	-
Programmable shift key	■	■	-	-
Proximity function	-	-	-	-
Room temperature controller only				
Temperature reading	-	■	-	-
Master/Slave configuration	-	-	-	-
RTC settings	-	■	-	-
Base-load operation	-	-	-	-
Illuminated display	-	■	-	-
Fan Coil operation for heating and cooling	-	■	-	-
Media box/CD/DVD/Radio	-	-	-	-
Short-time timer	-	-	-	-
Weekly timer	-	-	-	-
Alarm clock	-	-	-	-
Messages	-	-	-	-
Screen saver	-	-	-	-
Display text/value	-	-	-	-
Device lock	-	-	-	-
Logic function (including light scenes)	-	-	■	■
Busch-Watchdog 4 channels	-	-	-	-

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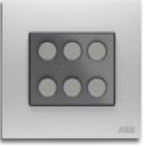



ABB i-bus® KNX – Operation – Functional Overview

6120/12-101 or 6120/13 (depending on the specific combination)

					
6342-xx-101 3/6gang	6344-xx-101 8.89 cm (3.5") TFT colour display with rotary control element	6344-xx-101	6351/08-825-500 end strip top with information display, room temperature controller, IR receiver and proximity sensor + 6342-xx-101 3/6gang + optionally 6341-xx-101 rotary control element	6350-825-101 end strip top with IR receiver and proximity sensor	6352-xx-101 end strip bottom with temperature sensor
■	-	-	■	-	-
■	■	-	■	-	-
■	■	-	■	-	-
■	■	-	■	-	-
■	■	-	■	-	-
■	■	-	■	-	-
■	■	-	■	-	-
■	■	-	■	-	-
-	-	-	-	-	-
1 LED per switch rocker	-	-	1 LED per switch rocker	-	-
■	■	-	■	-	-
■	-	-	■	-	-
■	■	-	■	-	-
■	-	-	■	-	-
■	-	-	■	-	-
-	-	-	■	■	-
-	-	-	-	-	-
-	■	-	-	-	-
-	■	-	-	-	-
-	■	-	-	-	-
-	■	-	-	-	-
-	■	-	-	-	-
-	■	-	-	-	-
-	■	-	-	-	-
-	■	-	-	-	-
-	■	-	■	-	-
-	■	-	-	-	-
■	■	■	■	-	-
-	-	■	-	-	-







Intelligent Building Solutions

ABB i-bus® KNX – Operation – Functional Overview

Program	Millenium					
						
	6125/20-500 1/2gang	6126/20-500 2/4gang	6129/20-500 3/6gang	6129/21-500 3/6gang with IR	6122/20-500	6124/08-981- 500
KNX function						
Switching, button pair	■	■	■	■	-	-
Switching, button upper/lower	■	■	■	■	-	-
Dimming, button pair	■	■	■	■	-	-
Dimming, button upper/lower	■	■	■	■	-	-
Blind, button pair	■	■	■	■	-	-
Blind, button upper/lower	■	■	■	■	-	-
Short-long operation, button upper/lower	■	■	■	■	-	-
Value transmitter, button pair	■	■	■	■	-	-
Value transmitter, button upper/lower	■	■	■	■	-	-
Value dimming sensor, button pair	■	■	■	■	-	-
Value dimming sensor, upper/lower	■	■	■	■	-	-
RGB LED function illumination + status illumination	■	■	■	■	-	-
Setting the RTC operating mode	■	■	■	■	-	-
Value transmitter, 2 objects, button upper/lower	■	■	■	■	-	-
Light scene extension unit with light scene memory function	■	■	■	■	-	-
Step switch, button pair	■	■	■	■	-	-
Step switch, button upper/lower	■	■	■	■	-	-
Multiple operation, button upper/lower	■	■	■	■	-	-
IR remote control channels (up to 5 channels)	-	-	-	■	-	-
Room temperature controller only						
Temperature reading	-	-	-	-	-	■
Master/Slave configuration	-	-	-	-	-	■
RTC settings	-	-	-	-	-	■
Base-load operation	-	-	-	-	-	■
Illuminated display	-	-	-	-	-	■
Fan Coil operation for heating and cooling	-	-	-	-	-	■
10 logic channels (incl. light scene, actuator, sequence actuator, logic gates, etc.)	■	■	■	■	-	■
Busch-Watchdog 4 channels	-	-	-	-	■	-

Intelligent Building Solutions

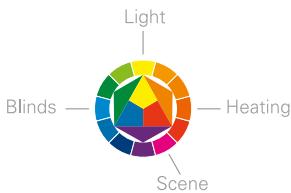
ABB i-bus® KNX – Operation – Functional Overview

Program	Zenit (VDE and NEMA)					
						
	6125/98-509 1/2gang	6126/98-509 2/4gang	6129/96-509 3/6gang	6129/98-509 3/6gang with IR	6122/98-509	6124/88-509
KNX function						
Switching, button pair	■	■	■	■	–	–
Switching, button upper/lower	■	■	■	■	–	–
Dimming, button pair	■	■	■	■	–	–
Dimming, button upper/lower	■	■	■	■	–	–
Blind, button pair	■	■	■	■	–	–
Blind, button upper/lower	■	■	■	■	–	–
Short-long operation, button upper/lower	■	■	■	■	–	–
Value transmitter, button pair	■	■	■	■	–	–
Value transmitter, button upper/lower	■	■	■	■	–	–
Value dimming sensor, button pair	■	■	■	■	–	–
Value dimming sensor, upper/lower	■	■	■	■	–	–
RGB LED function illumination + status illumination	■	■	■	■	–	–
Setting the RTC operating mode	■	■	■	■	–	–
Value transmitter, 2 objects, button upper/lower	■	■	■	■	–	–
Light scene extension unit with light scene memory function	■	■	■	■	–	–
Step switch, button pair	■	■	■	■	–	–
Step switch, button upper/lower	■	■	■	■	–	–
Multiple operation, button upper/lower	■	■	■	■	–	–
IR remote control channels (up to 5 channels)	–	–	–	■	–	–
Room temperature controller only						
Temperature reading	–	–	–	–	–	■
Master/Slave configuration	–	–	–	–	–	–
RTC settings	–	–	–	–	–	■
Base-load operation	–	–	–	–	–	–
Illuminated display	–	–	–	–	–	■
Fan Coil operation for heating and cooling	–	–	–	–	–	■
10 logic channels (incl. light scene, actuator, sequence actuator, logic gates, etc.)	■	■	■	■	–	■
Busch-Watchdog 4 channels	–	–	–	–	■	–

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-priOn®

Busch-priOn® allows you to control and monitor functions for the entire room. Light, scenes, timer, blind control unit, heating control unit – all functions are controlled simply and intuitively via a rotary dial, and freely programmable functions can be called up via the rocker switches. Busch-priOn® is a non-fixed, modular concept.



Colours that make life easier.

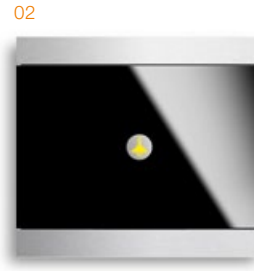
A consistent colour coding concept and durable LED technology make Busch-priOn® extremely easy to operate. The dial lights up in the colours of the coding system, thus providing feedback on the function currently selected. Yellow stands for lighting, blue for the blind control unit, magenta for light scenes and orange for the heating control unit. These colours are also found on the rocker switches of the control element panels.



The rotary control element is equipped with a freely programmable button which can be pressed and turned. It can be used to switch and dim individual lamps, but also to switch on whole groups of lamps with one press of a button and vary their brightness continuously via the dial.

Function
Dimming | Blinds | Value | Light scenes | Logic functions | Time functions

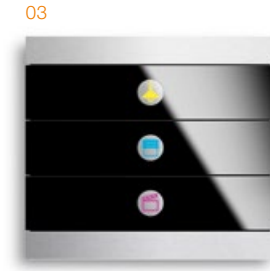
Features
Illuminated dial | Colour coding concept | Anti-theft protection | Day/night operation



The single control element is equipped with a freely programmable „large“ operating button. It can be assigned to one topic and can carry out a maximum of two commands.

Function
Switching | Dimming | Blinds | Value | Buttons | Light scenes | Logic functions | Time functions

Features
Illuminated rocker switch | Colour coding concept | Freely programmable control button | Anti-theft protection | Replaceable labelling symbol (Fig. shows Lighting labelling symbol)



The triple control element is equipped with 3 freely programmable control buttons. Each can be assigned to one topic and can carry out a maximum of two commands.

Function
Switching | Dimming | Blinds | Value | Buttons | Light scenes | Logic functions | Time functions

Features
Illuminated rocker switches | Colour coding concept | Freely programmable control buttons | Anti-theft protection | Replaceable labelling symbol (Fig. shows labelling symbols Lighting, Blinds and Scene)

- 01 Rotary control element
- 02 1gang control element
- 03 3gang control element
- 04 Glass black
- 05 Studiowhite, glossy
- 06 Stainless steel
- 07 White glass



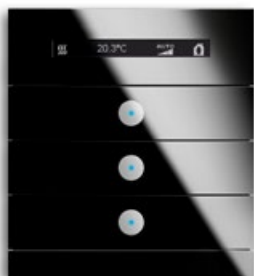
reddot design award
best of the best 2008

Busch-priOn® received special commendment in the category „best of the best,“ winning the „red dot award: communication design 2008“ for its interface design.

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-priOn®

01



A single-line display with integrated room temperature controller has been designed for the Busch-priOn® 3gang control element, technically reduced to the basics and optically elegant. It is particularly easy to read due to the monochromatic design for white on black information. The room temperature controller, information function like time and date, up to 17 freely programmable text displays, IR sensor and proximity sensor have been integrated into the display. The design of the display is available in the colour and material “glass black” only.

02



The 8.9 cm (3.5") TFT display gives a clear overview of all information. Operation is simple intuitive, supported the colour coding concept. It is possible freely combine several Busch-priOn® elements display and a special allow simple and convenient control.

03



Busch-priOn® is a nonfixed, modular-design system. The rocker switches of the triple control element allow you to call up freely programmable functions such as light scenes, blind functions or specific lamps.

04



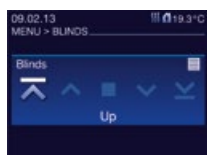
Busch-priOn® is ideal in combination with the carat® switch series, which has surfaces in the same design.

05



The Busch-priOn® flush-mounted movement sensor can be used individually or with other Busch-priOn® modules. Practical because users thus do not have to look for the light switch and are greeted with light when first entering a dark room.

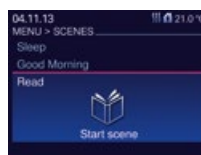
The 8.9 cm (3.5") TFT display gives a clear overview of all information. The user can choose from 3 surface designs: black, blue and silver.



Blinds



Climate control



Scene

01 3gang control element with single-line display and temperature controller

02 2gang combination

03 3gang combination

04 carat® glass black

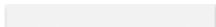
05 Flush-mounted movement sensor

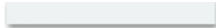
Note: We can only give you a rough idea here of the wide range of combinations offered by this modular concept. For more detailed information, see our separate product brochure / planning aid or the catalogue.


Intelligent Building Solutions


ABB i-bus® KNX – Operation – Planning aid for Busch-priOn®

End strips without function


studio white,
Article-No. 6348-24G-101-500


white glass,
Article-No. 6348-811-101-500


glass black,
Article-No. 6348-825-101-500

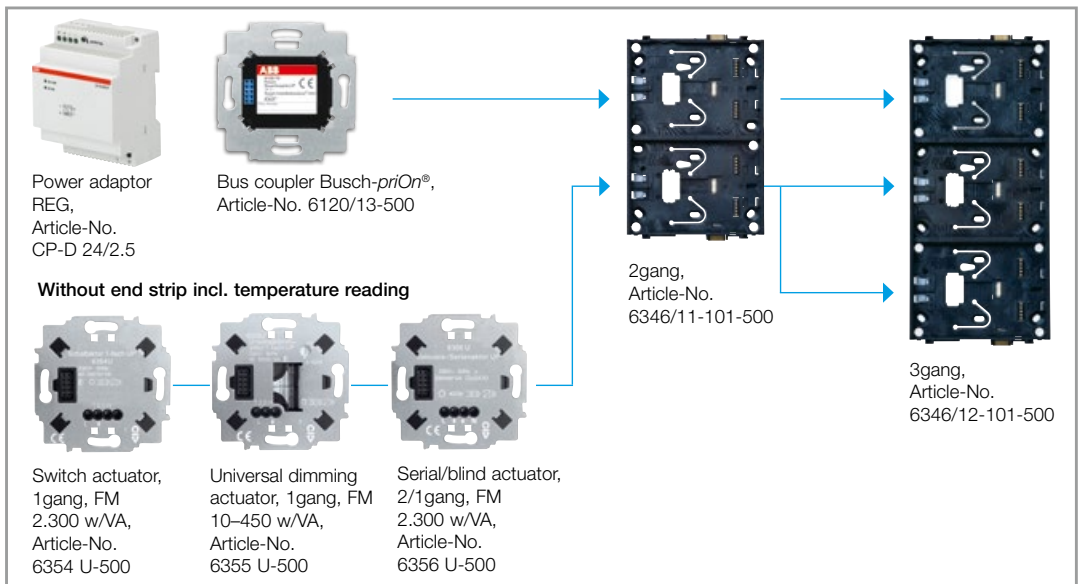

stainless steel,
Article-No. 6348-860-101-500

Support frame, bus coupler



Note:

This power adaptor can supply up to 15 power bus couplers with current.



FM actuators

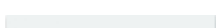
End strip




Commissioning adaptor,
Article-No. 6149/21-500

End strips without function


studio white,
Article-No. 6349-24G-101-500


white glass,
Article-No. 6349-811-101-500



glass black,
Article-No. 6349-825-101-500


stainless steel,
Article-No. 6349-860-101-500

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Planning aid for Busch-priOn®

End strip with IR proximity function


glass black,
Article-No. 6350-825-101-500

Note:
only combinable with
3gang control element
and rotary control
element


Single-line display and
room thermostat,
Article-No.
6351/08-825-500



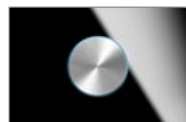
Control element,
1gang,
Article-No.
6340-825-101-500



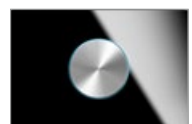
Control element,
3gang, Article-No.
6342-825-101-500



Colour display with
rotary control
element,
Article-No.
6344-825-101-500



Rotary control element,
1gang,
Article-No.
6341-825-101-500



Rotary control element,
1gang,
Article-No.
6341-825-101-500

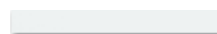



Busch-Watchdog,
180 FM,
Article-No.
6345-825-101-500


End strips with temperature sensor.

Not combinable with FM actuators.


studio white,
Article-No. 6352-24G-101-500


white glass,
Article-No. 6352-811-101-500

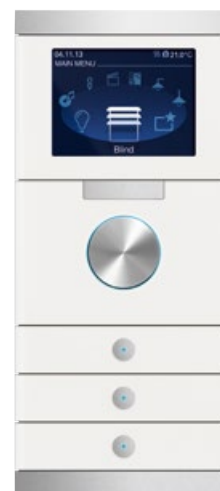

glass black,
Article-No. 6352-825-101-500


stainless steel,
Article-No. 6352-860-101-500

Colour range



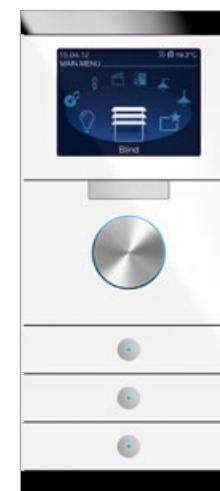
Busch-priOn®
glass black



Busch-priOn®
white glass



Busch-priOn®
stainless steel



Busch-priOn®
studio white, gloss

Labelling symbols



Labelling inserts for blinds, lighting, RTC
and scene. The colours are repeated in
the Busch-Jaeger colour concept.

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-priOn®



6120/12-101-500

Bus Coupler, FM

for Busch-priOn® support frame 1-fold 6346/10-10x and control elements 6122/0x-xxx, 6124/0x-xxx, 6125/0x-xxx, 6126/0x-xxx, 6127/0x-xxx, 6128/0x-xxx and 6129/0x-xxx.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6120/12-101-500	6120-0-0075		1	
swiss version	–	6120/12-101-508	6120-0-0076		1	



6120/13-500

Power Bus Coupler, FM, Busch-priOn®

For Busch-priOn® base frame 1-fold, 2-fold and 3-fold.

Separate power supply required. The KNX connection is used exclusively for bus communication.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6120/13-500	6120-0-0072		1	
swiss version	–	6120/13-508	6120-0-0073		1	



6354 U-500

Switch Actuator/Sensor, 1-fold, FM, Busch-priOn®

For switching incandescent lamps, 230 V halogen lamps, fluorescent lamps and low-voltage halogen lamps operated using transformers 3-wire technology (Neutral conductor required). Only in conjunction with a 2-fold and 3-fold base frame Cannot be combined with the lower finishing strip with temperature sensor.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6354 U-500	6310-0-0097		1	



6356 U-500

Shutter/2-fold Actuator, FM, Busch-priOn®

Only in conjunction with a 2-fold and 3-fold base frame. Not suitable for switching fluorescent lamps, HQI lamps and HQL lamps. Cannot be combined with the lower finishing strip with temperature sensor.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6356 U-500	6310-0-0099		1	



6355 U-500

Universal Dim Actuator, 1-fold, FM, Busch-priOn®

For dimming and switching of incandescent lamps, 230 V halogen lamps and low-voltage halogen lamps with conventional or electronic transformers.

2-wire connection (neutral conductor not required). Do not operate conventional transformers and electronic transformers together on the universal dimmer switch insert.

Can be used only in connection with support frame 2gang (6346/11-101-500) and 3gang (6346/12-101-500). Not combinable with the bottom end strip with temperature sensor (6352-xxx-101-500).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6355 U-500	6310-0-0098		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-priOn®

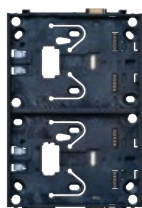


6346/10-101-500

Base Frame, 1-fold, Busch-priOn®

For Busch-priOn® for seating and contact connection of rotary control elements, operating element 1-fold and 3-fold as well as the top/bottom finishing strip. For contacting with the Bus Coupler priOn or Power Bus Coupler priOn.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6346/10-101-500	6310-0-0135		1	

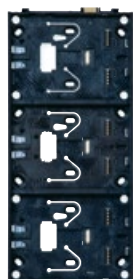


6346/11-101-500

Base Frame, 2-fold, Busch-priOn®

For Busch-priOn® for seating and contact connection of 8.89 cm (3.5") TFT colour display with rotary control element, rotary control element 1-fold and 3-fold as well as the top/bottom finishing strip. For contacting with the Power Bus Coupler priOn.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6346/11-101-500	6310-0-0137		1	

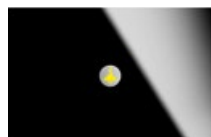


6346/12-101-500

Base Frame, 3-fold, Busch-priOn®

For Busch-priOn® for seating and contact connection of 8.89 cm (3.5") TFT colour display with rotary control element, rotary control element 1-fold and 3-fold as well as the top/bottom finishing strip. For contacting with the Power Bus Coupler priOn.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6346/12-101-500	6310-0-0139		1	



6340-825-101-500

Control Element, 1-fold, Busch-priOn®

Freely programmable multi-function operation element for installation in the Base Frame 1-fold, 2-fold or 3-fold. Supports the KNX functions with innovative colour concept on the labelling symbols or standard lighting in red/green. The accompanying symbol can be substituted by other alternative labelling symbols.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white, high gloss	–	6340-24G-101-500	6310-0-0109		1	
white glass	–	6340-811-101-500	6310-0-0168		1	
glass black	–	6340-825-101-500	6310-0-0108		1	
stainless steel	–	6340-866-101-500	6310-0-0106		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-priOn®



6342-825-101-500

Control Element, 3-fold, Busch-priOn®

Freely programmable multi-function operation element for installation in the Base Frame 1-fold, 2-fold or 3-fold. Supports the KNX functions with innovative colour concept on the labelling symbols or standard lighting in red/green. The accompanying symbol can be substituted by other alternative labelling symbols.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white, high gloss	–	6342-24G-101-500	6310-0-0125		1	
white glass	–	6342-811-101-500	6310-0-0172		1	
glass black	–	6342-825-101-500	6310-0-0124		1	
stainless steel	–	6342-866-101-500	6310-0-0122		1	



6341-825-101-500

Rotary Control Element, 1-fold, Busch-priOn®

Freely programmable multi-function rotary control element for installation in the Base Frame 1-fold, 2-fold or 3-fold. Supports the KNX functions with innovative colour concept on the rotary knob or standard lighting in red/green. Rotary knob stainless steel.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white, high gloss	–	6341-24G-101-500	6310-0-0117		1	
white glass	–	6341-811-101-500	6310-0-0170		1	
glass black	–	6341-825-101-500	6310-0-0116		1	
stainless steel	–	6341-866-101-500	6310-0-0114		1	



6344-825-101-500

8.89 cm (3.5") TFT Colour Display with Rotary Control Element, Busch-priOn®

Freely programmable 8.89 cm (3.5") TFT colour display with rotary control element for installation in the Base Frame, 2-fold or 3-fold. For representation of up to 120 functions. With integrated weekly time switch, alarm, timer, with light scene function, screensaver and control of multimedia devices (in conjunction with additional device). Free function inscription with user-defined texts and symbols. Supports the KNX functions with innovative colour concept on the rotary knob. Rotary knob stainless steel.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white, high gloss	–	6344-24G-101-500	6310-0-0133		1	
white glass	–	6344-811-101-500	6310-0-0174		1	
glass black	–	6344-825-101-500	6310-0-0132		1	
stainless steel	–	6344-866-101-500	6310-0-0130		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-priOn®



6345-825-101-500

Busch Watchdog® 180 FM Sensor, Busch-priOn®

Sends switching commands with motion detection in combination with the bus coupler Busch-priOn®. Programmable via ETS for automatic and semi-automatic operation.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white, high gloss	–	6345-24G-101-500	6310-0-0081		1	
white glass	–	6345-811-101-500	6310-0-0176		1	
glass black	–	6345-825-101-500	6310-0-0080		1	
stainless steel	–	6345-866-101-500	6310-0-0078		1	

6348-825-101-500

Top End Strip, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white, high gloss	–	6348-24G-101-500	6310-0-0147		1	
white glass	–	6348-811-101-500	6310-0-0178		1	
glass black	–	6348-825-101-500	6310-0-0146		1	
stainless steel	–	6348-866-101-500	6310-0-0144		1	

6350-825-101-500

Top End Strip with IR Receiver and Proximity Sensor, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold. With integrated IR receiver for control by IR handheld control as well as integrated proximity function.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
glass black	–	6350-825-101-500	6310-0-0157		1	

6349-825-101-500

Bottom End Strip without logo, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white, high gloss	–	6349-24G-101-500	6310-0-0155		1	
white glass	–	6349-811-101-500	6310-0-0180		1	
glass black	–	6349-825-101-500	6310-0-0154		1	
stainless steel	–	6349-860-101-500	6310-0-0152		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-priOn®

6352-825-101-500

Bottom End Strip with Temperature Sensor, Busch-priOn®

For mounting on Base Frame 1-fold to 3-fold. Provides the value measured by the temperature sensor to the 8.89 cm (3.5") TFT colour display or the room thermostat.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white, high gloss	–	6352-24G-101-500	6310-0-0165		1	
white glass	–	6352-811-101-500	6310-0-0182		1	
glass black	–	6352-825-101-500	6310-0-0164		1	
stainless steel	–	6352-860-101-500	6310-0-0162		1	



6351/08-825-500

Top End Strip with Display, Room Thermostat, IR Receiver and Proximity Sensor, Busch-priOn®

Top end strip for installation on 1gang to 3gang support frame (6346/10-101, 6346/11-101 and 6346/12-101). With integrated IR receiver for control using the Busch remote control 6010-25 or 6020-.../6121... and integrated proximity function. For heating and cooling (PI, PWM or 2-point). For control of up to 5-level ventilation actuators. With manual adjustment of fan levels. Master/slave configuration. With base-load operation. Display of up to 17 functions as text and/or icon. Only in connection with 1-gang rotary control element (6341-xxx-101) and 3-gang control element (6342-xxx-101) possible. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Detection range: frontal: 0.5 m, lateral: 0.5 m. Detection angle: 100 °. Mounting height: 1.1 m. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C.

Dimensions: (L x W x D): 33.4 mm x 106.6 mm x 15.5 mm

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
glass black	–	6351/08-825-500	6310-0-0183		1	

Inscription Symbols, Busch-priOn®

For Busch-priOn® operating element 1-fold to 3-fold with different symbols.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
lighting	–	6353/20-860-500	6310-0-0093		10	
blind	–	6353/30-860-500	6310-0-0094		10	
Room Temperature	–	6353/40-860-500	6310-0-0095		10	
scene	–	6353/50-860-500	6310-0-0096		10	



6353/20-860-500

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-priOn®



6149/21-500

Commissioning Interface / Adapter

6120/12-101-500 and 6120/13-500 via USB port or via SD card slot.
With integrated battery for independent operation for up to 8 h.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6149/21-500	6133-0-0201		1	



CP-D 24/2.5

Power Supply, 24 V, 2.5 A, MDRC

For Busch-SmartTouch® 7" 6136/07-8xx-500, Busch-priOn® Power Bus Coupler 6120/13-500 and Busch-ControlTouch® 6136/APP-500.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	CP-D 24/2.5	2CDG120037R0011		1	

Intelligent Building Solutions

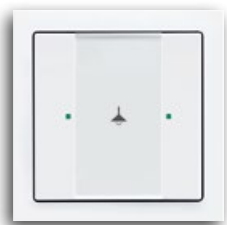
ABB i-bus® KNX – Operation – Standard Control Elements

The standard control elements are available as 1/2gang, 2/4gang or 4/8gang models. Every switch rocker has two LEDs, which display the status of the connected loads. The separate switch rockers are freely programmable and are suitable for switching and dimming, and also for operating blinds and as a light scene extension unit.

They can also be used in commercial applications. Anti-theft protection has also been integrated – an important factor for installations in public areas.

Customised text. Pictograms can be applied to push buttons for easier orientation. A clear text template with standard symbols is included for every sensor. The self-explanatory pictograms are available for the complete range of building control technology and if necessary can be easily replaced. If the appropriate symbol is not included, the push buttons can be labelled as desired. The related bus-coupler unit is included in delivery.

01



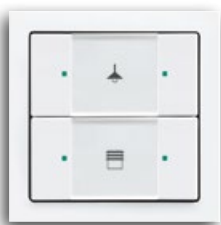
Function

Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit

Features

Labellable switch rockers | Anti-theft protection | Freely programmable switches | Status/orientation light (red/green/OFF)

02



Function

Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit

Features

Labellable switch rockers | Anti-theft protection | Freely programmable switches | Status/orientation light (red/green/OFF)

03



Function

Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit

Features

Labellable switch rockers | Anti-theft protection | Freely programmable switches | Status/orientation light (red/green/OFF)

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Standard Control Elements

Standard control element with bus coupler enclosed

With labelling field. Transparent labelling sheet with standard symbols included in delivery.
 Display elements: Two LED per rocker via separate communication object for status (Red/Green/OFF) or orientation light. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 63 mm x 63 mm.



6125/01



6126/01



6127/01

Pack unit pc.	Weight 1 pc. kg	Description	Standard control element, 1-fold with bus coupler enclosed			Standard control element, 2-fold with bus coupler enclosed			Standard control element, 4-fold with bus coupler enclosed		
			Order details		Price	Order details		Price	Order details		Price
			Type	Order code	1 pc.	Type	Order code	1 pc.	Type	Order code	1 pc.
		future® linear									
1		anthracite	6125/01-81-500	6115-0-0205		6126/01-81-500	6116-0-0195		6127/01-81-500	6117-0-0221	
1		savanne/ivory	6125/01-82-500	6115-0-0206		6126/01-82-500	6116-0-0196		6127/01-82-500	6117-0-0222	
1		aluminium silver ¹⁾	6125/01-83-500	6115-0-0207		6126/01-83-500	6116-0-0197		6127/01-83-500	6117-0-0223	
1		davos/studio white	6125/01-84-500	6115-0-0183		6126/01-84-500	6116-0-0174		6127/01-84-500	6117-0-0200	
1		studio white, matt ¹⁾	6125/01-884-500	6115-0-0214		6126/01-884-500	6116-0-0204		6127/01-884-500	6117-0-0230	
1		black, matt ¹⁾	6125/01-885-500	6115-0-0215		6126/01-885-500	6116-0-0205		6127/01-885-500	6117-0-0231	
		solo®									
1		savanne/ivory	6125/01-82-500	6115-0-0206		6126/01-82-500	6116-0-0196		6127/01-82-500	6117-0-0222	
1		davos/studio white	6125/01-84-500	6115-0-0183		6126/01-84-500	6116-0-0174		6127/01-84-500	6117-0-0200	
1		meteor/grey metallic ¹⁾	6125/01-803-500	6115-0-0212		6126/01-803-500	6116-0-0202		6127/01-803-500	6117-0-0228	
		carat®									
1		anthracite	6125/01-81-500	6115-0-0205		6126/01-81-500	6116-0-0195		6127/01-81-500	6117-0-0221	
1		savanne/ivory	6125/01-82-500	6115-0-0206		6126/01-82-500	6116-0-0196		6127/01-82-500	6117-0-0222	
1		davos/studio white	6125/01-84-500	6115-0-0183		6126/01-84-500	6116-0-0174		6127/01-84-500	6117-0-0200	
		pure stainless steel ¹⁾									
1		stainless steel	6125/01-866-500	6115-0-0211		6126/01-866-500	6116-0-0201		6127/01-866-500	6117-0-0227	
		Busch-axcent®									
1		davos/studio white	6125/01-84-500	6115-0-0183		6126/01-84-500	6116-0-0174		6127/01-84-500	6117-0-0200	

¹⁾ Surface painted

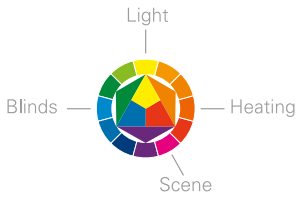
Intelligent Building Solutions

ABB i-bus® KNX – Operation – Multifunction Control Elements

The multifunction control elements with LED colour code concept meet the highest demands for comfort and technology. They each come with two RGB LEDs per rocker switch, which conform

to a consistent colour concept. This makes the function obvious at a glance, and the surfaces can be additionally fitted with pictograms. Each side of a rocker switch can be occupied with its

own function – each for calling up one light scene, for instance. This turns a 4gang control element into an 8gang control element.



01



02



03



01 Multifunction control element 1/2gang

02 Multifunction control element 2/4gang

03 Multifunction control element 4/8gang

04 Room temperature controller

05 Multifunction control element 2/4gang, integrated room thermostat

06 Multifunction control element 3/6gang with IR reception

07 FM movement detector standard

08 FM movement detector comfort

Function

Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit | Step-type | Multiple operation | Logic function (including light scenes)

Features

Labellable switch rockers | Anti-theft protection | Freely programmable switches | LED colour code concept

Function

Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit | Step-type | Multiple operation | Logic function (including light scenes)

Features

Labellable switch rockers | Anti-theft protection | Freely programmable switches | LED colour code concept

Function

Switching | Dimming | Blinds | Push-button | Value transmitter | Light scene extension unit | Step-type | Multiple operation | Logic function (including light scenes)

Features

Labellable switch rockers | Anti-theft protection | Freely programmable switches | LED colour code concept

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Multifunction Control Elements

Wide range. Different shapes, colours and materials fulfil every requirement. KNX control elements are available in the carat®, pure stainless steel, solo®, Busch-axcent® and future® linear pro-

grammes. The complete range of conventional switches from these series is available, so there are no limits to the options for combining KNX components.



04



Function

Comfort | Stand-by | Night mode | Frost protection | Specified temperature | Time | Date | Heating | Cooling | Fan Coil operation for heating and cooling | Light scenes | Light scene extension unit | Value | Logic function (including light scenes)

Features

Labellable switch rockers | Anti-theft protection | Display illumination | LED colour code concept

05



Function

Comfort | Stand-by | Night mode | Frost protection | Specified temperature | Time | Date | Heating | Cooling | Fan Coil operation for heating and cooling | Light scenes | Light scene extension unit | Value | Logic function (including light scenes)

Features

Labellable switch rockers | Anti-theft protection | Display illumination | Colour concept

06



Function

10 freely programmable IR channels | Switching | Dimming | Blinds | Button | Light scenes | Light scene extension unit | Value | Logic function (including light scenes)

Features

Labellable switch rockers | Anti-theft protection | Display illumination | Colour concept

07



08



Function

4 channels | Logic function (including light scenes)

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Multifunction Control Elements

Control element, Multi-function/colour concept

For BCU 6120/12-101-500 or 6120/13-500. With labelling field. Support of KNX functions through innovative colour concept or standard illumination red/green. Push switch function: switching/dimming/blind/sending values/scenes etc. Transparent labelling sheet with standard symbols included in delivery. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Display elements: Two LED per rocker via separate communication object for status (Red/Green/OFF) or orientation light.



6125/02



6126/02



6127/02

Pack unit pc.	Weight 1 pc. kg	Description	Control element, 1/2-fold Multi-function/colour concept		Control element, 2/4-fold Multi-function/colour concept		Control element, 4/8-fold Multi-function/colour concept	
			With 1 Control element: rocker switch left/right		With 2 Control elements: rocker switch left/right		With 4 Control elements: rocker switch left/right	
			Order details Type	Order code	Order details Type	Order code	Order details Type	Order code
		future® linear						
1		anthracite	6125/02-81-500	6115-0-0216	6126/02-81-500	6116-0-0206	6127/02-81-500	6117-0-0232
1		savanne/ivory	6125/02-82-500	6115-0-0217	6126/02-82-500	6116-0-0207	6127/02-82-500	6117-0-0233
1		aluminium silver ¹⁾	6125/02-83-500	6115-0-0218	6126/02-83-500	6116-0-0208	6127/02-83-500	6117-0-0234
1		davos/studio white	6125/02-84-500	6115-0-0219	6126/02-84-500	6116-0-0209	6127/02-84-500	6117-0-0235
1		studio white, matt ¹⁾	6125/02-884-500	6115-0-0226	6126/02-884-500	6116-0-0216	6127/02-884-500	6117-0-0242
1		black, matt ¹⁾	6125/02-885-500	6115-0-0227	6126/02-885-500	6116-0-0217	6127/02-885-500	6117-0-0243
		solo®						
1		savanne/ivory	6125/02-82-500	6115-0-0217	6126/02-82-500	6116-0-0207	6127/02-82-500	6117-0-0233
1		davos/studio white	6125/02-84-500	6115-0-0219	6126/02-84-500	6116-0-0209	6127/02-84-500	6117-0-0235
1		meteor/grey metallic ¹⁾	6125/02-803-500	6115-0-0224	6126/02-803-500	6116-0-0214	6127/02-803-500	6117-0-0240
		carat®						
1		anthracite	6125/02-81-500	6115-0-0216	6126/02-81-500	6116-0-0206	6127/02-81-500	6117-0-0232
1		savanne/ivory	6125/02-82-500	6115-0-0217	6126/02-82-500	6116-0-0207	6127/02-82-500	6117-0-0233
1		davos/studio white	6125/02-84-500	6115-0-0219	6126/02-84-500	6116-0-0209	6127/02-84-500	6116-0-0209
		pure stainless steel ¹⁾						
1		stainless steel	6125/02-866-500	6115-0-0223	6126/02-866-500	6116-0-0213	6127/02-866-500	6117-0-0239
		Busch-axcent®						
1		davos/studio white	6125/02-84-500	6115-0-0219	6126/02-84-500	6116-0-0209	6127/02-84-500	6117-0-0235
		Dynasty®						
1		anthracite	6125/02-81-500	6115-0-0216	6126/02-81-500	6116-0-0206	6127/02-81-500	6117-0-0232
1		savanne/ivory	6125/02-82-500	6115-0-0217	6126/02-82-500	6116-0-0207	6127/02-82-500	6117-0-0233
1		antique brass	6125/02-840-500	6115-0-0452	6126/02-840-500	6116-0-0227	6127/02-840-500	6117-0-0252

¹⁾ Surface painted

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Multifunction Control Elements



6129/01

Control Element, 3/6-fold, multifunction, with IR-Interface, FM

suitable for KNX bus coupler 6120/12-101-500 and 6120/13-500. With IR interface for Busch-remote controllers 6010-25 or 6020-.../6021-... . Push button function: switching/dimming/blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. Two freely programmable RGB LEDs per rocker. With RGB colour code concept or red/green/OFF-operation. With labeling field. Transparent labeling sheet with standard symbols included in delivery.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
future® linear						
anthracite	–	6129/01-81-500	6135-0-0156		1	
savanne/ivory	–	6129/01-82-500	6135-0-0157		1	
aluminium silver ¹⁾	–	6129/01-83-500	6135-0-0158		1	
davos/studio white	–	6129/01-84-500	6135-0-0146		1	
studio white, matt ¹⁾	–	6129/01-884-500	6135-0-0165		1	
black, matt ¹⁾	–	6129/01-885-500	6135-0-0166		1	
solo®						
savanne/ivory	–	6129/01-82-500	6135-0-0157		1	
davos/studio white	–	6129/01-84-500	6135-0-0146		1	
meteor/grey metallic ¹⁾	–	6129/01-803-500	6135-0-0163		1	
carat®						
anthracite	–	6129/01-81-500	6135-0-0156		1	
savanne/ivory	–	6129/01-82-500	6135-0-0157		1	
davos/studio white	–	6129/01-84-500	6135-0-0146		1	
pure stainless steel ¹⁾						
stainless steel	–	6129/01-866-500	6135-0-0162		1	
Busch-axcent®						
davos/studio white	–	6129/01-84-500	6135-0-0146		1	

¹⁾ Surface painted

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Movement Detectors



6122/02-84-500

Busch-Watchdog 180 flush-mounted comfort sensor II

Movement detector with up to 4 channels. For ABB i-bus® KNX 6120/12-101-500, 6120/13-500. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.)

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
future® linear						
anthracite	–	6122/02-81-500	6132-0-0283		1	
savanne/ivory	–	6122/02-82-500	6132-0-0284		1	
aluminium silver ¹⁾		6122/02-83-500	6132-0-0285		1	
davos/studio white		6122/02-84-500	6132-0-0263		1	
studio white, matt ¹⁾	–	6122/02-884-500	6132-0-0292		1	
black, matt ¹⁾	–	6122/02-885-500	6132-0-0293		1	
–						
solo®	–					
savanne/ivory	–	6122/02-82-500	6132-0-0284		1	
davos/studio white	–	6122/02-84-500	6132-0-0263		1	
meteor/grey metallic ¹⁾		6122/02-803-500	6132-0-0290		1	
–						
carat®	–					
anthracite	–	6122/02-81-500	6132-0-0283		1	
savanne/ivory	–	6122/02-82-500	6132-0-0284		1	
davos/studio white		6122/02-84-500	6132-0-0263		1	
–						
pure stainless steel ¹⁾	–					
stainless steel		6122/02-866-500	6132-0-0289		1	
–						
Busch-axcent®	–					
davos/studio white		6122/02-84-500	6132-0-0263		1	

¹⁾ Surface painted

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Movement Detectors



6122/10-84-500

Busch-Watchdog® 180 Sensor Standard, Select with integrated bus coupler, FM

Movement detector with up to 4 channels. The bus can be connected via enclosed terminal block. With integrated KNX bus coupler.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
Reflex SI						
white	–	6122/10-212-500	6132-0-0373		1	
alpine white	–	6122/10-214-500	6132-0-0374		1	
future® linear						
anthracite	–	6122/10-81-500	6132-0-0376		1	
ivory	–	6122/10-82-500	6132-0-0377		1	
aluminium silver	–	6122/10-83-500	6132-0-0378		1	
studio white	–	6122/10-84-500	6132-0-0379		1	
studio white matt	–	6122/10-884-500	6132-0-0380		1	
black, matt	–	6122/10-885-500	6132-0-0381		1	
solo®						
ivory	–	6122/10-82-500	6132-0-0377		1	
studio white	–	6122/10-84-500	6132-0-0379		1	
grey metallic	–	6122/10-803-500	6132-0-0382		1	
Busch-axcent®						
studio white	–	6122/10-84-500	6132-0-0379		1	
pure stainless steel						
stainless steel	–	6122/10-866-500	6132-0-0385		1	
carat®						
anthracite	–	6122/10-81-500	6132-0-0376		1	
ivory	–	6122/10-82-500	6132-0-0377		1	
studio white	–	6122/10-84-500	6132-0-0379		1	
Dynasty®						
anthracite	–	6122/10-81-500	6132-0-0376		1	
ivory	–	6122/10-82-500	6132-0-0377		1	
antique brass	–	6122/10-840-500	6132-0-0407		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Room Thermostats



6128/28-884-500

Control element, 2/4gang, with RTC multi-function/colour concept

For ABB i-bus® KNX bus coupler 6120/12-101-500, 6120/13-500. Support of KNX functions through innovative colour concept (yellow = lighting, blue = blind, orange = RTC, magenta = scene and white = neutral/no function assigned) or standard illumination red/green. Rocker switch left/right (switching/dimming/blind/value sender/light scenes/fan function). Master/slave configuration. With base-load operation. The controller is a constant room temperature controller for ventilator convectors (fan coils) in 2-pipe and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. Transparent labelling sheet with standard symbols included in delivery. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Control element: Switch contacts left/right, also for selecting setpoint and mode of operation. Display elements: LCD showing operation mode and temperature. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C. Dimensions: (L x W x D): 63 mm x 63 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
future® linear						
anthracite	–	6128/28-81-500	6134-0-0331		1	
savanne/ivory	–	6128/28-82-500	6134-0-0332		1	
aluminium silver	–	6128/28-83-500	6134-0-0333		1	
davos/studio white	–	6128/28-84-500	6134-0-0334		1	
studio white, matt	–	6128/28-884-500	6134-0-0338		1	
black, matt	–	6128/28-885-500	6134-0-0339		1	
solo®						
savanne/ivory	–	6128/28-82-500	6134-0-0332		1	
davos/studio white	–	6128/28-84-500	6134-0-0334		1	
meteor/grey metallic	–	6128/28-803-500	6134-0-0336		1	
carat®						
anthracite	–	6128/28-81-500	6134-0-0331		1	
savanne/ivory	–	6128/28-82-500	6134-0-0332		1	
davos/studio white	–	6128/28-84-500	6134-0-0334		1	
pure stainless steel						
stainless steel	–	6128/28-866-500	6134-0-0335		1	
Busch-axcent®						
davos/studio white	–	6128/28-84-500	6134-0-0334		1	
Dynasty®						
anthracite	–	6128/28-81-500	6134-0-0331		1	
savanne/ivory	–	6128/28-82-500	6134-0-0332		1	
antique brass	–	6128/28-840-500	6134-0-0342		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Frames



1721-184K

Frames, future® linear

For vertical and horizontal installation.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
1-fold, anthracite	–	1721-181K	1754-0-4240		10	
1-fold, savanna/ivory	–	1721-182K-500	1754-0-4506		10	
1-fold, aluminium silver ¹⁾	–	1721-183K-500	1754-0-4529		10	
1-fold, davos/studio white	–	1721-184K-500	1754-0-4498		10	
1-fold, studio white, matt ¹⁾	–	1721-884K-500	1754-0-4531		10	
1-fold, black matt ¹⁾	–	1721-885K-500	1754-0-4532		10	
2-fold, anthracite	–	1722-181K	1754-0-4241		10	
2-fold, savanna/ivory	–	1722-182K	1754-0-4231		10	
2-fold, aluminium silver ¹⁾	–	1722-183K-500	1754-0-4530		10	
2-fold, davos/studio white	–	1722-184K-500	1754-0-4499		10	
2-fold, studio white, matt ¹⁾	–	1722-884K	1754-0-4415		10	
2-fold, black matt ¹⁾	–	1722-885K-500	1754-0-4534		10	
3-fold, anthracite	–	1723-181K	1754-0-4242		10	
3-fold, savanna/ivory	–	1723-182K	1754-0-4232		10	
3-fold, aluminium silver ¹⁾	–	1723-183K-500	1754-0-4533		10	
3-fold, davos/studio white	–	1723-184K-500	1754-0-4502		10	
3-fold, studio white, matt ¹⁾	–	1723-884K	1754-0-4416		10	
3-fold, black matt ¹⁾	–	1723-885K	1754-0-4421		10	
4-fold, anthracite	–	1724-181K	1754-0-4243		10	
4-fold, savanna/ivory	–	1724-182K	1754-0-4233		10	
4-fold, aluminium silver ¹⁾	–	1724-183K	1754-0-4309		10	
4-fold, davos/studio white	–	1724-184K	1754-0-4238		10	
4-fold, studio white, matt ¹⁾	–	1724-884K	1754-0-4417		10	
4-fold, black matt ¹⁾	–	1724-885K	1754-0-4422		10	
5-fold, anthracite	–	1725-181K	1754-0-4244		1	
5-fold, savanna/ivory	–	1725-182K	1754-0-4234		1	
5-fold, aluminium silver ¹⁾	–	1725-183K	1754-0-4310		1	
5-fold, davos/studio white	–	1725-184K-500	1754-0-4517		1	
5-fold, studio white, matt ¹⁾	–	1725-884K	1754-0-4418		1	
5-fold, black matt ¹⁾	–	1725-885K	1754-0-4423		1	

¹⁾ Surface painted

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Frames



1721-80

Frames, solo®

For vertical and horizontal installation.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
1-fold, chrome, matt	–	1721-80-500	1754-0-4535		10	
1-fold, chrome, glossy	–	1721-80G-500	1754-0-4538		10	
1-fold, davos/studio white	–	1721-84-500	1754-0-4536		10	
2-fold, chrome, matt	–	1722-80-500	1754-0-4537		10	
2-fold, chrome, glossy	–	1722-80G	1754-0-4327		10	
2-fold, davos/studio white	–	1722-84-500	1754-0-4539		10	
3-fold, chrome, matt	–	1723-80-500	1754-0-4540		10	
3-fold, chrome, glossy	–	1723-80G	1754-0-4328		10	
3-fold, davos/studio white	–	1723-84-500	1754-0-4541		10	
4-fold, chrome, matt	–	1724-80	1754-0-4107		1	
4-fold, chrome, glossy	–	1724-80G	1754-0-4329		1	
4-fold, davos/studio white	–	1724-84	1754-0-4112		1	
5-fold, chrome, matt	–	1725-80	1754-0-4108		1	
5-fold, chrome, glossy	–	1725-80G	1754-0-4330		1	
5-fold, davos/studio white	–	1725-84	1754-0-4113		1	



1721-860

Frames, carat®

For vertical and horizontal installation.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
1-fold, white glass	–	1721-811	1754-0-4442		1	
1-fold, bronze	–	1721-821	1754-0-4258		1	
1-fold, gold ¹⁾	–	1721-823-101	1754-0-4356		1	
1-fold, glass black	–	1721-825	1754-0-4322		1	
1-fold, chrome	–	1721-826-101	1754-0-4360		1	
1-fold, stainless steel	–	1721-860	1754-0-4254		1	
2-fold, white glass	–	1722-811	1754-0-4443		1	
2-fold, bronze	–	1722-821	1754-0-4259		1	
2-fold, gold ¹⁾	–	1722-823-101	1754-0-4357		1	
2-fold, glass black	–	1722-825	1754-0-4323		1	
2-fold, chrome	–	1722-826-101	1754-0-4361		1	
2-fold, stainless steel	–	1722-860	1754-0-4255		1	
3-fold, white glass	–	1723-811	1754-0-4444		1	
3-fold, bronze	–	1723-821	1754-0-4260		1	
3-fold, gold ¹⁾	–	1723-823-101	1754-0-4358		1	
2-fold, glass black	–	1722-825	1754-0-4323		1	
3-fold, chrome	–	1723-826-101	1754-0-4362		1	
3-fold, stainless steel	–	1723-860	1754-0-4256		1	
4-fold, white glass	–	1724-811	1754-0-4445		1	
4-fold, bronze	–	1724-821	1754-0-4261		1	
4-fold, gold ¹⁾	–	1724-823-101	1754-0-4359		1	
4-fold, glass black	–	1724-825	1754-0-4325		1	
4-fold, chrome	–	1724-826-101	1754-0-4363		1	
4-fold, stainless steel	–	1724-860	1754-0-4257		1	

¹⁾ Gold plated 24 carat

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Frames



1721-866K

Frames, pure stainless steel

For vertical and horizontal installation. Stainless steel material.

Anti-fingerprint (does not leave any visible fingerprints on the material).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
1-fold, stainless steel	–	1721-866K-500	1754-0-4500		10	
2-fold, stainless steel	–	1722-866K-500	1754-0-4501		10	
3-fold, stainless steel	–	1723-866K	1754-0-4319		10	
4-fold, stainless steel	–	1724-866K	1754-0-4320		1	
5-fold, stainless steel	–	1725-866K	1754-0-4321		1	



1722-283

Frames, accent

For vertical and horizontal installation.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
1-fold, black	–	1721-281	1754-0-4409		10	
1-fold, brown glass	–	1721-283	1754-0-4543		1	
1-fold, davos/studio white	–	1721-284	1754-0-4331		10	
1-fold, yellow	–	1721-285	1754-0-4334		10	
1-fold, green	–	1721-286	1754-0-4337		10	
1-fold, red	–	1721-287	1754-0-4340		10	
1-fold, blue	–	1721-288	1754-0-4343		10	
1-fold, white glass	–	1721-280	1754-0-4437		1	
1-fold, entrée-grey	–	1721-291-500	1754-0-4471		10	
1-fold, château-black	–	1721-295-500	1754-0-4491		10	
1-fold, chalet-white	–	1721-296-500	1754-0-4486		10	
1-fold, foyer-red	–	1721-297-500	1754-0-4476		10	
1-fold, maison-beige	–	1721-299-500	1754-0-4481		10	
2-fold, black	–	1722-281	1754-0-4410		10	
2-fold, brown glass	–	1722-283	1754-0-4544		1	
2-fold, davos/studio white	–	1722-284	1754-0-4332		10	
2-fold, yellow	–	1722-285	1754-0-4335		10	
2-fold, green	–	1722-286	1754-0-4338		10	
2-fold, red	–	1722-287	1754-0-4341		10	
2-fold, blue	–	1722-288	1754-0-4344		10	
2-fold, white glass	–	1722-280	1754-0-4438		1	
2-fold, entrée-grey	–	1722-291-500	1754-0-4472		10	
2-fold, château-black	–	1722-295-500	1754-0-4492		10	
2-fold, chalet-white	–	1722-296-500	1754-0-4487		10	
2-fold, foyer-red	–	1722-297-500	1754-0-4477		10	
2-fold, maison-beige	–	1722-299-500	1754-0-4482		10	

Continuation of table „Frames, accent“ on next page

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Frames

Continuation of table „Frames, axcent“

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
3-fold, black	–	1723-281	1754-0-4411		10	
3-fold, brown glass	–	1723-283	1754-0-4545		1	
3-fold, davos/studio white	–	1723-284	1754-0-4333		10	
3-fold, yellow	–	1723-285	1754-0-4336		10	
3-fold, green	–	1723-286	1754-0-4339		10	
3-fold, red	–	1723-287	1754-0-4342		10	
3-fold, blue	–	1723-288	1754-0-4345		10	
3-fold, white glass	–	1723-280	1754-0-4439		1	
3-fold, entrée-grey	–	1723-291-500	1754-0-4473		10	
3-fold, château-black	–	1723-295-500	1754-0-4493		10	
3-fold, chalet-white	–	1723-296-500	1754-0-4488		10	
3-fold, foyer-red	–	1723-297-500	1754-0-4478		10	
3-fold, maison-beige	–	1723-299-500	1754-0-4483		10	
4-fold, black	–	1724-281	1754-0-4412		1	
4-fold, brown glass	–	1724-283	1754-0-4546		1	
4-fold, davos/studio white	–	1724-284	1754-0-4346		1	
4-fold, yellow	–	1724-285	1754-0-4348		1	
4-fold, green	–	1724-286	1754-0-4350		1	
4-fold, red	–	1724-287	1754-0-4352		1	
4-fold, blue	–	1724-288	1754-0-4354		1	
4-fold, white glass	–	1724-280	1754-0-4440		1	
4-fold, entrée-grey	–	1724-291-500	1754-0-4474		1	
4-fold, château-black	–	1724-295-500	1754-0-4494		1	
4-fold, chalet-white	–	1724-296-500	1754-0-4489		1	
4-fold, foyer-red	–	1724-297-500	1754-0-4479		1	
4-fold, maison-beige	–	1724-299-500	1754-0-4484		1	
5-fold, black	–	1725-281	1754-0-4413		1	
5-fold, brown glass	–	1725-283	1754-0-4547		1	
5-fold, davos/studio white	–	1725-284	1754-0-4347		1	
5-fold, yellow	–	1725-285	1754-0-4349		1	
5-fold, green	–	1725-286	1754-0-4351		1	
5-fold, red	–	1725-287	1754-0-4353		1	
5-fold, blue	–	1725-288	1754-0-4355		1	
5-fold, white glass	–	1725-280	1754-0-4441		1	
5-fold, entrée-grey	–	1725-291-500	1754-0-4475		1	
5-fold, château-black	–	1725-295-500	1754-0-4495		1	
5-fold, chalet-white	–	1725-296-500	1754-0-4490		1	
5-fold, foyer-red	–	1725-297-500	1754-0-4480		1	
5-fold, maison-beige	–	1725-299-500	1754-0-4485		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Frames



1721-838-500

Frames, Dynasty®

For vertical and horizontal installation.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
1-fold, polished brass ivory	–	1721-838-500	1754-0-4560		1	
1-fold, polished	–	1721-835-500	1754-0-4565		1	
brass anthracite						
1-fold, polished	–	1721-836-500	1754-0-4570		1	
brass decor ivory						
1-fold, polished	–	1721-833-500	1754-0-4575		1	
brass decor anthracite						
1-fold, antique brass ivory	–	1721-848-500	1754-0-4580		1	
1-fold, antique	–	1721-845-500	1754-0-4585		1	
brass anthracite						
1-fold, antique	–	1721-846-500	1754-0-4590		1	
brass decor ivory						
1-fold, antique	–	1721-843-500	1754-0-4595		1	
brass decor anthracite						
1-fold, ivory	–	1721-832-500	1754-0-4600		1	
1-fold, anthracite	–	1721-831-500	1754-0-4605		1	
2-fold, polished brass ivory	–	1722-838-500	1754-0-4561		1	
2-fold, polished	–	1722-835-500	1754-0-4566		1	
brass anthracite						
2-fold, polished	–	1722-836-500	1754-0-4571		1	
brass decor ivory						
2-fold, polished	–	1722-833-500	1754-0-4576		1	
brass decor anthracite						
2-fold, antique brass ivory	–	1722-848-500	1754-0-4581		1	
2-fold, antique	–	1722-845-500	1754-0-4586		1	
brass anthracite						
2-fold, antique	–	1722-846-500	1754-0-4591		1	
brass decor ivory						
2-fold, antique	–	1722-843-500	1754-0-4596		1	
brass decor anthracite						
2-fold, ivory	–	1722-832-500	1754-0-4601		1	
2-fold, anthracite	–	1722-831-500	1754-0-4606		1	
3-fold, polished brass ivory	–	1723-838-500	1754-0-4562		1	
3-fold, polished	–	1723-835-500	1754-0-4567		1	
brass anthracite						
3-fold, polished	–	1723-836-500	1754-0-4572		1	
brass decor ivory						
3-fold, polished	–	1723-833-500	1754-0-4577		1	
brass decor anthracite						
3-fold, antique brass ivory	–	1723-848-500	1754-0-4582		1	
3-fold, antique	–	1723-845-500	1754-0-4587		1	
brass anthracite						
3-fold, antique	–	1723-846-500	1754-0-4592		1	
brass decor ivory						
3-fold, antique	–	1723-843-500	1754-0-4597		1	
brass decor anthracite						
3-fold, ivory	–	1723-832-500	1754-0-4602		1	
3-fold, anthracite	–	1723-831-500	1754-0-4607		1	

Continuation of table „Frames, Dynasty®“ on next page

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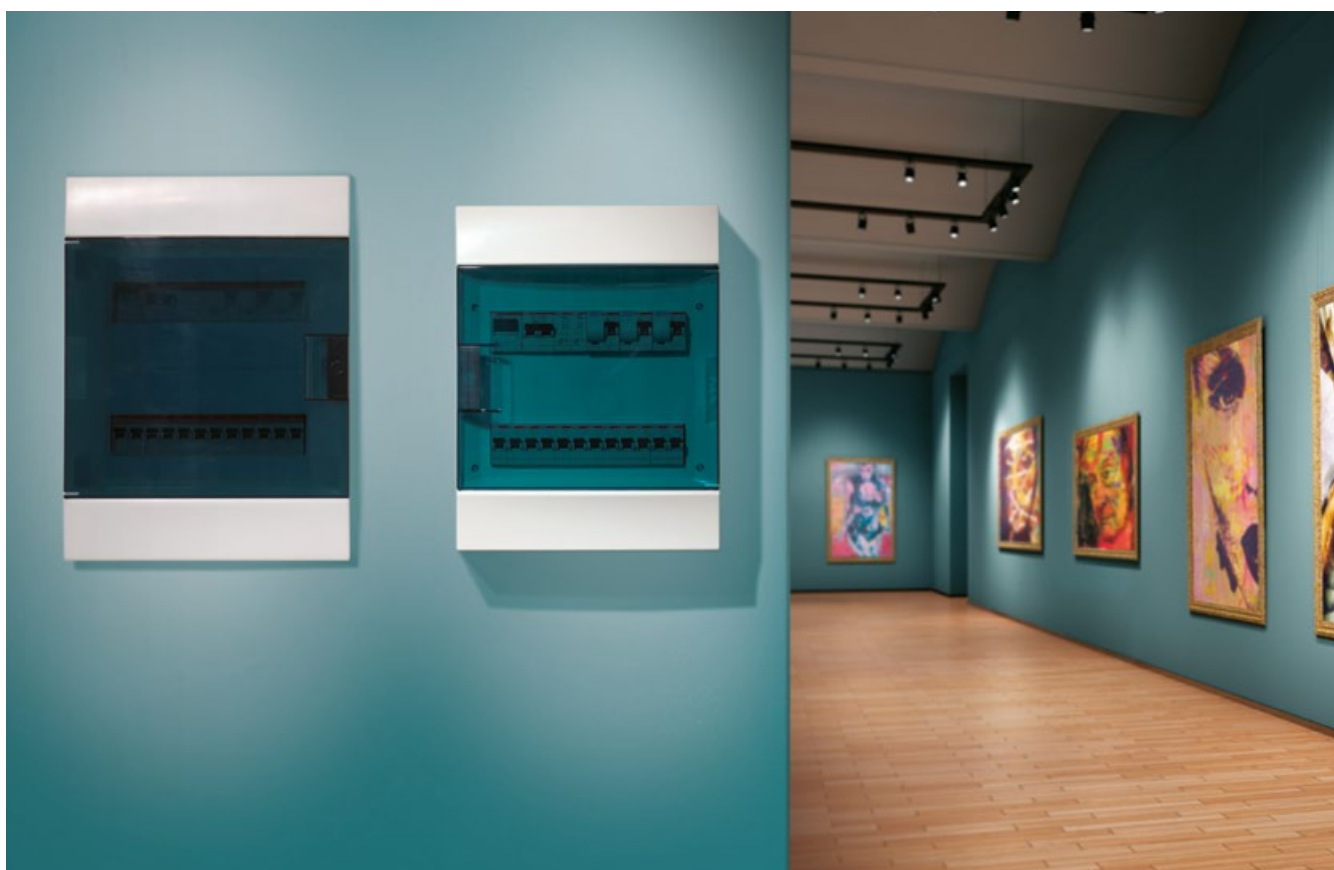
ABB i-bus® KNX – Operation – Frames

Continuation of table „Frames, Dynasty®“

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
4-fold, polished brass ivory	–	1724-838-500	1754-0-4563		1	
4-fold, polished brass anthracite	–	1724-835-500	1754-0-4568		1	
4-fold, polished brass decor ivory	–	1724-836-500	1754-0-4573		1	
4-fold, polished brass decor anthracite	–	1724-833-500	1754-0-4578		1	
4-fold, antique brass ivory	–	1724-848-500	1754-0-4583		1	
4-fold, antique brass anthracite	–	1724-845-500	1754-0-4588		1	
4-fold, antique brass decor ivory	–	1724-846-500	1754-0-4593		1	
4-fold, antique brass decor anthracite	–	1724-843-500	1754-0-4598		1	
4-fold, ivory	–	1724-832-500	1754-0-4603		1	
4-fold, anthracite	–	1724-831-500	1754-0-4608		1	
5-fold, polished brass ivory	–	1725-838-500	1754-0-4564		1	
5-fold, polished brass anthracite	–	1725-835-500	1754-0-4569		1	
5-fold, polished brass decor ivory	–	1725-836-500	1754-0-4574		1	
5-fold, polished brass decor anthracite	–	1725-833-500	1754-0-4579		1	
5-fold, antique brass ivory	–	1725-848-500	1754-0-4584		1	
5-fold, antique brass anthracite	–	1725-845-500	1754-0-4589		1	
5-fold, antique brass decor ivory	–	1725-846-500	1754-0-4594		1	
5-fold, antique brass decor anthracite	–	1725-843-500	1754-0-4599		1	
5-fold, ivory	–	1725-832-500	1754-0-4604		1	
5-fold, anthracite	–	1725-831-500	1754-0-4609		1	

System pro E comfort MISTRAL41. Create your own masterpiece.

Freedom is an essential factor for innovation, modernization and unlimited possibilities. The new System pro E comfort MISTRAL41 series of consumer units offer that freedom in both flush and wall-mounted versions. These IP41-rated units have been designed from scratch to enhance the unique features you expect from ABB. Ample internal space, elegant design and a unified range of accessories give you the freedom and flexibility to create high-quality work you can be proud of. For more information visit www.abb.com/lowvoltage



Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-triton®

With freely programmable switch rockers, backlit label fields and IR sensor Busch-triton® is ideal for any application and with its elegant design it is commonly installed in hotels and public

areas. Busch-triton® is equipped with an integrated bus coupler and IR receiver. The unit composed of control element and integrated bus coupler now really has everything required to

control building systems elegantly and comfortably.



01



02



03



01 1/2gang control element with rear-illuminated labelling area and IR reception

Function
Switching | Dimming | Blinds | Value transmitter | Value dimming sensor | Light scene extension unit | Step-type switch | Short/long operation | 13 freely programmable IR channels | 8 light scenes

02 3/6gang control element with rear-illuminated labelling area and IR reception

Function
Switching | Dimming | Blinds | Value transmitter | Value dimming sensor | Light scene extension unit | Step-type switch | Short/long operation | 13 freely programmable IR channels | 8 light scenes

03 5/10gang control element with rear-illuminated labelling area and IR reception

Features
Labellable switch rockers | Rear-illuminated labelling field | Anti-theft protection | Freely programmable switches | IR remote-controllable | Freely programmable additional key

Features
Labellable switch rockers | Rear-illuminated labelling field | Anti-theft protection | Freely programmable switches | IR remote-controllable

Function
Switching | Dimming | Blinds | Value transmitter | Value dimming sensor | Light scene extension unit | Step-type switch | Short/long operation | 13 freely programmable IR channels | 8 light scenes

Features
Labellable switch rockers | Rear-illuminated labelling field | Anti-theft protection | Freely programmable switches | IR remote-controllable | Freely programmable additional key

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-triton®

Colour-coordinated.

The Busch-triton® is available in five stunning colours, offering exactly the right ambience for any environment. The colours offer exactly the right accent to the carat®, impuls, alpha and future® linear ranges – such as the use of the colour-coordinated socket outlets or motion detectors.



01



Function

LCD display room temperature controller | Comfort | Stand-by | Night operation | Frost protection | Heating | Cooling | Fan control | Switching | Dimming | Blinds | Value | 13 freely programmable IR channels | 8 light scenes

Features

Labellable switch rockers | Rear-illuminated labelling field | Anti-theft protection | Freely programmable switches | IR remote-controllable | Freely programmable additional key

02



Function

LCD display room temperature controller | Comfort | Stand-by | Night operation | Frost protection | Heating | Cooling | Fan control | Switching | Dimming | Blinds | Value | 13 freely programmable IR channels | 8 light scenes

Features

Labellable switch rockers | Rear-illuminated labelling field | Anti-theft protection | Freely programmable switches | IR remote-controllable | Freely programmable additional key

- 01 3/6gang control element with rear-illuminated labelling field, integrated room thermostat, LCD display and IR reception
- 02 5/10gang control element with rear-illuminated labelling field, integrated room thermostat, LCD display and IR reception

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-triton®



6320/10-24G-500

Busch-triton® Control Element, 1/2-fold, FM

With integrated bus coupling unit. With IR interface for Busch-remote controllers. Push button function: switching/dimming/blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. One freely programmable LED per rocker (red/green/OFF). With labeling field.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
alpha						
platinum	–	6320/10-20-500	6320-0-0002		1	
studio white, high gloss	–	6320/10-24G-500	6320-0-0004		1	
palladium	–	6320/10-260-500	6320-0-0010		1	
impuls						
champagne metallic	–	6320/10-79-500	6320-0-0006		1	
future® linear						
aluminium silver	–	6320/10-83-500	6320-0-0008		1	



6320/30-24G-500

Busch-triton® Control Element, 3/6-fold, FM

With integrated bus coupling unit. With IR interface for Busch-remote controllers. Push button function: switching/dimming/blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. One freely programmable LED per rocker (red/green/OFF). With labeling field.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
alpha						
platinum	–	6320/30-20-500	6320-0-0012		1	
studio white, high gloss	–	6320/30-24G-500	6320-0-0014		1	
palladium	–	6320/30-260-500	6320-0-0020		1	
impuls						
champagne metallic	–	6320/30-79-500	6320-0-0016		1	
future® linear						
aluminium silver	–	6320/30-83-500	6320-0-0018		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-triton®



6320/50-24G-500

Busch-triton® Control Element, 5/10-fold, FM

With integrated bus coupling unit. With IR interface for Busch-remote controllers. Push button function: switching/dimming/blind/value sending/light scenes/step-type switch functions. Switch contacts left/right. One freely programmable LED per rocker (red/green/OFF). With labeling field.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
alpha						
platinum	–	6320/50-20-500	6320-0-0032		1	
studio white, high gloss	–	6320/50-24G-500	6320-0-0034		1	
palladium	–	6320/50-260-500	6320-0-0040		1	
impuls						
champagne metallic	–	6320/50-79-500	6320-0-0036		1	
future® linear						
aluminium silver	–	6320/50-83-500	6320-0-0038		1	



6321/38-24G-500

Busch-triton® Control Element with Room Thermostat and 3/6-fold Switch Sensor, FM

With integrated KNX bus coupler. With labelling field. Rocker switch left/right (switching/dimming/blind/value sender/light scenes/fan function). Master/slave configuration. With base-load operation. Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a constant room temperature controller for ventilator convectors (fan coils) in 2-pipe and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. To control up to 13 IR channels (RC5) using Busch-Remote control. IR mobile remote control 6010-25 or 6020-.../6021... . Control element: rocker switch left/right. Display elements: One LED per rocker via separate communication object for status (Red/Green/OFF) or orientation light. Connections: KNX-line: Bus connection terminal. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
alpha						
platinum	–	6321/38-20-500	6320-0-0052		1	
studio white, high gloss	–	6321/38-24G-500	6320-0-0054		1	
palladium	–	6321/38-260-500	6320-0-0060		1	
impuls						
champagne metallic	–	6321/38-83-500	6320-0-0056		1	
future® linear						
aluminium silver	–	6321/38-83-500	6320-0-0058		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Busch-triton®



6321/58-24G-500

Busch-triton® Control Element with Room Thermostat and 5/10-fold Switch Sensor, FM

With integrated KNX bus coupler. With labelling field. Rocker switch left/right (switching/dimming/blind/value sender/light scenes/fan function). Master/slave configuration. With base-load operation. Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a constant room temperature controller for ventilator convectors (fan coils) in 2-pipe and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. To control up to 13 IR channels (RC5) using Busch-Remote control IR mobile remote control 6010-25 or 6020-.../6021... . Control element: rocker switch left/right. Display elements: One LED per rocker via separate communication object for status (Red/ Green/ OFF) or orientation light. Connections: KNX-line: Bus connection terminal. Protection class (Device): IP 20. Temperature range (Device): -5 °C to 45 °C. Dimensions: (L x W x D): 159 mm x 90 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
alpha						
platinum	–	6321/58-20-500	6320-0-0062		1	
studio white, high gloss	–	6321/58-24G-500	6320-0-0064		1	
palladium	–	6321/58-260-500	6320-0-0070		1	
impuls						
champagne metallic	–	6321/58-79-500	6320-0-0066		1	
future® linear						
aluminium silver	–	6321/58-83-500	6320-0-0068		1	



6010-25-500

Infra-Red Hand Held Transmitter

For infra-red receiver and KNX flush-mounted infra-red interface. Switching and dimming of up to 10 consumers in 2 groups (1-5/6-10). Programming and selection of 2 MEMO memories per group is possible. Power supply: 4 alkaline manganese batteries, IEC LR03 (microcell) not included in scope of supply Detection range: frontal 15 m.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6010-25-500	6020-0-1133		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Push Button Coupling Unit

The push-button coupling unit with a centre position offers maximum flexibility. Installed in a flush-mounted wall box, it accepts switch rockers from conven-

tional switch ranges* like a completely standard flush-mounted insert. Covers from all conventional ranges can now be used for KNX. This offers maximum free-

dom in the selection of the switch range and makes retrofitting easier.



Features

- Easy mounting and uncomplicated commissioning
- All flush-mounted switch ranges* can be used for the ABB i-bus® KNX
- Affordable solution for renovations
- Status/orientation light (red/green/OFF)
(only with 1gang push-button/switches)
- Integration in surface-mounted water protected units

- 01 Push-button coupler 2gang with integrated bus coupler
- 02 Push-button coupler 4gang with integrated bus coupler
- 03 Push-button coupler 2gang for ocean with integrated bus coupler
- 04 Push-button coupler 4gang for ocean with integrated bus coupler

Design without limits. The push-button coupling unit includes the complete range* of switches for KNX. Switch rockers from all switch ranges can now be converted to KNX push buttons, which not only switch on and off but also dim or show the status with an LED (6108/01 and 6108/04 only). 1gang and 2gang models for single and 2gang switch rockers are available.

KNX – water protected

The push-button coupling unit also allows special products to be used for KNX. Special models for water-protected installation allow covers from, for example, the ocean® surface-mounted range to be used. This means that KNX sensors can also be safely installed in a cellar, outside on a patio or in commercial applications. Temperature range: -25 °C to 45 °C

*except impuls, basic55® and All Weather 44 Busch-Jaeger switch ranges only available for selected markets. For further information please contact your local ABB office.

Intelligent Building Solutions

ABB i-bus[®] KNX – Operation – Push Button Coupling Unit



6108/06-AP-500

KNX Switch Connection Unit for design ocean[®] (IP44), FM

For contacting conventional 1gang rocker switches. With middle position. For inserting in the ocean surface-mounted housing. The bus can be connected via enclosed terminal block.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
1/2-fold	–	6108/06-AP-500	6133-0-0225		1	
2/4-fold	–	6108/07-AP-500	6133-0-0227		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Push Button Coupling Unit



6108/06-500

Push-button coupling 2gang with integrated bus coupler

Support of KNX functions through innovative colour concept yellow = lighting, blue = blind, orange = RTC, magenta = scene and white = neutral/no function assigned) or standard illumination red/green. With middle position. The bus can be connected via enclosed terminal block.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6108/06-500	6133-0-0221		1	



SR-1-84

Rocker 1gang, without printing

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Reflex SI						
white	–	SR-1-212	6220-0-0182		1	
alpine white	–	SR-1-214	6220-0-0183		1	
future® linear						
anthracite	–	SR-1-81	6220-0-0137		1	
ivory	–	SR-1-82	6220-0-0516		1	
aluminium silver	–	SR-1-83	6220-0-0138		1	
studio white	–	SR-1-84	6220-0-0139		1	
studio white matt	–	SR-1-884	6220-0-0601		1	
black, matt	–	SR-1-885	6220-0-0618		1	
solo®						
ivory	–	SR-1-82	6220-0-0516		1	
studio white	–	SR-1-84	6220-0-0139		1	
grey metallic	–	SR-1-803	6220-0-0550		1	
Busch-axcent®						
studio white	–	SR-1-84	6220-0-0139		1	
pure stainless steel						
stainless steel	–	SR-1-866	6220-0-0533		1	
carat®						
anthracite	–	SR-1-81	6220-0-0137		1	
ivory	–	SR-1-82	6220-0-0516		1	
studio white	–	SR-1-84	6220-0-0139		1	
Dynasty®						
anthracite	–	SR-1-81	6220-0-0137		1	
ivory	–	SR-1-82	6220-0-0516		1	
antique brass	–	SR-1-840	6220-0-0371		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Push Button Coupling Unit



SRL-1-84

Rocker 1gang, with „Light“ icon

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
Reflex SI						
white	–	SRL-1-212	6220-0-0184		1	
alpine white	–	SRL-1-214	6220-0-0185		1	
future® linear						
anthracite	–	SRL-1-81	6220-0-0140		1	
ivory	–	SRL-1-82	6220-0-0517		1	
aluminium silver	–	SRL-1-83	6220-0-0141		1	
studio white	–	SRL-1-84	6220-0-0142		1	
studio white matt	–	SRL-1-884	6220-0-0602		1	
black, matt	–	SRL-1-885	6220-0-0619		1	
solo®						
ivory	–	SRL-1-82	6220-0-0517		1	
studio white	–	SRL-1-84	6220-0-0142		1	
grey metallic	–	SRL-1-803	6220-0-0551		1	
Busch-axcent®						
studio white	–	SRL-1-84	6220-0-0142		1	
pure stainless steel						
stainless steel	–	SRL-1-866	6220-0-0534		1	
carat®						
anthracite	–	SRL-1-81	6220-0-0140		1	
ivory	–	SRL-1-82	6220-0-0517		1	
studio white	–	SRL-1-84	6220-0-0142		1	
Dynasty®						
anthracite	–	SRL-1-81	6220-0-0140		1	
ivory	–	SRL-1-82	6220-0-0517		1	
antique brass	–	SRL-1-840	6220-0-0372		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Push Button Coupling Unit



SRB-1-84

Rocker 1gang, with „Blind“ icon

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
Reflex SI						
white	–	SRB-1-212	6220-0-0186		1	
alpine white	–	SRB-1-214	6220-0-0187		1	
future® linear						
anthracite	–	SRB-1-81	6220-0-0143		1	
ivory	–	SRB-1-82	6220-0-0518		1	
aluminium silver	–	SRB-1-83	6220-0-0144		1	
studio white	–	SRB-1-84	6220-0-0145		1	
studio white matt	–	SRB-1-884	6220-0-0603		1	
black, matt	–	SRB-1-885	6220-0-0620		1	
solo®						
ivory	–	SRB-1-82	6220-0-0518		1	
studio white	–	SRB-1-84	6220-0-0145		1	
grey metallic	–	SRB-1-803	6220-0-0552		1	
Busch-axcent®						
studio white	–	SRB-1-84	6220-0-0145		1	
pure stainless steel						
stainless steel	–	SRB-1-866	6220-0-0535		1	
carat®						
anthracite	–	SRB-1-81	6220-0-0143		1	
ivory	–	SRB-1-82	6220-0-0518		1	
studio white	–	SRB-1-84	6220-0-0145		1	
Dynasty®						
anthracite	–	SRB-1-81	6220-0-0143		1	
ivory	–	SRB-1-82	6220-0-0518		1	
antique brass	–	SRB-1-840	6220-0-0373		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Push Button Coupling Unit



SRS-1-84

Rocker 1gang, with „Scene“ icon

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
Reflex SI						
white	–	SRS-1-212	6220-0-0188		1	
alpine white	–	SRS-1-214	6220-0-0189		1	
future® linear						
anthracite	–	SRS-1-81	6220-0-0146		1	
ivory	–	SRS-1-82	6220-0-0519		1	
aluminium silver	–	SRS-1-83	6220-0-0147		1	
studio white	–	SRS-1-84	6220-0-0148		1	
studio white matt	–	SRS-1-884	6220-0-0604		1	
black, matt	–	SRS-1-885	6220-0-0621		1	
solo®						
ivory	–	SRS-1-82	6220-0-0519		1	
studio white	–	SRS-1-84	6220-0-0148		1	
grey metallic	–	SRS-1-803	6220-0-0553		1	
Busch-axcent®						
studio white	–	SRS-1-84	6220-0-0148		1	
pure stainless steel						
stainless steel	–	SRS-1-866	6220-0-0536		1	
carat®						
anthracite	–	SRS-1-81	6220-0-0146		1	
ivory	–	SRS-1-82	6220-0-0519		1	
studio white	–	SRS-1-84	6220-0-0148		1	
Dynasty®						
anthracite	–	SRS-1-81	6220-0-0146		1	
ivory	–	SRS-1-82	6220-0-0519		1	
antique brass	–	SRS-1-840	6220-0-0374		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Push Button Coupling Unit



SRD-1-84

Rocker 1gang, with „Dimmer“ icon

As cover for KNX 2gang push-button coupling unit (6108/06-500).

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
Reflex SI						
white	–	SRD-1-212	6220-0-0190		1	
alpine white	–	SRD-1-214	6220-0-0191		1	
future® linear						
anthracite	–	SRD-1-81	6220-0-0149		1	
ivory	–	SRD-1-82	6220-0-0520		1	
aluminium silver	–	SRD-1-83	6220-0-0150		1	
studio white	–	SRD-1-84	6220-0-0151		1	
studio white matt	–	SRD-1-884	6220-0-0605		1	
black, matt	–	SRD-1-885	6220-0-0622		1	
solo®						
ivory	–	SRD-1-82	6220-0-0520		1	
studio white	–	SRD-1-84	6220-0-0151		1	
grey metallic	–	SRD-1-803	6220-0-0554		1	
Busch-axcent®						
studio white	–	SRD-1-84	6220-0-0151		1	
pure stainless steel						
stainless steel	–	SRD-1-866	6220-0-0537		1	
carat®						
anthracite	–	SRD-1-81	6220-0-0149		1	
ivory	–	SRD-1-82	6220-0-0520		1	
studio white	–	SRD-1-84	6220-0-0151		1	
Dynasty®						
anthracite	–	SRD-1-81	6220-0-0149		1	
ivory	–	SRD-1-82	6220-0-0520		1	
antique brass	–	SRD-1-840	6220-0-0375		1	



6108/07-500

Push-button coupling 4gang with integrated bus coupler

Support of KNX functions through innovative colour concept yellow = lighting, blue = blind, orange = RTC, magenta = scene and white = neutral/no function assigned) or standard illumination red/green. With middle position. The bus can be connected via enclosed terminal block.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
	–	6108/07-500	6133-0-0223		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Push Button Coupling Unit



SR-2-84



SRB-2-84

		Rocker 2gang left/right, without printing			Rocker 2gang left/right, with „Blind“ icon			
		As cover for KNX 4gang push-button coupling unit (6108/07-500).			As cover for KNX 4gang push-button coupling unit (6108/07-500).			
Pack unit pc.	Weight 1 pc. kg	Description	Order details		Price 1 pc.	Order details		Price 1 pc.
			Type	Order code		Type	Order code	
		Reflex SI						
		white	SR-2-212	6220-0-0192		SRB-2-212	6220-0-0196	
		alpine white	SR-2-214	6220-0-0193		SRB-2-214	6220-0-0197	
		future® linear						
		anthracite	SR-2-81	6220-0-0152		SRB-2-81	6220-0-0158	
		ivory	SR-2-82	6220-0-0521		SRB-2-82	6220-0-0523	
		aluminium silver	SR-2-83	6220-0-0153		SRB-2-83	6220-0-0159	
		studio white	SR-2-84	6220-0-0154		SRB-2-84	6220-0-0160	
		studio white matt	SR-2-884	6220-0-0606		SRB-2-884	6220-0-0608	
		black, matt	SR-2-885	6220-0-0623		SRB-2-885	6220-0-0625	
		solo®						
		ivory	SR-2-82	6220-0-0521		SRB-2-82	6220-0-0523	
		studio white	SR-2-84	6220-0-0154		SRB-2-84	6220-0-0160	
		grey metallic	SR-2-803	6220-0-0555		SRB-2-803	6220-0-0557	
		Busch-axcent®						
		studio white	SR-2-84	6220-0-0154		SRB-2-84	6220-0-0160	
		pure stainless steel						
		stainless steel	SR-2-866	6220-0-0538		SRB-2-866	6220-0-0540	
		carat®						
		anthracite	SR-2-81	6220-0-0152		SRB-2-81	6220-0-0158	
		ivory	SR-2-82	6220-0-0521		SRB-2-82	6220-0-0523	
		studio white	SR-2-84	6220-0-0154		SRB-2-84	6220-0-0160	
		Dynasty®						
		anthracite	SR-2-81	6220-0-0152		SRB-2-81	6220-0-0158	
		ivory	SR-2-82	6220-0-0521		SRB-2-82	6220-0-0523	
		antique brass	SR-2-840	6220-0-0376		SRB-2-840	6220-0-0378	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Push Button Coupling Unit



SRL-2-L-84



SRL-2-R-84

		Rocker 2gang left, with „Light“ icon			Rocker 2gang right, with „Light“ icon			
		As cover for KNX 4gang push-button coupling unit (6108/07-500).			As cover for KNX 4gang push-button coupling unit (6108/07-500).			
Pack unit pc.	Weight 1 pc. kg	Description	Order details		Price 1 pc.	Order details		Price 1 pc.
			Type	Order code		Type	Order code	
		Reflex SI						
		white	SRL-2-L-212	6220-0-0194		SRL-2-R-212	6220-0-0202	
		alpine white	SRL-2-L-214	6220-0-0195		SRL-2-R-214	6220-0-0203	
		future® linear						
		anthracite	SRL-2-L-81	6220-0-0155		SRL-2-R-81	6220-0-0167	
		ivory	SRL-2-L-82	6220-0-0522		SRL-2-R-82	6220-0-0527	
		aluminium silver	SRL-2-L-83	6220-0-0156		SRL-2-R-83	6220-0-0168	
		studio white	SRL-2-L-84	6220-0-0157		SRL-2-R-84	6220-0-0169	
		studio white matt	SRL-2-L-884	6220-0-0607		SRL-2-R-884	6220-0-0612	
		black, matt	SRL-2-L-885	6220-0-0624		SRL-2-R-885	6220-0-0629	
		solo®						
		ivory	SRL-2-L-82	6220-0-0522		SRL-2-R-82	6220-0-0527	
		studio white	SRL-2-L-84	6220-0-0157		SRL-2-R-84	6220-0-0169	
		grey metallic	SRL-2-L-803	6220-0-0556		SRL-2-R-803	6220-0-0561	
		Busch-axcent®						
		studio white	SRL-2-L-84	6220-0-0157		SRL-2-R-84	6220-0-0169	
		pure stainless steel						
		stainless steel	SRL-2-L-866	6220-0-0539		SRL-2-R-866	6220-0-0544	
		carat®						
		anthracite	SRL-2-L-81	6220-0-0155		SRL-2-R-81	6220-0-0167	
		ivory	SRL-2-L-82	6220-0-0522		SRL-2-R-82	6220-0-0527	
		studio white	SRL-2-L-84	6220-0-0157		SRL-2-R-84	6220-0-0169	
		Dynasty®						
		anthracite	SRL-2-L-81	6220-0-0155		SRL-2-R-81	6220-0-0167	
		ivory	SRL-2-L-82	6220-0-0522		SRL-2-R-82	6220-0-0527	
		antique brass	SRL-2-L-840	6220-0-0377		SRL-2-R-840	6220-0-0381	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Push Button Coupling Unit



SRS-2-L-84

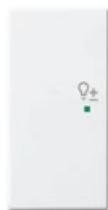


SRS-2-R-84

		Rocker 2gang left, with „Scene“ icon			Rocker 2gang right, with „Scene“ icon			
		As cover for KNX 4gang push-button coupling unit (6108/07-500).			As cover for KNX 4gang push-button coupling unit (6108/07-500).			
Pack unit pc.	Weight 1 pc. kg	Description	Order details		Price 1 pc.	Order details		Price 1 pc.
			Type	Order code		Type	Order code	
		Reflex SI						
		white	SRS-2-L-212	6220-0-0198		SRS-2-R-212	6220-0-0206	
		alpine white	SRS-2-L-214	6220-0-0199		SRS-2-R-214	6220-0-0207	
		future® linear						
		anthracite	SRS-2-L-81	6220-0-0161		SRS-2-R-81	6220-0-0173	
		ivory	SRS-2-L-82	6220-0-0524		SRS-2-R-82	6220-0-0528	
		aluminium silver	SRS-2-L-83	6220-0-0162		SRS-2-R-83	6220-0-0174	
		studio white	SRS-2-L-84	6220-0-0163		SRS-2-R-84	6220-0-0175	
		studio white matt	SRS-2-L-884	6220-0-0609		SRS-2-R-884	6220-0-0613	
		black, matt	SRS-2-L-885	6220-0-0626		SRS-2-R-885	6220-0-0630	
		solo®						
		ivory	SRS-2-L-82	6220-0-0524		SRS-2-R-82	6220-0-0528	
		studio white	SRS-2-L-84	6220-0-0163		SRS-2-R-84	6220-0-0175	
		grey metallic	SRS-2-L-803	6220-0-0558		SRS-2-R-803	6220-0-0562	
		Busch-axcent®						
		studio white	SRS-2-L-84	6220-0-0163		SRS-2-R-84	6220-0-0175	
		pure stainless steel						
		stainless steel	SRS-2-L-866	6220-0-0541		SRS-2-R-866	6220-0-0545	
		carat®						
		anthracite	SRS-2-L-81	6220-0-0161		SRS-2-R-81	6220-0-0173	
		ivory	SRS-2-L-82	6220-0-0524		SRS-2-R-82	6220-0-0528	
		studio white	SRS-2-L-84	6220-0-0163		SRS-2-R-84	6220-0-0175	
		Dynasty®						
		anthracite	SRS-2-L-81	6220-0-0161		SRS-2-R-81	6220-0-0173	
		ivory	SRS-2-L-82	6220-0-0524		SRS-2-R-82	6220-0-0528	
		antique brass	SRS-2-L-840	6220-0-0379		SRS-2-R-840	6220-0-0382	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Push Button Coupling Unit



SRD-2-L-84



SRD-2-R-84

		Rocker 2gang left, with „Dimmer“ icon			Rocker 2gang right, with „Dimmer“ icon			
		As cover for KNX 4gang push-button coupling unit (6108/07-500).						
Pack unit pc.	Weight 1 pc. kg	Description	Order details		Price 1 pc.	Order details		Price 1 pc.
			Type	Order code		Type	Order code	
		Reflex SI						
		white	SRD-2-L-212	6220-0-0200		SRD-2-R-212	6220-0-0261	
		alpine white	SRD-2-L-214	6220-0-0201		SRD-2-R-214	6220-0-0262	
		future® linear						
		anthracite	SRD-2-L-81	6220-0-0164		SRD-2-R-81	6220-0-0258	
		ivory	SRD-2-L-82	6220-0-0525		SRD-2-R-82	6220-0-0526	
		aluminium silver	SRD-2-L-83	6220-0-0165		SRD-2-R-83	6220-0-0259	
		studio white	SRD-2-L-84	6220-0-0166		SRD-2-R-84	6220-0-0260	
		studio white matt	SRD-2-L-884	6220-0-0610		SRD-2-R-884	6220-0-0611	
		black, matt	SRD-2-L-885	6220-0-0627		SRD-2-R-885	6220-0-0628	
		solo®						
		ivory	SRD-2-L-82	6220-0-0525		SRD-2-R-82	6220-0-0526	
		studio white	SRD-2-L-84	6220-0-0166		SRD-2-R-84	6220-0-0260	
		grey metallic	SRD-2-L-803	6220-0-0559		SRD-2-R-803	6220-0-0560	
		Busch-axcent®						
		studio white	SRD-2-L-84	6220-0-0166		SRD-2-R-84	6220-0-0260	
		pure stainless steel						
		stainless steel	SRD-2-L-866	6220-0-0542		SRD-2-R-866	6220-0-0543	
		carat®						
		anthracite	SRD-2-L-81	6220-0-0164		SRD-2-R-81	6220-0-0258	
		ivory	SRD-2-L-82	6220-0-0525		SRD-2-R-82	6220-0-0526	
		studio white	SRD-2-L-84	6220-0-0166		SRD-2-R-84	6220-0-0260	
		Dynasty®						
		anthracite	SRD-2-L-81	6220-0-0164		SRD-2-R-81	6220-0-0258	
		ivory	SRD-2-L-82	6220-0-0525		SRD-2-R-82	6220-0-0526	
		antique brass	SRD-2-L-840	6220-0-0380		SRD-2-R-840	6220-0-0383	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Room Temperature Controller



6109/05-500

Room temperature controller with 5gang universal input for heating/cooling operation, FM

NEW

Room thermostat without “local operation” and without internal temperature sensor. With master/slave configuration and base load operation. With universal inputs: a) max. of 5 binary inputs b) 4 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V or c) 2 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V and an external temperature sensor PT1000/T6226.

Expected availability June 2017

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6109/05-500	6181-0-0013		1	



6109/08-500

Room temperature controller, Commercial, with 5gang universal input for heating/cooling operation, FM

NEW

Room thermostat without “local operation” incl. insert for centre plate for cooling element. With master/slave configuration and base load operation. With universal inputs: a) max. of 5 binary inputs b) 4 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V or c) 2 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V and an external temperature sensor PT1000/T6226.

Expected availability March 2017

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6109/08-500	6134-0-0313		1	



6108/08-500

Room Temperature Controller, Commercial, FM

Room thermostat without “local operation” incl. insert for centre plate for cooling element. For controlling commercially available valve drives. Can only be used with a cover plate 2114-xxx or 6541-xxx, with the exception of 6541-20, -21, -260 and -266. For control of up to 5-level ventilation actuators Master/slave configuration. With base-load operation. The bus can be connected via enclosed terminal block.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6108/08-500	6134-0-0308		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Room Temperature Controller



6541-84

Cover Plate for Room Temperature Controller

For room temperature controller, commercial.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
future® linear						
anthracite	–	6541-81	6599-0-2882		10	
savanna/ivory	–	6541-82	6599-0-2832		10	
aluminium silver ¹⁾	–	6541-83	6599-0-2885		10	
davos/studio white	–	6541-84	6599-0-2835		10	
studio white, matt ¹⁾	–	6541-884	6599-0-2962		10	
black matt ¹⁾	–	6541-885	6599-0-2967		10	
solo®						
savanna/ivory	–	6541-82	6599-0-2832		10	
davos/studio white	–	6541-84	6599-0-2835		10	
meteor/grey metallic ¹⁾	–	6541-803	6599-0-2940		10	
carat®						
anthracite	–	6541-81	6599-0-2882		10	
savanna/ivory	–	6541-82	6599-0-2832		10	
davos/studio white	–	6541-84	6599-0-2835		10	
pure stainless steel ¹⁾						
stainless steel	–	6541-866	6599-0-2924		10	
Busch-axcent®						
davos/studio white	–	6541-84	6599-0-2835		10	

¹⁾ Surface painted



2114-214

Cover Plate for Temperature Controller, Commercial

For room temperature controller, commercial.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Reflex SI						
alpine white (SI-Series)	–	2114-214-500	6599-0-3008		10	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Room Temperature Controller



6108/18-500

Room thermostat, heating/cooling operation

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. For controlling commercially available valve drives. With display of set-value temperature. Master/slave configuration. With base-load operation. The bus can be connected via enclosed terminal block.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6108/18-500	6134-0-0319		1	



CP-RTC-84

Cover plate for room thermostat

As cover for KNX room temperature controller (6108/18-500).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Reflex SI						
white	–	CP-RTC-212	6220-0-0210		1	
alpine white	–	CP-RTC-214	6220-0-0211		1	
future® linear						
anthracite	–	CP-RTC-81	6220-0-0179		1	
ivory	–	CP-RTC-82	6220-0-0529		1	
aluminium silver	–	CP-RTC-83	6220-0-0180		1	
studio white	–	CP-RTC-84	6220-0-0181		1	
studio white matt	–	CP-RTC-884	6220-0-0614		1	
black, matt	–	CP-RTC-885	6220-0-0631		1	
solo®						
ivory	–	CP-RTC-82	6220-0-0529		1	
studio white	–	CP-RTC-84	6220-0-0181		1	
grey metallic	–	CP-RTC-803	6220-0-0563		1	
Busch-axcent®						
studio white	–	CP-RTC-84	6220-0-0181		1	
pure stainless steel						
stainless steel	–	CP-RTC-866	6220-0-0546		1	
carat®						
anthracite	–	CP-RTC-81	6220-0-0179		1	
ivory	–	CP-RTC-82	6220-0-0529		1	
studio white	–	CP-RTC-84	6220-0-0181		1	
Dynasty®						
anthracite	–	CP-RTC-81	6220-0-0179		1	
ivory	–	CP-RTC-82	6220-0-0529		1	
antique brass	–	CP-RTC-840	6220-0-0384		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Room Temperature Controller



6109/18-500

Room temperature controller with 5gang universal input for heating/cooling operation, FM

NEW

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. With display of set-value temperature, master/slave configuration and base load operation. With universal inputs: a) max. of 5 binary inputs b) 4 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V or c) 2 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V and an external temperature sensor PT1000/T6226.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6109/18-500	6134-0-0315		1	



6109/28-500

Room temperature controller with CO₂ moisture sensor for heating/cooling operation, FM

NEW

Control element with room thermostat function and CO₂ moisture/air pressure sensor or triggering the heating, ventilation and fan-coil actuators. With display of set-value temperature, master/slave configuration and base load operation. With universal inputs: a) max. of 5 binary inputs b) 4 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V or c) 2 binary inputs and 1 analogue input for activating sensors with external power supply 1 – 10 V/0 – 10 V and an external temperature sensor PT1000/T6226.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6109/28-500	6134-0-0317		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Room Temperature Controller



6109/03-214-500

Cover plate for room temperature controller

NEW

As cover for KNX room temperature controller (6109/18-500 and 6109/28-500).

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
Reflex SI						
white	–	6109/03-212-500	6155-0-0051		1	
alpine white	–	6109/03-214-500	6155-0-0052		1	
future® linear						
anthracite	–	6109/03-81-500	6155-0-0060		1	
ivory	–	6109/03-82-500	6155-0-0061		1	
aluminium silver	–	6109/03-83-500	6155-0-0062		1	
studio white	–	6109/03-84-500	6155-0-0063		1	
studio white matt	–	6109/03-884-500	6155-0-0064		1	
black, matt	–	6109/03-885-500	6155-0-0065		1	
solo®						
ivory	–	6109/03-82-500	6155-0-0061		1	
studio white	–	6109/03-84-500	6155-0-0063		1	
grey metallic	–	6109/03-803-500	6155-0-0066		1	
Busch-axcent®						
studio white	–	6109/03-84-500	6155-0-0063		1	
pure stainless steel						
stainless steel	–	6109/03-866-500	6155-0-0069		1	
carat®						
anthracite	–	6109/03-81-500	6155-0-0060		1	
ivory	–	6109/03-82-500	6155-0-0061		1	
studio white	–	6109/03-84-500	6155-0-0063		1	
Dynasty®						
anthracite	–	6109/03-81-500	6155-0-0060		1	
ivory	–	6109/03-82-500	6155-0-0061		1	
antique brass	–	6109/03-840-500	6155-0-0114		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Millenium

The Millenium collection is the first metal range to incorage the KNX system, the most intelligent way of managing spaces and optimizing performance in

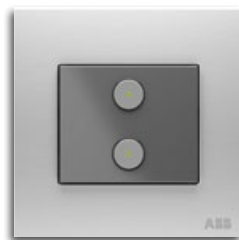
terms of energy savings. Millenium is based on a combinable concept which creates a very comprehensive range, suitable for any types of needs. This makes it

the ideal collection for all types of homes, hotels, offices and shops.

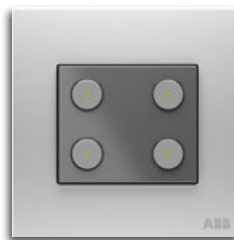


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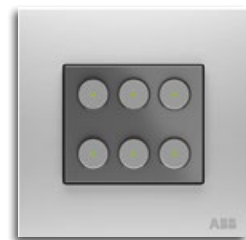
01



02



03



01 Switch Sensor 2gang KNX

02 Switch Sensor 4gang KNX

03 Switch Sensor 6gang KNX

04 Switch Sensor 6gang KNX with IR

05 Busch watchdog 180° KNX

06 Room Thermostat KNX

Function

Switching | Dimming | Blinds | Sending values | Scenes etc.

Features

Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)

Control element: Switch contacts
Display elements: LED to indicate the function

Function

Switching | Dimming | Blinds | Sending values | Scenes etc.

Features

Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)

Control element: Switch contacts
Display elements: LED to indicate the function

Function

Switching | Dimming | Blinds | Sending values | Scenes etc.

Features

Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)

Control element: Switch contacts
Display elements: LED to indicate the function

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Millenium

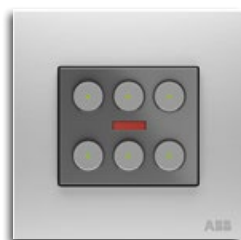
Wide range. Millenium range offers special mounting plates for KNX sensors to reduce the height and improve the aesthetics for ultra slim design. The KNX sensors allow to replace the buttons with

desired symbols in order to adjust the sensors to specific design and needs like light, blind, scene, RTC or fan coil. Millenium offers a wide and elegant choice of finishes in stainless steel material: from

the Brush Stainless Steel, to the soft touch given by the Silk Black, and the luxury of the sophisticated gold finishes, Matt Gold and Antique Gold.



04



Function

Switching | Dimming | Blinds | Sending values | Scenes etc. | 6gang sensor with IR.

Features

Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate the function

05



Function

Movement sensor with up to four channels.
Detection range: frontal: 6 m, lateral: 6 m
Detection angle: 180 °
Brightness limit value: 5 Lux - 150 Lux
Mounting height: 1.1 m

06



Function

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a thermostat for Fan Coil units in 2- and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode.

The Millenium range is only available in the following countries:

China, Dubai, India, Kuwait, Oman, Qatar, Saudi Arabia, Singapore, UAE and UK.

Frames and special mounting plates for KNX sensors have to be ordered by: ABB, S.A.

Low Voltage Products-Niessen, Oiartzun / Spain
www.abb.es/niessen

Features

Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Switch contacts for operating mode selection and dial for setpoint or fan speed adjustment.
Display elements: LCD showing operation modes.
Protection class (Device): IP 20
Temperature range (Device): - 5 °C to 45 °C

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Millenium



6125/20-981-500

2-fold sensor

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	AMD72053-AN (6125/20-981-500)	6115-0-0443		1	



6126/20-981-500

4-fold sensor

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	AMD74053-AN (6126/20-981-500)	6116-0-0218		1	



6129/20-981-500

6-fold sensor

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	AMD76053-AN (6129/20-981-500)	6118-0-0104		1	



6129/21-981-500

6-fold sensor with IR

Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.).
Control element: Switch contacts. Display elements: LED to indicate the function.
Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.
Dimensions: (L x W x D): 53 mm x 44 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	AMD76153-AN (6129/21-981-500)	6118-0-0107		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Millenium



6122/20-981-500

Watchdog 180 flush mounted

Movement sensor with up to four channels. Detection range: frontal: 6 m, lateral: 6 m. Detection angle: 180 °. Brightness limit value: 5 Lux – 150 Lux. Mounting height: 1.1 m. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 53 mm x 44 mm. Position for installation: vertical.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	AMD70153-AN (6122/20-981-500)	6132-0-0306		1	



6124/08-981-500

Room thermostat heating/cooling Fan Coil

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a thermostat for Fan Coil units in 2- and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Switch contacts for operating mode selection and dial for setpoint or fan speed adjustment. Display elements: LCD showing operation modes. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C. Dimensions: (L x W x D): 53 mm x 44 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	AMD70053-AN (6124/08-981-500)	6134-0-0309		1	



Buttons with symbols

Buttons with symbols for Millenium control covers 1 / 2-gang, 2 / 4-gang, 3 / 6-gang and 3 / 6-gang with infrared.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Ceiling light symbol	–	AM50701-GR (6123/20-500)	6123-0-0001		10	
Blinds symbol	–	AM50702-GR (6123/21-500)	6123-0-0002		10	
Scene symbol	–	AM50703-GR (6123/22-500)	6123-0-0003		10	
Temperature symbol	–	AM50704-GR (6123/23-500)	6123-0-0004		10	
Light symbol	–	AM50705-GR (6123/24-500)	6123-0-0005		10	
Fan Coil symbol	–	AM50706-GR (6123/26-500)	6123-0-0006		10	

Intelligent Building Solutions

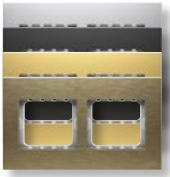
ABB i-bus® KNX – Operation – Millennium



Triple rocker / KNX frame 1 gang

Frame includes metal mounting plate. Dimensions 86 x 86 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Stainless Steel	–	AMD5153-ST	2CLA637100N1101		1	
Silk Black	–	AMD5153-SB	2CLA637100N1501		1	
Matt Gold	–	AMD5153-MG	2CLA637100N1701		1	
Antique Gold	–	AMD5153-AG	2CLA637100N1601		1	



Triple rocker / KNX frame 2 gang

Frame includes metal mounting plate. Dimensions 86 x 147 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Stainless Steel	–	AMD5253-ST	2CLA667200N1101		1	
Silk Black	–	AMD5253-SB	2CLA667200N1501		1	
Matt Gold	–	AMD5253-MG	2CLA667200N1701		1	
Antique Gold	–	AMD5253-AG	2CLA667200N1601		1	



AMD5053

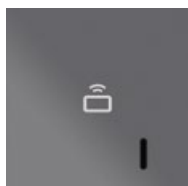
Special metal mounting plate for KNX sensors

Allows reduction height of KNX sensors to 1 mm. Only for following items: AMD72053-AN, AMD74053-AN, AMD76053-AN, AMD76153-AN.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Special metal mounting plate for KNX sensors 1 gang	–	AMD5053	2CLA627190N1001		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Millenium



TR/U 1.1

Transponder reader MIFARE

The „transponder reader“ is a flush-mounting device for British Standard wall boxes, designed to realize access control systems with a communication support based on KNX bus.

It is equipped with one relay (4A @24 V AC/DC) and one input to be used for connecting external conventional card-holder (e.g. Millenium wiring accessories card-holder).

The output can be programmed in three different ways: „Linked to access control“, receiving in this case switching commands from the device itself (according to transponder card validation); being a standard KNX Switch actuator output, able to be controlled by every KNX-standard devices; „linked to card-holder“, that means that the relay is switched according to closing/opening internal input contact available on transponder reader.

The bicolor (red-green) LED placed on the front of the device allow you to monitor device operation and can be also switched ON/OFF in the proper color according to KNX telegram (for example for DND/MUR purposes).

The transponder reader requires a 12...24 V AC/DC external power supply to ensure its operation even with bus voltage failure.

The transponder reader is available for ABB Millenium wiring accessories range.

For the list of available plates, please refer to Millenium catalogue, code 2CLC6AM006C0201.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
	–	TR/U 1.1	2CSY235683R2001		1	



TH/U 1.1

Transponder holder MIFARE

The „transponder holder“ is a flush-mounting device for British Standard wall boxes, designed to realize access control systems with a communication support based on KNX bus.

It is equipped with one relay (4A @24V AC/DC) and one binary input to be used for connecting external conventional push-button for switch, dimmer and shutter functionalities, or for example for connecting window contact or similar.

The output can be programmed as „Linked to access control“, receiving in this case switching commands from the device itself (according to card insertion/removal); or being a standard KNX Switch actuator output, able to be controlled by every KNX-standard devices.

The bicolor (red-green) LED placed on the front of the device allow you to monitor device operation and can be also switched ON/OFF in the proper color according to KNX.

The transponder reader requires a 12...24 V AC/DC external power supply to ensure its operation even with bus voltage failure.

The transponder reader is available for ABB Millenium wiring accessories range.

For the list of available plates, please refer to Millenium catalogue, code 2CLC6AM006C0201.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
	–	TH/U 1.1	2CSY265232R2021		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Millenium



TS/T 1

Set of 10 transponder cards, MIFARE

The transponder card uses passive transponder technology operating in radio frequency (MIFARE technology), without the need for contact between the reader and the card itself. The transponder card is read by swiping it in front of the reader at a maximum distance of 20 mm (can be reduced according to installation environment).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	TS/T 1	2CSY259412R2041		1	



SW MiniMAC 4.1

MiniMAC software

MiniMAC – Management and configuration software.

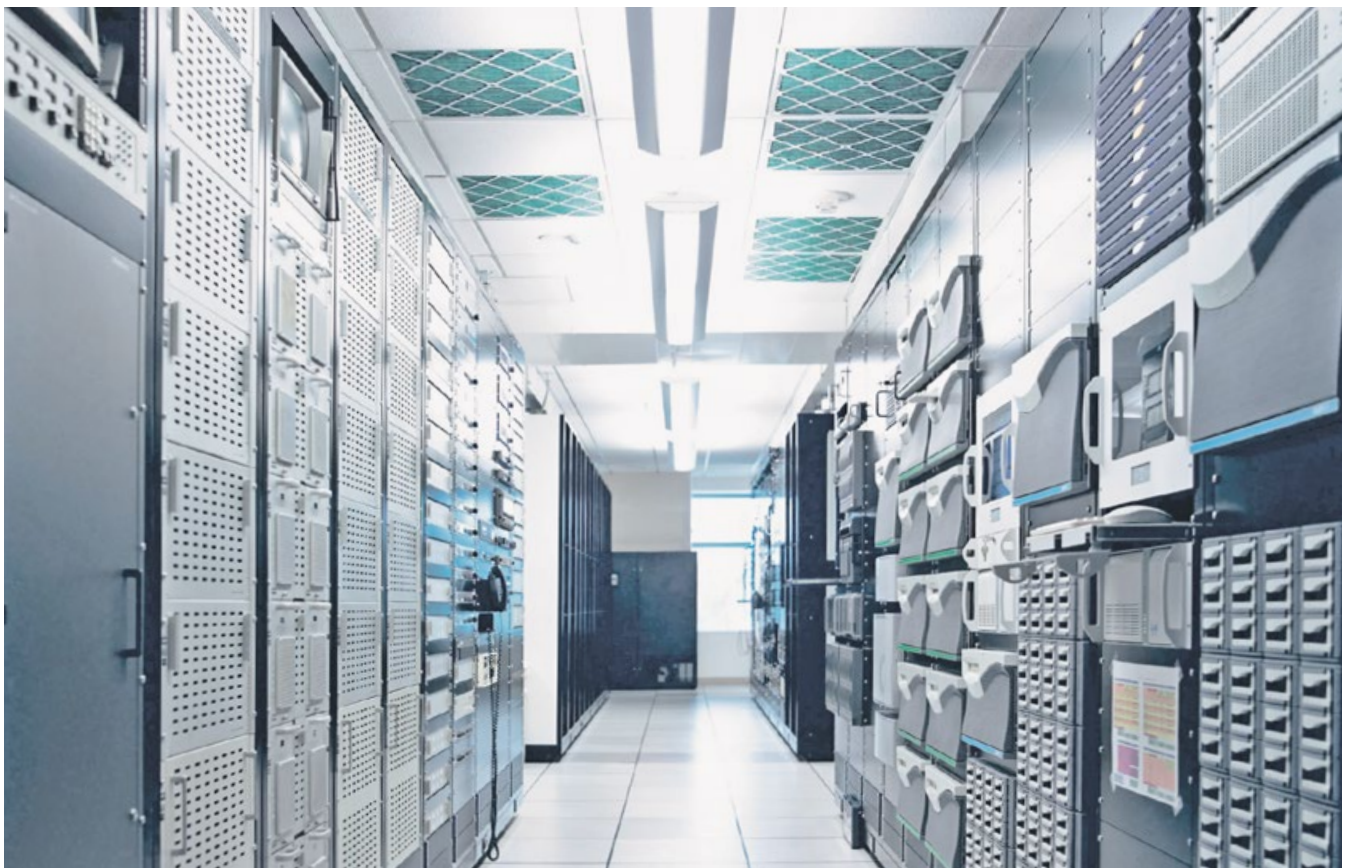
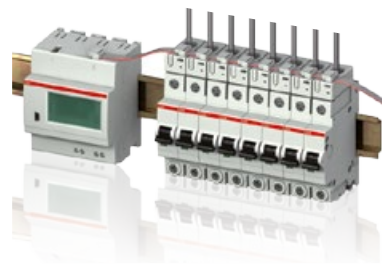
The management and configuration software ensures bidirectional communication with the access control system devices, allowing the system's configuration during its installation and its overall management and supervision.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SW MiniMAC 4.1	2CSY258202R2051		1	

CMS Current Measurement System. A new level of efficiency and availability.

To minimize energy and downtime costs, CMS offers an unique and highly efficient branch monitoring solution. The ultra-compact CMS sensors can be easily integrated in existing and new installations within power distribution units. This provides an unprecedented transparency of the consumption which increases the energy efficiency and service continuity of the plants.

www.abb.com/lowvoltage



Intelligent Building Solutions

ABB i-bus® KNX – Operation – Zenit



11

01



Function
Switching | Dimming | Blinds |
Sending values | Scenes etc.

02



Function
Switching | Dimming | Blinds |
Sending values | Scenes etc.

03



Function
Switching | Dimming | Blinds |
Sending values | Scenes etc.

01 Switch Sensor 2gang KNX

02 Switch Sensor 4gang KNX

03 Switch Sensor 6gang KNX

04 Switch Sensor 6gang KNX
with IR

05 Busch watchdog 180° KNX

06 Room Thermostat KNX

Features
Incl. 10 logic channels (light scene
actuator | sequence actuator | logic
gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate
the function

Features
Incl. 10 logic channels (light scene
actuator | sequence actuator | logic
gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate
the function

Features
Incl. 10 logic channels (light scene
actuator | sequence actuator | logic
gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate
the function

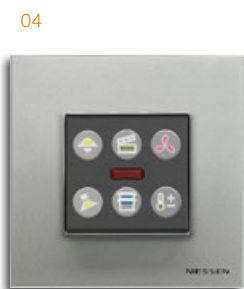
Intelligent Building Solutions

ABB i-bus® KNX – Operation – Zenit

Zenit is based on a combinable concept which creates a very comprehensive range, suitable for any type of needs. Optimizing comfort, safety and efficiency of homes and buildings: Providing with

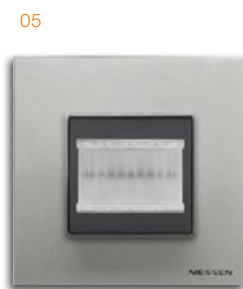
complete comfort solutions to satisfy all type of needs and projects. Ensuring safety and protection of persons and goods. Saving energy by using only the amount of energy required.

Zenit offers two different mounting plates for KNX sensors corresponding to different market standards: VDE and NEMA.



Function
Switching | Dimming | Blinds | Sending values | Scenes etc. | 6gang sensor with IR.

Features
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Control element: Switch contacts
Display elements: LED to indicate the function



Function
Movement sensor with up to four channels.
Detection range: frontal: 6 m, lateral: 6 m
Detection angle: 180 °
Brightness limit value: 5 Lux - 150 Lux
Mounting height: 1.1 m



Function
Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a thermostat for Fan Coil units in 2- and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode.

The Zenit VDE range is only available in the following countries: Spain, Portugal, Russia, France
The Zenit NEMA range is only available in the following countries: Latin America, Australia, Thailand, Vietnam.
Sensors, frames and special mounting plates for KNX sensores have to be ordered by: ABB, S.A. Low Voltage Products-Niessen, Oartzun / Spain www.abb.es/niessen

Features
Incl. 10 logic channels (light scene actuator | sequence actuator | logic gates, etc.)
Switch contacts for operating mode selection and dial for setpoint or fan speed adjustment.
Display elements: LCD showing operation modes.
Protection class (Device): IP 20
Temperature range (Device): - 5 °C to 45 °C

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Zenit



6125/98-509

1/2-fold sensor

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Control element: Switch contacts. Display elements: LED to indicate the function.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6125/98-509	6115-0-0444		1	



N2221.2

Cover Zenit 1/2-fold

Cover Zenit 1/2-fold. Available in white (BL), antrachite (AN) and silver (PL).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Cover Zenit 1/2-fold – white	–	N2221.2 BL	2CLA222120N1101		1	
Cover Zenit 1/2-fold – antrachite	–	N2221.2 AN	2CLA222120N1801		1	
Cover Zenit 1/2-fold – silver	–	N2221.2 PL	2CLA222120N1301		1	

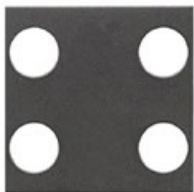


6126/98-509

2/4-fold sensor

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Control element: Switch contacts. Display elements: LED to indicate the function.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6126/98-509	6116-0-0219		1	



N2221.4

Cover Zenit 2/4-fold

Cover Zenit 2/4-fold. Available in white (BL), antrachite (AN) and silver (PL).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Cover Zenit 2/4-fold – white	–	N2221.4 BL	2CLA222140N1101		1	
Cover Zenit 2/4-fold – antrachite	–	N2221.4 AN	2CLA222140N1801		1	
Cover Zenit 2/4-fold – silver	–	N2221.4 PL	2CLA222140N1301		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Zenit



6129/96-509

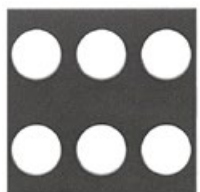
3/6-fold sensor

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.)

Control element: Switch contacts. Display elements: LED to indicate the function. Protection class (Device): IP 20. Temperature range (Device): – 5 °C to 45 °C.

Dimensions: (L x W x D): 44 mm x 44 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6129/96-509	6118-0-0105		1	



N2221.6

Cover Zenit 3/6-fold

Cover Zenit 3/6-fold. Available in white (BL), antrachite (AN) and silver (PL).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Cover Zenit 3/6-fold – white	–	N2221.6 BL	2CLA222160N1101		1	
Cover Zenit 3/6-fold – antrachite	–	N2221.6 AN	2CLA222160N1801		1	
Cover Zenit 3/6-fold – silver	–	N2221.6 PL	2CLA222160N1301		1	



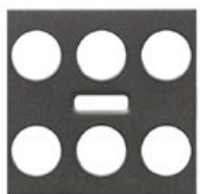
6129/98-509

3/6-fold sensor with IR

Push switch function: switching / dimming / blind / sending values / scenes etc. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). With infrared.

Control element: Switch contacts. Display elements: LED to indicate the function.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6129/98-509	6118-0-0108		1	



N2221.7

Cover Zenit 3/6-fold with IR

Cover Zenit 3/6-fold with IR. Available in white (BL), antrachite (AN) and silver (PL).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Cover Zenit 3/6-fold with IR – white	–	N2221.7 BL	2CLA222170N1101		1	
Cover Zenit 3/6-fold with IR – antrachite	–	N2221.7 AN	2CLA222170N1801		1	
Cover Zenit 3/6-fold with IR – silver	–	N2221.7 PL	2CLA222170N1301		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Zenit



6124/88-509

Room thermostat heating / cooling Fan Coil

Control element with room thermostat function for triggering the heating, ventilation and fan-coil actuators. The controller is a thermostat for Fan Coil units in 2 - and 4-pipe systems and conventional heating or cooling systems. The fan stage can be switched manually or in automatic mode. Incl. 10 logic channels (light scene actuator, sequence actuator, logic gates, etc.). Switch contacts for operating mode selection and dial for setpoint or fan speed adjustment. Display elements: LCD showing operation modes.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6124/88-509	6134-0-0310		1	



N2240.4

Cover Zenit room thermostat

Cover Zenit room thermostat. Available in white (BL), antrachite (AN) and silver (PL).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Cover Zenit RTC – white	–	N2240.4 BL	2CLA224040N1101		1	
Cover Zenit RTC – antrachite	–	N2240.4 AN	2CLA224040N1801		1	
Cover Zenit RTC – silver	–	N2240.4 PL	2CLA224040N1301		1	



6122/98-509

Watchdog 180 flush mounted

Movement sensor with up to four channels. Detection range: frontal: 6 m, lateral: 6 m. Detection angle: 180 °. Brightness limit value: 5 Lux – 150 Lux. Mounting height: 1.1 m.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6122/98-509	6132-0-0307		1	

11



N2241.4

Cover Zenit watchdog

Cover Zenit watchdog. Available in white (BL), antrachite (AN) and silver (PL).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Cover Zenit Watchdog – white	–	N2241.4 BL	2CLA224140N1101		1	
Cover Zenit Watchdog – antrachite	–	N2241.4 AN	2CLA224140N1801		1	
Cover Zenit Watchdog – silver	–	N2241.4 PL	2CLA224140N1301		1	

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Zenit



Buttons with symbols

Buttons with symbols for Zenit control covers 1 / 2-gang, 2 / 4-gang, 3 / 6-gang and 3 / 6-gang with infrared.

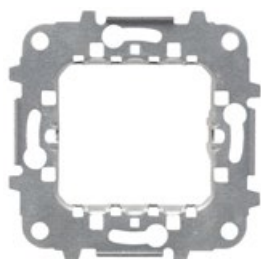
Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Ceiling light symbol	–	6123/20-500	6123-0-0001		10	
Blinds symbol	–	6123/21-500	6123-0-0002		10	
Scene symbol	–	6123/22-500	6123-0-0003		10	
Temperature symbol	–	6123/23-500	6123-0-0004		10	
Light symbol	–	6123/24-500	6123-0-0005		10	
Fan Coil symbol	–	6123/26-500	6123-0-0006		10	



N2271 XX

Frames, Zenit VDE

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
1-fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG*	–	N2271 XX				
1-fold basic (without logo), Available in AN, BL, CV, PL*	–	N2271.1 XX				
2-fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG*	–	N2272 XX				
2-fold basic (without logo), Available in AN, BL, CV, PL*	–	N2272.1 XX				
3-fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG*	–	N2273 XX				
3-fold basic (without logo), Available in AN, BL, CV, PL*	–	N2273.1 XX				
4-fold, Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG*	–	N2274 XX				
4-fold basic (without logo), Available in AN, BL, CV, PL*	–	N2274.1 XX				



N2271.9

Metal mounting plate

Metal mounting plate for Zenit VDE KNX sensors.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Metal mounting plate	–	N2271.9	2CLA227190N1001		20	

* AN = Antrachite, BL = white, CB = white glass, CN = black glass, CV = Cava, OX = Stainless Steel, PL = Silver, PZ = Slate, WG = Wenge

Intelligent Building Solutions

ABB i-bus® KNX – Operation – Zenit

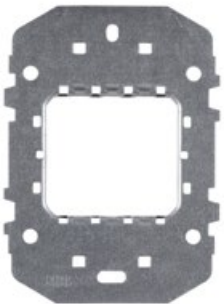


N2372.1 XX

Frame, Zenit NEMA

Dimensions (L x W): 122 x 90 mm. Available in AN, BL, CB, CN, CV, OX, PL, PZ, WG*.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
1-fold		N2372.1 XX				



N2371.9V

Metal mounting plate

Metal mounting plate for Zenit NEMA KNX sensors. Dimensions (L x W): 102 x 74 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Metal mounting plate	–	N2371.9V			20	

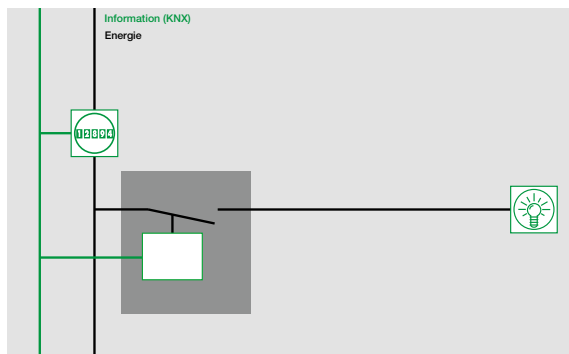
* AN = Antrachite, BL = white, CB = white glass, CN = black glass, CV = Cava, OX = Stainless Steel, PL = Silver, PZ = Slate, WG = Wenge

Intelligent Building Solutions

ABB i-bus® KNX – Energy Measurement

ABB offers various solutions for decentral energy measurement on the basis of the KNX standard.

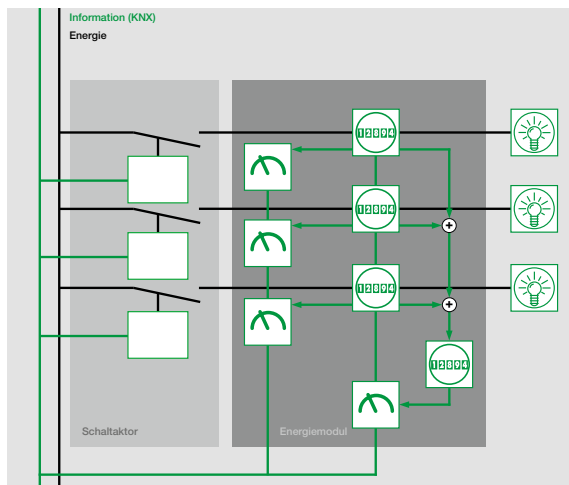
Version 1



Electronic energy meters make the current energy values available on the KNX bus system in conjunction with a KNX interface. The measured data can be intermediately stored, evaluated and visualized from here.



Version 2

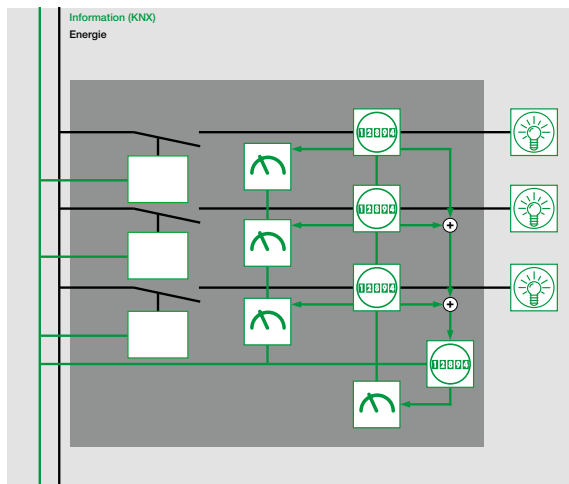


The Energy Module can record the energy consumption for the individual devices. It is used particularly when upgrading existing KNX systems and wherever energy measurement is required without switch functions. It facilitates a detailed and transparent insight into the energy consumption of a building.

The current meter values can be sent and evaluated.



Version 3



The Energy Actuator facilitates control of the connected consumer loads via the ABB i-bus® KNX. For each of the three switch channels, the individual consumption can be measured in the same way as for the Energy Module. For every channel, the proven functionality of the ABB i-bus® KNX Switch Actuators are available.



Intermediate meter for electrical energy



Electrical consumer (load)



Energy meter

Intelligent Building Solutions

ABB i-bus® KNX – Energy Measurement



SE/S 3.16.1

Energy Actuator, 3-fold, 16/20 AX, MDRC

Records the energy consumption of the connected electrical loads in the load circuit. Various electrical variables can be monitored and load peaks can be limited by simple load control. The 3 output channels can be manually operated and display the current switching state. The Energy Actuator can switch resistive, inductive and capacitive loads. The switching capacity corresponds to the SA/S X.16.6.1.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	SE/S 3.16.1	2CDG110136R0011		1	0.3



EM/S 3.16.1

Energy Module, MDRC

Measures energy consumption and various electrical parameters in the terminal current. Active power, Current, Voltage and Frequency can be monitored via threshold values and peak loads can be limited through a simple load control. The measured values are provided via ABB i-bus® KNX.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	4	EM/S 3.16.1	2CDG110148R0011		1	0.2



ZS/S 1.1

Meter Interface Module, MDRC

It records consumption and measured values of the electrical energy consumption meters. Using an infra-red interface, the ABB energy meter types of the A- and B-series are incorporated. The information and data which is read can be used, for example, for cost centre accounting, energy optimisation, monitoring of installations and visualisation.

The following values are available (depending on the meter type):

Meter reading

Active energy	Tariff 1-4, total	Currents	L1, L2, L3, N
Reactive energy	Tariff 1-4, total	Phase angle voltage	L1, L2, L3, total
		Phase angle current	L1, L2, L3, total
		Quadrant	L1, L2, L3, total

Power values

Active power	L1, L2, L3, total
Reactive power	L1, L2, L3, total
Apparent power	L1, L2, L3, total
Phase angle power	L1, L2, L3, total
Power factor	L1, L2, L3, total

Instrument values

Voltages	L1-N, L2-N, L3-N, L1-L2, L2-L3, L1-L3
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Other

Transformer ratio	Read CT and VT
Power failures	Send and delete
Tariffs	Read and change-over
Status information	Send and read
Communication monitoring	
Intermediate meter	Read and reset

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	ZS/S 1.1	2CDG110083R0011		1	0.13

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – Fault Monitoring and Data Logging



SMB/S 1.1

Fault Monitoring Unit, MDRC

It is used to detect and manage up to 100 fault messages which are processed within the unit and can be forwarded to a display unit. Furthermore, an optical and an acoustic collective status signal is provided. Messages can be acknowledged and data losses can be reported. The devices support message formats to DIN 19 235: messages with continuous lighting, new value messages with simple flashing light, initial value messages with simple acknowledgement, motor messages. Current values can be centrally scanned.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	SMB/S 1.1	GHQ6310085R0111		1 pc.	0.12 kg



EUB/S 1.1

Monitoring Unit, MDRC

Monitors up to 100 bus devices in KNX systems, which can be divided into 5 groups. The devices are monitored to ensure their presence and minimum functionality (send and receive). Monitoring can be undertaken based on the physical address or the group address. A total of four different monitoring modes are available.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	EUB/S 1.1	2CDG110066R0011		1 pc.	0.12 kg



BDB/S 1.1

Data Logging Unit, MDRC

It detects local operation cycles and operating hours to plan the maintenance or durability evaluation of the devices. For each of the 35 channels to be monitored, limit values can be set and a message sent if this limit is exceeded. The logging of operating hours can be predetermined for the total or remaining time. These values can be modified via communication objects.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	BDB/S 1.1	2CDG110067R0011		1 pc.	0.12 kg

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – Approved Security with KNX



The compact solution for security applications – the Security Terminals

The Security Terminal provides a compact security solution for KNX applications for detection and signalling of intrusion, personal attack and technical hazards. They are used as the interface between the security technology sensors and KNX.

Depending on the configuration, the devices feature 2, 4 or 8 inputs – so-called detector circuits or zones. They are used for monitoring connected passive detectors (e.g. magnetic contacts, glass break sensors, etc.) to the ABB i-bus® KNX as well as for connection of floating contacts in applications with enhanced security requirements.

Through the connection of security technology and KNX, the detectors employed can, in addition to the security functions, also be used for heating control (e.g. window contact signal for control of the heating valve) or lighting control (e.g. central switch off of the lighting when the alarm logic is set).

The Security Terminals can be used as autonomous systems with the integrated alarm logic, in conjunction with the Security Module SCM/S or with an Intrusion Alarm Panel GM/A 8.1 or L240.



The application program offers several functions for security applications, such as

- Direct and delayed setting
- Internal setting with occupancy and external setting when absent
- Setting of the connected detector types
- Reset input and setting input
- Detector monitoring
- Zones (detector circuits) can be switched off
- Different types of alarms
- Setting for freely programmable relay outputs, e.g. for direct control of signalling devices.

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – Approved Security with KNX



SCM/S 1.1

Security Module, MDRC

The module provides the necessary logic functions to link the various KNX devices (e.g. zone terminals) to a security system. Up to 64 different zones can be evaluated via communication objects. Arming, operation and display are also implemented using communication objects. The device has a freely programmable relay output for connection of a signal encoder. An uninterruptible KNX power supply with battery back-up is recommended for security function buffering on mains failure.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	2	SCM/S 1.1	2CDG110024R0011		1	0.13



MT/S 8.12.2M

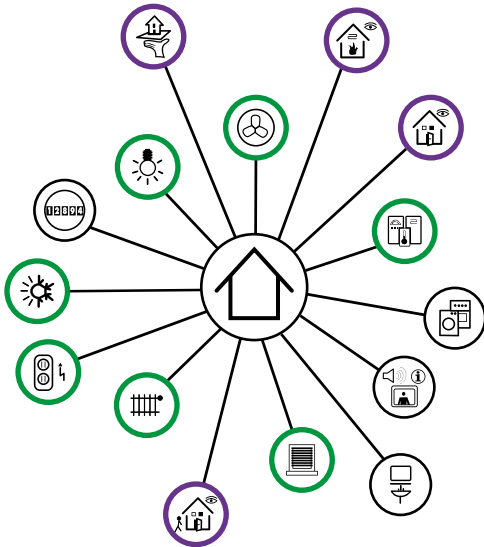
Security Terminal

They are used as the interface between the security technology sensors and the KNX. The device features inputs, so-called zones. They are used for monitoring connected passive detectors, e.g. magnetic contacts and/or glass break sensors on the ABB i-bus® KNX and/or for connection of floating contacts in applications with enhanced security requirements. The device can be used as a system with autonomous alarm logic or in combination with the Security Module SCM/S or an Intrusion Alarm Panel. The device requires an external 12 V DC SELV auxiliary power supply, (e.g. NTU/S 12.2000.1).

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
8-fold, MDRC	4	MT/S 8.12.2M	2CDG110110R0011		1	0.19
4-fold, MDRC	4	MT/S 4.12.2M	2CDG110109R0011		1	0.19
2-fold, FM	–	MT/U 2.12.2	2CDG110111R0011		1	0.08

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – KNX Security Panel



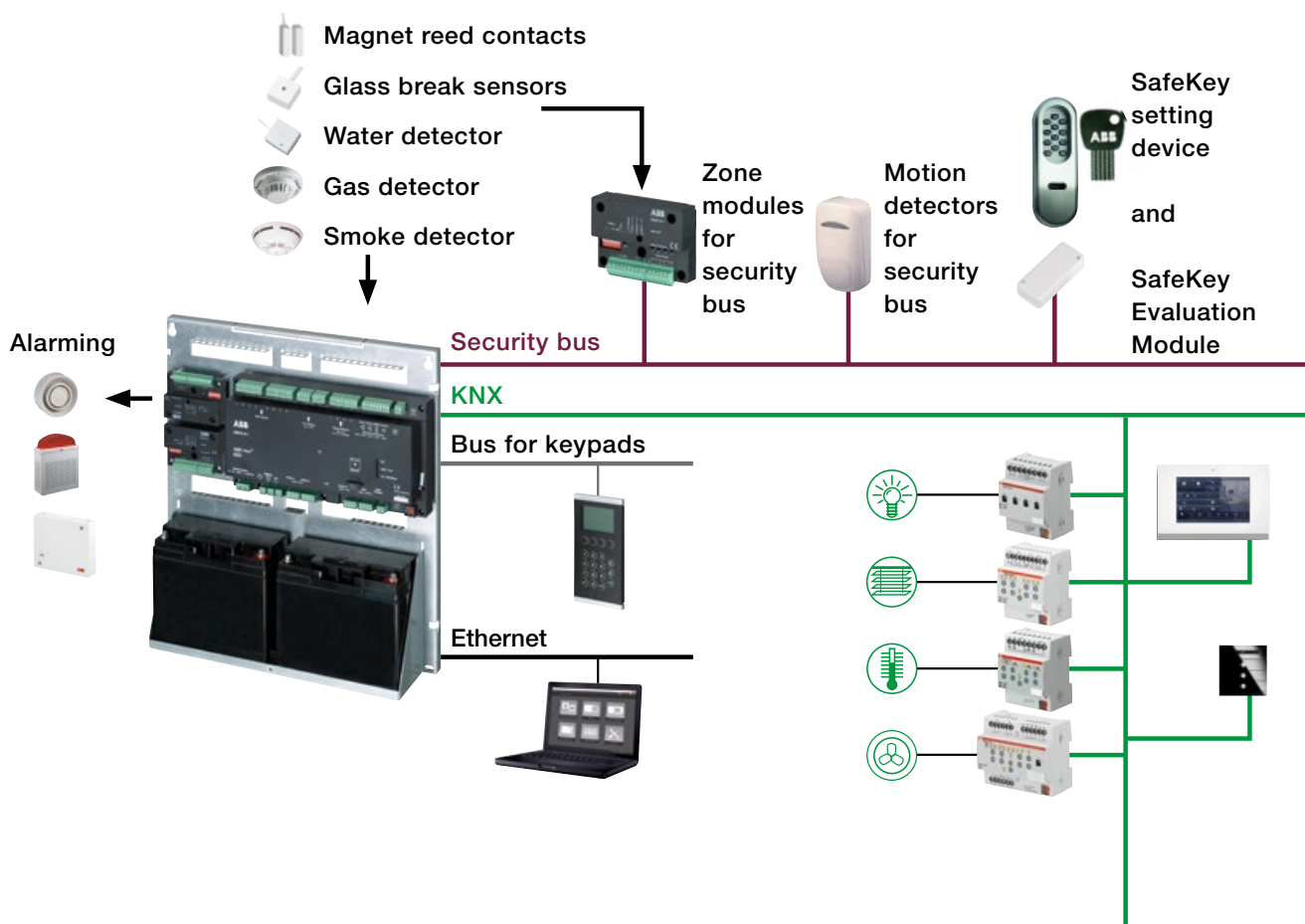
Professional alarm system for KNX experts

With the KNX Security Panel GM/A 8.1 ABB presents the first security system that is compatible with both, the international KNX standard (14543-3-x ISO / IEC) and the international standard for alarm systems (ISO / IEC 62642). Therefore the KNX Security Panel GM/A 8.1 is ready for a worldwide usage and expands business opportunities of nearly 40,000 KNX partners in 124 countries. The system is the perfect solution for projects ranging from simple to high security requirements.

This innovation is the result of more than 30 years of system and application knowledge in alarm technology and building automation at ABB.

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – KNX Security Panel



A complete product portfolio: One system – all interfaces

To fulfill the project requirements ABB provides the user besides the panel and keypad a complete product portfolio for professional alarm technology as well as known solutions for all trades of KNX building automation.

The KNX Security Panel is for universal usage for all kinds of hazardous situations in buildings like intrusion, personal attack, smoke, gas- and water leakage.

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – KNX Security Panel



KNX Security Panel without cover, integrated zone modules and batteries

- ↔ Ethernet connection for programming, diagnostics and operation via a standard webbrowser
- ← Direct inputs for security sensors
- ↔ Keypads
- Internal, external or remote alarming
- ↔ Security bus for security sensors, zone modules and setting devices
- ↔ KNX interface to display alarm states via displays of building automation and to control automatic building functions with support of security sensors.

The KNX Security Panel provides all needed system interfaces: An ethernet connection is used for programming, diagnostics and operation via a standard webbrowser as well as integration into the building network. The security sensors will be connected directly to the panel inputs or via the security bus, where the setting device for the system is also connected. Furthermore the panel provides interfaces for the also newly developed keypads and for internal, external or remote alarming. Finally the integrated KNX interface allows on the one hand to display alarm states via displays of building automation and on the other to control automatic building functions with support of security sensors.

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – KNX Security Panel



GM/A 8.1

KNX Security Panel, SM

for the protection of small to medium residential or commercial properties against intrusion and technical faults. The Security Panel is suitable for up to five logical setting zones. It has 8 integrated zones for detectors, a Security Bus for Bus-detectors, Bus-Zone Modules or Setting devices, Ethernet connection (RJ45) for programming, operating and displaying system status via Web-Browser and an integrated KNX interface. The Security Panel GM/A 8.1 complies with the requirements to VdS classes A, B and C, to the European Standard EN 50131, Grade 1 to 3 and to ISO/IEC 62642 Grade 1 to 3.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	GM/A 8.1	2CDG110150R0011		1	10.5
Off the wall tamper contact	–	WA/Z 1.1	2CDG110174R0011		1	



BT/A 1.1



BT/A 2.1

Keypad for GM/A 8.1

to connect to Security Panel GM/A 8.1 via the Keypad-Bus. The Keypad allows easy operation of the Security Panel. System messages are displayed on a four-line LCD display. Five Keypads can be connected to each Security Panel. There is no need for an external voltage supply, the keypads are supplied via the Keypad-Bus.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Black	–	BT/A 1.1	2CDG280001R0011		1	0.5
White	–	BT/A 2.1	2CDG280002R0011		1	0.5



MG/A 4.4.1

Zone Module, 4-fold

to connect to Security Panel GM/A 8.1 via the Security-Bus. For expansion of the Security-Panel by 4 detector zones. Used for connection to the exterior perimeter detectors such as magnetic reed contacts and passive glass break sensors. The module has 4 zones to which several detectors can be connected. The status of each zone is displayed with a status LED. The Zone Module delivers the control signals and the supply voltage for the external detectors. There is no need for an external voltage supply, the Zone Modules are supplied via the Security-Bus.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
to mount in the Security Panel housing	–	MG/E 4.4.1	2CDG110178R0011		1	0.1
in a surface mounting housing for installation in the building	–	MG/A 4.4.1	2CDG110186R0011		1	0.1

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – System Components



SAK7

Sealed Lead Acid Battery, 12 V DC, 7 Ah

For Intrusion Alarm Panel emergency power. 2 units can be installed. VdS class C.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SAK7	GHV9240001V0011		1	
	–	SAK17	GHV9240001V0013		1	



IR/XB
IR/XC

Infra-Red Motion Detector for security-bus

For direct connection to the security-bus of the Intrusion Alarm Panel GM/A 8.1 or L240.

The motion detectors with passive infra-red technology are registered for VdS classes B and C (anti-masking monitored). They facilitate monitoring of an area with an IR range of up to 15 m.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
VdS-No. G 110 506	–	IR/XB	2CDG230023R0011		1	
VdS-No. G 110 062	–	IR/XC	2CDG230024R0011		1	



EIM/XB
EIM/XC

Dual Motion Detector for security-bus

For direct connection to the security-bus of the Intrusion Alarm Panel GM/A 8.1 or L240. The Dual-Motion Detector combines proven passive infra-red technology with temperature-independent microwave technology. The combination of both functional principles results in a detector featuring high immunity to false alarms, even with unfavourable ambient conditions, and which still has high detection security. The detectors are registered for VdS classes B and C (anti-masking monitored). They facilitate monitoring of an area with an IR range of up to 15 m.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
VdS-No. G 110 513	–	EIM/XB	2CDG230025R0011		1	
VdS-No. G 110 061	–	EIM/XC	2CDG230026R0011		1	



MW

Mounting Bracket

For motion detectors.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	MW	GHV9230039V0020		1	

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – System Components



WEL/A, ES

SafeKey Wall Reader, SM

For setting/unsetting with the Evaluation Module L240/BS. The unit is actuated by inserting the electronic SafeKey chipkey. The SafeKey Wall Reader WEL is equipped with the key reader and an acknowledgement buzzer. VdS class C.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	WEL/A, ES	GHQ3050023R0001		1	



WELT/A, ES

SafeKey Wall Reader, SM

For setting/unsetting with the Evaluation Module L240/BS. The unit is actuated by inserting the electronic SafeKey chipkey. The SafeKey Wall Reader WEL is equipped with the key reader and an acknowledgement buzzer. VdS class C.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	WELT/A, ES	GHQ3050024R0001		1	



SCS

SafeKey Chipkey

It is an electronic carrier medium for setting / unsetting via a SafeKey Wall Reader. A SafeKey Chipkey can be authorized for any number of different SafeKey systems with different levels of authorization.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SCS	GHQ3050027R0001		1	

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – System Components



L240/BS

SafeKey Evaluation Module

For connection of the SafeKey components as well as all components required for a setting door (magnetic contacts, lock bolt switching contact, bolt lock, internal siren). For direct connection to the security-bus of the Intrusion Alarm Panel GM/A 8.1 or L240. The management of the electronic keys from the SafeKey range is undertaken completely via the WebUI of the Security Panel GM/A 8.1.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	L240/BS	GHQ3050031R0001		1	



SSM/A

SafeKey Switching Module

is used for an easy connection and evaluation of the SafeKey Wall Reader with or without keypad (WEL or WELT). Applicable for potential-free switching of electrical components up to 5 A at a max. voltage of 12...24 V DC/AC, i.e. electrical door opener or garage doors, or to set/unset a KNX security system via the connection to a Security Terminal MT/x.

In subject to the housing type the module can be used for surface or flush mount. A 12 V power supply is required.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Surface mounting	–	SSM/A	2CDG240019R0011		1	



ESPE

Electromechanical Bolt Lock

Prevents access to the set zone of an Intrusion Alarm Panel. The unit is mounted in the door frame. Only a single bore or the counterpart for the locking bolt in the door panel is required. Suitable for use with WEL and WELT. VdS class C.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	ESPE	GHV9250010V0001		1	
Replacement Locking Bolt	–	EVSB	GHV9250010V0002		1	
Mounting kit, flat door panel and frame	–	AMSP	GHV9250010V0004		1	
Mounting kit, raised door panel	–	AMSE	GHV9250010V0003		1	



ESPE/M

Electrical Mini Bolt Lock

The ESPE/M Mini Bolt Lock is used together with an intrusion alarm system to implement the inevitability condition. The motorized bolt lock additionally locks the door to the set area, preventing unintentional opening of the door when the intrusion alarm system is set.

The ESPE/M Mini Bolt Lock is connected to the L240/BS Evaluation module for the L240 Intrusion Alarm Panel or GM/A 8.1 KNX Security Panel.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	ESPE/M	2CDG270010R0011		1	

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – System Components



SAD/GAP

Distribution Enclosure, SM

For installation of the Bus Modules L840/MG4 and L240/BS.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Surface mounting	–	SAD/GAP	2CDG220021R0011		1	

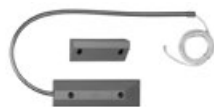


MRS/W

Magnet Reed Contact Set

For opening surveillance of windows and doors, complete for bolting or drilling Contents: 1 magnet, 1 reed contact with 4.0 m connection cable LIYY 4 x 0.14 mm², 2 housings, 2 spacer plates, 2 flanges and 4 anti-magnetic fixing screws. VdS No. G 191549. VdS class B.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
white	–	MRS/W	GHQ3201972R0001		1	
brown	–	MRS/B	GHQ3201972R0002		1	
Saver Set (20 pcs.), white	–	VMRS/W	GHQ3201972R0011		1	
Saver Set (20 pcs.), brown	–	VMRS/B	GHQ3201972R0012		1	



RTK

Rolling Door Magnet Reed Contact Set

For monitoring opening or rolling doors or other large doors in the industrial field. Contents: 1 magnet, 1 reed contact with 2 m connection cable 4 x 0.14 mm², 1 m protective tubing and 1 set of mounting accessories. Degree of protection: IP 68; Environmental class to VdS 4; VdS class B.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	RTK	GHQ3201973R0021		1	



SPGS/W

Glass Break Sensor

For surveillance of glass surfaces of windows, display windows and doors with high interference immunity and integrated memory display. For operation directly on detector circuits of intrusion alarm panels or security terminals. Extremely compact dimensions. Dimensions: H x W x D = 18 x 18 x 9 mm. Mounted onto glass using Loctite adhesive (LKS). With 5 m connection cable. VdS No. G 194524. VdS class B.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
white	–	SPGS/W	GHV9220004V0009		1	
brown	–	SPGS/B	GHV9220004V0010		1	
Mechanical Glass Break Test Device	–	GP2	GHV9220004V0004		1	
Loctite adhesive	–	LKS	GHQ4001906R0001		1	

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – System Components



WRK/W

Lock Bolt Switching Contact

For installation in the strike plate, for lock monitoring on doors. Water-tight IP 67, with 2.5 m connection cable LIYY 3 x 0.14 mm². VdS No. G 190008. VdS class C.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	WRK/W	2CDG250003R0011		1	



VSUE

Window Lock Monitoring Contact

Lock monitoring is carried out with a special magnet and a reed contact. The magnet is mounted on the push rod of the window sash while the reed contact is mounted on the frame. The connection cable LIYY 4 x 0.14 mm² is 4 m in length. VdS No. G 190074. VdS class C.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	VSUE	GHV9210018V0022		1	



ND/W

Emergency Call Button

For manual alarm tripping. Complies with the police regulations since it features permanent trip recognition, momentary-contact function, with cover contact. Surface mount version. Colour: white. VdS class C.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Surface mounting	–	ND/W	GHQ7132443R0011		1	
Flush mounting	–	NDU/W	GHQ7132443R0021		1	
Spare Papers (10 pcs.)	–	EP	GHQ7132443R0003		1	

11



NDA/W

Cover plate

Used primarily in the banking sector or other institutions, where unintentional alarm triggering is possible due to public access.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	NDA/W	GHQ7132443R0004		1	

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – System Components



IR/KB

Passive Infra-Red Detector

For conventional wiring to zone inputs of an Intrusion Alarm Panel or a KNX Security Terminal. With a volumetric lens for interior monitoring. Can be optionally set for hall monitoring function up to 15 m. Color: RAL 9010 pure white; for use up to VdS class B.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
VdS-No. G 110 502	–	IR/KB	2CDG230027R0011		1	



EIM/KB

Dual Motion Detector

This new dual detector is based on proven detection principles of the EIM detector AND incorporation of infrared technology and electromagnetic field detection. The detector enables a detection range of 15 m with 17 zones on 6 levels. The range of the infra-red component the electromagnetic field can be adjusted separately using a jumper. Up to VdS class C; Color RAL 9010 pure white.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
VdS-No. G 110 503	–	EIM/KB	2CDG230028R0011		1	
VdS-No. G 110 060	–	EIM/KC	2CDG230029R0011		1	



MW

Mounting Bracket

For motion detectors.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	MW	GHV9230039V0020		1	



EIM/D

Dual Ceiling Detector

Operates according to the proven detection principle of the EIM detector (infra-red technology and electromagnetic field) over 360°. The range of the infrared component can be adapted via the mounting height while the range of the electromagnetic field can be adjusted separately using a jumper. The detector is fitted with a walk test LED. Colour: RAL 9010 pure white.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	EIM/D	2CDG230039R0011		1	



SGL

Gas Detector

For measurement and evaluation of the concentration of natural gas or liquefied gas in the air. The detector requires a 10 – 30 V DC voltage supply and has a normally open relay output contact for connection to the intrusion alarm panels and fire alarm panels, features an LED display and a Piezo buzzer. For ceiling and wall mounting.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SGL	GHQ3050008R0001		1	

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – System Components



SWM 4

Water Detector

A resin-encapsulated water detector with gold-plated Termipoint pins, detects water ingress, e.g., pipe fractures, ingress of groundwater and sewage, water damage caused by washing machines and dishwashers etc. before the damage becomes too expensive. For operation directly on detector circuits of intrusion alarm panels or security terminals.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SWM 4	GHQ4030001R0004		1	



SWM 4/RN

Water Detector with Relay Output

Features a potential free changeover contact output, an LED parallel output and a LED display. The detector resets itself automatically when the affected area dries out. The device draws its power from an external 10 ... 23 V DC voltage source.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SWM4/RN	GHQ4030001R0012		1	

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – System Components



FC650/O

Optical Smoke Detector

Optical smoke detector in threshold alarm technology that detects smoke according to the scattered-light principle. The detectors feature an alarm indicator on the detector head that is visible from all angles, and which can be triggered with a permanent magnet for test purposes. A detector base is provided for mounting and cable connection purposes into which the detector is simply screwed in via the bayonet connection. Each detector is equipped with an alarm LED, which displays the stored alarm in the event of an alarm. Detector/base diameter: 110 mm. VdS approved.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	FC650/O	2CDG430079R0011		1	



FC650/TMAX

Heat Detector

Static Heat Detector in threshold alarm technology, – trigger temperature 78 °C. The detectors feature an alarm indicator on the detector head that is visible from all angles, and which can be triggered with a permanent magnet for test purposes. A detector base is provided for mounting and cable connection purposes into which the detector is simply screwed-in via the bayonet connection. Each detector is equipped with an alarm LED, which displays the stored alarm in the event of an alarm. Detector/base diameter: 110 mm. VdS approved.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	FC650/TMAX	2CDG430081R0011		1	



FC600/BREL

Detector Base, 12 V

Enables system-independent connection of the FC650 series fire detector to systems or devices that are not specifically designed for this detector technology. Examples include Intrusion Alarm Panels, KNX Security Terminals, elevator controls or other signal processing equipment. The detector base must be supplied by either a 12 V or a 24 V DV voltage supply. A floating 30 V DC/1 A changeover contacting is provided for transferring an alarm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	FC600/BREL	2CDG430051R0011		1	

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – System Components



FPA03

Testing Aerosol

For optical smoke detector testing, 250 ml.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	FPA03	GHV9020012V0021		1	

Reed Relay, 12 V

For connection, e.g. to transistor outputs of Intrusion Alarm Panels. Coil voltage 8.5...14 V DC. Current consumption 5 mA at 12 V DC. Contact loading 24 V/100 mA.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	RL	GHV9270013V0101		1	



SSS

Electronic Solid-State Siren

Electronic solid-state siren with intermittent tone for alarm purposes in indoor installations. External dimensions: $\varnothing \times H = 90 \times 37$ mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SSS	GHV9270001V0001		1	



SSF/G

Siren in Enclosure

An aluminium protective housing with additional protective enamel coating. Protected against sabotage by a case tamper contact. The alarm inputs are wired onto a terminal strip. With fixing screw (M4) for potential equalization on the base.

Dimensions: H x W x D = 200 x 205 x 88 mm; Color: RAL 9002 Environmental class III to VdS.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SSF/G	GHQ3050017R0001		1	



SSF/GB

Combination Signalling Device

Siren in an aluminium protective housing with additional protective enamel coating and strobe light mounted on top. Protected against sabotage by a case tamper contact.

The alarm inputs are wired onto a terminal strip. Dimensions: H x W x D = 258 x 205 x 88 mm; Color RAL 9002. VdS No. G 101147. VdS class C.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	SSF/GB	GHQ3050018R0001		1	

Intelligent Building Solutions

ABB i-bus® KNX – Security and Surveillance – System Components



6833/01-84-500

Busch Smoke Alarm® ProfessionalLine

For early detection of smouldering fires and open fires with smoke development indoors according to the photooptical measurement principle (Tyndall). With installed Lithium battery. Battery life min. 10 years. With test button and muting. Can be networked with up to 12 detectors using the radio module. Can be networked via 2-wire twisted pair cable with up to 12 detectors. Acoustic alarm: installed horn (85 dBA). Cyclic functional test. Including attachment material – VdS certified. Conform to EN 14604 studio white.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
not networkable	–	6833-84-500	6800-0-2720		1	
networkable	–	6833/01-84-500	6800-0-2721		1	



6835/01-84-500

Busch Heat Alarm ProfessionalLine

Signal triggered at over 57 °C. With installed Lithium battery. Battery life min. 10 years. With test button and muting. Can be networked via 2-wire twisted pair cable with up to 12 detectors. Can be networked with up to 12 detectors using the radio module. Acoustic alarm: installed horn (85 dBA). Cyclic functional test. Including attachment material – VdS certified. Conform to EN 14604.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white	–	6835/01-84-500	6800-0-2723		1	



6827-84

Busch Smoke Alarm® Radio Module

For wireless networking of multiple Busch smoke alarms® / heat alarms. With installed Lithium battery. Battery life min. 10 years. Radio frequency: 868 MHz. Range: max. 100 m outdoors, max. 30 m indoors.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	6828	6800-0-2514		1	



6829-84

Busch Smoke Alarm® Relay

For connecting external systems, e.g. KNX. Relay contact, floating changeover contact 230 V~ max. 5 A. Cable connection: up to 2 x 2 x 1.5 mm². With installed radio module. Rated voltage: 230 V~.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white	–	6829-84	6800-0-2515		1	



6824-84

Busch Smoke Alarm® Remote Control

For service purposes. With muting, test and search function.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white	–	6824-84	6800-0-2516		1	

Intelligent Building Solutions

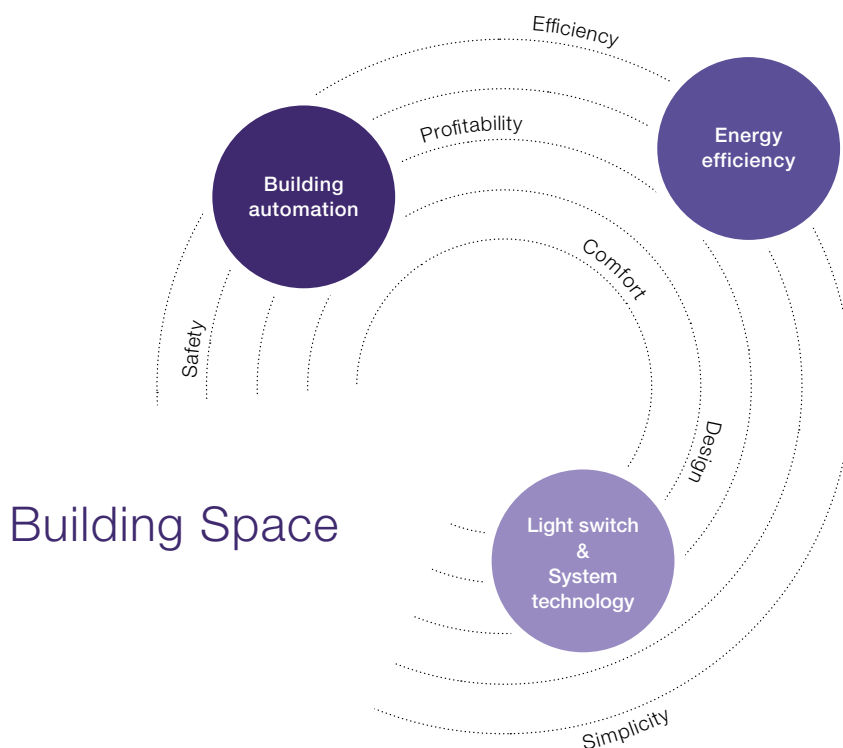
Newron – Integration in Building Management Systems

Modern buildings today are more than merely the expression of future-oriented architecture. Integral systems must do justice to the increasing demands for energy efficiency, comfort, safety and profitable operation. For this, real estate needs intelligence in the form of well-designed technology. It is used to integrate information of the entire building auto-mation and to control heating and cooling systems, ventilation and air conditioning systems, lighting, sun-shading systems, as well as fire protection and safety systems. Depending on the type of its use, a building presents special challenges to everyone concerned. That

is why Busch-Jaeger, as subsidiary of the expert global brand ABB, now offers an integral solution – Building Space.

Under this umbrella all available expert know-how of building automation as well as the electrical and building systems technology sectors is merged as solution for buildings of the future. This portfolio of products and services is unique. With this growing power of expertise, efficient buildings can be made a reality safely and reliably – from functional buildings up to exclusive luxury hotels. And that on an international level. This how impressive solutions with the greatest

possible freedom for design and implementation are created. Because Building Space solutions adapt themselves precisely to the respective object and its use. Even later modifications and extensions are possible at any time. When the building is to be used later for a different purpose, for example. Newron solutions guarantee an assured future and efficient operation. Thanks to openness and flexibility they are suitable for a complete IT and architectural building management solution for intelligent functional buildings.



Intelligent Building Solutions

Newron – Total Networking

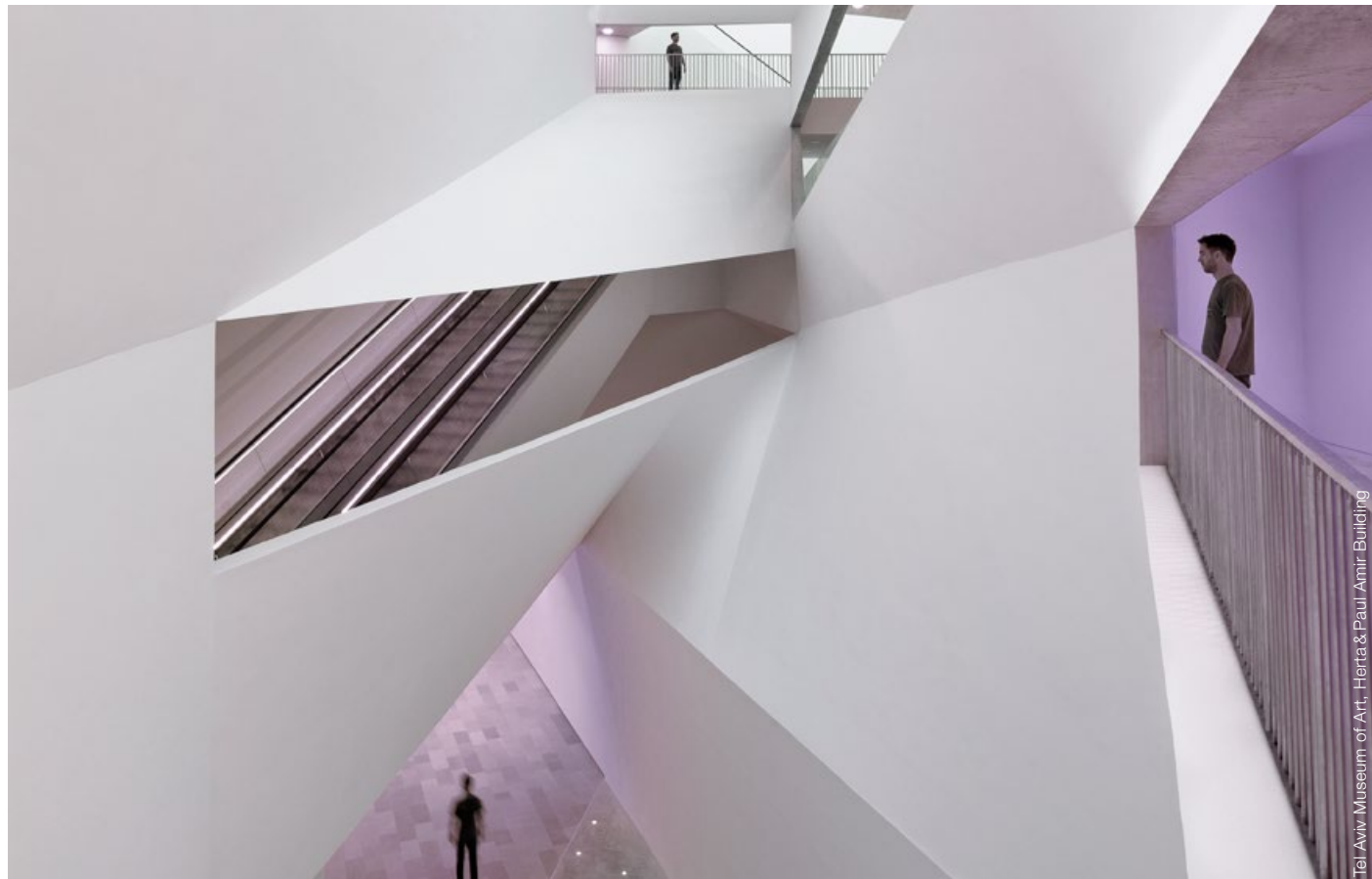
System integrators can now work even more efficiently. Because with the innovative Newron solutions ABB and Busch-Jaeger offer simple and efficient possibilities for intelligent building management.

More possibilities in less time. Newron solutions allow a simple and flexible data exchange to take place between the different levels of a building management system and the most commonly used protocols used in functional buildings. And here the solutions support all open standards such as BACnet, LON, KNX, Modbus, OPC, M-Bus and oBIX. This kind of flexibility allows devices of different manufacturers and different protocol families to be combined in a building in a very simple way. The performance of the system is designed for processing large amounts of data and the efficient integration of numerous data points.

Newron solutions support distributed IT architecture as well as IP convergence. The term convergence in general means the integration of forms of communication based on different technologies into a single network. IP convergence in the context of building management refers to the integration of different bus systems into one IP network. IP convergence offers a number of advantages with regard to expandability, performance, a uniform infrastructure as well as the possibility of joint management. This creates the prerequisites for the integral, service-oriented consideration of information processing.

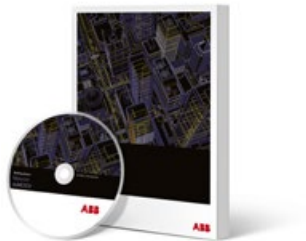
The outstanding features of Newron solutions are the intuitively operable user interface and the easy-to-understand internal architecture. They are ideally suited for medium to large projects in functional buildings. Newron solu-

tions offer the system integrator the working environment for processing major projects more efficiently and to simultaneously reduce integration time. Newron solutions follow an integrating approach and are therefore the direct interface to all central levels of intelligent building management. They form the bridge between technical system components and management level. Newron in a practical way supplements the numerous innovative KNX solutions for building automation in the existing program and rounds off the portfolio. For planners and system integrators Newron opens new possibilities and a highly attractive field of business – for example, the integration of KNX into the different trades of a building management system.



Intelligent Building Solutions

Newron – Advantages at a Glance



doMOOV

doMOOV is a building management software for building automation and makes possible the exchange of data between different protocols. The user-friendly interface and the simple internal structure ensure short programming times and facilitate modification and adaptation.

Software solution

- Fast to configure
- User-friendly HMI (Human Machine Interface)
- Supports decentralized IT structure
- Multi-protocol gateway – supports the protocols: KNX, LonWorks, BACnet, Modbus, M-bus
- Universal SCADA server OPC, BACnet, oBIX
- Integrated services: schedule/calendar, trends, alarms



Intelligent Building Solutions

Newron – Advantages at a Glance



doGATE

doGATE is an automation server optimized to doMOOV that is equipped with all necessary physical interfaces, which can also take over backup and remote control functions related to rooms.

Automation-Server

- Automation server that works functionally stable
- Attuned to the requirements of functional buildings and the building management software doMOOV
- Makes available all necessary interfaces
- Redundancy: can be defined as backup device
- Additional functions: virtual remote control and Web Dashboard



MOOVnGROUP

MOOVnGROUP is an engineering tool, which as application for the KNX commissioning software ETS4 with a graphic user interface, facilitates the setup and editing of KNX projects. Here for example group addresses are automatically generated.

Graphic engineering tool

- Graphic engineering tool for the ETS4
- Zone concept: simple, fast setup/modification of rooms/connections, as well as modification of parameters
- Reduction of complexity due to the automatic generation of group addresses
- Working with templates: reuse of created device and zone templates
- Automatic generation of data for Web Dashboard, virtual remote control LIZ, BACnet objects for SCADA (visualization) and trend data points

Intelligent Building Solutions

Newron – Product Range

doGATE Automation-Server ^{1) 2) 3)}

For 1,000 data points

Multi-Protocol Gateway that enables the integration of different protocols over TCP/IP in a Building Management System (BMS) and allows data exchange between the protocols. The integrated BACnet server offers scheduler, trend and alarm services. Data import of standard data bases (ETS for KNX, LNS for LON, EDE for BACnet) and MS Excel is supported. Enables decentralized IT structure. Redundancy: can be defined as backup device. Offers additional functions: virtual remote control and Web-Dashboard. Supports the protocols KNX, BACnet, LonWorks, Modbus, M-Bus. By default supported protocol/server: Modbus protocol and BACnet server.

Optional 1 additional protocol: KNX, BACnet or LONWorks.

Optional 2 additional protocols: KNX, BACnet or LONWorks.

Optional 3 additional protocols: KNX, BACnet and LONWorks.

For further information please contact central sales service of ABB Busch-Jaeger Elektro GmbH.

Rated voltage: 10 – 28 V-. Protection class (Device): IP 20.

Temperature range (Device): 0 °C to 55 °C.

Dimensions: (L x W x D): 252 mm x 199 mm x 33 mm.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
By default	–	DGT-0-1K-AB	8110-0-0001		1	
1 additional protocol	–	DGT-1-1K-AB	8110-0-0002			
2 additional protocols	–	DGT-2-1K-AB	8110-0-0003			
3 additional protocols	–	DGT-3-1K-AB	8110-0-0004			

doGATE MOOVnGROUP license ³⁾

For 100 devices

Runtime license for MOOVnGROUP.

For usage in combination with Automation-Server doGATE.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	DGT-MNG-100-AB	8110-0-0023		1	

doGATE Web-Dashboard-VIS license ³⁾

For 1,000 data points

Runtime license for Web-Dashboard-VIS. Web-Dashboard is a visualization based in the Automation-Server doGate and allows to display/modify data points, trends, scheduler and alarms. Web-Dashboard supports HTML5 standard. Can be combined with all popular windows browsers. Web-Dashboard data's are automatically generated from the predefined MOOVnGROUP zones. All other doGATE datapoints can be added manually.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	DGT-VIS-1K-AB	8110-0-0030		1	

¹⁾ Scope of doGATE services is managed by license keys.

²⁾ Usage of, the into doGATE integrated software on Windows PC is possible.

³⁾ without picture

Intelligent Building Solutions

Newron – Product Range

doGATE Virtual remote control-LIZ license ¹⁾

For 100 zones

Runtime license for virtual remote control-LIZ. For usage in combination with Automation-Server doGATE. Via LIZ rooms (zones) can be controlled by smartphone (Android, iPhone) or PC widget. LIZ data's are automatically generated from the predefined MOOVnGROUP zones. The user makes a LIZ spatial control. The different rooms are enabled by passwords.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	DGT-LIZ-100-AB	8110-0-0036		1	

doGATE M-Bus protocol ¹⁾

Additional protocol for Automation-Server doGATE. Protocol: M-Bus.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	DGT-MBU-AB	8110-0-0017		1	

doGATE OPC server ¹⁾

Permits to bring data up to SCADA/Visualization into OPC, from one or several doGATES. Runs on an external computer.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	DGT-OPC-AB	8110-0-0018		1	

doGATE MDRC Mounting kit ¹⁾

For vertical or horizontal mounting of Automation-Server doGATE on mounting rail TS 35.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	DGT-DIN-AB	8110-0-0020		1	

doGATE Obix server ¹⁾

Additional Obix server for Automations-Server doGATE. Server: Obix.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	DGT-OBi-AB	8110-0-0022		1	

doGATE Power supply ¹⁾

Power supply for Automation-Server doGATE with main connection cable including connectors for various power outlets. Rated voltage: 100 - 240 V~. Secondary: 19 V~. Rated frequency: 47 Hz/63 Hz.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	–	DGT-PWR-AB	8110-0-0019		1	

¹⁾ without picture

Intelligent Building Solutions

WaveLINE Wireless Control – RF Sensors



01



02



03



04



05

01 SM WaveLINE movement detector,
Article-No. 6747 AGM-204-500

The WaveLINE Busch-Watchdog 220 is a battery-operated movement detector. Since it is installed without cables it can be mounted in the most ideal position. The battery has a service life of 5 years.

02 WaveLINE media converter TP-RF,
Article-No. 6770-500

The KNX and Busch radio control are coupled via the WaveLINE media converter TP-RF. Telegrams can be exchanged in both directions. One application serves to transmit the window sensor to the KNX system.

03 Window sensor,
Article-No. 6720-64

The WaveLINE window sensor is retrofitted between the window and window handle, which means the original window handle is retained. The window handle is used for the following window positions: opened, tilted and closed.

04 Universal detector,
Article-No. 6721-64

The WaveLINE universal detector is suited for skylights or sliding doors and is activated via a reed contact. The universal detector has a second channel which can be permanently wired to a floating contact (NO or NC contacts).

05 Remote control RF,
Article-No. 6780-500

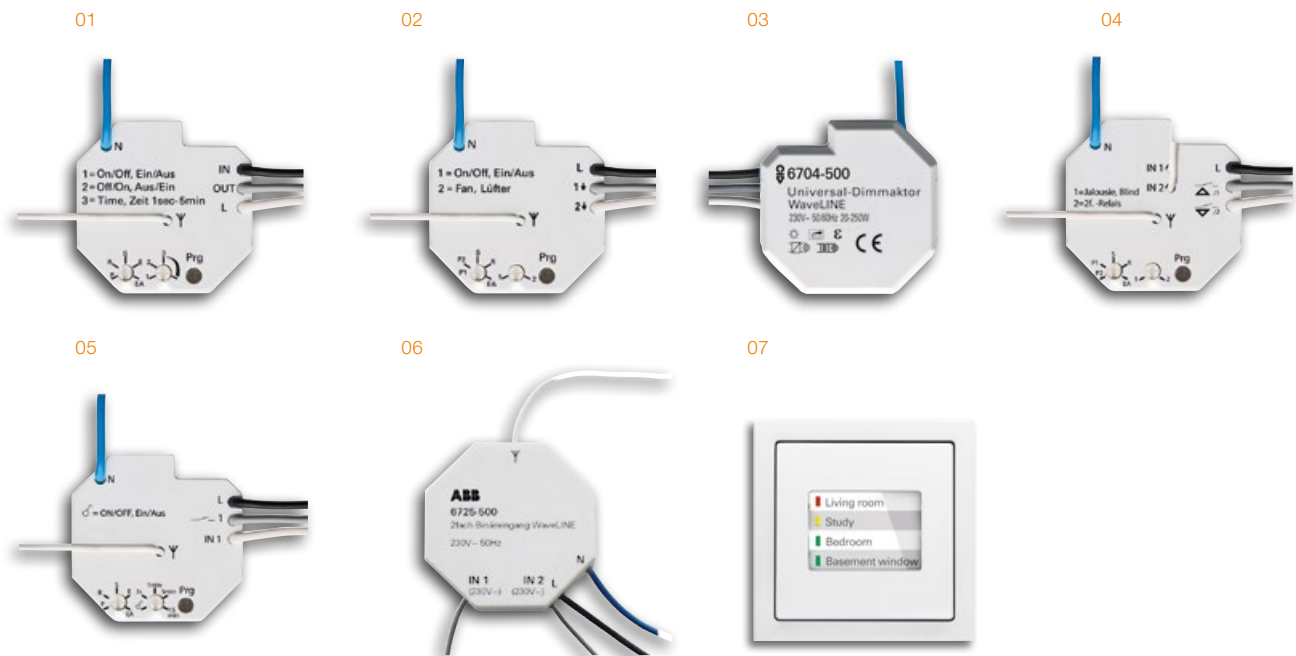
The remote control is used as mobile control for the WaveLINE. Loads can be controlled individually and scenes can be started.

11

Control elements	1gang		2gang		4gang	
Switch ranges						
pure stainless steel	6731-866-500	6732-866-500	6733-866-500			
solo®	6731-xx-500	6732-xx-500	6733-xx-500			
Busch-axcent®	6731-xx-500	6732-xx-500	6733-xx-500			
future® linear	6731-xx-500	6732-xx-500	6733-xx-500			
Reflex SI				6731-214-500	6732-214-500	
Busch-Duro 2000® SI				6731-212-500	6732-212-500	

Intelligent Building Solutions

WaveLINE Wireless Control – RF Actuators / Displays



- 01 1gang WaveLINE actuator, Article-No. 6702-500
- 02 2gang WaveLINE actuator, Article-No. 6703-500
- 03 WaveLINE dimming actuator, Article-No. 6704-500
- 04 WaveLINE blind actuator, Article-No. 6705-101-500
- 05 1gang WaveLINE actuator, Article-No. 6701-101-500
- 06 WaveLINE binary input, 2gang Article-No. 6725-500
- 07 WaveLINE LED display, 4gang with switching function, Article-No. 6730-84



Usage of frequency might be restricted in certain countries.

Intelligent Building Solutions

WaveLINE Wireless Control – Transmitter



6731-214-500



6731-84-500

Wall-mounted transmitter WaveLINE 1-channel

1gang wall-mounted transmitter independent of mains power supply. For switching and dimming. For controlling blinds and light scenes. 1 radio channel can be operated or up to 2 light scenes can be called up. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
white	–	6731-212-500	6730-0-0028		1/10	
alpine white	–	6731-214-500	6730-0-0030		1/10	
ivory white	–	6731-82-500	6730-0-0032		1/10	
aluminium silver	–	6731-83-500	6730-0-0035		1/10	
studio white	–	6731-84-500	6730-0-0038		1/10	
stainless steel	–	6731-866-500	6730-0-0041		1/10	
antique brass	–	6731-840-500	6730-0-0094		1/10	



6732-214-500



6732-84-500

Wall-mounted transmitter WaveLINE 2-channel

2gang wall-mounted transmitter independent of mains power supply. With labelling field and labelling strip. For switching and dimming. For controlling blinds and light scenes. 2 radio channels can be operated or up to 4 light scenes can be called up. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
white	–	6732-212-500	6730-0-0029		1/10	
alpine white	–	6732-214-500	6730-0-0031		1/10	
ivory white	–	6732-82-500	6730-0-0033		1/10	
aluminium silver	–	6732-83-500	6730-0-0036		1/10	
studio white	–	6732-84-500	6730-0-0039		1/10	
stainless steel	–	6732-866-500	6730-0-0042		1/10	
antique brass	–	6732-840-500	6730-0-0095		1/10	

Intelligent Building Solutions

WaveLINE Wireless Control – Transmitter



6733-84-500

Wall-mounted transmitter WaveLINE 4-channel

4gang wall-mounted transmitter independent of mains power supply. With labelling field and labelling strip. For switching and dimming. For controlling blinds and light scenes. 4 radio channels can be operated or up to 8 light scenes can be called up. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
ivory white	–	6733-82-500	6730-0-0034		1/10	
aluminium silver	–	6733-83-500	6730-0-0037		1/10	
studio white	–	6733-84-500	6730-0-0040		1/10	
stainless steel	–	6733-866-500	6730-0-0043		1/10	

Intelligent Building Solutions

WaveLINE Wireless Control – Transmitter



6780-500

Remote control WaveLINE

Network-independent radio control. For switching and dimming. For controlling blinds and light scenes. With 3 groups (A, B or C) with 5 pairs of channels. There are 15 radio channels operated singly or up to 30 light scenes can be called. With "ALL OFF" function for associated actuators. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. For LED display WaveLINE 6730-xxx. Compatible with WaveLINE KNX gateway TP-RF 6770. Send frequency: 868 MHz. Free-field range: approx. 100 m. Power supply: lithium button cell battery Type CR2032. Battery included in delivery; service life: typically 5 years.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
black	–	6780-500	6780-0-0001		1/10	



6725-500

WaveLINE binary input, 2gang, 230 V~

Radio control telegrams are sent when the two extension units are activated with mains voltage (AC 230 V~). Operation also possible via conventional push-buttons (2020 US, 2012/6 UK).

The 2gang binary input has 5 function modes 2-channel switching; 2-channel dimming; 1-channel blind; Two-channel light scene control; Channel 1: Switching ON. Channel 2: Continuous switching ON/OFF.

In dependence of the selected function, it can be combined with WaveLINE actuators 6701-101, 6702, 6703, 6704, 6705-101. Compatible with WaveLINE KNX gateway TP-RF 6770. Repeater function can be activated for extended range. For universal attachment or installation. Phase and neutral conductor required. For installation in (deep) flush-mounted boxes to German Standard DIN 49073, Part 1. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: LED for status display. Rated voltage: 230 V~, +10 % / –10 %. Rated frequency: 50 Hz. Inputs: 2. Polling voltage: 230 V~, potential-connected.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
white	–	6725-500	6720-0-0008		1/10	

Intelligent Building Solutions

WaveLINE Wireless Control – Transmitter



6747 AGM-204-500

Busch-Watchdog 220° WaveLINE

Wireless movement detector for detecting thermal motion. With display for detection and status indication. With ground and rear-field detection. With high-quality lens for optimum detection. Surveillance density: 84 sectors with 336 switching segments. With integrated dismantling protection. All functions controlled by microprocessor. With automatic range stabilization. With automatic interference suppression. With automatic dazzle-proofing. With automatic battery monitoring. Battery type: Lithium batteries 1250 mAh (L92 AAA 1.5 V). Battery included in delivery. Battery service life: typically 5 years, therefore practically maintenance-free. With brightness-independent test mode for evaluating the detection zone. Individual adjustment of detection range via enclosed protective foil which can be cut to size. Combinable with switch actuator WaveLINE, 1gang, with extension unit 6701-101. Compatible with WaveLINE KNX gateway TP-RF 6770. For standalone and group operation. Switch-off delay: 3 min. (single mode), individually adjustable at actuator (group mode). Send frequency: 868 MHz. Free-field range: approx. 100 m. Rated voltage: 4.5 V-. Detection range: frontal: 16 m, lateral: 16 m. Detection angle: 220 °. Brightness limit value: 0.5 Lux – 300 Lux, Daytime operation. Mounting height: 2.5 m.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
brown	–	6747 AGM-201-500	6700-0-0038		1	
alpine white	–	6747 AGM-204-500	6700-0-0035		1	
silver metallic	–	6747 AGM-208-500	6700-0-0036		1	
anthracite	–	6747 AGM-35-500	6700-0-0037		1	

Intelligent Building Solutions

WaveLINE Wireless Control – Actuators, RF/ KNX Media Converters



6701-101-500

WaveLINE switch actuator, 1gang, with extension unit

For wireless switching of electrical loads. Functions via radio control: ON/OFF, timer and light scene control. Functions via the extension unit: ON/OFF, timer and sending a radio control telegram. Operation also possible via conventional push-buttons (2020 US, 2012/6 UK). For Busch-Watchdog WaveLINE. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx and 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Inputs: 1. Polling voltage: 230 V~, Sensing pulse, L-wire. Outputs: 1x Normally open contact, potential-bound.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6701-101-500	6700-0-0040		1/10	



6702-500

Switch actuator WaveLINE

For wireless switching of electrical loads. For functions ON/OFF, timer and lightscene control. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx and 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Outputs: 1x Normally open contact, potential free.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6702-500	6700-0-0023		1/10	



6703-500

2gang switch actuator WaveLINE

For wireless switching of electrical loads. For operation mode 2gang switch, 2 separate outputs. For operation mode timer: output 1 (eg lighting), output 2: ON/Off delay in dependence of output 1 (eg fan control). For functions: ON/OFF and light scene control. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx and 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Outputs: 2x Normally open contact, potential-bound.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6703-500	6700-0-0024		1/10	

Intelligent Building Solutions

WaveLINE Wireless Control – Actuators, RF/KNX Media Converters



6704-500

Universal dimming actuator WaveLINE

For wireless switching and dimming of electrical loads. For functions ON/OFF, dimming and lightscene control. With soft ON/OFF function. With selectable light value storage. For wall mounted transmitter Waveline 6731-xxx, 6732-xxx and 6733-xxx. For remote control WaveLINE 6780. Compatible with WaveLINE KNX gateway TP-RF 6770. Repeater function can be activated for extended range. Controllable up to 32 transmission addresses.

Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Outputs: 1x dimming channel.

Suitable for: 230 V incandescent lamps. Output voltage: 230 V~. Rated power: 35 – 210 W.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6704-500	6700-0-0025		1/10	



6705-101-500

WaveLINE series/blind actuator with extension unit

For wireless switching of electrical loads. For driving and adjusting blinds/shutters and awnings over radio. Functions via radio control: 2gang switch, blind switch and light scene control.

Functions via extension unit: 2gang switch, blind switch and send radio control telegram.

Operation also possible via conventional push-buttons (2020 US, 2012/6 UK). For wall mounted transmitter Waveline 6731-xxx, 6732-xxx and 6733-xxx. For remote control WaveLINE 6780. For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-EnergyControl 6762-xx. Compatible with WaveLINE KNX gateway TP-RF 6770. Controllable up to 32 transmission addresses. Send/receive frequency: 868 MHz. Free-field range: approx. 100 m. Control element: Adjustable potentiometer. Display elements: Status indication of output via LED. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Inputs: 2. Polling voltage: 230 V~, Sensing pulse, L-wire. Outputs: 2x Normally open contact, potential-bound.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6705-101-500	6700-0-0042		1/10	



6770-500

KNX TP/RF WaveLine Gateway, SM

Media converter with internal antenna for conversion of KNX RF WaveLine radio signals to KNX twisted pair networks with 24 channels. For the evaluation and transfer of up to 24 channels each with 4 sub-channels as transmitter or receiver. Simple operation due to “programming button” and display on the device. Is surface-mounted. The KNX/WaveLine Gateway is powered via KNX and does not require an additional power supply.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6770-500	6770-0-0002		1	

Intelligent Building Solutions

WaveLINE Wireless Control – Window Sensor, Universal Detector



6730-214

WaveLINE LED display

For status display of window handle positions: open = red, closed = green, tilted = yellow. Direct onsite operation possible for switching / dimming an electrical device depending on the flush-mounted insert. 4 individual LED display channels. Up to 8 WaveLine transmitters can be taught-in on each LED display channel. Up to 8 WaveLine transmitters can be taught-in on onsite operation. User-friendly start-up without PC / software. Printed labelling sheet with 8 different inlay sheets (see labelling sheet 1799 xx). For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-Watchdog 220 WaveLINE 6747 AGM. For Busch-Universal relay switch insert 6404 U. For universal dimmer switch insert 6595 U. Free-field range: approx. 100 m. Send/receive frequency: 868 MHz.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
Busch-Duro 2000® SI white	–	6730-212	6730-0-0001		1	
Reflex SI alpine white	–	6730-214	6730-0-0002		1	



6730-24G

WaveLINE LED display

For status display of window handle positions: open = red, closed = green, tilted = yellow. Direct onsite operation possible for switching / dimming an electrical device depending on the flush-mounted insert. 4 individual LED display channels. Up to 8 WaveLine transmitters can be taught-in on each LED display channel. Up to 8 WaveLine transmitters can be taught-in on onsite operation. User-friendly start-up without PC / software. Printed labelling sheet with 8 different inlay sheets (see labelling sheet 1799 xx). For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-Watchdog 220 WaveLINE 6747 AGM. For Busch-Universal relay switch insert 6404 U. For universal dimmer switch insert 6595 U. For ABB i-bus® KNX devices 6110 U, 6114 U, 6120 U-102. Free-field range: approx. 100 m. Send/receive frequency: 868 MHz.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
alpha						
platinum	–	6730-20	6730-0-0007		1	
bronze	–	6730-21	6730-0-0008		1	
ivory	–	6730-22G	6730-0-0009		1	
studio white matt	–	6730-24	6730-0-0010		1	
studio white	–	6730-24G	6730-0-0011		1	
palladium	–	6730-260	6730-0-0005		1	
titanium	–	6730-266	6730-0-0006		1	

Intelligent Building Solutions

WaveLINE Wireless Control – Window Sensor, Universal Detector



6730-84

WaveLINE LED display

For status display of window handle positions: open = red, closed = green, tilted = yellow. Direct onsite operation possible for switching / dimming an electrical device depending on the flush-mounted insert. 4 individual LED display channels. Up to 8 WaveLine transmitters can be taught-in on each LED display channel. Up to 8 WaveLine transmitters can be taught-in on onsite operation. User-friendly start-up without PC / software. Printed labelling sheet with 8 different inlay sheets (see labelling sheet 1799 xx). For WaveLINE window position sensor 6720-6x. For WaveLINE 6721-xx universal signalling unit. For Busch-Watchdog 220 WaveLINE 6747 AGM. For Busch-Universal relay switch insert 6404 U. For universal dimmer switch insert 6595 U. Free-field range: approx. 100 m. Send/receive frequency: 868 MHz.

Description	Mod. width	Order details		Price 1 pc.	Pack unit pc.	Weight 1 pc. kg
		Type	Order code			
future® linear						
anthracite	–	6730-81	6730-0-0014		1	
ivory white	–	6730-82	6730-0-0015		1	
aluminium silver	–	6730-83	6730-0-0016		1	
studio white	–	6730-84	6730-0-0017		1	
studio white, matt	–	6730-884	6730-0-0026		1	
black matt	–	6730-885	6730-0-0027		1	
solo®						
ivory white	–	6730-82	6730-0-0015		1	
studio white	–	6730-84	6730-0-0017		1	
grey metallic	–	6730-803	6730-0-0025		1	
Busch-axcent®						
studio white	–	6730-84	6730-0-0017		1	
carat®						
anthracite	–	6730-81	6730-0-0014		1	
ivory white	–	6730-82	6730-0-0015		1	
studio white	–	6730-84	6730-0-0017		1	
pure stainless steel						
stainless steel	–	6730-866	6730-0-0023		1	

Intelligent Building Solutions

WaveLINE Wireless Control – Window Sensor, Universal Detector



6404 U

Busch-Universal relay switch insert

For switching incandescent lamps, 230 V tungsten halogen lamps, fluorescent lamps and low-voltage halogen lamps, that are actuated via transformers. 3 wire connection (neutral conductor required). With operating mode switch for operating mode: switch, time switch. Operation also possible via conventional push buttons (2020 US, 2021/6 UK). For LED display WaveLINE 6730-xxx. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Inputs: 1. Polling voltage: 230 V~, Sensing pulse, L-wire. Outputs: 1x Normally open contact, potential-bound. Suitable for: ohmic, capacitive and inductive loads. Rated current: 10 AX. Rated power: 2300 W/VA.

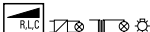
Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6404 U	6401-0-0055		1	



6595 U

Universal Dimmer Switch Insert

For dimming and switching of incandescent lamps, 230 V halogen lamps and low-voltage halogen lamps with conventional or electronic transformers. 2-wire connection (neutral conductor not required). With soft ON/OFF function. Operation also possible via conventional push buttons (2020 US, 2021/6 UK). Do not operate conventional transformers and electronic transformers together on the universal dimmer switch insert. For LED display WaveLINE 6730-xxx. Rated voltage: 230 V~, +10 % / -10 %. Rated frequency: 50 Hz. Inputs: 1. Polling voltage: 230 V~, Sensing pulse, L-wire. Outputs: 1x electronic output, potential-bound. Suitable for: ohmic, capacitive and inductive loads. Rated power: 60 – 450 W/VA.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
	-	6595 U	6590-0-0188		1	

Intelligent Building Solutions

WaveLINE Wireless Control – Window Sensor, Universal Detector



6720-64

WaveLINE window sensor

For monitoring and transmission of the current window handle position (window open, closed, tilted). The WaveLINE window sensor transmits the current window handle position immediately upon operation. Existing window handle is used. The WaveLINE window sensor is installed between the existing window handle and window frame. Suitable for window handle: 7 mm square fastener, 43 mm attachment screw separation, lifter dia. 10 and 12 mm, max. mounting plate size 34 x 77 mm (WxH). No wire laying required. Accessories for assembly (square fastener extension, screws, adapter for lifter) of the WaveLINE window position sensor included in delivery. Battery included in delivery. Battery service life: typically 5 years, therefore practically maintenance-free. Monitoring of battery life and transmission of battery condition. For LED display WaveLINE 6730-xxx. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. Compatible with WaveLINE KNX gateway TP-RF 6770. Free-field range: approx. 100 m. Send frequency: 868 MHz.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6720-64	6720-0-0001		1	
basalt black	–	6720-65	6720-0-0002		1	
stainless steel ¹⁾	–	6720-66	6720-0-0003		1	



6721-64

WaveLINE universal sensor

For monitoring and transmission of the state (open, closed) of dormer windows, skylights, doors and gates. For window surveillance with open fireplace and extractor hood pursuant to Article 4 of the German Fire Prevention Regulations. Additional connection option for an external, potential-free sensor (choice of normally closed or normally open contact). Isolated evaluation and monitoring of channels. The WaveLINE universal sensor immediately transmits the current information when there is a change in state. Addition cyclic transmission for monitoring of the transmission link and the fault-free state of equipment. Attachment of WaveLINE universal sensor and magnets by using adhesive foil or screws. Accessories (adhesive foil, screws, magnet) included in delivery. Battery included in delivery. Battery service life: typically 5 years, therefore practically maintenance-free. Monitoring of battery life and transmission of battery condition. For LED display WaveLINE 6730-xxx. For flush-mounted WaveLINE actuators 6701-101, 6702, 6703, 6704 and 6705-101. Compatible with WaveLINE KNX gateway TP-RF 6770. External sensor max. wire length: 5 m. External sensor terminal connection diameter : 0.14...0.5 mm² (single wire). Free-field range: approx. 100 m. Send frequency: 868 MHz.

Description	Mod. width	Order details		Price 1 pc.	Pack unit	Weight 1 pc.
		Type	Order code			
studio white matt	–	6721-64	6720-0-0004		1	
basalt black	–	6721-65	6720-0-0005		1	

¹⁾ Surface painted.

Solutions for electrical installation in buildings

ABB-free@home®

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Freedom Home becomes smart





ABB-free@home®

Endless installation possibilities

Perfect daily routine. With ABB-free@home® the entire home can be controlled as usual with switches, and now even more practical: with the smartphone, tablet, or computer. Via touch or voice control.



12



-  Blind
-  Light
-  Heating
-  Air-conditioning
-  Door communication



Open for new ideas

With ABB-free@home® everyone can determine for themselves how they want to use the smart living technologies. Both individual functions, such as heating or control of blinds, or a combination of different functions can be implemented. Over the course of time the system can also be flexibly extended, if one so desires. Freedom of choice at all times.



Blinds

Whether blind, roller blind, awning or roller door – with ABB-free@home®, sun protection and energy-saving could not be easier. Opening and closing, as well as adjustment of slats can be automated and controlled. In addition, a weather station for protection during a storm, a timer or astro function can be used. It automatically adjusts the blind according to sunrise and sunset. The relevant data are combined in the System Access Point and are precisely implemented.



Light control

Life begins with light. With ABB-free@home® it can be optimally used, whether for illuminating individual rooms or the entire house. For example, with striking light scenes – for different moods and to suit the occasion. A pleasant side effect here is the cost-saving and environmentally friendly use of energy.



Heating and air-conditioning

Comfortable and energy-saving. The optimum room temperature can be adjusted according to the actual requirement. The heating can be automatically shut off when the windows are open. This reduces energy consumption. The ideal temperature is never the same. Depending on the time of the day, the room temperature controller provides your personal feelgood temperature. The heating valves are controlled wirelessly – with radio controlled thermal actuating drives. The room temperature controllers can be integrated into the switch combination. And the window contacts are networked wirelessly.



Door communication

The ABB-Welcome door communication system can be integrated into ABB-free@home®. The door communication and home automation can be used together with ABB-free@homeTouch 7". For example, the light switches on when the doorbell rings to see visitors more clearly. And for reasons of safety, the video camera records pictures of visitors at the door when no one is home.



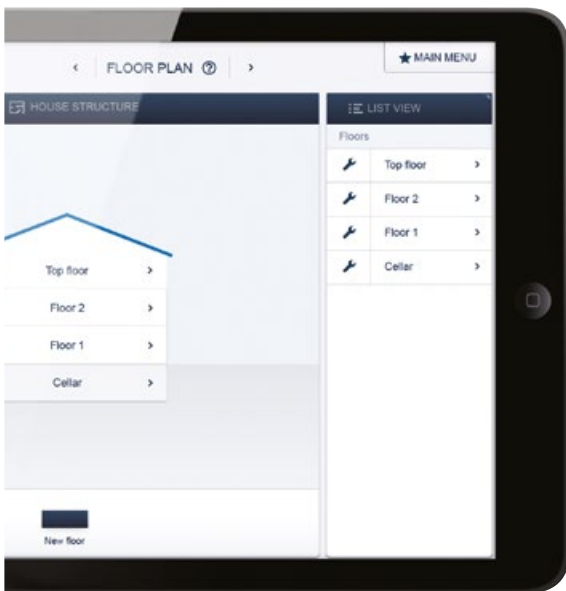
Pictures shown on the display

Practical and convenient. The pictures recorded by the video camera can be displayed on the tablet or smartphone via the ABB-Welcome app. This allows visitors who ring the bell to be recognised even when you are not at home (requires the ABB-Welcome IP gateway and ABB-Welcome outdoor video station).

So easy, anyone can do it

Creating scenes

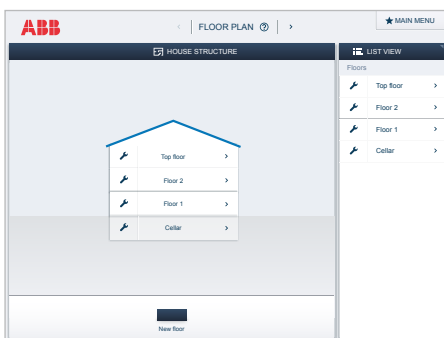
Intuitive operation. The ABB-free@home® app is easy to understand. To start with, all available devices in the rooms are activated in the display, allowing the favourite settings to be made immediately via drag-and-drop.



Easy to install – and even easier to operate

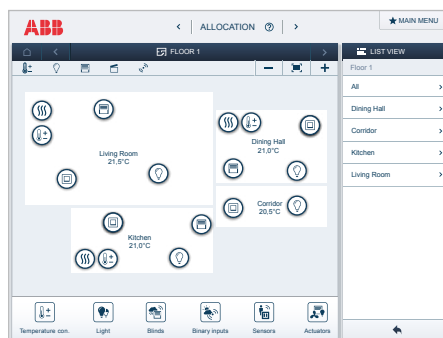
The ABB-free@home® app has been optimised for use in daily life. The wizard guides one through the system. The most important functions are clearly marked with self-explanatory icons. It makes no difference whether the components are connected in the two-wire bus or wirelessly. One has control over a uniform system. For maximum security, a personal password can be activated when logging in. This protects the home automation system against unauthorized access and tampering.

12



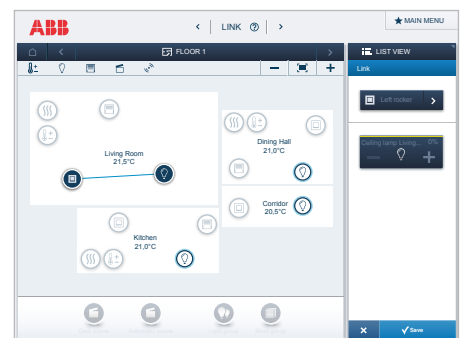
The house

First the electrician sets up the floor plan with its floors and rooms.



Assigning

Then the sensors in the app are integrated in the floor plan and assigned in the system.



Combining

And finally, the elements can be combined according to individual preferences and requirements.



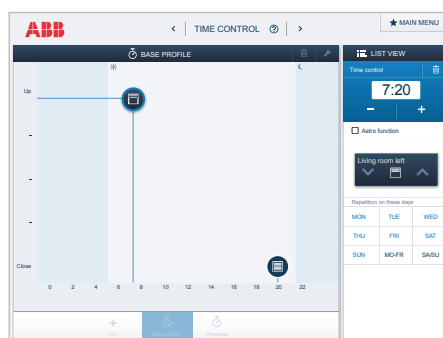
Simple and time-saving

The electrician performs the initial configuration of the system via app. Operation is particularly fast and saves on costly billable hours.



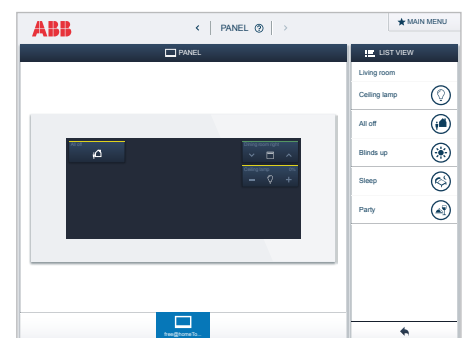
Scene control

The user can easily combine the switches and devices available in each room to create personal scenes. The lighting scene for an evening on the sofa, for example.



Time control

Roller blinds can be automatically moved and lights can be switched at any time or dependent on sunrise or sundown.



Panel setting

The most important functions can be controlled from a central location in the house and easily changed later at any time.

Simply effortless

This saves valuable labour time

Now easier than ever. Only a few components are needed to install ABB-free@home®. For the direct activation of light, the entire system only requires a bus cable, the sensor/actuator unit, a power supply and a System Access Point for programming.



01



02

03

04

05

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The System Access Point

The nerve centre of the ABB-free@home® system is the System Access Point. It provides access for computer, tablet or smartphone via WLAN. This allows the functions of the system to be defined and remotely controlled – even after installation. The System Access Point can also be combined with a network router – via LAN or WLAN. Just connect and you're done. For convenience, the System Access Point creates its own WLAN and the software necessary for project planning and commissioning is already on board. This makes you independent from the structural conditions and no additional software is required. As soon as you are finished with programming you can save the status and restore it again at any time.

The actuators and sensors

Actuators for switching, dimming and control are available for ABB-free@home®. The flush-mounted binary inputs also allow the integration of conventional switches and devices, such as window contacts, for example. Push-buttons, room temperature controllers and movement detectors are available as sensors.

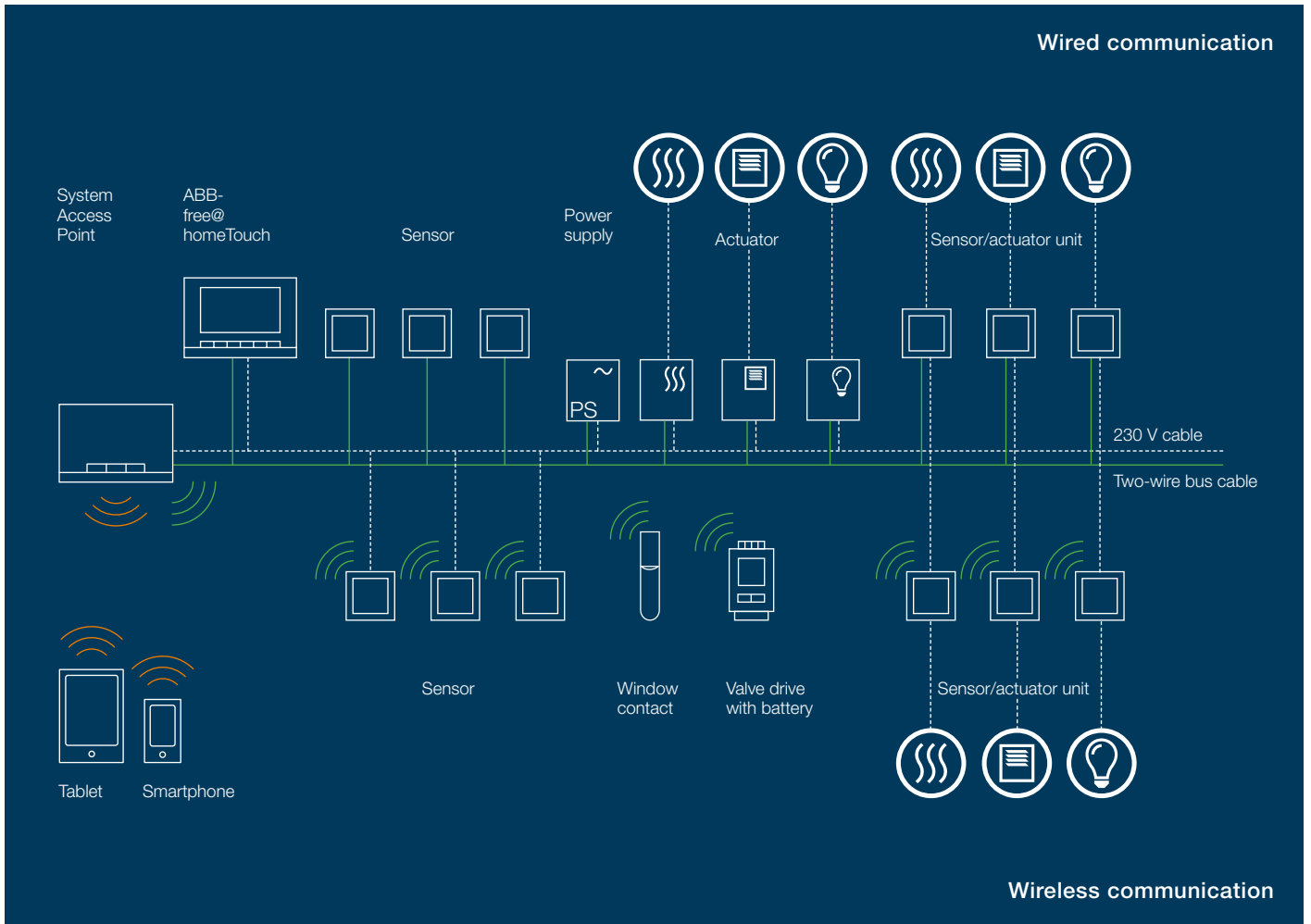
01 System Access Point

02 Sensor, 1gang

03 Switch actuator, 4gang

04 Binary input, 2gang, flush-mounted

05 Power supply



Central distribution board with rail-mounting actuator

The installation of central rail-mounting actuators in the consumer unit makes the installation of the sensors even easier – as only the bus line is located in the flush-mounted box. With this method, the costs for each channel can be reduced.

Sensor/actuator unit for decentralised control

All in one. With the sensor/actuator unit, both the sensor and actuator are located in a single device to save space. The basic function of the unit is pre-configured, which makes programming the basic function unnecessary – but possible if required. The 230-volt line is wired as usual.



Sensor/actuator unit

The sensor/actuator unit combines a control element and, for example, a switch actuator in the single flush-mounted housing. It is installed in the same way as a flush-mounted switch. The device has already been pre-programmed: this means the light can be switched on directly after installation – without any programming. The sensor/actuator unit can, of course, be freely re-configured via the user interface, just like all other sensors and actuators.



Sensor unit, 1gang ^{1) 2)}

For ABB-free@home®

For transmitting switching, push-button, dimming and blind commands to an ABB-free@home® actuator.

Only to be used in combination with ABB-free@home 1gang rockers.

The bus can be connected via enclosed terminal block.

Control element: Switch contacts top/bottom

Display elements: LED as light for orientation or display of the switching state

Bus voltage: 24 V

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 23 mm

Mounting depth: 9 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180075	SU-F-1.0.1	2CKA006220A0117			1
WIRELESS						
	215616	SU-F-1.0.1-WL	2CKA006200A0072			1



Sensor unit, 2gang ^{1) 2)}

For ABB-free@home®

For transmitting switching, push-button, dimming and blind commands to an ABB-free@home® actuator.

Only to be used in combination with ABB-free@home® 2gang rockers.

The bus can be connected via enclosed terminal block.

Control element: Switch contacts top/bottom

Display elements: LED as light for orientation or display of the switching state

Bus voltage: 24 V

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 23 mm

Mounting depth: 9 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180082	SU-F-2.0.1	2CKA006220A0118			1
WIRELESS						
	215623	SU-F-2.0.1-WL	2CKA006200A0073			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



Movement detector 1) 2)

For ABB-free@home®

With select lens for detection with animal access.

For automatic switching of ABB-free@home® actuators dependent on movement and brightness.

Switch-off delay of the actuator can be programmed via the web interface of the System Access Point.

The bus can be connected via enclosed terminal block.

Bus voltage: 24 V

Detection range: frontal: 6 m, lateral: 3 m

Detection angle: 180 °

Brightness limit value: 1 Lux - 500 Lux

Mounting height: 1.1 m - 1.3 m

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 30 mm

Mounting depth: 9 mm

Position for installation: vertical

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	179758	MD-F-1.0.1-212	2CKA006220A0218			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	179796	MD-F-1.0.1-214	2CKA006220A0219			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	179840	MD-F-1.0.1-81	2CKA006220A0212			1
82 ivory white	203675	MD-F-1.0.1-82	2CKA006220A0530			
83 aluminium silver	179925	MD-F-1.0.1-83	2CKA006220A0213			
84 studio white	179871	MD-F-1.0.1-84	2CKA006220A0214			
803 grey metallic	204009	MD-F-1.0.1-803	2CKA006220A0564			
815 yellow	204153	MD-F-1.0.1-815	2CKA006220A0581			
840 antique brass	195741	MD-F-1.0.1-840	2CKA006220A0385			
866 stainless stell	203842	MD-F-1.0.1-866	2CKA006220A0547			
884 studiowhite matt	204481	MD-F-1.0.1-884	2CKA006220A0615			
885 black matt	204658	MD-F-1.0.1-885	2CKA006220A0632			
896 chalet white	204313	MD-F-1.0.1-896	2CKA006220A0598			

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204832	MD-F-1.0.1-92	2CKA006220A0649			1
93 champagne	204986	MD-F-1.0.1-93	2CKA006220A0666			1
94 alpine white	205136	MD-F-1.0.1-94	2CKA006220A0683			1
95 chateau-black	205280	MD-F-1.0.1-95	2CKA006220A0700			1
96 chalet white	205495	MD-F-1.0.1-96	2CKA006220A0717			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



Room thermostat 1) 2)

For ABB-free@home®

Heating/cooling operation.

Control element with room temperature controller function for controlling commercially available actuating drives in connection with HA-M-0.6.1, HA-M-0.12.1, FCA-M-2.3.1.

With display of set-value temperature.

Only to be used in combination with ABB-free@home room temperature controller cover plates CP-RTC-xxx.

The bus can be connected via enclosed terminal block.

Control element: Floating rocker for the selection of set values and operating modes

Display elements: LCD showing operation modes

Bus voltage: 24 V

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 30 mm

Mounting depth: 14 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180099	RTC-F-1	2CKA006220A0122			1
WIRELESS						
	215715	RTC-F-1-WL	2CKA006200A0081			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



Room temperature controller/heating actuator, wireless ^{1) 2)}

For ABB-free@home®

Heating/cooling operation. Communication with the free@home system is carried out wireless.

Control element with room temperature controller function.

With display of set-value temperature.

With integrated switch actuator, e.g. for controlling thermoelectric actuating drives in heating/cooling systems or electric floor heating systems. RTC function is available also without prior programming (preconfigured).

In connection with temperature sensor 6226/T the integrated room temperature controller can be fitted with a remote sensor.

3 wire connection (neutral conductor required).

Only to be used in combination with ABB-free@home® room temperature controller cover plates 6235-xxx.

With fixing claws.

Control element: Floating rocker for the selection of set values and operating modes

Display elements: LCD showing operation modes

Rated voltage: 230 V~

Rated frequency: 50 Hz - 60 Hz

Outputs: 1x Normally open contact, potential-bound

Supply voltage: 230 V~

Suitable for: ohmic

Rated current: 16 A

Output voltage: 230 V~

Rated power: 3 680 W

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 48 mm

Mounting depth: 32 mm

WIRELESS	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	4011395	Type code	Order code			
	EAN				kg	pc.
	215722	RTC-F-2.1-1-WL	2CKA006200A0082			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

ABB-free@home®

Sensors, room temperature controllers, movement detector



ABB-free@homeTouch 7" ^{1) 2)}

Indoor video station with 17.8 cm (7") touch display

For ABB-free@home® and ABB-Welcome®.

For the central control of up to 16 configurable ABB-free@home® functions and display of the video image of an outdoor door communication station.

During the conversation a picture of the visitor can be taken and stored in the picture memory.

For door calls during absence three pictures of the visitor are automatically stored in the picture memory.

With hands-free function, volume is adjustable.

Easy operation keys for door openers, mute function and light.

Different bell sounds are adjustable for door and floor ringing; five polyphone bell sounds are available.

Volume of bell sounds is adjustable.

SD card slot for extension of the picture memory.

Suitable as room temperature controller extension unit.

For surface mounting.

The bus can be connected via enclosed terminal block.

Display size: 17,8 cm (7")

Display resolution: 800 x 480

Display elements: TFT Touch Display

Protection class (Device): IP 30

Dimensions: (L x W x D): 155 mm x 218 mm x 29 mm

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
611 white	182420	DP7-S-611	2CKA008300A0356			1
625 black	182383	DP7-S-625	2CKA008300A0357			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



ABB-free@homeTouch 4.3"

For the central control of up to 16 configurable ABB-free@home® functions.

For the display of configurable system messages.

A configurable primary function can be triggered with a multi-touch gesture.

Capacitive touch screen with closed glass surface.

With integrated room temperature controller and temperature sensor.

In connection with temperature sensor 6226/T the integrated room temperature controller can be fitted with a remote sensor.

Suitable as room temperature controller extension unit (up to 8).

Requires additional power supply 24 VDC; e.g. 6358-102

Display size: 10.9 cm (4.3")

Display resolution: 480 x 854

Mounting height: 8 mm

Control element: freely programmable touch surfaces, Display elements: 1 LCD display,

Bus voltage: 24 V-,

Protection class (Device): IP 20, Temperature range (Device): -5 °C to 40 °C,

Dimensions: (L x W x D): 104 mm x 143 mm x 53 mm,

No additional commissioning software is required., Programming only with bus voltage applied via the web interface of the System Access Point.

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
625 black	180198	DP4-1-625	2CKA006220A0120			
611 white	180235	DP4-1-611	2CKA006220A0119			



Temperature sensor

For ABB-free@home®

For use as remote sensor.

Line type: H03 VV-F

Cable length: 4 m

Type: NTC 10 kohm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	213315	6226/T	2CKA006220A0720			1



Flush-mounted installation box

For ABB-free@home®

VFor flush-mounted und hollow-wall installation of the ABB-free@homeTouch 4.3" 6226-6XX.

Windproof.

Installation dimensions (H x W x D): 82 mm x 123 mm x 50 mm

Installation depth: 50 mm

Mounting depth: 50 mm

Halogen free.

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	202296	DP4-F	2CKA006220A0389			1

ABB-free@home®

Sensor/actuator combinations



Switch actuator sensor, 1/1gang 1) 2)

For ABB-free@home®

For switching 127 V~/230 V~ consumers.

With integrated switch actuator.

Switching function is available also without prior programming (pre-configured).

Configuration can be changed later via the web interface (groups, scenes, etc.).

Only to be used in combination with ABB-free@home® 1 gang rockers.

The bus can be connected via enclosed terminal block.

When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.

Control element: Switch contacts top/bottom

Display elements: LED as light for orientation or display of the switching state

Bus voltage: 24 V

Outputs: 1x Normally open contact, potential free

Suitable for: ohmic

Rated current: 10 A

Output voltage: 230 V~

Rated power: 2300 W

Suitable for: capacitive

Rated current: 10 AX

Rated power: 2300 VA

Suitable for: inductive

Rated current: 10 AX

Rated power: 2300 VA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm

Mounting depth: 32 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180112	SSA-F-1.1.1	2CKA006220A0123			1
WIRELESS						
	215630	SSA-F-1.1.1-WL	2CKA006200A0074			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



Switch actuator sensor, 2/1 gang ^{1) 2)}

For ABB-free@home[®]

For switching 127 V~/230 V~ consumers.

With integrated switch actuator.

Switching function is available also without prior programming (left sensor channel is pre-configured).

Configuration can be changed later via the web interface (groups, scenes, etc.).

The right sensor channel for programming additional functions (groups, scenes, etc.).

Only to be used in combination with ABB-free@home[®] 2gang rockers.

The bus can be connected via enclosed terminal block.

When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.

Control element: Switch contacts top/bottom

Display elements: LED as light for orientation or display of the switching state

Bus voltage: 24 V

Outputs: 1x Normally open contact, potential free

Suitable for: ohmic

Rated current: 10 A

Output voltage: 230 V~

Rated power: 2300 W

Suitable for: capacitive

Rated current: 10 AX

Rated power: 2300 VA

Suitable for: inductive

Rated current: 10 AX

Rated power: 2300 VA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm

Mounting depth: 32 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180129	SSA-F-2.1.1	2CKA006220A0124			1
WIRELESS						
	215647	SSA-F-2.1.1-WL	2CKA006200A0075			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

ABB-free@home®

Sensor/actuator combinations



Switch actuator sensor, 2/2gang 1) 2)

For ABB-free@home®

For switching 127 V~/230 V~ consumers.

With integrated 2gang switch actuator.

Switching function is available also without prior programming (both sensor channels are pre-configured).

Configuration can be changed later via the web interface (groups, scenes, etc.).

Only to be used in combination with ABB-free@home® 2gang rockers.

The bus can be connected via enclosed terminal block.

When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.

Control element: Switch contacts top/bottom

Display elements: LED as light for orientation or display of the switching state

Bus voltage: 24 V

Outputs: 2x Normally open contact, potential free

Suitable for: ohmic

Rated current: 5 A

Output voltage: 230 V~

Rated power: 1380 W

Suitable for: capacitive

Rated current: 4 AX

Rated power: 920 VA

Suitable for: inductive

Rated current: 4 AX

Rated power: 920 VA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm

Mounting depth: 32 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180136	SSA-F-2.2.1	2CKA006220A0125			1
WIRELESS						
	215654	SSA-F-2.2.1-WL	2CKA006200A0076			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



Dimming actuator sensor, 1/1gang 1) 2) 3)

For ABB-free@home®

For dimming 230 V~ loads.

With integrated universal dimming actuator for controlling LEDs, incandescent lamps, 230 V halogen lamps, low-voltage halogen lamps with conventional or electronic transformers, and dimmable energy-saving halogen lamps.

For dimmable Retrofit-LEDs (LEDi).

Dimming function is available also without prior programming (pre-configured).

Configuration can be changed later via the web interface (groups, scenes, etc.).

Only to be used in combination with ABB-free@home® 1gang rockers.

The bus can be connected via enclosed terminal block.

When installing in the flush-mounted box, a spatial division between the bus cable and 230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.

Control element: Switch contacts top/bottom

Display elements: LED as light for orientation or display of the switching state

Bus voltage: 24 V

Outputs: 1x dimming channel

Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers or electronic transformer.

Rated power: 10 - 180 W/VA

Suitable for: LEDi and energy-saving bulbs; typical

Rated power: 2 - 80 W/VA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm

Mounting depth: 32 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180143	SDA-F-1.1.1	2CKA006220A0126			1
WIRELESS						
	215661	SDA-F-1.1.1-WL	2CKA006200A0077			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

3) The power is supplied by the ABB-Welcome system controller 83300.

ABB-free@home®

Sensor/actuator combinations



Dimming actuator sensor, 2/1 gang ^{1) 2) 3)}

For ABB-free@home®

For dimming 230 V~ loads.

With integrated universal dimming actuator for controlling LEDs, incandescent lamps, 230 V halogen lamps, low-voltage halogen lamps with conventional or electronic transformers, and dimmable energy-saving halogen lamps.

For dimmable Retrofit-LEDs (LEDi).

Dimming function is available also without prior programming (left sensor channel is pre-configured).

Configuration can be changed later via the web interface (groups, scenes, etc.).

The right sensor channel for programming additional functions (groups, scenes, etc.).

Only to be used in combination with ABB-free@home® 2gang rockers.

The bus can be connected via enclosed terminal block.

When installing in the flush-mounted box, a spatial division between the bus cable and 230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.

Control element: Switch contacts top/bottom

Display elements: LED as light for orientation or display of the switching state

Bus voltage: 24 V

Outputs: 1x dimming channel

Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers or electronic transformer.

Rated power: 10 - 180 W/VA

Suitable for: LEDi and energy-saving bulbs; typical

Rated power: 2 - 80 W/VA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm

Mounting depth: 32 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180150	SDA-F-2.1.1	2CKA006220A0127			1
WIRELESS						
	215678	SDA-F-2.1.1-WL	2CKA006200A0078			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

3) The power is supplied by the ABB-Welcome system controller 83300.



Blind actuator sensor, 1/1gang ^{1) 2)}

For ABB-free@home®

For controlling blind or awning motors.

With integrated blind actuator.

Blind function is available also without prior programming (pre-configured).

Configuration can be changed later via the web interface (groups, scenes, etc.).

Only to be used in combination with ABB-free@home® 1gang rockers.

The bus can be connected via enclosed terminal block.

When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.

Control element: Switch contacts top/bottom

Display elements: LED as light for orientation or display of the switching state

Bus voltage: 24 V

Outputs: 1x Change-over contacts/normally open contact, potential-bound

Suitable for: Operation mode Blind

Rated current: 4 A

Output voltage: 230 V~

Rated power: 920 VA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm

Mounting depth: 32 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180167	SBA-F-1.1.1	2CKA006220A0128			1
WIRELESS						
	215685	SBA-F-1.1.1-WL	2CKA006200A0079			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

ABB-free@home[®]

Sensor/actuator combinations



Blind actuator sensor, 2/1gang ^{1) 2)}

For ABB-free@home[®]

For controlling blind or awning motors.

With integrated blind actuator.

Blind function is available also without prior programming (left sensor channel is pre-configured).

Configuration can be changed later via the web interface (groups, scenes, etc.).

The right sensor channel for programming additional functions (groups, scenes, etc.).

Only to be used in combination with ABB-free@home[®] 2gang rockers.

The bus can be connected via enclosed terminal block.

When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.

Control element: Switch contacts top/bottom

Display elements: LED as light for orientation or display of the switching state

Bus voltage: 24 V

Outputs: 1x Change-over contacts/normally open contact, potential-bound

Suitable for: Operation mode Blind

Rated current: 4 A

Output voltage: 230 V~

Rated power: 920 VA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 45 mm

Mounting depth: 32 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180174	SBA-F-2.1.1	2CKA006220A0129			1
WIRELESS						
	215692	SBA-F-2.1.1-WL	2CKA006200A0080			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



Movement detector/switch actuator, 1 gang ^{1) 2)}

For ABB-free@home®

With select lens for detection with animal access.

For automatic switching of ABB-free@home® actuators dependent on movement and brightness.

Switch-off delay of the actuator can be programmed via the web interface of the System Access Point.

For switching 127 V~/230 V~ consumers. With integrated switch actuator.

Switching function is available also without prior programming (pre-configured).

Configuration can be changed later via the web interface (groups, scenes, etc.).

The bus can be connected via enclosed terminal block. When installing in the flush-mounted box, a spatial division between the bus cable and 127 V/230 V installation cable is to be adhered to! If this minimum distance is not possible, use electronic boxes or insulating tubes.

Bus voltage: 24 V

Outputs: 1x Normally open contact, potential free

Suitable for: ohmic

Rated current: 10 A

Output voltage: 230 V~

Rated power: 2300 W

Suitable for: capacitive

Rated current: 10 AX

Rated power: 2300 VA

Suitable for: inductive

Rated current: 10 AX

Rated power: 2300 VA

Detection range: frontal: 6 m, lateral: 3 m

Detection angle: 180°

Brightness limit value: 1 Lux - 500 Lux

Mounting height: 1.1 m - 1.3 m

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 53 mm

Mounting depth: 32 mm

Position for installation: vertical

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	179765	MSA-F-1.1.1-212	2CKA006220A0220			1
WIRELESS						
	215821	MSA-F-1.1.1-212-WL	2CKA006200A0092			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	179802	MSA-F-1.1.1-214	2CKA006220A0221			1
WIRELESS						
	215838	MSA-F-1.1.1-214-WL	2CKA006200A0093			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

ABB-free@home®

Sensor/actuator combinations

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
81 antracite	179840	MSA-F-1.1.1-81	2CKA006220A0215			1
82 ivory white	203682	MSA-F-1.1.1-82	2CKA006220A0531			1
83 aluminium silver	179949	MSA-F-1.1.1-83	2CKA006220A0216			1
84 studio white	179895	MSA-F-1.1.1-84	2CKA006220A0217			1
803 grey metallic	204016	MSA-F-1.1.1-803	2CKA006220A0565			1
815 yellow	204160	MSA-F-1.1.1-815	2CKA006220A0582			1
840 antique brass	195758	MSA-F-1.1.1-840	2CKA006220A0386			1
866 stainless stell	203859	MSA-F-1.1.1-866	2CKA006220A0548			1
884 studiowhite matt	204498	MSA-F-1.1.1-884	2CKA006220A0616			1
885 black matt	204665	MSA-F-1.1.1-885	2CKA006220A0633			1
896 chalet white	204320	MSA-F-1.1.1-896	2CKA006220A0599			1

WIRELESS

81 antracite	215739	MSA-F-1.1.1-81-WL	2CKA006200A0083			1
82 ivory white	215746	MSA-F-1.1.1-82-WL	2CKA006200A0084			1
83 aluminium silver	215753	MSA-F-1.1.1-83-WL	2CKA006200A0085			1
84 studio white	215760	MSA-F-1.1.1-84-WL	2CKA006200A0086			1
803 grey metallic	215845	MSA-F-1.1.1-803-WL	2CKA006200A0094			1
866 stainless stell	215869	MSA-F-1.1.1-866-WL	2CKA006200A0096			1
884 studiowhite matt	215876	MSA-F-1.1.1-884-WL	2CKA006200A0097			1
885 black matt	215883	MSA-F-1.1.1-885-WL	2CKA006200A0098			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
92 white	204849	MSA-F-1.1.1-92	2CKA006220A0650			1
93 champagne	204993	MSA-F-1.1.1-93	2CKA006220A0667			1
94 alpine white	205143	MSA-F-1.1.1-94	2CKA006220A0684			1
95 chateau-black	205297	MSA-F-1.1.1-95	2CKA006220A0701			1
96 chalet white	205501	MSA-F-1.1.1-96	2CKA006220A0718			1

WIRELESS

92 white	215777	MSA-F-1.1.1-92-WL	2CKA006200A0087			1
93 champagne	215784	MSA-F-1.1.1-93-WL	2CKA006200A0088			1
94 alpine white	215791	MSA-F-1.1.1-94-WL	2CKA006200A0089			1
95 chateau-black	215807	MSA-F-1.1.1-95-WL	2CKA006200A0090			1
96 chalet white	215814	MSA-F-1.1.1-96-WL	2CKA006200A0091			1

ABB-free@home® Covers



Rocker

1gang, without printing

As cover for ABB-free@home® sensor units and sensor/actuator units

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180747	SR-1-212	2CKA006220A0182			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181133	SR-1-214	2CKA006220A0183			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181492	SR-1-81	2CKA006220A0137			1
82 ivory white	203453	SR-1-82	2CKA006220A0516			1
83 aluminium silver	182178	SR-1-83	2CKA006220A0138			1
84 studio white	181836	SR-1-84	2CKA006220A0139			1
803 grey metallic	203866	SR-1-803	2CKA006220A0550			1
815 yellow	204023	SR-1-815	2CKA006220A0567			1
840 antique brass	195598	SR-1-840	2CKA006220A0371			1
866 stainless stell	203699	SR-1-866	2CKA006220A0533			1
884 studiowhite matt	204337	SR-1-884	2CKA006220A0601			1
885 black matt	204511	SR-1-885	2CKA006220A0618			1
896 chalet white	204177	SR-1-896	2CKA006220A0584			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204689	SR-1-92	2CKA006220A0635			1
93 champagne	204856	SR-1-93	2CKA006220A0652			1
94 alpine white	205006	SR-1-94	2CKA006220A0669			1
95 chateau-black	205150	SR-1-95	2CKA006220A0686			1
96 chalet white	205365	SR-1-96	2CKA006220A0703			1

ABB-free@home® Covers



Rocker 1 gang, with "Light" icon

As cover for ABB-free@home® sensor units and sensor/actuator units

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180754	SRL-1-212	2CKA006220A0184			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181140	SRL-1-214	2CKA006220A0185			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181515	SRL-1-81	2CKA006220A0140			1
82 ivory white	203460	SRL-1-82	2CKA006220A0517			1
83 aluminium silver	182185	SRL-1-83	2CKA006220A0141			1
84 studio white	181843	SRL-1-84	2CKA006220A0142			1
803 grey metallic	203873	SRL-1-803	2CKA006220A0551			1
815 yellow	204030	SRL-1-815	2CKA006220A0568			1
840 antique brass	195604	SRL-1-840	2CKA006220A0372			1
866 stainless stell	203705	SRL-1-866	2CKA006220A0534			1
884 studiowhite matt	204344	SRL-1-884	2CKA006220A0602			1
885 black matt	204528	SRL-1-885	2CKA006220A0619			1
896 chalet white	204184	SRL-1-896	2CKA006220A0585			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204696	SRL-1-92	2CKA006220A0636			1
93 champagne	204863	SRL-1-93	2CKA006220A0653			1
94 alpine white	205013	SRL-1-94	2CKA006220A0670			1
95 chateau-black	205167	SRL-1-95	2CKA006220A0687			1
96 chalet white	205372	SRL-1-96	2CKA006220A0704			1



Rocker

1gang, with "Blind" icon

As cover for ABB-free@home® sensor units and sensor/actuator units

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180761	SRB-1-212	2CKA006220A0186			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181157	SRB-1-214	2CKA006220A0187			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181522	SRB-1-81	2CKA006220A0143			1
82 ivory white	203477	SRB-1-82	2CKA006220A0518			1
83 aluminium silver	182192	SRB-1-83	2CKA006220A0144			1
84 studio white	181850	SRB-1-84	2CKA006220A0145			1
803 grey metallic	203880	SRB-1-803	2CKA006220A0552			1
815 yellow	204047	SRB-1-815	2CKA006220A0569			1
840 antique brass	195611	SRB-1-840	2CKA006220A0373			1
866 stainless stell	203712	SRB-1-866	2CKA006220A0535			1
884 studiowhite matt	204368	SRB-1-884	2CKA006220A0603			1
885 black matt	204535	SRB-1-885	2CKA006220A0620			1
896 chalet white	204191	SRB-1-896	2CKA006220A0586			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204719	SRB-1-92	2CKA006220A0637			1
93 champagne	204870	SRB-1-93	2CKA006220A0654			1
94 alpine white	205020	SRB-1-94	2CKA006220A0671			1
95 chateau-black	205174	SRB-1-95	2CKA006220A0688			1
96 chalet white	205389	SRB-1-96	2CKA006220A0705			1

ABB-free@home[®] Covers



Rocker 1gang, with "Scene" icon

As cover for ABB-free@home[®] sensor units and sensor/actuator units

Busch-Duro 2000[®] SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180778	SRS-1-212	2CKA006220A0188			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181171	SRS-1-214	2CKA006220A0189			1

future[®] linear, Busch-axcent[®], solo[®], pure stainless steel, carat[®], Busch-dynasty[®]

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181539	SRS-1-81	2CKA006220A0146			1
82 ivory white	203484	SRS-1-82	2CKA006220A0519			1
83 aluminium silver	182215	SRS-1-83	2CKA006220A0147			1
84 studio white	181867	SRS-1-84	2CKA006220A0148			1
803 grey metallic	203897	SRS-1-803	2CKA006220A0553			1
815 yellow	204054	SRS-1-815	2CKA006220A0570			1
840 antique brass	195628	SRS-1-840	2CKA006220A0374			1
866 stainless stell	203729	SRS-1-866	2CKA006220A0536			1
884 studiowhite matt	204351	SRS-1-884	2CKA006220A0604			1
885 black matt	204542	SRS-1-885	2CKA006220A0621			1
896 chalet white	204207	SRS-1-896	2CKA006220A0587			1

basic55[®]

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204726	SRS-1-92	2CKA006220A0638			1
93 champagne	204887	SRS-1-93	2CKA006220A0655			1
94 alpine white	205037	SRS-1-94	2CKA006220A0672			1
95 chateau-black	205181	SRS-1-95	2CKA006220A0689			1
96 chalet white	205396	SRS-1-96	2CKA006220A0706			1



Rocker

1gang, with “Dimmer” icon

As cover for ABB-free@home® sensor units and sensor/actuator units

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180785	SRD-1-212	2CKA006220A0190			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181188	SRD-1-214	2CKA006220A0191			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181546	SRD-1-81	2CKA006220A0149			1
82 ivory white	203491	SRD-1-82	2CKA006220A0520			1
83 aluminium silver	182222	SRD-1-83	2CKA006220A0150			1
84 studio white	181874	SRD-1-84	2CKA006220A0151			1
803 grey metallic	203910	SRD-1-803	2CKA006220A0554			1
815 yellow	204061	SRD-1-815	2CKA006220A0571			1
840 antique brass	195635	SRD-1-840	2CKA006220A0375			1
866 stainless stell	203743	SRD-1-866	2CKA006220A0537			1
884 studiowhite matt	204382	SRD-1-884	2CKA006220A0605			1
885 black matt	204559	SRD-1-885	2CKA006220A0622			1
896 chalet white	204214	SRD-1-896	2CKA006220A0588			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204733	SRD-1-92	2CKA006220A0639			1
93 champagne	204894	SRD-1-93	2CKA006220A0656			1
94 alpine white	205044	SRD-1-94	2CKA006220A0673			1
95 chateau-black	205198	SRD-1-95	2CKA006220A0690			1
96 chalet white	205402	SRD-1-96	2CKA006220A0707			1

ABB-free@home® Covers



Rocker

2gang left/right, without printing

As cover for ABB-free@home® sensor units and sensor/actuator units

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180792	SR-2-212	2CKA006220A0192			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181195	SR-2-214	2CKA006220A0193	10		1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181553	SR-2-81	2CKA006220A0152			1
82 ivory white	203507	SR-2-82	2CKA006220A0521			1
83 aluminium silver	182239	SR-2-83	2CKA006220A0153			1
84 studio white	181881	SR-2-84	2CKA006220A0154			1
803 grey metallic	203927	SR-2-803	2CKA006220A0555			1
815 yellow	204078	SR-2-815	2CKA006220A0572			1
840 antique brass	195642	SR-2-840	2CKA006220A0376			1
866 stainless stell	203750	SR-2-866	2CKA006220A0538			1
884 studiowhite matt	204399	SR-2-884	2CKA006220A0606			1
885 black matt	204566	SR-2-885	2CKA006220A0623			1
896 chalet white	204221	SR-2-896	2CKA006220A0589			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204740	SR-2-92	2CKA006220A0640			1
93 champagne	204900	SR-2-93	2CKA006220A0657			1
94 alpine white	205051	SR-2-94	2CKA006220A0674			1
95 chateau-black	205204	SR-2-95	2CKA006220A0691			1
96 chalet white	205419	SR-2-96	2CKA006220A0708			1



Rocker

2gang left, with "Light" icon

As cover for ABB-free@home® sensor units and sensor/actuator units

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180808	SRL-2-L-212	2CKA006220A0194			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181218	SRL-2-L-214	2CKA006220A0195			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181560	SRL-2-L-81	2CKA006220A0155			1
82 ivory white	203606	SRL-2-L-82	2CKA006220A0522			1
83 aluminium silver	182246	SRL-2-L-83	2CKA006220A0156			1
84 studio white	181898	SRL-2-L-84	2CKA006220A0157			1
803 grey metallic	203934	SRL-2-L-803	2CKA006220A0556			1
815 yellow	204085	SRL-2-L-815	2CKA006220A0573			1
840 antique brass	195659	SRL-2-L-840	2CKA006220A0377			1
866 stainless stell	203767	SRL-2-L-866	2CKA006220A0539			1
884 studiowhite matt	204412	SRL-2-L-884	2CKA006220A0607			1
885 black matt	204573	SRL-2-L-885	2CKA006220A0624			1
896 chalet white	204238	SRL-2-L-896	2CKA006220A0590			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204757	SRL-2-L-92	2CKA006220A0641			1
93 champagne	204917	SRL-2-L-93	2CKA006220A0658			1
94 alpine white	205068	SRL-2-L-94	2CKA006220A0675			1
95 chateau-black	205211	SRL-2-L-95	2CKA006220A0692			1
96 chalet white	205426	SRL-2-L-96	2CKA006220A0709			1



Rocker

2gang left/right, "Blind" icon

As cover for ABB-free@home[®] sensor units and sensor/actuator units

Busch-Duro 2000[®] SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180815	SRB-2-212	2CKA006220A0196			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181225	SRB-2-214	2CKA006220A0197			1

future[®] linear, Busch-axcent[®], solo[®], pure stainless steel, carat[®], Busch-dynasty[®]

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181577	SRB-2-81	2CKA006220A0158			1
82 ivory white	203613	SRB-2-82	2CKA006220A0523			1
83 aluminium silver	182253	SRB-2-83	2CKA006220A0159			1
84 studio white	181911	SRB-2-84	2CKA006220A0160			1
803 grey metallic	203941	SRB-2-803	2CKA006220A0557			1
815 yellow	204092	SRB-2-815	2CKA006220A0574			1
840 antique brass	195666	SRB-2-840	2CKA006220A0378			1
866 stainless stell	203774	SRB-2-866	2CKA006220A0540			1
884 studiowhite matt	204429	SRB-2-884	2CKA006220A0608			1
885 black matt	204580	SRB-2-885	2CKA006220A0625			1
896 chalet white	204245	SRB-2-896	2CKA006220A0591			1

basic55[®]

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204764	SRB-2-92	2CKA006220A0642			1
93 champagne	204924	SRB-2-93	2CKA006220A0659			1
94 alpine white	205075	SRB-2-94	2CKA006220A0676			1
95 chateau-black	205228	SRB-2-95	2CKA006220A0693			1
96 chalet white	205433	SRB-2-96	2CKA006220A0710			1



Rocker

2gang left, with "Scene" icon

As cover for ABB-free@home[®] sensor units and sensor/actuator units

Busch-Duro 2000[®] SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180839	SRS-2-L-212	2CKA006220A0198			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181232	SRS-2-L-214	2CKA006220A0199			1

future[®] linear, Busch-axcent[®], solo[®], pure stainless steel, carat[®], Busch-dynasty[®]

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181584	SRS-2-L-81	2CKA006220A0161			1
82 ivory white	203620	SRS-2-L-82	2CKA006220A0524			1
83 aluminium silver	182260	SRS-2-L-83	2CKA006220A0162			1
84 studio white	181928	SRS-2-L-84	2CKA006220A0163			1
803 grey metallic	203958	SRS-2-L-803	2CKA006220A0558			1
815 yellow	204108	SRS-2-L-815	2CKA006220A0575			1
840 antique brass	195673	SRS-2-L-840	2CKA006220A0379			1
866 stainless stell	203781	SRS-2-L-866	2CKA006220A0541			1
884 studiowhite matt	204436	SRS-2-L-884	2CKA006220A0609			1
885 black matt	204597	SRS-2-L-885	2CKA006220A0626			1
896 chalet white	204252	SRS-2-L-896	2CKA006220A0592			1

basic55[®]

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204788	SRS-2-L-92	2CKA006220A0643			1
93 champagne	204931	SRS-2-L-93	2CKA006220A0660			1
94 alpine white	205082	SRS-2-L-94	2CKA006220A0677			1
95 chateau-black	205235	SRS-2-L-95	2CKA006220A0694			1
96 chalet white	205440	SRS-2-L-96	2CKA006220A0711			1



Rocker

2gang left, with “Dimmer” icon

As cover for ABB-free@home® sensor units and sensor/actuator units

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180846	SRD-2-L-212	2CKA006220A0200			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181249	SRD-2-L-214	2CKA006220A0201			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181591	SRD-2-L-81	2CKA006220A0164			1
82 ivory white	203637	SRD-2-L-82	2CKA006220A0525			1
83 aluminium silver	182277	SRD-2-L-83	2CKA006220A0165			1
84 studio white	181935	SRD-2-L-84	2CKA006220A0166			1
803 grey metallic	203965	SRD-2-L-803	2CKA006220A0559			1
815 yellow	204115	SRD-2-L-815	2CKA006220A0576			1
840 antique brass	195680	SRD-2-L-840	2CKA006220A0380			1
866 stainless stell	203798	SRD-2-L-866	2CKA006220A0542			1
884 studiowhite matt	204443	SRD-2-L-884	2CKA006220A0610			1
885 black matt	204610	SRD-2-L-885	2CKA006220A0627			1
896 chalet white	204269	SRD-2-L-896	2CKA006220A0593			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204795	SRD-2-L-92	2CKA006220A0644			1
93 champagne	204948	SRD-2-L-93	2CKA006220A0661			1
94 alpine white	205099	SRD-2-L-94	2CKA006220A0678			1
95 chateau-black	205242	SRD-2-L-95	2CKA006220A0695			1
96 chalet white	205457	SRD-2-L-96	2CKA006220A0712			1



Rocker

2gang right, with "Light" icon

As cover for ABB-free@home® sensor units and sensor/actuator units

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180853	SRL-2-R-212	2CKA006220A0202			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181263	SRL-2-R-214	2CKA006220A0203			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181614	SRL-2-R-81	2CKA006220A0167			1
82 ivory white	203651	SRL-2-R-82	2CKA006220A0527			1
83 aluminium silver	182284	SRL-2-R-83	2CKA006220A0168			1
84 studio white	181942	SRL-2-R-84	2CKA006220A0169			1
803 grey metallic	203989	SRL-2-R-803	2CKA006220A0561			1
815 yellow	204139	SRL-2-R-815	2CKA006220A0578			1
840 antique brass	195697	SRL-2-R-840	2CKA006220A0381			1
866 stainless stell	203828	SRL-2-R-866	2CKA006220A0544			1
884 studiowhite matt	204467	SRL-2-R-884	2CKA006220A0612			1
885 black matt	204634	SRL-2-R-885	2CKA006220A0629			1
896 chalet white	204283	SRL-2-R-896	2CKA006220A0595			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204818	SRL-2-R-92	2CKA006220A0646			1
93 champagne	204962	SRL-2-R-93	2CKA006220A0663			1
94 alpine white	205112	SRL-2-R-94	2CKA006220A0680			1
95 chateau-black	205266	SRL-2-R-95	2CKA006220A0697			1
96 chalet white	205471	SRL-2-R-96	2CKA006220A0714			1



Rocker

2gang right, with “Scene” icon

As cover for ABB-free@home® sensor units and sensor/actuator units

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180884	SRS-2-R-212	2CKA006220A0206			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181287	SRS-2-R-214	2CKA006220A0207			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181638	SRS-2-R-81	2CKA006220A0173			1
82 ivory white	203668	SRS-2-R-82	2CKA006220A0528			1
83 aluminium silver	182314	SRS-2-R-83	2CKA006220A0174			1
84 studio white	181966	SRS-2-R-84	2CKA006220A0175			1
803 grey metallic	203996	SRS-2-R-803	2CKA006220A0562			1
815 yellow	204146	SRS-2-R-815	2CKA006220A0579			1
840 antique brass	195710	SRS-2-R-840	2CKA006220A0382			1
866 stainless stell	203835	SRS-2-R-866	2CKA006220A0545			1
884 studiowhite matt	204474	SRS-2-R-884	2CKA006220A0613			1
885 black matt	204641	SRS-2-R-885	2CKA006220A0630			1
896 chalet white	204290	SRS-2-R-896	2CKA006220A0596			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204825	SRS-2-R-92	2CKA006220A0647			1
93 champagne	204979	SRS-2-R-93	2CKA006220A0664			1
94 alpine white	205129	SRS-2-R-94	2CKA006220A0681			1
95 chateau-black	205273	SRS-2-R-95	2CKA006220A0698			1
96 chalet white	205488	SRS-2-R-96	2CKA006220A0715			1



Rocker

2gang right, with "Dimmer" icon

As cover for ABB-free@home® sensor units and sensor/actuator units

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	188507	SRD-2-R-212	2CKA006220A0261			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	188514	SRD-2-R-214	2CKA006220A0262			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	188477	SRD-2-R-81	2CKA006220A0258			1
82 ivory white	203644	SRD-2-R-82	2CKA006220A0526			1
83 aluminium silver	188484	SRD-2-R-83	2CKA006220A0259			1
84 studio white	188491	SRD-2-R-84	2CKA006220A0260			1
803 grey metallic	203972	SRD-2-R-803	2CKA006220A0560			1
815 yellow	204122	SRD-2-R-815	2CKA006220A0577			1
840 antique brass	195727	SRD-2-R-840	2CKA006220A0383			1
866 stainless stell	203811	SRD-2-R-866	2CKA006220A0543			1
884 studiowhite matt	204450	SRD-2-R-884	2CKA006220A0611			1
885 black matt	204627	SRD-2-R-885	2CKA006220A0628			1
896 chalet white	204276	SRD-2-R-896	2CKA006220A0594			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	204801	SRD-2-R-92	2CKA006220A0645			1
93 champagne	204955	SRD-2-R-93	2CKA006220A0662			1
94 alpine white	205105	SRD-2-R-94	2CKA006220A0679			1
95 chateau-black	205259	SRD-2-R-95	2CKA006220A0696			1
96 chalet white	205464	SRD-2-R-96	2CKA006220A0713			1



Cover plate
For room thermostat.

As cover for ABB-free@home® room temperature controller RTC-F-1.

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	180914	CP-RTC-212	2CKA006220A0210			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	181317	CP-RTC-214	2CKA006220A0211			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	181652	CP-RTC-81	2CKA006220A0179			1
82 ivory white	205693	CP-RTC-82	2CKA006220A0529			1
83 aluminium silver	182345	CP-RTC-83	2CKA006220A0180			1
84 studio white	181980	CP-RTC-84	2CKA006220A0181			1
803 grey metallic	205747	CP-RTC-803	2CKA006220A0563			1
815 yellow	205761	CP-RTC-815	2CKA006220A0580			1
840 antique brass	195734	CP-RTC-840	2CKA006220A0384			1
866 stainless stell	205723	CP-RTC-866	2CKA006220A0546			1
884 studiowhite matt	205815	CP-RTC-884	2CKA006220A0614			1
885 black matt	205839	CP-RTC-885	2CKA006220A0631			1
896 chalet white	205785	CP-RTC-896	2CKA006220A0597			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	205853	CP-RTC-92	2CKA006220A0648			1
93 champagne	205877	CP-RTC-93	2CKA006220A0665			1
94 alpine white	205891	CP-RTC-94	2CKA006220A0682			1
95 chateau-black	205921	CP-RTC-95	2CKA006220A0699			1
96 chalet white	205952	CP-RTC-96	2CKA006220A0716			1



**Cover plate
For room thermostat.**

As cover for ABB-free@home® room temperature controller RTC-F-1.

Busch-Duro 2000® SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
212 white	187487	CP-FCC-212	2CKA006220A0245			1

Reflex SI

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
214 alpine white	187494	CP-FCC-214	2CKA006220A0246			1

future® linear, Busch-axcent®, solo®, pure stainless steel, carat®, Busch-dynasty®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
81 antracite	187456	CP-FCC-81	2CKA006220A0242			1
82 ivory white	205716	CP-FCC-82	2CKA006220A0532			1
83 aluminium silver	187463	CP-FCC-83	2CKA006220A0243			1
84 studio white	187470	CP-FCC-84	2CKA006220A0244			1
803 grey metallic	205754	CP-FCC-803	2CKA006220A0566			1
815 yellow	205778	CP-FCC-815	2CKA006220A0583			1
866 stainless stell	205730	CP-FCC-866	2CKA006220A0549			1
884 studiowhite matt	205822	CP-FCC-884	2CKA006220A0617			1
885 black matt	205846	CP-FCC-885	2CKA006220A0634			1
896 chalet white	205792	CP-FCC-896	2CKA006220A0600			1

basic55®

Color	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
92 white	205860	CP-FCC-92	2CKA006220A0651			1
93 champagne	205884	CP-FCC-93	2CKA006220A0668			1
94 alpine white	205914	CP-FCC-94	2CKA006220A0685			1
95 chateau-black	205938	CP-FCC-95	2CKA006220A0702			1
96 chalet white	205969	CP-FCC-96	2CKA006220A0719			1

ABB-free@home® Zenit – Modules



Cover plate for 2 fold push buttons incl neutral symbols

Cover for ABB-free@home® 1/2 gang switches:

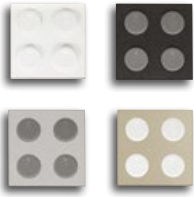
SSA-F-1.1.PB.1, SDA-F-1.1.PB.1, SBA-F-1.1.PB.1 and SU-F-1.0.PB.1

Dimensions (H x W): 44 mm x 44 mm

	Bbn 8427238	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
white	113401	SR-2-N2BL	2CLA222620N1102			1
anthracite	113425	SR-2-N2AN	2CLA222620N1802			1
silver	113418	SR-2-N2PL	2CLA222620N1302			1
champagne	113906	SR-2-N2CV	2CLA222620N1902			1

Available with the following interchangeable icons (blind, light, dimmer, scene)

	SBB-N2BL	2CLA202620N1102		SBL-N2BL	2CLA202610N1102
	SBB-N2GR	2CLA202620N1402		SBL-N2GR	2CLA202610N1402
	SBD-N2BL	2CLA202640N1102		SBS-N2BL	2CLA202630N1102
	SBD-N2GR	2CLA202640N1402		SBS-N2GR	2CLA202630N1402



Cover plate for 4 fold push buttons incl neutral symbols

Cover for ABB-free@home® 2/4 gang switches:

SSA-F-2.1.PB.1, SSA-F-2.2.PB.1, SDA-F-2.1.PB.1, SBA-F-2.1.PB.1 and SU-F-2.0.PB.1

Dimensions (H x W): 44 mm x 44 mm

	Bbn 8427238	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	EAN	Type code	Order code			
white	113432	SR-4-N2BL	2CLA222640N1102			1
anthracite	113456	SR-4-N2AN	2CLA222640N1802			1
silver	113449	SR-4-N2PL	2CLA222640N1302			1
champagne	113913	SR-4-N2CV	2CLA222640N1902			1

Available with the following interchangeable icons (blind, light, dimmer, scene)

	SBB-N2BL	2CLA202620N1102		SBL-N2BL	2CLA202610N1102
	SBB-N2GR	2CLA202620N1402		SBL-N2GR	2CLA202610N1402
	SBD-N2BL	2CLA202640N1102		SBS-N2BL	2CLA202630N1102
	SBD-N2GR	2CLA202640N1402		SBS-N2GR	2CLA202630N1402

Color legend:

AN=anthracite, BL=white, PL=silver, CV=champagne, GR=grey

WG=Wengue wood, PZ=Stone slate, CB=White glass, CN=Black glass, OX=Aluminium (Inox AISI304)



Cover plate for movement detector

Cover for ABB-free@home® movement detector: MSA-F-1.1.1 and MD-F-1.0.PB.1
Dimensions (H x W): 44 mm x 44 mm

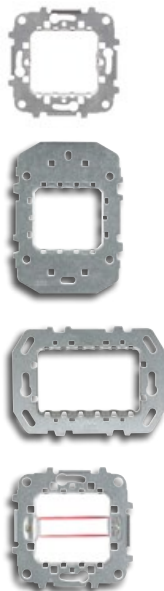
	Bbn 8427238	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
white	113463	CP-MD-N2BL	2CLON224161ABB			1
anthracite	113487	CP-MD-N2AN	2CLON224168ABB			1
silver	113470	CP-MD-N2PL	2CLON224163ABB			1
champagne	113920	CP-MD-N2CV	2CLON224169ABB			1



Cover plate for room temperature controller

Cover for ABB-free@home® room temperature controller: RTC-F-1.PB
Dimensions (H x W): 44 mm x 44 mm

	Bbn 8427238	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
white	113494	CP-RTC-N2BL	2CLON224061ABB			1
anthracite	113517	CP-RTC-N2AN	2CLON224068ABB			1
silver	113500	CP-RTC-N2PL	2CLON224063ABB			1
champagne	113937	CP-RTC-N2CV	2CLON224069ABB			1



Metal mounting frame

Metal mounting frame for flush mounted units.
Metal mounting frame with clamps for flush mounted units of Zenit VDE range.
Dimensions (H x W): 102 mm x 74 mm, 74 mm x 102 mm

	Bbn	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
square		N2271.9	2CLA227190N1001			1
vertical		N2371.9 V	2CLA237190N1002			1
horizontal		N2373.9	2CLA237390N1002			1
square with clamps		N2271.9G	2CLA227190N1101			

ABB-free@home® Zenit – Modules



Cover plate for 2 fold push buttons incl neutral symbols





Cover for ABB-free@home® 1/2 gang switches: SSA-F-1.1.PB.1, SDA-F-1.1.PB.1, SBA-F-1.1.PB.1 and SU-F-1.0.PB.1

Available in the following colors: anthracite

Dimensions (H x W): 44 mm x 44 mm

	Bbn 8427238	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
anthracite	115849	SR-2-AMAN	2CLA622620N1801			1

Available with the following interchangeable icons (blind, light, dimmer, scene)

	SBB-AMAN	2CLA602620N1801		SBL-AMAN	2CLA602610N1801
	SBD-AMAN	2CLA602640N1801		SBS-AMAN	2CLA602630N1801



Cover plate for 4 fold push buttons incl neutral symbols





Cover for ABB-free@home® 2/4 gang switches: SSA-F-2.1.PB.1, SSA-F-2.2.PB.1, SDA-F-2.1.PB.1, SBA-F-2.1.PB.1 and SU-F-2.0.PB.1

Available in the following colors: anthracite

Dimensions (H x W): 44 mm x 44 mm

	Bbn 8427238	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
anthracite	115856	SR-4-AMAN	2CLA622640N1801			1

Available with the following interchangeable icons (blind, light, dimmer, scene)

	SBB-AMAN	2CLA602620N1801		SBL-AMAN	2CLA602610N1801
	SBD-AMAN	2CLA602640N1801		SBS-AMAN	2CLA602630N1801

Color legend:

AN=anthracite, BL=white, PL=silver, CV=champagne, GR=grey

WG=Wengue wood, PZ=Stone slate, CB=White glass, CN=Black glass, OX=Aluminium (Inox AISI304)

ABB-free@home® Millenium – Modules



Cover plate for movement detector

Cover for ABB-free@home® movement detector: MSA-F-1.1.1 and MD-F-1.0.PB.1

Available in the following colors: anthracite

Dimensions (H x W): 44 mm x 44 mm

	Bbn 8427238	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	115863	CP-MD-AMAN	2CLA624160N1801			1



Cover plate for room temperature controller

Cover for ABB-free@home® room temperature controller: RTC-F-1.PB

Available in the following colors: anthracite

Dimensions (H x W): 44 mm x 44 mm

	Bbn 8427238	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	115887	CP-RTC-AMAN	2CLA624060N1801			1

Color legend:

AN=anthracite, BL=white, PL=silver, CV=champagne, GR=grey

WG=Wengue wood, PZ=Stone slate, CB=White glass, CN=Black glass, OX=Aluminium (Inox AISI304)

Switches for Zenit and Millenium modules



Switch/actuator, 1/2gang + 1 actuator

For switching 230 V~ devices. With integrated actuator. Switching function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 2 fold push buttons.

Outputs: 1× normally open contact, potential free

Suitable for: resistive

Rated current: 10 A

Rated power: 2300 W

Suitable for: capacitive

Rated current: 10 AX

Protection class of device: IP 20

Mounting depth: 31.5 mm

Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	187357	SSA-F-1.1.PB.1	2CKA006220A0232			1
WIRELESS						
	215975	SSA-F-1.1.PB.1-WL	2CKA006200A0108			1



Switch/actuator, 2/4gang + 1 actuator

For switching 230 V~ devices. With integrated actuator. Switching function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 4 fold push buttons.

Outputs: 1× normally open contact, potential free

Suitable for: resistive

Rated current: 10 A

Rated power: 2300 W

Suitable for: capacitive

Rated current: 10 AX

Protection class of device: IP 20

Mounting depth: 31.5 mm

Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	187364	SSA-F-2.1.PB.1	2CKA006220A0267			1
WIRELESS						
	215982	SSA-F-2.1.PB.1-WL	2CKA006200A0109			1



Switch/actuator, 2/4gang + 2 actuator

For switching 230 V~ devices. With integrated actuator. Switching function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 4 fold push buttons.

Outputs: 2× normally open contact, potential free

Suitable for: resistive

Rated current: 10 A

Rated power: 2 x 1200 W

Suitable for: capacitive

Rated current: 10 AX

Protection class of device: IP 20

Mounting depth: 31.5 mm

Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	187371	SSA-F-2.2.PB.1	2CKA006220A0234			1
WIRELESS						
	215999	SSA-F-2.2.PB.1-WL	2CKA006200A0110			1



Switch/dimmer, 1/2gang + 1 dimmer

For dimming 230 V~ loads. With integrated universal dimming actuator for controlling different lamps. The dimming function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 2 fold push buttons.

Outputs: 1× dimming channel

Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers

or electronic transformers

Rated power: 10–180 W/VA

Suitable for: LEDi and energy-saving bulbs

Rated power: 2–80 W/VA

Protection class of device: IP 20

Mounting depth: 31.5 mm

Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	187388	SDA-F-1.1.PB.1	2CKA006220A0235			1
WIRELESS						
	216002	SDA-F-1.1.PB.1-WL	2CKA006200A0111			1

Switches for Zenit and Millenium modules



Switch/dimmer, 2/4gang + 1 dimmer

For dimming 230 V~ loads. With integrated universal dimming actuator for controlling different lamps. The dimming function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 4 fold push buttons.

Outputs: 1× dimming channel

Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers

or electronic transformers

Rated power: 10–180 W/VA

Suitable for: LEDi and energy-saving bulbs

Rated power: 2–80 W/VA

Protection class of device: IP 20

Mounting depth: 31.5 mm

Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
	187395	SDA-F-2.1.PB.1	2CKA006220A0236			1

WIRELESS

	216019	SDA-F-2.1.PB.1-WL	2CKA006200A0112			1
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Switch/blind actuator, 1/2gang + 1 blind actuator

For controlling blind and awning motors. With integrated blind actuator. Blind function is available pre-configured. To be used in combination with ABB-free@home® Zenit cover plates for 2 fold push buttons.

Outputs: 1× Change-over contacts/normally open contact, potential bound

Rated power: 920 VA

Rated current: 4 A

Suitable for: Operating mode blind

Protection class of device: IP 20

Mounting depth: 31.5 mm

Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			
	187401	SBA-F-1.1.PB.1	2CKA006220A0237			1

WIRELESS

	216026	SBA-F-1.1.PB.1-WL	2CKA006200A0113			1
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Switch/blind actuator, 2/4gang + 1 blind actuator

For controlling blind and awning motors. With integrated blind actuator. Blind function is available pre-configured. To be used with ABB-free@home® Zenit cover plates for 4 fold push buttons.

Outputs: 1× Change-over contacts/normally open contact, potential-bound

Rated power: 920 VA

Rated current: 4 A

Suitable for: Operating mode blind

Protection class of device: IP 20

Mounting depth: 31.5 mm

Dimensions (H × W × D): 44 mm x 44 mm x 40.9 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	187418	SBA-F-2.1.PB.1	2CKA006220A0238			1
WIRELESS						
	216033	SBA-F-2.1.PB.1-WL	2CKA006200A0114			1



Room temperature controller

Room temperature control function for controlling commercially available valve drives or analogue valve drives (continuous controllers) in connection with HA-M-0.6.1, HA-M-0.12.1, FCA-M-2.3.1. With display of set-value temperature. To be used with ABB-free@home® Zenit cover plates for room temperature controller.

Display elements: LCD Display showing operation modes

Protection class of device: IP 20

Mounting depth: 17.9 mm

Dimensions (H × W × D): 44 mm x 44 mm x 29.4 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	188743	RTC-F-1.PB	2CKA006220A0276			1
WIRELESS						
	216040	RTC-F-1.PB-WL	2CKA006200A0115			1

ABB-free@home®

Switches for Zenit and Millenium modules



Room temperature controller/heating actuator, wireless ^{1) 2)}

For ABB-free@home®

Heating/cooling operation.

Control element with room temperature controller function.

With display of set-value temperature.

With integrated switch actuator, e.g. for controlling thermoelectric actuating drives in heating/cooling systems or electric floor heating systems.

RTC function is available also without prior programming (preconfigured).

In connection with temperature sensor 6226/T the integrated room temperature controller can be fitted with a remote sensor.

3 wire connection (neutral conductor required).

Only to be used in combination with ABB-free@home® room temperature controller cover plates 6235-xxx.

With fixing claws.

Control element: Floating rocker for the selection of set values and operating modes

Display elements: LCD showing operation modes

Rated voltage: 230 V~

Rated frequency: 50 Hz - 60 Hz

Outputs: 1x Normally open contact, potential-bound

Supply voltage: 230 V~

Suitable for: ohmic

Rated current: 16 A

Output voltage: 230 V~

Rated power: 3680 W

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 71 mm x 71 mm x 48 mm

Mounting depth: 32 mm

WIRELESS

	Bbn	Order details		Price	Weight	Pack
	4016779	Type code	Order code	1 piece	1 piece	unit
	EAN				kg	pc.
	216057	RTC-F-2.1-1.PB-WL	2CKA006200A0116			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



Switch 1/2gang

For sending switching, dimming and blind command to an ABB-free@home® actuator. To be used with ABB-free@home® Zenit cover plates for 2 fold push buttons.

Control element: Switch contacts top/bottom

Display elements: LED for orientation or switch state display

Protection class of device: IP 20

Mounting depth: 14.1 mm

Dimensions (H x W x D): 44 mm x 44 mm x 23.5 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	187258	SU-F-1.0.PB.1	2CKA006220A0222			1

WIRELESS

	215951	SU-F-1.0.PB.1-WL	2CKA006200A0106			1
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Switch 2/4gang

For sending switching, dimming and blind command to an ABB-free@home® actuator. To be used with ABB-free@home® Zenit cover plates for 4 fold push buttons.

Control element: Switch contacts top/bottom

Display elements: LED for orientation or switch state display

Protection class of device: IP 20

Mounting depth: 14.1 mm

Dimensions (H x W x D): 44 mm x 44 mm x 23.5 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	187265	SU-F-2.0.PB.1	2CKA006220A0223			1

WIRELESS

	215968	SU-F-2.0.PB.1-WL	2CKA006200A0107			1
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ABB-free@home[®]

Switches for Zenit and Millenium modules



Movement detector

With select lens for detection with animal access. For automatic switching of ABB-free@home[®] actuators dependent on movement and brightness. To be used with ABB-free@home[®] Zenit cover plates for movement detector.

Detection range: frontal 6 m, lateral 3 m

Detection angle: 180°

Brightness limit value: 1 – 500 lux

Protection class of device: IP 20

Mounting depth: 14.1 mm

Dimensions (H x W x D): 44 mm x 44 mm x 29.6 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	187326	MD-F-1.0.PB.1	2CKA006220A0229			1



Movement detector + 1 actuator

With select lens for detection with animal access. Including an integrated actuator for switching 230 V~ devices. To be used with ABB-free@home[®] Zenit cover plates for movement detector.

Outputs: 1 x normally open contact, potential free

Suitable for: resistive

Rated current: 10 A

Rated power: 2300 W

Suitable for: capacitive

Rated current: 10 AX

Detection range: frontal 6 m, lateral 3 m

Detection angle: 180°

Brightness limit value: 1 – 500 lux

Protection class of device: IP 20

Mounting depth: 31.5 mm

Dimensions (H x W x D): 44 mm x 44 mm x 47 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	187340	MSA-F-1.1.PB.1	2CKA006220A0231			1

WIRELESS

	216064	MSA-F-1.1.1-WL	2CKA006200A0117			1
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ABB-free@home® System accessories



System Access Point 1)

For ABB-free@home®

For commissioning and remote control of the ABB-free@home® system.
 Allows the execution of astro and time programs.
 Commissioning and remote control is executed via the web interface or app.
 No additional commissioning software is required.
 Easy commissioning with WLAN ad-hoc mode.
 Connection to the home network via WLAN client mode or via CAT cable.
 The bus can be connected via enclosed terminal block.
 Display elements: LED for status display.
 Bus voltage: 24 V
 Rated frequency: 50 Hz/60 Hz
 Protection class (Device): IP 20
 Temperature range (Device): -5 °C to 45 °C
 Dimensions: (L x W x D): 110 mm x 170 mm x 31 mm

Rated voltage: 230 V~

		Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code		kg	pc.
84 studio white	PHASE OUT	187327	SAP-S-1-84	2CKA006220A0136			1
WIRELESS							
84 studio white	NEW	215944	SAP-S-2	2CKA006200A0105			1

Rated voltage: 127 V~

		Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code		kg	pc.
84 studio white	PHASE OUT	187432	SAP-S-127.1	2CKA006220A0240			1
WIRELESS							
84 studio white	NEW	232408	SAP-S-127.2	6200-0-0130			1



External antenna

For ABB-free@home®

For use with System Access Point 6200 AP -101.
 Feed the ABB-free@home® wireless signal to the outside when the internal antenna of the System Access Point is shielded due to structural conditions.
 With magnetic base.
 Cable length: 1.5 m

		Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code		kg	pc.
WIRELESS							
		216224	SAP-1-WL	2CKA006200A0100			1

1) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

ABB-free@home® MDRC actuators



Power supply

For ABB-free@home®

Power supply with integrated choke.

Fast diagnosis due to LED display for operational readiness and errors.

The bus can be connected via enclosed terminal block.

Display elements: Operational load/overload LED

Rated voltage: 127 - 230 V~, +10 % / -15 %

Secondary: 30 V, +2 V / -2 V

Rated frequency: 50 Hz/60 Hz

Outputs: 1

Rated current: 640 mA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 72 mm x 64 mm

Module width: 4 MW

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	941839	PS-M-64.1.1	2CDG510001R0011			1



Switch actuator, 4gang ¹⁾ ²⁾

For ABB-free@home®

For switching 4 independent 127 V~/230 V~ loads.

Each contact has a manual operation function independent of auxiliary voltage for additionally displaying the contact setting.

The bus can be connected via enclosed terminal block.

Control element: Relay control element

Display elements: Relay control element

Bus voltage: 24 V

Outputs: 4

Suitable for: AC1

Rated current: 16 A, cos φ 0.8

Output voltage: 230 V~

Suitable for: AC3

Rated current: 8 A, cos φ 0.45

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 72 mm x 64 mm

Module width: 4 MW

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	942089	SA-M-0.4.1	2CDG510006R0011			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



Heating actuator, 6gang ^{1) 2)}

For ABB-free@home®

For controlling thermoelectric actuating drives in heating/cooling systems.

The outputs are protected against short-circuit and overload.

The bus can be connected via enclosed terminal block.

Bus voltage: 24 V

Outputs: 6

Suitable for: ohmic

Rated current: 160 mA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 72 mm x 64 mm

Module width: 4 MW

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	941815	HA-M-0.6.1	2CDG510008R0011			1



I/O actuator, 8 gang

For ABB-free@home®

Combination device with 8 binary inputs and 8 switch actuators.

Conventional push-buttons or auxiliary contacts can be connected to 8 channels. The information of the contact enquiry can be used for activating ABB-free@home® actuators or for recording status information.

The contact polling voltage is made available by the device itself.

Maximum cable length at a cable cross-section of 1.5 mm² < 100 m

For switching 8 independent 230 V~ loads.

Bus voltage: 24 V

Inputs: 8

Polling voltage: 35 V-

Outputs: 8 Normally open contact, potential free

Suitable for: AC1

Rated current: 6 A, cos φ0.8

Output voltage: 230 V~

Suitable for: AC3

Rated current: 6 A, cos 0.45

Output voltage: 230 V~

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 144 mm x 64.5 mm

Module width: 8 MW

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	945561	SA-M-8.8.1	2CDG510007R0011			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

ABB-free@home® MDRC actuators



Heating actuator, 12gang ^{1) 2)}

For ABB-free@home®

For controlling thermoelectric actuating drives in heating/cooling systems.

The outputs are protected against short-circuit and overload.

The bus can be connected via enclosed terminal block.

Bus voltage: 24 V

Outputs: 12

Suitable for: ohmic

Rated current: 160 mA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 144 mm x 64 mm

Module width: 8 MW

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	941808	HA-M-0.12.1	2CDG510009R0011			1



Fan coil actuator, MDRC

For ABB-free@home®

For controlling blower convectors.

Supports 2-pipe and 4-pipe system for heating and cooling.

The fan speed levels can be switched using a changeover or step switch function.

Three contacts for switching a three-stage fan.

Two contacts for activating the heating and cooling valves.

Supports 24V and 230V valves.

With two binary inputs for connecting dewpoint and condensation contacts.

The scanning voltage is provided by the device.

The bus connection is provided via the enclosed bus terminal.

Bus voltage: 24 V

Inputs: 2

Polling voltage: 10 V-

Outputs: 3 Normally open contact, potential free

Suitable for: AC3

Rated current: 6 A

Output voltage: 230 V~

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 108 mm x 64.5 mm

Module width: 6 MW

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180433	FCA-M-2.3.1	2CDG510010R0021			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



Blind actuator, 4gang 1) 2)

For ABB-free@home®

For controlling 4 independent blind or roller shutter drives.

The outputs are inversely blocked.

The bus can be connected via enclosed terminal block.

Bus voltage: 24 V

Outputs: 4

Suitable for: AC3

Rated current: 6 A, cos φ 0.45

Output voltage: 230 V~

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 72 mm x 64 mm

Module width: 4 MW

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	941785	BA-M-0.4.1	2CDG510011R0011			1



Dimming actuator, 4gang 1) 2) 3)

For ABB-free@home®

Multi-channel universal dimming actuator for controlling LEDs, incandescent lamps, 230 V halogen lamps, low-voltage halogen lamps with conventional or electronic transformers, and dimmable energy-saving halogen lamps.

For dimmable Retrofit-LEDs (LEDi).

Increasing the max. load via channel bridging possible.

The outputs can be switched parallel in any combination.

Outputs automatically recognise the connected load.

In addition, the operating mode can be selected manually.

Status indication of the channels via LED.

The bus can be connected via enclosed terminal block.

Display elements: Outputs status indication via LED.

Bus voltage: 24 V

Rated voltage: 230 V~

Rated frequency: 50 Hz/60 Hz

Outputs: 4x dimming channel

Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers or electronic transformer.

Rated power: 10 - 315 W/VA

Suitable for: LEDi and energy-saving bulbs; typical

Rated power: 2 - 80 W/VA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 144 mm x 64 mm

Module width: 8 MW

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	180358	DA-M-0.4.2	2CKA006220A0395			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

ABB-free@home[®]

MDRC actuators



Dimming actuator, 4gang 1) 2)

For ABB-free@home[®]

Multi-channel universal dimming actuator for controlling LEDs, incandescent lamps, 127 V/230 V halogen lamps, low-voltage halogen lamps with conventional or electronic transformers, and dimmable energy-saving halogen lamp

For dimmable Retrofit-LEDs (LEDi).

Increasing the max. load via channel bridging possible.

The outputs can be switched parallel in any combination.

Outputs automatically recognise the connected load.

In addition, the operating mode can be selected manually.

Status indication of the channels via LED.

The bus can be connected via enclosed terminal block.

Display elements: Outputs status indication via LED.

Bus voltage: 24 V

Rated voltage: 127 V~

Rated frequency: 50 Hz/60 Hz

Outputs: 4x dimming channel

Suitable for: 127 V/230 V incandescent lamps and low-voltage halogen lamps with conventional transformers or electronic transformer.

Rated power: 5 - 150 W/VA

Suitable for: LEDi and energy-saving bulbs; typical

Rated power: 2 - 40 W/VA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 144 mm x 64 mm

Module width: 8 MW

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	187425	DA-M-0.4.127.2	2CKA006220A0723			1

Binary input, 4gang 1) 2)

For ABB-free@home[®]

The device detects AC/DC signals of 10 - 230 V via 4 channels. The information of the signal evaluation can be used for controlling ABB-free@home[®] actuators or for recording status information.

The bus can be connected via enclosed terminal block.

Bus voltage: 24 V

Inputs: 4

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 36 mm x 64 mm

Module width: 2 MW

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	941778	BI-M-4.0.1	2CDG510004R0011			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.



2gang binary input, flush-mounted ^{1) 2)}

For ABB-free@home®

Conventional push-buttons or auxiliary contacts can be connected to 2 channels. The information of the contact enquiry can be used for activating ABB-free@home® actuators or for recording status information.

The contact polling voltage is made available from the binary input itself. Extension of the connecting cables possible by a maximum of 10 m.

Flush-mounted device for installation in a 60 mm device box or distribution box.

The bus can be connected via enclosed terminal block.

Bus voltage: 24 V

Inputs: 2

Polling voltage: 20 V-

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 39 mm x 40 mm x 12 mm

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	941679	BI-F-2.0.1	2CDG510002R0011			1



4gang binary input, flush-mounted ^{1) 2)}

For ABB-free@home®

Conventional push-buttons or auxiliary contacts can be connected to 4 channels. The information of the contact enquiry can be used for activating ABB-free@home® actuators or for recording status information.

The contact polling voltage is made available from the binary input itself. Extension of the connecting cables possible by a maximum of 10 m.

Flush-mounted device for installation in a 60 mm device box or distribution box.

The bus can be connected via enclosed terminal block.

Bus voltage: 24 V

Inputs: 4

Polling voltage: 20 V-

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 39 mm x 40 mm x 12 mm

	Bbn 4016779	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	941884	BI-F-4.0.1	2CDG510003R0011			1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current e-catalogue.

ABB-free@home® MDRC actuators



Weather station

For ABB-free@home®

For recording and transmitting of brightness, temperature, wind speed and rain.

Weather data can be linked with actuators to automatically control functions.

Weather data can be visualized in the ABB-free@home® web interface and the ABB-free@home® app.

Wind speed measuring range 2 - 30 m/s

The bus can be connected via enclosed terminal block.

Rated voltage: 110 V~ - 230 V~

Rated frequency: 50 Hz - 60 Hz

Bus voltage: 24 V-

Inputs: 4

Protection class (Device): IP 44

Temperature range (Device): -20 °C to 55 °C

Temperature range (Sensor):

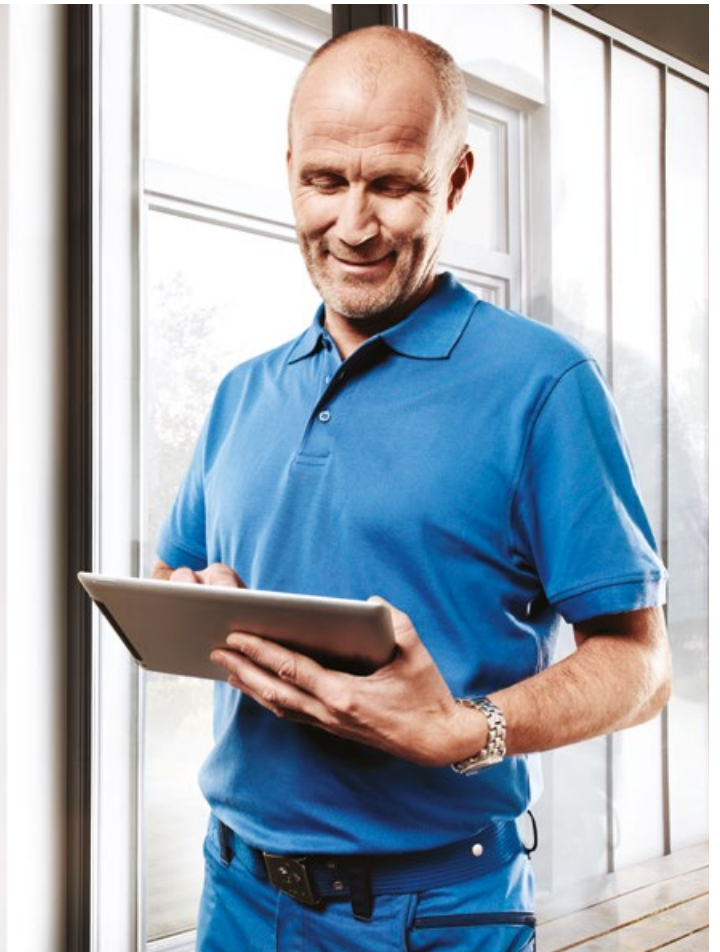
Brightness limit value: 1 Lux - 100000 Lux

Dimensions: (L x W x D): 108 mm x 121 mm x 227 mm

	Bbn 4011395	Order details		Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
	205525	WS-1	2CKA006220A0212			1

ABB-free@home®

Communicative and competent - The ABB partner close to you



Advice and assistance close to you. Your electrician will be happy to explain to you in detail the advantages of ABB-free@home® in a face-to-face discussion. This will allow home automation to be planned to suit your individual requirements.

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The suitable electrician

The electrician familiar with ABB-free@home® can be found at www.abb.com/freeathome. Simply enter your postcode – and the firms in your region will be displayed.

Now scan the QR code to find out more about the advantages of ABB-free@home®.

Solutions for electrical installation in buildings

Door entry system

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Door entry system

Simple but impressive

Thanks to its intuitive design, using the ABB-Welcome indoor station is as easy as saying, "hello". Even without prior experience, residents will instantly understand the easily recognized symbols and functions at a glance.

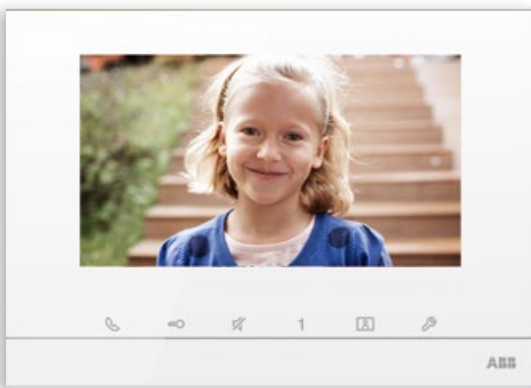


ABB-Welcome is designed with a beautiful modern style, and an elegant look. It is more than just a robust door entry system; ABB-Welcome also helps you to create an atmosphere of comfort, harmony and style in your home.



Communication

For receiving and ending calls.



Door opener

Open the electric door lock.



Mute function

Switch off the microphone of the indoor station during a conversation, and prevent the visitor at the front door from listening in. It can also be used to switch off the bell. The bell switches back on automatically after 10 hours.

1

Programmable button

For customized function, e.g. intercom, second lock control, relay actuator control for light switch or additional lock, etc.



Snapshot

For instantly taking a photo of visitors at the front door during communication.



Settings

For individually configuring the device.

Installation is as easy as 1-2-3. The screwless, snap-in design is used on both the outdoor and indoor stations. This makes installation an easy, quick and enjoyable process for both surface- and flush-mounted versions.



ABB-Welcome is the perfect compliment to your home. And, simple installation makes it easy for ABB-Welcome to become part of your life.

Door entry system Overview

ABB-Welcome outdoor station - stainless steel



01

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01 ABB-Welcome outdoor station, one button with/without NFC/IC

02 ABB-Welcome outdoor station, two buttons with/without NFC/IC

03 ABB-Welcome outdoor station, three buttons with/without NFC/IC

04 ABB-Welcome outdoor station, four buttons with/without NFC/IC

05 ABB-Welcome outdoor station, six buttons with/without NFC/IC

06 ABB-Welcome outdoor station, Keypad with display

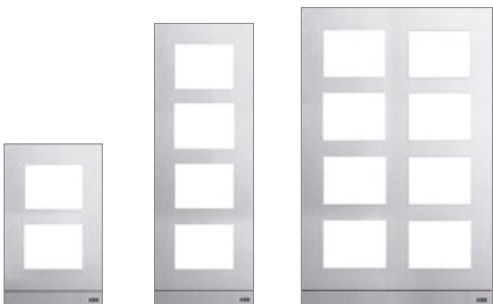
ABB-Welcome outdoor station - aluminum



01

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01 ABB-Welcome outdoor station cover frame, 1 module, Dimensions: 128 x 125 x 19 mm

02 ABB-Welcome outdoor station cover frame, 3 modules, Dimensions: 274 x 125 x 19 mm

03 ABB-Welcome outdoor station cover frame, 6 modules, Dimensions: 274 x 230 x 19 mm

04 ABB-Welcome outdoor station cover frame, 2 modules, Dimensions: 201 x 125 x 19 mm

05 ABB-Welcome outdoor station cover frame, 4 modules, Dimensions: 347 x 125 x 19 mm

06 ABB-Welcome outdoor station cover frame, 8 modules, Dimensions: 347 x 230 x 19 mm

07 ABB-Welcome mini outdoor station, one button

08 ABB-Welcome mini outdoor station, two buttons



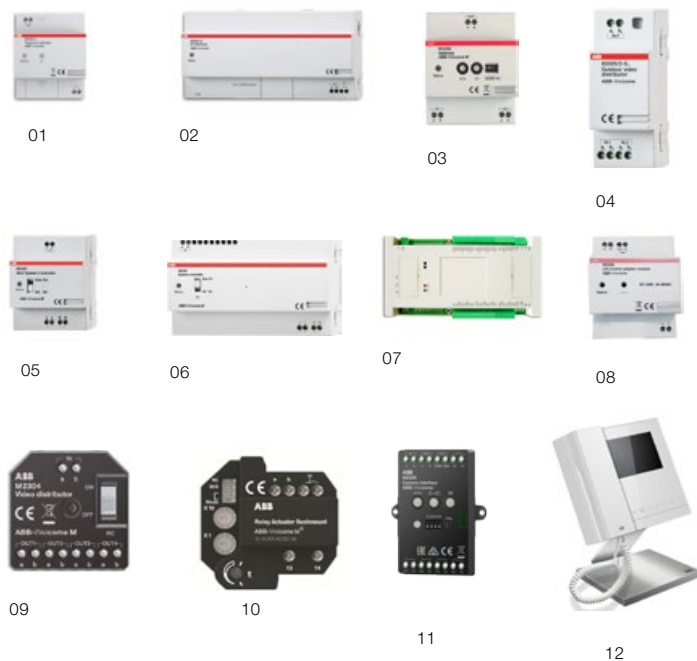
ABB-Welcome indoor station



- 01 ABB-Welcome video indoor station, 7-inch hands-free
- 02 ABB-Welcome video indoor station, 4.3-inch hands-free
- 03 ABB-Welcome video indoor station, 4.3-inch handset
- 04 ABB-Welcome video indoor station, basic 4.3-inch hands-free

- 05 ABB-Welcome audio indoor station, handset, three buttons
- 06 ABB-Welcome audio indoor station, handset, six buttons
- 07 ABB-Welcome audio indoor station, hands-free, four buttons

ABB-Welcome system devices











- 01 ABB-Welcome telephone gateway
- 02 ABB-Welcome IP gateway
- 03 ABB-Welcome gateway
- 04 ABB-Welcome outdoor video distributor
- 05 ABB-Welcome mini system controller
- 06 ABB-Welcome system controller
- 07 ABB-Welcome lift control module
- 08 ABB-Welcome M adaptor
- 09 ABB-Welcome video distributor
- 10 ABB-Welcome switch actuator
- 11 ABB-Welcome camera interface
- 12 ABB-Welcome guard unit

Door entry system Welcome - Family home kits










Dimensions: 315 x 184 x 295 mm

Set	Description	Without Induction loop	With induction loop
Audio Kit	Audio single-family home kit – Audio outdoor station, 1/2 push button, aluminum – Flush mounted box, size 1/1 – Mini system controller – Audio handset indoor station, 3 buttons, white	M20001 	M20003 
Audio Kit	Audio single-family home kit – Audio outdoor station, 1/2 push button, aluminum – Flush mounted box, size 1/1 – Mini system controller – Audio handsfree indoor station, 4 buttons, white	M20011 	

Set	Description	Without Induction loop	With induction loop
Video kit	Video single-family home kit <ul style="list-style-type: none"> – Video outdoor station, 1 button, stainless steel – Flush mounted box, size 1/3 – System controller – 7" video hands-free indoor station, white – IP-Gateway 	M20702 	
Video kit	Video single-family home kit <ul style="list-style-type: none"> – Video outdoor station, 1/2 pushbuttons, aluminum – Flush-mounted box, size 1/2 – Mini system controller – 7" video hands-free indoor station, white 	M20701 	
Video kit	Video single-family home kit <ul style="list-style-type: none"> – Video outdoor station, 1/2 push button, aluminum – Flush mounted box, size 1/2 – Mini system controller – 4.3" color video handset indoor station, white 	M20311 	M20313 
Video kit	Video single-family home kit <ul style="list-style-type: none"> – Video outdoor station, 1/2 push button, aluminum – Flush mounted box, size 1/2 – Mini system controller – 4.3" video hands-free indoor station, white 	M20321 	M20323 
Video kit	Video 1 family kit <ul style="list-style-type: none"> – Video outdoor station, 1/2 pushbuttons, aluminum – Flush-mounted box, size 1/2 – Rain hood, size 1/2 – Mini system controller – 4.3" video hands-free indoor station, white 	M20322 	
Video kit	Mini OS kit <ul style="list-style-type: none"> – Mini video outdoor station, 1 pushbutton, aluminum – Basic 4.3" video hands-free indoor station – Mini system controller 	M20361 	
Video kit	Mini OS kit, with ID function <ul style="list-style-type: none"> – Mini video outdoor station, 1 pushbutton, with ID card reader, aluminum – Basic 4.3" video hands-free indoor station, with induction loop – Mini system controller – Proximity key fob, ID card, white – Proximity key fob, ID card, black – ID sticker 		M20363 

Door entry system

Welcome - Family home kits

Set	Description	Without Induction loop	With induction loop
Video kit	Video 2 family kit <ul style="list-style-type: none"> – Mini video outdoor station, 2 push button, aluminum – 2× Basic 4.3" video hands-free indoor station, white – Mini system controller 	M20362 	
Video kit	Video 2 family kit <ul style="list-style-type: none"> – Mini video outdoor station, 2 push button, with ID card reader, aluminum – 2× Basic 4.3" video hands-free indoor station, with induction loop, white – Mini system controller – Proximity key fob, ID card, white – Proximity key fob, ID card, black – ID sticker 		M20364 
Video kit	Video 2 family kit <ul style="list-style-type: none"> – Mini video outdoor station, 1 pushbutton, with ID card reader, aluminum – Basic 4.3" video hands-free indoor station, with induction loop, white – Mini system controller – IP-Gateway – Proximity key fob, ID card, white – Proximity key fob, ID card, black – ID sticker 		M20352 
Video kit	Video 1 family kit <ul style="list-style-type: none"> – Mini video outdoor station, 1 push button, aluminum – 4.3" Colour video handset indoor station, white – Mini system controller 	M20371 	
Video kit	Video 1 family kit <ul style="list-style-type: none"> – Mini video outdoor station, 1 pushbutton, aluminum – 4.3" Video hands-free indoor station – Mini system controller 	M20381 	
Video kit	Video single-family home kit without indoor station <ul style="list-style-type: none"> – Video outdoor station, 1/2 push button, aluminum – Flush mounted box, size 1/2 – Mini system controller – IP-Gateway (Indoor station is not included in the kit, but all indoor stations range can be selected.)	M20351 	
Video kit	Video 1 family kit <ul style="list-style-type: none"> – Mini video outdoor station, 1 pushbutton, aluminum – Mini system controller – IP Gateway (Indoor station is not included in the kit, but all indoor stations range can be selected.)	M20353 	

Door entry system

Welcome - Outdoor stations

Outdoor station-stainless steel



Audio outdoor station, stainless steel

- Clean design with brushed stainless steel.
- Surface mounting, flush mounting and cavity wall set
- Different mode setting is possible for pushbutton, such as light switch and calling guard
- Weatherproof: Dustproof and waterproof as IP54, and vandal proof as IK07
- Product dimensions: size 1/2: 200 x 125 x 39 mm. size 1/3: 274 x 125 x 39 mm.

Article No.	Order No.	Description	Pack Qty
M21011P1-S		Audio outdoor station, 1 pushbutton, stainless steel	1/19
M21013N3-S		Audio outdoor station, without pushbuttons, size 1/2, stainless steel	1/19
M21013N6-S		Audio outdoor station, without pushbuttons, size 1/3, stainless steel	1/12



Video outdoor station, 1 button and 2 button optional

- Clean design with brushed stainless steel
- Surface mounting, flush mounting and cavity wall set
- Different mode setting is possible for pushbutton, such as light switch and calling guard
- Weatherproof: Dustproof and waterproof as IP54, and vandal proof as IK07
- Product dimensions: size 1/3: 274 x 125 x 41 mm. size 1/4: 347 x 125 x 41 mm.

Article No.	Order No.	Description	Pack Qty
M21321P1-S		Video outdoor station, 1 pushbutton, Stainless steel	1/12
M21322P1-S		Video outdoor station, 1 pushbutton, stainless steel, with NFC/IC function	1/12
M21323N3-S		Video outdoor station, without pushbuttons, size 1/3, stainless steel	1/12
M21323N6-S		Video outdoor station, without pushbuttons, size 1/4, stainless steel	1/12



Video keypad outdoor station with speech synthesis

- Clean design with brushed stainless steel
- Built-in card reader in display module, support ID card (M21351K-A) and ID card (M21352K-A)
- Surface mounting (41021F and 51021RH needed), flush mounting (41021F needed) and cavity wall set (51021CS needed)
- Weatherproof: Dustproof and waterproof as IP54, and vandal proof as IK07
- Product dimensions: 347 x 125 x 41 mm.

Article No.	Order No.	Description	Pack Qty
M21321K-S		Video outdoor station with keypad, ID, stainless steel	1/12
M21322K-S		Video outdoor station with keypad, IC, stainless steel	1/12

Door entry system

Welcome - Outdoor stations



NEW

Outdoor station-aluminium

Mini outdoor station, one button / two buttons

- Compact size, surface mounted and flush mounted optional
- 1 button and 2 buttons optional, built-in ID card reader
- Clean design with integrated status display
- Light switch or calling guard programmable for the 2nd button
- Up to 2 locks connections
- Dustproof and waterproof as IP54, and vandal proof as IK07
- Product dimensions
Mini video outdoor station (99mm width, SM): 168 x 99 x 26 mm
Mini video outdoor station (105mm width, FM): 180 x 105 x 43 mm
Flush-mounted box: 174 x 98 x 45 mm

Article No.	Order No.	Description	Pack Qty
M21312P1-A		Mini video outdoor station (99mm width, SM), 1 pushbutton, with ID card reader, with surface-mounted box	1/16
M21312P2-A		Mini video outdoor station (99mm width, SM), 2 pushbuttons, with ID card reader, with surface-mounted box	1/16
M21311P1-A		Mini video outdoor station (99mm width, SM), 1 pushbutton, with surface-mounted box	1/16
M21311P2-A		Mini video outdoor station (99mm width, SM), 2 pushbuttons, with surface-mounted box	1/16
Flush-mounted outdoor station is available in April, 2017			
M21362P1-A		Mini video outdoor station (105mm width, FM), 1 pushbutton, with ID card reader with flush-mounted box	1/19
M21362P2-A		Mini video outdoor station (105mm width, FM), 2 pushbuttons, with ID card reader with flush-mounted box	1/19
41361F		Pre-installation box	1/19



Audio outdoor station, 1-row pushbutton for 1/2 calls

- The assembled product includes audio module with 1/2 pushbutton (M251022A-A) and 1-module cover frame (51021CF-A)
- Dustproof and waterproof as IP54, and vandal proof as IK07
- Different mode setting is possible for pushbutton, such as 1 call or 2 calls in one row
- Surface mounting (41021F and 51021RH needed) and flush mounting (41021F needed)
- The related tool is also provided in the package
- Product dimension: 128 x 125 x 40 mm.

Article No.	Order No.	Description	Pack Qty
M21021P1-A		Audio outdoor station, 1/2 pushbutton, aluminum	1/19

Video outdoor station, 1-row pushbutton for 1/2 calls

- The assembled product includes camera module (M251021C), audio module with 1/2 push button (M251022A-A) and 2-module cover frame (51022CF-A).
- Dustproof and waterproof as IP54, and vandal proof as IK07.
- Different mode setting is possible for pushbutton, such as 1 call or 2 calls in one row.
- Surface mounting (41022F and 51022RH needed) and flush mounting (41022F needed).
- The related tool is also provided in the package.
- Product dimensions: 201 x 125 x 43 mm.

Article No.	Order No.	Description	Pack Qty
M21351P1-A		Video outdoor station, 1/2 pushbutton, aluminum	1/19



Video keypad outdoor station with speech synthesis

- The assembled product includes camera module (M251021C), audio module with speech synthesis (M251024A-A), keypad module (M251021K-A) and display module (M251021CR/ M251022CR).
- Dustproof and waterproof as IP54, and vandal proof as IK07.
- Built-in card reader in display module, support ID card (M21351K-A) and IC card (M21352K-A).
- Surface mounting (41024F and 51024RH needed) and flush mounting (41024F needed).
- Product dimensions: 345 x 125 x 50 mm.

Article No.	Order No.	Description	Pack Qty
M21351K-A		Video outdoor station with keypad, with ID card reader	1/12
M21352K-A		Video outdoor station with keypad, with IC card reader	1/12

Door entry system

Welcome - Outdoor stations

Module



Camera module

- Video color camera with large detection angle (H 86°, V 67°, D 104°) and manually mechanical adjustment (H ± 15°, V ± 15°), built-in infrared lighting ensures clear picture and comfortable to eyes at night and hidden surveillance from video indoor station.
- Anti-fog design with built-in heater ensures clear image even in wet conditions.
- Optional to connect one additional analog camera for surveillance inside the video indoor station.
- Product dimensions: 72 x 97 x 41 mm.

Article No.	Order No.	Description	Pack Qty
M251021C		Camera module	1/12/12



(Only for Aluminum)

Audio module, no button

- Audio module is compulsory for any audio or video outdoor station composition.
- 3 LED indicators for operation status indications: call established / system busy, communication possible and door unlocked.
- One lock can be directly connected without independent power supply for the lock.
- Additional terminal for second lock is available.
- Lock release time and speaker volume are adjustable.
- No button.
- Integrated optic sensor for day / night mode.
- Product dimensions: 72 x 97 x 38 mm.

Article No.	Order No.	Description	Pack Qty
M251021A-A		Audio module, aluminum	1/12/12
M251021A-W		Audio module, coated white	1/12/12



(Only for Aluminum)

Audio module, 1-row pushbutton for 1/2 calls

- Audio module is compulsory for any audio or video outdoor station composition.
- 3 LED indicators for operation status indications: call established / system busy, communication possible and door unlocked.
- One lock can be directly connected without independent power supply for the lock.
- Additional terminal for second lock is available.
- Lock release time and speaker volume are adjustable.
- 1-row button.
- Different mode setting is possible such as 1 call or 2 calls in one row, call guard or switching light for the first or second button.
- Integrated optic sensor for day / night mode.
- Product dimension: 72 x 97 x 38 mm.

Article No.	Order No.	Description	Pack Qty
M251022A-A		Audio module, 1 row pushbutton, aluminum	1/12/12
M251022A-W		Audio module, 1 row pushbutton, coated white	1/12/12



(Only for Aluminum)

Audio module, 2-row pushbutton for 2/4 calls

- Audio module is compulsory for any audio or video outdoor station composition.
- 3 LED indicators for operation status indications: call established / system busy, communication possible and door unlocked.
- One lock can be directly connected without independent power supply for the lock.
- Additional terminal for second lock is available.
- Lock release time and speaker volume are adjustable.
- 2-row button.
- Different mode setting is possible such as 1 call or 2 calls in one row, call guard or switching light for the first or second button.
- Integrated optic sensor for day / night mode.
- Product dimensions: 72 x 97 x 38 mm.

Article No.	Order No.	Description	Pack Qty
M251023A-A		Audio module, 2 rows pushbuttons, aluminum	1/12/12
M251023A-W		Audio module, 2 rows pushbuttons, coated white	1/12/12



(Only for Aluminum)

Audio module, no button, with speech synthesis

- Audio module is compulsory for any audio or video outdoor station composition.
- 3 LED indicators for operation status indications: call established / system busy, communication possible, door unlocked.
- One lock can be directly connected without independent power supply for the lock.
- Additional terminal for second lock is available.
- Lock release time and speaker volume are adjustable.
- No button, with speech synthesis to play voice message according to the status.
- Integrated optic sensor for day / night mode.
- Product dimensions: 72 x 97 x 38 mm.

Article No.	Order No.	Description	Pack Qty
M251024A-A		Audio module with speech synthesis, aluminum	1/12/12
M251024A-W		Audio module with speech synthesis, coated white	1/12/12



*

Pushbuttons module, 3-row for 3/6 calls

- Nameplate is extractable by tool, without the need to disassemble the panel.
- Backlight ensures clear visibility at night.
- 3-rows can be set for 3/6 calls.
- Either 1 or 2 calls for 1 row of buttons are set in the audio module.
- Product dimensions: 72 x 97 x 25 mm.

Article No.	Order No.	Description	Pack Qty
M251021P3		3/6 pushbutton module	1/10/8

* Accessory 51021P3 1/3 height cover for 3/6 pushbutton module, quantity: 10



*

Pushbuttons module, 4-row for 4/8 calls

- Nameplate is extractable by tool, without the need to disassemble the panel.
- Backlight ensures clear visibility at night.
- 4-rows can be set for 4/8 calls.
- Either 1 or 2 calls for 1 row of button are set in the audio module.
- Product dimensions: 72 x 97 x 25 mm.

Article No.	Order No.	Description	Pack Qty
M251021P4		4/8 pushbutton module	1/10/8

* Accessory 51021P4 1/4 height cover for 4/8 pushbutton module and audio module with button, quantity: 10

Door entry system

Welcome - Outdoor stations



Keypad module, letters A-Z

- Inputting device for keypad outdoor station.
- Letters from A-Z.
- Scroll up and down for residents' names or input letters of the calling name (display module must be accompanied, sorting is progressive upon inputting next letter of name).
- Names or call code can be downloaded from PC through USB cable or can be edited from the keyboard.
- Up to 3,000 names can be saved in the memory.
- Both public password and up to 6, 000 customized passwords are allowed.
- If wrong password is repeatedly entered, the keypad will be locked.
- Password available with 3-8 digits and calling code with 1-6 digits.
- Call guard unit is also available.
- Backlight ensures clear visibility at night.
- Product dimensions: 72 x 97 x 31 mm.

Article No.	Order No.	Description	Pack Qty
M251021K-A		Keypad module, letters A-Z, aluminum	1/10/8
M251021K-W		Keypad module, letters A-Z, coated white	1/10/8
M251021K-S		Keypad module, letters A-Z, stainless steel finish	1/10/8



Keypad module, letters A-L

- Inputting device for keypad outdoor station.
- Letters from A-L.
- Scroll up and down for residents' names or input letters of the calling name (display module must be accompanied, sorting is progressive upon inputting next letter of name).
- Calls can also be made by combining number and letter, e.g. 112A.
- Names or call code can be downloaded from PC through USB cable or can be edited from the keyboard.
- Up to 3, 000 names can be saved in the memory.
- Both public password and up to 6, 000 customized passwords are allowed.
- If wrong password is repeatedly entered, the keypad will be locked.
- Password available with 3-8 digits and calling code with 1-6 digits.
- Call guard unit is also available.
- Backlight ensures clear visibility at night.
- Product dimensions: 72 x 97 x 31 mm.

Article No.	Order No.	Description	Pack Qty
M251022K-A		Keypad module, letters A-L , aluminum	1/10/8
M251022K-W		Keypad module, letters A-L , coated white	1/10/8



Display module with card reader

- Large screen ensures customized message, code, and legible names.
- Withstands temperatures to -40 °C.
- Wiegand output is available to connect to the third party controller.
- ID card reader (accept the card with frequency of 125KHz) or IC card reader (accept the card with frequency of 13.56MHz) is integrated into the module.
- Up to 3, 000 different cards can be registered.
- Register and delete cards locally in setting menu.
- Includes different feedback sounds for accepting or rejecting the card reader.
- Supports connection to audio module without the keypad module.
- Product dimensions: 72 x 97 x 31 mm.

Article No.	Order No.	Description	Pack Qty
M251021CR		Display module with ID card reader	1/10/8
M251022CR		Display module with IC card reader	1/10/8



Nameplate module

- Can be used to hold the address of the building or the resident directory for keypad outdoor station, or simply to fill the module within the cover frame.
- Backlight ensures clear visibility at night.
- Product dimensions: 72 x 97 x 24 mm.

Article No.	Order No.	Description	Pack Qty
51021DN		Directory nameplate module	1/10/8



Push button module, one round button

- 1 round push button with even backlight ensures legible nameplate at night.
- NFC/IC reader button optional.
- Screwless mounting module compatible for stainless steel and aluminum outdoor station.
- Supporting software ensures high quality nameplate printing.
- Product dimensions: 72 x 97 x 31 mm.

Article No.	Order No.	Description	Pack Qty
51011P1		Pushbutton module, 1 pushbutton	1/10/8
51012P1		Pushbutton module with NFC/IC function, 1 pushbutton	1/10/8



Push button module, two round pushbuttons

- 2 round push button with even backlight ensures legible nameplate at night.
- NFC/IC reader button optional.
- Screwless mounting module compatible for stainless steel and aluminum outdoor station ranges.
- Supporting software ensures high quality nameplate printing.
- Product dimensions: 72 x 97 x 31 mm.

Article No.	Order No.	Description	Pack Qty
51011P2		Pushbutton module, 2 pushbuttons	1/10/8
51012P2		Pushbutton module with NFC/IC function, 2 pushbuttons	1/10/8

Door entry system

Welcome - Outdoor stations



Push button module, three round pushbuttons

- 3 round push button with even backlight ensures legible nameplate at night.
- NFC/IC reader button optional.
- Screwless mounting module compatible for stainless steel and aluminum outdoor station.
- Supporting software ensures high quality nameplate printing.
- Product dimensions: 72 x 97 x 31 mm.

Article No.	Order No.	Description	Pack Qty
51011P3		Pushbutton module, 3 pushbuttons	1/10/8
51012P3		Pushbutton module with NFC/IC function, 3 pushbuttons	1/10/8



Camera module

- For the integration into letter boxes and bell systems of different manufacturers.
- The cutout must be created by the manufacturer.
- Extended audio module assembly with video function.
- Video camera with automatic day/night switchover and infrared LEDs to illuminate the night shots.
- Installed heating to keep the lens free of condensation.
- Vertical/horizontal detection angle: 86°/67°
- Setting angle horizontal/vertical: +/-15°, mechanically adjustable
- Product dimensions: 62 mm x 98 mm x 35 mm

Article No.	Order No.	Description	Pack Qty
83501-101-500		Camera module	1/12/12



Audio integration unit

- For the integration into letter boxes and bell systems of different manufacturers.
- Makes audio communication possible.
- Built-in relay for operating the door opener.
- 8 inputs for connecting the doorbell push-switches.
- Adjustable volume.
- With interface for the connection of built-in keypad extensions.
- With interface for the connection of the camera module.
- Product dimensions: 68 mm x 126 mm x 31 mm

Article No.	Order No.	Description	Pack Qty
83110-500		Audio integration unit	1/10/8

13



Extension unit

- Extends the built-in audio module assembly by a further 12 binary inputs.
- For the integration into letter boxes and bell systems of different manufacturers.
- With interface for the connection of additional built-in keypad extensions.
- The built-in audio module can be extended to a maximum of 99 inputs for doorbell push-switches with the aid of the built-in keypad extension.
- Product dimensions: 68 mm x 50 mm x 24 mm

Article No.	Order No.	Description	Pack Qty
83111-500		Extension unit	1/10/8

Accessories



Cover frame, size 1/1

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismantle the end strip is also included in the package.
- Size 1/1, 128 x 125 x 19 mm.

Article No.	Order No.	Description	Pack Qty
51021CF-A		Cover frame, 1-module, size 1/1, aluminum	1/34
51021CF-W		Cover frame, 1-module, size 1/1, coated white	1/34



Cover frame, size 1/2

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismantle the end strip is also included in the package.
- Size 1/2, 201 x 125 x 19 mm.

Article No.	Order No.	Description	Pack Qty
51022CF-A		Cover frame, 2-module, size 1/2, aluminum	1/34
51022CF-W		Cover frame, 2-module, size 1/2, coated white	1/34



Cover frame, size 1/3

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismantle the end strip is also included in the package.
- Size 1/3, 274 x 125 x 19 mm.

Article No.	Order No.	Description	Pack Qty
51023CF-A		Cover frame, 3-module, size 1/3, aluminum	1/22
51023CF-W		Cover frame, 3-module, size 1/3, coated white	1/22



Cover frame, size 1/4

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismantle the end strip is also included in the package.
- Size 1/4, 347 x 125 x 19 mm.

Article No.	Order No.	Description	Pack Qty
51024CF-A		Cover frame, 4-module, size 1/4, aluminum	1/22
51024CF-W		Cover frame, 4-module, size 1/4, coated white	1/22



Cover frame, size 1/5

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismantle the end strip is also included in the package.
- Size 1/5, 420 x 125 x 19 mm.

Article No.	Order No.	Description	Pack Qty
51028CF-A		Cover frame, 5-module, size 1/5, aluminum	1/22



Cover frame, size 2/3

- The invisible screw design with provision of double columns is aesthetically pleasing.
- The tool to dismantle the end strip is also included in the package.
- Size 2/3, 274 x 230 x 19 mm.

Article No.	Order No.	Description	Pack Qty
51025CF-W		Cover frame, 6-module, size 2/3, aluminum	1/11
51025CF-W		Cover frame, 6-module, size 2/3, coated white	1/11

Door entry system

Welcome - Outdoor stations



Cover frame, size 2/4

- The invisible screw design with provision of double columns ensures a pleasing appearance.
- The tool to dismount the end strip is also included in the package.
- Size 2/3, 347 x 230 x 19 mm.

Article No.	Order No.	Description	Pack Qty
51026CF-A		Cover frame, 8-module, size 2/4, aluminum	1/11
51026CF-W		Cover frame, 8-module, size 2/4, coated white	1/11



Cover frame, size 2/5

- The invisible screw design with provision of double columns ensures a pleasing appearance.
- The tool to dismount the end strip is also included in the package.
- Size 2/5, 420 x 230 x 19 mm.

Article No.	Order No.	Description	Pack Qty
51029CF-A		Cover frame, 10-module, size 2/5, aluminum	1/11



End strip

- End strip for outdoor station cover frame.
- 2 types available, one for single-column wide outdoor station (size 1/X, 125 x 19 x 15 mm), the other for double-column wide outdoor station (size 2/X, 230 x 19 x 15 mm)

Article No.	Order No.	Description	Pack Qty
51021EP-A		End strip, size 1/x, aluminum	1/36
51022EP-A		End strip, size 2/x, aluminum	1/20
51021EP-W		End strip, size 1/x, white	1/36
51022EP-W		End strip, size 2/x, white	1/20



Flush mounted box, size 1/1

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 1/1, 126 x 124 x 46 mm.

Article No.	Order No.	Description	Pack Qty
41021F		Flush-mounted box, 1-module, size 1/1	1/19



Flush mounted box, size 1/2

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 1/2, 199 x 124 x 46 mm.

Article No.	Order No.	Description	Pack Qty
41022F		Flush-mounted box, 2-module, size 1/2	1/19



Flush mounted box, size 1/3

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 1/3, 272 x 124 x 46 mm.

Article No.	Order No.	Description	Pack Qty
41023F		Flush-mounted box, 3-module, size 1/3	1/12



Flush mounted box, size 1/4

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 1/4, 345 x 124 x 46 mm.

Article No.	Order No.	Description	Pack Qty
41024F		Flush-mounted box, 4-module, size 1/4	1/12



Flush mounted box, size 1/5

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 1/5, 418 x 124 x 46 mm.

Article No.	Order No.	Description	Pack Qty
41028F		Flush-mounted box, 5-module, size 1/5	1/6



Flush mounted box, size 2/3

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 2/3, 272 x 228 x 47 mm.

Article No.	Order No.	Description	Pack Qty
41025F		Flush-mounted box, 6-module, size 2/3	1/6



Flush mounted box, size 2/4

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 2/4, 345 x 228 x 47 mm.

Article No.	Order No.	Description	Pack Qty
41026F		Flush-mounted box, 8-module, size 2/4	1/6



Flush mounted box, size 2/5

- The anodized aluminum flush box is fitted with knock down holes for cabling from left, right, bottom or back.
- The product is packed with accessories to ensure quality installation.
- Size 2/5, 418 x 228 x 47 mm.

Article No.	Order No.	Description	Pack Qty
41029F		Flush-mounted box, 10-module, size 2/5	1/6



Joining fixture

- It is used when more than one flush mounted box (size 1/4, 41024F) needs to be connected together.
- Product dimensions: 75 x 30 x 30 mm.

Article No.	Order No.	Description	Pack Qty
51021J		Joining fixture for multi- flush mounted boxes connection	1

Door entry system

Welcome - Outdoor stations



Cavity wall set

- For cavity/hallow wall mounting of the flush-mounted wall boxes.
- Product dimensions: 120 x 80 x 10 mm.

Article No.	Order No.	Description	Pack Qty
51021CS		Cavity wall set for outdoor station and 4.3" video handsfree	1/18



Rain hood, size 1/1

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 1/1, 128 x 131 x 70 mm.

Article No.	Order No.	Description	Pack Qty
51021RH		Rain hood, 1-module, size 1/1	1/14



Rain hood, size 1/2

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 1/2, 201 x 131 x 70 mm.

Article No.	Order No.	Description	Pack Qty
51022RH		Rain hood, 2-module, size 1/2	1/14



Rain hood, size 1/3

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 1/3, 274 x 131 x 70 mm.

Article No.	Order No.	Description	Pack Qty
51023RH		Rain hood, 3-module, size 1/3	1/8



Rain hood, size 1/4

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 1/4, 347 x 131 x 70 mm.

Article No.	Order No.	Description	Pack Qty
51024RH		Rain hood, 4-module, size 1/4	1/8



Rain hood, size 1/5

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 1/5, 420 x 131 x 70 mm.

Article No.	Order No.	Description	Pack Qty
51028RH		Rain hood, 5-module, size 1/5	1/8



Rain hood, size 2/3

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 2/3, 274 x 237 x 70 mm.

Article No.	Order No.	Description	Pack Qty
51025RH		Rain hood, 6-module, size 2/3	1/4



Rain hood, size 2/4

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 2/4, 347 x 237 x 70 mm.

Article No.	Order No.	Description	Pack Qty
51026RH		Rain hood, 8-module, size 2/4	1/4



Rain hood, size 3/4

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 3/4, 347 x 378 x 70 mm.

Article No.	Order No.	Description	Pack Qty
51027RH		Rain hood, 12-module, size 3/4	1/2



Rain hood, size 2/5

- The anodized aluminum rain hood is suitable for both surface mounting (by screwing into the flush box) and flush mounting (supporting tool kit is provided in the package).
- Size 2/5, 420 x 237 x 70 mm.

Article No.	Order No.	Description	Pack Qty
51029RH		Rain hood, 10-module, size 2/5	1/4



Labelling sheet, A4

- Quality labelling sheet for nameplate.
- Easy to be printed and cut.
- Waterproof.
- Size 2/5, 210 x 297 mm.

Article No.	Order No.	Description	Pack Qty
51021L		Labelling sheet for nameplate, A4	
51022L		Labelling sheet for 1/3 height, A4	
51023L		Labelling sheet for 1/4 height, A4	
51024L		Labelling sheet for round pushbutton module, A4	



ID card

- 125 KHz.
- ISO18000-2.

Article No.	Order No.	Description	Pack Qty
51021F-L		Proximity key fob, ID card	
51021B		Proximity badge, ID card	



IC card

- 13.56 MHz.
- ISO14443A.

Article No.	Order No.	Description	Pack Qty
51022F-Y		Proximity key fob, IC card, yellow	
51022F-R		Proximity key fob, IC card, red	
51022F-L		Proximity key fob, IC card, blue	

Door entry system

Welcome - Outdoor stations



Mounting tool

- Spare part for the outdoor station, stainless steel
- Product dimensions: 164 x 26 x 4 mm.

Article No.	Order No.	Description	Pack Qty
51022MT		Mounting tool, stainless steel	1/10



Label holder for round pushbutton module

- Label holder for the round pushbutton module, with stamped labelling
- Contains one support frame and two extension support frames.

Article No.	Order No.	Description	Pack Qty
83161-500		Label holder for round pushbutton	1/18



New Proximity key fob

- Product dimensions: 201 x 131 x 70 mm.

Article No.	Order No.	Description	Pack Qty
51023F-W		New Proximity key fob, ID card, white	
51023F-B		New Proximity key fob, ID card, black	
51024F-W		New Proximity key fob, IC card, white	
51024F-B		New Proximity key fob, IC card, black	



New ID sticker

- Product dimensions: 25 x 25x 0.6 mm.

Article No.	Order No.	Description	Pack Qty
51021S		New ID sticker	
51022S		New IC sticker	



Proximity badge, IC card

- Product dimensions: 40 x 31 x 5 mm.

Article No.	Order No.	Description	Pack Qty
83173-500		Proximity badge, IC card	

Quick composition guide for modular pushbutton outdoor station

(3-row or 4-row pushbutton)

Welcome provides a wide range of outdoor stations with pushbuttons by the combination of the modules, covers and boxes.

For pushbutton outdoor stations, it multiplies the application by setting as one column or double column for the same pushbutton module. The setting is made by the audio modules. We refer to the pushbutton status as “single row” or “double row.”

3-row and 4-row pushbutton are optional for application.

To compose a pushbutton outdoor station, audio module (with no pushbutton, with 1-row or 2-row pushbutton), pushbutton module (3-row or 4-row pushbutton), cover frame and flush mounted boxes are compulsory. If surface mounting is required, a rain hood is needed.

There is a quick composition table for pushbutton outdoor station on pages 10-11. Please follow the guide below and refer to the table to choose the items needed for the desired pushbutton outdoor station.

Step 1:

Audio or video?

Please refer to page 10 for audio pushbutton outdoor station and page 11 for video pushbutton outdoor station.

Step 2:

3-row or 4-row pushbutton?

Please refer to the 3-row or 4-row pushbutton table for different pushbutton applications.

* It is technically possible but not aesthetically pleasing to combine audio module with pushbutton and 3-row pushbutton module. For better appearance as an outdoor station, the composition of pushbuttons follows the rule that every pushbutton should have the same height. Thus, if 3-row pushbutton module is used, audio module with pushbutton and 4-row pushbutton module are not recommended.

Step 3:

How many calls are needed?

Please decide whether single row or double row pushbutton is needed, then please turn to the button ranges to quickly locate the possible composition.

* In case the light and call guard functions are required for the outdoor station, then the total buttons should be the combination of the apartment no. and button number for the extra functions.

** If it's not certain whether single or double pushbuttons for one row is optimal, it is possible to turn to the pushbutton range to see all the possibilities.

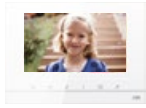
Step 4:

Choose the right composition by balancing cost and aesthetics

* There may be more than one possibility of combining outdoor stations by choosing 3-row module or 4-row pushbutton module, choosing a nameplate module or not and setting as single row or double row for the same pushbutton module. It is advisable to consider both cost and aesthetics when making this decision.

Door entry system

Welcome - Indoor stations



Available in April, 2017

7" video hands-free indoor station

- Both push button version and all touch version are available.
- Large 17.8 cm (7") color display with intuitive touch control.
- 6 buttons for communication, unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- During resident's absence, voice message of the resident will be played automatically in case of door calls, and three photos of the visitor will be automatically stored.
- The number of pictures that can be stored is decided by the capacity of the SD card (not provided).
- Call transfer among different apartments and guard unit is available.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- Send SOS alarm to guard unit in emergency.
- Surface mounting and desktop mounting (desktop bracket 42311D is needed).
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Product dimensions: 155 x 218 x 29 mm.

Article No.	Order No.	Description	Pack Qty
M22331-W		7" hands-free video indoor station, touch version, white	1/16
M22331-B		7" hands-free video indoor station, touch version, black	1/16
83220 AP-624-500-01		7" video hands-free indoor station, pushbutton, white	1/16
83220 AP-681-500-01		7" video hands-free indoor station, pushbutton, black	1/16
83220 AP-683-500-01		7" video hands-free indoor station, pushbutton, silver	1/16



4.3" video hands-free indoor station

- 4.3" color display with on screen display.
- 6 touch film buttons for communication unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- 2 photos of the visitor will be automatically stored in the picture memory for door calls during resident's absence.
- Holds up-to 50 photos
- Call transfer among different apartments and guard unit is available.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, doorbell, intercom or guard unit.
- Broadcast by simply holding and pressing the communication button.
- Surface mounting, flush mounting (flush-mounted box 42311F is needed) and desktop mounting (desktop bracket 42311D is needed), and cavity wall set (51021CS needed)
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Product dimensions: 137 x 155 x 24 mm.

Article No.	Order No.	Description	Pack Qty
M22311-W		4.3" video hands-free indoor station, white	1/28
M22311-B		4.3" video hands-free indoor station, black	1/28



4.3" video hands-free indoor station with induction loop

- Electromagnetic signals will be emitted by a special inductive loop for auditory indication of any incoming calls. Functionable for users with hearing aids.
- 4.3" color display with on screen display.
- 6 touch film buttons for communication, unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- 2 photos of the visitor will be automatically stored in memory for door calls during resident's absence.
- Holds up to 50 photos.
- Call transfer among different apartments and guard unit is available.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- Broadcast by simply pressing and holding the communication button.
- Surface mounting, flush mounting (flush mounted box 42311F is needed), desktop mounting (desktop bracket 42311D is needed) and cavity wall set (51021CS needed).
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Product dimensions: 137 x 155 x 24 mm.

Article No.	Order No.	Description	Pack Qty
M22313-W		4.3" hands-free video indoor station, induction loop, white	1/28



4.3" video handset indoor station, color display

- Slim indoor station with handset (depth of 45 inches).
- 4.3" color display with on screen display.
- 6 touch film buttons for communication, unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- 2 photos of the visitor will be automatically stored in memory for door calls during resident's absence.
- Holds up to 25 photos.
- Call transfer among different apartments and guard unit is available.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- Surface mounting and desktop mounting (desktop bracket 42311D is needed).
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Product dimensions: 144 x 198 x 45 mm.

Article No.	Order No.	Description	Pack Qty
M22302-W		4.3" handset color video indoor station, white	1/15

Door entry system

Welcome - Indoor stations



4.3" video handset indoor station, color display with induction loop

- Electromagnetic signals will be emitted by a special inductive loop for auditory indication of any incoming calls. Function for users with hearing aids.
- Slim indoor station with handset (depth of 45 inches).
- 4.3" color display with on screen display.
- 6 touch film buttons for communication, unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- 2 photos of the visitor will be automatically stored in the memory for door calls during resident's absence.
- Holds up to 25 photos.
- Call transfer among different apartments and guard unit is available.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- Surface mounting and desktop mounting (desktop bracket 42311D is needed).
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Product dimensions: 144 x 198 x 45 mm.

Article No.	Order No.	Description	Pack Qty
M22303-W		4.3" handset color video indoor station with induction loop, white	1/ 15



Basic 4.3" video hands-free indoor station

- 4.3" color display with on screen display.
- 6 touch film buttons for communication unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, doorbell, intercom or guard unit. The ringtone can be fixed or cycled
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Surface mounting and desktop mounting (desktop bracket 42311D is needed).
- Product dimensions: 154 x 134 x 23 mm.

Article No.	Order No.	Description	Pack Qty
M22341-W		Basic 4.3" video hands-free indoor station, white	1/24



Basic 4.3" video hands-free indoor station with induction loop

- Electromagnetic signals will be emitted by a special inductive loop for auditory indication of any incoming calls. Functionable for users with hearing aids.
- 4.3" color display with on screen display.
- 6 touch film buttons for communication, unlocking, mute, programmable button (can be set as intercom, call guard unit, etc.), surveillance and setting.
- 2 photos of the visitor will be automatically stored in memory for door calls during resident's absence.
- Holds up to 50 photos.
- Doctor function for automatic unlock.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, doorbell, intercom or guard unit. The ringtone can be fixed or cycled
- The detailed user manual can be downloaded through scanning the QR code on the screen.
- Surface mounting and desktop mounting (desktop bracket 42311D is needed).
- Product dimensions: 154 x 134 x 23 mm.

Article No.	Order No.	Description	Pack Qty
M22343-W		Basic 4.3" video hands-free indoor station, with induction loop, white	1/24



Audio handset indoor station, 3 buttons

- 1 easy pushbutton for unlock, and 2 additional buttons for self setting functions, e.g. intercom, door status check, second lock release or even calling the security guard, etc.
- Max-mid-mute volume adjuster on the side.
- 2 LEDs to indicate different working status.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- The activating or deactivating of automatic unlock can be made by simply pressing the unlock button for 10 seconds.
- Surface mounted.
- Product dimensions: 198 x 81 x 43 mm.

Article No.	Order No.	Description	Pack Qty
M22002-W		Audio handset indoor station, 3 buttons, white	1/25



Audio handset indoor station, 3 buttons with induction loop

- 1 easy pushbutton for unlock, and 2 additional buttons for self setting functions, e.g. intercom door status check, second lock release or even calling the security guard, etc.
- Max-mid-mute volume adjuster on the side.
- 2 LEDs to indicate different working status.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- The activating or deactivating of automatic unlock can be made by simply pressing the unlock button for 10 seconds.
- Electromagnetic signals will be emitted by a special inductive loop to provide hearing assistance to hearing aid users.
- Product dimensions: 198 x 81 x 43 mm.

Article No.	Order No.	Description	Pack Qty
M22003-W		Audio handset indoor station, 3 buttons with induction loop, white	1/25



Audio handset indoor station, 6 buttons

- 1 easy pushbutton for unlock, and 2 additional buttons for self setting functions, e.g. intercom door status check, second lock release or even calling the security guard, etc.
- Max-mid-mute volume adjuster on the side.
- 2 LEDs to indicate different working status.
- 5 ringtones for different call sources, i.e. from default outdoor station, secondary outdoor station, door bell, intercom or guard unit.
- The activating or deactivating of automatic unlock can be made by simply pressing the unlock button for 10 seconds.
- Electromagnetic signals will be emitted by a special inductive loop to provide hearing assistance to hearing aid users.
- Product dimensions: 198 x 81 x 43 mm.

Article No.	Order No.	Description	Pack Qty
M22001-W		Audio handset indoor station, 6 buttons, white	1/25

Door entry system

Welcome - Indoor stations



Audio hands-free indoor station, 4 buttons

- Light button can be customized as room-to-room intercom, call guard unit.
- Different bell tones for door-call and floor-call
- Choice of five different bell sounds
- Simple surface-mounting
- The ringtone can be fixed or cycled
- Floor-call function, a connected button functions as a floor-call button: all indoor stations with the same address trigger a floor call
- Dimensions: 175 x 81 x 22 mm.

Article No.	Order No.	Description	Pack Qty
83210 AP-624-500		Audio handsfree, white	1/26
83210 AP-681-500		Audio handsfree, black	1/26
83210 AP-683-500		Audio handsfree, silver	1/26

Accessories



Changeable front cover for 4.3" video hands-free indoor station

- 5 face covers in different colors are available, which are easily changeable for 4.3" video hands-free indoor station to meet personal aesthetic preference.

Article No.	Order No.	Description	Pack Qty
52311FC-W		Front cover for 4.3" video hands-free, white	1/36
52311FC-S		Front cover for 4.3" video hands-free, silver	1/36
52311FC-B		Front cover for 4.3" video hands-free, black	1/36
52311FC-G		Front cover for 4.3" video hands-free, golden	1/36
52311FC-L		Front cover for 4.3" video hands-free, light blue	1/36



Changeable front cover for 4.3" video hands-free indoor station with induction loop

- 5 face covers in different colors are available, which are easily changeable for 4.3" video hands-free indoor station with induction loop to meet personal aesthetic preference.

Article No.	Order No.	Description	Pack Qty
52313FC-W		Front cover for 4.3" video hands-free with induction loop, white	1/36
52313FC-S		Front cover for 4.3" video hands-free with induction loop, silver	1/36
52313FC-B		Front cover for 4.3" video hands-free with induction loop, black	1/36
52313FC-G		Front cover for 4.3" video hands-free with induction loop, golden	1/36
52313FC-L		Front cover for 4.3" video hands-free with induction loop, light blue	1/36



Flush mounted box for 4.3" video hands-free indoor station

- Metal box for flush mounted 4.3" video hands-free indoor stations.
- Product dimensions: 145 x 125 x 27 mm.

Article No.	Order No.	Description	Pack Qty
42311F		Metal flush mounted box	1/60



Desktop bracket

- Full metal design with brushed finish base, suitable for 7" all touch, 4.3" hands-free video indoor station, 4.3" handset video indoor station and guard unit.
- Product dimensions: 125 x 107 x 134 mm.

Article No.	Order No.	Description	Pack Qty
42311D		Metal desktop bracket	1/ 12

Door entry system

Welcome - Indoor stations



Handset with induction loop

- Suitable for audio handset indoor station with induction loop and 4.3" video handset indoor station with induction loop.
- Product dimensions: 144 x 53 x 23 mm.

Article No.	Order No.	Description	Pack Qty
52303HS-W		Handset with induction loop (spare part)	1/9



Jumper

- Jumper set for audio / video handset indoor stations is used to set the address, master / slave indoor station and RC on / off of indoor stations.
- Product dimensions: 120 x 80 x 10 mm.

Article No.	Order No.	Description	Pack Qty
52001J		Jumper set for audio handset indoor station	1/10
52301J		Jumper set for 4.3" video handset indoor station	1/10



Cavity wall set

- For cavity wall mounting of the flush-mounted wall boxes.
- Product dimensions: 120 x 80 x 10 mm.

Article No.	Order No.	Description	Pack Qty
51021CS		Cavity wall set for outdoor station and 4.3" video handsfree	1/18

Door entry system

Welcome - System devices



System controller

- As the “brain” of the individual system, it manages the communication between the outdoor station and the indoor station.
- Two working modes : “all on” and “one on”.
- If in “all on” mode, and the apartment contains more than 1 video indoor station, all the screens in the apartment will be on while only one is on if in “one on” mode.
- It can also serve as auxiliary BUS power supply when connected to gateway in certain mode.
- 1 LED for normal working condition indication.
- Overheat, short-circuit and lightening protection.
- Product dimensions: 90 x 144 x 65 mm.

Article No.	Order No.	Description	Pack Qty
M2300		System controller, 1.2A output, MDRC 8U	1/10



Mini system controller

- As the “brain” of the individual system, it manages the communications between the outdoor station and the indoor station.
- Two working modes: “all on” and “one on”.
- If in “all on” mode, and the apartment contains more than 1 video indoor station, all the screens in the apartment will be on while only one is on if in “one on” mode.
- It can also serve as auxiliary BUS power supply when connected to gateway in certain mode.
- 1 LED for normal working condition indication.
- Overheat, short-circuit and lightening protection.
- Product dimensions: 90 x 72 x 65 mm.

Article No.	Order No.	Description	Pack Qty
M2301		Mini system controller, 0.65A output, MDRC 4U	1/10



Gateway

- It offers 5 different modes which can be set by dip switch: apartment gateway, floor gateway, building gateway, auxiliary BUS power supply interface and line amplifier.
- Product dimensions: 90 x 72 x 65 mm.

Article No.	Order No.	Description	Pack Qty
M2302		Gateway, MDRC 4U	1/10



Video outdoor distributor

- Used for buildings with more than 1 outdoor station.
- 2-way inputs are connected to different outdoor stations.
- Product dimensions: 90 x 36 x 65 mm.

Article No.	Order No.	Description	Pack Qty
83325/2-500		Video outdoor distributor, MDRC 2U	1/20

Door entry system

Welcome - System devices



Guard unit

- 4.3" touch screen and 6 touch film buttons can ensure the communication with calls from outdoor station, indoor station or other guard unit (if any).
- It can be manually or automatically set into intercept mode to increase security level for all users or only certain individuals.
- Surveillance can be done through the camera of outdoor stations or integrated analog camera.
- Missed calls and alarm messages stored in the memory can be reviewed.
- It can be surface mounted on the wall or desktop mounted (desktop bracket 42311D is needed).
- Product dimensions: 144 x 198 x 45 mm.

Article No.	Order No.	Description	Pack Qty
M2303		Guard Unit	1/15



Video distributor

- This compact device supports 4-way outputs connected to different apartments or different high-rise buildings.
- Flush-mounted into box or surface mounted through the hole in the middle, or DIN rail mounted via DIN adaptor (Article no. 53001DR)
- Product dimensions: 45 x 45 x 26 mm.

Article No.	Order No.	Description	Pack Qty
M2304		Video distributor, FM	1/18



Switch actuator

- This compact device has 3 working modes: extend door bell, door opener and time relay.
- Local pushbutton can be connected as control input.
- The switching duration of unlock or switching on lightings is adjustable.
- Flush-mounted or DIN rail mounted via DIN adaptor (Article no. 53001DR)
- Product dimensions: 51 x 51 x 29 mm.

Article No.	Order No.	Description	Pack Qty
M2305		Switch actuator, FM	1/18



BNC connector

- Used to connect the external camera to the camera interface or outdoor station's camera module.
- The connector accepts a BNC plug connection directly.
- Product dimensions: 42 x 15 x 14 mm.

Article No.	Order No.	Description	Pack Qty
55001BC		BNC connector	1/10



Camera interface

- Supports up to 4 analog 3rd party cameras for one device.
- Supports camera connection to the existing video/audio outdoor station.
- Supports transfer of image from guard unit to the indoor station.
- Supports the camera for viewing the area of the floor (for example with the connection from indoor station to this interface, where it connects to the analog camera).
- Supports input and output of video signal of outdoor station to 3rd party VDR during the call, which can be viewed from the video indoor station).
- Supports installation in DIN, surface mounted.
- Product dimensions: 77 x 61 x 25 mm.

Article No.	Order No.	Description	Pack Qty
83327-500		4-way analog camera interface	1/18



DIN rail adaptor

- One DIN rail adaptor fit for all the flush mounted devices: video distributor, switch actuator, and camera interface
- Adjustable and consistent looking cover can be taken out if needed.
- Product dimensions: 90 x 72 x 65 mm.

Article No.	Order No.	Description	Pack Qty
53001DR		DIN rail adaptor	1/10



Download available in Q1, 2017

IP Gateway & ABB-Welcome App

- The installation of the ABB-Welcome App enables to use smartphones and tablets (iOS and Android) as virtual video indoor station.
- Both WIFI and remote access under 3G/4G through internet service provider.
- IP Gateway acts as a PC interface to program the telephone gateway more efficiently.

New features:

- Enables the integration with ABB Comfort touch as indoor station.
- Supports to monitor multi-cameras connected with camera interface
- Supports intercom calls, including home to home & room to room call by ABB-Welcome App
- Supports to communicate with guard unit by ABB-Welcome App
- Supports to control relay actuator, and one actuator can be activated during the call if necessary by ABB-Welcome App
- Supports to control two locks during the call by ABB-Welcome App
- Supports to make a SOS call if there is emergency by ABB-Welcome App
- Notification function of App is always available: while App is open in the foreground, background or even closed totally.
- Product dimensions: 90 x 180 x 65 mm.

Article No.	Order No.	Description	Pack Qty
83342-500		IP Gateway, MDRC 10U	1/24



Telephone Gateway

- PSTN Telephone integrated as audio indoor station.
- Unlock the door, switch the light, communication can be done through normal telephone.
- Any mobile device can be set as extended indoor station.
- Efficient programming through PC by IP Gateway.
- Product dimensions: 90 x 72 x 65 mm.

Article No.	Order No.	Description	Pack Qty
83350-500		Telephone Gateway	1/10

Door entry system

Welcome - System devices



Lift control module

- Enhance security to allow authorized visitor/resident to ONLY go to the designated floor while unauthorized visitor can not activate any floor button in the lift.
- Efficient programming through PC by dedicated commissioning software.
- Each module supports up to 16 floors, total up to 16 modules can be cascaded.
- Size of relay mode: 216 x 110 x 45 mm; size of M adaptor: 90 x 72 x 65 mm.

Article No.	Order No.	Description	Pack Qty
M2307		Lift control relay module	1/30
M2306		M adaptor (two functions: PC adaptor and lift control module)	1/10



NEW

2-wire adaptor

- supports to connect PC with management software into 2-wire DES system
- PC management software supports centralized management of user card no. /user names/ logic addresses, registration/deletion/change.
- Supports the building system without floor system
- PC management software records system logs, e.g unlock log, SOS log.
- PC management software supports to configure lift control modules.
- 2-wire adaptor dimensions: 90 x 180 x 65 mm

Article No.	Order No.	Description	Pack Qty
M2308		2-wire adaptor, MDRC 10U	1/24



NEW

External camera

- Analogue camera solutions for the camera interface from the ABB-Welcome range
- Three types are optional for different application, normal camera/dome camera/mini dome camera
- Image Sensor: 1/3" 1.3MP SONY Exmor CMOS.
- Effective Pixels: 1305(H)×1049(V).
- Resolution: 700TVL
- Horizontal detection angle: 30 °- 90° (manually adjustable for video camera & dome camera); 75°(fixed for mini dome camera)
- S/N Ratio: ≥50 dB
- Min. illumination (Day): 0.01 Lux @ F2.0
- Min. illumination (Night): 0 Lux @ F2.0
- Video signal: 1 x CVBS, 1Vpp, 75 Ohm (Cinch)
- White Balance: AWB, 1 800 K – 10 800 K
- Lens: 2.8-12 mm (manually adjustable for video camera & dome camera); 3.6 mm (fixed for mini dome camera)
- IR Range: 50 m (video camera), 40 m (dome camera), 30 m (mini dome camera)
- Input Voltage: DC 12 V +/- 10 %
- Dustproof and waterproof as IP 66
- Product dimensions:
Video camera: 286 x 86 x 77 mm
Dome camera: 130 x 119 x 104 mm
Mini dome camera: 105 x 94 x 83 mm

Article No.	Order No.	Description	Pack Qty
83550/1-500-01		Video camera	1/4
83550/2-500-01		Dome camera	1/12
83550/3-500-01		Mini dome camera	1/12

Solutions for electrical installation in buildings

Enclosures

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System pro E comfort MISTRAL41F

Endless installation possibilities

Door opens up to 180° allowing full access to the interior of the unit

The symmetrical design allows opening of the reversible door either from the left or from the right



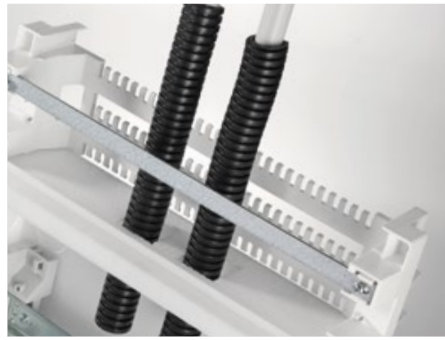
Door available in two versions: petrol blue and opaque

The depth of the base box ensures a perfect balance between internal space and the possibility of installation in thin walls



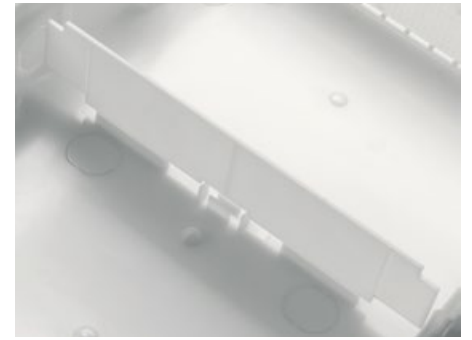
Horizontal coupling

The consumer units can be coupled side by side with the horizontal junction unit accessory, protecting the passage of cables between adjacent units.



Dual-function accessory

A single accessory performs a dual function. It can be used to fix pipes to the unit's housing or to vertically couple two consumer units.



Internal partition

The horizontal partition allows the interior of the unit to be divided into two parts.



Flanges

The flange with multi pre-cuts is designed to be sheared only where necessary in order to ensure a more secure fastening. The removable flange with knockout holes ensure a reliable and safe placing of flexible pipes and other conduits, especially in plasterboard installation.



Two DIN-Rail positions

The extractable frame has two DIN-Rail positions so devices of different depths, like S200 or S800 miniature circuit breakers, can be installed in perfect alignment.



Captive screw covers

Screw covers are hooked to the front panel so they can be removed without the risk of losing them.



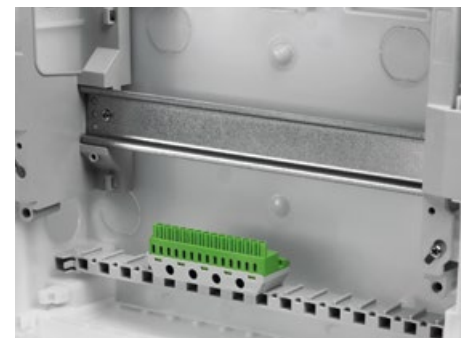
DIN-Rail terminals

It is possible to install an extra DIN-Rail at the top and bottom of the consumer unit, starting from 12 modules size.



Horizontal levelling

The external adjustments of the front cover assure a perfect horizontal levelling even if the consumer unit is slightly crooked.



New generations terminals

The new System pro E comfort MISTRAL® range of consumer units is supplied with a wide, completely new ABB terminal block range. Two different versions offer screw and spring fast coupling for easy and effective cabling up to 63 A or 100 A.

Enclosures

System pro E comfort MISTRAL41F for concrete wall

Description	GWT	N° of modules	Dimensions WxHxD	ABB code	Order code	Price	Packaging
		[18 mm]	[mm]				

MISTRAL41F - 1 Row



4 modules

Opaque door 4M	650	4	152x202x105	1SLM004100A1100	1SLM004100A1100		1/24
Transparent door 4M	650	4	152x202x105	1SLM004100A1200	1SLM004100A1200		1/24
Front transparent door 4M	650	4	152x202x25	1SLM004100A1600	1SLM004100A1600		1/24
Box 650 4M	650	4	129x182x80	1SLM004100A1700	1SLM004100A1700		1/24



6 modules

Opaque door 6M	650	6	192x202x105	1SLM004100A1101	1SLM004100A1101		1/18
Transparent door 6M	650	6	192x202x105	1SLM004100A1201	1SLM004100A1201		1/18
Front transparent door 6M	650	6	192x202x25	1SLM004100A1601	1SLM004100A1601		1/18
Box 650 6M	650	6	149x182x80	1SLM004100A1701	1SLM004100A1701		1/18



8 modules

Opaque door 8M	650	8	232x250x108	1SLM004100A1102	1SLM004100A1102		1/12
Transparent door 8M	650	8	232x250x108	1SLM004100A1202	1SLM004100A1202		1/12
Front transparent door 8M	650	8	232x250x28	1SLM004100A1602	1SLM004100A1602		1/12
Box 650 8M	650	8	206x230x80	1SLM004100A1702	1SLM004100A1702		1/12
Front flush opaque door 8M	650	8	232x250x28	1SLM004100A1502	1SLM004100A1502		1/12



12 modules

Opaque door 12M	650	12	320x250x108	1SLM004100A1103	1SLM004100A1103		1/9
Transparent door 12M	650	12	320x250x108	1SLM004100A1203	1SLM004100A1203		1/9
Front transparent door 12M	650	12	320x250x28	1SLM004100A1603	1SLM004100A1603		1/9
Box 650 12M	650	12	294x230x80	1SLM004100A1703	1SLM004100A1703		1/9
Front flush opaque door 12M	650	12	320x250x28	1SLM004100A1503	1SLM004100A1503		1/9



18 modules

Opaque door 18M	650	18	430x250x108	1SLM004100A1104	1SLM004100A1104		1/6
Transparent door 18M	650	18	430x250x108	1SLM004100A1204	1SLM004100A1204		1/6
Front transparent door 18M	650	18	430x250x28	1SLM004100A1604	1SLM004100A1604		1/6
Box 650 18M	650	18	404x230x80	1SLM004100A1704	1SLM004100A1704		1/6

14



24 modules

MISTRAL41F - 2 Rows

Opaque door 24M	650	24	320x435x108	1SLM004100A1105	1SLM004100A1105		1/5
Transparent door 24M	650	24	320x435x108	1SLM004100A1205	1SLM004100A1205		1/5
Front transparent door 24M	650	24	320x435x28	1SLM004100A1605	1SLM004100A1605		1/5
Box 650 24M	650	24	294x415x80	1SLM004100A1705	1SLM004100A1705		1/5
Front flush opaque door 24M	650	24	320x435x28	1SLM004100A1505	1SLM004100A1505		1/5

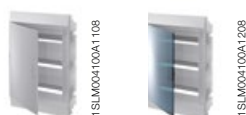


36 modules

Opaque door 36M 2R	650	36	430x435x108	1SLM004100A1106	1SLM004100A1106		1/3
Transparent door 36M 2R	650	36	430x435x108	1SLM004100A1206	1SLM004100A1206		1/3



36 modules



54 modules



48 modules



72 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	ABB code	Order code	Price	Pack-aging
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MISTRAL41F - 3 Rows

Opaque door 36M 3R	650	36	320x600x108	1SLM004100A1107	1SLM004100A1107		1/4
Transparent door 36M 3R	650	36	320x600x108	1SLM004100A1207	1SLM004100A1207		1/4
Front transparent door 36M 3R	650	36	320x600x28	1SLM004100A1607	1SLM004100A1607		1/4
Box 650 36M 3R	650	36	294x580x80	1SLM004100A1707	1SLM004100A1707		1/4
Front flush opaque door 36M 3R	650	36	320x600x28	1SLM004100A1507	1SLM004100A1507		1/4

Opaque door 54M	650	54	430x600x128	1SLM004100A1109	1SLM004100A1109		1/1
Transparent door 54M	650	54	430x600x128	1SLM004100A1209	1SLM004100A1209		1/1

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	ABB code	Order code	Price	Pack-aging
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MISTRAL41F - 4 Rows

Opaque door 48M	650	48	320x735x108	1SLM004100A1108	1SLM004100A1108		1/1
Transparent door 48M	650	48	320x735x108	1SLM004100A1208	1SLM004100A1208		1/1

Opaque door 72M	650	72	430x735x128	1SLM004100A1110	1SLM004100A1110		1/1
Transparent door 72M	650	72	430x735x128	1SLM004100A1210	1SLM004100A1210		1/1

Enclosures

System pro E comfort MISTRAL41F for hollow wall



4 modules



6 modules



8 modules



12 modules



18 modules



24 modules



36 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Packaging
				Order code	Price	
Mistral41F - 1 Row						
Opaque door 4M	850	4	152x202x105	1SLM004100A1300		1/24
Transparent door 4M	850	4	152x202x105	1SLM004100A1400		1/24
Opaque door 6M	850	6	192x202x105	1SLM004100A1301		1/18
Transparent door 6M	850	6	192x202x105	1SLM004100A1401		1/18
Opaque door 8M	850	8	232x250x108	1SLM004100A1302		1/12
Transparent door 8M	850	8	232x250x108	1SLM004100A1402		1/12
Opaque door 12M	850	12	320x250x108	1SLM004100A1303		1/9
Transparent door 12M	850	12	320x250x108	1SLM004100A1403		1/9
Opaque door 18M	850	18	430x250x108	1SLM004100A1304		1/6
Transparent door 18M	850	18	430x250x108	1SLM004100A1404		1/6
Mistral41F - 2 Rows						
Opaque door 24M	850	24	320x435x108	1SLM004100A1305		1/5
Transparent door 24M	850	24	320x435x108	1SLM004100A1405		1/5
Opaque door 36M 2R	850	36	430x435x108	1SLM004100A1306		1/3
Transparent door 36M 2R	850	36	430x435x108	1SLM004100A1406		1/3

Where to find more:
Chapter 14 of
Solutions for electrical installation in
buildings - technical details



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2CSC000619F0014

36 modules



2CSC000623F0014

2CSC000623F0014

54 modules



2CSC000622F0014

2CSC000622F0014

48 modules



2CSC000624F0014

2CSC000624F0014

72 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Packaging
				Order code	Price	
Mistral41F - 3 Rows						
Opaque door 36M 3R	850	36	320x600x108	1SLM004100A1307		1/4
Transparent door 36M 3R	850	36	320x600x108	1SLM004100A1407		1/4
Opaque door 54M	850	54	430x600x128	1SLM004100A1309		1/1
Transparent door 54M	850	54	430x600x128	1SLM004100A1409		1/1
Mistral41F - 4 Rows						
Opaque door 48M	850	48	320x735x108	1SLM004100A1308		1/1
Transparent door 48M	850	48	320x735x108	1SLM004100A1408		1/1
Opaque door 72M	850	72	430x735x128	1SLM004100A1310		1/1
Transparent door 72M	850	72	430x735x128	1SLM004100A1410		1/1

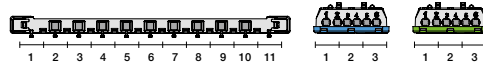
Enclosures

System pro E comfort MISTRAL41F for concrete wall



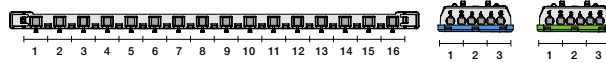
8 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Pack-aging
				Order code	Price	
MISTRAL41F flush transparent door 8M 12SM	650	8	232x250x108	1SLM004101A1202		1/12
MISTRAL41F flush opaque door 8M 12SM	650	8	232x250x108	1SLM004102A1102		1/12



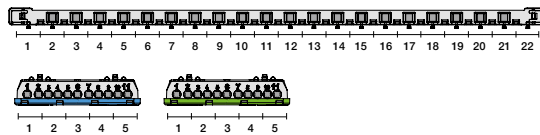
12 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Pack-aging
				Order code	Price	
MISTRAL41F flush transparent door 12M 12SM	650	12	320x250x108	1SLM004101A1203		1/8
MISTRAL41F flush opaque door 12M 12SM	650	12	320x250x108	1SLM004102A1103		1/8



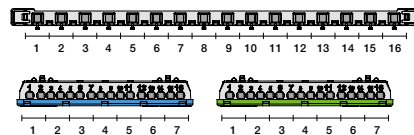
18 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Pack-aging
				Order code	Price	
MISTRAL41F flush transparent door 18M 22SM	650	18	430x250x108	1SLM004101A1204		1/6
MISTRAL41F flush opaque door 18M 22SM	650	18	430x250x108	1SLM004102A1104		1/6



24 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Pack-aging
				Order code	Price	
MISTRAL41F flush transparent door 24M 32SM	650	24	320x435x108	1SLM004101A1205		1/5
MISTRAL41F flush opaque door 24M 32SM	650	24	320x435x108	1SLM004102A1105		1/5



Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details



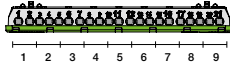
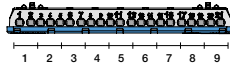
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36 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Packaging
				Order code	Price	
MISTRAL41F flush transparent door 36M 2R 42SM	650	36	430x435x108	1SLM004101A1206		1/3
MISTRAL41F flush opaque door 36M 2R 42SM	650	36	430x435x108	1SLM004102A1106		1/3



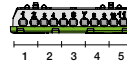
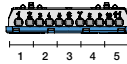
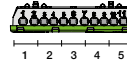
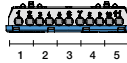
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36 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Packaging
				Order code	Price	
MISTRAL41F flush transparent door 36M 3R 44SM	650	36	320x600x108	1SLM004101A1207		1/4
MISTRAL41F flush opaque door 36M 3R 44SM	650	36	320x600x108	1SLM004102A1107		1/4



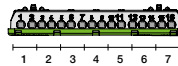
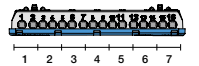
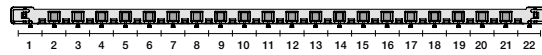
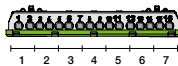
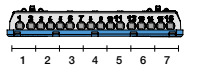
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2CSC000016F0014

54 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Packaging
				Order code	Price	
MISTRAL41F flush transparent door 54M 64SM	650	54	430x600x128	1SLM004101A1209		1/1
MISTRAL41F flush opaque door 54M 64SM	650	54	430x600x128	1SLM004102A1109		1/1



Enclosures

System pro E comfort MISTRAL41F for concrete wall



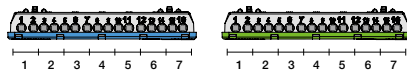
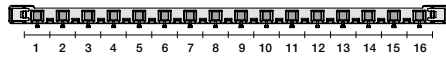
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48 modules



2CSC000632F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Packaging
				Order code	Price	
MISTRAL41F flush transparent door 48M 64SM	650	48	320x735x108	1SLM004101A1208		1/1
MISTRAL41F flush opaque door 48M 64SM	650	48	320x735x108	1SLM004102A1108		1/1



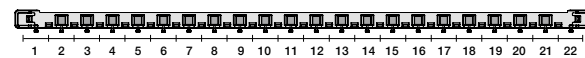
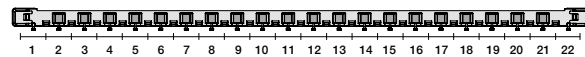
2CSC000642F0014

72 modules



2CSC000642F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Packaging
				Order code	Price	
MISTRAL41F flush transparent door 72M 84SM	650	72	430x735x128	1SLM004101A1210		1/1
MISTRAL41F flush opaque door 72M 84SM	650	72	430x735x128	1SLM004102A1110		1/1



Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

System pro E comfort MISTRAL41F accessories



Opaque door

2CSC000644F0014



Transparent door

2CSC000645F0014



Horizontal junction unit

2CSC000646F0014



Wires holder comb

2CSC000647F0014



Blind panels

2CSC000648F0014



Lock

2CSC000649F0014



Module cover

2CSC000650F0014



Vertical coupling / tube holders

2CSC000651F0014



Horizontal partition

2CSC000652F0014

Description	N° of modules [18 mm]	Order details		Packaging
		Order code	Price	
Opaque door				
Opaque door 4M MISTRAL41F	4	1SLM004100A1900		1/20
Opaque door 6M MISTRAL41F	6	1SLM004100A1916		1/20
Opaque door 8M MISTRAL41F	8	1SLM004100A1902		1/10
Opaque door 12M MISTRAL41F	12	1SLM004100A1904		1/20
Opaque door 18M MISTRAL41F	18	1SLM004100A1906		1/20
Opaque door 24M / 48M MISTRAL41F	24	1SLM004100A1908		1/15
Opaque door 36M (3 rows) MISTRAL41F	36	1SLM004100A1910		1/10
Opaque door 36M (2 rows) / 72M MISTRAL41F	36	1SLM004100A1912		1/10
Opaque door 54M MISTRAL41F	54	1SLM004100A1914		1/5
Transparent door				
Transparent door 4M MISTRAL41F	4	1SLM004100A1901		1/20
Transparent door 6M MISTRAL41F	6	1SLM004100A1917		1/20
Transparent door 8M MISTRAL41F	8	1SLM004100A1903		1/10
Transparent door 12M MISTRAL41F	12	1SLM004100A1905		1/20
Transparent door 18M MISTRAL41F	18	1SLM004100A1907		1/20
Transparent door 24M / 48M MISTRAL41F	24	1SLM004100A1909		1/15
Transparent door 36M (3 rows) MISTRAL41F	36	1SLM004100A1911		1/10
Transparent door 36M (2 rows) / 72M MISTRAL41F	36	1SLM004100A1913		1/10
Transparent door 54M MISTRAL41F	54	1SLM004100A1915		1/5
Other accessories				
Horizontal partition 12M MISTRAL41F	12	1SLM004100A1920		1/100
Horizontal partition 18M MISTRAL41F	18	1SLM004100A1921		1/100
Vertical coupling / tubes holder 12M	12	1SLM004100A1922		1/20
Vertical coupling / tubes holder 18M	18	1SLM004100A1923		1/15
Module cover 12M RAL9016	12	1SLM004100A1929		5/180
Lock with key MISTRAL41F	-	1SLM004100A1931		20/300
Central blind panel 12M MISTRAL41F *	12	1SLM004100A1945		1/20
Blind panel 12M MISTRAL41F	12	1SLM004100A1946		1/20
Central blind panel 18M MISTRAL41F **	18	1SLM004100A1947		1/30
Blind panel 18M MISTRAL41F	18	1SLM004100A1948		1/30
Horizontal junction unit	-	1SLM004100A1949		1/50
Wires holder comb	-	1SLM004100A1942		1/30
Spirit level	-	1SLM004100A1943		1/30
Kit hollow wall MISTRAL41F	-	1SLM004100A1944		1/6

* Blind panel for the central row of MISTRAL41F 36 modules (3 x 12)

** Blind panel for the central row of MISTRAL41F 54 modules (3 x 18)

UK500 Flush-mounting Series

The details make the difference

Cover with sealable 90° quick-action locking screws

Time-saving installation thanks to intelligent plug-in technology in the form of the N/PE quick busbar

Wall box made of torsionally-rigid, non-breakable, flame-resistant, low-halogen plastic with cable entry slides

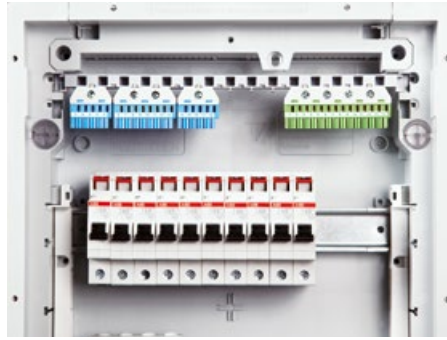
Design doors, picture frame, stainless steel, transparent and differently coloured doors available as an accessory

UK500 series can be used for flush-mounting, hollow-wall or as a wall-mounting version, as well as for partially-recessed mounting





Removable cable inlet allows easy insertion of incoming and outgoing cables and uses a quick, single-hand-operated push and-stay design. Both cable inlets can be screwed tight when installation is complete.



The non-warp, non-breakable and non-flammable wall box offers large wiring space. The strain-relief comb for neat cabling is an integral part of the wall box. There are ample further pre-formed cable entry points on the sides and back of the wall box.



All UK500 Series are suitable for hollow-wall installation. Upgrading is incredibly quick and simple – just as easy as the hollow wall installation itself. You just need the UZ90P4 hollow wall set for UK500. No screws, yet nothing can slip. Fastening it is as easy as fastening cable ties.



Time-saving installation thanks to intelligent plug-in technology. The N/PE Quick busbars are of the plug-in variety. If required, the N-RCD terminal can also be attached to the DIN-Rail and will not twist. There are also versions available with screw-type terminals.



Multifunctional wall grips: Can be used as a spacer when mounting consumer units side by side or to adjust the mounting depth by two more levels.



The removable device support can be snapped in and is installed quickly without tools. Here too, a variety of common installation techniques have been catered for – the device support can also be fixed in position using screws.



The “tech line” control panel of the UK500 Series offers that extra bit more. The monitoring and operation such as the control of lighting systems is taken care of by the control panel in a way that’s both easy-to view and decorative. The control panel can be finished by the user or supplied already wired and printed by the factory.



The rapid development of information technologies means that ever more media and communication devices are to be found in homes. In the new multimedia enclosure you have all your media applications at a glance with the central assembly of media and communications technology in distribution cabinets.



Functional yet elegant – a perfect example of how easy it can be to combine these two essential features. Beautiful and perfectly formed – the design doors for the UK500 Series are an embodiment of the design principle based on reducing things right down to the essentials. You would never believe that these high-quality design doors conceal a technical product.

Complete version UK500N with trim frame and door

With N/PE quick-terminals



UK524N3 with mounted N/PE quick-terminals (Example)

Flush-mounted consumer units – UK500N, IP30

I_n up to 63 A

Consumer unit DIN VDE 0603-1, DIN 43871

Available in 1 up to 4 row versions as flush-mounted consumer units

Upgradeable for hollow-wall mounting using UZ90P4

Wall box:

- non-warp, break-proof, non-flammable, low-halogen plastic
- with cable strain relief comb
- with detachable cable inlets

Wall grips

Removable device support

With N/PE Quick-terminals

Cover with 90° quick-action screws, lead-sealable

45 mm slots for 12 devices, expandable to 14

Labelling system

Trim frame and sheet steel door, adjustable for uneven surface

Colour: White, RAL 9016

*in connection with UZ90P4



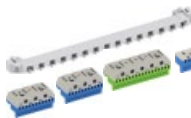
UK512N2



UK524N3



UK536N3



UK548N3



Article	H x W x D in mm	SU	Type	Ord. no.	Price
Flush-mounted consumer units, 1-row					
Niche dimensions	335 x 350 x 95	12 / 13*	UK512N2	2CPX031281R9999	
Wall cut out dimensions for hollow-wall mounting	308 x 327 x 88				
With mounted N/PE quick-terminals:					
Quick-carrier: ZK11					
Quick-terminals: ZK82B, ZK51B, ZK113G					
Flush-mounted consumer units, 2-row					
Niche dimensions	460 x 350 x 95	24 / 28*	UK524N3	2CPX031282R9999	
Wall cut out dimensions for hollow-wall mounting	433 x 327 x 88				
With mounted N/PE quick-terminals:					
Quick-carrier: ZK11					
Quick-terminal: 2 x ZK82B, ZK50B, ZK144G					
Flush-mounted consumer units, 3-row					
Niche dimensions	585 x 350 x 95	36 / 41*	UK536N3	2CPX031283R9999	
Wall cut out dimensions for hollow-wall mounting	558 x 327 x 88				
With mounted N/PE quick-terminals:					
Quick-carrier: ZK11					
Quick-terminals: 2 x ZK113B, ZK175G, ZK50BT					
Flush-mounted consumer units, 4-row					
Niche dimensions	710 x 350 x 95	48 / 56*	UK548N3	2CPX031284R9999	
Wall cut out dimensions for hollow-wall mounting	683 x 327 x 88				
With mounted N/PE quick-terminals:					
Quick-carrier: ZK11					
Quick-terminals: ZK144B, ZK82B, ZK206G, ZK50BT					

Basic version UK500BN without trim frame and door With N/PE quick-terminals



UK524BN3 with mounted N/PE quick-terminals (Example)

Flush-mounted consumer units – UK500BN, IP30

I_n up to 63 A

Consumer unit DIN VDE 0603-1, DIN 43871

Available in 1 up to 4 row versions as flush-mounted consumer units

Upgradeable for hollow-wall mounting using UZ90P4

Wall box:

- non-warp, break-proof, non-flammable, low-halogen plastic
- with cable strain relief comb
- with detachable cable inlets

Wall grips

Removable device support

With N/PE Quick-terminals

Cover with 90° quick-action screws, lead-sealable

45 mm slots for 12 devices, expandable to 14

Labelling system

*in connection with UZ90P4



UK512BN2



UK524BN3



UK536BN3



UK548BN3



Article	H x W x D in mm	SU	Type	Ord. no.	Price
Flush-mounted consumer units, 1-row					
Niche dimensions	335 x 350 x 95	12 (14*)	UK512BN2	2CPX031285R9999	
Wall cut out dimensions for hollow-wall mounting	308 x 327 x 88				
With mounted N/PE quick-terminals:					
Quick-carrier: ZK11					
Quick-terminals: ZK82B, ZK51B, ZK113G					
Flush-mounted consumer units, 2-row					
Niche dimensions	460 x 350 x 95	24 / 28*	UK524BN3	2CPX031286R9999	
Wall cut out dimensions for hollow-wall mounting	433 x 327 x 88				
With mounted N/PE quick-terminals:					
Quick-carrier: ZK11					
Quick-terminals: 2 x ZK82B, ZK50B, ZK144G					
Flush-mounted consumer units, 3-row					
Niche dimensions	585 x 350 x 95	36 (42*)	UK536BN3	2CPX031287R9999	
Wall cut out dimensions for hollow-wall mounting	558 x 327 x 88				
With mounted N/PE quick-terminals:					
Quick-carrier: ZK11					
Quick-terminals: 2 x ZK113B, ZK175G, ZK50BT					
Flush-mounted consumer units, 4-row					
Niche dimensions	710 x 350 x 95	48 / 56*	UK548BN3	2CPX031288R9999	
Wall cut out dimensions for hollow-wall mounting	683 x 327 x 88				
With mounted N/PE quick-terminals:					
Quick-carrier: ZK11					
Quick-terminals: ZK144B, ZK82B, ZK206G, ZK50BT					

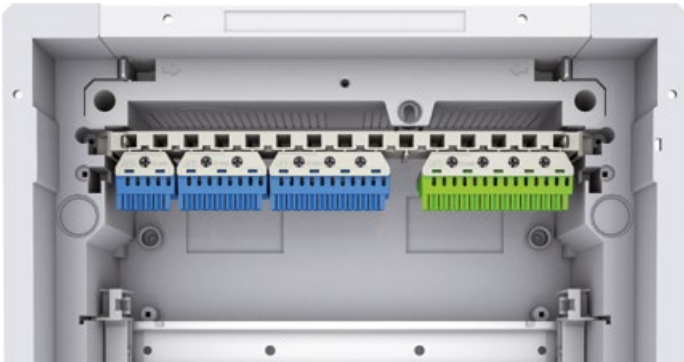
*In connection with a standard door, "vision line" or "colour line" with TIP-in closure there will be one space unit less.

N/PE quick-terminals

Standardised, future-oriented and flexible

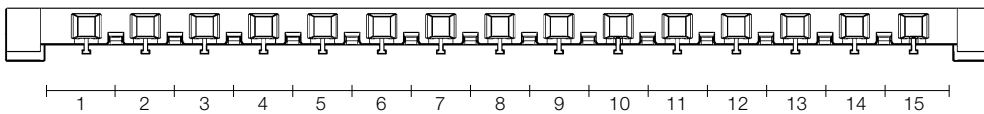
Tidy and flexible installation

The N/PE Quick-terminals simplify your work: Just choose the right terminal blocks and plug them in!
Extremely flexible in terms of expandability, these N/PE Quick-terminals are unmatched for safe, efficient and future-oriented conductor connections.



Product benefits

- Flexible terminal system for several N power circuits:
Screw connections: 2.5 to 25 mm² with steep conductor;
up to 25 mm² with flexible conductor with sleeve;
spring terminals: 1.5 to 4 mm² with steep conductor; 2.5 mm² with flexible conductor with sleeve
- Optimal when using several residual current circuit breakers (RCDs)
- Ease of expansion using connecting bridges
- Precise assignment of the terminal blocks (clear colour coding: N = blue, PE = yellow-green)
- Easy labelling of the terminals (DIN VDE 0603 Part 1) using pre-printed, self-adhesive number strips
- Wide range of applications: can be used with the UK500 and A300 consumer unit series, in all compact distribution boards, and with all meter-, wall-mounting and floor-standing cabinets.



quick carrier type ZK11

units

N/PE Klemmblöcke	N Quick-Steckklemmen	Schraubanschluss-technik	Federklemm-technik	PE Quick-Steckklemmen	Schraubanschluss-technik	Federklemm-technik
	ZK50B	0 x 25 mm ²	5 x 1,5 - 4 mm ²	-	-	-
	ZK51B	1 x 25 mm ²	5 x 1,5 - 4 mm ²	ZK51G	1 x 25 mm ²	5 x 1,5 - 4 mm ²
	ZK82B	2 x 25 mm ²	8 x 1,5 - 4 mm ²	ZK82G	2 x 25 mm ²	8 x 1,5 - 4 mm ²
	ZK113B	3 x 25 mm ²	11 x 1,5 - 4 mm ²	ZK113G	3 x 25 mm ²	11 x 1,5 - 4 mm ²
	ZK144B	4 x 25 mm ²	14 x 1,5 - 4 mm ²	ZK144G	4 x 25 mm ²	14 x 1,5 - 4 mm ²
	ZK175B	5 x 25 mm ²	17 x 1,5 - 4 mm ²	ZK175G	5 x 25 mm ²	17 x 1,5 - 4 mm ²
	ZK206B	6 x 25 mm ²	20 x 1,5 - 4 mm ²	ZK206G	6 x 25 mm ²	20 x 1,5 - 4 mm ²
	ZK50BT	0 x 25 mm ²	5 x 1,5 - 4 mm ²	-	-	-

N/PE quick-terminals

Accessories / equipment with UK500BN



ZK113B



ZK50BT



ZK113G



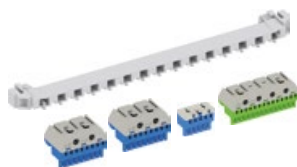
ZK10P10



ZK11



ZK15



ZK210



ZK211

Article	Number of terminals 1.5 - 4 mm ²	Number of terminals 2.5 - 25 mm ²	External dimensions H x W x D in mm	Pieces	Type	Ord. no.	Price
N Quick-terminals For quick carriers	5 x 1,5 - 4	0 x 25	23 x 32 x 21	1	ZK50B	2CPX062750R9999	
	5 x 1,5 - 4	1 x 25	32 x 32 x 31	1	ZK51B	2CPX062751R9999	
	8 x 1,5 - 4	2 x 25	32 x 49 x 31	1	ZK82B	2CPX062752R9999	
	11 x 1,5 - 4	3 x 25	32 x 65 x 31	1	ZK113B	2CPX062753R9999	
	14 x 1,5 - 4	4 x 25	32 x 82 x 31	1	ZK144B	2CPX062754R9999	
	17 x 1,5 - 4	5 x 25	32 x 98 x 31	1	ZK175B	2CPX062755R9999	
	20 x 1,5 - 4	6 x 25	32 x 115 x 31	1	ZK206B	2CPX062756R9999	
N Quick-terminal with adapter ZK15 For lateral assembly to the UK5... , A3... or for fastening to the DIN rail	5 x 1,5 - 4	0 x 25	28 x 39 x 25	1	ZK50BT	2CPX062745R9999	
PE Quick-terminals For quick carriers	5 x 1,5 - 4	1 x 25	32 x 32 x 31	1	ZK51G	2CPX062757R9999	
	8 x 1,5 - 4	2 x 25	32 x 49 x 31	1	ZK82G	2CPX062758R9999	
	11 x 1,5 - 4	3 x 25	32 x 65 x 31	1	ZK113G	2CPX062759R9999	
	14 x 1,5 - 4	4 x 25	32 x 82 x 31	1	ZK144G	2CPX062760R9999	
	17 x 1,5 - 4	5 x 25	32 x 98 x 31	1	ZK175G	2CPX062761R9999	
	20 x 1,5 - 4	6 x 25	32 x 115 x 31	1	ZK206G	2CPX062762R9999	
Connecting bridges for Quick-terminals				10	ZK10P10	2CPX062763R9999	
Quick carriers For consumer units UK5... Usable width for Quick-terminals 247 mm				1	ZK11	2CPX064980R9999	
Adapter for ZK50B Engaging the ZK50B N Quick-terminal in the adapter ZK15, leads to ZK50BT to be laterally fastened UK5... , A3 or to the DIN rail				1	ZK15	2CPX064984R9999	
N/PE quick-terminal-set for UK... In combination with quick-carrier ZK11 and quick-terminals: ZK82B: N 2 x 25 + 8 x 4 mm ² ZK82B: N 2 x 25 + 8 x 4 mm ² ZK50B: N 5 x 4 mm ² ZK144G: PE 4 x 25 + 14 x 4 mm ²				1 Set	ZK210	2CPX063128R9999	
N/PE quick-terminal-set for UK... In combination with quick-carrier ZK11 and quick-terminals: ZK144B: N 4 x 25 + 14 x 4 mm ² ZK82B: N 2 x 25 + 8 x 4 mm ² ZK206G: PE 6 x 25 + 20 x 4 mm ²				1 Set	ZK211	2CPX063129R9999	

Enclosures

Complete version UK500 with trim frame and doors with screwable N/PE terminals



2CSC000706F0014

UK510E



2CSC000701F0014

UK520E



2CSC000702F0014

UK530E



2CSC000708F0014

UK540E

Article	H x W x D in mm	SU	Order details		Price
			Type	Order code	
Flush-mounted consumer units, 1-row					
Niche dimensions for flush-mounting	335 x 350 x 95	12 (13)			
Wall cut out dimensions for hallow wall mounting	308 x 327 x 88				
With screwable N/PE terminals and sheet steel door			UK510E	2CPX077600R9999	
With screwable N/PE terminals and transparent door			UK510ETT	2CPX031017R9999	
Without N/PE terminals With sheet steel door			UK510KE	2CPX031001R9999	
With screwable N/PE terminals With sheet steel door and cable inlet for tubes		UK510SN	2CPX030819R9999		
Flush-mounted consumer units, 2-row					
Niche dimensions for flush-mounting	460 x 350 x 95	24 (28)			
Wall cut out dimensions for hallow wall mounting	433 X 327 x 88				
With screwable N/PE terminals and sheet steel door			UK520E	2CPX077601R9999	
With screwable N/PE terminals and transparent door			UK520ETT	2CPX031018R9999	
Without N/PE terminals With sheet steel door			UK520KE	2CPX031002R9999	
With screwable N/PE terminals With sheet steel door and cable inlet for tubes		UK520SN	2CPX030820R9999		
Flush-mounted consumer units, 3-row					
Niche dimensions for flush-mounting	585 x 350 x 95	36 (41)			
Wall cut out dimensions for hallow wall mounting	558 X 327 x 88				
With screwable N/PE terminals and sheet steel door			UK530E	2CPX077602R9999	
With screwable N/PE terminals and transparent door			UK530ETT	2CPX031019R9999	
Without N/PE terminals With sheet steel door			UK530KE	2CPX031003R9999	
With screwable N/PE terminals With sheet steel door and cable inlet for tubes		UK530SN	2CPX030821R9999		
Flush-mounted consumer units, 4-row					
Niche dimensions for flush-mounting	710 x 350 x 95	48 (56)			
Wall cut out dimensions for hallow wall mounting	683 X 327 x 88				
With screwable N/PE terminals and sheet steel door			UK540E	2CPX077603R9999	
With screwable N/PE terminals and transparent door			UK540ETT	2CPX031020R9999	
Without N/PE terminals With sheet steel door			UK540KE	2CPX031004R9999	
With screwable N/PE terminals With sheet steel door and cable inlet for tubes		UK540SN	2CPX030822R9999		

Where to find more:
Chapter 14 of
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Enclosures

Multimedia enclosures with and without trim frame and doors

Consumer units with control panel FPT500



2CS0000704F0014

UK530MV



2CS0000705F0014

UZM530MV



2CS0000706F0014

FPT520

Article	Remark	H x W x D in mm	Order details		Price
			Type	Order code	
Flush-mounted multimedia enclosures with doors					
Wall box with perforated sheet steel mounting plate, wire holders, DIN-Rail, wall grips, double socket with euro-plug insert, trim frame and door with ventilation holes	Niche dimensions	585 x 350 x 95	UK530MV	2CPX030839R9999	
	Wall cut out dimensions	558 x 327 x 88			
	Mounting plate dimensions	447 x 277 x 1.5			
Wall box with perforated sheet steel mounting plate, wire holders, patchpanel, wall grips, double socket with euro-plug insert, trim frame and door with ventilation holes	Niche dimensions	710 x 350 x 95	UK540MV	2CPX030840R9999	
	Wall cut out dimensions	638 x 327 x 88			
	Mounting plate dimensions	572 x 277 x 1.5			
Wall box with perforated sheet steel mounting plate, wire holders, DIN-Rail, wall grips, double socket with euro-plug insert, trim frame and door with ventilation holes	Niche dimensions	585 x 350 x 95	UK536MV	2CPX030980R9999	
	Wall cut out dimensions	558 x 327 x 88			
	Mounting plate dimensions	447 x 277 x 1.5			
Wall box with perforated sheet steel mounting plate, wire holders, DIN-Rail, wall grips, double socket with euro-plug insert, trim frame and door with ventilation holes	Niche dimensions	710 x 350 x 95	UK548MV	2CPX030981R9999	
	Wall cut out dimensions	638 x 327 x 88			
	Mounting plate dimensions	572 x 277 x 1.5			
Flush-mounted multimedia enclosures without doors					
Wall box with perforated sheet steel mounting plate, wire holders, DIN-Rail, wall grips, double socket with euro-plug insert, trim frame and door with ventilation holes	Niche dimensions	585 x 350 x 95	UZM530MV	2CPX030985R9999	
	Wall cut out dimensions	558 x 327 x 88			
	Mounting plate dimensions	447 x 277 x 1.5			
Wall box with perforated sheet steel mounting plate, wire holders, DIN-Rail, wall grips, double socket with euro-plug insert, trim frame and door with ventilation holes	Niche dimensions	710 x 350 x 95	UM540MV	2CPX030986R9999	
	Wall cut out dimensions	683 x 327 x 88			
	Mounting plate dimensions	572 x 277 x 1.5			

Article	Internal dimensions of the control panel	External dimensions of the control panel	Order details		Price
	H x W in mm	H x W x D in mm	Type	Order code	
Consumer units with control panel					
Wall box with device support, removable DIN-Rails; aluminium control panel unprinted and unwired; the control panel can be finished by the user or supplied already wired and printed by the factory; control panels must only be mounted in vertical direction; door hinged right	282 x 293	362 x 374 x 22	FPT510	2CPX030825R9999	
	403 x 293	487 x 374 x 22	FPT520	2CPX030826R9999	
	528 x 293	612 x 374 x 22	FPT530	2CPX030827R9999	

Accessories

For consumer units, compact distribution boards and meter cabinets



ZE225



ZX29



ZE226



ZX28

Article	Pieces	Type	Ord. no.	Price
Dual socket 230 V AC to be mounted to ZX28 support For media enclosures UK... and media enclosures 1MM...	1	ZE225	2CPX061177R9999	
Support for dual socket ZE225 For an assembly to the perforated sheet steel mounting plate of the multimedia enclosures UK... and of the multimedia enclosures 1MM...	1	ZX29	2CPX061178R9999	
Triple socket 230 V AC to be mounted to ZX28 support For communication panels 1KF.3A and 2KF.3A	1	ZE226	2CPX061207R9999	
Support for triple socket ZE225 For an assembly to the EDF-bar of the communication panels 1KF...A and 2KF...A or to the perforated sheet steel mounting plate of the compact distribution boards	1	ZX28	2CPX061205R9999	
PE-rail, insulated For an assembly to the mounting cross member and the DIN rail	1	ZK274	2CPX064840R9999	



ZE321



ZE316



ZE317



ZE318



ZE319



ZE320



ZE311



ZE310



ED44P10



ED57P10



ZX287P10

Article	Pieces	Type	Ord. no.	Price
Patch panel empty for communication modules, e.g. RJ45 connector, COAX module, etc. For the direct and insulated assembly to the EDF-rail, DIN rail or mounting plate 1 panel wide for 10 modules (e.g. RJ45 connector)	1	ZE321	2CPX061206R9999	
Connectors for patch panels				
COAX module F / F connector	1	ZE316	2CPX039246R9999	
COAX module IEC connector	1	ZE317	2CPX039247R9999	
COAX module IEC plug	1	ZE318	2CPX039248R9999	
OpDAT module LC (Ph-Br)	1	ZE319	2CPX039249R9999	
Blind module	1	ZE320	2CPX039250R9999	
RJ45 connector Plastic	1	ZE311	2CPX038612R9999	
IP patch module RJ45 module with adapter to assemble the DIN rail	1	ZE310	2CPX038625R9999	
Wire holder To be inserted at the mounting cross member of the communication panels or with adapter ED57P10 for an assembly to the perforated sheet steel mounting plate Overall size 28.5 mm	10 50	ED44P10 ED44P50	2CPX062335R9999 2CPX062308R9999	
Adapter For assembling ED44P10 wire holders to the perforated sheet steel mounting plate	10	ED57P10	2CPX061179R9999	
Screws M4 x 14 thread rolling for the perforated sheet steel mounting plate	10	ZX287P10	2CPX061180R9999	

Enclosures Doors for UK500



2CSC000712F0014

BL5



2CSC000718F0014

BL528D



2CSC000714F0014

BL521D



2CSC000718F0014

BL527D



2CSC000718F0014

BL516C



2CSC000718F0014

BL510K



2CSC000720F0014

BL530L

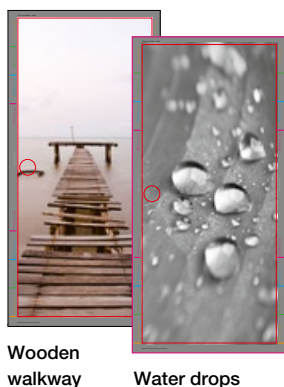
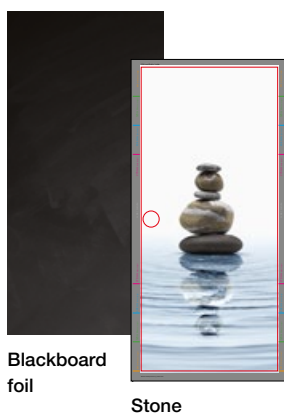
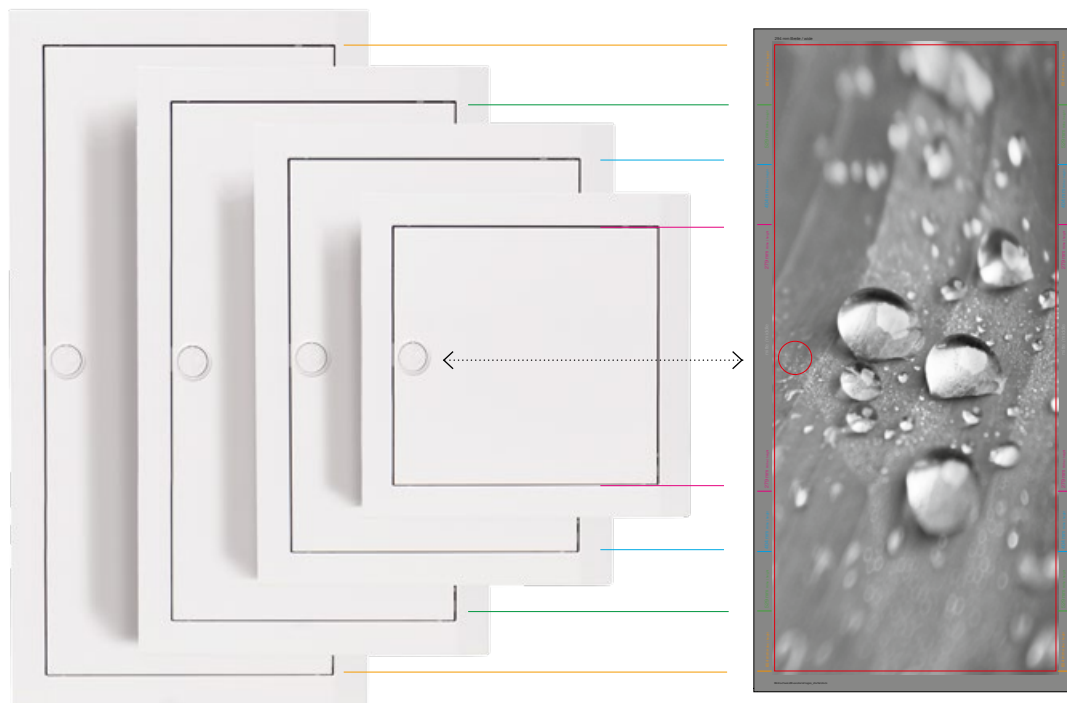
Article	To be used with...	Internal dimensions of the trim cover H x W x D in mm	External dimensions of the trim cover H x W x D in mm	Order details		Price
				Type	Order code	
Trim frame with door (complete version)						
Colour: white, RAL 9016 Sheet steel, powder coated	UK51...	282 x 297 x 33	352 x 367 x 9	BL510	2CPX030853R9999	
	UK52...	407 x 297 x 33	477 x 367 x 9	BL520	2CPX030854R9999	
	UK53...	532 x 297 x 33	602 x 367 x 9	BL530	2CPX030855R9999	
	UK54...	657 x 297 x 33	727 x 367 x 9	BL540	2CPX030856R9999	
art line						
Brushed stainless steel	UK52...	407 x 297 x 33	490 x 407 x 39	BL528D	2CPX030918R9999	
	UK53...	532 x 297 x 33	615 x 407 x 39	BL538D	2CPX030919R9999	
addition line						
Picture frame door	UK52...	407 x 297 x 27	487 x 378 x 26	BL521D	2CPX030858R9999	
Brushed aluminium	UK53...	532 x 297 x 27	612 x 378 x 26	BL531D	2CPX030859R9999	
Picture frame door Colour: white, RAL 9016	UK52...	407 x 297 x 27	487 x 374 x 22	BL527D	2CPX030897R9999	
	UK53...	532 x 297 x 27	612 x 374 x 22	BL537D	2CPX030898R9999	
color line						
Trim frame with door Colour: anthracite RAL 7016	UK51...	282 x 297 x 33	352 x 367 x 9	BL516C	2CPX031251R9999	
	UK52...	407 x 297 x 33	477 x 367 x 9	BL526C	2CPX031252R9999	
	UK53...	532 x 297 x 33	602 x 367 x 9	BL536C	2CPX031253R9999	
	UK54...	657 x 297 x 33	727 x 367 x 9	BL546C	2CPX031254R9999	
vision line						
Transparent door	UK51...	282 x 297 x 33	352 x 367 x 9	BL510K	2CPX030835R9999	
	UK52...	407 x 297 x 33	477 x 367 x 9	BL520K	2CPX030836R9999	
	UK53...	532 x 297 x 33	602 x 367 x 9	BL530K	2CPX030837R9999	
	UK54...	657 x 297 x 33	727 x 367 x 9	BL540K	2CPX030838R9999	
media line						
Trim frame and door with ventilation holes Colour: white, RAL 9016 Sheet steel, powder-coated	UZM530MV	532 x 297 x 33	602 x 367 x 9	BL530L	2CPX030990R9999	
	UZM540MV	657 x 297 x 33	727 x 367 x 9	BL540L	2CPX030991R9999	

Dimensions see Chapter 12; technical details see Chapter 14 in Solutions for electrical installation in buildings - Technical details

UK500 adhesive design foil

Its your choice

The adhesive design foil can be cut to the size of the UK500 sheet steel door



Articel	To be used with ...	Trim frame dimensions	Type	Order No.	Price
		H x W x D in mm			
Blackboard foil for lettering UK500 sheet steel doors	UK51...	282 x 297 x 33	UZ540D	2CPX031036R9999	39,50
	UK52...	407 x 297 x 33			
	UK53...	532 x 297 x 33			
	UK54...	657 x 297 x 33			
Stones design foil for UK500 sheet steel doors	UK51...	282 x 297 x 33	UZ541D	2CPX031040R9999	39,50
	UK52...	407 x 297 x 33			
	UK53...	532 x 297 x 33			
	UK54...	657 x 297 x 33			
Wooden walkway design foil for UK500 sheet steel doors	UK51...	282 x 297 x 33	UZ542D	2CPX031044R9999	39,50
	UK52...	407 x 297 x 33			
	UK53...	532 x 297 x 33			
	UK54...	657 x 297 x 33			
Water drops design foil for UK500 sheet steel doors	UK51...	282 x 297 x 33	UZ543D	2CPX031048R9999	39,50
	UK52...	407 x 297 x 33			
	UK53...	532 x 297 x 33			
	UK54...	657 x 297 x 33			

Enclosures

Accessories for Consumer units UK500



UZ7

2CSC000721F0014



UZM5

2CSC000722F0014



UZ4P2

2CSC000723F0014



UZ530G

2CSC000724F0014



UZ510A

2CSC000725F0014



UZ90P4

2CSC000726F0014



AP5

2CSC000727F0014



ZK502

2CSC000728F0014



ZK505

2CSC000729F0014



ZK506

2CSC000730F0014



ZK507

2CSC000731F0014



ZA120

2CSC000732F0014

Article	Pcs	Order details		Price
		Type	Order code	
Door hinge set UK500	1	UZ7	2CPX030917R9999	
Wall box with wall grips				
To be used with UK51...	1	UZM510	2CPX030805R9999	
To be used with UK52...	1	UZM520	2CPX030806R9999	
To be used with UK53...	1	UZM530	2CPX030807R9999	
To be used with UK54...	1	UZM540	2CPX030808R9999	
Wall grips				
To fix the wall box in two mounting depths	4	UZ4P2	2CPX062447R9999	
DIN-Rail with device support				
To be used with UK51...	1	UZ510G	2CPX030841R9999	
To be used with UK52...	1	UZ520G	2CPX030842R9999	
To be used with UK53...	1	UZ530G	2CPX030843R9999	
To be used with UK54...	1	UZ540G	2CPX030844R9999	
Cover with 90° quick-action screws				
To be used with UK51...	1	UZ510A	2CPX030845R9999	
To be used with UK52...	1	UZ520A	2CPX030846R9999	
To be used with UK53...	1	UZ530A	2CPX030847R9999	
To be used with UK54...	1	UZ540A	2CPX030848R9999	
Hollow-wall mounting set				
To modify the flush-mounting consumer unit into a hollow-wall consumer unit UK500 (type label and 20 cable ties included) wall thickness min. 8 mm, max. 35 mm	1	UZ90P4	2CPX062563R9999	
On wall mounting set				
For wall mounting or partially recessed installation				
To be used with UK51...	1	AP510	2CPX030849R9999	
To be used with UK52...	1	AP520	2CPX030850R9999	
To be used with UK53...	1	AP530	2CPX030851R9999	
To be used with UK54...	1	AP540	2CPX030852R9999	
NP/E terminals				
3 x 16 mm ² + 14 x 4 mm ² , Cu screwable (each)	1	ZK502	2CPX030887R9999	
N terminals				
5 x 16 mm ² + 19 x 10 mm ² , Cu screwable	1	ZK505	2CPX030890R9999	
NP terminals				
5 x 16 mm ² + 19 x 10 mm ² , Cu screwable	1	ZK506	2CPX030891R9999	
N-RCD-busbar				
3 x 16 mm ² + 2 x 10 mm ² Cu screwable	1	ZK507	2CPX030892R9999	
Touch-up applicator				
Colour RAL 9016, 12 ml	1	ZA120	2CPX039043R9999	



2CSC000734F0014

UZ3



2CSC000734F0014

ZA89P20



2CSC000735F0014

UZ510M



2CSC000736F0014

UZ530L



2CSC000737F0014

UZ2



2CSC000738F0014

UZ1



2CSC000739F0014

ZA3P5



2CSC000740F0014

UZ5



2CSC000741F0014

UZ52



2CSC000742F0014

UZ84

Article	Pcs.	Order details		Price
		Type	Order code	
Labelling system				
Self-adhesive, for identifying circuits, 17.5 mm	1	UZ3	2CPX030882R9999	
Screws				
20 pcs. for fixing DIN-Rails and mounting plates	1	ZA89P20	2CPX062376R9999	
Mounting plate, sheet steel, galvanized				
H x W in mm				
130 x 255 to be used with UK510S	1	UZ510M	2CPX030872R9999	
255 x 255 to be used with UK520S	1	UZ520M	2CPX030873R9999	
380 x 255 to be used with UK530S	1	UZ530M	2CPX030874R9999	
505 x 255 UK540S	1	UZ540M	2CPX030875R9999	
Perforated mounting plate for multimedia enclosures				
H x W in mm				
447 x 227 UZM530MV	1	UZ530L	2CPX030992R9999	
572 x 227 to be used with UZM540MV	1	UZ540L	2CPX030993R9999	
TIP-in-closure				
Colour: white	1	UZ2	2CPX030885R9999	
Closure with lock				
With 2 keys	1	UZ1	2CPX030870R9999	
Slot cover, 5 pcs.				
Colour: white, RAL 9016	5	ZA3P5	2CPX062385R9999	
Cable inlet for wall box				
Top or bottom, 1 to 4 rows	1	UZ5	2CPX030871R9999	
Vertical partition				
1-row	1	UZ51	2CPX030878R9999	
2-row	1	UZ52	2CPX030879R9999	
3-row	1	UZ53	2CPX030880R9999	
4-row	1	UZ54	2CPX030881R9999	
Horizontal partition				
	1	UZ84	2CPX030877R9999	

System pro *E* comfort MISTRAL41. Create your own masterpiece.

Freedom is an essential factor for innovation, modernization and unlimited possibilities. The new System pro *E* comfort MISTRAL41 series of consumer units offer that freedom in both flush and wall-mounted versions. These IP41-rated units have been designed from scratch to enhance the unique features you expect from ABB. Ample internal space, elegant design and a unified range of accessories give you the freedom and flexibility to create high-quality work you can be proud of. For more information visit www.abb.com/lowvoltage



System pro *E* comfort MISTRAL41W Endless installation possibilities

Door opens up to 180°
allowing full access to
the interior of the unit

The symmetrical
design allows
opening of the
reversible door
either from the left
or from the right



Door available in two
versions: petrol blue and
opaque. Units without
doors are also available

Concealed rear mounts
for secure wall installation



Invisible cable entry and exit

Pre-cut knockout slots allow cable entry and exit from the top and bottom. When not used, the slots remain invisible on the outside maintaining the consumer unit's sleek look and feel.



More than enough internal space

Lots of internal space makes cabling even easier. Cable clips and holes allow wires to be fastened to the frame with simple cable ties.



Easy installation of extra modules

An extra module can be added by removing two pre-cut elements. This offers a quick and easy solution when unexpected additional installation is required (on the 12, 24, 26 and 48 modules sizes).



Fast and tidy cabling

Various snap-on terminal blocks for N and PE connection be installed in the upper and lower part of the unit. Two versions offer screw or spring couplings.



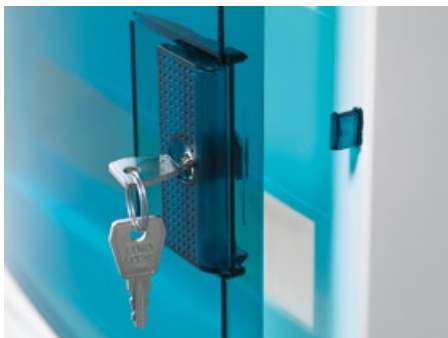
Double insulation protection

The unit housing and all accessories have been designed and developed to ensure Class II double insulation protection.



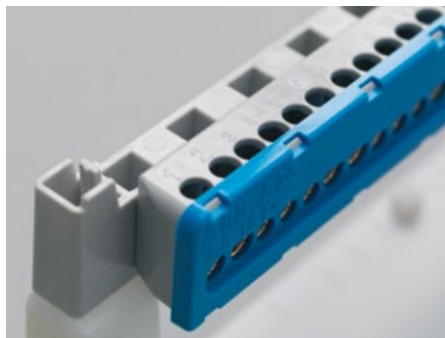
Multi-row units

Multi-row units are available with a standard distance of 125 mm between DIN-Rails.



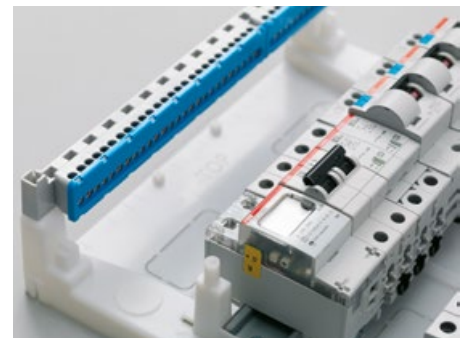
Optional door lock

The standard door with ergonomic handle is available with a lock for added security.



New generation terminals

The new System pro *E* comfort MIST-RAL® range of consumer units is enhanced with a wide, completely new ABB terminal blocks, available in different colours and two different connection options: screw and spring fast coupling.



A unified range of products

The System pro *E* comfort MIST-RAL41W series is compatible with a unified range of ABB products. As a result, terminal blocks, circuit breakers, switches, surge protective devices and many other components can all be installed in the units for a wide variety of applications.

Enclosures

System pro E comfort MISTRAL41W 650



2CSC000754F0014

2 modules



2CSC000755F0014

4 modules



2CSC000756F0014



2CSC000757F0014

8 modules



2CSC000758F0014



2CSC000759F0014

12 modules



2CSC000760F0014



2CSC000761F0014

18 modules



2CSC000762F0014



2CSC000763F0014

24 modules



2CSC000764F0014



2CSC000765F0014

36 modules



2CSC000766F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
Mistral41W – 1 Row						
Without door 2M	650	2	64x223x95	1SPE007717F0100		1/36
Without door 4M	650	4	100x223x95	1SPE007717F0200		1/24
Opaque door 4M	650	4	100x223x95	1SPE007717F0210		1/24
Transparent door 4M	650	4	100x223x95	1SPE007717F0220		1/24
Without door 8M	650	8	207x262x119	1SPE007717F0300		1/7
Opaque door 8M	650	8	207x262x119	1SPE007717F0310		1/7
Transparent door 8M	650	8	207x262x119	1SPE007717F0320		1/7
Without door 12M	650	12	297x262x119	1SPE007717F0400		1/5
Opaque door 12M	650	12	297x262x119	1SPE007717F0410		1/5
Transparent door 12M	650	12	297x262x119	1SPE007717F0420		1/5
Without door 18M	650	18	387x262x119	1SPE007717F0800		1/3
Opaque door 18M	650	18	387x262x119	1SPE007717F0810		1/3
Transparent door 18M	650	18	387x262x119	1SPE007717F0820		1/3
Mistral41W – 2 Rows						
Without door 24M	650	24	297x387x119	1SPE007717F0500		1/2
Opaque door 24M	650	24	297x387x119	1SPE007717F0510		1/2
Transparent door 24M	650	24	297x387x119	1SPE007717F0520		1/2
Without door 36M 2R	650	36	387x387x119	1SPE007717F0900		1/2
Opaque door 36M 2R	650	36	387x387x119	1SPE007717F0910		1/2
Transparent door 36M 2R	650	36	387x387x119	1SPE007717F0920		1/2

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

System pro E comfort MISTRAL41W 650



2CSC000767F0014

36 modules



2CSC000768F0014



2CSC000769F0014

54 modules



2CSC000770F0014



2CSC000771F0014

48 modules



2CSC000772F0014



2CSC000773F0014

72 modules



2CSC000774F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
Mistral41W – 3 Rows						
Without door 36M 3R	650	36	292x512x119	1SPE007717F0600		1/2
Opaque door 36M 3R	650	36	292x512x119	1SPE007717F0610		1/2
Transparent door 36M 3R	650	36	292x512x119	1SPE007717F0620		1/2
Mistral41W – 4 Rows						
Without door 54M	650	54	387x512x119	1SPE007717F1000		1/2
Opaque door 54M	650	54	387x512x119	1SPE007717F1010		1/2
Transparent door 54M	650	54	387x512x119	1SPE007717F1020		1/2
Without door 48M	650	48	297x659x119	1SPE007717F0700		1/1
Opaque door 48M	650	48	297x659x119	1SPE007717F0710		1/1
Transparent door 48M	650	48	297x659x119	1SPE007717F0720		1/1
Without door 72M	650	72	387x659x119	1SPE007717F1100		1/1
Opaque door 72M	650	72	387x659x119	1SPE007717F1110		1/1
Transparent door 72M	650	72	387x659x119	1SPE007717F1120		1/1

Enclosures

System pro E comfort MISTRAL41W 750



2CSC000775F0014

2 modules



2CSC000776F0014

4 modules



2CSC000777F0014



2CSC000778F0014

8 modules



2CSC000779F0014



2CSC000779F0014

12 modules



2CSC000781F0014



2CSC000782F0014

18 modules



2CSC000783F0014



2CSC000784F0014

24 modules



2CSC000785F0014



2CSC000786F0014

36 modules



2CSC000787F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL41W – 1 Row						
Without door 2M	750	2	64x223x96	1SPE007717F1500		1/36
Without door 4M	750	4	100x223x96	1SPE007717F1600		1/24
Opaque door 4M	750	4	100x223x96	1SPE007717F1610		1/24
Transparent door 4M	750	4	100x223x96	1SPE007717F1620		1/24
Without door 8M	750	8	207x262x119	1SPE007717F1700		1/7
Opaque door 8M	750	8	207x262x119	1SPE007717F1710		1/7
Transparent door 8M	750	8	207x262x119	1SPE007717F1720		1/7
Without door 12M	750	12	297x262x119	1SPE007717F1800		1/5
Opaque door 12M	750	12	297x262x119	1SPE007717F1810		1/5
Transparent door 12M	750	12	297x262x119	1SPE007717F1820		1/5
Without door 18M	750	18	387x262x119	1SPE007717F2200		1/3
Opaque door 18M	750	18	387x262x119	1SPE007717F2210		1/3
Transparent door 18M	750	18	387x262x119	1SPE007717F2220		1/3
MISTRAL41W – 2 Rows						
Without door 24M	750	24	297x387x119	1SPE007717F1900		1/2
Opaque door 24M	750	24	297x387x119	1SPE007717F1910		1/2
Transparent door 24M	750	24	297x387x119	1SPE007717F1920		1/2
Without door 36M 2R	750	36	387x387x119	1SPE007717F2300		1/2
Opaque door 36M 2R	750	36	387x387x119	1SPE007717F2310		1/2
Transparent door 36M 2R	750	36	387x387x119	1SPE007717F2320		1/2

Where to find more:

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Solutions for electrical installation in
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Enclosures

System pro E comfort MISTRAL41W 750



2CSC000798F0014

36 modules



2CSC000798F0014



2CSC000790F0014

54 modules



2CSC000790F0014



2CSC000792F0014

48 modules



2CSC000792F0014



2CSC000794F0014

72 modules



2CSC000794F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL41W – 3 Rows						
Without door 36M 3R	750	36	297x512x119	1SPE007717F2000		1/2
Opaque door 36M 3R	750	36	297x512x119	1SPE007717F2010		1/2
Transparent door 36M 3R	750	36	297x512x119	1SPE007717F2020		1/2
MISTRAL41W – 4 Rows						
Without door 54M	750	54	387x512x119	1SPE007717F2400		1/2
Opaque door 54M	750	54	387x512x119	1SPE007717F2410		1/2
Transparent door 54M	750	54	387x512x119	1SPE007717F2420		1/2
Without door 48M	750	48	297x659x119	1SPE007717F2100		1/1
Opaque door 48M	750	48	297x659x119	1SPE007717F2110		1/1
Transparent door 48M	750	48	297x659x119	1SPE007717F2120		1/1
Without door 72M	750	72	387x659x119	1SPE007717F2500		1/1
Opaque door 72M	750	72	387x659x119	1SPE007717F2510		1/1
Transparent door 72M	750	72	387x659x119	1SPE007717F2520		1/1

Enclosures

System pro E comfort MISTRAL41W with terminals



8 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL41W transparent door 8M 12SM	650	8	202x257x120	1SPE007717F0321		1/7
MISTRAL41W 650 opaque door 8M 12SM	650	8	202x257x120	1SLM004102A3102		1/7



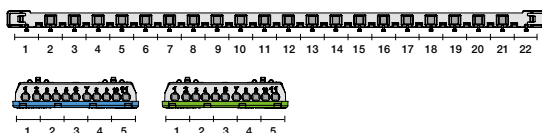
12 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL41W transparent door 12M 12SM	650	12	292x257x120	1SPE007717F0421		1/5
MISTRAL41W 650 opaque door 12M 12SM	650	12	292x257x120	1SLM004102A3103		1/5



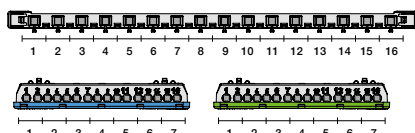
18 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL41W transparent door 18M 22SM	650	18	382x257x120	1SPE007717F0821		1/3
MISTRAL41W 650 opaque door 18M 22SM	650	18	382x257x120	1SLM004102A3104		1/3



24 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL41W transparent door 24M 32SM	650	24	292x382x120	1SPE007717F0521		1/2
MISTRAL41W 650 opaque door 24M 32SM	650	24	292x382x120	1SLM004102A3105		1/2



Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

System pro E comfort MISTRAL41W with terminals



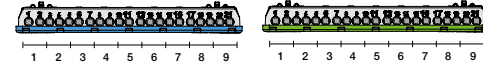
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36 modules



2CSC000786F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL41W transparent door 36M 2R 42SM	650	36	382x382x120	1SPE007717F0921		1/2
MISTRAL41W 650 opaque door 36M 2R 42SM	650	36	382x382x120	1SLM004102A3106		1/2



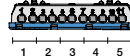
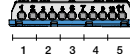
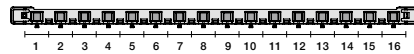
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36 modules



2CSC000786F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL41W transparent door 36M 3R 44SM	650	36	292x507x120	1SPE007717F0621		1/2
MISTRAL41W 650 opaque door 36M 3R 44SM	650	36	292x507x120	1SLM004102A3107		1/2



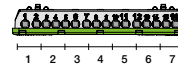
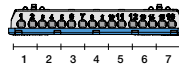
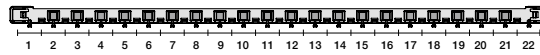
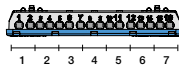
2CSC000190F0014

54 modules



2CSC000790F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL41W transparent door 54M 64SM	650	54	382x507x120	1SPE007717F1021		1/2
MISTRAL41W 650 opaque door 54M 64SM	650	54	382x507x120	1SLM004102A3109		1/2





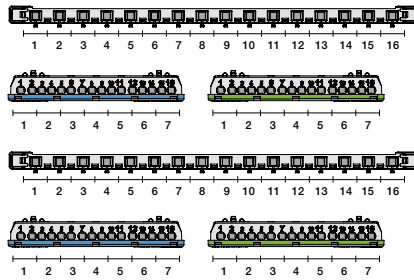
2CSC000810FF0014

48 modules



2CSC000792FF0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL41W transparent door 48M 64SM	650	48	292x656x120	1SPE007717F0721		1/1
MISTRAL41W 650 opaque door 48M 64SM	650	48	292x656x120	1SLM004102A3108		1/1



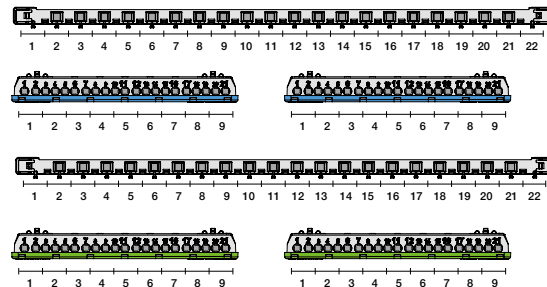
2CSC000812FF0014

72 modules



2CSC000794FF0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL41W transparent door 72M 84SM	650	72	382x656x120	1SPE007717F1121		1/1
MISTRAL41W 650 opaque door 72M 84SM	650	72	382x656x120	1SLM004102A3110		1/1



Where to find more:
Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

Accessories for System pro E comfort MISTRAL41W



Opaque door

2CSC000814F0014



Transparent door

2CSC000816F0014



Lock set

2CSC000816F0014



Label holder

2CSC000817F0014



Partition wall

2CSC000818F0014



MCB cover 12M

2CSC000819F0014

Description	N° of modules [18 mm]	Order code	Price	Packaging
Opaque door				
Opaque door 4M MISTRAL41W	4	1SPE007717F9900		1/24
Opaque door 8M MISTRAL41W	8	1SPE007717F9901		1/14
Opaque door 12M MISTRAL41W	12	1SPE007717F9902		1/14
Opaque door 24/48M MISTRAL41W	24/48	1SPE007717F9903		1/15
Opaque door 36M (3 rows) MISTRAL41W	36	1SPE007717F9904		1/18
Opaque door 18M MISTRAL41W	18	1SPE007717F9905		1/14
Opaque door 36/72M (2 rows) MISTRAL41W	36/72	1SPE007717F9906		1/18
Opaque door 54M MISTRAL41W	54	1SPE007717F9907		1/18
Transparent door				
Transparent door blue 4M MISTRAL41W	4	1SPE007717F9908		1/24
Transparent door blue 8M MISTRAL41W	8	1SPE007717F9909		1/14
Transparent door blue 12M MISTRAL41W	12	1SPE007717F9910		1/14
Transparent door blue 24/48M MISTRAL41W	24/48	1SPE007717F9911		1/15
Transparent door blue 36M (3 rows) MISTRAL41W	36	1SPE007717F9912		1/18
Transparent door blue 18M MISTRAL41W	18	1SPE007717F9913		1/14
Transparent door blue 36/72M (2 rows) MISTRAL41W	36/72	1SPE007717F9914		1/18
Transparent door blue 54M MISTRAL41W	54	1SPE007717F9915		1/18
Other accessories				
Lock set white LMW		1SPE007715F5009		1
Lock set blue LMB		1SPE007715F5010		1
Flange for rigid conduits GWT 650°		1SLM004100A1951		1
Label holder 12M MISTRAL41W	12	1SPE007715F5012		5
Label holder 18M MISTRAL41W	18	1SPE007715F5018		5
Partition wall 12M MISTRAL41W	12	1SPE007715F5112		5
Partition wall 18M MISTRAL41W	18	1SPE007715F5118		5
MCB cover 12M GWT 650 MISTRAL41W	12	1SPE007715F5650		5/180
MCB cover 12M GWT 750 MISTRAL41W	12	1SPE007715F5750		5/180
Flange for rigid conduits GWT 750		1SPE007715F5111		1

AT/U Series

The details make the difference

Compact distribution boards AT/U series: for wall-mounting, flush-mounting and hollow-wall mounting (in connection with ZKV200P4)

Doors are assembled and disassembled without tools, and the door hinges can be adjusted steplessly



Integrated cable strain-relief, spacious wall mounting

The installed distribution panels can be removed for equipping and wiring

Wide range: with metal or transparent door; Range from 36 up to 240 modules (18 mm)

AT/U Series

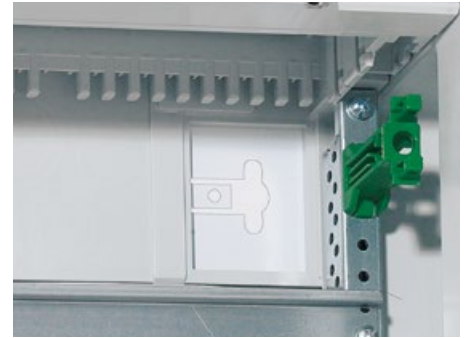
The details make the difference



With its slightly inclined sides, the bright white cabinet and the attractive locking system, the compact distribution boards sets new standards in design.



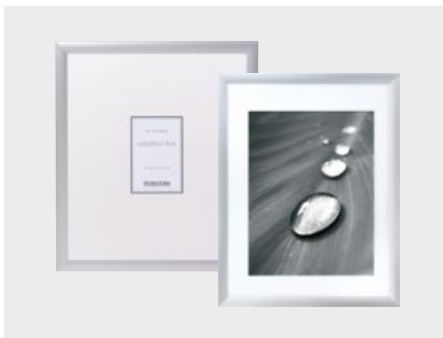
All AT wall-mounting compact distribution boards are equipped with one integrated flush fitting membrane flange per panel width on top.



A further standard feature per panel width is the cable strain-relief at the top and the bottom, which considerably simplifies the installation for every wall-mounting and flush-mounting type.



All flush-mounting compact distribution boards can be installed in the hollow wall in just a few steps using the hollow wall set (accessory). No longer two separate cabinets need to be kept on stock - you only need one cabinet for two applications.

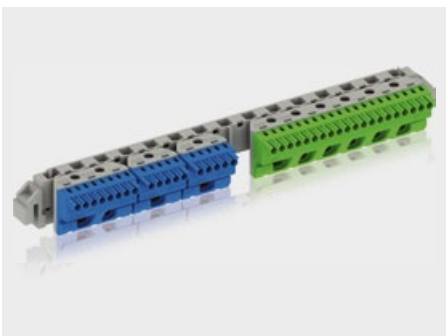


An alternative picture frame door is available for the U flush-mounting version. Control panels for commercial and industrial buildings are also available: they can be supplied to be finished and wired by the user, or can be printed and wired according to the user's requirements already in the factory.



Easy any flexible: AT and U Series offers a wide range for almost all applications: wall-mounting, flush-mounting, with metal, transparent or design door, with mounting plates or with DIN-Rails and many more. And all with one single order number.

14



AT and U series allows with its user-friendly snap-in type N/PE quick bus-bars considerable time-saving.



Fast assembly of the sealable covers using 90° press and turn closures, which fit into all modular cabinets.



Prepared for all requirements: An earthing set for conversion to protection class I (earthed) is available as an accessory for AT and for U Series.

Enclosures

Compact distribution boards with panels and doors



2CSO100850F0014

Panels and doors

Compact distribution boards with panels and doors

125 mm or 150 mm DIN-Rail spacing

I_n up to 125 A

DIN EN 61439-1-3 (VDE 0660-500)

Degree of protection IP43 (AT)

Degree of protection IP31 (U)

Protection class II, double insulated

Protection class I, earthed in connection with an earthing set (accessory)

The installed distribution board panels can be removed for equipping and wiring

The covers of U and AT compact distribution boards are made of polystyrene

Panels for DIN-Rail devices come with N/PE quick terminals

125 mm or 150 mm DIN-Rail spacing

Enclosures and doors made of sheet steel, 1 mm

Colour: white, RAL 9016

3 or more panels wide: double-wing doors

With new N/PE Quick-terminals for panels for rail mounting devices

Without N/PE Quick-terminals for panels with wiring space or mounting plates

Panels for terminals have DIN-Rails assembled insulated (without N/PE Quick terminals) (K)

Panels with mounting plate (without N/PE Quick-terminal) (M)

Hollow-wall-mounting set for flush-mounting versions (accessory)

With cable strain relief

With one membrane flange per panel width on top (AT)

With labelling system

Trim frame adjusted for uneven surfaces (U)

Cable entry covers (accessory)

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

Compact distribution boards, new N/PE Quick-terminals



The new N/PE Quick-terminals

Compact distribution boards, IP43 (AT), IP31(U) *

I_n up to 125 A

DIN EN 61439-1-3 (VDE 0660-500)

The installed distribution board panels can be removed for equipping and wiring

125 mm or 150 mm DIN-Rail spacing

Enclosures and doors made of sheet steel, 1 mm

Colour: white, RAL 9016

3 or more panels wide: Double-wing doors

With new N/PE Quick-terminals for panels for rail mounting devices

Without N/PE Quick-terminals for panels with wiring space or mounting plates

With cable strain relief

With one membrane flange per panel width on top (AT)

With labelling system

Trim frame adjusted for uneven surfaces (U)

* In connection with earthing set

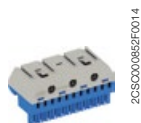
*1 In connection with a hollow-wall set ZKV200P4

Article	Type	Equipment with new N/PE Quick-terminals Compact distribution boards*
N/PE quick carriers	ZK13	1 pc.
N Quick terminal	ZK82B	1 pc.
	ZK113B	1 pc.
PE Quick-terminal	ZK175G	1 pc.

*Included in the scope of delivery for distribution board panels for rail mounting devices

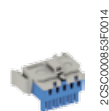
Enclosures

N/PE Quick-terminals accessories



ZK113B

2CSC000865FF0014



ZK50BT

2CSC000865FF0014



ZK113G

2CSC000865FF0014



ZK10P10

2CSC000865FF0014



ZK13

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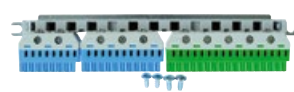
ZK15

2CSC000865FF0014



ZK220

2CSC000865FF0014



ZK225

2CSC000865FF0014

Article	Number of terminals 1.5 - 4 mm ²	Number of terminals 2.5 - 25 mm ²	External dimensions H x W x D in mm	Pcs.	Order details		Price
					Type	Order code	
N Quick-terminals							
For quick carriers	5	0	23 x 32 x 21	1	ZK50B	2CPX062750R9999	
	5	1	32 x 32 x 31	1	ZK51B	2CPX062751R9999	
	8	2	32 x 49 x 31	1	ZK82B	2CPX062752R9999	
	11	3	32 x 65 x 31	1	ZK113B	2CPX062753R9999	
	14	4	32 x 82 x 31	1	ZK144B	2CPX062754R9999	
	17	5	32 x 98 x 31	1	ZK175B	2CPX062755R9999	
	20	6	32 x 115 x 31	1	ZK206B	2CPX062756R9999	
N Quick-terminal with adapter ZK15							
For lateral assembly to the UK5... , A3... or for fastening to the DIN-Rail	5	0	28 x 39 x 25	1	ZK50BT	2CPX062745R9999	
PE Quick-terminals							
For quick carriers	5	1	32 x 32 x 31	1	ZK51G	2CPX062757R9999	
	8	2	32 x 49 x 31	1	ZK82G	2CPX062758R9999	
	11	3	32 x 65 x 31	1	ZK113G	2CPX062759R9999	
	14	4	32 x 82 x 31	1	ZK144G	2CPX062760R9999	
	17	5	32 x 98 x 31	1	ZK175G	2CPX062761R9999	
	20	6	32 x 115 x 31	1	ZK206G	2CPX062762R9999	
Connecting bridges							
For Quick-terminals				10	ZK10P10	2CPX062763R9999	
Quick carriers							
For consumer units AT/U Usable width for Quick-terminals 214 mm				1	ZK13	2CPX064982R9999	
Adapter for ZK50B							
Engaging the ZK50B N Quick-terminal in the adapter ZK15, leads to ZK50BT to be laterally fastened UK5... , A3 or to the DIN-Rail				1	ZK15	2CPX064984R9999	
Terminals							
N/PE for AT/U N=14, 10p. PE=22p.					ZK220	2CPX063132R9999	
N/PE for V-Feld N=14, 10p. PE=22p.					ZK225	2CPX063133R9999	

Enclosures

AT wall-mounting distribution boards with panels and sheet steel doors



2CSC000869F0014

AT31



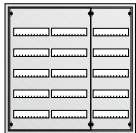
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AT42



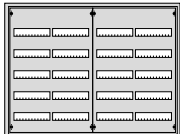
2CSC000869F0014

AT42/2



2CSC000861F0014

AT53

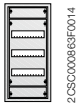


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AT54E

PW	GU	SU	External dimensions		Order details		Price
			H x W x D in mm		Type	Order code	
For rail mounting devices, 125 mm DIN-Rail spacing, with membran flanges							
1	3	36	524 x 324 x 140		AT31	2CPX030099R9999	
	4	48	674 x 324 x 140		AT41	2CPX030121R9999	
	5	60	824 x 324 x 140		AT51	2CPX030124R9999	
2	6	72	974 x 324 x 140		AT61	2CPX030130R9999	
	2	48	374 x 574 x 140		AT22E	2CPX071740R9999	
	4	96	674 x 574 x 140		AT42	2CPX030122R9999	
2 (1/1)	5	120	824 x 574 x 140		AT52	2CPX030125R9999	
	6	144	974 x 574 x 140		AT62	2CPX030131R9999	
	7	168	1124 x 574 x 140		AT72	2CPX030134R9999	
3 (2/1)	3	72	524 x 574 x 140		AT32	2CPX030120R9999	
	4	96	674 x 574 x 140		AT42/2	2CPX030138R9999	
	5	120	824 x 574 x 140		AT52/2	2CPX030139R9999	
4 (2/2)	4	144	674 x 824 x 140		AT43	2CPX030123R9999	
	5	180	824 x 824 x 140		AT53	2CPX030127R9999	
	6	216	974 x 824 x 140		AT63E	2CPX071751R9999	
5	240	824 x 1074 x 140		AT54E	2CPX071748R9999		

Where to find more:
Chapter 14 of
Solutions for electrical installation in
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2CSC000868F0014

AT41R3



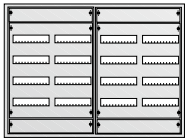
2CSC000864F0014

AT42R3



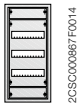
2CSC000865F0014

AT53R4



2CSC000866F0014

AT54R4



2CSC000867F0014

AT41R3IE



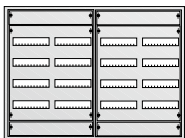
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AT42R3IE



2CSC000869F0014

AT53R4IE



2CSC000870F0014

AT54R4IE

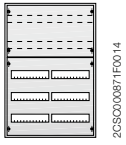
PW	GU	SU	External dimensions	Order details		Price
			H x W x D in mm	Type	Order code	
For rail mounting devices, 150 mm DIN-Rail spacing, with membran flanges						
1	3	36	674 x 324 x 140	AT41R3	2CPX071681R9999	
	4	48	824 x 324 x 140	AT51R4	2CPX071684R9999	
	5	60	974 x 324 x 140	AT61R5	2CPX071688R9999	
2	2	48	524 x 574 x 140	AT32R2	2CPX071680R9999	
	3	72	674 x 574 x 140	AT42R3	2CPX071682R9999	
	4	96	824 x 574 x 140	AT52R4	2CPX071685R9999	
	5	120	974 x 574 x 140	AT62R5	2CPX071689R9999	
	6	144	1124 x 574 x 140	AT72R6	2CPX071691R9999	
3 (2/1)	3	108	674 x 824 x 140	AT43R3	2CPX071683R9999	
	4	144	824 x 824 x 140	AT53R4	2CPX071686R9999	
	5	180	974 x 824 x 140	AT63R5	2CPX071690R9999	
	6	216	1124 x 824 x 140	AT73R6	2CPX071692R9999	
4 (2/2)	4	192	824 x 1074 x 140	AT54R4	2CPX071687R9999	
For rail mounting devices, 150 mm DIN-Rail spacing, with sheet steel flange						
1	3	36	674 x 324 x 140	AT41R3IE	2CPX071681R9999	
	4	48	824 x 324 x 140	AT51R4IE	2CPX071684R9999	
	5	60	974 x 324 x 140	AT61R5	2CPX071688R9999	
2	2	48	524 x 574 x 140	AT32R2IE	2CPX071680R9999	
	3	72	674 x 574 x 140	AT42R3IE	2CPX071682R9999	
	4	96	824 x 574 x 140	AT52R4IE	2CPX071685R9999	
	5	120	974 x 574 x 140	AT62R5IE	2CPX071689R9999	
	6	144	1124 x 574 x 140	AT72R6IE	2CPX071691R9999	
3 (2/1)	3	108	674 x 824 x 140	AT43R3IE	2CPX071683R9999	
	4	144	824 x 824 x 140	AT53R4IE	2CPX071686R9999	
	5	180	974 x 824 x 140	AT63R5IE	2CPX071690R9999	
	6	216	1124 x 824 x 140	AT73R6IE	2CPX071692R9999	
4 (2/2)	4	192	824 x 1074 x 140	AT54R4IE	2CPX071687R9999	

Where to find more:

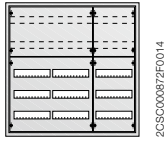
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Enclosures

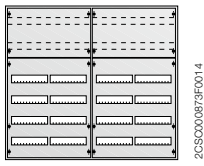
AT wall-mounting distribution boards with panels and sheet steel doors



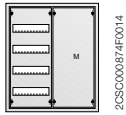
AT52K



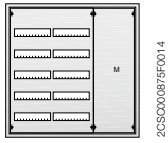
AT53K



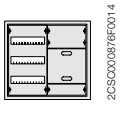
AT64K



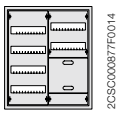
AT42M



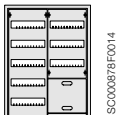
AT53M



AT32EP



AT42EP

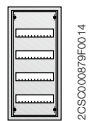


AT52EP

PW	GU	SU	External dimensions		Order details		Price
			H x W x D in mm		Type	Order code	
For rail mounting devices and terminals, DIN-Rail spacing 125 mm							
2	5	120	824 x 574 x 140		AT52K	2CPX030126R9999	
	6	144	974 x 574 x 140		AT62K	2CPX030132R9999	
	7	168	1124 x 574 x 140		AT72K	2CPX030135R9999	
3 (2/1)	5	180	824 x 824 x 140		AT53K	2CPX030128R9999	
	6	216	974 x 824 x 140		AT63K	2CPX030133R9999	
	7	252	1124 x 824 x 140		AT73K	2CPX030136R9999	
4 (2/2)	5	240	824 x 1074 x 140		AT54K	2CPX030129R9999	
	6	288	974 x 1074 x 140		AT64K	2CPX030137R9999	
For rail mounting devices and mounting plates, DIN-Rail spacing 125 mm							
2 (1/1)	4	96	674 x 574 x 140		AT42M	2CPX030148R9999	
3 (2/1)	5	180	824 x 824 x 140		AT53M	2CPX030149R9999	
For rail mounting devices and meter plates, DIN-Rail spacing 125 mm							
2 (1/1)	3	72	524 x 574 x 140		AT32EP	2CPX071760R9999	
2 (1/1)	4	96	674 x 574 x 140		AT42EP	2CPX071761R9999	
2 (1/1)	5	120	824 x 574 x 140		AT52EP	2CPX071762R9999	

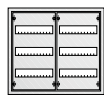
Enclosures

AT wall-mounting distribution boards with panels and transparent doors



2CSC000879F0014

AT41TE



2CSC000860F0014

AT32TE



2CSC000881F0014

AT52TE



2CSC000825F0014

AT41TR3



2CSC000883F0014

AT52TR4



2CSC000894F0014

AT63TR5



2CSC000885F0014

AT54TR4

PW	GU	SU	External dimensions		Order details		Price
			H x W x D in mm		Type	Order code	
For rail mounting devices, 125 mm DIN-Rail spacing							
1	4	48	674 x 324 x 140		AT41TE	2CPX071585R9999	
	5	60	824 x 324 x 140		AT51TE	2CPX071587R9999	
	6	72	974 x 324 x 140		AT61TE	2CPX071589R9999	
2 (1/1)	3	72	524 x 574 x 140		AT32TE	2CPX071584R9999	
2	4	96	674 x 574 x 140		AT42TE	2CPX071586R9999	
	5	120	824 x 574 x 140		AT52TE	2CPX071588R9999	
	6	144	974 x 574 x 140		AT62TE	2CPX071590R9999	
For rail mounting devices, 150 mm DIN-Rail spacing							
1	3	36	674 x 324 x 140		AT41TR3	2CPX071695R9999	
	4	48	824 x 324 x 140		AT51TR4	2CPX071698R9999	
	5	60	974 x 324 x 140		AT61TR5	2CPX071702R9999	
2	2	48	524 x 574 x 140		AT32TR2	2CPX071694R9999	
	3	72	674 x 574 x 140		AT42TR3	2CPX071696R9999	
	4	96	824 x 574 x 140		AT52TR4	2CPX071699R9999	
	5	120	974 x 574 x 140		AT62TR5	2CPX071703R9999	
	6	144	1124 x 574 x 140		AT72TR6	2CPX071705R9999	
	3 (2/1)	3	108	674 x 824 x 140		AT43TR3	2CPX071697R9999
3	4	144	824 x 824 x 140		AT53TR4	2CPX071700R9999	
	5	180	974 x 824 x 140		AT63TR5	2CPX071704R9999	
	6	216	1124 x 824 x 140		AT73TR6	2CPX071706R9999	
4 (2/2)	4	192	82 x 1074 x 140		AT54TR4	2CPX071701R9999	

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

Accessories cable entry covers for AT wall-mounting distribution boards



KB19

2CSC00089BF0014



KB219

2CSC000887F0014



KBS9

2CSC00088BF0014



KBW1

2CSC00089BF0014

Article	Order details		Price
	Type	Order code	
Cable entry covers			
With end plates and mounting brackets			
colour RAL 9016, adjusted to the colour of the cabinets			
Panel width 1, width = 300 mm	KB19	2CPX044049R9999	
Panel width 2, width = 550 mm	KB29	2CPX044050R9999	
Panel width 3, width = 800 mm	KB39	2CPX044051R9999	
Panel width 4, width = 1050 mm	KB49	2CPX044052R9999	
Profile			
Colour RAL 9016, width 2000 mm	KB219	2CPX044055R9999	
End plate left/right			
Colour RAL 9016	KBS9	2CPX044057R9999	
Mounting brackets	KBW1	2CPX044058R9999	

Enclosures

U flush-mounting compact distribution boards with panels and sheet steel doors



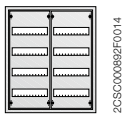
2CSC000890F0014

U41



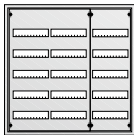
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U52



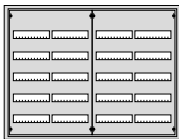
2CSC000892F0014

U42/2



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U53



2CSC000894F0014

U54E



2CSC000895F0014

U41R3



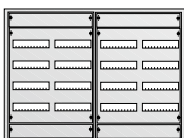
2CSC000896F0014

U42R3



2CSC000897F0014

U53R4



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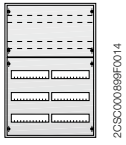
Where to find more:

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Solutions for electrical installation in
buildings - technical details

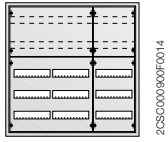
PW	GU	SU	Wall cut out dimensions	Trim frame dimensions	Order details		Price
			H x W x D in mm	H x W x D in mm	Type	Order code	
For rail mounting devices, 125 mm DIN-Rail spacing							
1	4	48	684 x 310 x 120	694 x 354 x 27	U41	2CPX030101R9999	
	5	60	834 x 310 x 120	844 x 354 x 27	U51	2CPX030104R9999	
	6	72	984 x 310 x 120	994 x 354 x 27	U61	2CPX030110R9999	
2	4	96	684 x 560 x 120	694 x 604 x 27	U42	2CPX030102R9999	
	5	120	834 x 560 x 120	844 x 604 x 27	U52	2CPX030105R9999	
	6	144	984 x 560 x 120	994 x 604 x 27	U62	2CPX030111R9999	
	7	168	1134 x 560 x 120	1144 x 604 x 27	U72	2CPX030114R9999	
2 (1/1)	3	72	534 x 560 x 120	544 x 604 x 27	U32	2CPX030100R9999	
	4	96	684 x 560 x 120	694 x 604 x 27	U42/2	2CPX030118R9999	
	5	120	834 x 560 x 120	844 x 604 x 27	U52/2	2CPX030119R9999	
3 (2/1)	4	144	684 x 810 x 120	694 x 854 x 27	U43	2CPX030103R9999	
	5	180	834 x 810 x 120	844 x 854 x 27	U53	2CPX030107R9999	
	6	216	984 x 810 x 120	994 x 854 x 27	U63E	2CPX071787R9999	
4 (2/2)	5	240	834 x 1060 x 120	844 x 1104 x 27	U54E	2CPX071784R9999	
For rail mounting devices, 150 mm DIN-Rail spacing							
1	3	36	684 x 310 x 120	694 x 354 x 27	U41R3	2CPX071708R9999	
	4	48	834 x 310 x 120	844 x 354 x 27	U51R4	2CPX071711R9999	
	5	60	984 x 310 x 120	994 x 354 x 27	U61R5	2CPX071715R9999	
2	2	48	534 x 560 x 120	544 x 604 x 27	U32R2	2CPX071707R9999	
	3	72	684 x 560 x 120	694 x 604 x 27	U42R3	2CPX071709R9999	
	4	96	834 x 560 x 120	844 x 604 x 27	U52R4	2CPX071712R9999	
	5	120	984 x 560 x 120	994 x 604 x 27	U62R5	2CPX071716R9999	
	6	144	1134 x 560 x 120	1144 x 604 x 27	U72R6	2CPX071718R9999	
3 (2/1)	3	108	684 x 810 x 120	694 x 854 x 27	U43R3	2CPX071710R9999	
	4	144	834 x 810 x 120	844 x 854 x 27	U53R4	2CPX071713R9999	
	5	180	984 x 810 x 120	994 x 854 x 27	U63R5	2CPX071717R9999	
4 (2/2)	6	216	1134 x 810 x 120	1144 x 854 x 27	U73R6	2CPX071719R9999	
	4	192	834 x 1060 x 120	844 x 1104 x 27	U54R4	2CPX071714R9999	

Enclosures

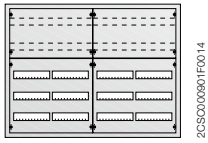
U flush-mounting compact distribution boards with panels and transparent doors



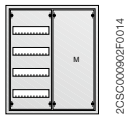
U52K



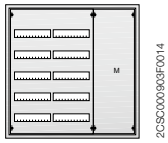
U53K



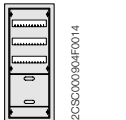
U54K



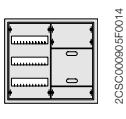
U42M



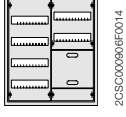
U53M



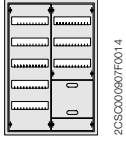
U51EP



U32EP



U42EP



PW	GU	SU	Wall cut out dimensions		Trim frame dimensions		Order details		Price
			H x W x D in mm		H x W x D in mm		Type	Order code	
For rail mounting devices and terminals, DIN-Rail spacing 125 mm									
2	5	120	834 x 560 x 120		844 x 604 x 27		U52K	2CPX030106R9999	
	6	144	984 x 560 x 120		994 x 604 x 27		U62K	2CPX030112R9999	
	7	168	1134 x 560 x 120		1144 x 604 x 27		U72K	2CPX030115R9999	
3 (2/1)	5	180	834 x 810 x 120		844 x 854 x 27		U53K	2CPX030108R9999	
	6	216	984 x 810 x 120		994 x 854 x 27		U63K	2CPX030113R9999	
	7	252	1134 x 810 x 120		1144 x 854 x 27		U73K	2CPX030116R9999	
4 (2/2)	5	240	834 x 1060 x 120		844 x 1104 x 27		U54K	2CPX030109R9999	
	6	288	984 x 1060 x 120		994 x 1104 x 27		U64K	2CPX030117R9999	
For rail mounting devices and mounting plates, 125 mm DIN-Rail spacing									
2 (1/1)	4	96	684 x 560 x 120		694 x 604 x 27		U42M	2CPX030146R9999	
3 (2/1)	5	180	834 x 810 x 120		844 x 854 x 27		U53M	2CPX030147R9999	
For rail mounting devices and meter plates, DIN-Rail spacing 125 mm									
1	5	60	834 x 310 x 120		844 x 354 x 27		U51EP	2CPX071564R9999	
2 (1/1)	3	72	534 x 560 x 120		544 x 604 x 27		U32EP	2CPX071560R9999	
2 (1/1)	4	96	684 x 560 x 120		694 x 604 x 27		U42EP	2CPX071561R9999	
2 (1/1)	5	120	834 x 560 x 120		844 x 604 x 27		U52EP	2CPX071562R9999	



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U41TE



2CSC000809F0014

U32TE



2CSC000810F0014

U42TE



2CSC000811F0014

U41TR3



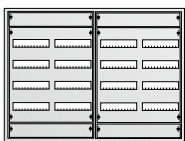
2CSC000812F0014

U42TR3



2CSC000813F0014

AT53TR4



2CSC000814F0014

U54TR4

PW	GU	SU	Wall cut out dimensions	Trim frame dimensions	Order details		Price
			H x W x D in mm	H x W x D in mm	Type	Order code	
For rail mounting devices, 125 mm DIN-Rail spacing							
1	4	48	684 x 310 x 120	694 x 354 x 27	U41TE	2CPX071592R9999	
	5	60	834 x 310 x 120	844 x 354 x 27	U51TE	2CPX071594R9999	
	6	72	984 x 310 x 120	994 x 354 x 27	U61TE	2CPX071596R9999	
2 (1/1)	3	72	534 x 560 x 120	544 x 604 x 27	U32TE	2CPX071591R9999	
2	4	96	684 x 560 x 120	694 x 604 x 27	U42TE	2CPX071593R9999	
	5	120	834 x 560 x 120	844 x 604 x 27	U52TE	2CPX071595R9999	
	6	144	984 x 560 x 120	994 x 604 x 27	U62TE	2CPX071597R9999	
For rail mounting devices, 150 mm DIN-Rail spacing							
1	3	36	684 x 310 x 120	694 x 354 x 27	U41TR3	2CPX071722R9999	
	4	48	834 x 310 x 120	844 x 354 x 27	U51TR4	2CPX071725R9999	
	5	60	984 x 310 x 120	994 x 354 x 27	U61TR5	2CPX071729R9999	
2	2	48	534 x 560 x 120	544 x 604 x 27	U32TR2	2CPX071721R9999	
	3	72	684 x 560 x 120	694 x 604 x 27	U42TR3	2CPX071723R9999	
	4	96	834 x 560 x 120	844 x 604 x 27	U52TR4	2CPX071726R9999	
	5	120	984 x 560 x 120	994 x 604 x 27	U62TR5	2CPX071730R9999	
	6	144	1134 x 560 x 120	1144 x 604 x 27	U72TR6	2CPX071733R9999	
	3 (2/1)	3	108	684 x 810 x 120	694 x 854 x 27	U43TR3	2CPX071724R9999
4 (2/2)	4	144	834 x 810 x 120	844 x 854 x 27	U53TR4	2CPX071727R9999	
	5	180	984 x 810 x 120	994 x 854 x 27	U63TR5	2CPX071731R9999	
	6	216	1134 x 810 x 120	1144 x 854 x 27	U73TR6	2CPX071734R9999	
4 (2/2)	4	192	834 x 1060 x 120	844 x 1104 x 27	U54TR4	2CPX071728R9999	

Where to find more:

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Solutions for electrical installation in
buildings - technical details

Enclosures

U flush-mounting compact distribution boards with panels and picture frame doors



2CSC000919FC014

U42D



2CSC000919FC014

U42FPT

PW	GU	SU	Wall cut out dimensions	Trim frame dimensions	Order details			
			H x W x D in mm	H x W x D in mm	Type	Order code	Price	
With picture frame door, aluminium anodized, DIN-Rail spacing 125 mm								
2	4	96	684 x 560 x 120	716 x 625 x 25	U42D	2CPX038152R9999		
With control panel, unprinted and not wired, distribution board panel without cover and N/PE rail								
2	4	96	684 x 560 x 120	716 x 625 x 25	U42FPT	2CPX038151R9999		

Example picture frame door with decoration picture (delivery without picture)



Example control panel with layout and control lights (delivery unprinted/not wired)



Enclosures

Accessories for AT/U Series



ZB113



ZB111



ZX456



ZX440



ZH800



ZH220



ZH130



ZH132



ZH134



ZH137

Article	Pcs.	Order details		Price
		Type	Order code	
Standard closure				
Included in the scope of delivery	1	ZB113	2CPX038478R9999	
Closure with lock				
With 2 keys	1	ZB111	2CPX038479R9999	
Espagnolette closure				
In combination with standard closure ZB113* (earthing part!) or closure with lock ZB111				
Overall height 4 GU	1	ZX456	2CPX039586R9999	
Overall height 5 GU	1	ZX457	2CPX039587R9999	
Overall height 6 GU	1	ZX458	2CPX039588R9999	
Overall height 7 GU	1	ZX459	2CPX039589R9999	
Espagnolette closure				
In combination with ZH203, ZH220, ZH221, ZH222, ZH227, ZH228				
Overall height 4 GU	1	ZX440	2CPX039570R9999	
Overall height 5 GU	1	ZX441	2CPX039571R9999	
Overall height 6 GU	1	ZX442	2CPX039572R9999	
Overall height 7 GU	1	ZX443	2CPX039573R9999	
Installation set*				
Of different closure systems in combination with ZH220/ZH221/ZH222	1	ZH800	2CPX038544R9999	
Latch plate				
Double bit operating pin, 3 mm standard and 5 mm (ZH800 must be ordered separately)	1	ZH220	2CPX045700R9999	
For triangular or square operating pins and for Daimler-Benz insert (ZH800 must be ordered separately)	1	ZH221	2CPX045701R9999	
For T-handle or latch handle (ZH800 must be ordered separately)	1	ZH222	2CPX045702R9999	
Operating pin				
Double-bit 3 mm	1	ZH130	2CPX060490R9999	
Double-bit 5 mm	1	ZH131	2CPX060491R9999	
Triangular 7 mm	1	ZH132	2CPX060492R9999	
Triangular 8 mm	1	ZH133	2CPX060493R9999	
Square 6 mm	1	ZH134	2CPX060494R9999	
Square 7 mm	1	ZH135	2CPX060495R9999	
Square 8 mm	1	ZH136	2CPX060496R9999	
Daimler-Benz insert	1	ZH137	2CPX060497R9999	

* Leave not less than 2 SU for DIN-Rail devices behind the closure

Enclosures Accessories



2CSC000988F0014

ZH157



2CSC000939F0014

ZH91



2CSC000940F0014

ZH138



2CSC000941F0014

ZH139



2CSC000942F0014

ZH140



2CSC000943F0014

ZH141



2CSC000944F0014

ZH228



2CSC000945F0014

ZH227



2CSC000946F0014

ZH203



2CSC000947F0014

ZH142

Article	Pcs.	Order details		Price
		Type	Order code	
Operating keys				
Triangular 7 mm	1	ZH157	2CPX060657R9999	
Triangular 8 mm	1	ZH158	2CPX060658R9999	
Double-bit 3 mm	1	ZH160	2CPX060660R9999	
Double-bit 5 mm	1	ZH161	2CPX060661R9999	
Square 6 mm	1	ZH162	2CPX060662R9999	
Square 7 mm	1	ZH163	2CPX060663R9999	
Square 8 mm	1	ZH164	2CPX060664R9999	
Daimler-Benz insert	1	ZH165	2CPX060665R9999	
Universal key				
Double bit 3 and 5 mm	1	ZH91	2CPX066091R9999	
Triangular 8 mm				
Square 6 and 8 mm				
T-handle*				
Without lock	1	ZH138	2CPX060498R9999	
With lock	1	ZH139	2CPX060498R9999	
Latch handle*				
Without lock	1	ZH140	2CPX060500R9999	
With lock	1	ZH141	2CPX060501R9999	
Swivel handle with lead sealable cap*				
For semi-cylinder 40 mm (30/10)	1	ZH228	2CPX045709R9999	
Swivel handle with lead sealable cap*				
With cabinet handle Berlin	1	ZH227	2CPX045708R9999	
Swivel handle with lead sealable cap*				
With closure E0 12	1	ZH203	2CPX045707R9999	
Dummy insert				
Instead of a semi-cylinder for the swivel handle ZH228	1	ZH142	2CPX060502R9999	

* Leave not less than 2 SU for DIN-Rail devices behind the closure



ZKV200P4

2CSC0000948F0014



ZE11

2CSC0000948F0014



ZE12

2CSC0000948F0014



ZB43

2CSC0000951F0014



ZB40

2CSC0000952F0014



ZB101

2CSC0000953F0014



ZX69

2CSC0000954F0014



ZA1P5

2CSC0000955F0014



ZA6

2CSC0000956F0014



ZA5

2CSC0000957F0014



ZX139LR

2CSC0000958F0014

Article	Pcs.	Order details		Price
		Type	Order code	
Hollow-wall-mounting set	1	ZB19	2CPX038187R9999	
For retrofitting flush-mounted distribution boards Wall thickness: min. 14 mm, max. 58 mm				
Earthing set for wall-mounting compact distribution boards	1	ZE11	2CPX038143R9999	
For conversion into protection class 1				
Earthing set for flush-mounting compact distribution boards	1	ZE12	2CPX038144R9999	
For conversion into protection class 1				
Membrane flange	1	ZB43	2CPX038183R9999	
For inserting the cable from below				
Nipple Flange	1	ZB40	2CPX038195R9999	
Closing Flange	1	ZB101	2CPX038181R9999	
Flange for conduits (bottom)	1	ZB107E	2CPX071211R9999	
Flange for conduits (top)	1	ZB108E	2CPX071212R9999	
Vertical partitions				
Between distribution board panels, not arc-resistant				
Overall height 3 GU	1	ZX69	2CPX039069R9999	
Overall height 4 GU	1	ZX70	2CPX039070R9999	
Overall height 5 GU	1	ZX71	2CPX039071R9999	
Overall height 6 GU	1	ZX72	2CPX039072R9999	
Overall height 7 GU	1	ZX73	2CPX039073R9999	
Slot cover				
Colour RAL 7035	5	ZA1P5	2CPX062384R9999	
For 12 space units, break-off type	50	ZA1P50	2CPX062378R9999	
Document holder DIN A4				
Self-adhesive with transparent sleeve	1	ZA6	2CPX038227R9999	
	10	ZA6P10	2CPX062380R9999	
Self-adhesive with transparent sleeve and reinforced back	10	ZA61P10	2CPX062375R9999	
Document holder DIN A4				
Self-adhesive	1	ZA13	2CPX038233R9999	
	10	ZA13P10	2CPX062381R9999	
Document holder DIN A5				
Self-adhesive	1	ZA5	2CPX038228R9999	
	10	ZA5P10	2CPX062382R9999	
Door hinge (plastic)	2	ZX139LR	2CPX039139R9999	

Enclosures Accessories



ZX464

2CSC000989F0014



ZX374

2CSC000989F0014



ZH411

2CSC000989F0014



ZH412

2CSC000989F0014



ZH425

2CSC000989F0014



ZH428

2CSC000989F0014



ZX371

2CSC000989F0014



ZK90P2

2CSC000989F0014



ZX21

2CSC000989F0014



ZB32P20

2CSC000989F0014

Article	Pcs.	Order details		Price
		Type	Order code	
Door bolt for double-wing doors				
For cabinets with three or more panel widths	1	ZX464	2CPX039596R9999	
Cross member				
For fuse switch disconnectors size 00, 1 panel wide	1	ZX374	2CPX068079R9999	
Fuse switch disconnecter				
Size 00 160 A (without trim cover)				
With M8 screw connection	1	ZH411	2CPX062947R9999	
With clip terminal up to 50 mm ²	1	ZH412	2CPX062948R9999	
Trim cover				
For fuse switch disconnecter size 00				
Single trim cover	1	ZH425	2CPX062952R9999	
Double trim cover	1	ZH426	2CPX062953R9999	
Blank cover	1	ZH428	2CPX062955R9999	
DIN-Rail for terminals				
35 x 7.5 mm				
For recessed mounting in conjunction with mounting bracket ZX372P2 and insulator ZK90P2				
1 panel wide	1	ZX371	2CPX068076R9999	
2 panels wide	1	ZX389	2CPX068190R9999	
Insulator for DIN-Rails				
35 x 7.5 mm including fastening material	2	ZK90P2	2CPX062426R9999	
DIN-Rail				
35 x 7.5 mm				
1 panel wide	1	ZX21	2CPX039021R9999	
2 panels wide	1	ZX22	2CPX039022R9999	
Fastening screws for DIN-Rails				
Slotted/hexalobular socket pan head thread rolling screw T25 –	20	ZB32P20	2CPX062651R9999	
Slotted/hexalobular socket pan head thread rolling screw T25 –	500	ZB32P500	2CPX062652R9999	



2CSC000969F0014

ED137P4



2CSC000970F0014

ED50P12



2CSC000971F0014

ZKV201



2CSC000972F0014

ZK300



2CSC000973F0014

ZX518



2CSC000974F0014

ZK400



2CSC000975F0014

ZB19



2CSC000976F0014

ZA122



2CSC000977F0014

ZA20



2CSC000978F0014

ZA120

Article	Pcs.	Order details		Price
		Type	Order code	
Cover holder 45 mm high	4	ED137P4	2CPX062600R9999	
For fastening on the EDF profile	40	ED137P40	2CPX062601R9999	
For DIN-Rails 35 x 7.5 mm, use only these cover holders				
Press-and-turn fixing				
To cover distribution board panels	12	ED50P12	2CPX062337R9999	
Labelling system				
Self-adhesive, for AT and U distribution boards	1	ZKV201	2CPX038148R9999	
Busbar system for N/PE				
Cu 12 x 5 mm, max. connection 95 mm2				
1 panel wide	1	ZK300	2CPX038551R9999	
2 panels wide	1	ZK301	2CPX038552R9999	
N/PE busbar holder				
For copper busbars 12 x 5 mm, 20 x 5 mm, 30 x 5 mm	1	ZX518	2CPX067805R9999	
	10	ZX518P10	2CPX062551R9999	
Copper busbars				
12 x 5 mm = 250 A				
1 m long		ZX400	2CPX061400R9999	
2 m long		ZX401	2CPX061401R9999	
3 m long		ZX402	2CPX061402R9999	
4 m long		ZX350	2CPX061350R9999	
Cover profile				
For copper busbars 12 x 5 and 12 x 10 mm, length 1 m		ZB19	2CPX038187R9999	
To clip on busbars				
Cleaner				
For distribution board panel covers	1	ZA122	2CPX038293R9999	
Spray dispenser, 500 ml				
Spray paint can				
Colour RAL 9016, 150 ml	1	ZA20	2CPX038229R9999	
Touch-up applicator				
Colour RAL 9016, 12 ml	1	ZA120	2CPX039043R9999	

Enclosures

Compact distribution boards For wall-, flush- and hollow-wall mounting*

User-friendliness in series – compact distribution boards from STRIEBEL & JOHN

The new compact distribution boards, which have been developed in close cooperation with technicians from the field, stand out by entirely new solutions.

Flexibility and speed will support the users in their daily tasks. Be it for commercial, industrial or domestic uses - this broad range of products offers a solution to any type of mounting - from flush-mounting and wall-mounting up to hollow-wall mounting applications.

All enclosures are double insulated. An earthing set is available as accessory.

Depending on the version, degrees of protection between IP31 and IP43 are available.





Simply insert the ZKV200P4 hollow-wall set, fix it, ready



Standard equipment - membrane flange on top



Integrated cable strain-relief, spacious wall mounting

Unique – The flexibility and speed of hollow-wall mounting

All flush-mounting compact distribution boards can be installed in the hollow wall in just a few steps using the hollow wall sets provided as accessories.

Besides the electrical installer, the wholesalers also benefit from this well-thought solution, as they no longer need to keep two separate cabinets in stock but are able to supply one cabinet for two applications.



Slightly inclining sides - elegant and attractive design

Convincing design

With its slightly inclined sides, the bright white cabinet and the attractive locking system, the compact distribution boards set new standards - not only in design but also in terms of stability that is achieved by a special bending technique.

Furthermore, only STRIEBEL & JOHN offers an alternative picture frame for the two-panel wide and the four-row high cabinets – an extension of the well known UK500 "addition line".

Perfection to detail

Wall-mounting compact distribution boards offer the possibility of cable entry on the top, at the bottom and from the back. All wall-mounting compact distribution boards are equipped with one integrated flush fitting membrane flange per panel width on top. This enables quick and easy installation and improves the overall appearance.

A further standard feature per panel width is the cable strain relief at the top and bottom, which considerably simplifies the installation for every wall-mounting and flush-mounting type.

Control panels which can be supplied to be finished and wired by the user, or which are printed and wired according to the user's requirements, are also available for commercial and industrial buildings.

Enclosures

Compact distribution boards empty cabinets without doors



Compact distribution boards -Empty cabinets without doors

Prepared to be fitted with CombiLine modules

I_n up to 125 A

DIN EN 61439-1/-3 (VDE 0660-600)

Degree of protection without door IP30* (AL and UL)

Degree of protection with door IP43 (AL)

Degree of protection with door IP31 (UL)

Protection class II, double insulated

Protection class I, earthed in connection with an earthing set (accessory)

Enclosure made of sheet steel, 1 mm

Colour: white, RAL 9016

Media panels (accessory)

Trim frame with sheet steel door (accessory)

Trim frame with transparent door (accessory)

Sheet steel door (accessory)

Transparent door (accessory)

Cable entry covers (accessory)

Hollow-wall mounting set for flush-mounting versions (accessory)

Without N/PE Quick-terminals

With cable strain relief

With one membrane flange per panel width on top (AL)

*For an extension as sub-distribution board with distribution board panels or CombiLine modules

*Leave not less than 2 SU for DIN rail devices behind the closure

Enclosures

AL Wall-mounting distribution boards empty cabinets without door



AL31



AL42



AL53



AL64

PW	GU	SU	External dimensions	Order details		Price
			H x W x D in mm	Type	Order code	
1	3	36	524 x 324 x 140	AL31	2CPX030770R9999	
	4	72	674 x 324 x 140	AL41	2CPX030772R9999	
	5	60	824 x 324 x 140	AL51	2CPX030775R9999	
	6	72	974 x 324 x 140	AL61	2CPX030779R9999	
2	2	48	374 x 574 x 140	AL22	2CPX030769R9999	
	3	72	524 x 574 x 140	AL32	2CPX030771R9999	
	4	96	674 x 574 x 140	AL42	2CPX030773R9999	
	5	120	824 x 574 x 140	AL52	2CPX030776R9999	
	6	144	974 x 574 x 140	AL62	2CPX030780R9999	
	7	168	1124 x 574 x 140	AL72	2CPX030783R9999	
	3	4	144	674 x 842 x 140	AL43	2CPX030774R9999
5		180	824 x 824 x 140	AL53	2CPX030777R9999	
6		216	974 x 824 x 140	AL63	2CPX030781R9999	
7		252	1124 x 824 x 140	AL73	2CPX030784R9999	
4	5	240	824 x 1074 x 140	AL54	2CPX030778R9999	
	6	288	974 x 1074 x 140	AL64	2CPX030782R9999	

Enclosures

AL Wall-mounting distribution boards accessories cabinet doors



T20



TTS42

PW	GU	To be used with...	Order details		Price
			Type	Order code	
Sheet steel doors					
1	3	AL31	T100	2CPX062057R9999	
	4	AL41	T10	2CPX062059R9999	
	5	AL51	T11	2CPX062062R9999	
	6	AL61	T12	2CPX062066R9999	
2	2	AL22	T220	2CPX062056R9999	
	3	AL32	T200	2CPX062058R9999	
	4	AL42	T20	2CPX062060R9999	
	5	AL52	T21	2CPX062063R9999	
	6	AL62	T22	2CPX062067R9999	
	7	AL72	T23	2CPX062070R9999	
3*	4	AL43	T30	2CPX062061R9999	
	5	AL53	T31	2CPX062064R9999	
	6	AL63	T32	2CPX062068R9999	
	7	AL73	T33	2CPX062071R9999	
4*	5	AL54	T41	2CPX062065R9999	
	6	AL64	T42	2CPX062069R9999	
Transparent doors					
1	3	AL31	TTS100	2CPX062021R9999	
	4	AL41	TTS10	2CPX062026R9999	
	5	AL51	TTS11	2CPX062031R9999	
	6	AL61	TTS12	2CPX062036R9999	
2	3	AL32	TTS200	2CPX062022R9999	
	4	AL42	TTS20	2CPX062027R9999	
	5	AL52	TTS21	2CPX062032R9999	
	6	AL62	TTS22	2CPX062037R9999	
	7	AL72	TTS23	2CPX062042R9999	
3*	4	AL43	TTS30	2CPX062028R9999	
	5	AL53	TTS31	2CPX062033R9999	
	6	AL63	TTS32	2CPX062038R9999	
	7	AL73	TTS33	2CPX062043R9999	
4*	5	AL54	TTS41	2CPX062034R9999	
	6	AL64	TTS42	2CPX062039R9999	

*3 or more panels wide: double-wing doors

Enclosures

AL Wall-mounting distribution boards accessories cable entry covers



KB19



KB219

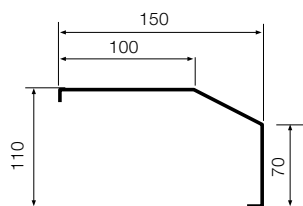


KBS9



KBW1

Article	Pieces	Order details		Price
		Type	Order code	
Cable entry covers				
With end plates and mounting brackets, colour RAL 9016, adjusted to the colour of the cabinets				
Panel width 1, width = 300 mm	1	KB19	2CPX044049R9999	
Panel width 2, width = 550 mm	1	KB29	2CPX044050R9999	
Panel width 3, width = 800 mm	1	KB39	2CPX044051R9999	
Panel width 4, width = 1050 mm	1	KB49	2CPX044052R9999	
Profile	1	KB219	2CPX044055R9999	
Colour RAL 9016, width 2000 mm				
End plate left/right	2	KBS9	2CPX044057R9999	
Colour RAL 9016				
Mounting brackets	1	KBW1	2CPX044058R9999	



Cross section
Cable entry cover



Enclosures

UL compact distribution boards* empty cabinets without door



UL41



UL42



UL53



UL64

PW	GU	SU	Wall cut out dimensions	Order details		Price
			H x W x D in mm	Type	Order code	
Empty cabinets without door						
1	4	72	684 x 310 x 120	UL41	2CPX030756R9999	
	5	60	834 x 310 x 120	UL51	2CPX030759R9999	
	6	72	984 x 310 x 120	UL61	2CPX030763R9999	
2	3	72	534 x 560 x 120	UL32	2CPX030755R9999	
	4	96	684 x 560 x 120	UL42	2CPX030757R9999	
	5	120	834 x 560 x 120	UL52	2CPX030760R9999	
	6	144	984 x 560 x 120	UL62	2CPX030764R9999	
	7	168	1134 x 560 x 120	UL72	2CPX030767R9999	
3	4	144	684 x 810 x 120	UL43	2CPX030758R9999	
	5	180	834 x 810 x 120	UL53	2CPX030761R9999	
	6	216	984 x 810 x 120	UL63	2CPX030765R9999	
	7	252	1134 x 810 x 120	UL73	2CPX030768R9999	
4	5	240	834 x 1060 x 120	UL54	2CPX030762R9999	
	6	288	984 x 1060 x 120	UL64	2CPX030766R9999	

* For flush-mounting and hollow-wall mounting. In connection with a hollow-wall set ZKV200P4



BLU42



BLT42

PW	GU	Trim frame dimensions		Order details		Price
		H x W x D in mm	To be used with...	Type	Order code	
Trim frame with sheet steel door, powder-coated, white RAL 9016,						
1	4	694 x 354 x 27	UL41	BLU41	2CPX031501R9999	
	5	844 x 354 x 27	UL51	BLU51	2CPX031504R9999	
	6	994 x 354 x 27	UL61	BLU61	2CPX031508R9999	
2	3	544 x 604 x 27	UL32	BLU32	2CPX031500R9999	
	4	694 x 604 x 27	UL42	BLU42	2CPX031502R9999	
	5	844 x 604 x 27	UL52	BLU52	2CPX031505R9999	
	6	994 x 604 x 27	UL62	BLU62	2CPX031509R9999	
	7	1144 x 604 x 27	UL72	BLU72	2CPX031511R9999	
3*1	4	694 x 854 x 27	UL43	BLU43	2CPX031503R9999	
	5	844 x 854 x 27	UL53	BLU53	2CPX031506R9999	
	6	994 x 854 x 27	UL63	BLU63	2CPX031510R9999	
	7	1144 x 854 x 27	UL73	BLU73	2CPX031512R9999	
4*1	5	844 x 1104 x 27	UL54	BLU54	2CPX031507R9999	
	6	994 x 1104 x 27	UL64	BLU64	2CPX031513R9999	
Trim frame with transparent door						
1	4	694 x 354 x 27	UL41	BLT41	2CPX030786R9999	
	5	844 x 354 x 27	UL51	BLT51	2CPX030789R9999	
	6	994 x 354 x 27	UL61	BLT61	2CPX030793R9999	
2	3	544 x 604 x 27	UL32	BLT32	2CPX030785R9999	
	4	694 x 604 x 27	UL42	BLT42	2CPX030787R9999	
	5	844 x 604 x 27	UL52	BLT52	2CPX030790R9999	
	6	994 x 604 x 27	UL62	BLT62	2CPX030794R9999	
	7	1144 x 604 x 27	UL72	BLT72	2CPX030797R9999	
3*1	4	694 x 854 x 27	UL43	BLT43	2CPX030788R9999	
	5	844 x 854 x 27	UL53	BLT53	2CPX030791R9999	
	6	994 x 854 x 27	UL63	BLT63	2CPX030795R9999	
	7	1144 x 854 x 27	UL73	BLT73	2CPX030798R9999	
4*1	5	844 x 1104 x 27	UL54	BLT54	2CPX030792R9999	
	6	994 x 1104 x 27	UL64	BLT64	2CPX030796R9999	

*3 or more panels wide: double-wing doors

* For flush-mounting and hollow-wall mounting. In connection with a hollow-wall set ZKV200P4

Enclosures

Media panels for AL and UL compact distribution boards - empty cabinets



Technical specifications

For the AL and UL cabinet series

Media panels with perforated sheet steel mounting plate without cover

With fitted DIN rail

Wire holders supplied

Quick mounting of devices without drilling

Protection class depends on type and installation of equipment



1MM0A

Article	Pieces	Order details		Price
		Type	Order code	
Media panel with perforated sheet steel mounting plate				
Overall height 3 GU	1	1MM00A	2CPX030982R9999	
Overall height 4 GU	1	1MM0A	2CPX030987R9999	
Overall height 5 GU	1	1MM1A	2CPX030988R9999	
Overall height 6 GU	1	1MM2A	2CPX030989R9999	

Accessories

For consumer units, compact distribution boards and meter cabinets



ZE225



ZX29



ZE226



ZX28

Article	Pieces	Type	Ord. no.	Price
Dual socket 230 V AC to be mounted to ZX28 support For media enclosures UK... and media enclosures 1MM...	1	ZE225	2CPX061177R9999	
Support for dual socket ZE225 For an assembly to the perforated sheet steel mounting plate of the multimedia enclosures UK... and of the multimedia enclosures 1MM...	1	ZX29	2CPX061178R9999	
Triple socket 230 V AC to be mounted to ZX28 support For communication panels 1KF.3A and 2KF.3A	1	ZE226	2CPX061207R9999	
Support for triple socket ZE225 For an assembly to the EDF-bar of the communication panels 1KF...A and 2KF...A or to the perforated sheet steel mounting plate of the compact distribution boards	1	ZX28	2CPX061205R9999	
PE-rail, insulated For an assembly to the mounting cross member and the DIN rail	1	ZK274	2CPX064840R9999	

Accessories

For consumer units, compact distribution boards and meter cabinets



ZE321



ZE316



ZE317



ZE318



ZE319



ZE320



ZE311



ZE310



ED44P10



ED45P10



ED57P10



ZX287P10

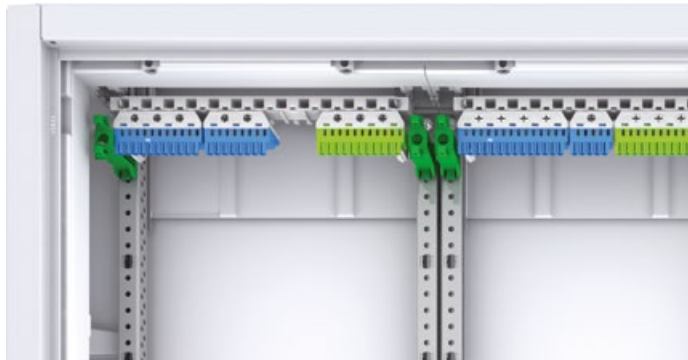
Article	Pieces	Type	Ord. no.	Price
Patch panel empty for communication modules, e.g. RJ45 connector, COAX module, etc. For the direct and insulated assembly to the EDF-rail, DIN rail or mounting plate				
1 panel wide for 10 modules (e.g. RJ45 connector)	1	ZE321	2CPX061206R9999	
2 panel wide for 20 modules (e.g. RJ45 connector)	1	ZE322	2CPX061210R9999	
Connectors for patch panels				
COAX module F / F connector	1	ZE316	2CPX039246R9999	
COAX module IEC connector	1	ZE317	2CPX039247R9999	
COAX module IEC plug	1	ZE318	2CPX039248R9999	
OpDAT module LC (Ph-Br)	1	ZE319	2CPX039249R9999	
Blind module	1	ZE320	2CPX039250R9999	
RJ45 connector Plastic	1	ZE311	2CPX038612R9999	
IP patch module RJ45 module with adapter to assemble the DIN rail	1	ZE310	2CPX038625R9999	
Wire holder To be inserted at the mounting cross member of the communication panels or with adapter ED57P10 for an assembly to the perforated sheet steel mounting plate				
Overall size 28.5 mm	10	ED44P10	2CPX062335R9999	
	50	ED44P50	2CPX062308R9999	
Overall size 55 mm	10	ED45P10	2CPX062336R9999	
	50	ED45P50	2CPX062310R9999	
Adapter For assembling ED44P10 wire holders to the perforated sheet steel mounting plate	10	ED57P10	2CPX061179R9999	
Screws M4 x 14 thread rolling for the perforated sheet steel mounting plate	10	ZX287P10	2CPX061180R9999	

N/PE quick-terminals

Standardised, future-oriented and flexible

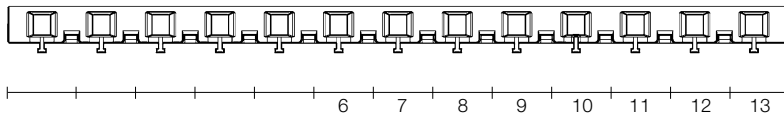
Tidy and flexible installation

The N/PE Quick-terminals simplify your work: Just choose the right terminal blocks and plug them in!
Extremely flexible in terms of expandability, these N/PE Quick-terminals are unmatched for safe, efficient and future-oriented conductor connections.



Product benefits

- Flexible terminal system for several N power circuits:
Screw connections: 2.5 to 25 mm² with steep conductor; up to 25 mm² with flexible conductor with sleeve; spring terminals: 1.5 to 4 mm² with steep conductor; 2.5 mm² with flexible conductor with sleeve
- Optimal when using several residual current circuit breakers (RCDs)
- Ease of expansion using connecting bridges
- Precise assignment of the terminal blocks (clear colour coding:
N = blue, PE = yellow-green)
- Easy labelling of the terminals (DIN VDE 0603 Part 1) using pre-printed, self-adhesive number strips
- Wide range of applications: can be used with the UK500 and A300 consumer unit series, in all compact distribution boards, and with all meter-, wall-mounting and floor-standing cabinets.



quick carrier type ZK11

units

N/PE (Neutral/Earth) Terminal block	N (Neutral) Quick-Terminals	Screw-Terminals technic	Spring terminal technic	PE (Earthing) Quick terminals	Screw-Terminals technic	Spring terminal technic
	 ZK50B	0 x 25 mm ²	5 x 1,5 - 4 mm ²	-	-	-
	 ZK51B	1 x 25 mm ²	5 x 1,5 - 4 mm ²	 ZK51G	1 x 25 mm ²	5 x 1,5 - 4 mm ²
	 ZK82B	2 x 25 mm ²	8 x 1,5 - 4 mm ²	 ZK82G	2 x 25 mm ²	8 x 1,5 - 4 mm ²
	 ZK113B	3 x 25 mm ²	11 x 1,5 - 4 mm ²	 ZK113G	3 x 25 mm ²	11 x 1,5 - 4 mm ²
	 ZK144B	4 x 25 mm ²	14 x 1,5 - 4 mm ²	 ZK144G	4 x 25 mm ²	14 x 1,5 - 4 mm ²
	 ZK175B	5 x 25 mm ²	17 x 1,5 - 4 mm ²	 ZK175G	5 x 25 mm ²	17 x 1,5 - 4 mm ²
	 ZK206B	6 x 25 mm ²	20 x 1,5 - 4 mm ²	 ZK206G	6 x 25 mm ²	20 x 1,5 - 4 mm ²
	 ZK50BT	0 x 25 mm ²	5 x 1,5 - 4 mm ²	-	-	-

Enclosures

N/PE quick-terminals accessories



ZK113B



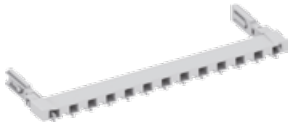
ZK50BT



ZK113G



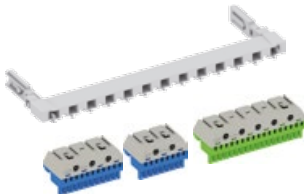
ZK10P10



ZK13



ZK15



ZK220

Article	Number of terminals 1.5 - 4 mm ²	Number of terminals 2.5 - 25 mm ²	External dimensions H x W x D in mm	Pieces	Order details		Price
					Type	Order code	
N Quick-terminals	5	0	23 x 32 x 21	1	ZK50B	2CPX062750R9999	
For quick carriers	5	1	32 x 32 x 31	1	ZK51B	2CPX062751R9999	
	8	2	32 x 49 x 31	1	ZK82B	2CPX062752R9999	
	11	3	32 x 65 x 31	1	ZK113B	2CPX062753R9999	
	14	4	32 x 82 x 31	1	ZK144B	2CPX062754R9999	
	17	5	32 x 98 x 31	1	ZK175B	2CPX062755R9999	
	20	6	32 x 115 x 31	1	ZK206B	2CPX062756R9999	
N Quick terminal with adapter ZK15 For fastening to DIN rail	5	0	28 x 39 x 25	1	ZK50BT	2CPX062745R9999	
PE Quick-terminals	5	1	32 x 32 x 31	1	ZK51G	2CPX062757R9999	
For quick carriers	8	2	32 x 49 x 31	1	ZK82G	2CPX062758R9999	
	11	3	32 x 65 x 31	1	ZK113G	2CPX062759R9999	
	14	4	32 x 82 x 31	1	ZK144G	2CPX062760R9999	
	17	5	32 x 98 x 31	1	ZK175G	2CPX062761R9999	
	20	6	32 x 115 x 31	1	ZK206G	2CPX062762R9999	
Connecting bridges for Quick-terminals				10	ZK10P10	2CPX062763R9999	
Quick carriers For compact distribution boards AT/U Usable width for Quick-terminals 214 mm				1	ZK13	2CPX064982R9999	
Adapter for ZK50B Engaging the ZK50B N Quick-terminal in the adapter ZK15 leads to ZK50BT to be fastened to the DIN rail				1	ZK15	2CPX064984R9999	
N/PE Quick-terminal-set for compact distribution boards In combination with quick carrier ZK13 and quick terminals: ZK113B: N 3 x 25 + 11 x 4 mm ² ZK82B: N 2 x 25 + 8 x 4 mm ² ZK175G: PE 5 x 25 + 17 x 4 mm ²				1 Set	ZK220	2CPX063132R9999	

Enclosures

Compact distribution boards accessories



ZB113



ZB111



ZX456



ZX440



ZH800



ZH220



ZH130



ZH132



ZH134



ZH137

Article	Pieces	Order details		Price
		Type	Order code	
Standard closure Included in the scope of delivery	1	ZB113	2CPX038478R9999	
Closure with lock With 2 keys	1	ZB111	2CPX038479R9999	
Espagnolette closure				
In combination with standard closure ZB113* (earthing part) or closure with lock ZB111				
Overall height 4 GU	1	ZX456	2CPX039586R9999	
Overall height 5 GU	1	ZX457	2CPX039587R9999	
Overall height 6 GU	1	ZX458	2CPX039588R9999	
Overall height 7 GU	1	ZX459	2CPX039589R9999	
Espagnolette closure				
In combination with ZH203, ZH220, ZH221, ZH222, ZH227, ZH228				
Overall height 4 GU	1	ZX440	2CPX039570R9999	
Overall height 5 GU	1	ZX441	2CPX039571R9999	
Overall height 6 GU	1	ZX442	2CPX039572R9999	
Overall height 7 GU	1	ZX443	2CPX039573R9999	
Installation set* of different closure systems in combination with ZH220/ZH221/ZH222	1	ZH800	2CPX038544R9999	
Latch plate				
Double bit operating pin, 3 mm standard and 5 mm (ZH800 must be ordered separately)	1	ZH220	2CPX045700R9999	
For triangular or square operating pins and for Daimler-Benz insert (ZH800 must be ordered separately)	1	ZH221	2CPX045701R9999	
For T-handle or latch handle (ZH800 must be ordered separately)	1	ZH222	2CPX045702R9999	
Operating pin				
Double-bit 3 mm	1	ZH130	2CPX060490R9999	
Double-bit 5 mm	1	ZH131	2CPX060491R9999	
Triangular 7 mm	1	ZH132	2CPX060492R9999	
Triangular 8 mm	1	ZH133	2CPX060493R9999	
Square 6 mm	1	ZH134	2CPX060494R9999	
Square 7 mm	1	ZH135	2CPX060495R9999	
Square 8 mm	1	ZH136	2CPX060496R9999	
Daimler-Benz insert	1	ZH137	2CPX060497R9999	

*Leave not less than 2 SU for DIN rail devices behind the closure

Enclosures

Compact distribution boards accessories



ZH157



ZH91



ZH138



ZH139



ZH140



ZH141



ZH228



ZH227



ZH203



ZH142

Article	Pieces	Order details		Price
		Type	Order code	
Operating keys				
Triangular 7 mm	1	ZH157	2CPX060657R9999	
Triangular 8 mm	1	ZH158	2CPX060658R9999	
Double-bit 3 mm	1	ZH160	2CPX060660R9999	
Double-bit 5 mm	1	ZH161	2CPX060661R9999	
Square 6 mm	1	ZH162	2CPX060662R9999	
Square 7 mm	1	ZH163	2CPX060663R9999	
Square 8 mm	1	ZH164	2CPX060664R9999	
Daimler-Benz insert	1	ZH165	2CPX060665R9999	
Universal key	1	ZH91	2CPX066091R9999	
Double bit 3 and 5 mm				
Triangular 8 mm				
Square 6 and 8 mm				
T-handle*				
Without lock	1	ZH138	2CPX060498R9999	
With lock	1	ZH139	2CPX060499R9999	
Latch handle*				
Without lock	1	ZH140	2CPX060500R9999	
With lock	1	ZH141	2CPX060501R9999	
Swivel handle with lead sealable cap* For semi-cylinder 40 mm (30/10)	1	ZH228	2CPX045709R9999	
Swivel handle with lead sealable cap* With cabinet handle Berlin, simultaneous locking	1	ZH227	2CPX045708R9999	
Swivel handle with lead sealable cap* With closure E0 12	1	ZH203	2CPX045707R9999	
Dummy insert instead of a semi-cylinder for the swivel handle ZH228	1	ZH142	2CPX060502R9999	

*Leave not less than 2 SU for DIN rail devices behind the closure



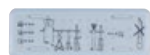
ZKV200P4



ZE11



ZE12



ZB43



ZX69K



ZA1P5



ZA6



ZA5



ZA53



ZX139LR

Article	Pieces	Order details		Price
		Type	Order code	
Hollow-wall mounting set For retrofitting flush-mounted distribution boards Wall thickness: min. 14 mm, max. 58 mm	1	ZKV200P4	2CPX062446R9999	
Earthing set for wall-mounting compact distribution boards For conversion into protection class 1	1	ZE11	2CPX038143R9999	
Earthing set for flush-mounting compact distribution boards For conversion into protection class 1	1	ZE12	2CPX038144R9999	
Membrane flange For inserting the cable from below	1	ZB43	2CPX038183R9999	
Vertical partitions between distribution board panels, not arc-resistant				
Overall height 3 GU	1	ZX69K	2CPX039332R9999	
Overall height 4 GU	1	ZX70K	2CPX039333R9999	
Overall height 5 GU	1	ZX71K	2CPX039334R9999	
Overall height 6 GU	1	ZX72K	2CPX039335R9999	
Overall height 7 GU	1	ZX73K	2CPX039336R9999	
Slot cover Colour RAL 7035 For 12 space units, break-off type	5 50	ZA1P5 ZA1P50	2CPX062384R9999 2CPX062378R9999	
Document holder DIN A4 Self-adhesive with transparent sleeve	1 10	ZA6 ZA6P10	2CPX038227R9999 2CPX062380R9999	
Self-adhesive with transparent sleeve and reinforced back	10	ZA6P10	2CPX062375R9999	
Document holder DIN A4 Self-adhesive	1 10	ZA13 ZA13P10	2CPX038233R9999 2CPX062381R9999	
Document holder DIN A5 Self-adhesive	1 10	ZA5 ZA5P10	2CPX038228R9999 2CPX062382R9999	
Document holder	1	ZA53	2CPX071103R9999	
Door hinge (plastic)	2	ZX139LR	2CPX039139R9999	

Enclosures

Compact distribution boards accessories



ZX464



ZX371



ZK90P2



ZX21



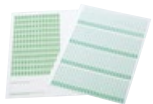
ZB32P20



ED137P4



ED50P12



ZKV201

Article	Pieces	Order details		Price
		Type	Order code	
Door bolt for double-wing doors For cabinets with three or more panel widths	1	ZX464	2CPX039596R9999	
DIN rail for terminals 35 x 7.5 mm				
For recessed mounting in conjunction with mounting bracket ZX372P2 and insulator ZK90P2				
1 panel wide	1	ZX371	2CPX068076R9999	
2 panel wide	1	ZX389	2CPX068190R9999	
Insulator for DIN rails 35 x 7.5 mm including fastening material	2	ZK90P2	2CPX062426R9999	
DIN rail				
35 x 7.5 mm				
1 panel wide	1	ZX21	2CPX039021R9999	
2 panel wide	1	ZX22	2CPX039022R9999	
Fastening screws for DIN rails				
Slotted/hexalobular socket pan head thread rolling screw T25 –	20	ZB32P20	2CPX062651R9999	
Slotted/hexalobular socket pan head thread rolling screw T25 –	500	ZB32P500	2CPX062652R9999	
Cover holder 45 mm high	4	ED137P4	2CPX062600R9999	
For fastening on the EDF profile	40	ED137P40	2CPX062601R9999	
For DIN rails 35 x 7.5 mm, use only these cover holders				
Press-and-turn fixing To cover distribution board panels	12	ED50P12	2CPX062337R9999	
Labelling system Self-adhesive, for AT and U distribution boards	1	ZKV201	2CPX038148R9999	



ZK300



ZX518



ZX400



ZB19



ZA122



ZA20



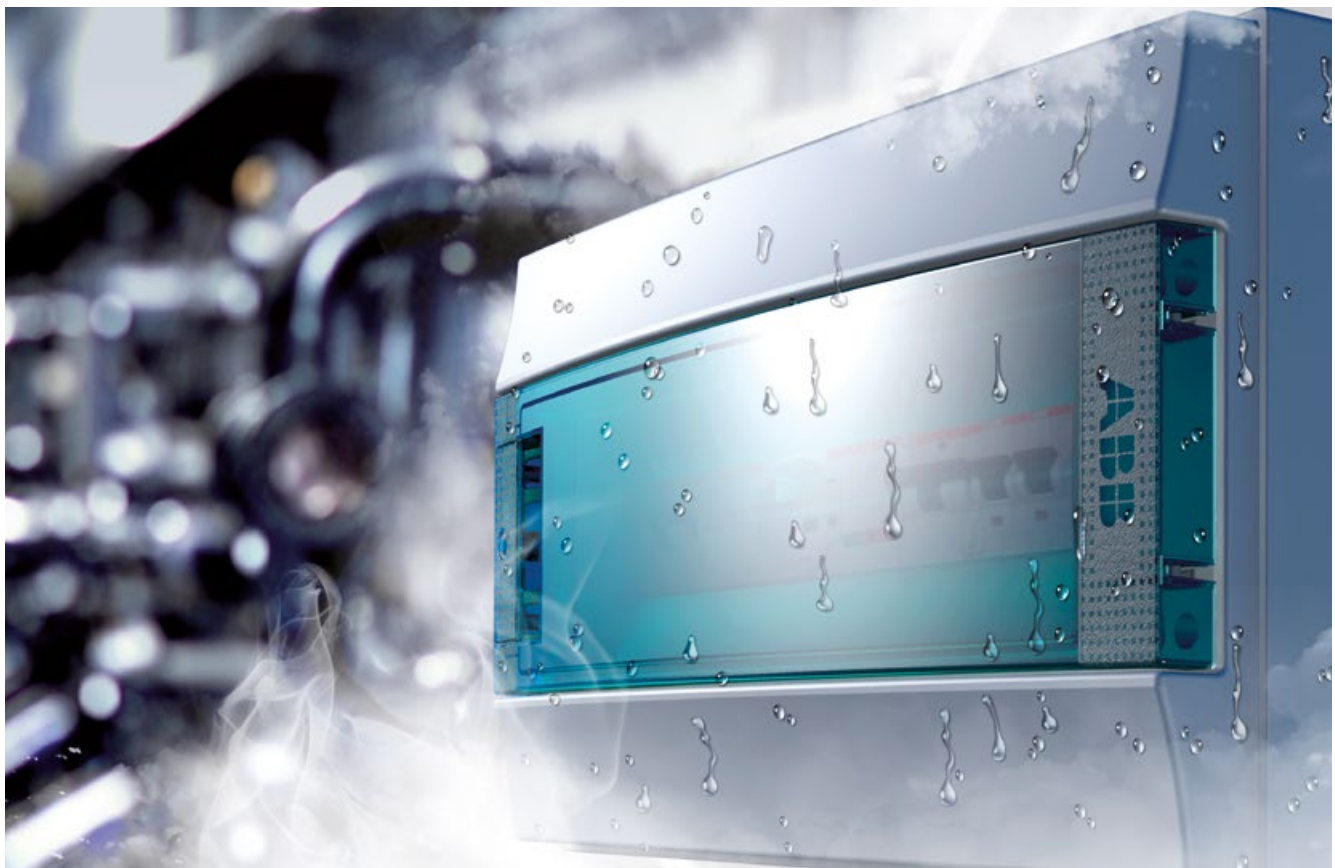
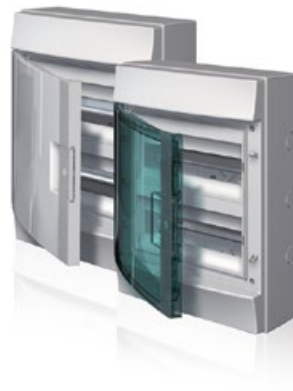
ZA120

Article	Pieces	Order details		Price
		Type	Order code	
Busbar system for N/PE				
Cu 12 x 5 mm, max. connection 95 mm ²				
1 panel wide	1	ZK300	2CPX038551R9999	
2 panel wide	1	ZK301	2CPX038552R9999	
N/PE busbar holder				
For copper busbars 12 x 5 mm, 20 x 5 mm, 30 x 5 mm				
	1	ZX518	2CPX067805R9999	
	10	ZX518P10	2CPX062551R9999	
Copper busbars				
12 x 5 mm = 250 A				
1 m long		ZX400	2CPX061400R9999	
2 m long		ZX401	2CPX061401R9999	
3 m long		ZX402	2CPX061402R9999	
4 m long		ZX350	2CPX061350R9999	
Cover profile				
For copper busbars 12 x 5 and 12 x 10 mm, length 1 m				
To clip on busbars				
		ZB19	2CPX038187R9999	
Cleaner				
For distribution board panel covers				
Spray dispenser, 500 ml				
	1	ZA122	2CPX038293R9999	
Spray paint can				
Colour RAL 9016, 150 ml				
	1	ZA20	2CPX038229R9999	
Touch-up applicator				
Colour RAL 9016, 12 ml				
	1	ZA120	2CPX039043R9999	

System pro *E* comfort® MISTRAL65. Unique design. Endless possibilities.

Versatility, efficiency and a unique, elegant, unmistakable design. MISTRAL65 is ABB's new, pioneering series of consumer units with IP65 protection class. The range includes versions with fully reversible blank, or transparent doors in the exclusive petrol blue colour that open up to 180 degrees. The spacious interior is easy to access and has been designed to speed up the wiring operations plus total integration among modular circuitbreakers of the DIN rail, moulded-case and switchgear front type. MISTRAL65 includes a wide range of sizes, with 4 to 72 modules, and is thus ideal both for residential and industrial installations.

www.abb.com/lowvoltage

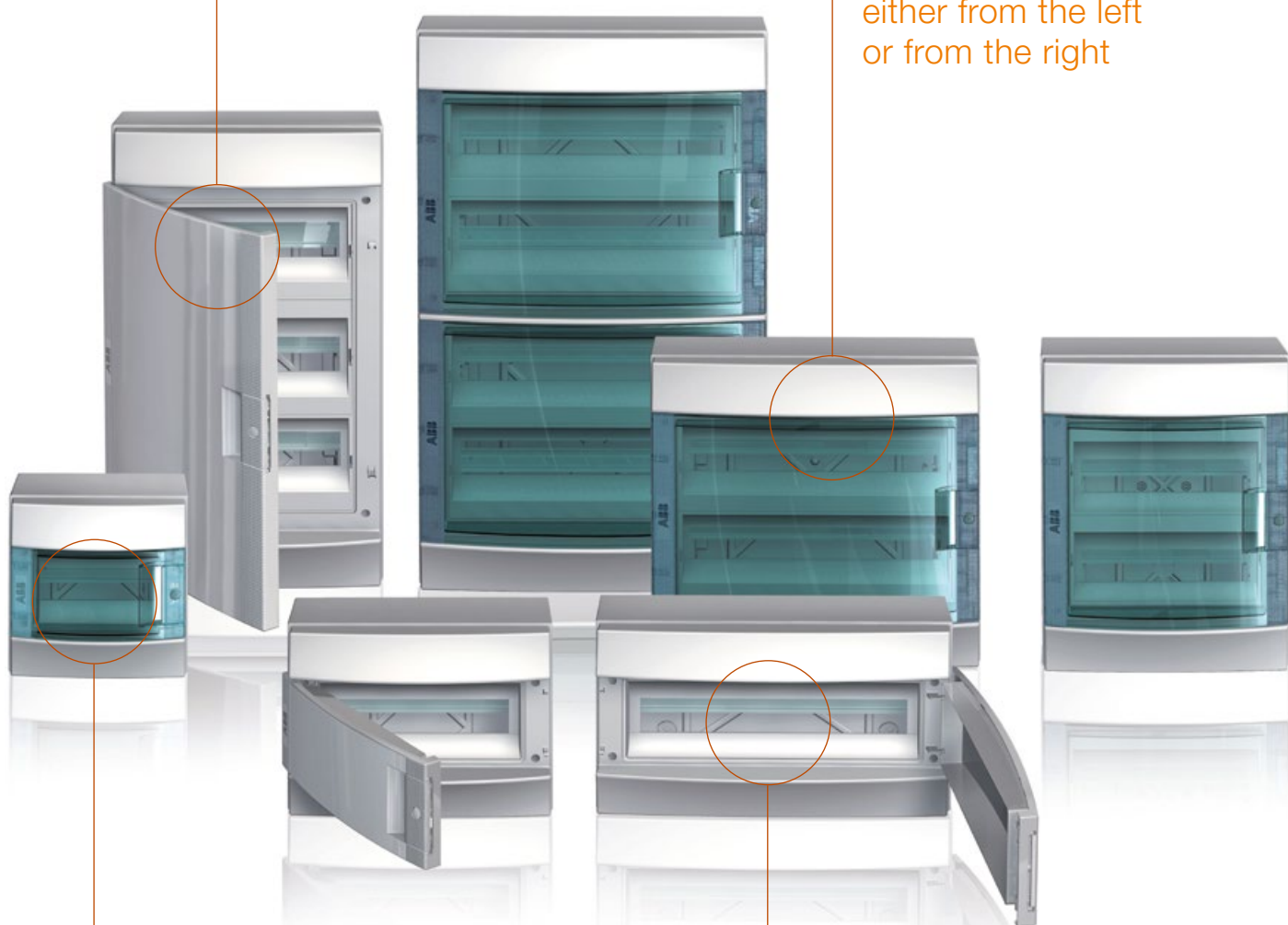


System pro *E* comfort MISTRAL65

Endless installation possibilities

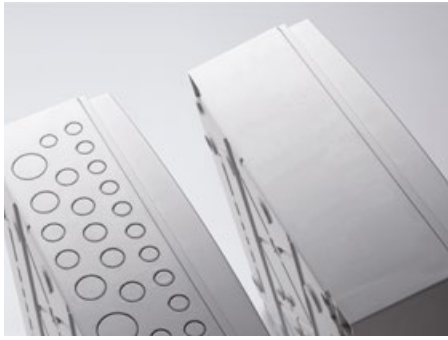
Door opens up to 180°
allowing full access to
the interior of the unit

The symmetrical
design allows
opening of the
reversible door
either from the left
or from the right



Door available in two
versions: petrol blue
and opaque

Concealed rear
mounts for secure wall
installation



Invisible cable entry and exit

The MISTRAL65 GWT 650 version comes with smooth surfaces for the cables entry on top and bottom. The version GWT 750 has knockouts of various dimensions on the upper and lower sides.



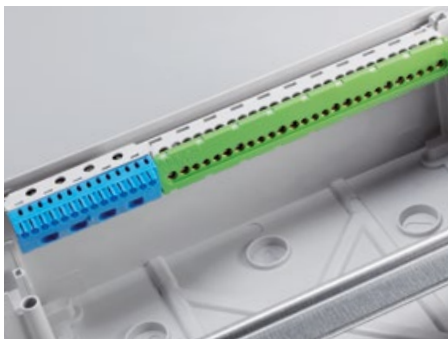
More internal space

Internal spaces have been created to make cabling even easier, with cable clips and holes for fastening wires to the frame with simple cable ties.



Easy installation of extra modules

Additional modules can be installed by removing two pre-trimmed elements. This offers an easy and tidy solution when there are unforeseen installation requirements.



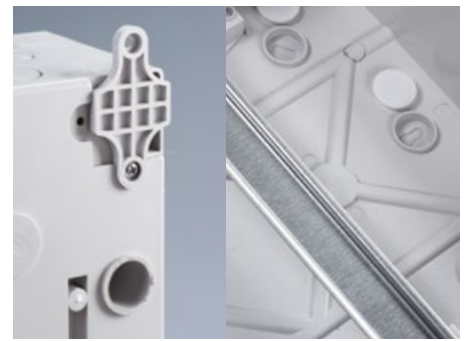
New generation terminals

The new System pro E comfort MISTRAL® range of consumer units is amended with a wide, completely new ABB terminal blocks. To different versions offer screw and spring fast coupling for easy and effective cabling up to 63A or 100A.



Protected trunking entry

The new polycarbonate accessory for trunking entry can be positioned at the top or bottom of the consumer unit, connecting and protecting the conductor bundles. A series of internal knockouts allows it to house any type of trunking.



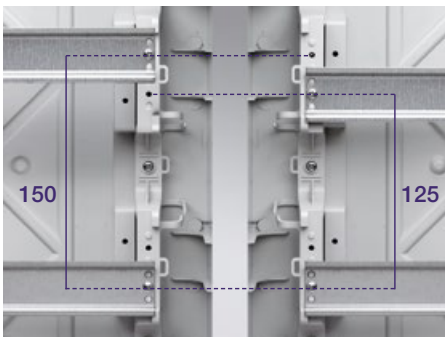
Aesthetically clean installation

Interior slots allow the unit to be fixed to the wall at points that cannot be seen from the outside, making for an aesthetically clean installation. Special snap-in closure plugs guarantee class II protection (double insulation).



Optional door lock

The standard door with ergonomic handle and snap-on closure can be supplied with a lock and key on request. This ensures only authorized people have access and prevents tampering or incorrect operation.



Variable distance between DIN-Rails

To create space at the top or bottom of the consumer unit, the central distance between the DIN-Rails can be modified from the standard 150 mm to 125 mm. The front panel can be removed, reversed and re-installed with a simple click.



Horizontal coupling

The consumer units can be installed side by side, with cable gland accessories protecting the conductors' path between adjacent units.

System pro E comfort MISTRAL65

Endless installation possibilities



Blind panels for small automation application

Accessories include blind panels and base plates allowing the installation of other types of devices, in addition to modular DIN-Rail products, like contactors, motor starters or devices on the front of the panel.



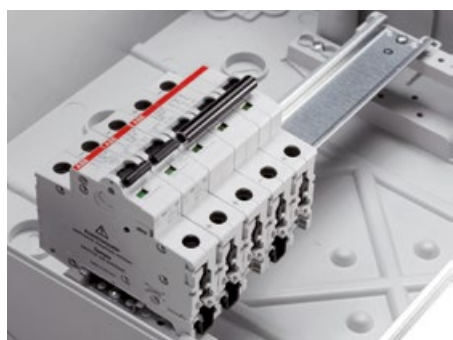
Two DIN positions

The frame has two DIN-Rail positions so accessories of different depths, like MCCBs, can be installed in perfect alignment.



Easy installation of non-standard devices

The flexibility of the frame allows easy installation of devices with above-standard depth like high-performance MCCBs.



Compatible with standard modular devices

The first depth allows the installation of standard products. These include most modular devices currently on the market.



Non-modular equipment

Accessories like blind panels and base plates enable the installation of other types of devices, in addition to modular DIN products, on the front of the panel. These include control buttons and indicator lights.

Enclosures

System pro E comfort MISTRAL65 650



Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL65 – 1 Row						
Opaque door 4M	650	4	152x202x117	1SL1100A00		1/24
Transparent door 4M	650	4	152x202x117	1SL1200A00		1/24
Opaque door 8M	650	8	232x250x154	1SL1101A00		1/11
Transparent door 8M	650	8	232x250x154	1SL1201A00		1/11
Opaque door 12M	650	12	320x250x155	1SL1102A00		1/7
Transparent door 12M	650	12	320x250x155	1SL1202A00		1/7
Opaque door 18M	650	18	430x250x155	1SL1103A00		1/4
Transparent door 18M	650	18	430x250x155	1SL1203A00		1/4
MISTRAL65 – 2 Rows						
Opaque door 24M	650	24	320x435x155	1SL1104A00		1/4
Transparent door 24M	650	24	320x435x155	1SL1204A00		1/4
Opaque door 36M 2R	650	36	430x435x155	1SL1105A00		1/2
Transparent door 36M 2R	650	36	430x435x155	1SL1205A00		1/2

Where to find more:

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Enclosures

System pro E comfort MISTRAL65 650



2CSC001007F0014



2CSC001008F0014

36 modules



2CSC001009F0014



2CSC001010F0014

54 modules



2CSC001011F0014



2CSC001012F0014

48 modules



2CSC001013F0014



2CSC001014F0014

72 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL65 – 3 Row						
Opaque door 36M 3R	650	36	320x600x155	1SL1106A00		1/3
Transparent door 36M 3R	650	36	320x600x155	1SL1206A00		1/3
Opaque door 54M	650	54	430x600x155	1SL1108A00		1/1
Transparent door 54M	650	54	430x600x155	1SL1208A00		1/1
MISTRAL65 – 4 Row						
Opaque door 48M	650	48	320x735x155	1SL1107A00		1/1
Transparent door 48M	650	48	320x735x155	1SL1207A00		1/1
Opaque door 72M	650	72	430x735x155	1SL1109A00		1/1
Transparent door 72M	650	72	430x735x155	1SL1209A00		1/1

Where to find more:

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Enclosures

System pro E comfort MISTRAL65 750



4 modules



8 modules



12 modules



18 modules



24 modules



36 modules



36 modules



54 modules



48 modules



72 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order details		Price	Packaging
				Type	Article N.o		
MISTRAL65 – 1 Row							
Transparent door 4M	750	4	152x202x117	1SLM006500A1210	1SL1210A00		1/24
Transparent door 8M	750	8	232x250x154	1SLM006500A1211	1SL1211A00		1/11
Transparent door 12M	750	12	320x250x155	1SLM006500A1212	1SL1212A00		1/7
Transparent door 18M	750	18	430x250x155	1SLM006500A1213	1SL1213A00		1/4
MISTRAL65 – 2 Row							
Transparent door 24M	750	24	320x435x155	1SLM006500A1214	1SL1214A00		1/4
Transparent door 36M 2R	750	36	430x435x155	1SLM006500A1215	1SL1215A00		1/2
MISTRAL65 – 3 Row							
Transparent door 36M 3R	750	36	320x600x155	1SLM006500A1216	1SL1216A00		1/3
Transparent door 54M	750	54	430x600x155	1SLM006500A1218	1SL1218A00		1/1
MISTRAL65 – 4 Row							
Transparent door 48M	750	48	320x735x155	1SLM006500A1217	1SL1217A00		1/1
Transparent door 72M	750	72	430x735x155	1SLM006500A1219	1SL1219A00		1/1

Enclosures

System pro E comfort MISTRAL65 with terminals



8 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL65 transparent door 8M 12SM	650	8	232x250x154	1SLM006501A1201		1/11
MISTRAL65 opaque door 8M 12SM	650	8	232x250x154	1SLM006501A1101		1/11



12 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL65 transparent door 12M 22SM	650	12	320x250x155	1SLM006501A1202		1/7
MISTRAL65 opaque door 12M 22SM	650	12	320x250x155	1SLM006501A1102		1/7



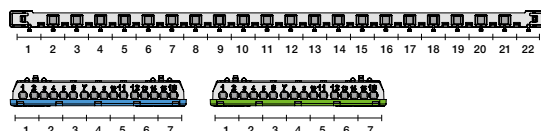
18 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL65 transparent door 18M 12SM	650	18	430x250x155	1SLM006501A1203		1/4
MISTRAL65 opaque door 18M 12SM	650	18	430x250x155	1SLM006501A1103		1/4



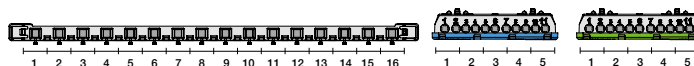
18 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL65 transparent door 18M 32SM	650	18	430x250x155	1SLM006502A1203		1/4
MISTRAL65 opaque door 18M 32SM	650	18	430x250x155	1SLM006502A1103		1/4



24 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL65 transparent door 24M 22SM	650	24	320x435x155	1SLM006501A1204		1/4
MISTRAL65 opaque door 24M 22SM	650	24	320x435x155	1SLM006501A1104		1/4



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Enclosures

System pro E comfort MISTRAL65 with terminals



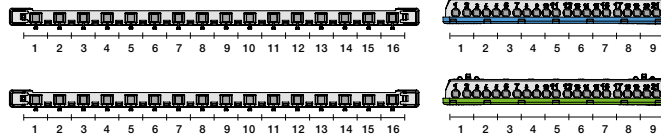
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2CSC001038F0014

24 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL65 transparent door 24M 42SM	650	24	320x435x155	1SLM006502A1204		1/4
MISTRAL65 opaque door 24M 42SM	650	24	320x435x155	1SLM006502A1104		1/4



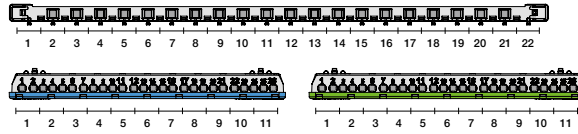
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36 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL65 transparent door 36M 2R 52SM	650	36	430x435x155	1SLM006501A1205		1/2
MISTRAL65 opaque door 36M 2R 52SM	650	36	430x435x155	1SLM006501A1105		1/2



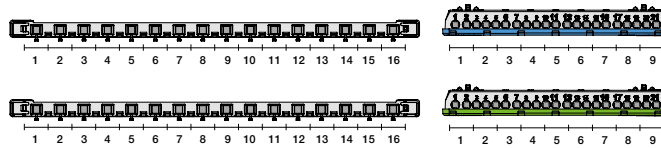
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2CSC001007F0014

36 modules

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Pack-aging
MISTRAL65 transparent door 36M 3R 42SM	650	36	320x600x155	1SLM006501A1206		1/3
MISTRAL65 opaque door 36M 3R 42SM	650	36	320x600x155	1SLM006501A1106		1/3





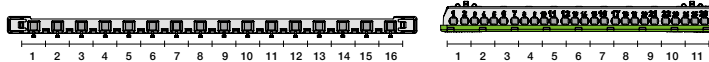
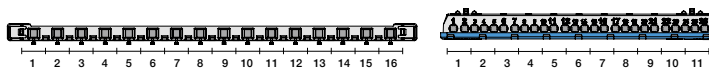
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48 modules



2CSC001011F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Packaging
MISTRAL65 transparent door 48M 52SM	650	48	320x735x155	1SLM006501A1207		1/1
MISTRAL65 opaque door 48M 52SM	650	48	320x735x155	1SLM006501A1107		1/1



2CSC001043F0014

54 modules



2CSC001009F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Packaging
MISTRAL65 transparent door 54M 52SM	650	54	430x600x155	1SLM006501A1208		1/1
MISTRAL65 opaque door 54M 52SM	650	54	430x600x155	1SLM006501A1108		1/1



2CSC001045F0014

72 modules



2CSC001013F0014

Description	GWT	N° of modules [18 mm]	Dimensions WxHxD [mm]	Order code	Price	Packaging
MISTRAL65 transparent door 72M 52SM	650	72	430x735x155	1SLM006501A1209		1/1
MISTRAL65 opaque door 72M 52SM	650	72	430x735x155	1SLM006501A1109		1/1



Where to find more:
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Enclosures

Accessories for System pro E comfort MISTRAL65



2CS0001048F0014

Opaque door



2CS0001048F0014

Transparent door



2CS0001048F0014

Base plates



2CS0001050F0014

Blind panel

Description	Order details		Price	Packaging
	Type	Article number		
Opaque door				
Opaque door 4M MISTRAL65	1SLM006500A1900	1SL1900A00		1/15
Opaque door 8M MISTRAL65	1SLM006500A1902	1SL1902A00		1/20
Opaque door 12M MISTRAL65	1SLM006500A1904	1SL1904A00		1/10
Opaque door 18M MISTRAL65	1SLM006500A1906	1SL1906A00		1/20
Opaque door 24M / 48M MISTRAL65	1SLM006500A1908	1SL1908A00		1/6
Opaque door 36M (3 rows) MISTRAL65	1SLM006500A1910	1SL1910A00		1/10
Opaque door 36M (2 rows) / 72M MISTRAL65	1SLM006500A1912	1SL1912A00		1/14
Opaque door 54M MISTRAL65	1SLM006500A1914	1SL1914A00		1/8
Transparent door				
Transparent door 4M MISTRAL65	1SLM006500A1901	1SL1901A00		1/15
Transparent door 8M MISTRAL65	1SLM006500A1903	1SL1903A00		1/20
Transparent door 12M MISTRAL65	1SLM006500A1905	1SL1905A00		1/10
Transparent door 18M MISTRAL65	1SLM006500A1907	1SL1907A00		1/20
Transparent door 24M / 48M MISTRAL65	1SLM006500A1909	1SL1909A00		1/6
Transparent door 36M (3 rows) MISTRAL65	1SLM006500A1911	1SL1911A00		1/10
Transparent door 36M (2 rows) / 72M MISTRAL65	1SLM006500A1913	1SL1913A00		1/14
Transparent door 54M MISTRAL65	1SLM006500A1915	1SL1915A00		1/8
Base plates				
Metal base plate 12M MISTRAL65	1SLM006500A1920	1SL1920A00		1/12
Metal base plate 2x12M MISTRAL65	1SLM006500A1921	1SL1921A00		1/4
Metal base plate 18M MISTRAL65	1SLM006500A1922	1SL1922A00		1/8
Metal base plate 2x18M MISTRAL65	1SLM006500A1923	1SL1923A00		1/4
Blind panel				
Central blind panel 12M MISTRAL65 *	1SLM006500A1945	1SL1945A00		1/15
Blind panel 12M MISTRAL65	1SLM006500A1946	1SL1946A00		1/20
Central blind panel 18M MISTRAL65 **	1SLM006500A1947	1SL1947A00		1/30
Blind panel 18M MISTRAL65	1SLM006500A1948	1SL1948A00		1/30

* Blind panel for the central row of MISTRAL65 36 modules (3 x 12)

** Blind panel for the central row of MISTRAL65 54 modules (3 x 18)

Enclosures

Accessories for System pro E comfort MISTRAL65



2CSC001051F0014

Wall fixing brackets



2CSC001055F0014

Module cover



2CSC001059F0014

Lock



2CSC001054F0014

Cable gland



2CSC001056F0014

Adapter for trunking



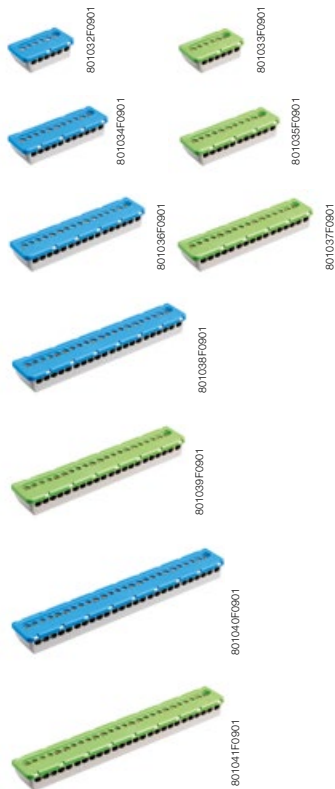
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Junction unit

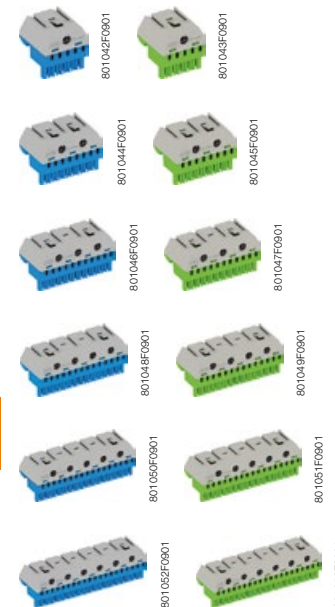
Description	Order details		Price	Packaging
	Type	Article number		
Other accessories				
Wall fixing brackets (4 pcs) MISTRAL65	1SLM006500A1927	1SL1927A00		1/30
Module cover 12M MISTRAL65	1SLM006500A1929	1SL1929A00		5/180
Sealing kit MISTRAL65	1SLM006500A1950	1SL1950A00		1/50
Lock with key MISTRAL65	1SLM006500A1931	1SL1931A00		1/10
Cable glands				
Cable gland Ø 16	1SLM006500A1935	1SL1935A00		10/100
Cable gland Ø 20	1SLM006500A1936	1SL1936A00		10/100
Cable gland Ø 25	1SLM006500A1937	1SL1937A00		10/100
Cable gland Ø 32	1SLM006500A1938	1SL1938A00		5/50
Adapter				
Adapter for trunking MISTRAL65	1SLM006500A1942	1SL1942A00		1/10
Junction unit				
Junction unit Ø 28,5 MISTRAL65	1SLM006500A1949	1SL1949A00		10/400

Enclosures

Terminal blocks



Terminal block



Terminal block screwless



Terminal carrier

Description	Maximum current	ABB code	Article number	Packaging
Terminal block				
Terminal block N 3x16mm ² +3x6mm ²	100 A	1SPE007715F0731		5/270
Terminal block N 5x16mm ² +6x6mm ²	100 A	1SPE007715F0732		5/150
Terminal block N 7x16mm ² +9x6mm ²	100 A	1SPE007715F0733		5/120
Terminal block N 9x16mm ² +12x6mm ²	100 A	1SPE007715F0734		5/90
Terminal block N 11x16mm ² +15x6mm ²	100 A	1SPE007715F0735		5/90
Terminal block PE 3x16mm ² +3x6mm ²	100 A	1SPE007715F0741		5/270
Terminal block PE 5x16mm ² +6x6mm ²	100 A	1SPE007715F0742		5/150
Terminal block PE 7x16mm ² +9x6mm ²	100 A	1SPE007715F0743		5/120
Terminal block PE 9x16mm ² +12x6mm ²	100 A	1SPE007715F0744		5/90
Terminal block PE 11x16mm ² +15x6mm ²	100 A	1SPE007715F0745		5/90

Terminal block screwless

Terminal block screwless N 5x1,5-4mm ²	63 A	1SPE007715F9701		5/280
Terminal block screwless N 5x1,5-4mm ² +1x25mm ²	63 A	1SPE007715F9702		5/180
Terminal block screwless N 8x1,5-4mm ² +2x25mm ²	63 A	1SPE007715F9703		5/150
Terminal block screwless N 11x1,5-4mm ² +3x25mm ²	63 A	1SPE007715F9704		5/100
Terminal block screwless N 14x1,5-4mm ² +4x25mm ²	63 A	1SPE007715F9705		5/90
Terminal block screwless N 17x1,5-4mm ² +5x25mm ²	63 A	1SPE007715F9706		5/70
Terminal block screwless N 20x1,5-4mm ² +6x25mm ²	63 A	1SPE007715F9707		5/60
Terminal block screwless PE 5x1,5-4mm ² +1x25mm ²	63 A	1SPE007715F9712		5/180
Terminal block screwless PE 8x1,5-4mm ² +2x25mm ²	63 A	1SPE007715F9713		5/150
Terminal block screwless PE 11x1,5-4mm ² +3x25mm ²	63 A	1SPE007715F9714		5/100
Terminal block screwless PE 14x1,5-4mm ² +4x25mm ²	63 A	1SPE007715F9715		5/90
Terminal block screwless PE 17x1,5-4mm ² +5x25mm ²	63 A	1SPE007715F9716		5/70
Terminal block screwless PE 20x1,5-4mm ² +6x25mm ²	63 A	1SPE007715F9717		5/60

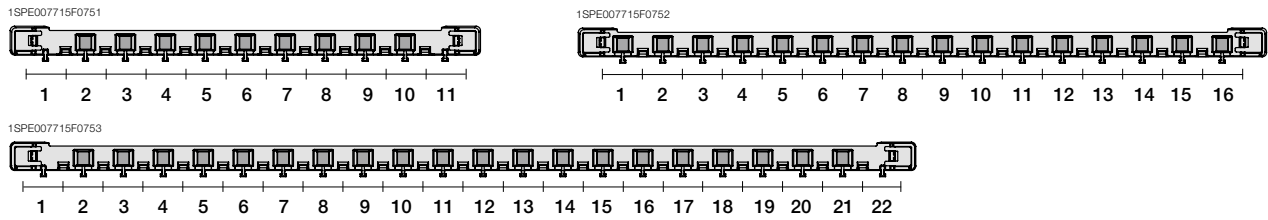
Terminal carriers

Terminal carrier 8M		1SPE007715F0751		5/280
Terminal carrier 12M		1SPE007715F0752		5/225
Terminal carrier 18M		1SPE007715F0753		5/150

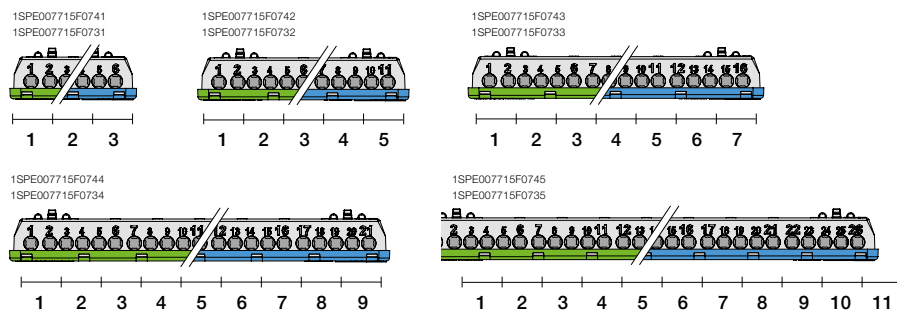
Enclosures

Terminal blocks

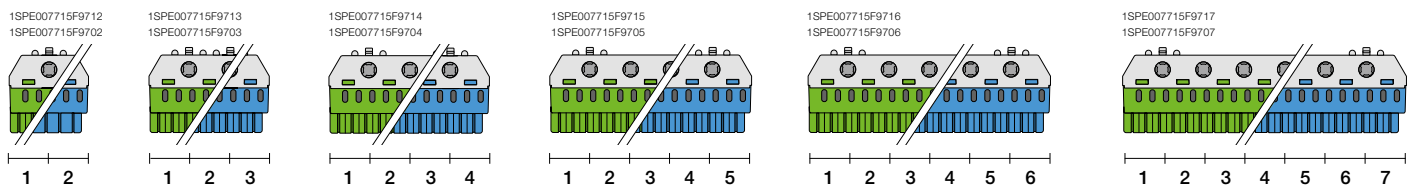
Terminal carrier



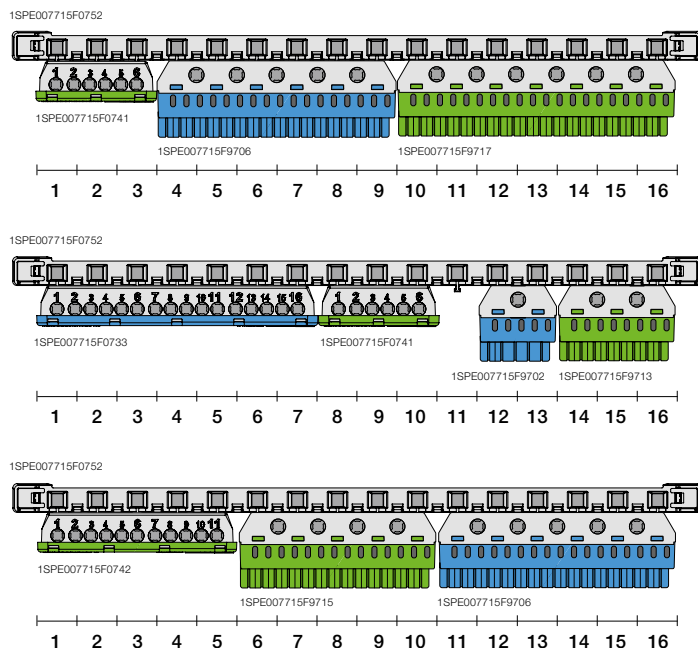
Terminal block



Terminal block screwless



Assembly examples



Enclosures

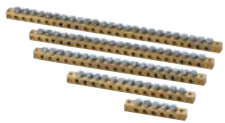
Terminal blocks for MISTRAL series

This new series of modular terminal blocks has been developed for be use in Mistral series for cost effective solution. This new range complete the offer of Mistral terminal block. The available items are the terminal carrier with a specific length for 8; 12 and 18 modules and the terminal bars with different numbers of holes. You can form the terminal blocks by inserting the terminal bars and fix them into the terminals carriers with the specific clips included



Terminal carrier

Description	ABB code	Order code	Packaging
Terminal carrier			
for 8 moduls	1SLM004100A1953	1SLM004100A1953	12/144
for 12 moduls	1SLM004100A1954	1SLM004100A1954	12/108
for 18 moduls	1SLM004100A1955	1SLM004100A1955	12/108

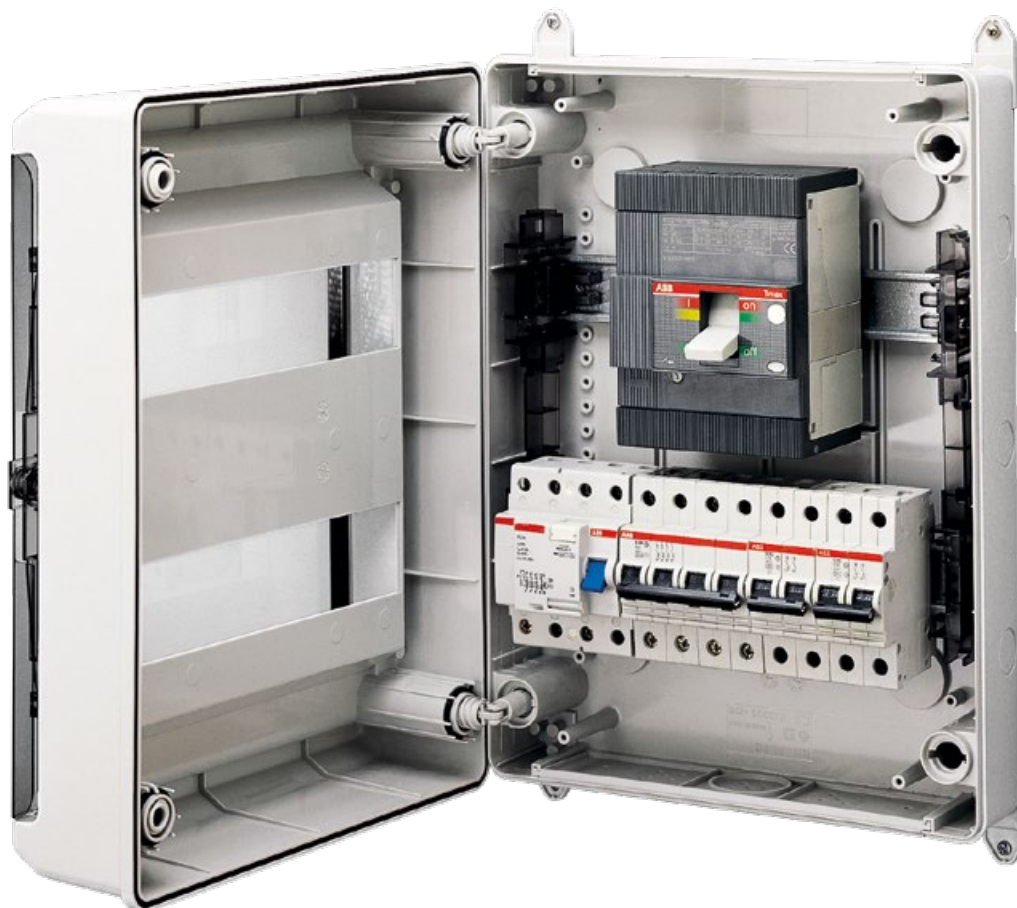


Terminal bars

Terminal bars			
5 Holes D.4.5MM	12531	M125310000	20/240
10 Holes D.4.5MM AND 3 Holes D.5.6MM	12532	M125320000	20/240
16 Holes D.4.5MM AND 3 Holes D.5.6MM	12533	M125330000	20/240
15 Holes D.4.5MM AND 6 Holes D.5.6MM	12534	M125340000	20/240
19 Holes D.4.5MM AND 6 Holes D.5.6MM	12535	M125350000	20/240

EUROPA65

IP65 wall-mounting consumer units for heavy duty application



14 The Polycarbonate GWT 960 ensures unique mechanical performances (Shock resistance IK 10) and ensures high resistance against UV rays.

The Rated insulation voltage of 1000V AC and 1500V DC make EUROPA65 the perfect enclosure for PV string combiner.

EUROPA65

IP65 wall-mounting consumer units

Technical characteristics

- Protection degree IP65
- Insulation class II
- Color RAL 7035
- Self-extinguishing polycarbonate resistant to abnormal heat and to fire up to 960°C (glow wire test), according to IEC 60695-2-11 standard.
- Installation temperature from -25 °C to +60 °C
- Resistance to heat: ball thermopressure up to +125 °C according to EN 60695-10-2 standard.
- Shock resistance 20 Joules (IK 10 degree)
- Insulation voltage: 1 000 V AC and 1 500 V DC

Included accessories:

- equipped with rigid flanges for easier pipes and cables insertion;
- 4 screw cover plugs to ensure;
- accessories for door hinged on the front side;
- certification plate;
- instruction sheet.

Conformity: IEC 60670 standards.



EUROPA65

Order codes



8 modules



12 modules



18 modules



24 modules



36 modules

Description	No. of modules [18 mm]	Dimensions WxHxD [mm]	ABB code	Order code	Price	Pack/ pcs
With transparent, smoky vertically hinged door						
RAL 7035 grey	8	205x220x140	1SL2748A01	1SL2748A01		1/9
RAL 7035 grey	12	275x220x140	1SL2752A01	1SL2752A01		1/6
RAL 7035 grey	18	380x220x140	1SL2753A01	1SL2753A01		1/5
RAL 7035 grey	24	275x370x140	1SL2754A01	1SL2754A01		1/4
RAL 7035 grey	36	380x370x140	1SL2755A01	1SL2755A01		1/2

EUROPA65, accessories

Order codes



Terminal blocks

Terminal blocks

The complete terminal blocks are composed of a combination of terminal holders and terminal bars as shown in the description, with the terminal bars already mounted on terminal holders. The complete terminal blocks are standard configurations. For different requirements (customized terminal blocks), the terminal holders and the terminal bars must be purchased separately in the versions given in the table.

Description	ABB code	Order code	Price	Packaging
for 8 modules – composed of 12539x2 + 12531x2	12491	M124910000		10/60
for 12 modules – composed of 12540x1 + 12531x1 + 12532x1	12492	M124920000		10/40
for 18 modules – composed of 12543x1 + 12531x1 + 12535x1	12498	M124980000		10/40
for 24 modules – composed of 12540x2 + 12533x2	12494	M124940000		10/40
for 36 modules (2 rows) – composed of 12543x2 + 12534x2	12507	M125070000		10/40



Terminal holder

Terminal holder

The construction of the terminal block is completed by combining the terminal holders with the necessary terminal bars, taking care to separate the latter from one another.

Description	For consumer units [type]	ABB code	Order code	Price	Packaging
for 8 modules	1S2748A01	12539	M125390000		12/360
for 12 modules per row	1SL2752A01 1SL2754A01	12540	M125400000		12/144
for 18 modules per row	1SL2753A01 1SL2755A01	12543	M125430000		12/108



Terminal bars

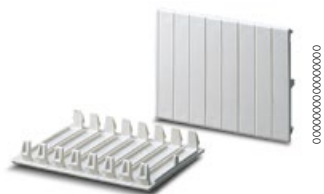
Terminal bars

The terminal bars can be installed on any type of terminal holder; they can be hooked by means of 2 snap-on clips through two additional holes at the ends of the bar itself.

Description No. of holes x Ø holes [mm] + No. of holes x Ø holes [mm]	ABB code	Order code	Price	Packaging
5x4,5	12531	M125310000		20/240
10x4,5 + 3x5,6	12532	M125320000		20/240
16x4,5 + 3x5,6	12533	M125330000		20/240
15x4,5 + 6x5,6	12534	M125340000		20/240
19x4,5 + 6x5,6	12535	M125350000		20/240

EUROPA65, accessories

Order codes



Description	No. of modules [18 mm]	ABB code	Order code	Pack/pcs
Module covers				
RAL 7035 grey	1	12861	M128610000	50/1500
RAL 7035 grey	4	12863	M128630000	25/300



Description	ABB code	Order code	Pack/pcs
Wall brackets			
In insulating material	12858	M128580000	20/240



Description	ABB code	Order code	Pack/pcs
Spare flanges			
8 modules, bi-material	12600	M126000000	30/120
12, 24, 36 modules, bi-material	12601	M126010000	20/80
18, 36 (18x2 rows), bi-material	12602	M126020000	20/80
rigid flange, 8 modules per row	1SL0550A00	1SL0550A00	30/120
rigid flange, 12 modules per row	1SL0551A00	1SL0551A00	20/80
rigid flange, 18 modules per row	1SL0552A00	1SL0552A00	20/80



Description	ABB code	Order code	Pack/pcs
Lock with key			
Coded type	12865	M128650000	10/300



Description	For consumer units with	ABB code	Order code	Pack/pcs
Spare doors				
Transparent smoky	1SL2748A01	12579	M125790000	1/10
Transparent smoky	1SL2752A01	12580	M125800000	1/8
Transparent smoky	1SL2754A01	12581	M125810000	1/5
Transparent smoky	1SL2753A01	12586	M125860000	1/20
Transparent smoky	1SL2755A01	12587	M125870000	1/8

System pro *E* power. Velocity is Power. Your new key resource.

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www.abb.com/lowvoltage



Enclosures

A wall-mounting cabinets IP43 indoor installation



A wall-mounting cabinets IP43 ,, Cabinet depth 215 mm

Empty cabinets for surface mounting, flush mounting and partially recessed mounting in solid walls for indoor use

In up to 250 A (400 A)*

Enclosure and door made of sheet steel, with recessed plastic profile for double insulation

Rear wall made of plastic

RAL 9016, powder-coated

Prepared to be fitted with meter and distribution board panels/combination sets

Prepared to be fitted with CombiLine-M modules on the EDF mounting frame

Double-wing doors on cabinets with three or more panel widths

Door opening angle: 130 degree

With standard closure ZB113

Flange openings are provided on the bottom and sides

Membrane flanges are mounted in the upper connection area

One nipple flange ZB40 also included

Knockouts for incoming cables are provided on the rear side

Cable inlets are located in the lower and upper connection area (per panel width)

> For distribution board panels, combination sets and CombiLine-M, see Chapter Distribution panel system


*Depending on the switchgear assembly (TTA, PTTA), verification in accordance with EN61439-2 required

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details



3/2A

OH	GU	Height			External dimensions		A wall-mounting cabinets IP43 		
		in mm	PW	SU	H x W x D (mm)		Type	Order code	Price
00	3	500	1	36	500 x 300 x 215		1/00A	2CPX036061R9999	
			2	72	500 x 550 x 215		2/00A	2CPX036062R9999	
			3	108	500 x 800 x 215		3/00A	2CPX036063R9999	
			4	144	500 x 1050 x 215		4/00A	2CPX036064R9999	
			5	180	500 x 1300 x 215		5/00A	2CPX036065R9999	
0	4	650	1	48	650 x 300 x 215		1/0A	2CPX036001R9999	
			2	96	650 x 550 x 215		2/0A	2CPX036002R9999	
			3	144	650 x 800 x 215		3/0A	2CPX036003R9999	
			4	192	650 x 1050 x 215		4/0A	2CPX036004R9999	
			5	240	650 x 1300 x 215		5/0A	2CPX036005R9999	
1	5	800	1	60	800 x 300 x 215		1/1A	2CPX036011R9999	
			2	120	800 x 550 x 215		2/1A	2CPX036012R9999	
			3	180	800 x 800 x 215		3/1A	2CPX036013R9999	
			4	240	800 x 1050 x 215		4/1A	2CPX036014R9999	
			5	300	800 x 1300 x 215		5/1A	2CPX036015R9999	
2	6	950	1	72	950 x 300 x 215		1/2A	2CPX036021R9999	
			2	144	950 x 550 x 215		2/2A	2CPX036022R9999	
			3	216	950 x 800 x 215		3/2A	2CPX036023R9999	
			4	288	950 x 1050 x 215		4/2A	2CPX036024R9999	
			5	360	950 x 1300 x 215		5/2A	2CPX036025R9999	
3	7	1100	1	84	1100 x 300 x 215		1/3A	2CPX036031R9999	
			2	168	1100 x 550 x 215		2/3A	2CPX036032R9999	
			3	252	1100 x 800 x 215		3/3A	2CPX036033R9999	
			4	336	1100 x 1050 x 215		4/3A	2CPX036034R9999	
			5	420	1100 x 1300 x 215		5/3A	2CPX036035R9999	
4	8	1250	1	96	1250 x 300 x 215		1/4A	2CPX036041R9999	
			2	192	1250 x 550 x 215		2/4A	2CPX036042R9999	
			3	288	1250 x 800 x 215		3/4A	2CPX036043R9999	
			4	384	1250 x 1050 x 215		4/4A	2CPX036044R9999	
			5	480	1250 x 1300 x 215		5/4A	2CPX036045R9999	
5	9	1400	1	108	1400 x 300 x 215		1/5A	2CPX036051R9999	
			2	216	1400 x 550 x 215		2/5A	2CPX036052R9999	
			3	324	1400 x 800 x 215		3/5A	2CPX036053R9999	
			4	432	1400 x 1050 x 215		4/5A	2CPX036054R9999	
			5	540	1400 x 1300 x 215		5/5A	2CPX036055R9999	

Enclosures

A wall-mounting cabinets IP43 accessories



ZX455



ZX454



ZX206P4



ZB43



ZB40



ZB113

ZB111



ZX456



ZH800



ZH220



ZH130

Article	Pieces	Order details		Price
		Type	Order code	
Insulating frame for cabinet to cabinet connection For the side flange cut-outs (to maintain double insulation when cabinets are assembled next to each other) (with connection material)	1	ZX455	2CPX039192R9999	
Insulating frame for cabinet to cabinet connection For the top/bottom flange cut-outs (to maintain double insulation when cabinets are assembled one above the other)	1	ZX454	2CPX039199R9999	
External mounting brackets	4	ZX206P4	2CPX062491R9999	
Membrane flange* For inserting the cable	1	ZB43	2CPX038183R9999	
Nipple flange* For inserting the cable	1	ZB40	2CPX038195R9999	
Standard closure*	1	ZB113	2CPX038478R9999	
Closure with lock With 2 keys	1	ZB111	2CPX038479R9999	
Espagnolette closure				
In conjunction standard closure and lock for retrofitting into A-, B- and U-cabinets				
For overall height 0 (4 GU)	1	ZX456	2CPX039586R9999	
For overall height 1 (5 GU)	1	ZX457	2CPX039587R9999	
For overall height 2 (6 GU)	1	ZX458	2CPX039588R9999	
For overall height 3 (7 GU)	1	ZX459	2CPX039589R9999	
For overall height 4 (8 GU)	1	ZX460	2CPX039590R9999	
For overall height 5 (9 GU)	1	ZX461	2CPX039591R9999	
Set for installing Actuation options in conjunction with ZH220/ZH221/ZH222	1	ZH800	2CPX038544R9999	
Latch plate for double-bit operating pin (order installation set ZH800 separately) 3 and 5 mm	1	ZH220	2CPX045700R9999	
Operating pins				
Double-bit 3 mm	1	ZH130	2CPX060490R9999	
Double-bit 5 mm	1	ZH131	2CPX060491R9999	



ZH221



ZH132



ZH134



ZH137



ZH222



ZH138



ZH139



ZH140



ZH141



ZH228



ZH142



ZH203

Article	Pieces	Order details		Price
		Type	Order code	
Latch plate For triangular, square and Daimler-Benz operating pins (also order ZH800 installation set for A or U cabinets)	1	ZH221	2CPX045701R9999	
Operating pins				
Triangular 7 mm	1	ZH132	2CPX060492R9999	
Triangular 8 mm	1	ZH133	2CPX060493R9999	
Square 6 mm	1	ZH134	2CPX060494R9999	
Square 7 mm	1	ZH135	2CPX060495R9999	
Square 8 mm	1	ZH136	2CPX060496R9999	
Daimler-Benz	1	ZH137	2CPX060497R9999	
Latch plate For T-handle or latch handle (order installation set ZH800 separately)	1	ZH222	2CPX045702R9999	
T-handle				
Without lock	1	ZH138	2CPX060498R9999	
With lock	1	ZH139	2CPX060499R9999	
Latch handle				
Without lock	1	ZH140	2CPX060500R9999	
With lock	1	ZH141	2CPX060501R9999	
Swivel handle for semi-cylinder 40 mm (30/10) with lead sealable cap	1	ZH228	2CPX045709R9999	
Dummy insert (instead of semi-cylinder)	1	ZH142	2CPX060502R9999	
Swivel handle With closure E0 12	1	ZH203	2CPX045707R9999	

Enclosures

A wall-mounting cabinets IP43 accessories



ZX456

Article	Pieces	Order details		Price
		Type	Order code	
Espagnolette closure				
in conjunction with ZH203, ZH220, ZH221, ZH222, ZH227 and ZH228				
For overall height 0 (4 GU)	1	ZX440	2CPX039570R9999	
For overall height 1 (5 GU)	1	ZX441	2CPX039571R9999	
For overall height 2 (6 GU)	1	ZX442	2CPX039572R9999	
For overall height 3 (7 GU)	1	ZX443	2CPX039573R9999	
For overall height 4 (8 GU)	1	ZX444	2CPX039574R9999	
For overall height 5 (9 GU)	1	ZX445	2CPX039575R9999	



ZX139LR

Door hinge (plastic)*	2	ZX139LR	2CPX039139R9999	
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ZX464

Door bolt for double-wing doors* For cabinets with three or more panel widths	1	ZX464	2CPX039596R9999	
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KB19

Cable entry covers				
with end plates and mounting brackets. Colour RAL9016 adjusted to the colour of the cabinets				
1 panel wide, width 300 mm	1	KB19	2CPX044049R9999	
2 panel wide, width 550 mm	1	KB29	2CPX044050R9999	
3 panel wide, width 800 mm	1	KB39	2CPX044051R9999	
4 panel wide, width 1050 mm	1	KB49	2CPX044052R9999	
5 panel wide, width 1300 mm	1	KB59	2CPX044053R9999	



KB219

Profile Colour RAL9016 Width 2000 mm	1	KB219	2CPX044055R9999	
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KBS9

End plate left/right Colour RAL9016 1 set, 2 pcs.	1	KBS9	2CPX044057R9999	
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KBW1

Mounting brackets	1	KBW1	2CPX044058R9999	
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ZA20

Spray paint can Colour RAL 9016, 150 ml	1	ZA20	2CPX038229R9999	
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ZA120

Touch-up applicator Colour RAL 9016, 12 ml	1	ZA120	2CPX039043R9999	
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*Spare part included in the scope of delivery



ZA6



ZA5

Article	Pieces	Order details		Price
		Type	Order code	
Accessories for all cabinet types				
Document holder DIN A4 Self-adhesive with transparent sleeve	1	ZA6	2CPX038227R9999	
	10	ZA6P10	2CPX062380R9999	
Self-adhesive with transparent sleeve and reinforced back	10	ZA61P10	2CPX062375R9999	
Document holder DIN A4 Self-adhesive	1	ZA13	2CPX038233R9999	
	10	ZA13P10	2CPX062381R9999	
Document holder DIN A5 Self-adhesive	1	ZA5	2CPX038228R9999	
	10	ZA5P10	2CPX062382R9999	

Enclosures

A wall-mounting cabinets IP43 sheet steel doors



2CPX062060R9999

T20

PW	OH	To be used with... A cabinet	Order details		Price
			Type	Order code	
1	00	1/00A	T100	2CPX062057R9999	
2		2/00A	T200	2CPX062058R9999	
3		3/00A	T300	2CPX062072R9999	
4		4/00A	T400	2CPX062073R9999	
5		5/00A	T500	2CPX062074R9999	
1	0	1/0A	T10	2CPX062059R9999	
2		2/0A	T20	2CPX062060R9999	
3		3/0A	T30	2CPX062061R9999	
4		4/0A	T40	2CPX062075R9999	
5		5/0A	T50	2CPX062076R9999	
1	1	1/1A	T11	2CPX062062R9999	
2		2/1A	T21	2CPX062063R9999	
3		3/1A	T31	2CPX062064R9999	
4		4/1A	T41	2CPX062065R9999	
5		5/1A	T51	2CPX062077R9999	
1	2	1/2A	T12	2CPX062066R9999	
2		2/2A	T22	2CPX062067R9999	
3		3/2A	T32	2CPX062068R9999	
4		4/2A	T42	2CPX062069R9999	
5		5/2A	T52	2CPX062078R9999	
1	3	1/3A	T13	2CPX062079R9999	
2		2/3A	T23	2CPX062070R9999	
3		3/3A	T33	2CPX062071R9999	
4		4/3A	T43	2CPX062080R9999	
5		5/3A	T53	2CPX062081R9999	
1	4	1/4A	T14	2CPX062082R9999	
2		2/4A	T24	2CPX062083R9999	
3		3/4A	T34	2CPX062084R9999	
4		4/4A	T44	2CPX062085R9999	
5		5/4A	T54	2CPX062086R9999	
1	5	1/5A	T15	2CPX062087R9999	
2		2/5A	T25	2CPX062088R9999	
3		3/5A	T35	2CPX062089R9999	
4		4/5A	T45	2CPX062090R9999	
5		5/5A	T55	2CPX062091R9999	

Enclosures

A wall-mounting cabinets IP43 transparent doors



TTS42

2CPX062039R9999

PW	OH	To be used with... A cabinet	Order details		Price
			Type	Order code	
1	00	1/00A	TTS100	2CPX062021R9999	
2		2/00A	TTS200	2CPX062022R9999	
3		3/00A	TTS300	2CPX062023R9999	
4		4/00A	TTS400	2CPX062024R9999	
5		5/00A	TTS500	2CPX062025R9999	
1	0	1/0A	TTS10	2CPX062026R9999	
2		2/0A	TTS20	2CPX062027R9999	
3		3/0A	TTS30	2CPX062028R9999	
4		4/0A	TTS40	2CPX062029R9999	
5		5/0A	TTS50	2CPX062030R9999	
1	1	1/1A	TTS11	2CPX062031R9999	
2		2/1A	TTS21	2CPX062032R9999	
3		3/1A	TTS31	2CPX062033R9999	
4		4/1A	TTS41	2CPX062034R9999	
5		5/1A	TTS51	2CPX062035R9999	
1	2	1/2A	TTS12	2CPX062036R9999	
2		2/2A	TTS22	2CPX062037R9999	
3		3/2A	TTS32	2CPX062038R9999	
4		4/2A	TTS42	2CPX062039R9999	
5		5/2A	TTS52	2CPX062040R9999	
1	3	1/3A	TTS13	2CPX062041R9999	
2		2/3A	TTS23	2CPX062042R9999	
3		3/3A	TTS33	2CPX062043R9999	
4		4/3A	TTS43	2CPX062044R9999	
5		5/3A	TTS53	2CPX062045R9999	
1	4	1/4A	TTS14	2CPX062046R9999	
2		2/4A	TTS24	2CPX062047R9999	
3		3/4A	TTS34	2CPX062048R9999	
4		4/4A	TTS44	2CPX062049R9999	
5		5/4A	TTS54	2CPX062050R9999	
1	5	1/5A	TTS15	2CPX062051R9999	
2		2/5A	TTS25	2CPX062052R9999	
3		3/5A	TTS35	2CPX062053R9999	
4		4/5A	TTS45	2CPX062054R9999	
5		5/5A	TTS55	2CPX062055R9999	

Enclosures

B wall-mounting cabinets IP43 indoor installation \perp



B wall-mounting cabinets IP43, Cabinet depth 215 mm

Empty cabinets for surface, flush and partially recessed mounting

In up to 250 A (400 A)*

Enclosure and door made of sheet steel

Rear wall made of plastic

RAL 9016 powder-coated

Prepared to be fitted with a mounting plate made of galvanised sheet steel

Prepared to be fitted with distribution board panels/combination sets

Prepared to be fitted with CombiLine-M modules on the EDF mounting frame

Double-wing doors on cabinets with three or more panel widths

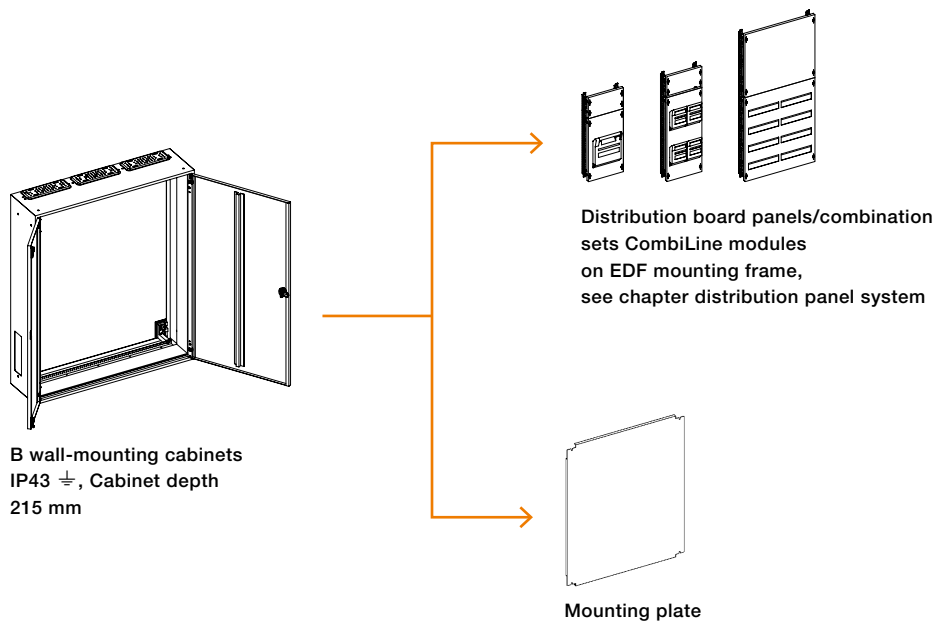
Door opening angle: 130 degree

With standard closure ZB113

Flange openings on the sides, open at the bottom. Nipple flanges ZB40 included

Membrane flanges are mounted in the upper connection area

*Depending on the switchgear assembly (TTA, PTTA), verification in accordance with EN61439-2 required

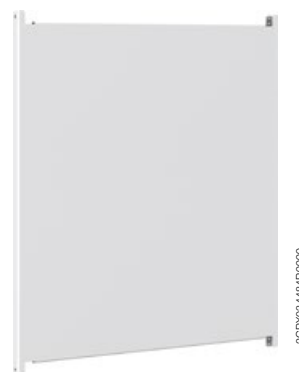


Enclosures

B wall-mounting cabinets IP43 / mounting plates indoor installation \perp



3/2B



GM32

GU	OH	Height		PW	SU	External dims.			B wall-mounting cabinets IP43 \square			External dims.			Mounting plates			
		in mm				H x W x D (mm)	Type	Order code	Price	H x W x D (mm)	Type	Order code	Price					
3	00	500		1	36	500 x 300 x 215			1/00B	2CPX036360R9999	-	-	-	-	-	-	-	
				2	72	500 x 550 x 215			2/00B	2CPX036361R9999	-	-	-	-	-	-	-	-
				3	108	500 x 800 x 215			3/00B	2CPX036362R9999	-	-	-	-	-	-	-	-
4	0	650		1	48	650 x 300 x 215			1/0B	2CPX036370R9999	-	-	-	-	-	-	-	
				2	96	650 x 550 x 215			2/0B	2CPX036371R9999	600 x 500	GM20	2CPX034473R9999	-	-	-		
				3	144	650 x 800 x 215			3/0B	2CPX036372R9999	600 x 750	GM30	2CPX034474R9999	-	-	-		
				4	192	650 x 1050 x 215			4/0B	2CPX036373R9999	600 x 1000	GM40	2CPX034475R9999	-	-	-		
				5	240	650 x 1300 x 215			5/0B	2CPX036374R9999	600 x 1250	GM50	2CPX034476R9999	-	-	-		
5	1	800		1	60	800 x 300 x 215			1/1B	2CPX036380R9999	-	-	-	-	-	-	-	
				2	120	800 x 550 x 215			2/1B	2CPX036381R9999	-	-	-	-	-	-		
				3	180	800 x 800 x 215			3/1B	2CPX036382R9999	-	-	-	-	-	-		
				4	240	800 x 1050 x 215			4/1B	2CPX036383R9999	-	-	-	-	-	-		
				5	300	800 x 1300 x 215			5/1B	2CPX036384R9999	-	-	-	-	-	-		
6	2	950		1	72	950 x 300 x 215			1/2B	2CPX036390R9999	900 x 250	GM12	2CPX034482R9999	-	-	-		
				2	144	950 x 550 x 215			2/2B	2CPX036391R9999	900 x 500	GM22	2CPX034483R9999	-	-	-		
				3	216	950 x 800 x 215			3/2B	2CPX036392R9999	900 x 750	GM32	2CPX034484R9999	-	-	-		
				4	288	950 x 1050 x 215			4/2B	2CPX036393R9999	900 x 1000	GM42	2CPX034485R9999	-	-	-		
				5	360	950 x 1300 x 215			5/2B	2CPX036394R9999	900 x 1250	GM52	2CPX034486R9999	-	-	-		
7	3	1100		1	84	1100 x 300 x 215			1/3B	2CPX036400R9999	-	-	-	-	-	-		
				2	168	1100 x 550 x 215			2/3B	2CPX036401R9999	-	-	-	-	-	-		
				3	252	1100 x 800 x 215			3/3B	2CPX036402R9999	-	-	-	-	-	-		
				4	336	1100 x 1050 x 215			4/3B	2CPX036403R9999	-	-	-	-	-	-		
				5	420	1100 x 1300 x 215			5/3B	2CPX036404R9999	-	-	-	-	-	-		
8	4	1250		1	96	1250 x 300 x 215			1/4B	2CPX036410R9999	-	-	-	-	-	-		
				2	192	1250 x 550 x 215			2/4B	2CPX036411R9999	1200 x 500	GM24	2CPX034488R9999	-	-	-		
				3	288	1250 x 800 x 215			3/4B	2CPX036412R9999	1200 x 750	GM34	2CPX034489R9999	-	-	-		
				4	384	1250 x 1050 x 215			4/4B	2CPX036413R9999	1200 x 1000	GM44	2CPX034490R9999	-	-	-		
				5	480	1250 x 1300 x 215			5/4B	2CPX036414R9999	1200 x 1250	GM54	2CPX034491R9999	-	-	-		
9	5	1400		1	108	1400 x 300 x 215			1/5B	2CPX036420R9999	-	-	-	-	-	-		
				2	216	1400 x 550 x 215			2/5B	2CPX036421R9999	1350 x 500	GM25	2CPX034493R9999	-	-	-		
				3	324	1400 x 800 x 215			3/5B	2CPX036422R9999	1350 x 750	GM35	2CPX034494R9999	-	-	-		
				4	432	1400 x 1050 x 215			4/5B	2CPX036423R9999	1350 x 1000	GM45	2CPX034495R9999	-	-	-		
				5	540	1400 x 1300 x 215			5/5B	2CPX036424R9999	1350 x 1250	GM55	2CPX034496R9999	-	-	-		

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

B wall-mounting cabinets IP43 accessories



ZP74P4



ZX131



ZB43



ZB40



ZB113 ZB111



ZX456



ZH800



ZH203



ZH228

Article	Pieces	Order details		Price
		Type	Order code	
External mounting brackets	4	ZP74P4	2CPX062636R9999	
Connection set For connecting cabinets in series, 1 set	1	ZX131	2CPX039131R9999	
Membrane flange* For inserting the cable	1	ZB43	2CPX038183R9999	
Nipple flange* For inserting the cable	1	ZB40	2CPX038195R9999	
Standard closure*	1	ZB113	2CPX038478R9999	
Closure with lock with 2 keys	1	ZB111	2CPX038479R9999	
Espagnolette closure				
*In conjunction with standard closure and closure with lock (ZB113, ZB111)				
For overall height 0 (4 GU)	1	ZX456	2CPX039586R9999	
For overall height 1 (5 GU)	1	ZX457	2CPX039587R9999	
For overall height 2 (6 GU)	1	ZX458	2CPX039588R9999	
For overall height 3 (7 GU)	1	ZX459	2CPX039589R9999	
For overall height 4 (8 GU)	1	ZX460	2CPX039590R9999	
For overall height 5 (9 GU)	1	ZX461	2CPX039591R9999	
Set for installing Actuation options in conjunction with ZH220/ZH221/ZH222 Please find more accessories on page 14/99 (types: ZH221, ZH132-ZH137, ZH222, ZH138-141).	1	ZH800	2CPX038544R9999	
Swivel handle Closure E0 12	1	ZH203	2CPX045707R9999	
Swivel handle For semi-cylinder 40 mm (30/10), with lead sealable cap	1	ZH228	2CPX045709R9999	

*Spare part included in the scope of delivery

Enclosures

B wall-mounting cabinets IP43 accessories / cable entry covers



ZX440



ZA20



ZA120



KB19



KB219



KBS9



KBW1



ZA6



ZA5

Article	Pieces	Order details		Price
		Type	Order code	
B wall-mounting cabinet				
Espagnolette closure in conjunction with ZH203, ZH220, ZH221, ZH222, ZH227 and ZH228 closure system				
For overall height 0 (4 GU)	1	ZX440	2CPX039570R9999	
For overall height 1 (5 GU)	1	ZX441	2CPX039571R9999	
For overall height 2 (6 GU)	1	ZX442	2CPX039572R9999	
For overall height 3 (7 GU)	1	ZX443	2CPX039573R9999	
For overall height 4 (8 GU)	1	ZX444	2CPX039574R9999	
For overall height 5 (9 GU)	1	ZX445	2CPX039575R9999	
Spray paint can Colour RAL 9016, 150 ml	1	ZA20	2CPX038229R9999	
Touch-up applicator Colour RAL 9016, 12 ml	1	ZA120	2CPX039043R9999	
Cable entry covers with end plates and mounting brackets Colour RAL9016 adjusted to the colour of the cabinets				
1 panel wide, width 300 mm	1	KB19	2CPX044049R9999	
2 panel wide, width 550 mm	1	KB29	2CPX044050R9999	
3 panel wide, width 800 mm	1	KB39	2CPX044051R9999	
4 panel wide, width 1050 mm	1	KB49	2CPX044052R9999	
4 panel wide, width 1300 mm	1	KB59	2CPX044053R9999	
Profile Colour RAL9016 Width 2000 mm	1	KB219	2CPX044055R9999	
End plate left/right Colour RAL9016 1 set, 2 pcs.	1	KBS9	2CPX044057R9999	
Mounting brackets	1	KBW1	2CPX044058R9999	
Document holder DIN A4 Self-adhesive with transparent sleeve	1	ZA6	2CPX038227R9999	
Self-adhesive with transparent sleeve	10	ZA6P10	2CPX062380R9999	
Self-adhesive with transparent sleeve and reinforced back	10	ZA6P10	2CPX062375R9999	
Document holder DIN A4 Self-adhesive	1	ZA13	2CPX038233R9999	
Self-adhesive	10	ZA13P10	2CPX062381R9999	
Document holder DIN A5 Self-adhesive	1	ZA5	2CPX038228R9999	
Self-adhesive	10	ZA5P10	2CPX062382R9999	

Enclosures

B wall-mounting cabinets IP43 sheet steel doors



T20

2CPX062060R9999

PW	OH	To be used with... B wall-mounting cabinet	Order details		Price
			Type	Order code	
1	00	1/00B	T100	2CPX062057R9999	
2		2/00B	T200	2CPX062058R9999	
3		3/00B	T300	2CPX062072R9999	
4		-	-	-	
5		-	-	-	
1	0	1/0B	T10	2CPX062059R9999	
2		2/0B	T20	2CPX062060R9999	
3		3/0B	T30	2CPX062061R9999	
4		4/0B	T40	2CPX062075R9999	
5		5/0B	T50	2CPX062076R9999	
1	1	1/1B	T11	2CPX062062R9999	
2		2/1B	T21	2CPX062063R9999	
3		3/1B	T31	2CPX062064R9999	
4		4/1B	T41	2CPX062065R9999	
5		5/1B	T51	2CPX062077R9999	
1	2	1/2B	T12	2CPX062066R9999	
2		2/2B	T22	2CPX062067R9999	
3		3/2B	T32	2CPX062068R9999	
4		4/2B	T42	2CPX062069R9999	
5		5/2B	T52	2CPX062078R9999	
1	3	1/3B	T13	2CPX062079R9999	
2		2/3B	T23	2CPX062070R9999	
3		3/3B	T33	2CPX062071R9999	
4		4/3B	T43	2CPX062080R9999	
5		5/3B	T53	2CPX062081R9999	
1	4	1/4B	T14	2CPX062082R9999	
2		2/4B	T24	2CPX062083R9999	
3		3/4B	T34	2CPX062084R9999	
4		4/4B	T44	2CPX062085R9999	
5		5/4B	T54	2CPX062086R9999	
1	5	1/5B	T15	2CPX062087R9999	
2		2/5B	T25	2CPX062088R9999	
3		3/5B	T35	2CPX062089R9999	
4		4/5B	T45	2CPX062090R9999	
5		5/5B	T55	2CPX062091R9999	

Enclosures

B wall-mounting cabinets IP43 transparent doors



TTS42

2CPX062039R9999

PW	OH	To be used with... B wall-mounting cabinet	Order details		Price
			Type	Order code	
1	00	1/00B	TTS100	2CPX062021R9999	
2		2/00B	TTS200	2CPX062022R9999	
3		3/00B	TTS300	2CPX062023R9999	
4		-	-	-	
5		-	-	-	-
1	0	1/0B	TTS10	2CPX062026R9999	
2		2/0B	TTS20	2CPX062027R9999	
3		3/0B	TTS30	2CPX062028R9999	
4		4/0B	TTS40	2CPX062029R9999	
5		5/0B	TTS50	2CPX062030R9999	
1	1	1/1B	TTS11	2CPX062031R9999	
2		2/1B	TTS21	2CPX062032R9999	
3		3/1B	TTS31	2CPX062033R9999	
4		4/1B	TTS41	2CPX062034R9999	
5		5/1B	TTS51	2CPX062035R9999	
1	2	1/2B	TTS12	2CPX062036R9999	
2		2/2B	TTS22	2CPX062037R9999	
3		3/2B	TTS32	2CPX062038R9999	
4		4/2B	TTS42	2CPX062039R9999	
5		5/2B	TTS52	2CPX062040R9999	
1	3	1/3B	TTS13	2CPX062041R9999	
2		2/3B	TTS23	2CPX062042R9999	
3		3/3B	TTS33	2CPX062043R9999	
4		4/3B	TTS43	2CPX062044R9999	
5		5/3B	TTS53	2CPX062045R9999	
1	4	1/4B	TTS14	2CPX062046R9999	
2		2/4B	TTS24	2CPX062047R9999	
3		3/4B	TTS34	2CPX062048R9999	
4		4/4B	TTS44	2CPX062049R9999	
5		5/4B	TTS54	2CPX062050R9999	
1	5	1/5B	TTS15	2CPX062051R9999	
2		2/5B	TTS25	2CPX062052R9999	
3		3/5B	TTS35	2CPX062053R9999	
4		4/5B	TTS45	2CPX062054R9999	
5		5/5B	TTS55	2CPX062055R9999	

Enclosures

HS floor-standing cabinets IP43 indoor installation



3/8HS

HS floor-standing cabinets IP43, Cabinet depth 225 mm, Cabinet height 1850 mm

with mounted EDF installation set and touch guard

In up to 400 A

Enclosure and door made of sheet steel

RAL 7035 powder-coated

Flange openings per panel width at the top and bottom

Door opening angle: 160 degree

Cabinets 1 to 3 panels wide: single door hinged right,

Cabinets 4 panels wide: double-wing door

Doors with espagnolette closure

Standard closure: Double-bit 3 mm

Prepared to be fitted with CombiLine-M modules on the EDF mounting frame

Prepared to be fitted with distribution board panels/combination sets

With external fixing brackets in the scope of delivery

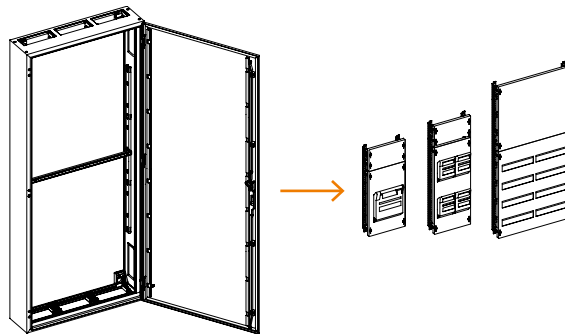
Flanges must be ordered separately

Plinths must be ordered separately

HS floor-standing cabinets with mounted EDF installation set and touch guard, IP43

12	8	1	144	1850 x 300 x 225	1/8HS	2CPX034326R9999
		2	288	1850 x 550 x 225	2/8HS	2CPX034327R9999
		3	432	1850 x 800 x 225	3/8HS	2CPX034328R9999
		4	576	1850 x 1050 x 225	4/8HS	2CPX034329R9999

- > For distribution board panels, combination sets and CombiLine-M, see Chapter Distribution panel system
- > An assembly set ZB15 is required per panel width (250 mm) when installing meter panels in floor-standing cabinets
- > For floor-standing cabinet accessories, please order plinth and flange separately



HS floor-standing cabinets

Prepared for the installation of distribution board panels, combination sets and modules on the EDF mounting frame. Meter panels can also be installed using the ZB15 assembly set.

Enclosures

H floor-standing cabinets IP43 indoor installation \perp



2CPX034323R9999

3/8H

H floor-standing cabinets IP43 ., Cabinet depth 225 mm, Cabinet height 1850 mm

with mounted EDF installation set and touch guard

In up to 400 A

Enclosure and door made of sheet steel

RAL 7035 powder-coated

Flange openings per panel width at the top and bottom

Door opening angle: 160 degree

Cabinets 1 to 3 panels wide: single door hinged right,

Cabinets 4 panels wide: double-wing door

Doors with espagnolette closure

Standard closure: Double-bit 3 mm

Prepared to be fitted with CombiLine-M modules on the EDF mounting frame

Prepared to be fitted with distribution board panels/combination sets

With external fixing brackets in the scope of delivery

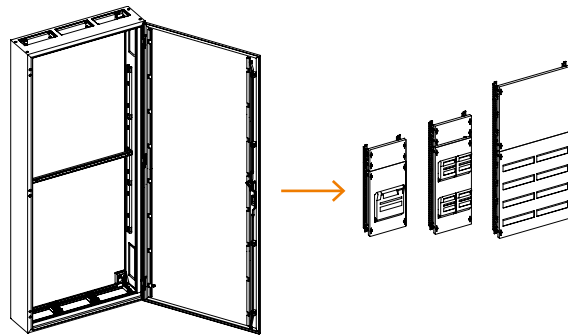
Flanges must be ordered separately

Plinths must be ordered separately

H floor-standing cabinets with mounted EDF installation set and touch guard, IP43 \perp

12	8	1	144	1850 x 300 x 225	-	1/8H	2CPX034321R9999
		2	288	1850 x 550 x 225	-	2/8H	2CPX034322R9999
		3	432	1850 x 800 x 225	-	3/8H	2CPX034323R9999
		4	576	1850 x 1050 x 225	-	4/8H	2CPX034324R9999

- > For distribution board panels, combination sets and CombiLine-M, see Chapter Distribution panel system
- > For floor-standing cabinet accessories,, please order plinth and flange separately



H floor-standing cabinets

Prepared for the installation of distribution board panels, combination sets and modules on the EDF mounting frame. With the mounting set ZB15 using the ZB15 assembly set.

Enclosures

H and HS floor-standing cabinets IP43 accessories



ZH220



ZH130



ZH131



ZH221



ZH132



ZH134



ZH137



ZH160



ZH157



ZH162



ZH165



ZH91



ZH222



ZH138



ZH139

Article	Pieces	Order details		Price
		Type	Order code	
Latch plate For double-bit operating pin 3 mm (standard) and 5 mm (order installation set ZH800 separately)	1	ZH220	2CPX045700R9999	
Operating pin				
Double-bit, 3 mm*	1	ZH130	2CPX060490R9999	
Double-bit 5 mm	1	ZH131	2CPX060491R9999	
Latch plate For triangular, square and Daimler-Benz operating pins	1	ZH221	2CPX045701R9999	
Operating pin				
Triangular 7 mm	1	ZH132	2CPX060492R9999	
Triangular 8 mm	1	ZH133	2CPX060493R9999	
Square 6 mm	1	ZH134	2CPX060494R9999	
Square 7 mm	1	ZH135	2CPX060495R9999	
Square 8 mm	1	ZH136	2CPX060496R9999	
Daimler-Benz	1	ZH137	2CPX060497R9999	
Operating keys				
Double-bit, 3 mm*	1	ZH160	2CPX060660R9999	
Double bit 5 mm	1	ZH161	2CPX060661R9999	
Triangular 7 mm	1	ZH157	2CPX060657R9999	
Triangular 8 mm	1	ZH158	2CPX060658R9999	
Square 6 mm	1	ZH162	2CPX060662R9999	
Square 7 mm	1	ZH163	2CPX060663R9999	
Square 8 mm	1	ZH164	2CPX060664R9999	
Daimler-Benz	1	ZH165	2CPX060665R9999	
Universal key Double-bit 3 mm/5 mm Triangular 8 mm, Square 6 mm/8 mm	1	ZH91	2CPX066091R9999	
Latch plate For T-handle or latch handle (order installation set ZH800 separately)	1	ZH222	2CPX045702R9999	
T-handle				
Without lock, complete	1	ZH138	2CPX060498R9999	
With lock, complete	1	ZH139	2CPX060499R9999	

*Spare part included in the scope of delivery



ZH140

ZH141



ZH223



ZH142



ZP55



ZP56



ZP57



ZP58



ZW125P4



ZH148



ZW195

Article	Pieces	Order details		Price
		Type	Order code	
Latch handle				
Without lock, complete	1	ZH140	2CPX060500R9999	
With lock, complete	1	ZH141	2CPX060501R9999	
Swivel handle for semi-cylinder 40 mm (30/10) with lead sealable cap	1	ZH223	2CPX045703R9999	
Dummy insert (instead of a semi-cylinder)	1	ZH142	2CPX060502R9999	
Flanges				
Attention: Always order flanges separately!				
Closing flange	1	ZP55	2CPX038536R9999	
	10	ZP55P10	2CPX062450R9999	
Flange for M screw fittings 1 x M63 / M50 2 x M32 / M20	1	ZP56	2CPX038534R9999	
	10	ZP56P10	2CPX062451R9999	
Flange for M screw fittings 2 x M32 / M20 4 x M25 / 5 x M20	1	ZP57	2CPX038535R9999	
	10	ZP57P10	2CPX062452R9999	
Membrane flange	1	ZP58	2CPX038538R9999	
	10	ZP58P10	2CPX062453R9999	
External mounting brackets*	4	ZW125P4	2CPX062461R9999	
Espagnolette guide* With fastening material	1	ZH148	2CPX060508R9999	
Rubber seal* For double-wing door	1	ZW195	2CPX039395R9999	

*Spare part included in the scope of delivery

Enclosures

H and HS floor-standing cabinets IP43 accessories



ZW104P2



ZW41



ZL8



ZW106P3



ZW190



ZW191



ZA6



ZA5



ZA18



ZA116

Article	Pieces	Order details		Price
		Type	Order code	
Mounting brackets* (2 pcs, with fastening material) Required for fastening the center support rail	2	ZW104P2	2CPX062459R9999	
Centre support rail*				
1 panel wide	1	ZW41	2CPX039441R9999	
2 panel wide	1	ZW42	2CPX039442R9999	
3 panel wide	1	ZW43	2CPX039443R9999	
4 panel wide	1	ZW44	2CPX039444R9999	
Door earthing set 10 mm ²	1	ZL8	2CPX038001R9999	
Hinge * Door opening angle 160 degree	3	ZW106P3	2CPX062460R9999	
Connection set H-floor-standing cabinets For connecting cabinets in series, 1 set	1	ZW190	2CPX039390R9999	
Connection set HS-floor-standing cabinets For connecting cabinets in series, 1 set	1	ZW191	2CPX039391R9999	
Document holder DIN A4 Self-adhesive with transparent sleeve	1	ZA6	2CPX038227R9999	
	10	ZA6P10	2CPX062380R9999	
Self-adhesive with transparent sleeve and reinforced back	10	ZA6P10	2CPX062375R9999	
Document holder DIN A4 Self-adhesive	1	ZA13	2CPX038233R9999	
	10	ZA13P10	2CPX062381R9999	
Document holder DIN A5 Self-adhesive	1	ZA5	2CPX038228R9999	
	10	ZA5P10	2CPX062382R9999	
Spray paint can Colour RAL 7005, 150 ml	1	ZA18	2CPX038237R9999	
Colour RAL 7035, 150 ml	1	ZA16	2CPX038235R9999	
Touch-up applicator Colour RAL 7035, 12 ml	1	ZA116	2CPX039042R9999	

*Spare part included in the scope of delivery

Enclosures

H and HS floor-standing cabinets IP43 cable entry covers / accessories



KB17



KB217



KB7



KBW1



GSR1



GRG1



ZB15



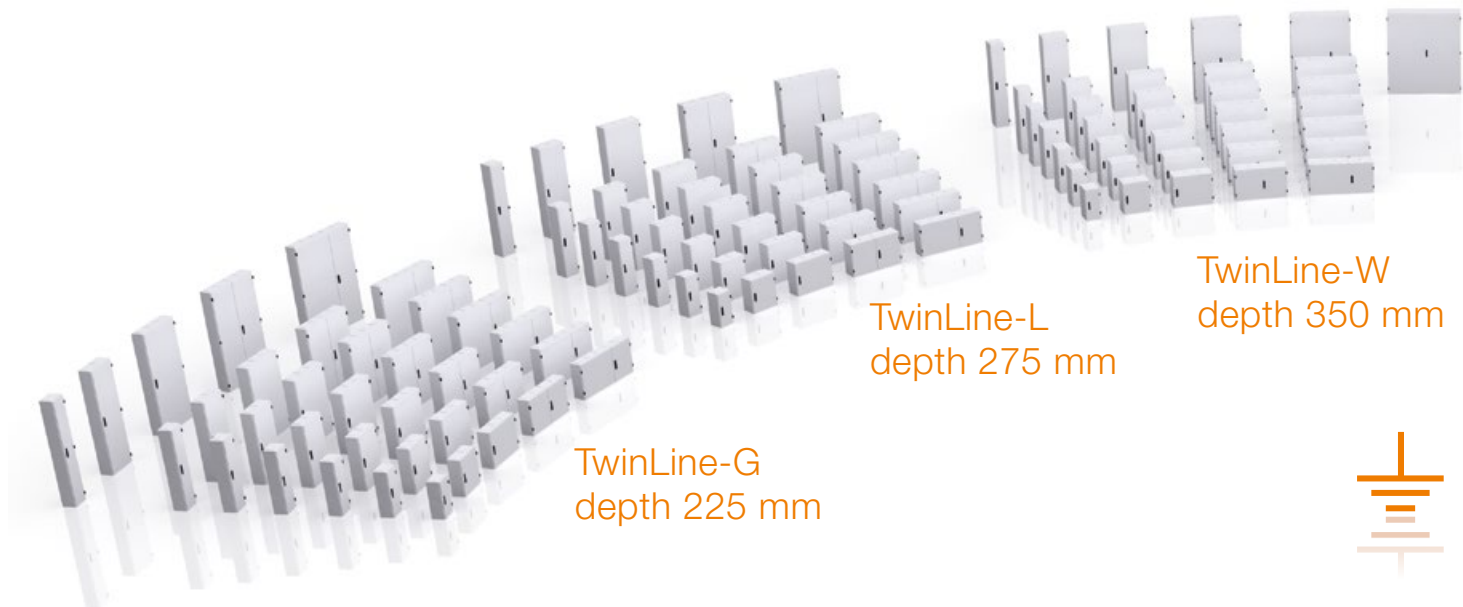
ZW123

Article	Pieces	Order details		Price
		Type	Order code	
Cable entry covers				
With end plates and mounting brackets, colour RAL7035 adjusted to the colour of the cabinets				
1 panel wide, width 300 mm	1	KB17	2CPX044044R9999	
2 panel wide, width 550 mm	1	KB27	2CPX044045R9999	
3 panel wide, width 800 mm	1	KB37	2CPX044046R9999	
4 panel wide, width 1050 mm	1	KB47	2CPX044047R9999	
Profile	1	KB217	2CPX044054R9999	
Colour RAL7035				
Width 2000 mm				
End plate left/right	1	KBS7	2CPX044056R9999	
Colour RAL7035				
1 set, 2 pcs.				
Mounting brackets	1	KBW1	2CPX044058R9999	
Plinth				
Colour RAL 7005, height 50 mm				
1 panel wide	1	GSR1	2CPX034951R9999	
2 panel wide	1	GSR2	2CPX034952R9999	
3 panel wide	1	GSR3	2CPX034953R9999	
4 panel wide	1	GSR4	2CPX034954R9999	
High plinth				
Front and rear side removable, Colour RAL 7005, height 150 mm				
1 panel wide	1	GRG1	2CPX034956R9999	
2 panel wide	1	GRG2	2CPX034957R9999	
3 panel wide	1	GRG3	2CPX034958R9999	
4 panel wide	1	GRG4	2CPX034959R9999	
HS-floor-standing cabinets				
Assembly set	1	ZB15	2CPX038132R9999	
For the installation of meter panels order one additional ZB15 per panel width (250 mm)				
Touch guard*				
Single meter panel	1	ZW123	2CPX039505R9999	
Double meter panel	1	ZW124	2CPX039506R9999	

TwinLine N 55 wall-mounting and floor-standing cabinets IP55

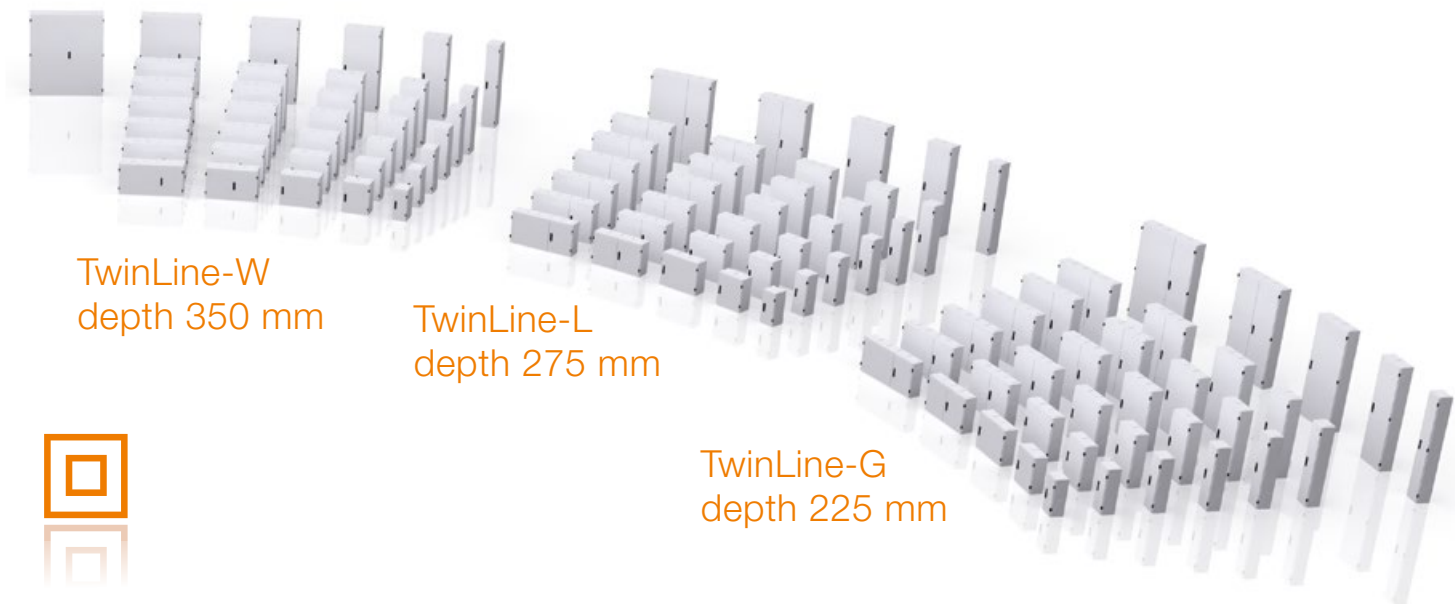
The complete cabinet system in all sizes

One system, Two protection classes, Three cabinet depths, Unlimited possibilities



Cabinet series		TwinLine-G					TwinLine-L					TwinLine-W						
Degree of protection		up to IP55					up to IP55					up to IP55						
Protection class		⊕					⊕					⊕						
Depth		225					275					350						
Width		300	550	800	1050	1300	300	550	800	1050	1300	300	550	800	1050	1300	1550	
Height	GU 4	650	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU 5	800	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU 6	950	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU 7	1100	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU 8	1250	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU 9	1400	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU 12	1850	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

> Dimensions in mm



Cabinet series			TwinLine-G					TwinLine-L					TwinLine-W					
Degree of protection			up to IP55					up to IP55					up to IP55					
Protection class			☐					☐					☐					
Depth			225					275					350					
Width			300	550	800	1050	1300	300	550	800	1050	1300	300	550	800	1050	1300	1550
Height	GU 4	650	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU 5	800	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU 6	950	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU 7	1100	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU 8	1250	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU 9	1400	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	GU12	1850	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

> Dimensions in mm

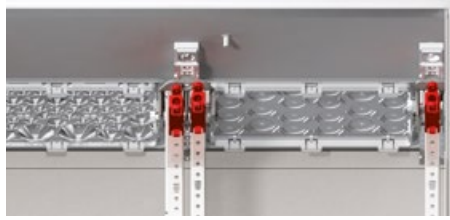
TwinLine N 55 wall-mounting and floor-standing cabinets IP55

Product benefits





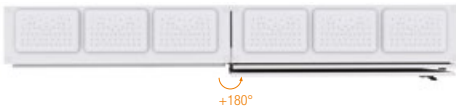
Significantly more usable area for cable entry.
Innovative flange technology with tool-free installation.



Uniform fastening for all internal configurations.



All cabinets can easily be combined in series both, vertically and horizontally
Time-saving plinth installation and safe transport.



Optimal accessibility and ease of installation thanks to 180 degree door opening angle.

TwinLine N 55 wall-mounting and floor-standing cabinets IP55

Innovative cable inlet

With TwinLine there is literally more in it for you. The usable area for cable entry is up to 84 per cent more. All flanges achieve the high IP55 degree of protection. You also get more convenience since the 2-component flanges can be attached without the need for tools thanks to the handy push and lock technology.

- All flanges achieve the high IP55 degree of protection
- Up to 84 per cent more usable area for cable entry
- All flanges are compatible with all flange openings and knockouts within the entire TwinLine system
- Wide range of new flanges



Membrane flange

- 2-component flange with integrated seal. material: plastic
- Tool-free installation thanks to push and lock technology
- Optimal cable entry by a combination of hard and soft components
- Additional fixing and centring possible



Flange for M screw fittings

- 2-component flange with integrated seal. material: plastic
- Tool-free installation thanks to push and lock technology
- With two different hole patterns



Flange with cable sleeves

- 2-component flange with integrated seal. material: plastic
- Tool-free installation thanks to push and lock technology
- With two or three cable sleeves



Closing flange

- 2-component flange with integrated seal. material: plastic
- Tool-free installation thanks to push and lock technology
- Can be used as closing flange or for customization, e.g. for cable sleeves or screw fittings



Closing flange

- With foam seal around perimeter. material: sheet steel 2 mm
- Continuous protective earth connection via flange fastener
- Can be used as closing flange or for customization, e.g. for cable sleeves or screw fittings

TwinLine N 55 wall-mounting and floor-standing cabinets IP55

Wall-mounting cabinets / Technical specifications and product features

Technical specifications for TwinLine-G, L and W	
Standards / requirements	According to DIN EN 61439-1/-2/-3, DIN VDE 0660-600-1/-2/-3*
Protection class	I, earthed II, double insulated
Degree of protection	With door IP55 Without door IP30, for an extension as meter distribution board with distribution board panels, combination sets or
Mechanical impact strength	IK 10 for the cabinet enclosure IK 08 in the area of the flange knockouts
Conditions of installation	Indoor installation Ambient air temperature max. + 40°C Ambient air temperature min. - 5°C Operating temperature max. + 55°C Storage temperature max. + 55°C Storage temperature min. - 40°C
Product features for TwinLine-G, L and W	
Housing and door material	Sheet steel, RAL 7035, powder-coated One flange opening per panel width at the top; knockouts are provided on the sides and bottom Door opening angle: 180 degrees Double-wing doors in all cabinets of a width of 4 panels and more Doors with espagnolette closure Standard lock: 3 mm double bit
Assembly options*	Prepared to be fitted with distribution board panels, combination sets or CombiLine modules on EDF mounting frame Prepared to be fitted with CombiLine modules on WR mounting frame and mounting plates by removing the EDF adapter
Forms of delivery	Enclosure with door Enclosure without door External mounting brackets included in the scope of delivery Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional included in the scope of delivery Touch guard for the double insulated cabinet included in the scope of delivery Touch guards for earthed cabinets must be ordered separately as accessory
Accessories	For enclosures without door the door may also be ordered separately, if necessary Flanges must be ordered separately Touch guards for earthed cabinets must be ordered separately

* For a detailed description of the extension options, see page 4/20

*1 The allowed heating for switchgear assemblies above 630 A rated current must be evidenced by the process according to section 10.10.4.2. The required values of the power loss capacity are specified in the tables on page 4/46. Above 630 A rated current the process according to 10.10.4.3 (IEC 60890) must be applied.

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 TwinLine-G wall-mounting cabinets, cabinet depth 225 mm $\frac{1}{2}$



TG306G

Scope of delivery

- External mounting brackets
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame and mounting plates by removing the EDF adapter

Accessories must be ordered separately

- Flanges
- Touch guard for an extension with distribution board panels, combination sets or CombiLine modules

Height		Width		SU	External dimensions* ² H x W in mm	Wall-mounting cabinets with door IP55			Wall-mounting cabinets without door IP30* ¹		
GU	OH	PW	Type			Order code	Price	Type	Order code	Price	
4	0	1		48	650 x 300						TG104G
		2	96	650 x 550	TG204G	2CPX010001R9999		TG204GB	2CPX010222R9999		
		3	144	650 x 800	TG304G	2CPX010002R9999		TG304GB	2CPX010223R9999		
		4	192	650 x 1050	TG404G	2CPX010003R9999		TG404GB	2CPX010224R9999		
		5	240	650 x 1300	TG504G	2CPX010004R9999		TG504GB	2CPX010225R9999		
5	1	1	60	800 x 300	TG105G	2CPX010005R9999		TG105GB	2CPX010226R9999		
		2	120	800 x 550	TG205G	2CPX010006R9999		TG205GB	2CPX010227R9999		
		3	180	800 x 800	TG305G	2CPX010007R9999		TG305GB	2CPX010228R9999		
		4	240	800 x 1050	TG405G	2CPX010008R9999		TG405GB	2CPX010229R9999		
		5	300	800 x 1300	TG505G	2CPX010009R9999		TG505GB	2CPX010230R9999		
6	2	1	72	950 x 300	TG106G	2CPX010010R9999		TG106GB	2CPX010231R9999		
		2	144	950 x 550	TG206G	2CPX010011R9999		TG206GB	2CPX010232R9999		
		3	216	950 x 800	TG306G	2CPX010012R9999		TG306GB	2CPX010233R9999		
		4	288	950 x 1050	TG406G	2CPX010013R9999		TG406GB	2CPX010234R9999		
		5	360	950 x 1300	TG506G	2CPX010014R9999		TG506GB	2CPX010235R9999		
7	3	1	84	1100 x 300	TG107G	2CPX010015R9999		TG107GB	2CPX010236R9999		
		2	168	1100 x 550	TG207G	2CPX010016R9999		TG207GB	2CPX010237R9999		
		3	252	1100 x 800	TG307G	2CPX010017R9999		TG307GB	2CPX010238R9999		
		4	336	1100 x 1050	TG407G	2CPX010018R9999		TG407GB	2CPX010239R9999		
		5	420	1100 x 1300	TG507G	2CPX010019R9999		TG507GB	2CPX010240R9999		
8	4	1	96	1250 x 300	TG108G	2CPX010020R9999		TG108GB	2CPX010241R9999		
		2	192	1250 x 550	TG208G	2CPX010021R9999		TG208GB	2CPX010242R9999		
		3	288	1250 x 800	TG308G	2CPX010022R9999		TG308GB	2CPX010243R9999		
		4	384	1250 x 1050	TG408G	2CPX010023R9999		TG408GB	2CPX010244R9999		
		5	480	1250 x 1300	TG508G	2CPX010024R9999		TG508GB	2CPX010245R9999		
9	5	1	108	1400 x 300	TG109G	2CPX010025R9999		TG109GB	2CPX010246R9999		
		2	216	1400 x 550	TG209G	2CPX010026R9999		TG209GB	2CPX010247R9999		
		3	324	1400 x 800	TG309G	2CPX010027R9999		TG309GB	2CPX010248R9999		
		4	432	1400 x 1050	TG409G	2CPX010028R9999		TG409GB	2CPX010249R9999		
		5	540	1400 x 1300	TG509G	2CPX010029R9999		TG509GB	2CPX010250R9999		

*¹ For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*² External dimensions without prepunches for more information

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 TwinLine-G wall-mounting cabinets, cabinet depth 225 mm



TG306S

Scope of delivery

- External mounting brackets
- Touch guard
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame by removing the EDF adapter

Accessories must be ordered separately

- Flanges

Height		Width		SU	External dimensions*2 H x W in mm	Wall-mounting cabinets with door IP55		Wall-mounting cabinets without door IP30*1	
GU	OH	PW	Order details			Price	Order details	Price	
						Type	Order code	Type	Order code
4	0	1	48	650 x 300	TG104S	2CPX010035R9999	TG104SB	2CPX010256R9999	
		2	96	650 x 550	TG204S	2CPX010036R9999	TG204SB	2CPX010257R9999	
		3	144	650 x 800	TG304S	2CPX010037R9999	TG304SB	2CPX010258R9999	
		4	192	650 x 1050	TG404S	2CPX010038R9999	TG404SB	2CPX010259R9999	
		5	240	650 x 1300	TG504S	2CPX010039R9999	TG504SB	2CPX010260R9999	
5	1	1	60	800 x 300	TG105S	2CPX010040R9999	TG105SB	2CPX010261R9999	
		2	120	800 x 550	TG205S	2CPX010041R9999	TG205SB	2CPX010262R9999	
		3	180	800 x 800	TG305S	2CPX010042R9999	TG305SB	2CPX010263R9999	
		4	240	800 x 1050	TG405S	2CPX010043R9999	TG405SB	2CPX010264R9999	
		5	300	800 x 1300	TG505S	2CPX010044R9999	TG505SB	2CPX010265R9999	
6	2	1	72	950 x 300	TG106S	2CPX010045R9999	TG106SB	2CPX010266R9999	
		2	144	950 x 550	TG206S	2CPX010046R9999	TG206SB	2CPX010267R9999	
		3	216	950 x 800	TG306S	2CPX010047R9999	TG306SB	2CPX010268R9999	
		4	288	950 x 1050	TG406S	2CPX010048R9999	TG406SB	2CPX010269R9999	
		5	360	950 x 1300	TG506S	2CPX010049R9999	TG506SB	2CPX010270R9999	
7	3	1	84	1100 x 300	TG107S	2CPX010050R9999	TG107SB	2CPX010271R9999	
		2	168	1100 x 550	TG207S	2CPX010051R9999	TG207SB	2CPX010272R9999	
		3	252	1100 x 800	TG307S	2CPX010052R9999	TG307SB	2CPX010273R9999	
		4	336	1100 x 1050	TG407S	2CPX010053R9999	TG407SB	2CPX010274R9999	
		5	420	1100 x 1300	TG507S	2CPX010054R9999	TG507SB	2CPX010275R9999	
8	4	1	96	1250 x 300	TG108S	2CPX010055R9999	TG108SB	2CPX010276R9999	
		2	192	1250 x 550	TG208S	2CPX010056R9999	TG208SB	2CPX010277R9999	
		3	288	1250 x 800	TG308S	2CPX010057R9999	TG308SB	2CPX010278R9999	
		4	384	1250 x 1050	TG408S	2CPX010058R9999	TG408SB	2CPX010279R9999	
		5	480	1250 x 1300	TG508S	2CPX010059R9999	TG508SB	2CPX010280R9999	
9	5	1	108	1400 x 300	TG109S	2CPX010060R9999	TG109SB	2CPX010281R9999	
		2	216	1400 x 550	TG209S	2CPX010061R9999	TG209SB	2CPX010282R9999	
		3	324	1400 x 800	TG309S	2CPX010062R9999	TG309SB	2CPX010283R9999	
		4	432	1400 x 1050	TG409S	2CPX010063R9999	TG409SB	2CPX010284R9999	
		5	540	1400 x 1300	TG509S	2CPX010064R9999	TG509SB	2CPX010285R9999	

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*2 External dimensions without prepunches for more information

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 TwinLine-L wall-mounting cabinets, cabinet depth 275 mm \perp



TL306G

Scope of delivery

- External mounting brackets
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame and mounting plates by removing the EDF adapter

Accessories must be ordered separately

- Flanges
- Touch guard for an extension with distribution board panels, combination sets or CombiLine modules

Height		Width		SU	External dimensions* ² H x W in mm	Wall-mounting cabinets with door IP55			Wall-mounting cabinets without door IP30* ¹		
GU	OH	PW				Order details		Price	Order details		Price
						Type	Order code		Type	Order code	
4	0	1	48	650 x 300	TL104G	2CPX010070R9999		TL104GB	2CPX010291R9999		
		2	96	650 x 550	TL204G	2CPX010071R9999		TL204GB	2CPX010292R9999		
		3	144	650 x 800	TL304G	2CPX010072R9999		TL304GB	2CPX010293R9999		
		4	192	650 x 1050	TL404G	2CPX010073R9999		TL404GB	2CPX010294R9999		
		5	240	650 x 1300	TL504G	2CPX010074R9999		TL504GB	2CPX010295R9999		
5	1	1	60	800 x 300	TL105G	2CPX010075R9999		TL105GB	2CPX010296R9999		
		2	120	800 x 550	TL205G	2CPX010076R9999		TL205GB	2CPX010297R9999		
		3	180	800 x 800	TL305G	2CPX010077R9999		TL305GB	2CPX010298R9999		
		4	240	800 x 1050	TL405G	2CPX010078R9999		TL405GB	2CPX010299R9999		
		5	300	800 x 1300	TL505G	2CPX010079R9999		TL505GB	2CPX010300R9999		
6	2	1	72	950 x 300	TL106G	2CPX010080R9999		TL106GB	2CPX010301R9999		
		2	144	950 x 550	TL206G	2CPX010081R9999		TL206GB	2CPX010302R9999		
		3	216	950 x 800	TL306G	2CPX010082R9999		TL306GB	2CPX010303R9999		
		4	288	950 x 1050	TL406G	2CPX010083R9999		TL406GB	2CPX010304R9999		
		5	360	950 x 1300	TL506G	2CPX010084R9999		TL506GB	2CPX010305R9999		
7	3	1	84	1100 x 300	TL107G	2CPX010085R9999		TL107GB	2CPX010306R9999		
		2	168	1100 x 550	TL207G	2CPX010086R9999		TL207GB	2CPX010307R9999		
		3	252	1100 x 800	TL307G	2CPX010087R9999		TL307GB	2CPX010308R9999		
		4	336	1100 x 1050	TL407G	2CPX010088R9999		TL407GB	2CPX010309R9999		
		5	420	1100 x 1300	TL507G	2CPX010089R9999		TL507GB	2CPX010310R9999		
8	4	1	96	1250 x 300	TL108G	2CPX010090R9999		TL108GB	2CPX010311R9999		
		2	192	1250 x 550	TL208G	2CPX010091R9999		TL208GB	2CPX010312R9999		
		3	288	1250 x 800	TL308G	2CPX010092R9999		TL308GB	2CPX010313R9999		
		4	384	1250 x 1050	TL408G	2CPX010093R9999		TL408GB	2CPX010314R9999		
		5	480	1250 x 1300	TL508G	2CPX010094R9999		TL508GB	2CPX010315R9999		
9	5	1	108	1400 x 300	TL109G	2CPX010095R9999		TL109GB	2CPX010316R9999		
		2	216	1400 x 550	TL209G	2CPX010096R9999		TL209GB	2CPX010317R9999		
		3	324	1400 x 800	TL309G	2CPX010097R9999		TL309GB	2CPX010318R9999		
		4	432	1400 x 1050	TL409G	2CPX010098R9999		TL409GB	2CPX010319R9999		
		5	540	1400 x 1300	TL509G	2CPX010099R9999		TL509GB	2CPX010320R9999		

*¹ For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*² External dimensions without prepunches

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 TwinLine-L wall-mounting cabinets, cabinet depth 275 mm



Scope of delivery

- External mounting brackets
- Touch guard
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame by removing the EDF adapter

Accessories must be ordered separately

- Flanges

Height		Width		SU	External dimensions *1 H x W in mm	Wall-mounting cabinets with door IP55		Wall-mounting cabinets without door IP30*1	
GU	OH	PW	Order details			Price	Order details	Price	
						Type	Order code	Type	Order code
4	0	1	48	650 x 300	TL104S	2CPX010105R9999	TL104SB	2CPX010326R9999	
		2	96	650 x 550	TL204S	2CPX010106R9999	TL204SB	2CPX010327R9999	
		3	144	650 x 800	TL304S	2CPX010107R9999	TL304SB	2CPX010328R9999	
		4	192	650 x 1050	TL404S	2CPX010108R9999	TL404SB	2CPX010329R9999	
		5	240	650 x 1300	TL504S	2CPX010109R9999	TL504SB	2CPX010330R9999	
5	1	1	60	800 x 300	TL105S	2CPX010110R9999	TL105SB	2CPX010331R9999	
		2	120	800 x 550	TL205S	2CPX010111R9999	TL205SB	2CPX010332R9999	
		3	180	800 x 800	TL305S	2CPX010112R9999	TL305SB	2CPX010333R9999	
		4	240	800 x 1050	TL405S	2CPX010113R9999	TL405SB	2CPX010334R9999	
		5	300	800 x 1300	TL505S	2CPX010114R9999	TL505SB	2CPX010335R9999	
6	2	1	72	950 x 300	TL106S	2CPX010115R9999	TL106SB	2CPX010336R9999	
		2	144	950 x 550	TL206S	2CPX010116R9999	TL206SB	2CPX010337R9999	
		3	216	950 x 800	TL306S	2CPX010117R9999	TL306SB	2CPX010338R9999	
		4	288	950 x 1050	TL406S	2CPX010118R9999	TL406SB	2CPX010339R9999	
		5	360	950 x 1300	TL506S	2CPX010119R9999	TL506SB	2CPX010340R9999	
7	3	1	84	1100 x 300	TL107S	2CPX010120R9999	TL107SB	2CPX010341R9999	
		2	168	1100 x 550	TL207S	2CPX010121R9999	TL207SB	2CPX010342R9999	
		3	252	1100 x 800	TL307S	2CPX010122R9999	TL307SB	2CPX010343R9999	
		4	336	1100 x 1050	TL407S	2CPX010123R9999	TL407SB	2CPX010344R9999	
		5	420	1100 x 1300	TL507S	2CPX010124R9999	TL507SB	2CPX010345R9999	
8	4	1	96	1250 x 300	TL108S	2CPX010125R9999	TL108SB	2CPX010346R9999	
		2	192	1250 x 550	TL208S	2CPX010126R9999	TL208SB	2CPX010347R9999	
		3	288	1250 x 800	TL308S	2CPX010127R9999	TL308SB	2CPX010348R9999	
		4	384	1250 x 1050	TL408S	2CPX010128R9999	TL408SB	2CPX010349R9999	
		5	480	1250 x 1300	TL508S	2CPX010129R9999	TL508SB	2CPX010350R9999	
9	5	1	108	1400 x 300	TL109S	2CPX010130R9999	TL109SB	2CPX010351R9999	
		2	216	1400 x 550	TL209S	2CPX010131R9999	TL209SB	2CPX010352R9999	
		3	324	1400 x 800	TL309S	2CPX010132R9999	TL309SB	2CPX010353R9999	
		4	432	1400 x 1050	TL409S	2CPX010133R9999	TL409SB	2CPX010354R9999	
		5	540	1400 x 1300	TL509S	2CPX010134R9999	TL509SB	2CPX010355R9999	

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*2 External dimensions without prepunches

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 TwinLine-W wall-mounting cabinets, cabinet depth 350 mm \perp



TW306G

Scope of delivery

- External mounting brackets
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame and mounting plates by removing the EDF adapter

Accessories must be ordered separately

- Flanges
- Touch guard for an extension with distribution board panels, combination sets or CombiLine modules

Height		Width		SU	External dimensions* ² H x W in mm	Wall-mounting cabinets with door IP55		Wall-mounting cabinets without door IP30* ¹		
GU	OH	PW				Order details		Price	Order details	
						Type	Order code	Price	Type	Order code
4	0	1	48	650 x 300	TW104G	2CPX010140R9999		TW104GB	2CPX010361R9999	
		2	96	650 x 550	TW204G	2CPX010141R9999		TW204GB	2CPX010362R9999	
		3	144	650 x 800	TW304G	2CPX010142R9999		TW304GB	2CPX010363R9999	
		4	192	650 x 1050	TW404G	2CPX010143R9999		TW404GB	2CPX010364R9999	
		5	240	650 x 1300	TW504G	2CPX010144R9999		TW504GB	2CPX010365R9999	
5	1	1	60	800 x 300	TW105G	2CPX010202R9999		TW105GB	2CPX010366R9999	
		2	120	800 x 550	TW205G	2CPX010203R9999		TW205GB	2CPX010367R9999	
		3	180	800 x 800	TW305G	2CPX010204R9999		TW305GB	2CPX010368R9999	
		4	240	800 x 1050	TW405G	2CPX010205R9999		TW405GB	2CPX010369R9999	
		5	300	800 x 1300	TW505G	2CPX010206R9999		TW505GB	2CPX010370R9999	
6	2	1	72	950 x 300	TW106G	2CPX010145R9999		TW106GB	2CPX010371R9999	
		2	144	950 x 550	TW206G	2CPX010146R9999		TW206GB	2CPX010372R9999	
		3	216	950 x 800	TW306G	2CPX010147R9999		TW306GB	2CPX010373R9999	
		4	288	950 x 1050	TW406G	2CPX010148R9999		TW406GB	2CPX010374R9999	
		5	360	950 x 1300	TW506G	2CPX010149R9999		TW506GB	2CPX010375R9999	
7	3	1	84	1100 x 300	TW107G	2CPX010150R9999		TW107GB	2CPX010376R9999	
		2	168	1100 x 550	TW207G	2CPX010151R9999		TW207GB	2CPX010377R9999	
		3	252	1100 x 800	TW307G	2CPX010152R9999		TW307GB	2CPX010378R9999	
		4	336	1100 x 1050	TW407G	2CPX010153R9999		TW407GB	2CPX010379R9999	
		5	420	1100 x 1300	TW507G	2CPX010154R9999		TW507GB	2CPX010380R9999	
8	4	1	96	1250 x 300	TW108G	2CPX010155R9999		TW108GB	2CPX010381R9999	
		2	192	1250 x 550	TW208G	2CPX010156R9999		TW208GB	2CPX010382R9999	
		3	288	1250 x 800	TW308G	2CPX010157R9999		TW308GB	2CPX010383R9999	
		4	384	1250 x 1050	TW408G	2CPX010158R9999		TW408GB	2CPX010384R9999	
		5	480	1250 x 1300	TW508G	2CPX010159R9999		TW508GB	2CPX010385R9999	
9	5	1	108	1400 x 300	TW109G	2CPX010160R9999		TW109GB	2CPX010386R9999	
		2	216	1400 x 550	TW209G	2CPX010161R9999		TW209GB	2CPX010387R9999	
		3	324	1400 x 800	TW309G	2CPX010162R9999		TW309GB	2CPX010388R9999	
		4	432	1400 x 1050	TW409G	2CPX010163R9999		TW409GB	2CPX010389R9999	
		5	540	1400 x 1300	TW509G	2CPX010164R9999		TW509GB	2CPX010390R9999	

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*2 External dimensions without prepunches

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 TwinLine-W wall-mounting cabinets, cabinet depth 350 mm



TW306S

Scope of delivery

- External mounting brackets
- Touch guard
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame
- Holders for an extension with CombiLine modules on WR mounting frame by removing the EDF adapter

Accessories must be ordered separately

- Flanges

Height		Width		SU	External dimensions*2 H x W in mm	Wall-mounting cabinets with door IP55		Wall-mounting cabinets without door IP30*1	
GU	OH	PW	Order details			Price	Order details	Price	
						Type	Order code	Type	Order code
4	0	1	48	650 x 300	TW104S	2CPX010171R9999		TW104SB	2CPX010397R9999
		2	96	650 x 550	TW204S	2CPX010172R9999		TW204SB	2CPX010398R9999
		3	144	650 x 800	TW304S	2CPX010173R9999		TW304SB	2CPX010399R9999
		4	192	650 x 1050	TW404S	2CPX010174R9999		TW404SB	2CPX010400R9999
		5	240	650 x 1300	TW504S	2CPX010175R9999		TW504SB	2CPX010401R9999
5	1	1	60	800 x 300	TW105S	2CPX010207R9999		TW105SB	2CPX010402R9999
		2	120	800 x 550	TW205S	2CPX010208R9999		TW205SB	2CPX010403R9999
		3	180	800 x 800	TW305S	2CPX010209R9999		TW305SB	2CPX010404R9999
		4	240	800 x 1050	TW405S	2CPX010210R9999		TW405SB	2CPX010405R9999
		5	300	800 x 1300	TW505S	2CPX010211R9999		TW505SB	2CPX010406R9999
6	2	1	72	950 x 300	TW106S	2CPX010176R9999		TW106SB	2CPX010407R9999
		2	144	950 x 550	TW206S	2CPX010177R9999		TW206SB	2CPX010408R9999
		3	216	950 x 800	TW306S	2CPX010178R9999		TW306SB	2CPX010409R9999
		4	288	950 x 1050	TW406S	2CPX010179R9999		TW406SB	2CPX010410R9999
		5	360	950 x 1300	TW506S	2CPX010180R9999		TW506SB	2CPX010411R9999
7	3	1	84	1100 x 300	TW107S	2CPX010181R9999		TW107SB	2CPX010412R9999
		2	168	1100 x 550	TW207S	2CPX010182R9999		TW207SB	2CPX010413R9999
		3	252	1100 x 800	TW307S	2CPX010183R9999		TW307SB	2CPX010414R9999
		4	336	1100 x 1050	TW407S	2CPX010184R9999		TW407SB	2CPX010415R9999
		5	420	1100 x 1300	TW507S	2CPX010185R9999		TW507SB	2CPX010416R9999
8	4	1	96	1250 x 300	TW108S	2CPX010186R9999		TW108SB	2CPX010417R9999
		2	192	1250 x 550	TW208S	2CPX010187R9999		TW208SB	2CPX010418R9999
		3	288	1250 x 800	TW308S	2CPX010188R9999		TW308SB	2CPX010419R9999
		4	384	1250 x 1050	TW408S	2CPX010189R9999		TW408SB	2CPX010420R9999
		5	480	1250 x 1300	TW508S	2CPX010190R9999		TW508SB	2CPX010421R9999
9	5	1	108	1400 x 300	TW109S	2CPX010191R9999		TW109SB	2CPX010422R9999
		2	216	1400 x 550	TW209S	2CPX010192R9999		TW209SB	2CPX010423R9999
		3	324	1400 x 800	TW309S	2CPX010193R9999		TW309SB	2CPX010424R9999
		4	432	1400 x 1050	TW409S	2CPX010194R9999		TW409SB	2CPX010425R9999
		5	540	1400 x 1300	TW509S	2CPX010195R9999		TW509SB	2CPX010426R9999

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*2 External dimensions without prepunches

TwinLine N 55 wall-mounting and floor-standing cabinets IP55
Floor-standing cabinets



TwinLine N 55 wall-mounting and floor-standing cabinets IP55

Floor-standing cabinets / Technical specifications and product features

Technical specifications for TwinLine-G, L and W	
Standards / requirements	According to DIN EN 61439-1/-2/-3, DIN VDE 0660-600-1/-2/-3*1
Protection class	I, earthed II, double insulated
Degree of protection	With door IP55 Without door IP30 for an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules
Mechanical impact strength	IK 10 for the cabinet enclosure IK 08 in the area of the flange knockouts
Conditions of installation	Indoor installation Ambient air temperature max. + 40°C Ambient air temperature min. - 5°C Operating temperature max. + 55°C Storage temperature max. + 55°C Storage temperature min. - 40°C
Product features for TwinLine-G, L and W	
Housing and door material	Sheet steel, RAL 7035, powder-coated One flange opening per panel width at the top; knockouts are provided on the sides and bottom Door opening angle: 180 degrees Double-wing doors in all cabinets of a width of 4 panels and more Doors with espagnolette closure Standard lock: 3 mm double bit
Assembly options*	Prepared to be fitted with distribution board panels, combination sets or CombiLine modules on EDF mounting frame; EDF adapter and centre support rail must be ordered as accessories
Forms of delivery	Enclosure with door Enclosure without door External mounting brackets included in the scope of delivery Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional included in the scope of delivery Touch guard for the double insulated cabinet included in the scope of delivery Touch guards for earthed cabinets must be ordered separately as accessory
Accessories	For enclosures without door, the door may also be ordered separately, if necessary Flanges must be ordered separately Plinths must be ordered separately Touch guards for earthed cabinets must be ordered separately EDF adapter must be ordered separately, if required* Centre support rails must be ordered separately, if required*

* For a more detailed description of the extension options for floor-standing cabinets, see page 4/30

*1The allowed heating for switchgear assemblies above 630 A rated current must be evidenced by the process according to section 10.10.4.2. The required values of the power loss capacity are specified in the tables on page 6/45. Above 630 A rated current the process according to 10.10.4.3 (IEC 60890) must be applied.
For the power loss transfer rates, see table on page 4/47

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 Floor-standing cabinets / cabinet depth 225 / 275 / 350 mm \perp



TG312G

Scope of delivery

- External mounting brackets
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with CombiLine modules on WR mounting frame and mounting plates

Accessories must be ordered separately

- Flanges
- Plinth
- Touch guard for the extension with CombiLine modules
- EDF adapter, centre support rails and touch guard for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame

Height		Width		External dimensions*2	Floor-standing cabinets with door IP55			Floor-standing cabinets without door IP30*1		
GU	OH	PW	SU		Order details		Price	Order details		Price
				H x W in mm	Type	Order code		Type	Order code	
TwinLine-G, cabinet depth 225 mm \perp										
12	8	1	144	1850 x 300	TG112G	2CPX010030R9999		TG112GB	2CPX010251R9999	
		2	288	1850 x 550	TG212G	2CPX010031R9999		TG212GB	2CPX010252R9999	
		3	432	1850 x 800	TG312G	2CPX010032R9999		TG312GB	2CPX010253R9999	
		4	576	1850 x 1050	TG412G	2CPX010033R9999		TG412GB	2CPX010254R9999	
		5	720	1850 x 1300	TG512G	2CPX010034R9999		TG512GB	2CPX010255R9999	
TwinLine-L, cabinet depth 275 mm \perp										
12	8	1	144	1850 x 300	TL112G	2CPX010100R9999		TL112GB	2CPX010321R9999	
		2	288	1850 x 550	TL212G	2CPX010101R9999		TL212GB	2CPX010322R9999	
		3	432	1850 x 800	TL312G	2CPX010102R9999		TL312GB	2CPX010323R9999	
		4	576	1850 x 1050	TL412G	2CPX010103R9999		TL412GB	2CPX010324R9999	
		5	720	1850 x 1300	TL512G	2CPX010104R9999		TL512GB	2CPX010325R9999	
TwinLine-W, cabinet depth 350 mm \perp										
12	8	1	144	1850 x 300	TW112G	2CPX010165R9999		TW112GB	2CPX010391R9999	
		2	288	1850 x 550	TW212G	2CPX010166R9999		TW212GB	2CPX010392R9999	
		3	432	1850 x 800	TW312G	2CPX010167R9999		TW312GB	2CPX010393R9999	
		4	576	1850 x 1050	TW412G	2CPX010168R9999		TW412GB	2CPX010394R9999	
		5	720	1850 x 1300	TW512G	2CPX010169R9999		TW512GB	2CPX010395R9999	
		6	864	1850 x 1550	TW612G	2CPX010170R9999		TW612GB	2CPX010396R9999	

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*2 External dimensions without prepunches

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 Floor-standing cabinets / cabinet depth 225 / 275 / 350 mm






TG312S

Scope of delivery

- External mounting brackets
- Touch guard
- Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional
- Holders for an extension with CombiLine modules on WR mounting frame

Accessories must be ordered separately

- Flanges
- Plinth
- EDF adapter and centre support rails for an extension with distribution board panels, combination sets or CombiLine modules on EDF mounting frame

Height		Width		SU	External dimensions*2 H x W in mm	Floor-standing cabinets with door IP55		Floor-standing cabinets without door IP30*1	
GU	OH	PW	Order details			Price	Order details	Price	
						Type	Order code	Type	Order code
TwinLine-G, cabinet depth 225 mm 									
12	8	1	144	1850 x 300	TG112S	2CPX010065R9999		TG112SB	2CPX010286R9999
		2	288	1850 x 550	TG212S	2CPX010066R9999		TG212SB	2CPX010287R9999
		3	432	1850 x 800	TG312S	2CPX010067R9999		TG312SB	2CPX010288R9999
		4	576	1850 x 1050	TG412S	2CPX010068R9999		TG412SB	2CPX010289R9999
		5	720	1850 x 1300	TG512S	2CPX010069R9999		TG512SB	2CPX010290R9999
TwinLine-L, cabinet depth 275 mm 									
12	8	1	144	1850 x 300	TL112S	2CPX010135R9999		TL112SB	2CPX010356R9999
		2	288	1850 x 550	TL212S	2CPX010136R9999		TL212SB	2CPX010357R9999
		3	432	1850 x 800	TL312S	2CPX010137R9999		TL312SB	2CPX010358R9999
		4	576	1850 x 1050	TL412S	2CPX010138R9999		TL412SB	2CPX010359R9999
		5	720	1850 x 1300	TL512S	2CPX010139R9999		TL512SB	2CPX010360R9999
TwinLine-W, cabinet depth 350 mm 									
12	8	1	144	1850 x 300	TW112S	2CPX010196R9999		TW112SB	2CPX010427R9999
		2	288	1850 x 550	TW212S	2CPX010197R9999		TW212SB	2CPX010428R9999
		3	432	1850 x 800	TW312S	2CPX010198R9999		TW312SB	2CPX010429R9999
		4	576	1850 x 1050	TW412S	2CPX010199R9999		TW412SB	2CPX010430R9999
		5	720	1850 x 1300	TW512S	2CPX010200R9999		TW512SB	2CPX010431R9999
		6	864	1850 x 1550	TW612S	2CPX010201R9999		TW612SB	2CPX010432R9999

*1 For an extension as meter distribution board with distribution board panels, combination sets or CombiLine modules

*2 External dimensions without prepunches

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 Flange IP55



TZ101



TZ102



TZ103



TZ110



TZ111



TZ112



TZ104



TZ105



TZ107



TZ106

Article	Pieces	Order details		Price
		Type	Order code	
Membrane flange	1	TZ101	2CPX010450R9999	
Material: plastic	10	TZ101P10	2CPX010451R9999	
For cable sections 2 x 6 - 32.5 mm, 2 x 6 - 25 mm, 4 x 6 - 19 mm, 10 x 6 - 15 mm, 2 x 6 - 12 mm, 31 x 6 - 11 mm, 1 x 6 - 7 mm	100	TZ101P100	2CPX010826R9999	

Flanges for M screw fittings

Material: plastic

1 x M63 / M50, 2 x M32 / M20, 5 x M25, 5 x M20	1	TZ102	2CPX010452R9999	
	10	TZ102P10	2CPX010453R9999	
4 x M20 / M25, 18 x M20	1	TZ103	2CPX010454R9999	
	10	TZ103P10	2CPX010455R9999	

Flanges with cable sleeves

Material: plastic

Flanges with 8 cable sleeves For cable sections 8 x 13 up to 34 mm	1	TZ104	2CPX010456R9999	
Flanges with 11 cable sleeves For cable sections 1 x 14 up to 54 mm, 3 x 13 up to 34 mm, 3 x 13 up to 26,5 mm, 4 x 5 up to 21 mm	1	TZ105	2CPX010457R9999	
Flange with 1 cable sleeve For cable sections 1 x 14 up to 68 mm	1	TZ110	2CPX010850R9999	
Flange with 2 cable sleeves For cable sections 2 x 14 up to 68 mm	1	TZ111	2CPX010851R9999	
Flange with 3 cable sleeves For cable sections 3 x 14 up to 54 mm	1	TZ112	2CPX010852R9999	

Closing flanges

Material: plastic

	1	TZ107	2CPX010460R9999	
	10	TZ107P10	2CPX010461R9999	
Material: sheet steel	1	TZ106	2CPX010458R9999	
For earthed cabinets	10	TZ106P10	2CPX010459R9999	

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55

Plinth



TZW305

Article	Depth	Width		Pieces	Order details		Price
	mm	PW	mm		Type	Order code	
Plinth, height 50 mm, Colour RAL 9005							
For TwinLine-G	225	1	300	1	TZG105	2CPX010571R9999	
	225	2	550	1	TZG205	2CPX010573R9999	
	225	3	800	1	TZG305	2CPX010575R9999	
	225	4	1050	1	TZG405	2CPX010577R9999	
	225	5	1300	1	TZG505	2CPX010579R9999	
For TwinLine-L	275	1	300	1	TZL105	2CPX010581R9999	
	275	2	550	1	TZL205	2CPX010583R9999	
	275	3	800	1	TZL305	2CPX010585R9999	
	275	4	1050	1	TZL405	2CPX010587R9999	
	275	5	1300	1	TZL505	2CPX010589R9999	
For TwinLine-W	350	1	300	1	TZW105	2CPX010661R9999	
	350	2	550	1	TZW205	2CPX010663R9999	
	350	3	800	1	TZW305	2CPX010665R9999	
	350	4	1050	1	TZW405	2CPX010667R9999	
	350	5	1300	1	TZW505	2CPX010669R9999	
	350	6	1550	1	TZW605	2CPX010671R9999	



TZW310

Plinth, height 100 mm, Colour RAL 9005							
For TwinLine-G Lateral knock-outs 1 x M32/M50 or 80 x 80 mm	225	1	300	1	TZG110	2CPX010572R9999	
	225	2	550	1	TZG210	2CPX010574R9999	
	225	3	800	1	TZG310	2CPX010576R9999	
	225	4	1050	1	TZG410	2CPX010578R9999	
	225	5	1300	1	TZG510	2CPX010580R9999	
For TwinLine-L* Lateral knock-outs 1 x M32/M50 or 80 x 80 mm	275	1	300	1	TZL110	2CPX010582R9999	
	275	2	550	1	TZL210	2CPX010584R9999	
	275	3	800	1	TZL310	2CPX010586R9999	
	275	4	1050	1	TZL410	2CPX010588R9999	
	275	5	1300	1	TZL510	2CPX010590R9999	
For TwinLine-W* Lateral knock-outs 2 x M32/M50 or 2 x 80 x 80 mm	350	1	300	1	TZW110	2CPX010662R9999	
	350	2	550	1	TZW210	2CPX010664R9999	
	350	3	800	1	TZW310	2CPX010666R9999	
	350	4	1050	1	TZW410	2CPX010668R9999	
	350	5	1300	1	TZW510	2CPX010670R9999	
	350	6	1550	1	TZW610	2CPX010672R9999	



TZ627P2

Plinth mounting brackets				2	TZ627P2	2CPX010853R9999	
For external plinth assembly on the cabinet							
For 50 mm and 100 mm plinths height							



TZ323

Cable fastening rail For plinth, height 100 mm	1	250	1	TZ321	2CPX010473R9999	
	2	500	1	TZ322	2CPX010474R9999	
	3	750	1	TZ323	2CPX010475R9999	
	4	1000	1	TZ324	2CPX010476R9999	
	5	1250	1	TZ325	2CPX010477R9999	
	6	1500	1	TZ326	2CPX010478R9999	



ZK143

Clamp							
For cable fastening rail							
From 22 - 28 mm				1	ZK143	2CPX060005R9999	
From 40 - 46 mm				1	ZK144	2CPX060006R9999	
From 64 - 70 mm				1	ZK145	2CPX060007R9999	

* From 4-panel cabinets on, an additional one is included in the scope of delivery

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55

Lock replacement parts



Article	Pieces	Order details		Price
		Type	Order code	
Latch plates for operating pins				
For operating pin 3 mm (standard)* and 5 mm (similar to RAL 9005)	1	TZ507	2CPX010491R9999	
For triangular and square operating pin and for Daimler Benz insert	1	TZ508	2CPX010492R9999	
Operating pins				
Double-bit, 3 mm*	1	ZH130	2CPX060490R9999	
Double bit 5 mm	1	ZH131	2CPX060491R9999	
Triangular 7 mm	1	ZH132	2CPX060492R9999	
Triangular 8 mm	1	ZH133	2CPX060493R9999	
Square 6 mm	1	ZH134	2CPX060494R9999	
Square 7 mm	1	ZH135	2CPX060495R9999	
Square 8 mm	1	ZH136	2CPX060496R9999	
Daimler-Benz	1	ZH137	2CPX060497R9999	
Latch handle				
With latch plate and lock	1	TZ503	2CPX010487R9999	
With latch plate, without lock	1	TZ504	2CPX010488R9999	
T-handle				
With latch plate and lock	1	TZ505	2CPX010489R9999	
With latch plate, without lock	1	TZ506	2CPX010490R9999	
Swivel handle For semi-cylinder 40 mm (30/10) with lead sealable cap	1	TZ510	2CPX010494R9999	
Dummy insert Instead of a semi-cylinder for the swivel handle TZ510	1	ZH142	2CPX060502R9999	

*Accessory included in the scope of delivery

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 Lock replacement parts



ZH91



ZH160

ZH157



ZH162

ZH165



TZ206



TZ511



TZ501



TZ502

Article	Pieces	Order details		Price
		Type	Order code	
Universal key	1	ZH91	2CPX066091R9999	
Double bit 3 mm/5 mm				
Triangular 8 mm, square 6 mm/8 mm				
Double bit 3 mm*	1	ZH160	2CPX060660R9999	
Double bit 5 mm	1	ZH161	2CPX060661R9999	
Triangular 7 mm	1	ZH157	2CPX060657R9999	
Triangular 8 mm	1	ZH158	2CPX060658R9999	
Square 6 mm	1	ZH162	2CPX060662R9999	
Square 7 mm	1	ZH163	2CPX060663R9999	
Square 8 mm	1	ZH164	2CPX060664R9999	
Daimler-Benz	1	ZH165	2CPX060665R9999	
Espagnolette closure				
4 GU = 600 mm with lock part*	1	TZ204	2CPX010462R9999	
5 GU = 750 mm with lock part*	1	TZ205	2CPX010463R9999	
6 GU = 900 mm with lock part*	1	TZ206	2CPX010464R9999	
7 GU = 1050 mm with lock part*	1	TZ207	2CPX010465R9999	
8 GU = 1200 mm with lock part*	1	TZ208	2CPX010466R9999	
9 GU = 1350 mm with lock part*	1	TZ209	2CPX010467R9999	
12 GU = 1800 mm with lock part*	1	TZ212	2CPX010468R9999	
Espagnolette guide*	1	TZ511	2CPX010495R9999	
Shoe* For espagnolette closure	1	TZ501	2CPX010485R9999	
Rubber seal* For double-wing door	1	TZ502	2CPX010486R9999	

*Accessory included in the scope of delivery

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 General accessories



TZ601



TZ604



TZ605



TZ606

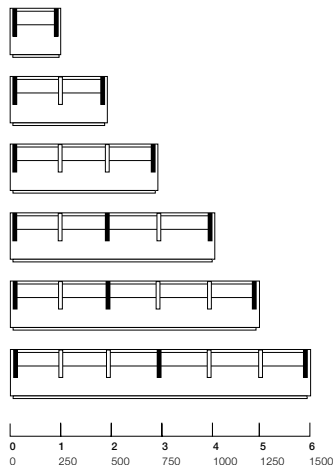
Article	Pieces	Unmounted			Installed to the cabinet*		
		Type	Order code	Price	Type	Order code	Price
Mounting rails*1							
For mounting frame holder							
For TwinLine-G	1	TZ601	2CPX010779R9999		TZ601A	2CPX010787R9999	
	10	TZ601P10	2CPX010814R9999				
	100	TZ601P100	2CPX010815R9999				
For TwinLine-L	1	TZ602	2CPX010780R9999		TZ602A	2CPX010788R9999	
	10	TZ602P10	2CPX010816R9999				
	100	TZ602P100	2CPX010817R9999				
For TwinLine-W	1	TZ603	2CPX010781R9999		TZ603A	2CPX010789R9999	
	10	TZ603P10	2CPX010818R9999				
	100	TZ603P100	2CPX010819R9999				
Mounting frame holder centre*1							
For an extension with WR and EDF mounting frame or to connect mounting plates in series (please order ZT 606 EDF adapters separately)	1	TZ604	2CPX010782R9999		TZ604A	2CPX010790R9999	
	10	TZ604P10	2CPX010820R9999				
	100	TZ604P100	2CPX010821R9999				
Mounting frame holder*1							
left or right For an extension with WR and EDF mounting frame or with mounting plates or centre support rails (please order ZT 606 EDF adapters separately)	1	TZ605	2CPX010783R9999		TZ605A	2CPX010791R9999	
	10	TZ605P10	2CPX010822R9999				
	100	TZ605P100	2CPX010823R9999				
EDF adapter*1							
for mounting frame holder For an extension with EDF mounting frame	1	TZ606	2CPX010784R9999		TZ606A	2CPX010792R9999	
	10	TZ606P10	2CPX010824R9999				
	100	TZ606P100	2CPX010825R9999				

* Only in combination with factory-assembled meter and distribution board panels, combination sets or CombiLine modules

*1 Required as accessory depending on the type of assembly

Position of the mounting rails with mounting frame holder

Top view



Factory-assembled

Mounting rails with mounting frame holder on left and right, and from 4-panel cabinets on, one additional

Upgradeable

Depending on the configuration. additional mounting rails, mounting frame holders and EDF-adapters will be required

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55

General accessories



TZ313



TZ413



ZW125P4



TZ615P4



TZ609



TZ608



TZ607

Article	Pieces	Unmounted			Installed to the cabinet*		
		Type	Order code	Price	Type	Order code	Price
Cable fastening rails							
For the assembly in the cabinet, for TwinLine-L and TwinLine-W							
Panel width 1 = 250 mm	1	TZ311	2CPX010469R9999		TZ311A	2CPX010808R9999	
Panel width 2 = 500 mm	1	TZ312	2CPX010470R9999		TZ312A	2CPX010809R9999	
Panel width 3 = 750 mm	1	TZ313	2CPX010471R9999		TZ313A	2CPX010810R9999	
Panel width 4 = 1000 mm	1	TZ314	2CPX010472R9999		TZ314A	2CPX010811R9999	
Panel width 5 = 1250 mm	1	TZ315	2CPX010785R9999		TZ315A	2CPX010812R9999	
Panel width 6 = 1500 mm	1	TZ316	2CPX010786R9999		TZ316A	2CPX010813R9999	

Centre support rails							
For fastening in the floor-standing cabinet two additional mounting frame holders TZ605 and two mounting rails (depending on the cabinet depth TZ601, TZ602 or TZ603) required for fastening							
Article	Pieces	Type	Order code	Price	Type	Order code	Price
Panel width 1 = 250 mm	1	TZ411	2CPX010479R9999		TZ411A	2CPX010802R9999	
Panel width 2 = 500 mm	1	TZ412	2CPX010480R9999		TZ412A	2CPX010803R9999	
Panel width 3 = 750 mm	1	TZ413	2CPX010481R9999		TZ413A	2CPX010804R9999	
Panel width 4 = 1000 mm	1	TZ414	2CPX010482R9999		TZ414A	2CPX010805R9999	
Panel width 5 = 1250 mm	1	TZ415	2CPX010483R9999		TZ415A	2CPX010806R9999	
Panel width 6 = 1500 mm	1	TZ416	2CPX010484R9999		TZ416A	2CPX010807R9999	

* Only in combination with factory-assembled meter and distribution board panels, combination sets or CombiLine modules

Article	Pieces	Order details		
		Type	Order code	Price
External mounting brackets* For mounting cabinets on the wall	4	ZW125P4	2CPX062461R9999	
Transport lugs	4	TZ615P4	2CPX010510R9999	

Protective frame IP55 to combine cabinets in series				
Article	Pieces	Type	Order code	Price
Required for double insulated cabinets	1	TZ609	2CPX010504R9999	
Required for earthed cabinets	1	TZ626	2CPX010778R9999	

Connection set IP55 for cabinet to cabinet connections For connecting wall-mounting cabinets side by side or stacked, order one TZ608 Order two TZ608 for floor-standing cabinets	1	TZ608	2CPX010503R9999	
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Door hinge: 180 degree*	1	TZ607	2CPX010502R9999	
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*Included in the scope of delivery

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 General accessories



ZL8



TZ617P10



TZ628P10



ZA6



ZA5



ZA123



ZA18



ZA116

Article	Pieces	Order details		Price
		Type	Order code	
Door earthing set 10 mm ²	1	ZL8	2CPX038001R9999	
Locking plug*	10	TZ617P10	2CPX010512R9999	
Locking plug* For door hinge knockouts	10	TZ628P10		
Document holder DIN A4 Self-adhesive with transparent sleeve	1	ZA6	2CPX038227R9999	
	10	ZA6P10	2CPX062380R9999	
Self-adhesive with transparent sleeve and reinforced back	10	ZA61P10	2CPX062375R9999	
Document holder DIN A4 Self-adhesive	1	ZA13	2CPX038233R9999	
	10	ZA13P10	2CPX062381R9999	
Document holder DIN A5 Self-adhesive	1	ZA5	2CPX038228R9999	
	10	ZA5P10	2CPX062382R9999	
Document holder support plate				
For document holder ZA13, to screw on to the door strengthening profiles	1	ZA123	2CPX038471R9999	
For document holder ZA5, to screw on to the door strengthening profiles	1	ZA125	2CPX038472R9999	
Spray paint can Colour RAL 7005, 150 ml	1	ZA18	2CPX038237R9999	
Colour RAL 7035, 150 ml	1	ZA16	2CPX038235R9999	
Touch-up applicator Colour RAL 7035, 12 ml	1	ZA116	2CPX039042R9999	

*Included in the scope of delivery

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 Accessories Meter applications



TZ614



TZ610



TZ616



TZ618



TZ620



TZ622



TZ623

Article	Pieces	Unmounted			Installed to the cabinet*		
		Type	Order code	Price	Type	Order code	Price
Cover rail*¹							
For the installation of meter panels to cover the fastening points of the centre support rail in the double insulated floor-standing cabinet							
For TwinLine-G	1	TZ612	2CPX010507R9999		TZ612A	2CPX010796R9999	
For TwinLine-L	1	TZ613	2CPX010508R9999		TZ613A	2CPX010797R9999	
For TwinLine-W	1	TZ614	2CPX010509R9999		TZ614A	2CPX010798R9999	
Internal cladding* ¹ For meter panels, depth = 225 - 350 mm Additional profile for meter panels with 150 mm cable connection area on top, in the double insulated cabinet	1	TZ610	2CPX010505R9999		TZ610A	2CPX010795R9999	
Mounting set For the installation of meter panels, in floor standing cabinets, order one additional TZ616 per panel width (250 mm)	1	TZ616	2CPX010511R9999		TZ616A	2CPX010799R9999	
Touch guard for earthed cabinets							
For single meter panels	1	TZ618	2CPX010673R9999		TZ618A	2CPX010800R9999	
For double meter panels	1	TZ619	2CPX010674R9999		TZ619A	2CPX010801R9999	
Cabinet to cabinet connector							
5-pole, for Cu 12 x 5 mm	1	TZ620	2CPX010793R9999		-	-	
5-pole, for Cu 2 x 12 x 5 mm	1	TZ621	2CPX010794R9999		-	-	
Glending box made of sheet steel: IP55. RAL7035 For TwinLine meter cabinet, bottom connection For cables of not more than 120 mm ² For spreading the feeder cables With cable fastening rail H x W x D: 500 x 300 x 225 mm	1	TZ622	2CPX010448R9999		-	-	
Glending box made of sheet steel: IP55. RAL7035 For TwinLine meter cabinets, lateral connection For cables of not more than 120 mm ² For spreading the feeder cables With cable fastening rail H x W x D: 500 x 300 x 225 mm Busbar system Cu 12 x 5 mm, 5 pole with 1 connector to the busbar system of the meter panel	1	TZ623	2CPX010449R9999		-	-	

> For more information on incoming enclosures, see section Meter cabinets

* Only in combination with factory-assembled meter and distribution board panels, combination sets or CombiLine modules

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 Sheet steel doors with 180 degree door hinge



TZB306

Height		Width		Remark	Order details		Price
GU	OH	PW			Type	Order code	
4	0	1			TZB104	2CPX010528R9999	
		2			TZB204	2CPX010535R9999	
		3			TZB304	2CPX010542R9999	
		4*	Door left	TZB204L	2CPX010549R9999		
			Door right	TZB204R	2CPX010550R9999		
		5*	Door left	TZB304L	2CPX010563R9999		
			Door right	TZB204R	2CPX010550R9999		
		5	1	1			TZB105
2					TZB205	2CPX010536R9999	
3					TZB305	2CPX010543R9999	
4*	Door left			TZB205L	2CPX010551R9999		
	Door right			TZB205R	2CPX010552R9999		
5*	Door left			TZB305L	2CPX010564R9999		
	Door right			TZB205R	2CPX010552R9999		
6	2			1			TZB106
		2			TZB206	2CPX010537R9999	
		3			TZB306	2CPX010544R9999	
		4*	Door left	TZB206L	2CPX010553R9999		
			Door right	TZB206R	2CPX010554R9999		
		5*	Door left	TZB306L	2CPX010565R9999		
			Door right	TZB206R	2CPX010554R9999		
		7	3	1			TZB107
2					TZB207	2CPX010538R9999	
3					TZB307	2CPX010545R9999	
4*	Door left			TZB207L	2CPX010555R9999		
	Door right			TZB207R	2CPX010556R9999		
5*	Door left			TZB307L	2CPX010566R9999		
	Door right			TZB207R	2CPX010556R9999		
8	4			1			TZB108
		2			TZB208	2CPX010539R9999	
		3			TZB308	2CPX010546R9999	
		4*	Door left	TZB208L	2CPX010557R9999		
			Door right	TZB208R	2CPX010558R9999		
		5*	Door left	TZB308L	2CPX010567R9999		
			Door right	TZB208R	2CPX010558R9999		
		9	5	1			TZB109
2					TZB209	2CPX010540R9999	
3					TZB309	2CPX010547R9999	
4*	Door left			TZB209L	2CPX010559R9999		
	Door right			TZB209R	2CPX010560R9999		
5*	Door left			TZB309L	2CPX010568R9999		
	Door right			TZB209R	2CPX010560R9999		
12	8			1			TZB112
		2			TZB212	2CPX010541R9999	
		3			TZB312	2CPX010548R9999	
		4*	Door left	TZB212L	2CPX010561R9999		
			Door right	TZB212R	2CPX010562R9999		
		5*	Door left	TZB312L	2CPX010569R9999		
			Door right	TZB212R	2CPX010562R9999		
		6*	Door left	TZB312L	2CPX010569R9999		
			Door right	TZB312R	2CPX010570R9999		

*4 or more panels wide: double-wing doors

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 Transparent doors with 180 degree door hinge



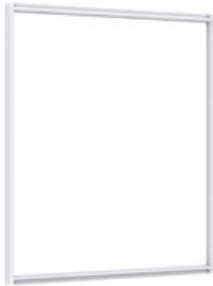
TZT206

Height		Width		Order details		
GU	OH	PW	Remark	Type	Order code	Price
4	0	2		TZT204	2CPX010860R9999	
		3		TZT304	2CPX010867R9999	
		4*	Door left	TZT204L	2CPX010874R9999	
			Door right	TZT204R	2CPX010875R9999	
		5*	Door left	TZT304L	2CPX010888R9999	
			Door right	TZT204R	2CPX010875R9999	
5	1	2		TZT205	2CPX010861R9999	
		3		TZT305	2CPX010868R9999	
		4*	Door left	TZT205L	2CPX010876R9999	
			Door right	TZT205R	2CPX010877R9999	
		5*	Door left	TZT305L	2CPX010889R9999	
			Door right	TZT205R	2CPX010877R9999	
6	2	2		TZT206	2CPX010862R9999	
		3		TZT306	2CPX010869R9999	
		4*	Door left	TZT206L	2CPX010878R9999	
			Door right	TZT206R	2CPX010879R9999	
		5*	Door left	TZT306L	2CPX010890R9999	
			Door right	TZT206R	2CPX010879R9999	
7	3	2		TZT207	2CPX010863R9999	
		3		TZT307	2CPX010870R9999	
		4*	Door left	TZT207L	2CPX010880R9999	
			Door right	TZT207R	2CPX010881R9999	
		5*	Door left	TZT307L	2CPX010891R9999	
			Door right	TZT207R	2CPX010881R9999	
8	4	2		TZT208	2CPX010864R9999	
		3		TZT308	2CPX010871R9999	
		4*	Door left	TZT208L	2CPX010882R9999	
			Door right	TZT208R	2CPX010883R9999	
		5*	Door left	TZT308L	2CPX010892R9999	
			Door right	TZT208R	2CPX010883R9999	
9	5	2		TZT209	2CPX010865R9999	
		3		TZT309	2CPX010872R9999	
		4*	Door left	TZT209L	2CPX010884R9999	
			Door right	TZT209R	2CPX010885R9999	
		5*	Door left	TZT309L	2CPX010893R9999	
			Door right	TZT209R	2CPX010885R9999	
12	8	2		TZT212	2CPX010866R9999	
		3		TZT312	2CPX010873R9999	
		4*	Door left	TZT212L	2CPX010886R9999	
			Door right	TZT212R	2CPX010887R9999	
		5*	Door left	TZT312L	2CPX010894R9999	
			Door right	TZT212R	2CPX010887R9999	
6*	Door left	TZT312L	2CPX010894R9999			
	Door right	TZT312R	2CPX010895R9999			

*4 or more panels wide: double-wing doors

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 Touch guard



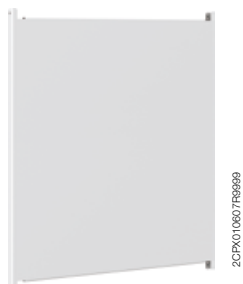
TZP306

Height		Width	Touch guard Unmounted			Touch guard Installed to the cabinet*		
GU	OH		Order details		Price	Order details		Price
		PW	Type	Order code		Type	Order code	
4	0	1	TZP104	2CPX010625R9999		TZP104A	2CPX010708R9999	
		2	TZP204	2CPX010632R9999		TZP204A	2CPX010715R9999	
		3	TZP304	2CPX010639R9999		TZP304A	2CPX010722R9999	
		4	TZP404	2CPX010646R9999		TZP404A	2CPX010729R9999	
		5	TZP504	2CPX010653R9999		TZP504A	2CPX010736R9999	
5	1	1	TZP105	2CPX010626R9999		TZP105A	2CPX010709R9999	
		2	TZP205	2CPX010633R9999		TZP205A	2CPX010716R9999	
		3	TZP305	2CPX010640R9999		TZP305A	2CPX010723R9999	
		4	TZP405	2CPX010647R9999		TZP405A	2CPX010730R9999	
		5	TZP505	2CPX010654R9999		TZP505A	2CPX010737R9999	
6	2	1	TZP106	2CPX010627R9999		TZP106A	2CPX010710R9999	
		2	TZP206	2CPX010634R9999		TZP206A	2CPX010717R9999	
		3	TZP306	2CPX010641R9999		TZP306A	2CPX010724R9999	
		4	TZP406	2CPX010648R9999		TZP406A	2CPX010731R9999	
		5	TZP506	2CPX010655R9999		TZP506A	2CPX010738R9999	
7	3	1	TZP107	2CPX010628R9999		TZP107A	2CPX010711R9999	
		2	TZP207	2CPX010635R9999		TZP207A	2CPX010718R9999	
		3	TZP307	2CPX010642R9999		TZP307A	2CPX010725R9999	
		4	TZP407	2CPX010649R9999		TZP407A	2CPX010732R9999	
		5	TZP507	2CPX010656R9999		TZP507A	2CPX010739R9999	
8	4	1	TZP108	2CPX010629R9999		TZP108A	2CPX010712R9999	
		2	TZP208	2CPX010636R9999		TZP208A	2CPX010719R9999	
		3	TZP308	2CPX010643R9999		TZP308A	2CPX010726R9999	
		4	TZP408	2CPX010650R9999		TZP408A	2CPX010733R9999	
		5	TZP508	2CPX010657R9999		TZP508A	2CPX010740R9999	
9	5	1	TZP109	2CPX010630R9999		TZP109A	2CPX010713R9999	
		2	TZP209	2CPX010637R9999		TZP209A	2CPX010720R9999	
		3	TZP309	2CPX010644R9999		TZP309A	2CPX010727R9999	
		4	TZP409	2CPX010651R9999		TZP409A	2CPX010734R9999	
		5	TZP509	2CPX010658R9999		TZP509A	2CPX010741R9999	
12	8	1	TZP112	2CPX010631R9999		TZP112A	2CPX010714R9999	
		2	TZP212	2CPX010638R9999		TZP212A	2CPX010721R9999	
		3	TZP312	2CPX010645R9999		TZP312A	2CPX010728R9999	
		4	TZP412	2CPX010652R9999		TZP412A	2CPX010735R9999	
		5	TZP512	2CPX010659R9999		TZP512A	2CPX010742R9999	
		6	TZP612	2CPX010660R9999		TZP612A	2CPX010743R9999	

* Only in combination with factory-assembled meter and distribution board panels, combination sets or CombiLine modules
 > The touch guard in the double insulated cabinet is included in the scope of delivery

Enclosures

TwinLine N 55 wall-mounting and floor-standing cabinets IP55 Mounting plates, sheet steel, 2 mm, galvanised



TZM306

Height		Width	Mounting plate unmounted			Mounting plate installed to the cabinet*1		
GU	OH		Order details		Price	Order details		Price
		PW	Type	Order code		Type	Order code	
4	0	1	TZM104	2CPX010591R9999		TZM104A	2CPX010744R9999	
		2	TZM204	2CPX010598R9999		TZM204A	2CPX010750R9999	
		3	TZM304	2CPX010605R9999		TZM304A	2CPX010756R9999	
		4	TZM404	2CPX010612R9999		TZM404A	2CPX010762R9999	
		5	TZM504	2CPX010619R9999		TZM504A	2CPX010768R9999	
5	1	1	TZM105	2CPX010592R9999		TZM105A	2CPX010745R9999	
		2	TZM205	2CPX010599R9999		TZM205A	2CPX010751R9999	
		3	TZM305	2CPX010606R9999		TZM305A	2CPX010757R9999	
		4	TZM405	2CPX010613R9999		TZM405A	2CPX010763R9999	
		5	TZM505	2CPX010620R9999		TZM505A	2CPX010769R9999	
6	2	1	TZM106	2CPX010593R9999		TZM106A	2CPX010746R9999	
		2	TZM206	2CPX010600R9999		TZM206A	2CPX010752R9999	
		3	TZM306	2CPX010607R9999		TZM306A	2CPX010758R9999	
		4	TZM406	2CPX010614R9999		TZM406A	2CPX010764R9999	
		5	TZM506	2CPX010621R9999		TZM506A	2CPX010770R9999	
7	3	1	TZM107	2CPX010594R9999		TZM107A	2CPX010747R9999	
		2	TZM207	2CPX010601R9999		TZM207A	2CPX010753R9999	
		3	TZM307	2CPX010608R9999		TZM307A	2CPX010759R9999	
		4	TZM407	2CPX010615R9999		TZM407A	2CPX010765R9999	
		5	TZM507	2CPX010622R9999		TZM507A	2CPX010771R9999	
8	4	1	TZM108	2CPX010595R9999		TZM108A	2CPX010748R9999	
		2	TZM208	2CPX010602R9999		TZM208A	2CPX010754R9999	
		3	TZM308	2CPX010609R9999		TZM308A	2CPX010760R9999	
		4	TZM408	2CPX010616R9999		TZM408A	2CPX010766R9999	
		5	TZM508	2CPX010623R9999		TZM508A	2CPX010772R9999	
9	5	1	TZM109	2CPX010596R9999		TZM109A	2CPX010749R9999	
		2	TZM209	2CPX010603R9999		TZM209A	2CPX010755R9999	
		3	TZM309	2CPX010610R9999		TZM309A	2CPX010761R9999	
		4	TZM409	2CPX010617R9999		TZM409A	2CPX010767R9999	
		5	TZM509	2CPX010624R9999		TZM509A	2CPX010773R9999	
12	8	1	RM18	2CPX045909R9999		RM18A	2CPX010774R9999	
		2	RM28	2CPX045910R9999		RM28A	2CPX010775R9999	
		3	RM38	2CPX045911R9999		RM38A	2CPX010776R9999	
		4	RM48	2CPX045912R9999		RM48A	2CPX010777R9999	
		5*	RM28	2CPX045910R9999		RM28A	2CPX010775R9999	
			RM38	2CPX045911R9999		RM38A	2CPX010776R9999	
		6*	RM38	2CPX045911R9999		RM38A	2CPX010776R9999	
RM38	2CPX045911R9999			RM38A	2CPX010776R9999			

*In floor-standing cabinets from 5-panel width two separate mounting plates
*1 Factory assembled mounting plate only in combination with empty cabinet

Enclosures

Modular distribution panel system CombiLine N

Technical specifications

Standards/regulations			
DIN EN 61439-1/-2/-3 (VDE 0660-600-1/-2/-3)*1	■		
DIN 43880 (DIN rail mounting devices)	■		
Degree of protection	IPXXB, IP2XC with protection rating II		
Electrical characteristics			
Rated impulse withstand voltage (U_{imp})	6 kV		
Overvoltage category	III		
Pollution degree	3		
Protection class	I / II		
Rated current of the switchgear assembly (I_{ra})	up to 850 A		
	Rail mounting devices acc. to DIN 43880	Fuse-Switch disconnectors	Busbars-systems
Rated peak withstand current (I_{pk}) 0.1 sec.	25 kA	up to 52 kA	up to 74 kA
Rated short-time withstand current (I_{sw}) 1.0 sec.	12.5 kA	up to 25 kA	up to 35 kA
	-	Values on request	see chapter busbar systems
Rated frequency (f)	50 Hz		
Rated insulation voltage (U_i)	690 V AC		
Rated operational voltage (U_e)	400 V AC		

*1 For the allowed heat-up values of switchgear assemblies of the TwinLine wall-mounting and floor-standing cabinet systems, please refer to the information provided in the TwinLine chapter

Enclosures

Modular distribution panel system CombiLine N

DIN rail mounting devices 125 mm / 150 mm spacing



MG303



MG433

- Extension with DIN rails 35 x 15 mm
- From 3 panels on the DIN rails are equipped with an additional stabilization rail
- For DIN rail mounting devices according to DIN 43880
- The mounting frame must be ordered separately

Height		Width					From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	SU	EDF*1	WR*2	mm	Type	Order code	Price	Type	Order code	Price
125 mm DIN rail spacing													
1	150	1	250	12	■	■	120	MBG101	2CPX041650R9999		MG101	2CPX041200R9999	
		2	500	24	■	■	120	MBG201	2CPX041651R9999		MG201	2CPX041201R9999	
		3	750	36	■	■	120	MBG301	2CPX041652R9999		MG301	2CPX041202R9999	
2	300	1	250	24	■	■	120	MBG102	2CPX041653R9999		MG102	2CPX041203R9999	
		2	500	48	■	■	120	MBG202	2CPX041655R9999		MG202	2CPX041205R9999	
		3	750	72	■	■	120	MBG302	2CPX041657R9999		MG302	2CPX041207R9999	
3	450	1	250	36	■	■	120	MBG103	2CPX041659R9999		MG103	2CPX041209R9999	
		2	500	72	■	■	120	MBG203	2CPX041661R9999		MG203	2CPX041211R9999	
		3	750	108	■	■	120	MBG303	2CPX041663R9999		MG303	2CPX041213R9999	
4	600	1	250	48	■	■	120	MBG104	2CPX041665R9999		MG104	2CPX041215R9999	
		2	500	96	■	■	120	MBG204	2CPX041667R9999		MG204	2CPX041217R9999	
		3	750	144	■	■	120	MBG304	2CPX041669R9999		MG304	2CPX041219R9999	
5	750	1	250	60	■	■	120	MBG105	2CPX041671R9999		MG105	2CPX041221R9999	
		2	500	120	■	■	120	MBG205	2CPX041673R9999		MG205	2CPX041223R9999	
		3	750	180	■	■	120	MBG305	2CPX041675R9999		MG305	2CPX041225R9999	
150 mm DIN rail spacing													
1	150	1	250	12	■	■	120	MBG101	2CPX041650R9999		MG101	2CPX041200R9999	
		2	500	24	■	■	120	MBG201	2CPX041651R9999		MG201	2CPX041201R9999	
		3	750	36	■	■	120	MBG301	2CPX041652R9999		MG301	2CPX041202R9999	
2	300	1	250	24	■	■	120	MBG412	2CPX041654R9999		MG412	2CPX041204R9999	
		2	500	48	■	■	120	MBG422	2CPX041656R9999		MG422	2CPX041206R9999	
		3	750	72	■	■	120	MBG432	2CPX041658R9999		MG432	2CPX041208R9999	
3	450	1	250	36	■	■	120	MBG413	2CPX041660R9999		MG413	2CPX041210R9999	
		2	500	72	■	■	120	MBG423	2CPX041662R9999		MG423	2CPX041212R9999	
		3	750	108	■	■	120	MBG433	2CPX041664R9999		MG433	2CPX041214R9999	
4	600	1	250	48	■	■	120	MBG414	2CPX041666R9999		MG414	2CPX041216R9999	
		2	500	96	■	■	120	MBG424	2CPX041668R9999		MG424	2CPX041218R9999	
		3	750	144	■	■	120	MBG434	2CPX041670R9999		MG434	2CPX041220R9999	
5	750	1	250	60	■	■	120	MBG415	2CPX041672R9999		MG415	2CPX041222R9999	
		2	500	120	■	■	120	MBG425	2CPX041674R9999		MG425	2CPX041224R9999	
		3	750	180	■	■	120	MBG435	2CPX041676R9999		MG435	2CPX041226R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

Modular distribution panel system CombiLine N

Touch guard



MB218

- Module as touch guard or for an extension with system parts
- The mounting frame must be ordered separately

Height		Width		SU	EDF*1	WR*2	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm					Order details	Price	Order details	Price		
GU	mm	PW	mm	SU	EDF*1	WR*2	mm	Type	Order code	Price	Type	Order code	Price
1	150	1	250	12	■	■	120	MBB116	2CPX041722R9999		MB116	2CPX041257R9999	
		2	500	24	■	■	120	MBB216	2CPX041723R9999		MB216	2CPX041258R9999	
		3	750	36	■	■	120	MBB316	2CPX041724R9999		MB316	2CPX041259R9999	
2	300	1	250	24	■	■	120	MBB117	2CPX041725R9999		MB117	2CPX041260R9999	
		2	500	48	■	■	120	MBB217	2CPX041726R9999		MB217	2CPX041261R9999	
		3	750	72	■	■	120	MBB317	2CPX041727R9999		MB317	2CPX041262R9999	
3	450	1	250	36	■	■	120	MBB118	2CPX041728R9999		MB118	2CPX041263R9999	
		2	500	72	■	■	120	MBB218	2CPX041729R9999		MB218	2CPX041264R9999	
		3	750	108	■	■	120	MBB318	2CPX041730R9999		MB318	2CPX041265R9999	
4	600	1	250	48	■	■	120	MBB119	2CPX041731R9999		MB119	2CPX041266R9999	
		2	500	96	■	■	120	MBB219	2CPX041732R9999		MB219	2CPX041267R9999	
		3	750	144	■	■	120	MBB319	2CPX041733R9999		MB319	2CPX041268R9999	
5	750	1	250	60	■	■	120	MBB120	2CPX041734R9999		MB120	2CPX041269R9999	
		2	500	120	■	■	120	MBB220	2CPX041735R9999		MB220	2CPX041270R9999	
		3	750	180	■	■	120	MBB320	2CPX041736R9999		MB320	2CPX041271R9999	



MB200

- Touch guard cover including the cover holder
- The covers are outside the 150 mm grid spacing
- To have a grid unit, always 2 pieces must be inserted per modular system panel
- The mounting frame must be ordered separately

Height		Width		SU	EDF*1	WR*2	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm					Order details	Price	Order details	Price		
GU	mm	PW	mm	SU	EDF*1	WR*2	mm	Type	Order code	Price	Type	Order code	Price
0.5	75	1	250	6	■	■	120	MBB100	2CPX041427R9999		MB100	2CPX041422R9999	
		2	500	12	■	■	120	MBB200	2CPX041428R9999		MB200	2CPX041423R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

Modular distribution panel system CombiLine N

Mounting plates



MM213

- Mounting plates made of sheet steel, 2 mm
- Mounting plates steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Usable depth from 103 up to 158 mm
- Usable width for devices: 1 panel wide: 188 mm, 2 panel wide 438 mm, 3 panel wide: 688 mm
- The mounting frame must be ordered separately

Height		Width			SU	EDF*1	WR*2	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	mm					Type	Ord. no.	Price	Type	Ord. no.	Price
1	150	1	250	12	■	■	200	MBM111	2CPX041707R9999		MM111	2CPX041242R9999		
		2	500	24	■	■	200	MBM211	2CPX041708R9999		MM211	2CPX041243R9999		
		3	750	36	■	■	200	MBM311	2CPX041709R9999		MM311	2CPX041244R9999		
2	300	1	250	24	■	■	200	MBM112	2CPX041710R9999		MM112	2CPX041245R9999		
		2	500	48	■	■	200	MBM212	2CPX041711R9999		MM212	2CPX041246R9999		
		3	750	72	■	■	200	MBM312	2CPX041712R9999		MM312	2CPX041247R9999		
3	450	1	250	36	■	■	200	MBM113	2CPX041713R9999		MM113	2CPX041248R9999		
		2	500	72	■	■	200	MBM213	2CPX041714R9999		MM213	2CPX041249R9999		
		3	750	108	■	■	200	MBM313	2CPX041715R9999		MM313	2CPX041250R9999		
4	600	1	250	48	■	■	200	MBM114	2CPX041716R9999		MM114	2CPX041251R9999		
		2	500	96	■	■	200	MBM214	2CPX041717R9999		MM214	2CPX041252R9999		
		3	750	144	■	■	200	MBM314	2CPX041718R9999		MM314	2CPX041253R9999		
5	750	1	250	60	■	■	200	MBM115	2CPX041719R9999		MM115	2CPX041254R9999		
		2	500	120	■	■	200	MBM215	2CPX041720R9999		MM215	2CPX041255R9999		
		3	750	180	■	■	200	MBM315	2CPX041721R9999		MM315	2CPX041256R9999		



MM113K

- Mounting plates made of sheet steel, 2 mm
- Mounting plate solid assembly
- Usable depth from 82 mm
- Usable width for devices: 1 panel wide, 200 mm
- The mounting frame must be ordered separately

Height		Width			SU	EDF*1	WR*2	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	mm					Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	24	■	■	120	MBM112K	2CPX041640R9999		MM112K	2CPX041117R9999		
3	450	1	250	36	■	■	120	MBM113K	2CPX041641R9999		MM113K	2CPX041118R9999		
4	600	1	250	48	■	■	120	MBM114K	2CPX041642R9999		MM114K	2CPX041119R9999		

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N Horizontal terminals



MK208

- With horizontal DIN rails 35 x 15 mm
- DIN rail steplessly depth-adjustable
- Usable depth with ZW39P2 - from 68 mm to 115 mm
- Usable depth with ZW59P2 - from 90 mm to 145 mm
- Usable width for terminals: 1 panel wide: 188 mm, 2 panel wide 438 mm, 3 panel wide: 688 mm
- Stepped supply formats
- 150 mm DIN rail spacing (adjustment possible, if required)
- For earthed and double insulated assemblies $\frac{1}{2}$
- The mounting frame must be ordered separately
- **Note:** The upper DIN rail is mounted with at least one pair of short deep-mounting brackets (ZW39P2)
- **Module design:**
 - 1 GU: 1 X ZW39P2
 - 2 GU: 1 X ZW39P2, 1 X ZW59P2
 - 3 GU: 2 X ZW39P2, 1 X ZW59P2
 - 4 GU: 2 X ZW39P2, 2 X ZW59P2
 - 5 GU: 2 X ZW39P2, 3 X ZW59P2

Height		Width		SU	EDF*1	WR*2	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm					Type	Ord. no.	Price	Type	Ord. no.	Price
1	150	1	250	12	■	■	200	MBK106	2CPX041677R9999		MK106	2CPX041227R9999	
		2	500	24	■	■	200	MBK206	2CPX041679R9999		MK206	2CPX041228R9999	
		3	750	36	■	■	200	MBK306	2CPX041681R9999		MK306	2CPX041229R9999	
2	300	1	250	24	■	■	200	MBK107	2CPX041683R9999		MK107	2CPX041230R9999	
		2	500	48	■	■	200	MBK207	2CPX041685R9999		MK207	2CPX041231R9999	
		3	750	72	■	■	200	MBK307	2CPX041687R9999		MK307	2CPX041232R9999	
3	450	1	250	36	■	■	200	MBK108	2CPX041689R9999		MK108	2CPX041233R9999	
		2	500	72	■	■	200	MBK208	2CPX041691R9999		MK208	2CPX041234R9999	
		3	750	108	■	■	200	MBK308	2CPX041693R9999		MK308	2CPX041235R9999	
4	600	1	250	48	■	■	200	MBK109	2CPX041695R9999		MK109	2CPX041236R9999	
		2	500	96	■	■	200	MBK209	2CPX041697R9999		MK209	2CPX041237R9999	
		3	750	144	■	■	200	MBK309	2CPX041699R9999		MK309	2CPX041238R9999	
5	750	1	250	60	■	■	200	MBK110	2CPX041701R9999		MK110	2CPX041239R9999	
		2	500	120	■	■	200	MBK210	2CPX041703R9999		MK210	2CPX041240R9999	
		3	750	180	■	■	200	MBK310	2CPX041705R9999		MK310	2CPX041241R9999	

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

Modular distribution panel system CombiLine N

Horizontal / vertical terminals



MK108K

- With horizontal DIN rails 35 x 7.5 mm
- DIN rails fixed using ZK90P2 insulator
- Usable depth from 51 mm
- Usable width for terminals: 1 panel wide: 214 mm, 2 panel wide: 464 mm
- Stepped supply formats
- 150 mm DIN rail spacing (adjustment possible, if required)
- For double insulated installations \square
- The mounting frame must be ordered separately

Height		Width		SU	EDF* ¹	WR* ²	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm					Type	Ord. no.	Price	Type	Ord. no.	Price
1	150	1	250	12	■	■	120	MBK106K	2CPX041632R9999		MK106K	2CPX041112R9999	
		2	500	24	■	■	120	MBK206K	2CPX041633R9999		MK206K	2CPX041113R9999	
2	300	1	250	24	■	■	120	MBK107K	2CPX041634R9999		MK107K	2CPX041114R9999	
		2	500	48	■	■	120	MBK207K	2CPX041635R9999		MK207K	2CPX041115R9999	
3	450	1	250	36	■	■	120	MBK108K	2CPX041636R9999		MK108K	2CPX041116R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame



MK213

- With vertical DIN rails 35 x 15 mm
- DIN rails completely steplessly depth-adjustable using deep-mounting bracket ZW39P2
- Usable depth from 66 up to 113 mm
- Usable height for terminals: 2 GU 244 mm, 3 GU 438 mm, 4 GU 591 mm
- For earthed and double insulated assemblies $\perp \square$
- The mounting frame must be ordered separately

Height		Width		SU	EDF* ¹	WR* ²	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm					Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	24	■	■	200	MBK112	2CPX041837R9999		MK112	2CPX041127R9999	
		2	500	48	■	■	200	MBK212	2CPX041838R9999		MK212	2CPX041128R9999	
		3	750	72	■	■	200	MBK312	2CPX041839R9999		MK312	2CPX041129R9999	
3	450	1	250	36	■	■	200	MBK113	2CPX041840R9999		MK113	2CPX041130R9999	
		2	500	72	■	■	200	MBK213	2CPX041841R9999		MK213	2CPX041131R9999	
		3	750	108	■	■	200	MBK313	2CPX041842R9999		MK313	2CPX041132R9999	
4	600	1	250	48	■	■	200	MBK114	2CPX041843R9999		MK114	2CPX041133R9999	
		2	500	96	■	■	200	MBK214	2CPX041844R9999		MK214	2CPX041134R9999	
		3	750	144	■	■	200	MBK314	2CPX041845R9999		MK314	2CPX041135R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N Busbar system 40 mm, horizontal, M(B)S...24



MS324

- Busbar centre spacing 40 mm
- For not more than 5-pole busbars, see below
- With busbar holder type ZB5
- With end cover type ZX172
- 3 panels and more: additional centre support
- Rated current (I_n) max. 360 A
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections
- The mounting frame must be ordered separately

Height		Width		SU	EDF* ¹	WR* ²	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm					mm	Type	Ord. no.	Price	Type	Ord. no.
2	300	1	250	24	■	■	200* ¹	MBS124	2CPX041737R9999		MS124	2CPX041272R9999	
		2	500	48	■	■	200* ¹	MBS224	2CPX041738R9999		MS224	2CPX041273R9999	
		3	750	72	■	■	225* ¹	MBS324	2CPX041739R9999		MS324	2CPX041274R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX2015

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet
- Not more than 5 Cu busbars are required per module

Cu bus-bar	I_n	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
12 x 5	250	1	181	1	ZX2001	2CPX042200R9999		ZXM2001	2CPX042300R9999	
		2	431	1	ZX2002	2CPX042201R9999		ZXM2002	2CPX042301R9999	
		3	681	1	ZX2003	2CPX042202R9999		ZXM2003	2CPX042302R9999	
		4	931	1	ZX2004	2CPX042203R9999		ZXM2004	2CPX042303R9999	
		5	1181	1	ZX2005	2CPX042204R9999		ZXM2005	2CPX042304R9999	
		6	1431	1	ZX2006	2CPX042792R9999		ZXM2006	2CPX042814R9999	
12 x 10	360	1	181	1	ZX2007	2CPX042205R9999		ZXM2007	2CPX042305R9999	
		2	431	1	ZX2008	2CPX042206R9999		ZXM2008	2CPX042306R9999	
		3	681	1	ZX2009	2CPX042207R9999		ZXM2009	2CPX042307R9999	
		4	931	1	ZX2010	2CPX042208R9999		ZXM2010	2CPX042308R9999	
		5	1181	1	ZX2011	2CPX042209R9999		ZXM2011	2CPX042309R9999	
		6	1431	1	ZX2012	2CPX042793R9999		ZXM2012	2CPX042815R9999	
20 x 5	320	1	181	1	ZX2013	2CPX042210R9999		ZXM2013	2CPX042310R9999	
		2	431	1	ZX2014	2CPX042211R9999		ZXM2014	2CPX042311R9999	
		3	681	1	ZX2015	2CPX042212R9999		ZXM2015	2CPX042312R9999	
		4	931	1	ZX2016	2CPX042213R9999		ZXM2016	2CPX042313R9999	
		5	1181	1	ZX2017	2CPX042214R9999		ZXM2017	2CPX042314R9999	
		6	1431	1	ZX2018	2CPX042794R9999		ZXM2018	2CPX042816R9999	

Enclosures

Modular distribution panel system CombiLine N Busbar system 60 mm, horizontal, M(B)S...27



MS327

- Busbar centre spacing 60 mm
- For 3-pole busbars, see below
- With busbar holder type ZX151
- 3 panels and more: additional centre support
- Rated current (I_n) max. 630 A
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connection
- The mounting frame must be ordered separately

Height		Width			SU	EDF*1	WR*2	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	mm					Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	24	■	■	215*1	MBS127	2CPX041740R9999		MS127	2CPX041275R9999		
		2	500	48	■	■	215*1	MBS227	2CPX041741R9999		MS227	2CPX041276R9999		
		3	750	72	■	■	225*1	MBS327	2CPX041742R9999		MS327	2CPX041277R9999		

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



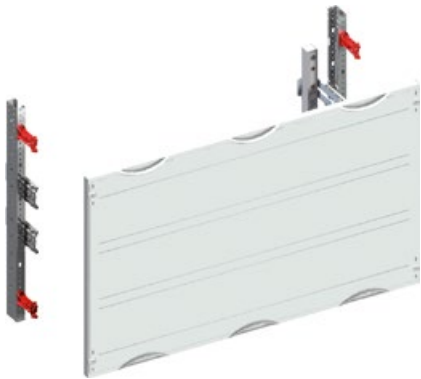
ZX2027

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet
- 3 Cu busbars are required per module

Cu bus-bar		Width			Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
mm	I_n one	PW	mm	Type		Ord. no.	Price	Type	Ord. no.	Price	
30 x 5	440	1	184	1	ZX2019	2CPX042215R9999		ZXM2019	2CPX042315R9999		
		2	434	1	ZX2020	2CPX042216R9999		ZXM2020	2CPX042316R9999		
		3	684	1	ZX2021	2CPX042217R9999		ZXM2021	2CPX042317R9999		
		4	934	1	ZX2022	2CPX042218R9999		ZXM2022	2CPX042318R9999		
		5	1184	1	ZX2023	2CPX042219R9999		ZXM2023	2CPX042319R9999		
		6	1434	1	ZX2024	2CPX042795R9999		ZXM2024	2CPX042817R9999		
30 x 10	630	1	184	1	ZX2025	2CPX042220R9999		ZXM2025	2CPX042320R9999		
		2	434	1	ZX2026	2CPX042221R9999		ZXM2026	2CPX042321R9999		
		3	684	1	ZX2027	2CPX042222R9999		ZXM2027	2CPX042322R9999		
		4	934	1	ZX2028	2CPX042223R9999		ZXM2028	2CPX042323R9999		
		5	1184	1	ZX2029	2CPX042224R9999		ZXM2029	2CPX042324R9999		
		6	1434	1	ZX2030	2CPX042796R9999		ZXM2030	2CPX042818R9999		

Enclosures

Modular distribution panel system CombiLine N Busbar system 100 mm, horizontal, M(B)S...31

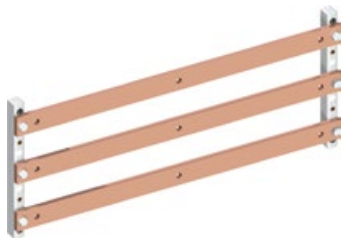


- Busbar centre spacing 100 mm
- For 3-pole busbars, see below
- With busbar holder type ZX520
- Rated current (I_n) max. 850 A
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

MS331

Height		Width		SU	EDF*1	WR*2	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm					Type	Ord. no.	Price	Type	Ord. no.	Price
3	450	1	250	36		■	275	MBS131	2CPX041743R9999		MS131	2CPX041278R9999	
		2	500	72		■	275	MBS231	2CPX041744R9999		MS231	2CPX041279R9999	
		3	750	108		■	275	MBS331	2CPX041745R9999		MS331	2CPX041280R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX2033

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- 3 Cu busbars are required per module

Cu bus-bar		Width	Pieces	Flatpack Unmounted			Mounted Installed in the cabinet			
mm	I_n one			PW	mm	Type	Ord. no.	Price	Type	Ord. no.
40 x 10	850	1	184	1	ZX2031	2CPX042225R9999		ZXM2031	2CPX042325R9999	
		2	434	1	ZX2032	2CPX042226R9999		ZXM2032	2CPX042326R9999	
		3	684	1	ZX2033	2CPX042227R9999		ZXM2033	2CPX042327R9999	
		4	934	1	ZX2034	2CPX042228R9999		ZXM2034	2CPX042328R9999	
		5	1184	1	ZX2035	2CPX042229R9999		ZXM2035	2CPX042329R9999	
		6	1434	1	ZX2036	2CPX042797R9999		ZXM2036	2CPX042819R9999	

Enclosures

Modular distribution panel system CombiLine N Busbar system, vertical, 45° inclined, M(B)S...28



MS128

- With 4 pole busbars 30 x 5 mm, drillings with M6 thread and connection with M8 captive nuts for the access
- With busbar holder type ZX518
- Rated current (I_n) max. 440 A
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		SU	EDF* ¹	WR* ²	From cabinet depth mm	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm					Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	24	250	24	■	■	200	MBS128	2CPX041648R9999		MS128	2CPX041123R9999	
3	450	72	500	72	■	■	200	MBS228	2CPX041649R9999		MS228	2CPX041124R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N N/PE busbar system, horizontal, M(B)N...69



MN369

- For 2-pole busbars, see below
- With busbar holder type ZX518
- 3 panels and more: additional centre support
- Rated current (I_n) max. 320 A
- The mounting frame must be ordered separately

Height		Width		SU	EDF* ¹	WR* ²	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm				mm	Type	Ord. no.	Price	Type	Ord. no.	Price
1	150	1	250	12	■	■	200	MBN169	2CPX041424R9999		MN169	2CPX041419R9999	
		2	500	24	■	■	200	MBN269	2CPX041425R9999		MN269	2CPX041420R9999	
		3	750	36	■	■	200	MBN369	2CPX041426R9999		MN369	2CPX041421R9999	

*¹Module for EDF mounting frame | *²Module for WR mounting frame



ZX2066

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet
- 2 Cu busbars are required per module

Cu bus-bar		Width	Pieces	Flatpack Unmounted			Mounted Installed in the cabinet			
mm	I_n one			PW	mm	Type	Ord. no.	Price	Type	Ord. no.
12 x 5	250	1	204	1	ZX2046	2CPX042538R9999		ZXM2046	2CPX042458R9999	
		2	454	1	ZX2047	2CPX042539R9999		ZXM2047	2CPX042459R9999	
		3	704	1	ZX2048	2CPX042540R9999		ZXM2048	2CPX042460R9999	
		4	954	1	ZX2049	2CPX042541R9999		ZXM2049	2CPX042461R9999	
		5	1204	1	ZX2050	2CPX042542R9999		ZXM2050	2CPX042462R9999	
		6	1454	1	ZX2051	2CPX042798R9999		ZXM2051	2CPX042820R9999	
20 x 5	320	1	204	1	ZX2064	2CPX042553R9999		ZXM2064	2CPX042473R9999	
		2	454	1	ZX2065	2CPX042554R9999		ZXM2065	2CPX042474R9999	
		3	704	1	ZX2066	2CPX042555R9999		ZXM2066	2CPX042475R9999	
		4	954	1	ZX2067	2CPX042556R9999		ZXM2067	2CPX042476R9999	
		5	1204	1	ZX2068	2CPX042557R9999		ZXM2068	2CPX042477R9999	
		6	1454	1	ZX2069	2CPX042799R9999		ZXM2069	2CPX042821R9999	

Enclosures

Modular distribution panel system CombiLine N N/PE busbar system and terminals, M(B)N...74+75



MN374

MN375

- For 2-pole busbars, see below
- With busbar holder type ZX518
- With end cover type ZX519
- 3 panels and more: additional centre support
- DIN rail steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Usable depth from 90 up to 145 mm
- Usable width for terminals: 1 panel wide: 138 mm, 2 panel wide 438 mm, 3 panel wide: 688 mm
- Rated current (I_n) max. 440 A
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections
- The mounting frame must be ordered separately

With one additional DIN rail for terminals

Height		Width			SU	EDF*1	WR*2	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	mm					Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	24	■	■	200	MBN174	2CPX041746R9999		MN174	2CPX041281R9999		
		2	500	48	■	■	200	MBN274	2CPX041748R9999		MN274	2CPX041282R9999		
		3	750	72	■	■	200	MBN374	2CPX041750R9999		MN374	2CPX041283R9999		

With two additional DIN rails for terminals

3	450	1	250	36	■	■	200	MBN175	2CPX041752R9999		MN175	2CPX041284R9999	
		2	500	72	■	■	200	MBN275	2CPX041754R9999		MN275	2CPX041285R9999	
		3	750	108	■	■	200	MBN375	2CPX041756R9999		MN375	2CPX041286R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX1015

Cu bus-bar		Width	Pieces	Flatpack Unmounted			Mounted Installed in the cabinet			
mm	I_n one			PW	mm	Type	Ord. no.	Price	Type	Ord. no.
12 x 5	250	1	246	1	ZX1001	2CPX041870R9999		ZXM1001	2CPX041480R9999	
		2	496	1	ZX1002	2CPX041871R9999		ZXM1002	2CPX041481R9999	
		3	746	1	ZX1003	2CPX041872R9999		ZXM1003	2CPX041482R9999	
		4	996	1	ZX1004	2CPX041873R9999		ZXM1004	2CPX041483R9999	
		5	1246	1	ZX1005	2CPX041874R9999		ZXM1005	2CPX041484R9999	
		6	1496	1	ZX1006	2CPX042800R9999		ZXM1006	2CPX042822R9999	
20 x 5	320	1	246	1	ZX1013	2CPX041882R9999		ZXM1013	2CPX041492R9999	
		2	496	1	ZX1014	2CPX041883R9999		ZXM1014	2CPX041493R9999	
		3	746	1	ZX1015	2CPX041884R9999		ZXM1015	2CPX041494R9999	
		4	996	1	ZX1016	2CPX041885R9999		ZXM1016	2CPX041495R9999	
		5	1246	1	ZX1017	2CPX041886R9999		ZXM1017	2CPX041496R9999	
		6	1496	1	ZX1018	2CPX042801R9999		ZXM1018	2CPX042823R9999	
30 x 5	440	1	246	1	ZX1019	2CPX041888R9999		ZXM1019	2CPX041498R9999	
		2	496	1	ZX1020	2CPX041889R9999		ZXM1020	2CPX041499R9999	
		3	746	1	ZX1021	2CPX041890R9999		ZXM1021	2CPX041500R9999	
		4	996	1	ZX1022	2CPX041891R9999		ZXM1022	2CPX041501R9999	
		5	1246	1	ZX1023	2CPX041892R9999		ZXM1023	2CPX041502R9999	
		6	1496	1	ZX1024	2CPX042802R9999		ZXM1024	2CPX042824R9999	

Enclosures

Modular distribution panel system CombiLine N N/PE busbar system and terminals, M(B)N...62+63



MN362

MN363

- For 2-pole busbars, see below
- With busbar holder type ZX149
- 3 panels and more: additional centre support
- DIN rail steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Usable depth from 90 up to 145 mm
- Usable width for terminals: 1 panel wide: 188 mm, 2 panel wide 438 mm, 3 panel wide: 688 mm
- Rated current (I_n) max. 630 A
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

With one additional DIN rail for terminals

Height GU	mm	Width				SU	EDF*1	WR*2	From cabinet depth mm	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm							Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	24		■	275	MBN162	2CPX041758R9999		MN162	2CPX041287R9999			
		2	500	48		■	275	MBN262	2CPX041760R9999		MN262	2CPX041288R9999			
		3	750	72		■	275	MBN362	2CPX041762R9999		MN362	2CPX041289R9999			

With two additional DIN rails for terminals

3	450	1	250	36		■	275	MBN163	2CPX041764R9999		MN163	2CPX041290R9999	
		2	500	72		■	275	MBN263	2CPX041766R9999		MN263	2CPX041291R9999	
		3	750	108		■	275	MBN363	2CPX041768R9999		MN363	2CPX041292R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX2084

Cu bus-bar mm	I_n one	Width			Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm			Type	Ord. no.	Price	Type	Ord. no.	Price
30 x 10	630	1	201		1	ZX2082	2CPX042568R9999		ZXM2082	2CPX042488R9999	
		2	451		1	ZX2083	2CPX042569R9999		ZXM2083	2CPX042489R9999	
		3	701		1	ZX2084	2CPX042570R9999		ZXM2084	2CPX042490R9999	
		4	951		1	ZX2085	2CPX042571R9999		ZXM2085	2CPX042491R9999	
		5	1201		1	ZX2086	2CPX042572R9999		ZXM2086	2CPX042492R9999	
		6	1451		1	ZX2087	2CPX042803R9999		ZXM2087	2CPX042825R9999	

Enclosures

Modular distribution panel system CombiLine N Busbar system 60 mm, horizontal, M(B)R...02(B)



MR302B



MR302

- Busbar centre spacing 60 mm
- For 3-pole busbars
- 32 mm spacing between Cu busbar and cover
- With busbar holder type ZX146
- With end cover ZX172
- 3 panels and more: additional centre support
- Rated current (I_n) max. 440 A
- Mounting fuse socket, see below
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Equipped module for devices with 3-pole vertical mounting fuse sockets, I_n up to max. 250 A

Height		Width			D02 elements	SU	EDF*1	WR*2	Minimum cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	Type						Ord. no.	Price	Type	Ord. no.	Price	
2	300	1	250	5*4	24	■	■	120	-	-	-	MR102B	2CPX041409R9999		
		2	500	14*4	48	■	■	200	-	-	-	MR202B	2CPX041410R9999		
		3	750	24*4	72		■	225	-	-	-	MR302B	2CPX041411R9999		

Unequipped module for devices for the vertical assembly of mounting fuse sockets, D0 fuse switch disconnectors or size 00 fuse switch disconnectors*3, I_n up to max. 440 A

Height		Width			Usable Width	SU	EDF*1	WR*2	Minimum cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	mm						Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	1 x 215*4	24	■	■	120*3	MBR102	2CPX041825R9999		MR102	2CPX041406R9999		
		2	500	1 x 465*4	48	■	■	200*3	MBR202	2CPX041826R9999		MR202	2CPX041407R9999		
		3	750	2 x 320*4	72		■	225*3	MBR302	2CPX041827R9999		MR302	2CPX041408R9999		

*1 Module for EDF mounting frame | *2 Module for WR mounting frame | *3 The cabinet depth depends on the depth dimensions of the devices (matching of the cabinet views with the dimension information of the devices) For TwinLine cabinet to cabinet connections the changed usable width must be taken into account



ZE60

ZE61



ZE62



ZA4P10

Article	Pieces	Order details		Price
		Type	Order code	
Neozed mounting fuse socket E18, width 26 mm	1	ZE60	2CPX061045R9999	
For push-in guard rings, 3-pole, with covers and labelling strips, with E18 thread, fuses max. 63 A	10	ZE60P10	2CPX062400R9999	
Diazed mounting fuse socket E27, width 42 mm	1	ZE61	2CPX061046R9999	
For push-in guard rings, 3-pole, with covers and labelling strips, with E27 thread, fuses max. 25 A	10	ZE61P10	2CPX062401R9999	
Diazed mounting fuse socket E33, width 56 mm	1	ZE62	2CPX061047R9999	
For push-in guard rings, 3-pole, with covers and labelling strips, with E33 thread, fuses max. 63 A	10	ZE62P10	2CPX062402R9999	
Trim covers instead of mounting fuse sockets Colour similar to RAL 7035 to comply with the touch protection IPXXC Usable width from 16 up to 34 mm	10	ZA4P10	2CPX062374R9999	

Enclosures

Modular distribution panel system CombiLine N Busbar system 60 mm, horizontal, M(B)R...02



ZX1015

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- 3 Cu busbars are required per module

Cu bus-bar		Width	Pieces	Flatpack Unmounted			Mounted Installed in the cabinet			
mm	I_n one			PW	Type	Ord. no.	Price	Type	Ord. no.	Price
12 x 5	(100)* 250	1	246	1	ZX1001	2CPX041870R9999		ZXM1001	2CPX041480R9999	
		2	496	1	ZX1002	2CPX041871R9999		ZXM1002	2CPX041481R9999	
		3	746	1	ZX1003	2CPX041872R9999		ZXM1003	2CPX041482R9999	
		4	996	1	ZX1004	2CPX041873R9999		ZXM1004	2CPX041483R9999	
		5	1246	1	ZX1005	2CPX041874R9999		ZXM1005	2CPX041484R9999	
		6	1496	1	ZX1006	2CPX042800R9999		ZXM1006	2CPX042822R9999	
20 x 5	(250)* 320	1	246	1	ZX1013	2CPX041882R9999		ZXM1013	2CPX041492R9999	
		2	496	1	ZX1014	2CPX041883R9999		ZXM1014	2CPX041493R9999	
		3	746	1	ZX1015	2CPX041884R9999		ZXM1015	2CPX041494R9999	
		4	996	1	ZX1016	2CPX041885R9999		ZXM1016	2CPX041495R9999	
		5	1246	1	ZX1017	2CPX041886R9999		ZXM1017	2CPX041496R9999	
		6	1496	1	ZX1018	2CPX042801R9999		ZXM1018	2CPX042823R9999	
30 x 5	440	1	246	1	ZX1019	2CPX041888R9999		ZXM1019	2CPX041498R9999	
		2	496	1	ZX1020	2CPX041889R9999		ZXM1020	2CPX041499R9999	
		3	746	1	ZX1021	2CPX041890R9999		ZXM1021	2CPX041500R9999	
		4	996	1	ZX1022	2CPX041891R9999		ZXM1022	2CPX041501R9999	
		5	1246	1	ZX1023	2CPX041892R9999		ZXM1023	2CPX041502R9999	
		6	1496	1	ZX1024	2CPX042802R9999		ZXM1024	2CPX042824R9999	

*For the assembly with mounting fuse socket

Enclosures

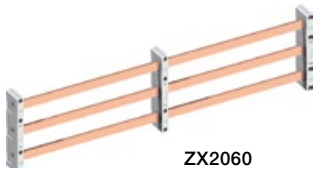
Modular distribution panel system CombiLine N Busbar system 60 mm, horizontal, M(B)R...03



MR303

Height		Width		Usable width		SU	EDF*1	WR*2	Minimum cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	mm	mm					Type	Ord. no.	Price	Type	Ord. no.	Price
3	450	1	250	165	36	■	275*3	MBR103	2CPX041830R9999		MR103	2CPX041414R9999			
		2	500	415	72	■	275*3	MBR203	2CPX041831R9999		MR203	2CPX041415R9999			
		3	750	665	108	■	275*3	MBR303	2CPX041832R9999		MR303	2CPX041416R9999			

*1 Module for EDF mounting frame | *2 Module for WR mounting frame | *3 The cabinet depth depends on the depth dimensions of the devices (matching of the cabinet views with the dimension information of the devices)



ZX2060

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- 3 Cu busbars are required per module

Cu busbar	I _n	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
12 x 5	250	1	195	1	ZX2040	2CPX042533R9999		ZXM2040	2CPX042453R9999	
		2	445	1	ZX2041	2CPX042534R9999		ZXM2041	2CPX042454R9999	
		3	695	1	ZX2042	2CPX042535R9999		ZXM2042	2CPX042455R9999	
		4	945	1	ZX2043	2CPX042536R9999		ZXM2043	2CPX042456R9999	
		5	1195	1	ZX2044	2CPX042537R9999		ZXM2044	2CPX042457R9999	
		6	1445	1	ZX2045	2CPX042804R9999		ZXM2045	2CPX042826R9999	
12 x 10	360	1	195	1	ZX2052	2CPX042543R9999		ZXM2052	2CPX042463R9999	
		2	445	1	ZX2053	2CPX042544R9999		ZXM2053	2CPX042464R9999	
		3	695	1	ZX2054	2CPX042545R9999		ZXM2054	2CPX042465R9999	
		4	945	1	ZX2055	2CPX042546R9999		ZXM2055	2CPX042466R9999	
		5	1195	1	ZX2056	2CPX042547R9999		ZXM2056	2CPX042467R9999	
		6	1445	1	ZX2057	2CPX042805R9999		ZXM2057	2CPX042827R9999	
20 x 5	320	1	195	1	ZX2058	2CPX042548R9999		ZXM2058	2CPX042468R9999	
		2	445	1	ZX2059	2CPX042549R9999		ZXM2059	2CPX042469R9999	
		3	695	1	ZX2060	2CPX042550R9999		ZXM2060	2CPX042470R9999	
		4	945	1	ZX2061	2CPX042551R9999		ZXM2061	2CPX042471R9999	
		5	1195	1	ZX2062	2CPX042552R9999		ZXM2062	2CPX042472R9999	
		6	1445	1	ZX2063	2CPX042806R9999		ZXM2063	2CPX042828R9999	
30 x 5	440	1	195	1	ZX2070	2CPX042558R9999		ZXM2070	2CPX042478R9999	
		2	445	1	ZX2071	2CPX042559R9999		ZXM2071	2CPX042479R9999	
		3	695	1	ZX2072	2CPX042560R9999		ZXM2072	2CPX042480R9999	
		4	945	1	ZX2073	2CPX042561R9999		ZXM2073	2CPX042481R9999	
		5	1195	1	ZX2074	2CPX042562R9999		ZXM2074	2CPX042482R9999	
		6	1445	1	ZX2075	2CPX042807R9999		ZXM2075	2CPX042829R9999	
30 x 10	630	1	195	1	ZX2076	2CPX042563R9999		ZXM2076	2CPX042483R9999	
		2	445	1	ZX2077	2CPX042564R9999		ZXM2077	2CPX042484R9999	
		3	695	1	ZX2078	2CPX042565R9999		ZXM2078	2CPX042485R9999	
		4	945	1	ZX2079	2CPX042566R9999		ZXM2079	2CPX042486R9999	
		5	1195	1	ZX2080	2CPX042567R9999		ZXM2080	2CPX042487R9999	
		6	1445	1	ZX2081	2CPX042808R9999		ZXM2081	2CPX042830R9999	

Enclosures

Modular distribution panel system CombiLine N Busbar system 60 mm, vertical, M(B)R...H



MR102H

- Unequipped for devices for the horizontal installation of mounting fuse sockets, see below
- For 3-pole busbars, see below
- 32 mm spacing between Cu busbar and cover
- With busbar holder type ZX146
- Rated current (I_n) max. 250 A
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		Cut-out height in	SU	EDF*1	WR*2	Minimum cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm						Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	1 x 134	24	■	■	120	MBR102H	2CPX041828R9999		MR102H	2CPX041412R9999	
3	450	1	250	1 x 295	36	■	■	200	MBR103H	2CPX041829R9999		MR103H	2CPX041413R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX2506

- Using continuous busbars, it is possible to combine different module widths within a single cabinet (see information height GU)
- 3 Cu busbars are required per module

Cu busbar	I_n	Height		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		GU	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
12 x 5	100	2	178	1	ZX2500	2CPX042877R9999		ZXM2500	2CPX042867R9999	
		3	328	1	ZX2501	2CPX042878R9999		ZXM2501	2CPX042868R9999	
		4 (2 GU + 2 GU): 478		1	ZX2502	2CPX042879R9999		ZXM2502	2CPX042869R9999	
		5 (2 GU + 3 GU): 628		1	ZX2503	2CPX042880R9999		ZXM2503	2CPX042870R9999	
		6 (3 GU + 3 GU): 778		1	ZX2504	2CPX042881R9999		ZXM2504	2CPX042871R9999	
		20x5	250	2	178	1	ZX2505	2CPX042882R9999		ZXM2505
3	328			1	ZX2506	2CPX042883R9999		ZXM2506	2CPX042873R9999	
4 (2 GU + 2 GU): 478				1	ZX2507	2CPX042884R9999		ZXM2507	2CPX042874R9999	
5 (2 GU + 3 GU): 628				1	ZX2508	2CPX042885R9999		ZXM2508	2CPX042875R9999	
6 (3 GU + 3 GU): 778				1	ZX2509	2CPX042886R9999		ZXM2509	2CPX042876R9999	



ZE60

ZE61



ZE62



ZA4P10

Article	Pieces	Order details		Price
		Type	Order code	
Neozed mounting fuse socket E18, width 26 mm	1	ZE60	2CPX061045R9999	
For push-in guard rings, 3-pole, with covers and labelling strips, with E18 thread, fuses max. 63 A	10	ZE60P10	2CPX062400R9999	
Diazed mounting fuse socket E27, width 42 mm	1	ZE61	2CPX061046R9999	
For push-in guard rings, 3-pole, with covers and labelling strips, with E27 thread, fuses max. 25 A	10	ZE61P10	2CPX062401R9999	
Diazed mounting fuse socket E33, width 56 mm	1	ZE62	2CPX061047R9999	
For push-in guard rings, 3-pole, with covers and labelling strips, with E33 thread, fuses max. 63 A	10	ZE62P10	2CPX062402R9999	
Trim covers instead of mounting fuse sockets Colour similar to RAL 7035 to comply with the touch protection IPXXC	10	ZA4P10	2CPX062374R9999	

Enclosures

Modular distribution panel system CombiLine N

Size 00 fuse switch disconnectors, M(B)T...35+36+37(B)



MT337B

- Equipped with size 00 fuse switch disconnector 160 A, type ZH411, with trim covers
- With busbar system 320 A, 3-pole, M8 connection screws
- Rated current (I_n) max. 320 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- Leading edge device to the cover 37 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MT135B module

Height		Width		With disconnector				From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	Size 00	SU	EDF* ¹	WR* ²		Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	1	24	■	■	200	-	-	-	MT135B	2CPX042451R9999	
		1	250	2	24	■	■	200	-	-	-	MT136B	2CPX041293R9999	
		2	500	4	48	■	■	200	-	-	-	MT236B	2CPX041294R9999	
		3	750	6	72	■	■	200	-	-	-	MT336B	2CPX041295R9999	
4	600	1	250	4	48	■	■	200	-	-	-	MT137B	2CPX041296R9999	
		2	500	8	96	■	■	200	-	-	-	MT237B	2CPX041297R9999	
		3	750	12	144	■	■	200	-	-	-	MT337B	2CPX041298R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MT337

- Unequipped module, prepared for size 00 fuse switch disconnector 160 A, of the following makes: ABB (ZH411, ZH412), without trim cover
- For busbar system 320 A, 3-pole
- Rated current (I_n) max. 320 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MBT135 and MT135 modules

Height		Width		For disconnectors				From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	Size 00	SU	EDF* ¹	WR* ²		Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	1	24	■	■	200	MBT135	2CPX042452R9999		MT135	2CPX042450R9999	
		1	250	2	24	■	■	200	MBT136	2CPX041770R9999		MT136	2CPX041299R9999	
		2	500	4	48	■	■	200	MBT236	2CPX041771R9999		MT236	2CPX041300R9999	
		3	750	6	72	■	■	200	MBT336	2CPX041772R9999		MT336	2CPX041301R9999	
4	600	1	250	4	48	■	■	200	MBT137	2CPX041773R9999		MT137	2CPX041302R9999	
		2	500	8	96	■	■	200	MBT237	2CPX041774R9999		MT237	2CPX041303R9999	
		3	750	12	144	■	■	200	MBT337	2CPX041775R9999		MT337	2CPX041304R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N

Accessories for size 00 fuse switch disconnecter modules



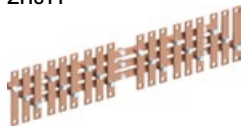
ZH411



ZH412



ZH311



ZH312



ZH427



ZH430



ZX148

Article	To be used with module	Pieces	Order details		Price
			Type	Order code	
Size 00 fuse switch disconnecter					
Rated current (I_n) max. 160 A, without trim cover					
with M8 connection screws	M(B)T135 - M(B)T337	1	ZH411	2CPX062947R9999	
with clip terminals up to 50 mm ²	M(B)T135 - M(B)T337	1	ZH412	2CPX062948R9999	
Busbar system 320 A	M(B)T136	1	ZH214	2CPX060443R9999	
Cu busbars 20 x 5 mm, 3-pole single-level with M8 connection screws	M(B)T236	1	ZH211	2CPX060440R9999	
	M(B)T336	1	ZH311	2CPX060450R9999	
Busbar system 320 A	M(B)T137	1	ZH216	2CPX060445R9999	
Cu busbars 20 x 5 mm, 3-pole two-level with M8 connection screws	M(B)T137	5	ZH216P5	2CPX062418R9999	
	M(B)T237	1	ZH212	2CPX060441R9999	
	M(B)T337	1	ZH312	2CPX060451R9999	
Trim covers					
For fuse switch disconnecters, Colour similar to RAL 7035 to comply with the touch protection IPXXC					
Single trim cover	1 x M(B)T135*	1	ZH425	2CPX062952R9999	
Double trim cover	1 x M(B)T136 * 2 x M(B)T236 * 2 x M(B)T137 * 4 x M(B)T237 *	1	ZH426	2CPX062953R9999	
Triple trim cover	2 x M(B)T336 * 4 x M(B)T337 *	1	ZH427	2CPX062954R9999	
Trim covers, closed					
Instead of fuse switch disconnecter, Colour similar to RAL 7035 to comply with the touch protection IPXXC					
Single trim cover	M(B)T135 - M(B)T337	1	ZH428	2CPX062955R9999	
Double trim cover	M(B)T236 - M(B)T337	1	ZH429	2CPX062956R9999	
Triple trim cover	M(B)T336 - M(B)T337	1	ZH430	2CPX062957R9999	
Insulating plate	M(B)T135 - M(B)T337	1	ZX148	2CPX044018R9999	
For unoccupied busbar ends for size 00 fuse switch disconnecter					

*Number of pieces per fully equipped module

Enclosures

Modular distribution panel system CombiLine N

Size 01 fuse switch disconnectors, M(B)T...42+43



MT343B

- Equipped with size 01 fuse switch disconnector 250 A, type ZH431, with trim covers
- With busbar system 3-pole, M10 connection screws
- Rated current (I_n) max. 440 A, single-level
- Rated current (I_n) max. 630 A, double-level
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- Leading edge device to the cover 24 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		With disconnector				From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	Size 1	SU	EDF* ¹	WR* ²		Type	Ord. no.	Price	Type	Ord. no.	Price
3	450	1	250	1	36	■	■	200	-	-	-	MT142B	2CPX041305R9999	
		2	500	2	72	■	■	200	-	-	-	MT242B	2CPX041306R9999	
		3	750	3	108		■	225	-	-	-	MT342B	2CPX041307R9999	
5	750	1	250	2	60	■	■	200	-	-	-	MT143B	2CPX041308R9999	
		2	500	4	120		■	225	-	-	-	MT243B	2CPX041309R9999	
		3	750	6	180		■	225	-	-	-	MT343B	2CPX041310R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame



MT343

- Unequipped module, prepared for size 01 fuse switch disconnector 250 A, of the following makes: ABB (ZH431), without trim cover
- For busbar system 3-pole
- Rated current (I_n) max. 440 A, single-level
- Rated current (I_n) max. 630 A, double level
- **Important:** When assembling fuse switch disconnectors behind the lock system consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		For disconnectors				From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	Size 1	SU	EDF* ¹	WR* ²		Type	Ord. no.	Price	Type	Ord. no.	Price
3	450	1	250	1	36	■	■	200	MBT142	2CPX041776R9999		MT142	2CPX041311R9999	
		2	500	2	72	■	■	200	MBT242	2CPX041777R9999		MT242	2CPX041312R9999	
		3	750	3	108		■	225	MBT342	2CPX041778R9999		MT342	2CPX041313R9999	
5	750	1	250	2	60	■	■	200	MBT143	2CPX041779R9999		MT143	2CPX041314R9999	
		2	500	4	120		■	225	MBT243	2CPX041780R9999		MT243	2CPX041315R9999	
		3	750	6	180		■	225	MBT343	2CPX041781R9999		MT343	2CPX041316R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N

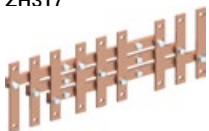
Accessories for size 01 fuse switch disconnecter modules



ZH431



ZH317



ZH318



ZH438



ZH440



ZX128

Article	Application	Pieces	Order details		Price
			Type	Order code	
Size 1 fuse switch disconnecter Rated current (I _n) max. 250 A, without trim cover, with M10 connection screws	M(B)T142 - M(B)T343	1	ZH431	2CPX062958R9999	
Busbar system 440 A Cu busbars 30 x 5 mm, 3-pole single-level with M10 connection screws	M(B)T242	1	ZH217	2CPX060446R9999	
	M(B)T342	1	ZH317	2CPX060456R9999	
Busbar system 630 A Cu busbars 30 x 10 mm, 3-pole double-level with M10 connection screws	M(B)T243	1	ZH218	2CPX060447R9999	
	M(B)T343	1	ZH318	2CPX060457R9999	
Trim cover Single cover for fuse switch disconnecters, Colour similar to RAL 7035 to comply with the touch protection IPXXC	1 x M(B)T142 * 2 x M(B)T242 * 3 x M(B)T342 * 2 x M(B)T143 * 4 x M(B)T243 * 6 x M(B)T343 *	1	ZH438	2CPX062961R9999	
Trim cover, closed Single cover instead of fuse switch disconnecter, Colour similar to RAL 7035, to comply with the touch protection IPXXC	M(B)T142 - M(B)T343	1	ZH440	2CPX062963R9999	
Insulating plate For unoccupied busbar ends for size 1 fuse switch disconnecter	M(B)T142 - M(B)T343	1	ZX128	2CPX039128R9999	

*Number of pieces per fully equipped module

Enclosures

Modular distribution panel system CombiLine N

Size 02 fuse switch disconnectors, M(B)T...44+45



MT345B

- Equipped with size 2 fuse switch disconnector 400 A, type ZH441, with trim covers
- With busbar system 3-pole, M10 connection screws
- Rated current (I_n) max. 440 A, single-level
- Rated current (I_n) max. 630 A, double-level
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- Leading edge device to the cover 43 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		With disconnector				From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet			
GU	mm	PW	mm	2	SU	EDF* ¹	WR* ²		Type	Ord. no.	Price	Type	Ord. no.	Price	
3	450	1	250	1	36	■	■	215	-	-	-	MT144B	2CPX041317R9999		
		2	500	2	72	■	■	215	-	-	-	MT244B	2CPX041318R9999		
		3	750	3	108		■	■	225	-	-	-	MT344B	2CPX041319R9999	
5	750	1	250	2	60	■	■	215	-	-	-	MT145B	2CPX041320R9999		
		2	500	4	120		■	■	225	-	-	-	MT245B	2CPX041321R9999	
		3	750	6	180		■	■	225	-	-	-	MT345B	2CPX041322R9999	

*¹Module for EDF mounting frame | *²Module for WR mounting frame



MT345

- Unequipped module, prepared for size 2 fuse switch disconnector 400 A, of the following makes: ABB (ZH441), without trim cover
- For busbar system 3-pole
- Rated current (I_n) max. 440 A, single-level
- Rated current (I_n) max. 630 A, double-level
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		For disconnectors				From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet			
GU	mm	PW	mm	2	SU	EDF* ¹	WR* ²		Type	Ord. no.	Price	Type	Ord. no.	Price	
3	450	1	250	1	36	■	■	215	MBT144	2CPX041782R9999		MT144	2CPX041323R9999		
		2	500	2	72	■	■	215	MBT244	2CPX041783R9999		MT244	2CPX041324R9999		
		3	750	3	108		■	■	225	MBT344	2CPX041784R9999		MT344	2CPX041325R9999	
5	750	1	250	2	60	■	■	215	MBT145	2CPX041785R9999		MT145	2CPX041326R9999		
		2	500	4	120		■	■	225	MBT245	2CPX041786R9999		MT245	2CPX041327R9999	
		3	750	6	180		■	■	225	MBT345	2CPX041787R9999		MT345	2CPX041328R9999	

*¹Module for EDF mounting frame | *²Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N

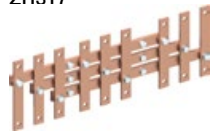
Accessories for size 2 fuse switch disconnecter modules



ZH441



ZH317



ZH318



ZH448



ZH442



ZX129

Article	Application	Pieces	Order details		Price
			Type	Order code	
Size 2 fuse switch disconnecter Rated current (I_n) max. 400 A, without trim cover, with M10 connection screws	M(B)T144 - M(B)T345	1	ZH441	2CPX062964R9999	
Busbar system 440 A Cu busbars 30 x 5 mm, 3-pole single-level with M10 connection screws	M(B)T244	1	ZH217	2CPX060446R9999	
	M(B)T344	1	ZH317	2CPX060456R9999	
Busbar system 630 A Cu busbars 30 x 10 mm, 3-pole double-level with M10 connection screws	M(B)T245	1	ZH218	2CPX060447R9999	
	M(B)T345	1	ZH318	2CPX060457R9999	
Trim covers					
For fuse switch disconnectors, Colour similar to RAL 7035 to comply with the touch protection IPXXC					
Single trim cover	1 x M(B)T144 *	1	ZH447	2CPX039842R9999	
	2 x M(B)T145 *				
Single trim cover	1 x M(B)T344 *	1	ZH448	2CPX062965R9999	
	2 x M(B)T345 *				
Double trim cover	1 x M(B)T244 *	1	ZH449	2CPX062966R9999	
	1 x M(B)T344 *				
	2 x M(B)T245 *				
	2 x M(B)T345 *				
Trim cover, closed Single cover instead of fuse switch disconnecter, Colour similar to RAL 7035, to comply with the touch protection IPXXC	M(B)T144 - M(B)T345	1	ZH442	2CPX062939R9999	
Insulating plate For unoccupied busbar ends for size 2 fuse switch disconnecter	M(B)T144 - M(B)T345	1	ZX129	2CPX039129R9999	

*Number of pieces per fully equipped module

Enclosures

Modular distribution panel system CombiLine N, Busbar system 40 mm for size 00 disconnecter adapter, M(B)T...50(B)



MT350B

- Equipped module with size 00 fuse switch disconnecter 160 A, type ZH413, with trim covers
- Busbar centre spacing 40 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX387
- 3 panels and more: additional centre support
- With connection terminals 70 mm² (ZK83)
- Rated current (I_n) max. 360 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- Leading edge device to the cover 41 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		With disconnecter			From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet			
GU	mm	PW	mm	Size 00	SU	EDF* ¹		WR* ²	Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	2	500	1 x 4	48		■	225	-	-	-	MT250B	2CPX041329R9999	
		3	750	1 x 6	72		■	225	-	-	-	MT350B	2CPX041330R9999	

*¹Module for EDF mounting frame | *²Module for WR mounting frame



MT350

- Unequipped module, prepared for size 00 fuse switch disconnecter 160 A, of the following makes: ABB (ZH413), without trim cover
- Busbar centre spacing 40 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX387
- 3 panels and more: additional centre support
- Rated current (I_n) max. 360 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		For disconnectors			From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet			
GU	mm	PW	mm	Size 00	SU	EDF* ¹		WR* ²	Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	2	500	1 x 4	48		■	225	MBT250	2CPX041788R9999		MT250	2CPX041331R9999	
		3	750	1 x 6	72		■	225	MBT350	2CPX041789R9999		MT350	2CPX041332R9999	

*¹Module for EDF mounting frame | *²Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N, Busbar system 40 mm for size 00 disconnecter adapter, M(B)T...50(B)



ZH413

Article	Application	Pieces	Order details		Price
			Type	Order code	
Size 00 fuse switch disconnecter With adapter for 40 mm busbar system, Rated current (I_n) max. 160 A, without trim cover, with M8 connection screws	M(B)T250 - M(B)T350	1	ZH413	2CPX062949R9999	



ZH427

Trim covers

For fuse switch disconnectors, colour similar to RAL 7035, to comply with the touch protection IPXXC

Single trim cover	M(B)T250 - M(B)T350	1	ZH425	2CPX062952R9999	
Double trim cover	2 x M(B)T250 *	1	ZH426	2CPX062953R9999	
Triple trim cover	2 x M(B)T350 *	1	ZH427	2CPX062954R9999	



ZH430

Trim cover, closed

Instead of fuse switch disconnecter, Colour similar to RAL 7035 to comply with the touch protection IPXXC

Single trim cover	M(B)T250 - M(B)T350	1	ZH428	2CPX062955R9999	
Double trim cover	M(B)T250 - M(B)T350	1	ZH429	2CPX062956R9999	
Triple trim cover	M(B)T350	1	ZH430	2CPX062957R9999	

*Number of pieces per fully equipped module



- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- 3 Cu busbars are required per module

Cu busbar	I_n	Height		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		GU	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
12 x 5	250	2	431	1	ZX2002	2CPX042201R9999		ZXM2002	2CPX042301R9999	
		3	681	1	ZX2003	2CPX042202R9999		ZXM2003	2CPX042302R9999	
		4	931	1	ZX2004	2CPX042203R9999		ZXM2004	2CPX042303R9999	
		5	1181	1	ZX2005	2CPX042204R9999		ZXM2005	2CPX042304R9999	
		6	1431	1	ZX2006	2CPX042792R9999		ZXM2006	2CPX042814R9999	
		12 x 10	360	2	431	1	ZX2008	2CPX042206R9999		ZXM2008
3	681			1	ZX2009	2CPX042207R9999		ZXM2009	2CPX042307R9999	
4	931			1	ZX2010	2CPX042208R9999		ZXM2010	2CPX042308R9999	
5	1181			1	ZX2011	2CPX042209R9999		ZXM2011	2CPX042309R9999	
6	1431			1	ZX2012	2CPX042793R9999		ZXM2012	2CPX042815R9999	

Enclosures

Modular distribution panel system CombiLine N, Busbar system 40 mm for size 1 disconnecter adapter, M(B)T...51(B)



MT351B

- Equipped with size 1 fuse switch disconnecter 250 A, type ZH433, with trim covers
- Busbar centre spacing 40 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX387
- 3 panels and more: additional centre support
- With connection terminals 70 mm² (ZK83)
- Rated current (I_n) max. 360 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- Leading edge device to the cover 45 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		With disconnecter			From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet			
GU	mm	PW	mm	Size 1	SU	EDF* ¹		WR* ²	Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	2	500	2	48		■	225	-	-	-	MT251B	2CPX041333R9999	
		3	750	3	72		■	225	-	-	-	MT351B	2CPX041334R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame



MT351

- Unequipped module, prepared for size 01 fuse switch disconnecter 250 A, of the following makes: ABB (ZH433), without trim cover
- Busbar centre spacing 40 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX387
- 3 panels and more: additional centre support
- Rated current (I_n) max. 360 A
- **Important:** When assembling fuse switch disconnectors behind the lock system, consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		For disconnectors			From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet			
GU	mm	PW	mm	Size 1	SU	EDF* ¹		WR* ²	Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	2	500	2	48		■	225	MBT251	2CPX041790R9999		MT251	2CPX041335R9999	
		3	750	3	72		■	225	MBT351	2CPX041791R9999		MT351	2CPX041336R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N, Busbar system 40 mm for size 1 disconnecter adapter, M(B)T...51(B)



ZH433



ZH438



ZH440

Article	Application	Pieces	Order details		Price
			Type	Order code	
Size 1 fuse switch disconnector with adapter for 40 mm busbar system, Rated current (I_n) max. 250 A, without trim cover, with M10 connection screws	M(B)T251 - M(B)T351	1	ZH433	2CPX062960R9999	
Trim cover Single cover for fuse switch disconnectors, Colour similar to RAL 7035 to comply with the touch protection IPXXC	2 x M(B)T251 * 3 x M(B)T351 *	1	ZH438	2CPX062961R9999	
Trim cover, closed Single cover instead of fuse switch disconnector, Colour similar to RAL 7035, to comply with the touch protection IPXXC	M(B)T251 - M(B)T351	1	ZH440	2CPX062963R9999	

*Number of pieces per fully equipped module

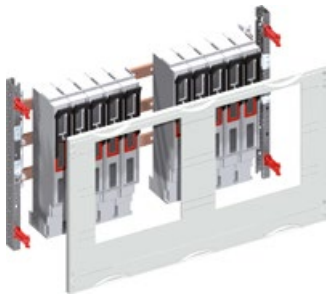


- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- 3 Cu busbars are required per module

Cu busbar mm	I_n one	Height		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		GU	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
12 x 5	250	2	431	1	ZX2002	2CPX042201R9999		ZXM2002	2CPX042301R9999	
		3	681	1	ZX2003	2CPX042202R9999		ZXM2003	2CPX042302R9999	
		4	931	1	ZX2004	2CPX042203R9999		ZXM2004	2CPX042303R9999	
		5	1181	1	ZX2005	2CPX042204R9999		ZXM2005	2CPX042304R9999	
		6	1431	1	ZX2006	2CPX042792R9999		ZXM2006	2CPX042814R9999	
		12 x 10	360	2	431	1	ZX2008	2CPX042206R9999		ZXM2008
3	681			1	ZX2009	2CPX042207R9999		ZXM2009	2CPX042307R9999	
4	931			1	ZX2010	2CPX042208R9999		ZXM2010	2CPX042308R9999	
5	1181			1	ZX2011	2CPX042209R9999		ZXM2011	2CPX042309R9999	
6	1431			1	ZX2012	2CPX042793R9999		ZXM2012	2CPX042815R9999	

Enclosures

Modular distribution panel system CombiLine N, Busbar system 100 mm size 00 fuse switch disconnectors, M(B)L...52(B)



ML352B

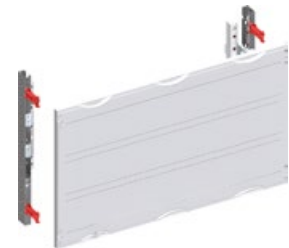
- Equipped with size 00 fuse switch disconnectors 160 A (ZE59)
- Busbar centre spacing 100 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX520
- Rated current (I_n) max. 850 A

Important:

1. When assembling fuse switch disconnectors behind the lock system consider the cabinet depth
Leading edge device to the cover 29 mm
 2. When using a centre support rail or a horizontal cross member for direct connections, the possibilities to use a connection terminal are restricted (plan connection space, empty module)
- The mounting frame must be ordered separately
 - Not suitable for fire protection enclosures

GU	mm	Width		Configura- tion	SU	EDF*1	WR*2	From cabinet depth mm	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm						Type	Ord. no.	Price	Type	Ord. no.	Price
3	450	1	250	3 x size 00	36	■	■	215	-	-	-	ML152B	2CPX041340R9999	
		2	500	6 x size 00	72	■	■	215	-	-	-	ML252B	2CPX041341R9999	
		3	750	10 x size 00	108	■	■	275	-	-	-	ML352B	2CPX041342R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ML352

- Unequipped module, prepared for size 00 fuse switch disconnector 160 A, of the following makes: ABB (ZE59)
- Busbar centre spacing 100 mm
- For 3-pole horizontal busbars
- With busbar holder type ZX520
- Cover without cut-out
- Rated current (I_n) max. 850 A
- Devices, see below
- **Important:** see remarks on top
- Not suitable for fire protection enclosures

Height	GU	mm	Width		Usable width mm	SU	EDF*1	WR*2	From cabinet depth mm	Flatpack Unmounted			Mounted Installed in the cabinet		
			PW	mm						Type	Ord. no.	Price	Type	Ord. no.	Price
3	450	1	250	150	36	■	■	215	MBL152	2CPX041795R9999		ML152	2CPX041343R9999		
		2	500	300	72	■	■	215	MBL252	2CPX041796R9999		ML252	2CPX041344R9999		
		3	750	500	108	■	■	275	MBL352	2CPX041797R9999		ML352	2CPX041345R9999		

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

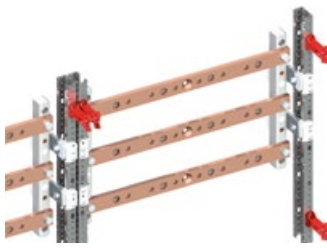


ZE59

Article	Application	Pieces	Order details		
			Type	Order code	Price
Fuse switch disconnectors Busbar centre spacing 100 mm Size 00, 160 A, 50 mm width	M(B)L152 - M(B)L352	1	ZE59	2CPX061044R9999	

Enclosures

Modular distribution panel system CombiLine N, Busbar system 100 mm for size 00 fuse switch disconnectors, M(B)L...52(B)



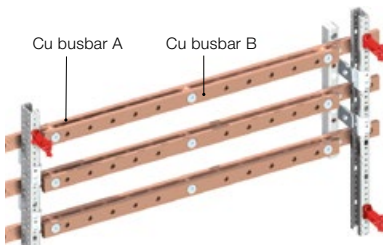
WR mounting frame with busbars in the module



EDF mounting frame with Busbar connection

- Busbars for single cabinets
- With the WR mounting frame the busbars cannot be connected through from one module to the next
- With the EDF mounting frame (see information on the PW) defined combinations are possible within the cabinet
- Size 00 fuse switch disconnectors are directly mounted to Cu busbars prepared with captive nuts and to this end the busbar holders are fixed to the front position of the bracket
- 3 Cu busbars are required per module

Cu bus-bar	I _n	Width			Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm			Type	Ord. no.	Price	Type	Ord. no.	Price
30 x 10	630	1	184		1	ZX1120	2CPX041978R9999		ZXM1120	2CPX041588R9999	
		2	434		1	ZX1121	2CPX041979R9999		ZXM1121	2CPX041589R9999	
		3	684		1	ZX1122	2CPX041980R9999		ZXM1122	2CPX041590R9999	
		4 (2PW+2PW)	934		1	ZX1123	2CPX041981R9999		ZXM1123	2CPX041591R9999	
		5 (3PW+2PW)	1184		1	ZX1124	2CPX041982R9999		ZXM1124	2CPX041592R9999	
		6 (3PW+3PW)	1434		1	ZX1125	2CPX042809R9999		ZXM1125	2CPX042831R9999	
40 x 10	850	1	184		1	ZX1126	2CPX041984R9999		ZXM1126	2CPX041594R9999	
		2	434		1	ZX1127	2CPX041985R9999		ZXM1127	2CPX041595R9999	
		3	684		1	ZX1128	2CPX041986R9999		ZXM1128	2CPX041596R9999	
		4 (2PW+2PW)	935		1	ZX1129	2CPX041987R9999		ZXM1129	2CPX041597R9999	
		5 (3PW+2PW)	1184		1	ZX1130	2CPX041988R9999		ZXM1130	2CPX041598R9999	
		6 (3PW+3PW)	1434		1	ZX1131	2CPX042810R9999		ZXM1131	2CPX042832R9999	



WR mounting frame with busbar connection

Cu busbar A, continuous busbar

30 x 10	630	1	184		1	ZX2025	2CPX042220R9999		ZXM2025	2CPX042320R9999	
		2	434		1	ZX2026	2CPX042221R9999		ZXM2026	2CPX042321R9999	
		3	684		1	ZX2027	2CPX042222R9999		ZXM2027	2CPX042322R9999	
		4 (2PW+2PW)	934		1	ZX2028	2CPX042223R9999		ZXM2028	2CPX042323R9999	
		5 (3PW+2PW)	1184		1	ZX2029	2CPX042224R9999		ZXM2029	2CPX042324R9999	
		6 (3PW+3PW)	1434		1	ZX2030	2CPX042796R9999		ZXM2030	2CPX042818R9999	
40 x 10	850	1	184		1	ZX2031	2CPX042225R9999		ZXM2031	2CPX042325R9999	
		2	434		1	ZX2032	2CPX042226R9999		ZXM2032	2CPX042326R9999	
		3	684		1	ZX2033	2CPX042227R9999		ZXM2033	2CPX042327R9999	
		4 (2PW+2PW)	934		1	ZX2034	2CPX042228R9999		ZXM2034	2CPX042328R9999	
		5 (3PW+2PW)	1184		1	ZX2035	2CPX042229R9999		ZXM2035	2CPX042329R9999	
		6 (3PW+3PW)	1434		1	ZX2036	2CPX042797R9999		ZXM2036	2CPX042819R9999	

Cu busbar B for mounting the 00 fuse switch disconnectors

30 x 10	630	1	150		1	ZX1170	2CPX042342R9999		ZXM1170	2CPX042348R9999	
		2	400		1	ZX1171	2CPX042343R9999		ZXM1171	2CPX042349R9999	
		3	650		1	ZX1172	2CPX042344R9999		ZXM1172	2CPX042350R9999	
40 x 10	850	1	150		1	ZX1176	2CPX042345R9999		ZXM1176	2CPX042351R9999	
		2	400		1	ZX1177	2CPX042346R9999		ZXM1177	2CPX042352R9999	
		3	650		1	ZX1178	2CPX042347R9999		ZXM1178	2CPX042353R9999	

- Busbars for single cabinets
- With the WR mounting frame (see information on the PW) defined combinations are possible with the continuous "A" busbars within the cabinet
- Per module, size 00 fuse switch disconnectors are mounted to Cu busbars "B" prepared with captive nuts and to this end the busbar holders are fixed to the front position of the bracket
- Three Cu busbars "A" and "B" are required per module

Enclosures

Modular distribution panel system CombiLine N, Busbar system 185 mm for fuse switch disconnectors, M(B)L...21-300(B)



ML300B

- **Equipped with:**
 - Size 00 fuse switch disconnectors up to 160 A (ZE55),
 - Size 1 fuse switch disconnectors up to 250 A (ZE56),
 - Size 2 fuse switch disconnectors up to 400 A (ZE57),
 - Size 3 fuse switch disconnectors up to 630 A (ZE58)
- Busbar centre spacing 185 mm
- For 3-pole horizontal busbars
- With busbar holder (ZX522)
- Rated current (I_n) max. 850 A
- **Important:** Plan connection space or empty module and when assembling fuse switch disconnectors behind the lock system consider the cabinet depth
- Leading edge device to the cover 77 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		Configura- tion	SU	EDF* ¹	WR* ²	Minimum cabinet depth mm	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm						Type	Ord. no.	Price	Type	Ord. no.	Price
5	750	1	250	3 x size 00	60		■	275	-	-	-	ML100B	2CPX041346R9999	
		2	500	6 x size 00	120		■	275	-	-	-	ML200B	2CPX041347R9999	
		3	750	10 x size 00	180		■	275	-	-	-	ML300B	2CPX041348R9999	
5	750	2	500	4 x size 1	120		■	275	-	-	-	ML21B	2CPX041352R9999	
		3	750	6 x size 1	180		■	275	-	-	-	ML31B	2CPX041353R9999	
5	750	2	500	4 x size 2	120		■	275	-	-	-	ML22B	2CPX041354R9999	
		3	750	6 x size 2	180		■	275	-	-	-	ML32B	2CPX041355R9999	
5	750	2	500	4 x 3	120		■	275	-	-	-	ML23B	2CPX041356R9999	
		3	750	6 x 3	180		■	275	-	-	-	ML33B	2CPX041357R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame



ML300

- Unequipped for size 00 to size 3 fuse switch disconnectors 160 A to 630 A for the following makes: ABB (ZE55 - ZE58)
- Busbar centre spacing 185 mm
- For 3-pole horizontal busbars
- With busbar holder (ZX522)
- Cover without cut-out
- Rated current (I_n) max. 850 A
- **Important:** Plan connection space or empty module and when assembling fuse switch disconnectors behind the lock system consider the cabinet depth
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		Usable width mm	SU	EDF* ¹	WR* ²	Minimum cabinet depth mm	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm						Type	Ord. no.	Price	Type	Ord. no.	Price
5	750	1	250	150	60		■	275	MBL100	2CPX041798R9999		ML100	2CPX041349R9999	
		2	500	400	120		■	275	MBL200	2CPX041799R9999		ML200	2CPX041350R9999	
		3	750	600	180		■	275	MBL300	2CPX041800R9999		ML300	2CPX041351R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N, Busbar system 185 mm for fuse switch disconnectors, M(B)L...21-300(B)



ZE56

Article	Pieces	Type	Ord. no.	Price
Fuse switch disconnectors				
Busbar centre spacing 185 mm				
Size 00, 160 A, 50 mm width	1	ZE55	2CPX061040R9999	
Size 1, 250 A, 100 mm width	1	ZE56	2CPX061041R9999	
Size 2, 400 A, 100 mm width	1	ZE57	2CPX061042R9999	
Size 3, 630 A, 100 mm width	1	ZE58	2CPX061043R9999	



ZX1128

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- With captive nuts to connect fuse switch disconnectors
- From three panels on the captive nuts define the module sequence (see information on PW)
- 3 Cu busbars are required per module

Cu bus-bar	I_n	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet			
					Type	Ord. no.	Price	Type	Ord. no.	Price	
30 x 10	630	PW	mm		ZX1120	2CPX041978R9999		ZXM1120	2CPX041588R9999		
			1	196	1	ZX1121	2CPX041979R9999		ZXM1121	2CPX041589R9999	
			2	434	1	ZX1122	2CPX041980R9999		ZXM1122	2CPX041590R9999	
			3	684	1	ZX1123	2CPX041981R9999		ZXM1123	2CPX041591R9999	
			4 (2PW+2PW)	934	1	ZX1124	2CPX041982R9999		ZXM1124	2CPX041592R9999	
			5 (3PW+2PW)	1184	1	ZX1125	2CPX042809R9999		ZXM1125	2CPX042831R9999	
40 x 10	850	PW	mm		ZX1126	2CPX041984R9999		ZXM1126	2CPX041594R9999		
			1	184	1	ZX1127	2CPX041985R9999		ZXM1127	2CPX041595R9999	
			2	446	1	ZX1128	2CPX041986R9999		ZXM1128	2CPX041596R9999	
			3	684	1	ZX1129	2CPX041987R9999		ZXM1129	2CPX041597R9999	
			4 (2PW+2PW)	935	1	ZX1130	2CPX041988R9999		ZXM1130	2CPX041598R9999	
			5 (3PW+2PW)	1184	1	ZX1131	2CPX042810R9999		ZXM1131	2CPX042832R9999	
6 (3PW+3PW)	1434	1									

Enclosures

Modular distribution panel system CombiLine N, Busbar system 185 mm for fuse switch disconnectors, M(B)L...5



ML35

- Unequipped for switch disconnector fuse sizes 00 up to 3, 160 A up to 630 A
- For the make: ABB SlimLine XR and Jean Müller Sasil
- Busbar centre spacing 185 mm
- For 3-pole horizontal busbars, see below
- With busbar holder (ZX523)
- Cover without cut-out
- Rated current (I_n) max. 850 A
- **Important:** Plan connection space or empty module and when assembling fuse switch disconnectors behind the lock system consider the cabinet depth
- Leading edge device to the cover 138 mm
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		Usable width			SU	EDF*1	WR*2	Minimum cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	mm	mm	mm					Type	Ord. no.	Price	Type	Ord. no.	Price
5	750	2	500	400	120	■	625	MBL25	2CPX041801R9999		ML25	2CPX041368R9999				
		3	750	600	180	■	625	MBL35	2CPX041802R9999		ML35	2CPX041369R9999				

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZX1033

- Busbars for single cabinets
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- With locking pins to fix them to the busbars
- 3 Cu busbars are required per module

Cu bus-bar		Width	Pieces	Flatpack Unmounted			Mounted Installed in the cabinet			
mm	I_n one			PW	mm	Type	Ord. no.	Price	Type	Ord. no.
40 x 10	850	2	496	1	ZX1032	2CPX041901R9999		ZXM1032	2CPX041511R9999	
		3	746	1	ZX1033	2CPX041902R9999		ZXM1033	2CPX041512R9999	
		4	996	1	ZX1034	2CPX041903R9999		ZXM1034	2CPX041513R9999	
		5	1246	1	ZX1035	2CPX041904R9999		ZXM1035	2CPX041514R9999	

Enclosures

Modular distribution panel system CombiLine N

Busbar system modules 40 mm for S700 and S750, M(B)H



MH250

- Unequipped for selective main circuit breakers
- For ABB S700, 1 up to 4-pole (width per pole 35 mm)
- Busbar centre spacing 40 mm
- For 4-pole horizontal busbars, see below
- With busbar holder type ZB5
- 3 panels and more: additional centre support
- Covers with cut-out
- The remaining slot must be closed with covers
- The mounting frame must be ordered separately
- The MBH350 and MH350 modules are not suitable for fire protection enclosures

Height		Width		Usable width			From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet			
GU	mm	PW	mm	mm	SU	EDF*1		WR*2	mm	Type	Ord. no.	Price	Type	Ord. no.
2	300	1	250	105	24	■	■	200	MBH150	2CPX041792R9999		MH150	2CPX041337R9999	
		2	500	210/105	48	■	■	200	MBH250	2CPX041793R9999		MH250	2CPX041338R9999	
		3	750	315/210	72	■	■	200	MBH350	2CPX041794R9999		MH350	2CPX041339R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MH251

- Unequipped for selective main circuit breakers
- For ABB S750, 1 or 3-pole (width per pole 27 mm)
- 1 panel wide fully equipped modules are fed directly by the selective main circuit breaker in case of a maximum connection cross-section of 35 mm² / max. 100 A
- Busbar centre spacing 40 mm
- For 4-pole horizontal busbars, see below
- With busbar holder type ZB5
- 3 panels and more: additional centre support
- Covers with cut-out
- The remaining slot must be closed with covers
- The mounting frame must be ordered separately
- The MBH351 and MH350 modules are not suitable for fire protection enclosures

2	300	1	250	161	24	■	■	200	MBH151	2CPX042031R9999		MH151	2CPX042026R9999	
		2	500	161/161	48	■	■	200	MBH251	2CPX042032R9999		MH251	2CPX042027R9999	
		3	750	322/242	72	■	■	200	MBH351	2CPX042033R9999		MH351	2CPX042028R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

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ZX2041

- Busbars within the module
- Not more than 5 Cu busbars are required per module

Cu bus-bar		I_n	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
mm	one		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
12 x 5	250	1	195	1	ZX2040	2CPX042533R9999		ZXM2040	2CPX042453R9999		
		2	445	1	ZX2041	2CPX042534R9999		ZXM2041	2CPX042454R9999		
		3	695	1	ZX2042	2CPX042535R9999		ZXM2042	2CPX042455R9999		

Enclosures

Modular distribution panel system CombiLine N MCCB Tmax equipped with MA...ALSB



MA250ALSB

- Equipped with MCCBs from ABB, Tmax T1 to T5, 3-pole
- Fixed with lever operation
- With thermomagnetic tripping device
- Covers with cut-out
- Assembly to mounting cross member
- **Note:** When directly using a center support rail or a horizontal cross member, the cable connection can be realized with the help of terminals (FC-CUAL). This and further accessories must be ordered from ABB Stotz.
- The mounting frame must be ordered separately
- The MA100ALSB module is not suitable for fire protection enclosures

Height		Width		I _n one	Device		SU	EDF* ¹	WR* ²	Minimum cabinet depth mm	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm		Type	Type					Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	100	T1B160R100	24	■	■	120	-	-	-	MA100ALSB	2CPX041380R9999		
				160	T1N160R160	24	■	■	200	-	-	-	MA160ALSB	2CPX041381R9999		
				200	T3N250R200	24	■	■	200	-	-	-	MA200ALSB	2CPX041382R9999		
				250	T3N250R250	24	■	■	200	-	-	-	MA250ALSB	2CPX041383R9999		
3	450	2	500	400	T5N400R400	72	■	■	215	-	-	-	MA400ALSB	2CPX041384R9999		

*¹ Module for EDF mounting frame | *² Module for WR mounting frame



MA630ALSB

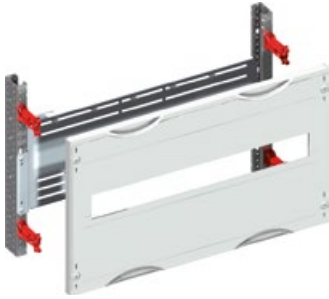
- Equipped with MCCBs from ABB, Tmax T5 and T6, 3-pole
- Fixed with lever operation
- With electronic tripping device PR221 DS-LI/I
- Covers with cut-out
- Assembly to mounting cross member
- **Note:** When directly using a center support rail or a horizontal cross member, the cable connection can be realized with the help of terminals (FC-CUAL). This and further accessories must be ordered from ABB Stotz.
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

3	450	2	500	630	T5N630R630	72		■	275	-	-	-	MA630ALSB	2CPX041385R9999	
4	600	2	500	800	T6N800R800	96		■	325	-	-	-	MA800ALSB	2CPX041386R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N MCCB Tmax unequipped, M(B)A...T



MA290T

- Unequipped module, ABB, fixed, Tmax T1 / XT1, 3-/4-pole, (76.2 mm/101.2 mm)
Tmax T2, 3-/4-pole, (90 mm/120 mm)
Tmax T3-/XT3, 3-/4-pole, (105 mm/140 mm)
- Cover with cut-out, the remaining slot must be closed with covers
- With mounting cross member and M4 sliding nuts
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MBA190T and MA190T modules

Height	Width	Device		Cut-out Width	Usable width	SU	EDF ^{*1}	WR ^{*2}	Minimum cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet			
		GU	PW							Type	Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	T1-XT3	216	199	24	■	■	120 ^{*3}	MBA190T	2CPX041643R9999		MA190T	2CPX041120R9999	
		2	500	T1-XT3	421	449	48	■	■	215	MBA290T	2CPX041644R9999		MA290T	2CPX041417R9999	
		3	750	T1-XT3	687	699	72		■	275	MBA390T	2CPX041645R9999		MA390T	2CPX041418R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame | *3 In compact distribution board only 1 x Tmax T1 lever operated and max. I_n up to 100 A

Enclosures

Modular distribution panel system CombiLine N MCCB Tmax equipped with M(B)A...T



MA191T

- Unequipped module, ABB, fixed, Tmax XT2, 3- / 4-pole, (90 mm / 120 mm)
- Tmax XT4, 3- / 4-pole, (105 mm / 140 mm), (max. 250 A)
- Covers with cut-out
- With mounting cross member including slide nuts M4
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures excluding Module MBA191T and MA191T

Height		Width		Device					From cabinet depth	Flatpack unmounted			Mounted installed in the cabinet		
GU	mm	PW	mm	Type	Pole	SU	EDF*1	WR*2	mm	Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	XT2	3pole	24	■	■	200	MBA191T	-	-	MA191T		
2	300	1	250	XT2	4pole	24	■	■	200	MBA194T	-	-	-		
3	450	1	250	XT4	3pole	36	■	■	200	MBA193T	-	-	MA191T		
3	450	1	250	XT4	4pole	36	■	■	200	MBA195T	-	-	-		



MA291T

- Unequipped module, ABB, fixed, Tmax XT2, 3- / 4-pole, (90 mm / 120 mm)
- Tmax XT4, 3- / 4-pole, (105 mm / 140 mm), (max. 250 A)
- Covers with cut-out
- With mounting cross member including slide nuts M4
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

2	300	2	500	XT2	3/4pole	48	■	■	215	MBA291T	-	-	MA291T		
2	300	3	750	XT2	3/4pole	72		■	260	MBA391T	-	-	MA391T		

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N MCCB Tmax unequipped, M(B)A...T



MBA195T

- Unequipped module, ABB, fixed,
Tmax XT2, 4-pole + 4-pole + RC Sel, (120 mm)
Tmax XT4, 4-pole + 4-pole + RC Sel, (140 mm)
- Covers with cut-out
- With mounting cross member including slide nuts M4
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		Device						From cabinet depth	Flatpack unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	Type	Pole	SU	EDF*1	WR*2	mm	Type	Ord. no.	Price	Type	Ord. no.	Price	
3	450	1	250	XT2	4pole RC Sel	36	■	■	200	MBA195T		-				
3	450	1	250	XT4	4pole RC Sel	36	■	■	200	MBA197T		-				



MA292T

- Unequipped module, ABB, fixed
Tmax T4, 3-/4-pole, (105 mm / 140 mm)
Tmax T5, 3-/4-pole, (139.5 mm/186 mm)
- Covers with cut-out
- Mounting cross member including threaded fastening holes
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

3	450	1	250	T4	3-pole	36	■	■	215	MBA192T	2CPX041646R9999		MA192T	2CPX041121R9999	
		2	500	T4	4-pole	72	■	■	215	MBA292T	2CPX041647R9999		MA292T	2CPX041122R9999	
		2	500	T5	3-/4-pole	72	■	■	215	MBA292T	2CPX041647R9999		MA292T	2CPX041122R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N Switch disconnecter OT, equipped, MA...ALAB



MA160ALAB

- Equipped with switch disconnectors make ABB OT, 3-pole, for fuse links
- Covers with cut-out
- Assembly to DIN rails 35 x 15 mm
- The mounting frame must be ordered separately

Height		Width		/ n	Device				From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm		Type	SU	EDF*1	WR*2		Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	160	OT160M3	24	■	■	200	-	-	-	MA160ALAB	2CPX041370R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MA630ALAB

- Equipped with switch disconnectors make ABB OT, 3-pole, for fuse links
- Covers with cut-out
- Assembly to mounting cross member
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MA200ALAB and MA250ALAB modules

2	300	1	250	200	OT200E03P	24	■	■	200	-	-	-	MA200ALAB	2CPX041371R9999	
				250	OT250E03P	24	■	■	200	-	-	-	MA250ALAB	2CPX041372R9999	
3	450	2	500	400	OT400E03P	72	■	■	215	-	-	-	MA400ALAB	2CPX041373R9999	
				630	OT630E03P	72	■	■	275	-	-	-	MA630ALAB	2CPX041374R9999	
4	600	2	500	800	OT800E03P	72	■	■	325	-	-	-	MA800ALAB	2CPX041375R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N

Switch disconnecter OT / S750DR unequipped, M(B)A...ALA



- Unequipped for switch disconnecter make ABB OT160M3 or selective main circuit breaker make ABB S750DR
- 3- or 4-pole
- Covers without cut-out
- Assembly to DIN rails 35 x 15 mm
- The mounting frame must be ordered separately

MA160ALA

Height		Width		Usable Width	SU	EDF*1	WR*2	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	mm					mm	Type	Ord. no.	Price	Type	Ord. no.
2	300	1	250	216	24	■	■	200	MBA160ALA	2CPX041803R9999		MA160ALA	2CPX041376R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



- Unequipped for switch disconnectors, makes ABB OT200E...P – OT630E...P
- 3- or 4-pole
- Covers without cut-out
- Assembly to mounting cross member
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MBA250ALA and MA250ALA modules

MA250ALA

2	300	1	250	-	24	■	■	200	MBA250ALA	2CPX041804R9999		MA250ALA	2CPX041377R9999	
3	450	2	500	-	72		■	275	MBA630ALA	2CPX041805R9999		MA630ALA	2CPX041378R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N, Universal switch modules, M(B)A...A / Cable connections MB(V)...



MA630A

MA800A

- Unequipped, universal use for various devices
- Cover without cut-out
- With deep-mounting brackets for stepless adjustment.
- Fastening of the devices with captive nuts M4, M5 and M6
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures, except the MBA250A and MA250A modules

Height		Width		Usable width	max. Usable depth to the Cover	SU	EDF*1	WR*2	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm							Type	Ord. no.	Price	Type	Ord. no.	Price
2	300	1	250	170	122	24	■	■	200	MBA250A	2CPX041807R9999		MA250A	2CPX041387R9999	
3	450	2	500	420	122	72	■	■	215	MBA630A	2CPX041808R9999		MA630A	2CPX041388R9999	
4	600	2	500	420	147	96		■	275	MBA800A	2CPX041806R9999		MA800A	2CPX041389R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MV281

- For the cable connection between module and switchgear cabinet door
- Covers with cut-out for the cable connection
- With DIN rail and connection sleeve
- With accessories to attach the sleeve to the module and to the switchgear cabinet door
- Consider the door hinge position
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		Sleeve diameter	SU	EDF*1	WR*2	Minimum cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm						Type	Ord. no.	Price	Type	Ord. no.	Price
1	150	1	250	M20	12	■	■	225	MBV180	2CPX041815R9999		MV180	2CPX041396R9999	
			250	M32	12	■	■	225	MBV181	2CPX041816R9999		MV181	2CPX041397R9999	
			250	M40	12	■	■	225	MBV182	2CPX041817R9999		MV182	2CPX041398R9999	
		2	500	M32	12	■	■	225	MBV281	2CPX041818R9999		MV281	2CPX041399R9999	
			500	M40	12	■	■	225	MBV282	2CPX041819R9999		MV282	2CPX041400R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N, Measuring instruments / Switchgear cabinet lighting modules, M(B)U...

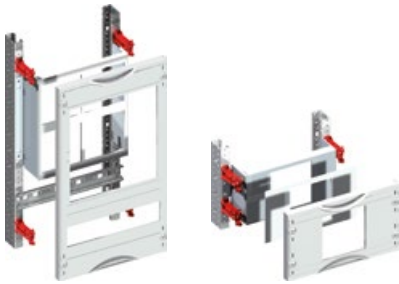


MU257

- Unequipped, prepared for four 96 x 96 mm instruments
- Horizontal instrument arrangement
- Covers with cut-out
- Assembly to mounting cross member
- The mounting frame must be ordered separately

Height		Width		Instru- ments				Minimum cabi- net depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	Pcs.	SU	EDF* ¹	WR* ²	mm	Type	Ord. no.	Price	Type	Ord. no.	Price
1	150	2	500	4	24	■	■	225	MBU257	2CPX041809R9999		MU257	2CPX041390R9999	
		3	750	4	36	■	■	225	MBU357	2CPX041810R9999		MU357	2CPX041391R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame



MU158

MU156

- Unequipped, prepared for 1 and/or 4 instruments (96 x 96 mm)
- For heights of 450 mm plus additional DIN rail for DIN rail mounting devices, 12 SU
- Covers with cut-out
- Assembly to mounting cross member
- The mounting frame must be ordered separately

1	150	1	250	1	12	■	■	225	MBU156	2CPX042043R9999		MU156	2CPX042042R9999	
2	300	1	250	4	24	■	■	225	MBU157	2CPX041811R9999		MU157	2CPX041392R9999	
3	450	1	250	4	36	■	■	225	MBU158	2CPX041812R9999		MU158	2CPX041393R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame



MU270

- Equipped with switchgear cabinet lighting
- Cover with left-sided cut-out for DIN rail mounting devices, 7 SU for M(B)U270 and 8 SU for M(B)U370
- The mounting frame must be ordered separately

Height		Width		Lighting				Minimum cabi- net depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	W	SU	EDF* ¹	WR* ²	mm	Type	Ord. no.	Price	Type	Ord. no.	Price
1	150	2	500	8	24	■	■	200	MBU270	2CPX041813R9999		MU270	2CPX041394R9999	
		3	750	13	36	■	■	200	MBU370	2CPX041814R9999		MU370	2CPX041395R9999	

*¹ Module for EDF mounting frame | *² Module for WR mounting frame

Enclosures

Modular distribution panel system CombiLine N Cable fastening rails, M(B)F...83+84



MF283

- With cable fastening rail to relieve the cable strain
- Including a cable fastening rail for cable clamps, see below
- Covers without cut-out
- For cabinet depths up to 275 mm
- Cable fastening rail steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Usable depth from 87 up to 142 mm
- The mounting frame must be ordered separately

Height		Width			SU	EDF*1	WR*2	From cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet		
GU	mm	PW	mm	Type					Ord. no.	Price	Type	Ord. no.	Price	
1	150	1	250	12	■	■	200	MBF183	2CPX041822R9999		MF183	2CPX041403R9999		
		2	500	24	■	■	200	MBF283	2CPX041823R9999		MF283	2CPX041404R9999		
		3	750	36	■	■	200	MBF383	2CPX041824R9999		MF383	2CPX041405R9999		

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MF284

- With cable fastening rail to relieve the cable strain
- Including a cable fastening rail for cable clamps, see below
- Covers without cut-out
- For cabinet depths up to 425 mm
- Cable fastening rail steplessly depth-adjustable using deep-mounting bracket ZW79P2
- Usable depth from 122 up to 177 mm
- The mounting frame must be ordered separately

1	150	1	250	12	■	■	325	MBF184	2CPX041846R9999		MF184	2CPX041466R9999	
		2	500	24	■	■	325	MBF284	2CPX041847R9999		MF284	2CPX041467R9999	
		3	750	36	■	■	325	MBF384	2CPX041848R9999		MF384	2CPX041468R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



ZK143

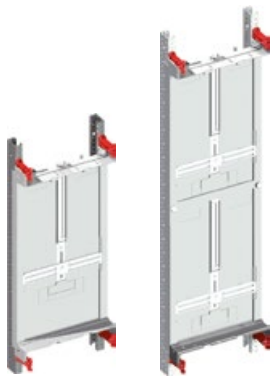


ZK1431P100

Article	Pieces	Order details		Price
		Type	Order code	
Cable clamp				
For cable fastening rails				
22 to 28 mm	1	ZK143	2CPX060005R9999	
	10	ZK143P10	2CPX062728R9999	
40 - 46 mm	1	ZK144	2CPX060006R9999	
	10	ZK144P10	2CPX062729R9999	
from 64 to 70 mm	1	ZK145	2CPX060007R9999	
	10	ZK145P10	2CPX062730R9999	
Backing plates for cable clamps				
For ZK143	100	ZK1431P100	2CPX060251R9999	
For ZK144	100	ZK1441P100	2CPX060252R9999	
For ZK145	50	ZK1451P50	2CPX060253R9999	

Enclosures

Modular distribution panel system CombiLine N Meter with 3-point-fastening and EDS meter



MZ160

MZ161

- For meters with 3-point-fastening to meter plate
- Only suitable for intermediate metering
- With top parts, top and bottom
- Partitions may be necessary, one level ZX70, for two levels ZX72, see below
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

Height		Width		Meter			Minimum cabinet depth	Flatpack Unmounted			Mounted Installed in the cabinet			
GU	mm	PW	mm	Pcs.	SU	EDF*1		WR*2	Type	Ord. no.	Price	Type	Ord. no.	Price
3	450	1	250	1	36		■	225	MBZ160	2CPX041820R9999		MZ160	2CPX041401R9999	
5	750	1	250	2	60		■	225	MBZ161	2CPX041821R9999		MZ161	2CPX041402R9999	

*1 Module for EDF mounting frame | *2 Module for WR mounting frame



MZ162

MZ163

- For EDS meter
- Only suitable for intermediate metering
- For the insertion of the EDS assembly (integrated snapping and contact unit), see below
- With top parts, top and bottom
- Partitions ZX69 may be necessary, see below
- The mounting frame must be ordered separately
- Not suitable for fire protection enclosures

2	300	1	250	1	24		■	225	MBZ162	2CPX042034R9999		MZ162	2CPX042029R9999	
2	300	1	250	2	24		■	225	MBZ163	2CPX042035R9999		MZ163	2CPX042030R9999	

*1 Module for EDF mounting frame *2 Module for WR mounting frame

Planning notes: Consider the cabinet depth, Spacing between meter plate and door for:

TwinLine-G, 225 mm, depth = 126.5 - 139 mm, TwinLine-L, depth mm = 141.5 - 154 mm, TwinLine-W, 350 mm depth = 168 - 180.5 mm

C-cabinets, 260 mm depth = 141.5 mm, W-, WS-, WSO-cabinets, 360 mm depth = 172 mm

TriLine®, 325 mm depth = 148 mm, TriLine®, 425 mm depth = 198 mm

Important: Plan at least one module with a width of 250 mm above and below meter plate modules.



ZX70



VS659

Article	Height			Pieces	Type	Ord. no.	Price
	GU	OH	mm				
Vertical partitions, plastic	3	00	450	1	ZX69	2CPX039069R9999	
Not arc-resistant, sheathing against the next module, distribution board panel, meter panel; partition is inserted into the cover holder of the next module.	4	0	600	1	ZX70	2CPX039070R9999	
Colour similar to RAL 7035	6	2	900	1	ZX72	2CPX039072R9999	
EDS assembly (integrated snapping and contact unit) with long feeder and outgoing cables For electronic domestic meters (EDS) With feeder cables 10 mm² L1, L2 and L3 Length 1000 mm without wire end sleeves With outgoing lines 10 mm² L1, L2 and L3 Length 1000 mm without wire end sleeves				1	VS659	2CPX039932R9999	

Enclosures

Modular distribution panel system CombiLine N, Module combinations for busbars TwinLine cabinet to cabinet connections

Combination options on EDF mounting frame

Module type bottom	Module type on top To be used with TwinLine	M(B)S...24			M(B)S...27			M(B)N...74 M(B)N...75			M(B)N...62 M(B)N...63			M(B)R...02		
		G	L	W	G	L	W	G	L	W	G	L	W	G	L	W
M(B)S...24	G	1/0/-1			1/0/-1			1/0						1		
	L		1/0/-1			1/0/-1			1						1	
	W			1/0/-1			1/0/-1			1						1
M(B)S...27	G	1/0/-1			0/-1			1/0						1		
	L		1/0/-1			1/0/-1			1*						1	
	W			1/0/-1			1/0/-1			1						1
M(B)N...74 M(B)N...75	G	1/0			1/0			1/0						1		
	L		1			1			1						1	
	W			1			1			1						1
M(B)N...62 M(B)N...63	G															
	L															
	W															
M(B)R...02	G	1			1			1						1		
	L		1			1			1						1	
	W			1			1			1						1

* Mounting position of the sample configuration of the next page

Combination options on WR mounting frame

Module type bottom	Module type on top To be used with TwinLine	M(B)S...24			M(B)S...27			M(B)N...74 M(B)N...75			M(B)N...62 M(B)N...63			M(B)R...02		
		G	L	W	G	L	W	G	L	W	G	L	W	G	L	W
M(B)S...24	G	-			-			-						-		
	L		-1			-1			-			-1			-	
	W			-1			-1			-			-1			-
M(B)S...27	G	-			-1			-						-		
	L		-1			-1			-			-1*			-	
	W			-1			-1			-			-1			-
M(B)N...74 M(B)N...75	G	-			-			1/0						1		
	L		-			-			1						1	
	W			-			-			1						1
M(B)N...62 M(B)N...63	G															
	L		-1			-1			-				-1			-
	W			-1			-1			-				-1		-
M(B)R...02	G	-			-			1						1		
	L		-			-			1						1	
	W			-			-			1						1

* Mounting position of the sample configuration of the next page

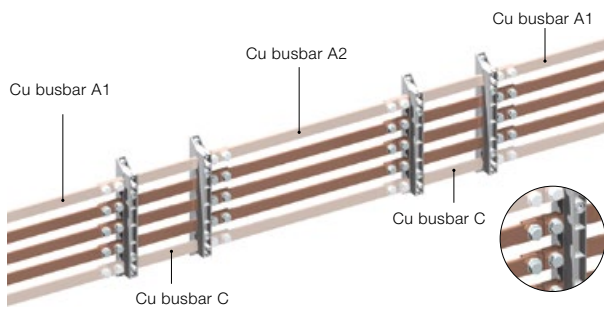
Legend for the tables

- 0 = installation position 0 is possible
- 1 = installation position 1 is possible
- 1 = installation position -1 is possible
- 1/0 = installation positions 1 or 0 are possible
- 0/-1 = installation positions 0 or -1 are possible
- 1/0/-1 = installation positions 1 and 0 and -1 are possible

Enclosures

Modular distribution panel system CombiLine N

Busbars for the TwinLine cabinet connection for M(B)S...24



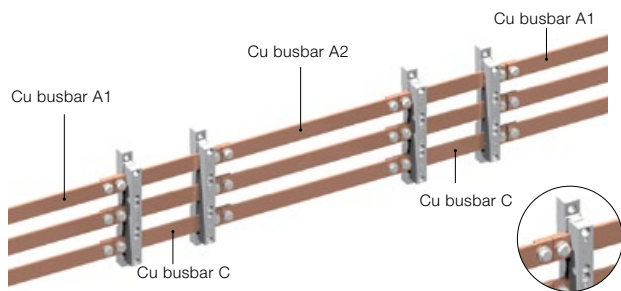
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- Busbars for connecting cabinets (Cu busbar A1/A2) are supplied with Cu transport elements and fastening material attached to the connection side
- One connector (Cu busbar C) is required per busbar connection
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections.
- Max. five Cu busbars A1/A2 and C are required per module

Cu busbar mm	/n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TwinLine cabinet to cabinet connection to the right or left										
20 x 5	320	1	138*43	1	ZX2224	2CPX042630R9999		ZXM2224	2CPX042672R9999	
		2	388*43	1	ZX2225	2CPX042631R9999		ZXM2225	2CPX042673R9999	
		3	638*43	1	ZX2226	2CPX042632R9999		ZXM2226	2CPX042674R9999	
		4	888*43	1	ZX2227	2CPX042633R9999		ZXM2227	2CPX042675R9999	
		5	1138*43	1	ZX2228	2CPX042634R9999		ZXM2228	2CPX042676R9999	
		6	1388*43	1	ZX2229	2CPX042635R9999		ZXM2229	2CPX042677R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TwinLine cabinets										
20 x 5	320	1	43 + 95 + 43	1	ZX2324	2CPX042714R9999		ZXM2324	2CPX042750R9999	
		2	43 + 345 + 43	1	ZX2325	2CPX042715R9999		ZXM2325	2CPX042751R9999	
		3	43 + 595 + 43	1	ZX2326	2CPX042716R9999		ZXM2326	2CPX042752R9999	
		4	43 + 845 + 43	1	ZX2327	2CPX042717R9999		ZXM2327	2CPX042753R9999	
		5	43 + 1095 + 43	1	ZX2328	2CPX042718R9999		ZXM2328	2CPX042754R9999	
		6	43 + 1345 + 43	1	ZX2329	2CPX042719R9999		ZXM2329	2CPX042755R9999	
Cu busbar C, connectors for the TwinLine cabinet to cabinet connection to the right or left										
20 x 5	320	-	208	1	ZX2405	2CPX042787R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N

Busbars for the TwinLine cabinet connection for M(B)S...27



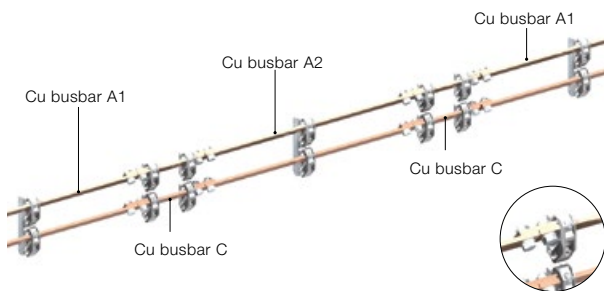
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- Busbars for connecting cabinets (Cu busbar A1/A2) are supplied with Cu transport elements and fastening material attached to the connection side
- One connector (Cu busbar C) is required per busbar connection
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections.
- Three Cu busbars A1/A2 and C are required per module

Cu busbar mm	I _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TwinLine cabinet to cabinet connection to the right or left										
30 x 5	440	1	138*43	1	ZX2236	2CPX042642R9999		ZXM2236	2CPX042684R9999	
		2	388*43	1	ZX2237	2CPX042643R9999		ZXM2237	2CPX042685R9999	
		3	638*43	1	ZX2238	2CPX042644R9999		ZXM2238	2CPX042686R9999	
		4	888*43	1	ZX2239	2CPX042645R9999		ZXM2239	2CPX042687R9999	
		5	1138*43	1	ZX2240	2CPX042646R9999		ZXM2240	2CPX042688R9999	
		6	1388*43	1	ZX2241	2CPX042647R9999		ZXM2241	2CPX042689R9999	
30 x 10	630	1	138*43	1	ZX2248	2CPX042654R9999		ZXM2248	2CPX042696R9999	
		2	388*43	1	ZX2249	2CPX042655R9999		ZXM2249	2CPX042697R9999	
		3	638*43	1	ZX2250	2CPX042656R9999		ZXM2250	2CPX042698R9999	
		4	888*43	1	ZX2251	2CPX042657R9999		ZXM2251	2CPX042699R9999	
		5	1138*43	1	ZX2252	2CPX042658R9999		ZXM2252	2CPX042700R9999	
		6	1388*43	1	ZX2253	2CPX042659R9999		ZXM2253	2CPX042701R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TwinLine cabinets										
30 x 5	440	1	43 + 95 + 43	1	ZX2336	2CPX042726R9999		ZXM2336	2CPX042762R9999	
		2	43 + 345 + 43	1	ZX2337	2CPX042727R9999		ZXM2337	2CPX042763R9999	
		3	43 + 595 + 43	1	ZX2338	2CPX042728R9999		ZXM2338	2CPX042764R9999	
		4	43 + 845 + 43	1	ZX2339	2CPX042729R9999		ZXM2339	2CPX042765R9999	
		5	43 + 1095 + 43	1	ZX2340	2CPX042730R9999		ZXM2340	2CPX042766R9999	
		6	43 + 1345 + 43	1	ZX2341	2CPX042731R9999		ZXM2341	2CPX042767R9999	
30 x 10	630	1	43 + 95 + 43	1	ZX2348	2CPX042738R9999		ZXM2348	2CPX042774R9999	
		2	43 + 345 + 43	1	ZX2349	2CPX042739R9999		ZXM2349	2CPX042775R9999	
		3	43 + 595 + 43	1	ZX2350	2CPX042740R9999		ZXM2350	2CPX042776R9999	
		4	43 + 845 + 43	1	ZX2351	2CPX042741R9999		ZXM2351	2CPX042777R9999	
		5	43 + 1095 + 43	1	ZX2352	2CPX042742R9999		ZXM2352	2CPX042778R9999	
		6	43 + 1345 + 43	1	ZX2353	2CPX042743R9999		ZXM2353	2CPX042779R9999	
Cu busbar C, connectors for the TwinLine cabinet to cabinet connection to the right or left										
30 x 5	440		208	1	ZX2407	2CPX042789R9999		-	-	-
30 x 10	630		208	1	ZX2408	2CPX042790R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N

Busbars for the TwinLine cabinet connection for M(B)N...74+75



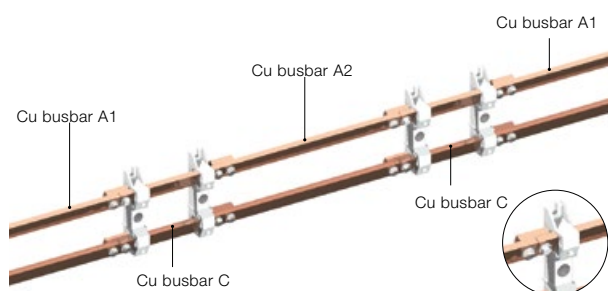
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- Busbars for connecting cabinets (Cu busbar A1/A2) are supplied with Cu transport elements and fastening material attached to the connection side
- One connector (Cu busbar C) is required per busbar connection
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections.
- Two Cu busbars A1/A2 and C are required per module

Cu busbar mm	I _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TwinLine cabinet to cabinet connection to the right or left										
20 x 5	320	1	200*43	1	ZX2230	2CPX042636R9999		ZXM2230	2CPX042678R9999	
		2	450*43	1	ZX2231	2CPX042637R9999		ZXM2231	2CPX042679R9999	
		3	700*43	1	ZX2232	2CPX042638R9999		ZXM2232	2CPX042680R9999	
		4	950*43	1	ZX2233	2CPX042639R9999		ZXM2233	2CPX042681R9999	
		5	1200*43	1	ZX2234	2CPX042640R9999		ZXM2234	2CPX042682R9999	
		6	1450*43	1	ZX2235	2CPX042641R9999		ZXM2235	2CPX042683R9999	
30 x 5	440	1	200*43	1	ZX2242	2CPX042648R9999		ZXM2242	2CPX042690R9999	
		2	450*43	1	ZX2243	2CPX042649R9999		ZXM2243	2CPX042691R9999	
		3	700*43	1	ZX2244	2CPX042650R9999		ZXM2244	2CPX042692R9999	
		4	950*43	1	ZX2245	2CPX042651R9999		ZXM2245	2CPX042693R9999	
		5	1200*43	1	ZX2246	2CPX042652R9999		ZXM2246	2CPX042694R9999	
		6	1450*43	1	ZX2247	2CPX042653R9999		ZXM2247	2CPX042695R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TwinLine cabinets										
20 x 5	320	1	43 + 154 + 43	1	ZX2330	2CPX042720R9999		ZXM2330	2CPX042756R9999	
		2	43 + 404 + 43	1	ZX2331	2CPX042721R9999		ZXM2331	2CPX042757R9999	
		3	43 + 654 + 43	1	ZX2332	2CPX042722R9999		ZXM2332	2CPX042758R9999	
		4	43 + 904 + 43	1	ZX2333	2CPX042723R9999		ZXM2333	2CPX042759R9999	
		5	43 + 1154 + 43	1	ZX2334	2CPX042724R9999		ZXM2334	2CPX042760R9999	
		6	43 + 1404 + 43	1	ZX2335	2CPX042725R9999		ZXM2335	2CPX042761R9999	
30 x 5	440	1	43 + 154 + 43	1	ZX2342	2CPX042732R9999		ZXM2342	2CPX042768R9999	
		2	43 + 404 + 43	1	ZX2343	2CPX042733R9999		ZXM2343	2CPX042769R9999	
		3	43 + 654 + 43	1	ZX2344	2CPX042734R9999		ZXM2344	2CPX042770R9999	
		4	43 + 904 + 43	1	ZX2345	2CPX042735R9999		ZXM2345	2CPX042771R9999	
		5	43 + 1154 + 43	1	ZX2346	2CPX042736R9999		ZXM2346	2CPX042772R9999	
		6	43 + 1404 + 43	1	ZX2347	2CPX042737R9999		ZXM2347	2CPX042773R9999	
Cu busbar C, connectors for the TwinLine cabinet to cabinet connection to the right or left										
20 x 5	320	-	149	1	ZX2404	2CPX042786R9999		-	-	-
30 x 5	440	-	149	1	ZX2406	2CPX042788R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N

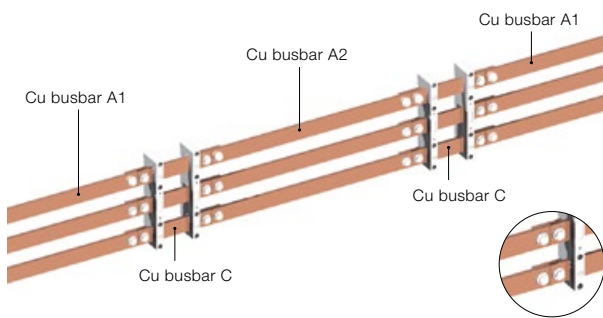
Busbars for the TwinLine cabinet connection for M(B)N....62+63



Cu busbar mm	I _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TwinLine cabinet to cabinet connection to the right or left										
30 x 10	630	1	149*43	1	ZX2254	2CPX042660R9999		ZXM2254	2CPX042702R9999	
		2	399*43	1	ZX2255	2CPX042661R9999		ZXM2255	2CPX042703R9999	
		3	649*43	1	ZX2256	2CPX042662R9999		ZXM2256	2CPX042704R9999	
		4	899*43	1	ZX2257	2CPX042663R9999		ZXM2257	2CPX042705R9999	
		5	1149*43	1	ZX2258	2CPX042664R9999		ZXM2258	2CPX042706R9999	
		6	1399*43	1	ZX2259	2CPX042665R9999		ZXM2259	2CPX042707R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TwinLine cabinets										
30 x 10	630	1	43 + 95 + 43	1	ZX2348	2CPX042738R9999		ZXM2348	2CPX042774R9999	
		2	43 + 345 + 43	1	ZX2349	2CPX042739R9999		ZXM2349	2CPX042775R9999	
		3	43 + 595 + 43	1	ZX2350	2CPX042740R9999		ZXM2350	2CPX042776R9999	
		4	43 + 845 + 43	1	ZX2351	2CPX042741R9999		ZXM2351	2CPX042777R9999	
		5	43 + 1095 + 43	1	ZX2352	2CPX042742R9999		ZXM2352	2CPX042778R9999	
		6	43 + 1345 + 43	1	ZX2353	2CPX042743R9999		ZXM2353	2CPX042779R9999	
Cu busbar C, connectors for the TwinLine cabinet to cabinet connection to the right or left										
30 x 10	630		208	1	ZX2408	2CPX042790R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TwinLine cabinet connection in the module M(B)R...02

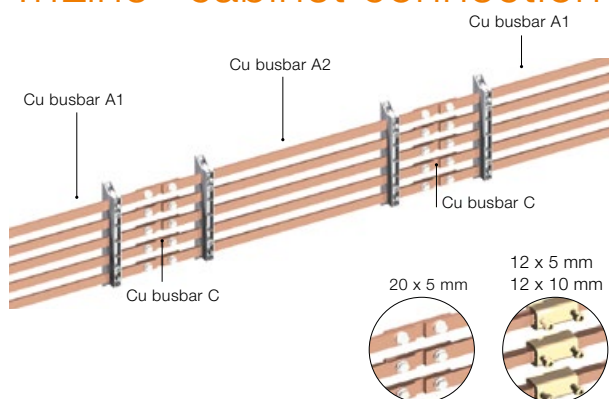


- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- Busbars for connecting cabinets (Cu busbar A1/A2) are supplied with Cu transport elements and fastening material attached to the connection side
- One connector (Cu busbar C) is required per busbar connection
- **Important:** For equipped MR...02B modules the external mounting fuse sockets, might not be necessary for: MR102B in case of a connection on the left, 1 piece, MR202B in case of a connection on the left, 1 piece, MR302B in case of a connection on the left or on the right, 2 pieces respectively that will have to be replaced by empty space covers ZA4P10 in the cover
- **Important:** the module combination options are to be considered for TwinLine cabinet to cabinet connections.
- Three Cu busbars A1/A2 and C are required per module

Cu busbar mm	I _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TwinLine cabinet to cabinet connection to the right or left										
20 x 5	320	1	200*43	1	ZX2230	2CPX042636R9999		ZXM2230	2CPX042678R9999	
		2	450*43	1	ZX2231	2CPX042637R9999		ZXM2231	2CPX042679R9999	
		3	700*43	1	ZX2232	2CPX042638R9999		ZXM2232	2CPX042680R9999	
		4	950*43	1	ZX2233	2CPX042639R9999		ZXM2233	2CPX042681R9999	
		5	1200*43	1	ZX2234	2CPX042640R9999		ZXM2234	2CPX042682R9999	
		6	1450*43	1	ZX2235	2CPX042641R9999		ZXM2235	2CPX042683R9999	
30 x 5	440	1	200*43	1	ZX2242	2CPX042648R9999		ZXM2242	2CPX042690R9999	
		2	450*43	1	ZX2243	2CPX042649R9999		ZXM2243	2CPX042691R9999	
		3	700*43	1	ZX2244	2CPX042650R9999		ZXM2244	2CPX042692R9999	
		4	950*43	1	ZX2245	2CPX042651R9999		ZXM2245	2CPX042693R9999	
		5	1200*43	1	ZX2246	2CPX042652R9999		ZXM2246	2CPX042694R9999	
		6	1450*43	1	ZX2247	2CPX042653R9999		ZXM2247	2CPX042695R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TwinLine cabinets										
20 x 5	320	1	43 + 154 + 43	1	ZX2330	2CPX042720R9999		ZXM2330	2CPX042756R9999	
		2	43 + 404 + 43	1	ZX2331	2CPX042721R9999		ZXM2331	2CPX042757R9999	
		3	43 + 654 + 43	1	ZX2332	2CPX042722R9999		ZXM2332	2CPX042758R9999	
		4	43 + 904 + 43	1	ZX2333	2CPX042723R9999		ZXM2333	2CPX042759R9999	
		5	43 + 1154 + 43	1	ZX2334	2CPX042724R9999		ZXM2334	2CPX042760R9999	
		6	43 + 1404 + 43	1	ZX2335	2CPX042725R9999		ZXM2335	2CPX042761R9999	
30 x 5	440	1	43 + 154 + 43	1	ZX2342	2CPX042732R9999		ZXM2342	2CPX042768R9999	
		2	43 + 404 + 43	1	ZX2343	2CPX042733R9999		ZXM2343	2CPX042769R9999	
		3	43 + 654 + 43	1	ZX2344	2CPX042734R9999		ZXM2344	2CPX042770R9999	
		4	43 + 904 + 43	1	ZX2345	2CPX042735R9999		ZXM2345	2CPX042771R9999	
		5	43 + 1154 + 43	1	ZX2346	2CPX042736R9999		ZXM2346	2CPX042772R9999	
		6	43 + 1404 + 43	1	ZX2347	2CPX042737R9999		ZXM2347	2CPX042773R9999	
Cu busbar C, connectors for the TwinLine cabinet to cabinet connection to the right or left										
20 x 5	320	-	149	1	ZX2404	2CPX042786R9999		-	-	-
30 x 5	440	-	149	1	ZX2406	2CPX042788R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)S...24

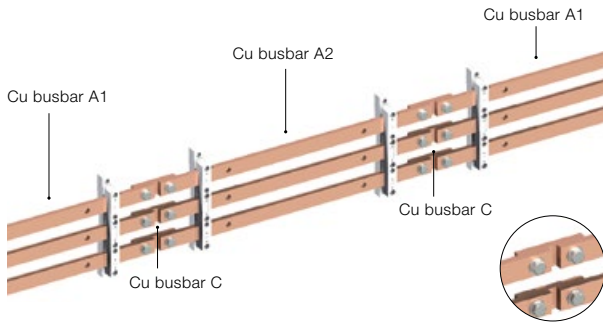


- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector for Cu 12 x 5 mm and 12 x 10 mm including connection terminals
- Busbar connector for Cu 20 x 5 mm including captive nuts and fastening screws
- Max. five Cu busbars A1/A2 and C are required per module

Cu busbar mm	I _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left										
12 x 5	250	1	298	1	ZX1040	2CPX041906R9999		ZXM1040	2CPX041516R9999	
		2	548	1	ZX1041	2CPX041907R9999		ZXM1041	2CPX041517R9999	
		3	798	1	ZX1042	2CPX041908R9999		ZXM1042	2CPX041518R9999	
		4	1048	1	ZX1043	2CPX041909R9999		ZXM1043	2CPX041519R9999	
		5	1298	1	ZX1044	2CPX041910R9999		ZXM1044	2CPX041520R9999	
12 x 10	360	1	298	1	ZX1046	2CPX041912R9999		ZXM1046	2CPX041522R9999	
		2	548	1	ZX1047	2CPX041913R9999		ZXM1047	2CPX041523R9999	
		3	798	1	ZX1048	2CPX041914R9999		ZXM1048	2CPX041524R9999	
		4	1048	1	ZX1049	2CPX041915R9999		ZXM1049	2CPX041525R9999	
		5	1298	1	ZX1050	2CPX041916R9999		ZXM1050	2CPX041526R9999	
20 x 5	320	1	298	1	ZX1052	2CPX041918R9999		ZXM1052	2CPX041528R9999	
		2	548	1	ZX1053	2CPX041919R9999		ZXM1053	2CPX041529R9999	
		3	798	1	ZX1054	2CPX041920R9999		ZXM1054	2CPX041530R9999	
		4	1048	1	ZX1055	2CPX041921R9999		ZXM1055	2CPX041531R9999	
		5	1298	1	ZX1056	2CPX041922R9999		ZXM1056	2CPX041532R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets										
12 x 5	250	1	350	1	ZX1080	2CPX041942R9999		ZXM1080	2CPX041552R9999	
		2	600	1	ZX1081	2CPX041943R9999		ZXM1081	2CPX041553R9999	
		3	850	1	ZX1082	2CPX041944R9999		ZXM1082	2CPX041554R9999	
		4	1100	1	ZX1083	2CPX041945R9999		ZXM1083	2CPX041555R9999	
		5	1350	1	ZX1084	2CPX041946R9999		ZXM1084	2CPX041556R9999	
12 x 10	360	1	350	1	ZX1086	2CPX041948R9999		ZXM1086	2CPX041558R9999	
		2	600	1	ZX1087	2CPX041949R9999		ZXM1087	2CPX041559R9999	
		3	850	1	ZX1088	2CPX041950R9999		ZXM1088	2CPX041560R9999	
		4	1100	1	ZX1089	2CPX041951R9999		ZXM1089	2CPX041561R9999	
		5	1350	1	ZX1090	2CPX041952R9999		ZXM1090	2CPX041562R9999	
20 x 5	320	1	350	1	ZX1092	2CPX041954R9999		ZXM1092	2CPX041564R9999	
		2	600	1	ZX1093	2CPX041955R9999		ZXM1093	2CPX041565R9999	
		3	850	1	ZX1094	2CPX041956R9999		ZXM1094	2CPX041566R9999	
		4	1100	1	ZX1095	2CPX041957R9999		ZXM1095	2CPX041567R9999	
		5	1350	1	ZX1096	2CPX041958R9999		ZXM1096	2CPX041568R9999	
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left										
12 x 5	250		44	1	ZX1181	2CPX042021R9999		-	-	-
12 x 10	360		44	1	ZX1181	2CPX042021R9999		-	-	-
20 x 5	320		94	1	ZX1182	2CPX042022R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TriLine[®] cabinet connection in the module M(B)S... 27

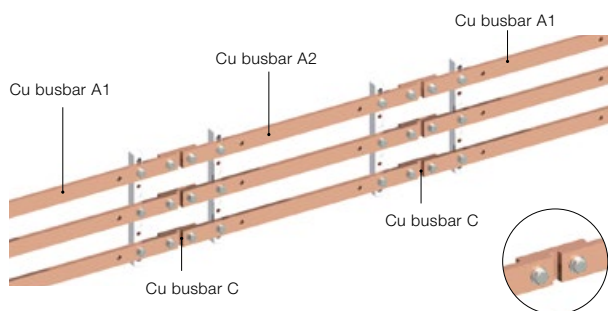


- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Three Cu busbars A1/A2 and C are required per module

Cu busbar mm	I _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left										
30 x 5	440	1	298	1	ZX1058	2CPX041924R9999		ZXM1058	2CPX041534R9999	
		2	548	1	ZX1059	2CPX041925R9999		ZXM1059	2CPX041535R9999	
		3	798	1	ZX1060	2CPX041926R9999		ZXM1060	2CPX041536R9999	
		4	1048	1	ZX1061	2CPX041927R9999		ZXM1061	2CPX041537R9999	
		5	1298	1	ZX1062	2CPX041928R9999		ZXM1062	2CPX041538R9999	
30 x 10	630	1	298	1	ZX1064	2CPX041930R9999		ZXM1064	2CPX041540R9999	
		2	548	1	ZX1065	2CPX041931R9999		ZXM1065	2CPX041541R9999	
		3	798	1	ZX1066	2CPX041932R9999		ZXM1066	2CPX041542R9999	
		4	1048	1	ZX1067	2CPX041933R9999		ZXM1067	2CPX041543R9999	
		5	1298	1	ZX1068	2CPX041934R9999		ZXM1068	2CPX041544R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets										
30 x 5	440	1	350	1	ZX1098	2CPX041960R9999		ZXM1098	2CPX041570R9999	
		2	600	1	ZX1099	2CPX041961R9999		ZXM1099	2CPX041571R9999	
		3	850	1	ZX1100	2CPX041962R9999		ZXM1100	2CPX041572R9999	
		4	1100	1	ZX1101	2CPX041963R9999		ZXM1101	2CPX041573R9999	
		5	1350	1	ZX1102	2CPX041964R9999		ZXM1102	2CPX041574R9999	
30 x 10	630	1	350	1	ZX1104	2CPX041966R9999		ZXM1104	2CPX041576R9999	
		2	600	1	ZX1105	2CPX041967R9999		ZXM1105	2CPX041577R9999	
		3	850	1	ZX1106	2CPX041968R9999		ZXM1106	2CPX041578R9999	
		4	1100	1	ZX1107	2CPX041969R9999		ZXM1107	2CPX041579R9999	
		5	1350	1	ZX1108	2CPX041970R9999		ZXM1108	2CPX041580R9999	
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left										
30 x 5	250		94	1	ZX1183	2CPX042023R9999		-	-	-
30 x 10	360		94	1	ZX1184	2CPX042024R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)S...31

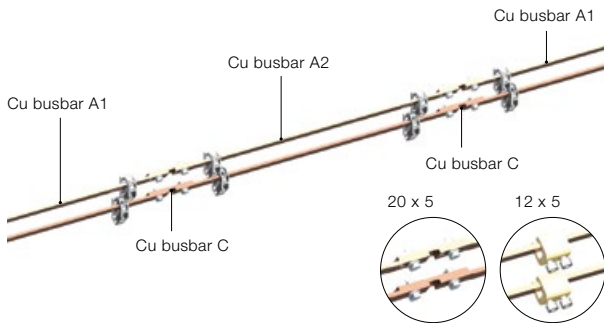


- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Three Cu busbars A1/A2 and C are required per module

Cu busbar mm	I _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left										
40 x 10	850	1	298	1	ZX1070	2CPX041936R9999		ZXM1070	2CPX041546R9999	
		2	548	1	ZX1071	2CPX041937R9999		ZXM1071	2CPX041547R9999	
		3	767	1	ZX1072	2CPX041938R9999		ZXM1072	2CPX041548R9999	
		4	1048	1	ZX1073	2CPX041939R9999		ZXM1073	2CPX041549R9999	
		5	1298	1	ZX1074	2CPX041940R9999		ZXM1074	2CPX041550R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets										
40 x 10	850	1	350	1	ZX1110	2CPX041972R9999		ZXM1110	2CPX041582R9999	
		2	600	1	ZX1111	2CPX041973R9999		ZXM1111	2CPX041583R9999	
		3	850	1	ZX1112	2CPX041974R9999		ZXM1112	2CPX041584R9999	
		4	1100	1	ZX1113	2CPX041975R9999		ZXM1113	2CPX041585R9999	
		5	1350	1	ZX1114	2CPX041976R9999		ZXM1114	2CPX041586R9999	
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left										
40 x 10	850		94	1	ZX1185	2CPX042025R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)N...69

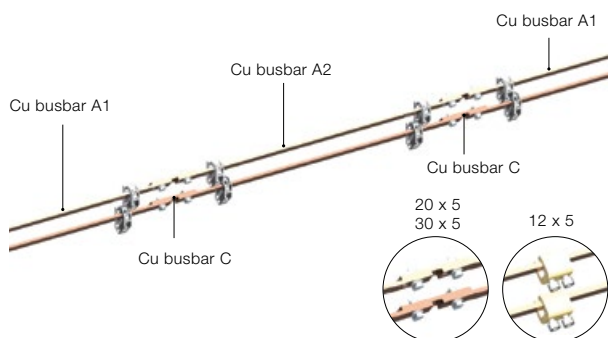


- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Two Cu busbars A1/A2 and C are required per module

Cu busbar mm	I _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left										
12 x 5	250	1	277	1	ZX2094	2CPX042578R9999		ZXM2094	2CPX042498R9999	
		2	527	1	ZX2095	2CPX042579R9999		ZXM2095	2CPX042499R9999	
		3	777	1	ZX2096	2CPX042580R9999		ZXM2096	2CPX042500R9999	
		4	1027	1	ZX2097	2CPX042581R9999		ZXM2097	2CPX042501R9999	
		5	1277	1	ZX2098	2CPX042582R9999		ZXM2098	2CPX042502R9999	
20 x 5	320	1	277	1	ZX2112	2CPX042593R9999		ZXM2112	2CPX042513R9999	
		2	527	1	ZX2113	2CPX042594R9999		ZXM2113	2CPX042514R9999	
		3	777	1	ZX2114	2CPX042595R9999		ZXM2114	2CPX042515R9999	
		4	1027	1	ZX2115	2CPX042596R9999		ZXM2115	2CPX042516R9999	
		5	1277	1	ZX2116	2CPX042597R9999		ZXM2116	2CPX042517R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets										
12 x 5	250	1	350	1	ZX1080	2CPX041942R9999		ZXM1080	2CPX041552R9999	
		2	600	1	ZX1081	2CPX041943R9999		ZXM1081	2CPX041553R9999	
		3	850	1	ZX1082	2CPX041944R9999		ZXM1082	2CPX041554R9999	
		4	1100	1	ZX1083	2CPX041945R9999		ZXM1083	2CPX041555R9999	
		5	1350	1	ZX1084	2CPX041946R9999		ZXM1084	2CPX041556R9999	
20 x 5	320	1	350	1	ZX1092	2CPX041954R9999		ZXM1092	2CPX041564R9999	
		2	600	1	ZX1093	2CPX041955R9999		ZXM1093	2CPX041565R9999	
		3	850	1	ZX1094	2CPX041956R9999		ZXM1094	2CPX041566R9999	
		4	1100	1	ZX1095	2CPX041957R9999		ZXM1095	2CPX041567R9999	
		5	1350	1	ZX1096	2CPX041958R9999		ZXM1096	2CPX041568R9999	
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left										
12 x 5	250		94	1	ZX1181	2CPX042021R9999		-	-	-
20 x 5	320		94	1	ZX1182	2CPX042022R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)N...74+75

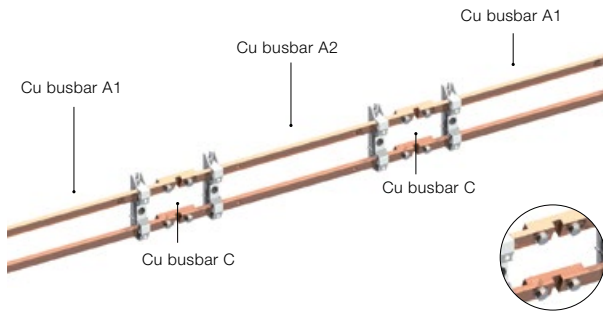


- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Two Cu busbars A1/A2 and C are required per module

Cu busbar mm	l _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left										
12 x 5	250	1	298	1	ZX1040	2CPX041906R9999		ZXM1040	2CPX041516R9999	
		2	548	1	ZX1041	2CPX041907R9999		ZXM1041	2CPX041517R9999	
		3	798	1	ZX1042	2CPX041908R9999		ZXM1042	2CPX041518R9999	
		4	1048	1	ZX1043	2CPX041909R9999		ZXM1043	2CPX041519R9999	
		5	1298	1	ZX1044	2CPX041910R9999		ZXM1044	2CPX041520R9999	
20 x 5	320	1	298	1	ZX1052	2CPX041918R9999		ZXM1052	2CPX041528R9999	
		2	548	1	ZX1053	2CPX041919R9999		ZXM1053	2CPX041529R9999	
		3	798	1	ZX1054	2CPX041920R9999		ZXM1054	2CPX041530R9999	
		4	1048	1	ZX1055	2CPX041921R9999		ZXM1055	2CPX041531R9999	
		5	1298	1	ZX1056	2CPX041922R9999		ZXM1056	2CPX041532R9999	
30 x 5	440	1	298	1	ZX1058	2CPX041924R9999		ZXM1058	2CPX041534R9999	
		2	548	1	ZX1059	2CPX041925R9999		ZXM1059	2CPX041535R9999	
		3	798	1	ZX1060	2CPX041926R9999		ZXM1060	2CPX041536R9999	
		4	1048	1	ZX1061	2CPX041927R9999		ZXM1061	2CPX041537R9999	
		5	1298	1	ZX1062	2CPX041928R9999		ZXM1062	2CPX041538R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets										
12 x 5	250	1	350	1	ZX1080	2CPX041942R9999		ZXM1080	2CPX041552R9999	
		2	600	1	ZX1081	2CPX041943R9999		ZXM1081	2CPX041553R9999	
		3	850	1	ZX1082	2CPX041944R9999		ZXM1082	2CPX041554R9999	
		4	1100	1	ZX1083	2CPX041945R9999		ZXM1083	2CPX041555R9999	
		5	1350	1	ZX1084	2CPX041946R9999		ZXM1084	2CPX041556R9999	
20 x 5	320	1	350	1	ZX1092	2CPX041954R9999		ZXM1092	2CPX041564R9999	
		2	600	1	ZX1093	2CPX041955R9999		ZXM1093	2CPX041565R9999	
		3	850	1	ZX1094	2CPX041956R9999		ZXM1094	2CPX041566R9999	
		4	1100	1	ZX1095	2CPX041957R9999		ZXM1095	2CPX041567R9999	
		5	1350	1	ZX1096	2CPX041958R9999		ZXM1096	2CPX041568R9999	
30 x 5	440	1	350	1	ZX1098	2CPX041960R9999		ZXM1098	2CPX041570R9999	
		2	600	1	ZX1099	2CPX041961R9999		ZXM1099	2CPX041571R9999	
		3	850	1	ZX1100	2CPX041962R9999		ZXM1100	2CPX041572R9999	
		4	1100	1	ZX1101	2CPX041963R9999		ZXM1101	2CPX041573R9999	
		5	1350	1	ZX1102	2CPX041964R9999		ZXM1102	2CPX041574R9999	
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left										
12 x 5	250		44	1	ZX1181	2CPX042021R9999		-	-	-
20 x 5	320		94	1	ZX1182	2CPX042022R9999		-	-	-
30 x 5	440		94	1	ZX1183	2CPX042023R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TriLine[®] cabinet connection in the module M(B)N...62+63

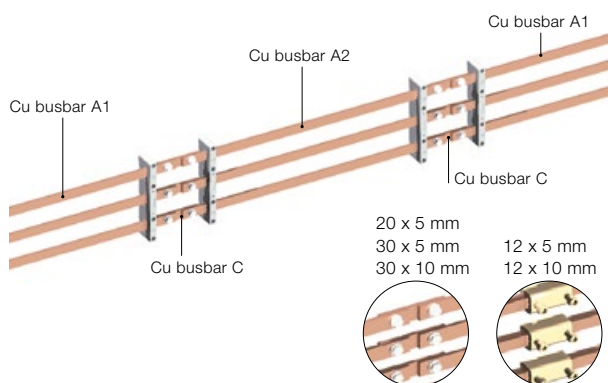


- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Two Cu busbars A1/A2 and C are required per module

Cu busbar mm	I _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left										
30 x 10	630	1	253	1	ZX2130	2CPX042608R9999		ZXM2130	2CPX042528R9999	
		2	503	1	ZX2131	2CPX042609R9999		ZXM2131	2CPX042529R9999	
		3	753	1	ZX2132	2CPX042610R9999		ZXM2132	2CPX042530R9999	
		4	1003	1	ZX2133	2CPX042611R9999		ZXM2133	2CPX042531R9999	
		5	1253	1	ZX2134	2CPX042612R9999		ZXM2134	2CPX042532R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets										
30 x 10	630	1	350	1	ZX1104	2CPX041966R9999		ZXM1104	2CPX041576R9999	
		2	600	1	ZX1105	2CPX041967R9999		ZXM1105	2CPX041577R9999	
		3	850	1	ZX1106	2CPX041968R9999		ZXM1106	2CPX041578R9999	
		4	1100	1	ZX1107	2CPX041969R9999		ZXM1107	2CPX041579R9999	
		5	1350	1	ZX1108	2CPX041970R9999		ZXM1108	2CPX041580R9999	
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left										
30 x 10	360		94	1	ZX1184	2CPX042024R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)R...03



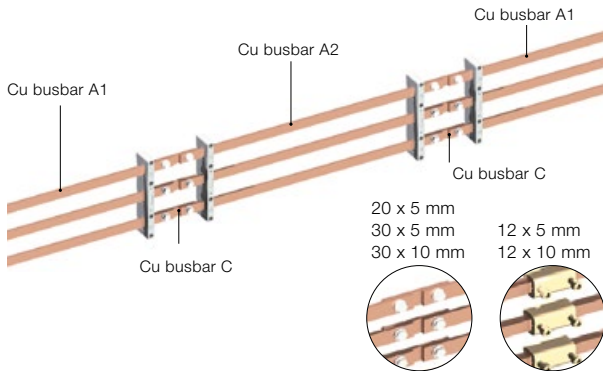
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector for Cu 12 x 5 mm and 12 x 10 mm including connection terminals
- Busbar connector for Cu 20 x 5 mm including captive nuts and fastening screws
- Three Cu busbars A1/A2 and C are required per module

Cu busbar	I _n	Width			Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		mm	PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left											
12 x 5	250	1		272	1	ZX2088	2CPX042573R9999		ZXM2088	2CPX042493R9999	
		2		522	1	ZX2089	2CPX042574R9999		ZXM2089	2CPX042494R9999	
		3		772	1	ZX2090	2CPX042575R9999		ZXM2090	2CPX042495R9999	
		4		1022	1	ZX2091	2CPX042576R9999		ZXM2091	2CPX042496R9999	
		5		1272	1	ZX2092	2CPX042577R9999		ZXM2092	2CPX042497R9999	
12 x 10	360	1		272	1	ZX2100	2CPX042583R9999		ZXM2100	2CPX042503R9999	
		2		522	1	ZX2101	2CPX042584R9999		ZXM2101	2CPX042504R9999	
		3		772	1	ZX2102	2CPX042585R9999		ZXM2102	2CPX042505R9999	
		4		1022	1	ZX2103	2CPX042586R9999		ZXM2103	2CPX042506R9999	
		5		1272	1	ZX2104	2CPX042587R9999		ZXM2104	2CPX042507R9999	
20 x 5	320	1		272	1	ZX2106	2CPX042588R9999		ZXM2106	2CPX042508R9999	
		2		522	1	ZX2107	2CPX042589R9999		ZXM2107	2CPX042509R9999	
		3		772	1	ZX2108	2CPX042590R9999		ZXM2108	2CPX042510R9999	
		4		1022	1	ZX2109	2CPX042591R9999		ZXM2109	2CPX042511R9999	
		5		1272	1	ZX2110	2CPX042592R9999		ZXM2110	2CPX042512R9999	
30 x 5	440	1		272	1	ZX2118	2CPX042598R9999		ZXM2118	2CPX042518R9999	
		2		522	1	ZX2119	2CPX042599R9999		ZXM2119	2CPX042519R9999	
		3		772	1	ZX2120	2CPX042600R9999		ZXM2120	2CPX042520R9999	
		4		1022	1	ZX2121	2CPX042601R9999		ZXM2121	2CPX042521R9999	
		5		1272	1	ZX2122	2CPX042602R9999		ZXM2122	2CPX042522R9999	
30 x 10	630	1		272	1	ZX2124	2CPX042603R9999		ZXM2124	2CPX042523R9999	
		2		522	1	ZX2125	2CPX042604R9999		ZXM2125	2CPX042524R9999	
		3		772	1	ZX2126	2CPX042605R9999		ZXM2126	2CPX042525R9999	
		4		1022	1	ZX2127	2CPX042606R9999		ZXM2127	2CPX042526R9999	
		5		1272	1	ZX2128	2CPX042607R9999		ZXM2128	2CPX042527R9999	

> A2, busbars for the connection of TriLine cabinets on the right and left side, see next page

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)R...03

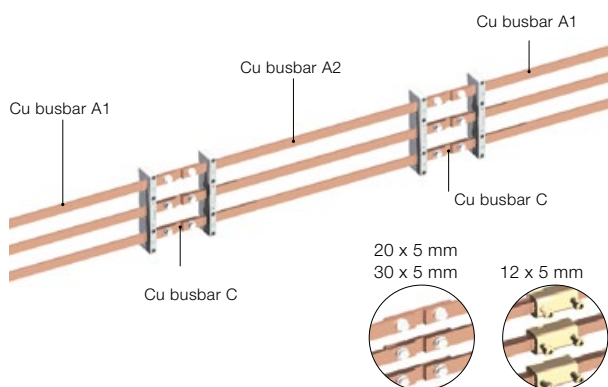


- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector for Cu 12 x 5 mm and 12 x 10 mm including connection terminals
- Busbar connector for Cu 20 x 5 mm including captive nuts and fastening screws
- Three Cu busbars A1/A2 and C are required per module

Cu busbar mm	/n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets										
12 x 5	250	1	350	1	ZX1080	2CPX041942R9999		ZXM1080	2CPX041552R9999	
		2	600	1	ZX1081	2CPX041943R9999		ZXM1081	2CPX041553R9999	
		3	850	1	ZX1082	2CPX041944R9999		ZXM1082	2CPX041554R9999	
		4	1100	1	ZX1083	2CPX041945R9999		ZXM1083	2CPX041555R9999	
		5	1350	1	ZX1084	2CPX041946R9999		ZXM1084	2CPX041556R9999	
12 x 10	360	1	350	1	ZX1086	2CPX041948R9999		ZXM1086	2CPX041558R9999	
		2	600	1	ZX1087	2CPX041949R9999		ZXM1087	2CPX041559R9999	
		3	850	1	ZX1088	2CPX041950R9999		ZXM1088	2CPX041560R9999	
		4	1100	1	ZX1089	2CPX041951R9999		ZXM1089	2CPX041561R9999	
		5	1350	1	ZX1090	2CPX041952R9999		ZXM1090	2CPX041562R9999	
20 x 5	320	1	350	1	ZX1092	2CPX041954R9999		ZXM1092	2CPX041564R9999	
		2	600	1	ZX1093	2CPX041955R9999		ZXM1093	2CPX041565R9999	
		3	850	1	ZX1094	2CPX041956R9999		ZXM1094	2CPX041566R9999	
		4	1100	1	ZX1095	2CPX041957R9999		ZXM1095	2CPX041567R9999	
		5	1350	1	ZX1096	2CPX041958R9999		ZXM1096	2CPX041568R9999	
30 x 5	440	1	350	1	ZX1098	2CPX041960R9999		ZXM1098	2CPX041570R9999	
		2	600	1	ZX1099	2CPX041961R9999		ZXM1099	2CPX041571R9999	
		3	850	1	ZX1100	2CPX041962R9999		ZXM1100	2CPX041572R9999	
		4	1100	1	ZX1101	2CPX041963R9999		ZXM1101	2CPX041573R9999	
		5	1350	1	ZX1102	2CPX041964R9999		ZXM1102	2CPX041574R9999	
30 x 10	630	1	350	1	ZX1104	2CPX041966R9999		ZXM1104	2CPX041576R9999	
		2	600	1	ZX1105	2CPX041967R9999		ZXM1105	2CPX041577R9999	
		3	850	1	ZX1106	2CPX041968R9999		ZXM1106	2CPX041578R9999	
		4	1100	1	ZX1107	2CPX041969R9999		ZXM1107	2CPX041579R9999	
		5	1350	1	ZX1108	2CPX041970R9999		ZXM1108	2CPX041580R9999	
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left										
12 x 5	250		44	1	ZX1181	2CPX042021R9999		-	-	-
12 x 10	360		44	1	ZX1181	2CPX042021R9999		-	-	-
20 x 5	320		94	1	ZX1182	2CPX042022R9999		-	-	-
30 x 5	440		94	1	ZX1183	2CPX042023R9999		-	-	-
30 x 10	630		94	1	ZX1184	2CPX042024R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection in the module M(B)R...02(B)

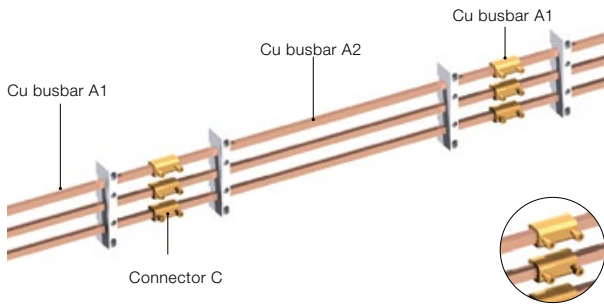


- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector for Cu 12 x 5 mm and 12 x 10 mm including connection terminals
- Busbar connector for Cu 20 x 5 mm including captive nuts and fastening screws
- Three Cu busbars A1/A2 and C are required per module

Cu busbar	I _n	Width			Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		mm	PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left											
12 x 5	250	1	298	1	ZX1040	2CPX041906R9999		ZXM1040	2CPX041516R9999		
		2	548	1	ZX1041	2CPX041907R9999		ZXM1041	2CPX041517R9999		
		3	798	1	ZX1042	2CPX041908R9999		ZXM1042	2CPX041518R9999		
		4	1048	1	ZX1043	2CPX041909R9999		ZXM1043	2CPX041519R9999		
		5	1298	1	ZX1044	2CPX041910R9999		ZXM1044	2CPX041520R9999		
20 x 5	320	1	298	1	ZX1052	2CPX041918R9999		ZXM1052	2CPX041528R9999		
		2	548	1	ZX1053	2CPX041919R9999		ZXM1053	2CPX041529R9999		
		3	798	1	ZX1054	2CPX041920R9999		ZXM1054	2CPX041530R9999		
		4	1048	1	ZX1055	2CPX041921R9999		ZXM1055	2CPX041531R9999		
		5	1298	1	ZX1056	2CPX041922R9999		ZXM1056	2CPX041532R9999		
30 x 5	440	1	298	1	ZX1058	2CPX041924R9999		ZXM1058	2CPX041534R9999		
		2	548	1	ZX1059	2CPX041925R9999		ZXM1059	2CPX041535R9999		
		3	798	1	ZX1060	2CPX041926R9999		ZXM1060	2CPX041536R9999		
		4	1048	1	ZX1061	2CPX041927R9999		ZXM1061	2CPX041537R9999		
		5	1298	1	ZX1062	2CPX041928R9999		ZXM1062	2CPX041538R9999		
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets											
12 x 5	250	1	350	1	ZX1080	2CPX041942R9999		ZXM1080	2CPX041552R9999		
		2	600	1	ZX1081	2CPX041943R9999		ZXM1081	2CPX041553R9999		
		3	850	1	ZX1082	2CPX041944R9999		ZXM1082	2CPX041554R9999		
		4	1100	1	ZX1083	2CPX041945R9999		ZXM1083	2CPX041555R9999		
		5	1350	1	ZX1084	2CPX041946R9999		ZXM1084	2CPX041556R9999		
20 x 5	320	1	350	1	ZX1092	2CPX041954R9999		ZXM1092	2CPX041564R9999		
		2	600	1	ZX1093	2CPX041955R9999		ZXM1093	2CPX041565R9999		
		3	850	1	ZX1094	2CPX041956R9999		ZXM1094	2CPX041566R9999		
		4	1100	1	ZX1095	2CPX041957R9999		ZXM1095	2CPX041567R9999		
		5	1350	1	ZX1096	2CPX041958R9999		ZXM1096	2CPX041568R9999		
30 x 5	440	1	350	1	ZX1098	2CPX041960R9999		ZXM1098	2CPX041570R9999		
		2	600	1	ZX1099	2CPX041961R9999		ZXM1099	2CPX041571R9999		
		3	850	1	ZX1100	2CPX041962R9999		ZXM1100	2CPX041572R9999		
		4	1100	1	ZX1101	2CPX041963R9999		ZXM1101	2CPX041573R9999		
		5	1350	1	ZX1102	2CPX041964R9999		ZXM1102	2CPX041574R9999		
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left											
12 x 5	250		44	1	ZX1181	2CPX042021R9999		-	-		-
20 x 5	320		94	1	ZX1182	2CPX042022R9999		-	-		-
30 x 5	440		94	1	ZX1183	2CPX042023R9999		-	-		-

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection for M(B)T...50+51(B)



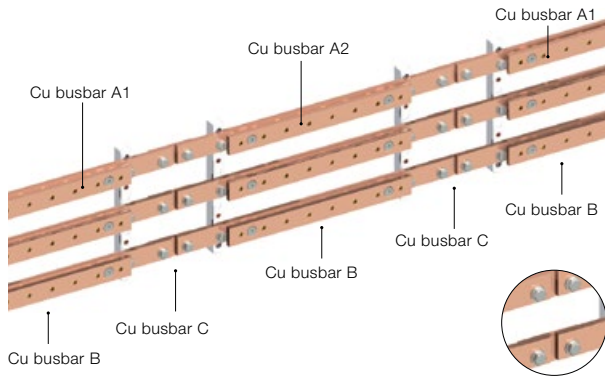
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including connection terminals
- Three Cu busbars A1/A2 and C are required per module

Cu busbar mm	/ _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left										
12 x 5	250	2	548	1	ZX1041	2CPX041907R9999		ZXM1041	2CPX041517R9999	
		3	798	1	ZX1042	2CPX041908R9999		ZXM1042	2CPX041518R9999	
		4	1048	1	ZX1043	2CPX041909R9999		ZXM1043	2CPX041519R9999	
		5	1298	1	ZX1044	2CPX041910R9999		ZXM1044	2CPX041520R9999	
		12 x 10	360	2	548	1	ZX1047	2CPX041913R9999		ZXM1047
		3	798	1	ZX1048	2CPX041914R9999		ZXM1048	2CPX041524R9999	
		4	1048	1	ZX1049	2CPX041915R9999		ZXM1049	2CPX041525R9999	
		5	1298	1	ZX1050	2CPX041916R9999		ZXM1050	2CPX041526R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets										
12 x 5	250	2	600	1	ZX1081	2CPX041943R9999		ZXM1081	2CPX041553R9999	
		3	850	1	ZX1082	2CPX041944R9999		ZXM1082	2CPX041554R9999	
		4	1100	1	ZX1083	2CPX041945R9999		ZXM1083	2CPX041555R9999	
		5	1350	1	ZX1084	2CPX041946R9999		ZXM1084	2CPX041556R9999	
		12 x 10	360	2	600	1	ZX1087	2CPX041949R9999		ZXM1087
3	850			1	ZX1088	2CPX041950R9999		ZXM1088	2CPX041560R9999	
4	1100			1	ZX1089	2CPX041951R9999		ZXM1089	2CPX041561R9999	
5	1350			1	ZX1090	2CPX041952R9999		ZXM1090	2CPX041562R9999	
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left										
12 x 5	250		44	1	ZX1181	2CPX042021R9999		-	-	-
12 x 10	360		44	1	ZX1181	2CPX042021R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N

Busbars for the TriLine[®] cabinet connection for M(B)L...52(B)

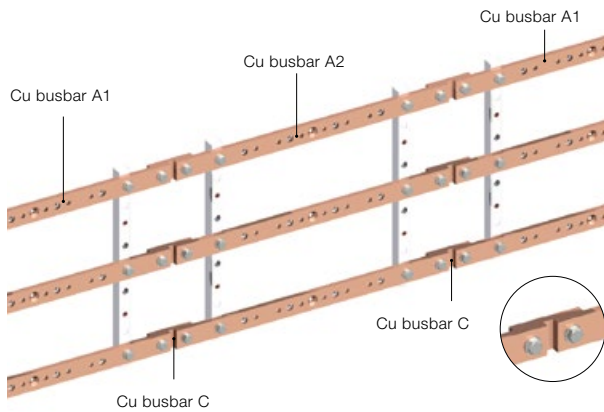


- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- Cu busbars A1 prepared for the cabinet to cabinet connection right or left
- Cu busbars A2 prepared for the cabinet to cabinet connection right and left
- To assemble the size 00 fuse switch disconnectors, a second busbar B with captive nuts per module is mounted in front
- One connector C is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- To this end the busbar holders are fixed to the rear position of the bracket
- Three Cu busbars A1/A2, B and C are required per module

Cu busbar mm	/ n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left										
30 x 10	630	1	298	1	ZX1064	2CPX041930R9999		ZXM1064	2CPX041540R9999	
		2	548	1	ZX1065	2CPX041931R9999		ZXM1065	2CPX041541R9999	
		3	798	1	ZX1066	2CPX041932R9999		ZXM1066	2CPX041542R9999	
		4 (2PW+2PW)	1048	1	ZX1067	2CPX041933R9999		ZXM1067	2CPX041543R9999	
		5 (3PW+2PW)	1298	1	ZX1068	2CPX041934R9999		ZXM1068	2CPX041544R9999	
40 x 10	850	1	298	1	ZX1070	2CPX041936R9999		ZXM1070	2CPX041546R9999	
		2	548	1	ZX1071	2CPX041937R9999		ZXM1071	2CPX041547R9999	
		3	767	1	ZX1072	2CPX041938R9999		ZXM1072	2CPX041548R9999	
		4 (2PW+2PW)	1048	1	ZX1073	2CPX041939R9999		ZXM1073	2CPX041549R9999	
		5 (3PW+2PW)	1298	1	ZX1074	2CPX041940R9999		ZXM1074	2CPX041550R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets										
30 x 10	630	1	350	1	ZX1104	2CPX041966R9999		ZXM1104	2CPX041576R9999	
		2	600	1	ZX1105	2CPX041967R9999		ZXM1105	2CPX041577R9999	
		3	850	1	ZX1106	2CPX041968R9999		ZXM1106	2CPX041578R9999	
		4 (2PW+2PW)	1100	1	ZX1107	2CPX041969R9999		ZXM1107	2CPX041579R9999	
		5 (3PW+2PW)	1350	1	ZX1108	2CPX041970R9999		ZXM1108	2CPX041580R9999	
40 x 10	850	1	350	1	ZX1110	2CPX041972R9999		ZXM1110	2CPX041582R9999	
		2	600	1	ZX1111	2CPX041973R9999		ZXM1111	2CPX041583R9999	
		3	850	1	ZX1112	2CPX041974R9999		ZXM1112	2CPX041584R9999	
		4 (2PW+2PW)	1100	1	ZX1113	2CPX041975R9999		ZXM1113	2CPX041585R9999	
		5 (3PW+2PW)	1350	1	ZX1114	2CPX041976R9999		ZXM1114	2CPX041586R9999	
Cu busbar B busbars for mounting the 00 fuse switch disconnectors										
30 x 10	630	1	150	1	ZX1170	2CPX042342R9999		ZXM1170	2CPX042348R9999	
		2	400	1	ZX1171	2CPX042343R9999		ZXM1171	2CPX042349R9999	
		3	650	1	ZX1172	2CPX042344R9999		ZXM1172	2CPX042350R9999	
40 x 10	850	1	150	1	ZX1176	2CPX042345R9999		ZXM1176	2CPX042351R9999	
		2	400	1	ZX1177	2CPX042346R9999		ZXM1177	2CPX042352R9999	
		3	650	1	ZX1178	2CPX042347R9999		ZXM1178	2CPX042353R9999	
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left										
30 x 10	630		94	1	ZX1184	2CPX042024R9999		-	-	-
40 x 10	850		94	1	ZX1185	2CPX042025R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N, Busbars for the TriLine® cabinet connection for M(B)L...21-300(B)



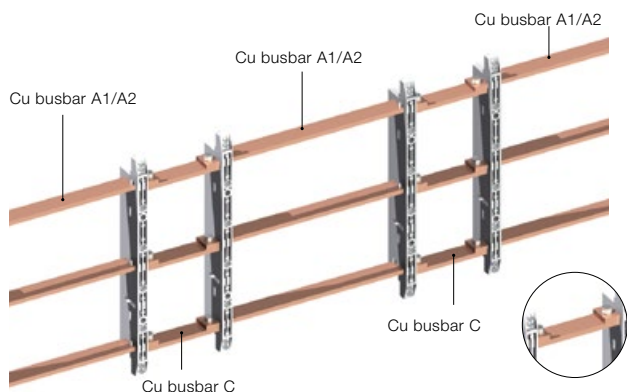
- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- To assemble size 00 fuse switch disconnectors, the busbars A1 and A2 are equipped with captive nuts
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Three Cu busbars A1/A2 and C are required per module

Cu busbar	I _n	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1, busbars for the TriLine cabinet to cabinet connection to the right or left										
30 x 10	630	1	267	1	ZX1135	2CPX041990R9999		ZXM1135	2CPX041600R9999	
		2	517	1	ZX1136	2CPX041991R9999		ZXM1136	2CPX041601R9999	
		3	767	1	ZX1137	2CPX041992R9999		ZXM1137	2CPX041602R9999	
		4 (2PW+2PW)	1017	1	ZX1138	2CPX041993R9999		ZXM1138	2CPX041603R9999	
		5 (3PW+2PW)	1267	1	ZX1139	2CPX041994R9999		ZXM1139	2CPX041604R9999	
40 x 10	850	1	267	1	ZX1141	2CPX041996R9999		ZXM1141	2CPX041606R9999	
		2	517	1	ZX1142	2CPX041997R9999		ZXM1142	2CPX041607R9999	
		3	767	1	ZX1143	2CPX041998R9999		ZXM1143	2CPX041608R9999	
		4 (2PW+2PW)	1017	1	ZX1144	2CPX041999R9999		ZXM1144	2CPX041609R9999	
		5 (3PW+2PW)	1267	1	ZX1145	2CPX042000R9999		ZXM1145	2CPX041610R9999	
Cu busbar A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets										
30 x 10	630	1	350	1	ZX1150	2CPX042002R9999		ZXM1150	2CPX041612R9999	
		2	600	1	ZX1151	2CPX042003R9999		ZXM1151	2CPX041613R9999	
		3	850	1	ZX1152	2CPX042004R9999		ZXM1152	2CPX041614R9999	
		4 (2PW+2PW)	1100	1	ZX1153	2CPX042005R9999		ZXM1153	2CPX041615R9999	
		5 (3PW+2PW)	1350	1	ZX1154	2CPX042006R9999		ZXM1154	2CPX041616R9999	
40 x 10	850	1	350	1	ZX1156	2CPX042008R9999		ZXM1156	2CPX041618R9999	
		2	600	1	ZX1157	2CPX042009R9999		ZXM1157	2CPX041619R9999	
		3	850	1	ZX1158	2CPX042010R9999		ZXM1158	2CPX041620R9999	
		4 (2PW+2PW)	1100	1	ZX1159	2CPX042011R9999		ZXM1159	2CPX041621R9999	
		5 (3PW+2PW)	1350	1	ZX1160	2CPX042012R9999		ZXM1160	2CPX041622R9999	
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left										
30 x 10	630		94	1	ZX1184	2CPX042024R9999		-	-	-
40 x 10	850		94	1	ZX1185	2CPX042025R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N

Busbars for the TriLine[®] cabinet connection for M(B)L...5

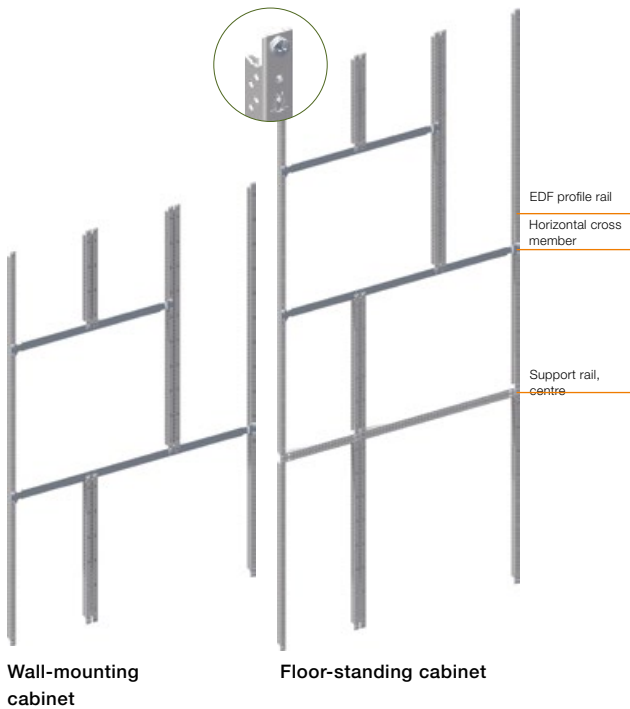


- Using continuous busbars, it is possible to combine different module widths within a single cabinet.
- One connector is required per busbar connection for the cabinet connection
- The busbar connection is realized outside the module
- Busbar connector including captive nuts and fastening material
- Three Cu busbars A1/A2 and C are required per module

Cu busbar mm	I _n one	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
		PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Cu busbar A1/A2, busbars for the TriLine cabinet to cabinet connection to the right or left										
40 x 10	850	2	496	1	ZX1032	2CPX041901R9999		ZXM1032	2CPX041511R9999	
		3	746	1	ZX1033	2CPX041902R9999		ZXM1033	2CPX041512R9999	
		4	996	1	ZX1034	2CPX041903R9999		ZXM1034	2CPX041513R9999	
		5	1246	1	ZX1035	2CPX041904R9999		ZXM1035	2CPX041514R9999	
Cu busbar A1/A2, busbars for the cabinet to cabinet connection right and left of TriLine cabinets										
40 x 10	850	2	496	1	ZX1032	2CPX041901R9999		ZXM1032	2CPX041511R9999	
		3	746	1	ZX1033	2CPX041902R9999		ZXM1033	2CPX041512R9999	
		4	996	1	ZX1034	2CPX041903R9999		ZXM1034	2CPX041513R9999	
		5	1246	1	ZX1035	2CPX041904R9999		ZXM1035	2CPX041514R9999	
Cu busbar C, connectors for the TriLine cabinet to cabinet connection to the right or left										
40 x 10	850		165	1	ZX1186	2CPX042887R9999		-	-	-

Enclosures

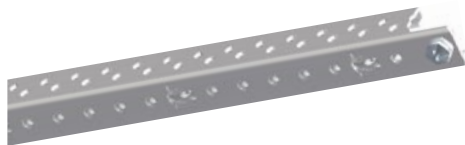
Modular distribution panel system CombiLine N EDF mounting frame parts



Installation options with variable EDF mounting frame using horizontal cross members

The vertical EDF profile rails are prepared for the installation of modules. A horizontal cross member will be required to connect different panel widths.

The TwinLine wall-mounting cabinets are prepared for an assembly with EDF mounting frame parts. For the TwinLine floor-standing cabinet a center support rail and EDF-adapters are required (see chapter TwinLine).



EDM9

- Vertical EDF profile
- Incl. fastening screws
- For mounting modules up to 400 A*

Description	Height		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
	GU	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Vertical EDF profile rail	1	150	1	ED7	2CPX041865R9999		EDM7	2CPX041455R9999	
			20	ED7P20	2CPX041866R9999				
	2	300	1	ED8	2CPX039208R9999		EDM8	2CPX041456R9999	
			20	ED8P20	2CPX062311R9999				
	3	450	1	ED9	2CPX039209R9999		EDM9	2CPX041457R9999	
			20	ED9P20	2CPX062312R9999				
	4	600	1	ED10	2CPX039210R9999		EDM10	2CPX041458R9999	
			20	ED10P20	2CPX062313R9999				
	5	750	1	ED11	2CPX039211R9999		EDM11	2CPX041459R9999	
			20	ED11P20	2CPX062314R9999				
	6	900	1	ED12	2CPX039212R9999		EDM12	2CPX041460R9999	
			20	ED12P20	2CPX062315R9999				
	7	1050	1	ED13	2CPX039213R9999		EDM13	2CPX041461R9999	
			20	ED13P20	2CPX062316R9999				
	8	1200	1	ED14	2CPX039214R9999		EDM14	2CPX041462R9999	
			20	ED14P20	2CPX062317R9999				
	9	1350	1	ED15	2CPX039215R9999		EDM15	2CPX041463R9999	
			20	ED15P20	2CPX062318R9999		-	-	-
Vertical EDF profile rail	12	1800	1	ED18	2CPX039216R9999		-	-	-
For holding touch guard covers			20	ED18P20	2CPX062325R9999		-	-	-
in case of a free installation	14	2100	1	ED20	2CPX039218R9999		-	-	-

* The values given refer only to the DIN EN 60439-1 (VDE 0660 500) standard



ED112

- Horizontal cross member for the panel separation to the top **and** bottom
- Incl. fastening screws

Description	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
	PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Horizontal cross member	2	500	1	ED112P10	2CPX068572R9999		EDM112	2CPX041464R9999	
	3	750	1	ED113P10	2CPX068573R9999		EDM113	2CPX041465R9999	



ED122

- Horizontal cross member for the panel separation to the top **or** bottom
- Incl. fastening screws

Description	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
	PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Horizontal cross member	2	500	1	ED122P10	2CPX042847R9999		EDM122	2CPX042845R9999	
	3	750	1	ED123P10	2CPX042848R9999		EDM123	2CPX042846R9999	



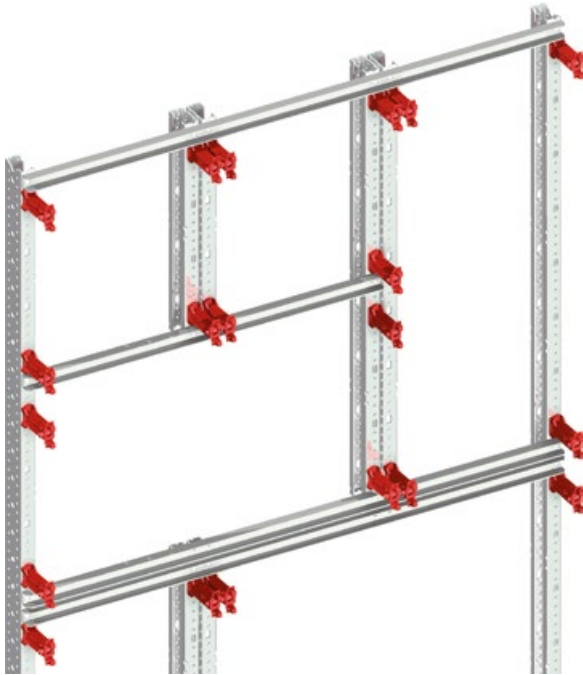
ED403

- EDF profile rails to stabilize DIN rails with each other
- For 3-panel wide modules always included in the scope of delivery

Description	Height		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
	GU	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
For rail mounting device modules 125 mm rail spacing	2	152	1	ED402	2CPX042615R9999		-	-	-
	3	276	1	ED403	2CPX042616R9999		-	-	-
	4	401	1	ED404	2CPX042617R9999		-	-	-
	5	527	1	ED405	2CPX042618R9999		-	-	-
For rail mounting device modules 150 mm rail spacing	2	177	1	ED412	2CPX042619R9999		-	-	-
	3	327	1	ED413	2CPX042620R9999		-	-	-
	4	477	1	ED414	2CPX042621R9999		-	-	-
	5	627	1	ED415	2CPX042622R9999		-	-	-

Enclosures

Modular distribution panel system CombiLine N WR mounting frame parts



Installation options with variable WR mounting frame using horizontal cross members

The vertical WR profile rails are prepared for the installation of modules. A horizontal cross member will be required to connect different panel widths. The WR mounting frame is used for the TwinLine floor-standing cabinet. For an assembly in the TwinLine wall-mounting cabinet, the EDF adapters of the mounting frame holder are removed.



- WR mounting frame, complete
- Vertical WR profile rail with horizontal cross member
- For mounting modules up to 850 A*

14

WRM281

Description	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
	PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
WR mounting frame	1	250	1	WR181	2CPX042858R9999		WRM181	2CPX042849R9999	
For all floor-standing and switchgear cabinets	2	500	1	WR281	2CPX042859R9999		WRM281	2CPX042850R9999	
from depths of 225 mm	3	750	1	WR381	2CPX042860R9999		WRM381	2CPX042851R9999	
Height 12 GU, 1800 mm	4	1000	1	WR481	2CPX042861R9999		WRM481	2CPX042852R9999	
WR mounting frame	1	250	1	WR1101	2CPX042862R9999		WRM1101	2CPX042853R9999	
For switchgear cabinets	2	500	1	WR2101	2CPX042863R9999		WRM2101	2CPX042854R9999	
from depths of 325 mm	3	750	1	WR3101	2CPX042864R9999		WRM3101	2CPX042855R9999	
Height 14 GU, 2100 mm	4	1000	1	WR4101	2CPX042865R9999		WRM4101	2CPX042856R9999	

* The values given refer only to the DIN EN 60439-1 (VDE 0660 500) standard



ZW213

- Vertical WR profile rail
- To compensate the height when using horizontal cross members

Description	Height		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
	GU	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Vertical WR profile rail	1	150	1	ZW367	2CPX041850R9999		ZWM367	2CPX041432R9999	
	2	300	1	ZW368	2CPX041851R9999		ZWM368	2CPX041433R9999	
	3	450	1	ZW369	2CPX041852R9999		ZWM369	2CPX041434R9999	
	4	600	1	ZW370	2CPX041853R9999		ZWM370	2CPX041435R9999	
	5	750	1	ZW371	2CPX041854R9999		ZWM371	2CPX041436R9999	
	6	900	1	ZW372	2CPX041855R9999		ZWM372	2CPX041437R9999	
	7	1050	1	ZW373	2CPX041856R9999		ZWM373	2CPX041438R9999	
	8	1200	1	ZW374	2CPX041857R9999		ZWM374	2CPX041439R9999	
	9	1350	1	ZW375	2CPX041858R9999		ZWM375	2CPX041440R9999	
	10	1500	1	ZW376	2CPX041859R9999		ZWM376	2CPX041441R9999	
	11	1650	1	ZW377	2CPX041860R9999		ZWM377	2CPX041442R9999	
	12	1800	1	ZW213	2CPX060141R9999		ZWM213	2CPX041430R9999	
			10	ZW213P10	2CPX062641R9999		-	-	-
			300	ZW213P300	2CPX062714R9999		-	-	-
13	1950	1	ZW378	2CPX041861R9999		ZWM378	2CPX041443R9999		
14	2100	1	ZW214	2CPX060142R9999		ZWM214	2CPX041431R9999		
		10	ZW214P10	2CPX062642R9999		-	-	-	



ZW165

- Horizontal cross member for the panel separation
- Incl. fastening screws
- Two cross members are required when subdividing panels upwards and downwards

Description	Width		Pieces	Flatpack Unmounted			Mounted Installed in the cabinet		
	PW	mm		Type	Ord. no.	Price	Type	Ord. no.	Price
Horizontal cross member	1	250	1	ZW164	2CPX042866R9999		ZWM164	2CPX042857R9999	
			10	ZW164P10	2CPX062710R9999				
	2	500	1	ZW165	2CPX041862R9999		ZWM165	2CPX041444R9999	
			10	ZW165P10	2CPX062711R9999				
	3	750	1	ZW166	2CPX041863R9999		ZWM166	2CPX041445R9999	
			10	ZW166P10	2CPX062712R9999				
4	1000	1	ZW167	2CPX041864R9999		ZWM167	2CPX041446R9999		
		10	ZW167P10	2CPX062713R9999					



ZW209

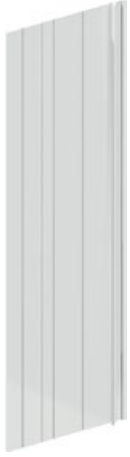
- As horizontal cross member in the WR mounting frame

Horizontal WR cross member	1	186	1	ZW209	2CPX039207R9999		ZWM209	2CPX042097R9999	
	2	436	1	ZW210	2CPX060138R9999		ZWM210	2CPX042098R9999	
	3	686	1	ZW211	2CPX060139R9999		ZWM211	2CPX042099R9999	
	4	936	1	ZW212	2CPX060140R9999		ZWM212	2CPX042100R9999	

Enclosures

Modular distribution panel system CombiLine N

Plastic partitions



ZX69

Article	Height			Order details		Price
	GU	OH	Pieces	Type	Order code	
Partitions vertical, plastic	3	00	1	ZX69	2CPX039069R9999	
Not arc-resistant, sheathing against the next module, distribution board panel, meter panel; partition is inserted into the cover holder of the next module. Colour similar to RAL 7035.	4	0	1	ZX70	2CPX039070R9999	
	5	1	1	ZX71	2CPX039071R9999	
	6	2	1	ZX72	2CPX039072R9999	
	7	3	1	ZX73	2CPX039073R9999	
	8	4	1	ZX74	2CPX039074R9999	
	9	5	1	ZX75	2CPX039075R9999	



ZX86

Article	Width		Pieces	Order details		Price
	PW	mm		Type	Order code	
Horizontal partitions, plastic	1	250	1	ZX86	2CPX039086R9999	
Not arc-resistant, sheathing against the next module, distribution board panel, meter panel; partition is inserted into the cover holder of the next module. Colour similar to RAL 7035.	2	500	1	ZX87	2CPX039087R9999	

Enclosures

Modular distribution panel system CombiLine N

Sheet steel partitions



ZX820

Article	Height		Pieces	Order details		Price
	GU	OH		Type	Order code	
For TwinLine-G cabinets						
Vertical partitions, sheet steel Not arc-resistant, sheathing against the next module, distribution board panel, meter panel; partition is riveted to the WR/EDF profile; the partition is prepared for the fixing position 0*	3	00	1	ZX810	2CPX010675R9999	
	4	0	1	ZX811	2CPX010676R9999	
	5	1	1	ZX812	2CPX010677R9999	
	6	2	1	ZX813	2CPX010678R9999	
	7	3	1	ZX814	2CPX010679R9999	
	8	4	1	ZX815	2CPX010680R9999	
	9	5	1	ZX816	2CPX010681R9999	
	12	8	1	ZX817	2CPX010682R9999	

For TwinLine-L cabinets

Vertical partitions, sheet steel Not arc-resistant, sheathing against the next module, distribution board panel, meter panel; partition is riveted to the WR/EDF profile; the partition is prepared for the fixing position 0*	3	00	1	ZX820	2CPX010683R9999	
	4	0	1	ZX821	2CPX010684R9999	
	5	1	1	ZX822	2CPX010685R9999	
	6	2	1	ZX823	2CPX010686R9999	
	7	3	1	ZX824	2CPX010687R9999	
	8	4	1	ZX825	2CPX010688R9999	
	9	5	1	ZX826	2CPX010689R9999	
	12	8	1	ZX827	2CPX010690R9999	

For TwinLine-W cabinets

Vertical partitions, sheet steel Not arc-resistant, sheathing against the next module, distribution board panel, meter panel; partition is riveted to the WR/EDF profile; the partition is prepared for the fixing position 0*	3	00	1	ZX830	2CPX010691R9999	
	4	0	1	ZX831	2CPX010692R9999	
	5	1	1	ZX832	2CPX010693R9999	
	6	2	1	ZX833	2CPX010694R9999	
	7	3	1	ZX834	2CPX010695R9999	
	8	4	1	ZX835	2CPX010696R9999	
	9	5	1	ZX836	2CPX010697R9999	
	12	8	1	ZX837	2CPX010698R9999	



ZX840

Article	Width		Pieces	Order details		Price
	PW	mm		Type	Order code	
For TwinLine-G, TwinLine-L and TwinLine-W-cabinets						
Horizontal partitions, sheet steel Not arc-resistant, sheathing against the next module, distribution board panel, meter panel; Using an additional holder rail, the partition is screwed onto the WR/EDF profile; the partition is prepared for the fixing position 0*	1	250	1	ZX840	2CPX010699R9999	
	2	500	1	ZX841	2CPX010700R9999	
	3	750	1	ZX842	2CPX010701R9999	

* See cross sections in the Technical Specifications, chapter TwinLine

Enclosures

Modular distribution panel system CombiLine N Sheet steel partitions for EDF mounting frame



ZX469

Article	Height		Pieces	Order details		Price
	GU	OH		Type	Order code	
For U, A, B and HS cabinets						
Vertical partitions, sheet steel	3	00	1	ZX469	2CPX039541R9999	
Not arc-resistant, sheathing against the next module,	4	0	1	ZX470	2CPX039542R9999	
distribution board panel, meter panel	5	1	1	ZX471	2CPX039543R9999	
Partition is riveted to the EDF mounting frame	6	2	1	ZX472	2CPX039544R9999	
	7	3	1	ZX473	2CPX039545R9999	
	8	4	1	ZX474	2CPX039546R9999	
	9	5	1	ZX475	2CPX039547R9999	
For H cabinets						
Vertical partitions, sheet steel	3	00	1	ZX479	2CPX039549R9999	
Not arc-resistant, sheathing against the next module,	4	0	1	ZX480	2CPX039550R9999	
distribution board panel against distribution board panel	5	1	1	ZX481	2CPX039551R9999	
Partition is riveted to the EDF mounting frame	6	2	1	ZX482	2CPX039552R9999	
	7	3	1	ZX483	2CPX039553R9999	
	8	4	1	ZX484	2CPX039554R9999	
	9	5	1	ZX485	2CPX039555R9999	



ZX502

Article	Width		Pieces	Order details		Price
	PW	mm		Type	Order code	
For U, A, B, HS And FS cabinets						
Horizontal sheet steel partitions	1	250	1	ZX502	2CPX039567R9999	
Not arc-resistant, when used together with	2	500	1	ZX503	2CPX039568R9999	
the EDF mounting frame, it is						
inserted between the cover holders						
For H cabinets						
Horizontal sheet steel partitions	1	250	1	ZX497	2CPX039563R9999	
Not arc-resistant, when used together with	2	500	1	ZX498	2CPX039564R9999	
the EDF mounting frame, it is						
inserted between the cover holders						

Enclosures

Modular distribution panel system CombiLine N

Sheet steel partitions for WR mounting frame



RZ151

Article	Height		Depth mm	Pieces	Order details		Price
	GU	OH			Type	Order code	
For TriLine® cabinets							
Vertical partitions, sheet steel	12	8	425	1	RZ151	2CPX046561R9999	
Not arc-resistant,	14	10	425	1	RZ155	2CPX046565R9999	
WR mounting frame against WR mounting frame	12	8	625	1	RZ152	2CPX046562R9999	
Partition is riveted to the WR mounting frame	14	10	625	1	RZ156	2CPX046566R9999	



RZ161

Article	Width		Depth mm	Pieces	Order details		Price
	PW	mm			Type	Order code	
For C series cabinets							
Horizontal sheet steel partitions	1	250	425	1	RZ161	2CPX046571R9999	
Not arc-resistant with additional fastening profile: for an assembly to the WR mounting frame	2	500	425	1	RZ162	2CPX046572R9999	
	3	750	425	1	RZ163	2CPX046573R9999	
	1	250	625	1	RZ164	2CPX046574R9999	
	2	500	625	1	RZ165	2CPX046575R9999	
	3	750	625	1	RZ166	2CPX046576R9999	

Enclosures

Modular distribution panel system CombiLine N

General accessories



ZX66P4



ED44P10



ED45P10



ED59P10



ED42P10



ED43P10



ED47



ZA1P5



ZA122

Article	Pieces	Order details		Price
		Type	Order code	
Device support connector For the connection of EDF and WR mounting frames	4	ZX66P4	2CPX062562R9999	
	50	ZX66P50	2CPX068614R9999	
Wire holder For routing of wires, installation depth 28.5 mm, to be inserted into the DIN rail from the rear.	10	ED44P10	2CPX062335R9999	
	50	ED44P50	2CPX062308R9999	
	1000	ED44P1000	2CPX062703R9999	
Wire holder For routing of wires or for holding a plastic tube \varnothing 38 mm, installation depth 55 mm, to be inserted into the DIN rail from the rear	10	ED45P10	2CPX062336R9999	
	50	ED45P50	2CPX062310R9999	
	1000	ED45P1000	2CPX062704R9999	
DIN rail adapter For ED44 or ED45. Snap onto the DIN rail from the front	10	ED59P10	2CPX062339R9999	
Console for wire holder ED44 or ED45 To be inserted into the DIN rail from the rear.	10	ED42P10	2CPX062333R9999	
Console for wire holder ED44 or ED45 Snap onto the DIN rail from the front.	10	ED43P10	2CPX062334R9999	
Cover For visual screening of wiring routed in the wire holders ED44 and ED45, 1 m long.	1	ED47	2CPX039309R9999	
Slot covers For 12 space units, break-off type, colour RAL 7035	5	ZA1P5	2CPX062384R9999	
	50	ZA1P50	2CPX062378R9999	
By the metre Colour RAL 7035	1	ZA2	2CPX038231R9999	
	20	ZA2P20	2CPX062379R9999	
Cleaner for covers Spray dispenser, 500 ml	1	ZA122	2CPX038293R9999	



ZA8

Article	Pieces	Order details		Price
		Type	Order code	
Labelling strips				
20 mm, self-adhesive, 1 panel wide	1	ZA8	2CPX060200R9999	
	5	ZA8P5	2CPX062598R9999	
	40	ZA8P40		
20 mm, self-adhesive, 2 panel wide	1	ZA9	2CPX060201R9999	
	5	ZA9P5	2CPX062599R9999	
	50	ZA9P50		
20 mm, self-adhesive, 3 panel wide	1	ZA7	2CPX060004R9999	
20 mm, self-adhesive, by the metre	5	ZA7P5	2CPX062597R9999	
	1	ZA10	2CPX038241R9999	
20 mm, self-adhesive with additional transparent film, by the metre	10	ZA10P10	2CPX062706R9999	
	1	ZA11	2CPX038230R9999	
16 mm, self-adhesive, by the metre	10	ZA11P10	2CPX062707R9999	
	1	ZA12	2CPX038242R9999	
	10	ZA12P10	2CPX062708R9999	



ZA71

Labelling system for busbars L1, L2, L3, N, PE, 1 sheet = 120 different stickers	1	ZA71	2CPX038458R9999	
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ZA27

Labelling system Self-adhesive, for labelling by hand or by machine, consisting of: 1 sheet with 10 strips	1	ZA27	2CPX038495R9999	
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ZA73

Labelling system For distribution board panels up to 6 GU	1	ZA73	2CPX038497R9999	
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ZA74

Labelling system For distribution board panels up to 9 GU	1	ZA74	2CPX038498R9999	
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ZA78

Labelling system For 8 x 12 SU	1	ZA78	2CPX031569R9999	
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ZA79

Legend for 72 devices SU	1	ZA79	2CPX031570R9999	
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Enclosures

Modular distribution panel system CombiLine N

Connection terminals for Cu busbars



ZK79



ZK81



ZK150



ZK178



ZK87



ZK157



ZK154



ZK156



ZK83



ZK152



ZK891P4



ZK86



ZK302



ZK75

Article	Cu busbars Dimensions in mm	Connection Cross section in mm ²	Pieces	Order details		Price
				Type	Order code	
Connection terminals To snap onto Cu busbars with holding spring	5	1.5 - 16	1	ZK79	2CPX064879R9999	
			4	ZK79P4	2CPX062421R9999	
			5	ZK79P5	2CPX062631R9999	
			50	ZK79P50	2CPX062429R9999	
	5	4 - 35	1	ZK81	2CPX064881R9999	
			4	ZK81P4	2CPX062422R9999	
			5	ZK81P5	2CPX062632R9999	
	5	2.5 - 50	50	ZK81P50	2CPX062431R9999	
			1	ZK150	2CPX064860R9999	
			4	ZK150P4	2CPX062427R9999	
	5	16 - 70	5	ZK150P5	2CPX062633R9999	
			50	ZK150P50	2CPX062432R9999	
1			ZK178	2CPX064978R9999		
5	16 - 120	50	ZK178P50	2CPX062622R9999		
		1	ZK157	2CPX064867R9999		
10	1.5 - 16	50	ZK157P50	2CPX062437R9999		
		1	ZK87	2CPX064887R9999		
		4	ZK87P4	2CPX062424R9999		
10	16 - 70	50	ZK87P50	2CPX062430R9999		
		1	ZK156	2CPX064866R9999		
10	16 - 120	50	ZK156P50	2CPX062438R9999		
		1	ZK154	2CPX064864R9999		
			50	ZK154P50	2CPX062435R9999	
Connection terminals with insertion element For an assembly from the front	12 x 5	16 - 95	1	ZK83	2CPX064883R9999	
	12 x 10	16 - 70	4	ZK83P4	2CPX062423R9999	
			5	ZK83P5	2CPX062655R9999	
			50	ZK83P50	2CPX062433R9999	
	30 x 5	50 - 120	1	ZK152	2CPX064862R9999	
30 x 10	50 - 120	20	ZK152P20	2CPX062444R9999		
Frame terminals to be slid onto the Cu busbars	12 x 5	16 - 150	4	ZK891P4	2CPX062626R9999	
	12 x 10	16 - 150				
	12 x 5	35 - 185	1	ZK86	2CPX064886R9999	
	12 x 10	35 - 120	20	ZK86P20	2CPX062434R9999	
On bar terminal For an assembly to the Cu busbar	5 / 10	10 - 95	1	ZK302	2CPX062645R9999	
			20	ZK302P20	2CPX062648R9999	
	5 / 10	16 - 150	1	ZK303	2CPX062646R9999	
			20	ZK303P20	2CPX062649R9999	
	5 / 10	35 - 240	1	ZK304	2CPX062647R9999	
			20	ZK304P20	2CPX062650R9999	
Phase busbar connection terminal for the connection with insulator cap		25	1	ZK75	2CPX038220R9999	

> For the technical specifications of connection terminals, see Chapter Busbar systems

Enclosures

Modular distribution panel system CombiLine N Assembly table

The innovative assembly table MT 200

This assembly table is specially designed for assembling the CombiLine distribution panel system. Using this assembly table, you may set up between 1 and 6 panel wide WR and EDF frames up to a height of 14 grid units. Particular care has been placed in safety since the frames are safely attached using frame holders from the TwinLine series which are secured by a bolt.

A tilting device allows for vertical to horizontal displacement by 90° approximately.

Advantages at a glance:

- Suitable for WR and EDF mounting frames
- For structures up to 6 panels wide
- Usable for heights of up to 14 grid units
- High safety through assembly using frame holders
- Tilting device of up to 90°



Prices available upon request

Enclosures

Distribution panel system – System parts

DIN rails and accessories



ED1



ED51



ZX21



ZX371



ZK90P2



ZX372P2

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
DIN rail 35 x 15 mm					
Width rail 1; for the assembly to the mounting frame					
For EDF and WR mounting frame, with special grid pattern for wire holder ED44/ED45					
1 panel wide, length 244 mm	M(B)K...12 / M(B)G1...	1	ED1	2CPX039381R9999	
	M(B)G41... / M(B)A160ALA	30	ED1P30	2CPX062319R9999	
2 panel wide, length 494 mm	M(B)U270	1	ED2	2CPX039382R9999	
	M(B)G2... / M(B)G42...	30	ED2P30	2CPX062320R9999	
3 panel wide, length 744 mm	M(B)U370	1	ED3	2CPX039383R9999	
	M(B)G3... / M(B)G43...	30	ED3P30	2CPX062321R9999	
4 panel wide, length 994 mm	-	1	ED4	2CPX039384R9999	
		30	ED4P30		
By the metre, length 2000 mm	-	1	ED6	2CPX039386R9999	
		10	ED6P10	2CPX062705R9999	

DIN rail 35 x 15 mm					
Width rail 2; for the assembly between the mounting frame					
1 panel wide, length 188 mm	M(B)V1... / M(B)K1...	1	ED51	2CPX039251R9999	
	M(B)N1...	30	ED51P30	2CPX062322R9999	
2 panel wide, length 438 mm	M(B)V2... / M(B)K2...	1	ED52	2CPX039252R9999	
	M(B)K...13 / M(B)C2...HS	30	ED52P30	2CPX062323R9999	
	M(B)N2...				
3 panel wide, length 688 mm	M(B)K3...	1	ED53	2CPX039253R9999	
	M(B)C3..HS / M(B)N3...	30	ED53P30	2CPX062324R9999	
4 panel wide, length 938 mm	-	1	ED54	2CPX039254R9999	
DIN rail 35 x 15 mm	M(B)K...14	1	ED74	2CPX042185R9999	
For terminal modules, vertical, length 591 mm, module height 600 mm/4 GU					

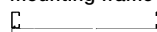
DIN rail 35 x 7.5 mm					
For the assembly to the mounting frame					
1 panel wide, length 244 mm	M(B)K1...K	1	ZX21	2CPX039021R9999	
		30	ZX21P30	2CPX062554R9999	
2 panel wide, length 494 mm	M(B)K2...K	1	ZX22	2CPX039022R9999	
		30	ZX22P30	2CPX062555R9999	

DIN rail 35 x 7.5 mm					
For the assembly between the mounting frame					
1 panel wide, length 188 mm	M(B)K1...K	1	ZX371	2CPX068076R9999	
2 panel wide, length 438 mm	-	1	ZX389	2CPX068190R9999	

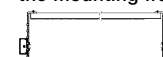
Insulator	M(B)K...K	2	ZK90P2	2CPX062426R9999	
For DIN rails 35 x 7.5 mm and 35 x 15 mm with fastening material		100	ZK90P100	2CPX068613R9999	
Mounting bracket	M(B)K1...K	2	ZX372P2	2CPX062544R9999	
For ZK90P2					

Schematic diagram of the width rail
for the EDF or WR mounting frame

Width rail 1
for the assembly to the
mounting frame



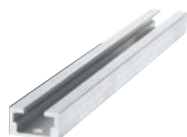
Width rail 2
For the assembly between
the mounting frame



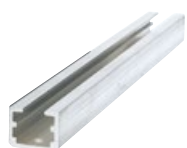
Enclosures

Distribution panel system – System parts

Width rails for the EDF or WR mounting frame



ZW223



ZW228



ZW233



ZW248



ZK143

Article	Pieces	Order details		Price
		Type	Order code	
Aluminium profile, profile no. 1				
25 x 14 mm, fastening hole \varnothing 6.2 mm				
Width rail 1; assembly to the mounting frame				
1 panel wide, length 244 mm	1	ZW11	2CPX039411R9999	
2 panel wide, length 494 mm	1	ZW12	2CPX039412R9999	
3 panel wide, length 744 mm	1	ZW13	2CPX039413R9999	
4 panel wide, length 994 mm	1	ZW14	2CPX039414R9999	
Width rail 2; assembly between the mounting frame				
1 panel wide, length 186 mm	1	ZW223	2CPX060323R9999	
2 panel wide, length 436 mm	1	ZW224	2CPX060324R9999	
3 panel wide, length 686 mm	1	ZW225	2CPX060325R9999	
Aluminium profile, profile no. 2				
25 x 20 mm, fastening hole \varnothing 6.2 mm				
Width rail 1; assembly to the mounting frame				
3 panel wide, length 744 mm	1	ZW216	2CPX060144R9999	
4 panel wide, length 994 mm	1	ZW217	2CPX060145R9999	
Width rail 2; assembly between the mounting frame				
1 panel wide, length 186 mm	1	ZW228	2CPX060328R9999	
2 panel wide, length 436 mm	1	ZW229	2CPX060329R9999	
3 panel wide, length 686 mm	1	ZW230	2CPX060330R9999	
4 panel wide, length 936 mm	1	ZW231	2CPX060331R9999	
Aluminium profile, profile no. 3				
32 x 25 mm, fastening hole \varnothing 8.2 mm				
Width rail 1; assembly to the mounting frame				
1 panel wide, length 244 mm	1	ZW16	2CPX039416R9999	
2 panel wide, length 494 mm	1	ZW17	2CPX039417R9999	
3 panel wide, length 744 mm	1	ZW18	2CPX039418R9999	
4 panel wide, length 994 mm	1	ZW19	2CPX039419R9999	
Width rail 2; assembly between the mounting frame				
1 panel wide, length 186 mm	1	ZW233	2CPX060333R9999	
2 panel wide, length 436 mm	1	ZW234	2CPX060334R9999	
3 panel wide, length 686 mm	1	ZW235	2CPX060335R9999	
4 panel wide, length 936 mm	1	ZW236	2CPX060336R9999	
Cable fastening rail, profile no. 10				
35 x 19 mm, galvanised sheet steel, fastening hole \varnothing 6.2 mm				
Width rail 1; assembly to the mounting frame				
1 panel wide, length 244 mm	1	ZW219	2CPX060198R9999	
2 panel wide, length 494 mm	1	ZW220	2CPX060146R9999	
3 panel wide, length 744 mm	1	ZW221	2CPX060147R9999	
4 panel wide, length 994 mm	1	ZW222	2CPX060148R9999	
Width rail 2; assembly between the mounting frame				
1 panel wide, length 186 mm	1	ZW248	2CPX060199R9999	
2 panel wide, length 436 mm	1	ZW249	2CPX060349R9999	
3 panel wide, length 686 mm	1	ZW250	2CPX060350R9999	
4 panel wide, length 936 mm	1	ZW251	2CPX060351R9999	
Cable fastening clamp				
for cable fastening rail, no. 10				
From 22 to 28 mm	10	ZK143P10	2CPX062728R9999	
From 40 to 46 mm	10	ZK144P10	2CPX062729R9999	
From 64 to 70 mm	10	ZK145P10	2CPX062730R9999	

Enclosures

Distribution panel system – System parts

Profile rails and mounting brackets



ZW395



ZW396



ZX343



ZX334



ZW382P4



ZX321LR



ZW389LR



ZX342



ZW349



ZW64

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Cross member 3 panel wide* Busbar holder fixed position	M(B)T350(B) / M(B) T351(B) M(B)H350(B) / M(B) H351(B) M(B)R302(B)	1	ZW395	2CPX041136R9999	
Cross member 3 panel wide* Busbar holder position may be changed if necessary	M(B)R303 M(B)S324 M(B)S327	1	ZW396	2CPX041137R9999	

Mounting bracket					
For the busbar modules S700 and S750 For the EDF and WR mounting frame	M(B)H...50	1	ZX343	2CPX064152R9999	
For cable connection modules To lower DIN rails For the EDF and WR mounting frame	M(B)V...80 M(B)V...81	1	ZX334	2CPX064166R9999	
For the busbar module device 100 mm 2-level adjustment For the EDF and WR mounting frame	M(B)L...52	4	ZW382P4	2CPX062628R9999	
For the busbar module 45° inclined For the EDF and WR mounting frame	M(B)S...28	1	ZX321LR	2CPX064160R9999	
For the busbar modules 40/60 mm When using ZB5/ZX151 For the WR mounting frame	M(B)S...24 M(B)S...27	1	ZW389LR	2CPX062635R9999	
For the busbar holder ZX520 For the WR mounting frame	-	1	ZX342	2CPX062661R9999	
For the busbar module device 185 mm For the WR mounting frame	ML100 - ML300 ML218 - ML33B	1 10	ZW349 ZW349P10	2CPX067951R9999 2CPX062485R9999	
For fastening horizontal profiles to the WR frame with fastening material	WR...8 WR...10	1 40	ZW64 ZW64P40	2CPX039464R9999 2CPX062475R9999	

Enclosures

Distribution panel system – System parts

Deep-mounting bracket for the EDF and WR mounting frame



ZW39P2



ZW59P2



ZW79P2



ZW259P2



ED33P2



ZW60P2



ZW142P2

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Deep-mounting bracket*, adjustable range 42 mm The installation depth between the deep-mounting bracket and the cover is 83-125 mm ² For the EDF and WR profile Stepless assembly	M(B)K106 to M(B)K310	2	ZW39P2	2CPX062681R9999	
	M(B)K112 to M(B)U314	100	ZW39P100	2CPX062715R9999	
Deep-mounting bracket*, adjustable range 71 mm The installation depth between the deep-mounting bracket and the cover is 106-153 mm ² For the EDF and WR profile Stepless assembly	M(B)K107 to M(B)K310	2	ZW59P2	2CPX062660R9999	
	M(B)M111 to M(B)M315 M(B)F183 to M(B)F383	100	ZW59P100	2CPX062716R9999	
Deep-mounting bracket*, adjustable range 107 mm The installation depth between the deep-mounting bracket and the cover is 142-190 mm ² For the EDF and WR profile Stepless assembly	M(B)F184 to M(B)F384	2	ZW79P2	2CPX062688R9999	
		100	ZW79P100	2CPX062717R9999	
Deep-mounting bracket*, adjustable range 64 mm The installation depth between the deep-mounting bracket and the cover is 99-147 mm ² For connecting Cu busbars For the EDF and WR profile Stepless assembly	M(B)T250 to M(B)T351	2	ZW259P2	2CPX062679R9999	
		100			
Deep-mounting bracket, adjustable range 62 mm The installation depth between the deep-mounting bracket and the cover is 77-139 mm ² For the EDF profile Stepless assembly	Distribution board panels with mounting plate	2	ED33P2	2CPX062305R9999	
		100	ED33P100	2CPX062307R9999	
Deep-mounting bracket, adjustable range 60 mm The installation depth between the deep-mounting bracket and the cover is 119-179 mm ² For the WR profile For depth adjustment in 15 mm steps	Free extension	2	ZW60P2	2CPX062454R9999	
		100	ZW60P100	2CPX062476R9999	
Deep-mounting bracket, adjustable range 88 mm The installation depth between the deep-mounting bracket and the cover is 128-216 mm ² For the WR profile Stepless assembly	M(B)L100 up to M(B)L300	2	ZW142P2	2CPX062463R9999	
	M(B)S131 up to M(B)S331	40	ZW142P40	2CPX062477R9999	

*2 When using cover holder ED138 with a height of 52.5 mm

Distribution panel system – System parts

Mounting cross members for busbar modules / universal application



ZW398



ZW253



ZW252



ZW255



ZW256



ZW399



ZW384



ZW403LR



ZX322



ZX333



ZW386



ZW390P2



ZW322

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Mounting cross members for busbar modules					
For the busbar modules 40 mm	M(B)S324 / M(B)H350	1	ZW398	2CPX068098R9999	
For busbar modules Devices 40 mm	M(B)T350 / M(B)T351	1	ZW253	2CPX062680R9999	
For the busbar module 60 mm For the busbar holders ZX151 as additional support	M(B)S327	1	ZW252	2CPX062664R9999	
For the busbar module device 60 mm For the busbar holders ZX146 as additional support	M(B)R302(B)	1	ZW255	2CPX064151R9999	
For the busbar module device 60 mm For the busbar holders ZX146 as additional support	M(B)R303(B)	1	ZW256	2CPX062678R9999	
For the busbar module device 60 mm For the busbar holder ZX146 For the EDF and WR mounting frame	M(B)R...H	1	ZW399	2CPX062972R9999	
For the busbar modules 40/60 mm For busbar holder type ZX151 For the EDF mounting frame	M(B)S...24 M(B)S...27	1	ZW384	2CPX062748R9999	
For the busbar module device 60 mm For the busbar holder ZX146, recessed, For the WR mounting frame	M(B)R...03	1	ZW403LR	2CPX062974R9999	

Mounting cross members

For the busbar holder ZX518

For the busbar module 45° inclined 1 panel wide	M(B)S128	1	ZX322	2CPX064159R9999	
For the busbar module 45° inclined 2 panel wide	M(B)S228	1	ZX333	2CPX064163R9999	
For the N/PE busbar module For the busbar holder engaged	M(B)N...69	1	ZW386	2CPX062749R9999	
For the N/PE busbar module For additional support	M(B)N274, M(B)N275 M(B)N374, M(B)N375	2	ZW390P2	2CPX062486R9999	

Mounting cross member

For terminal modules

195 mm	M(B)K112-114	1	ZW322		
435 mm	M(B)K212-214	1	ZW323		
685 mm	M(B)K312-314	1	ZW324		

Enclosures

Distribution panel system – System parts

Mounting cross members for MCCBs and switch disconnectors



ED160



ED166



ED167



ED162



ED163



ED155



ED173

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Mounting cross members MCCB					
Make: ABB, series: Tmax T, Tmax XT including sliding nuts M4					
1 panel wide Tmax T1/XT1, Tmax T2, Tmax T3/XT3 Usable width 199 mm	MA100ALSB - MA250ALSB M(B)A190T	1	ED160	2CPX068773R9999	
2 panel wide Tmax T1/XT1, Tmax T2, Tmax T3/XT3 Usable width 449 mm	M(B)A290T	1	ED260	2CPX062977R9999	
3 panel wide Tmax T1/XT1, Tmax T2, Tmax T3/XT3 Usable width 699 mm	M(B)A390T	1	ED360	2CPX062978R9999	
1 panel wide Tmax XT2 Usable width 199 mm	M(B)A191T	1	ED170	2CPX068388R9999	
2 panel wide Tmax XT2 Usable width 449 mm	M(B)A291T	1	ED270	2CPX068390R9999	
3 panel wide Tmax XT2 Usable width 699 mm	M(B)A391T	1	ED370	2CPX068391R9999	
1 panel wide Tmax XT4 Usable width 199 mm	M(B)A193T	1	ED171	2CPX068389R9999	
1 panel wide Tmax T4, 3 pole	M(B)A192T	1	ED166	2CPX064155R9999	
2 panel wide Tmax T4, 4 pole, Tmax T5, 3 and 4 pole	M(B)A292T	1	ED167	2CPX064156R9999	
Mounting cross member for switch disconnector					
1 panel wide For OT200E03P and OT250E03P	MA200ALAB - MA250ALAB MA250ALA	1	ED162	2CPX068807R9999	
2 panel wide For OT400E03P and OT630E03P	MA400ALAB - MA630ALAB MA630ALA	1	ED163	2CPX068808R9999	
Universal mounting cross member with Fastening screws and captive nuts M4, M5, M6					
(2 pcs. are required per switch)					
Usable width/depth					
For switch up to 250 A, 1 panel wide 170 mm/135 mm	M(B)A250A	1	ED155	2CPX067963R9999	
For switch up to 630 A, 2 panel wide 420 mm/153 mm	M(B)A630A MA400ALSB - MA630ALSB	1	ED158	2CPX067969R9999	
For switch up to 800 A, 2 panel wide 420 mm/161 mm	M(B)A800A	1	ED173	2CPX067998R9999	

Enclosures

Distribution panel system – System parts

Mounting cross member for disconnectors



ZX31



ZX34



ZW162



ZH235



ZH238



ZW159



ZW160



ZH418



ZX35



ZX297P10

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Mounting cross member for disconnectors					
With fastening screws and captive nuts for:					
1/2 disconnector size 00	M(B)T135(B)	1	ZX31	2CPX039031R9999	
1 panel wide	M(B)T136(B) M(B)T137(B)	10	ZX31P10	2CPX062480R9999	
4 disconnectors size 00	M(B)T236(B)	1	ZX34	2CPX039034R9999	
2 panel wide	M(B)T237(B)	10	ZX34P10	2CPX062481R9999	
6 disconnectors size 00	M(B)T336(B)	1	ZW162	2CPX039458R9999	
3 panel wide	M(B)T337(B)				
1 disconnector size 1	M(B)T142(B)	1	ZH235	2CPX039841R9999	
1 panel wide	M(B)T143(B)				
1 disconnector size 2	M(B)T144(B)	1	ZH238	2CPX039837R9999	
1 panel wide	M(B)T145(B)				
2 disconnectors size 1 or size 2	M(B)T242(B)	1	ZW159	2CPX039455R9999	
2 panel wide	M(B)T243(B) M(B)T244(B) M(B)T245(B)				
3 disconnectors size 1 or size 2	M(B)T345(B)	1	ZW160	2CPX039456R9999	
3 panel wide	M(B)T343(B) M(B)T344(B) M(B)T345(B)				
Mounting cross member for disconnectors For size 00 disconnectors for an assembly to the DIN rail	-	1	ZH418	2CPX062968R9999	
Mounting cross member for telecommunication devices Without fastening screws or captive nuts	1MK...A	1	ZX35	2CPX060638R9999	
Captive nuts					
For cross members and telecommunication devices					
M4	ED160 - ED360 ED170 - ED370 ED171 / ZX35	10	ZX299P10	2CPX060639R9999	
M6	ZX31 / ZX34 / ZW162	10	ZX297P10	2CPX062541R9999	
M8	ZH235 / ZH238 ZW159 / ZW160	10	ZX298P10	2CPX062542R9999	

Enclosures

Distribution panel system – System parts

Mounting plates for recessed and top fitted assemblies



ZW365

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Mounting plates for the assembly between the mounting frame					
For recessed mounting with deep-mounting bracket					
H x W					
1 panel wide					
1 GU, 116 x 188 mm	M(B)M111	1	ZW365	2CPX068073R9999	
2 GU, 266 x 188 mm	M(B)M112	1	ZW338	2CPX067938R9999	
3 GU, 416 x 188 mm	M(B)M113	1	ZW341	2CPX067941R9999	
4 GU, 566 x 188 mm	M(B)M114	1	ZW344	2CPX067944R9999	
5 GU, 716 x 188 mm	M(B)M115	1	ZW362	2CPX068070R9999	
2 panel wide					
1 GU, 116 x 438 mm	M(B)M211	1	ZW336	2CPX067936R9999	
2 GU, 266 x 438 mm	M(B)M212	1	ZW339	2CPX067939R9999	
3 GU, 416 x 438 mm	M(B)M213	1	ZW342	2CPX067942R9999	
4 GU, 566 x 438 mm	M(B)M214	1	ZW345	2CPX067945R9999	
5 GU, 716 x 438 mm	M(B)M215	1	ZW363	2CPX068071R9999	
3 panel wide					
1 GU, 116 x 688 mm	M(B)M311	1	ZW337	2CPX067937R9999	
2 GU, 266 x 688 mm	M(B)M312	1	ZW340	2CPX067940R9999	
3 GU, 416 x 688 mm	M(B)M313	1	ZW343	2CPX067943R9999	
4 GU, 566 x 688 mm	M(B)M314	1	ZW346	2CPX067946R9999	
5 GU, 716 x 688 mm	M(B)M315	1	ZW364	2CPX068072R9999	

Mounting plates

For the assembly to the mounting frame

For top fitted assemblies in compact distribution boards without deep-mounting bracket

1 panel wide	M(B)M112K	1	ZX605	2CPX067776R9999	
2 GU, 266 x 200 mm					
1 panel wide	M(B)M113K	1	ZX606	2CPX067777R9999	
3 GU, 416 x 200 mm					
1 panel wide	M(B)M114K	1	ZX607	2CPX064154R9999	
4 GU, 566 x 200 mm					



ZX605

Enclosures

Distribution panel system – System parts

Mounting frame/meter plates/switchgear cabinet lighting



ZX382



ZX381



ZX379



ZX380



ZX390



ZX24



ZX304



ZX305



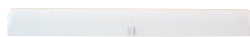
ZX574



ZX378P20



ZE220



ZE221

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Mounting frame for measurement instruments 96 x 96 mm					
1 panel wide	M(B)U156	1	ZX382	2CPX068186R9999	
	M(B)U157 M(B)U158	1	ZX381	2CPX068086R9999	
2 panel wide	M(B)U257	1	ZX379	2CPX068084R9999	
3 panel wide	M(B)U357	1	ZX380	2CPX068085R9999	
Mounting frame for switch disconnectors					
make ABB SlimLine					
2 panel wide	M(B)L25	1	ZX390	2CPX068560R9999	
3 panel wide	M(B)L35	1	ZX391	2CPX068561R9999	
Cable protection sleeve					
Set M 20	M(B)V180	1	ZX24	2CPX068538R9999	
Set M 32	M(B)V181, M(B)V281	1	ZX25	2CPX068539R9999	
Set M 40	M(B)V182, M(B)V282	1	ZX26	2CPX068540R9999	
Meter plates for WR profile					
1 panel wide, height 450 mm, For one meter, without top part	M(B)Z160	1	ZX304	2CPX060294R9999	
1 panel wide, height 750 mm, For two meters, without top part	M(B)Z161	1	ZX305	2CPX060295R9999	
Top part for meter plates incl. fastening material 1 panel	M(B)Z160 M(B)Z161	1	ZX574	2CPX068781R9999	
Spacer for meter plate	M(B)Z160 M(B)Z161	20	ZX378P20	2CPX062547R9999	
Switchgear cabinet lighting					
8 watts	M(B)U270	1	ZE220	2CPX068058R9999	
13 watts	M(B)U370	1	ZE221	2CPX068059R9999	

Enclosures

Distribution panel system – System parts

Busbars by the metre

ZX400

Article	Pieces	Order details		Price
		Type	Order code	
Rated current 250 A				
Dimensions 12 x 5 mm				
1 m	1	ZX400	2CPX061400R9999	
2 m	1	ZX401	2CPX061401R9999	
3 m	1	ZX402	2CPX061402R9999	
4 m	1	ZX350	2CPX061350R9999	

ZX406

Rated current 320 A				
Dimensions 20 x 5 mm				
1 m	1	ZX406	2CPX061406R9999	
2 m	1	ZX407	2CPX061407R9999	
3 m	1	ZX408	2CPX061408R9999	
4 m	1	ZX351	2CPX061351R9999	

ZX403

Rated current 360 A				
Dimensions 12 x 10 mm				
1 m	1	ZX403	2CPX061403R9999	
2 m	1	ZX404	2CPX061404R9999	
3 m	1	ZX405	2CPX061405R9999	
4 m	1	ZX354	2CPX061354R9999	

ZX365

Rated current 390 A				
Cu busbars 25 x 5 mm				
1 m	1	ZX365	2CPX061365R9999	
2 m	1	ZX366	2CPX061366R9999	
3 m	1	ZX367	2CPX061367R9999	
4 m	1	ZX352	2CPX061352R9999	

ZX409

Rated current 440 A				
Cu busbars 30 x 5 mm				
1 m	1	ZX409	2CPX061409R9999	
2 m	1	ZX410	2CPX061410R9999	
3 m	1	ZX411	2CPX061411R9999	
4 m	1	ZX353	2CPX061353R9999	

ZX362

Rated current 500 A				
Cu busbars 20 x 10 mm				
1 m	1	ZX362	2CPX061362R9999	
2 m	1	ZX363	2CPX061363R9999	
3 m	1	ZX364	2CPX061364R9999	
4 m	1	ZX355	2CPX061355R9999	

ZX412

Rated current 630 A				
Cu busbars 30 x 10 mm				
1 m	1	ZX412	2CPX061412R9999	
2 m	1	ZX413	2CPX061413R9999	
3 m	1	ZX414	2CPX061414R9999	
4 m	1	ZX356	2CPX061356R9999	

ZX415

Rated current 850 A				
Cu busbars 40 x 10 mm				
1 m	1	ZX415	2CPX061415R9999	
2 m	1	ZX416	2CPX061416R9999	
3 m	1	ZX417	2CPX061417R9999	
4 m	1	ZX357	2CPX061357R9999	

Enclosures

Distribution panel system – System parts

Busbar holders and accessories



ZX387



ZB5



ZX147



ZX146



ZX172



ZX157



ZX151



ZX158



ZX520



ZX523

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Busbar holder 3-pole Busbar centre spacing 40 mm For Cu busbars 12 x 5 mm and 12 x 10 mm	M(B)T...50(B) M(B)T...51(B)	1	ZX387	2CPX068092R9999	
Busbar holder 5-pole Busbar centre spacing 40 mm For Cu busbars 12 x 5 mm, 12 x 10 mm and 20 x 5 mm	M(B)H...50 M(B)S...24	1 10	ZB5 ZB5P10	2CPX038459R9999 2CPX062556R9999	
Busbar holder 1-pole Busbar centre spacing 60 mm For Cu busbars 12 x 5 mm up to 30 x 10 mm For connecting to ZX146	-	1 10	ZX147 ZX147P10	2CPX044011R9999 2CPX062719R9999	
Busbar holder 3-pole Busbar centre spacing 60 mm For Cu busbars 12 x 5 mm up to 30 x 10 mm	M(B)R...02(B) M(B)R...H M(B)R...03	1 10	ZX146 ZX146P10	2CPX044010R9999 2CPX062718R9999	
End cover For busbar holders ZX146 / ZB5	M(B)H...50 M(B)R...02(B) M(B)S...24	1 10	ZX172 ZX172P10	2CPX060232R9999 2CPX062724R9999	
N/PE busbar holders For Cu busbars 12 x 5 mm up to 30 x 5 mm and 12 x 10 mm up to 20 x 10 mm For series connection to ZX151	-	1 10	ZX157 ZX157P10	2CPX044009R9999 2CPX062722R9999	
Busbar holder 3-pole Busbar centre spacing 60 mm For Cu busbars 12 x 5 mm up to 30 x 10 mm	M(B)S...27	1 10	ZX151 ZX151P10	2CPX044006R9999 2CPX062721R9999	
End cover For busbar holder type ZX151	-	1 10	ZX158 ZX158P10	2CPX060208R9999 2CPX062723R9999	
Busbar holder 3-pole					
Busbar centre spacing 60 mm/100 mm For Cu busbars 30 x 10 mm up to 60 x 10 mm	M(B)L...52(B) M(B)S...31	1 10	ZX520 ZX520P10	2CPX067861R9999 2CPX062552R9999	
Busbar centre spacing 100 mm/185 mm For Cu busbars 30 x 10 mm up to 100 x 10 mm	M(B)L...00(B) ML...B	1 10	ZX522 ZX522P10	2CPX067909R9999 2CPX062553R9999	
Busbar holder 3/4 pole Busbar centre spacing 185 mm For Cu busbars 40 x 10 mm	M(B)L25 M(B)L35	1	ZX523	2CPX068553R9999	

Enclosures

Distribution panel system – System parts

Busbar holders and accessories



ZX518



ZX519



ZX149



ZB19



ZX50

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
N/PE busbar holders For Cu busbars 12 x 5 mm, 20 x 5 mm 30 x 5 mm	M(B)N...69	1	ZX518	2CPX067805R9999	
	M(B)N...74	10	ZX518P10	2CPX062551R9999	
	M(B)N...75				
	M(B)S...28				
End cover For busbar holders ZX518	M(B)N...74	1	ZX519	2CPX062687R9999	
	M(B)N...75	10	ZX519P10	2CPX062686R9999	
N/PE busbar holders For Cu busbars 12 x 5 mm up to 30 x 10 mm	M(B)N...62	1	ZX149	2CPX044019R9999	
	M(B)N...63	10	ZX149P10	2CPX062720R9999	
Snap-on cover profile For Cu busbars 12 x 5 mm and 12 x 10 mm 1 m long	-	1	ZB19	2CPX038187R9999	
	-	10	ZB19P10	2CPX062709R9999	
Support insulators with spanner flats					
Diameter x Length					
30 x 30 mm, thread, both sides M6 Key width: 30 mm	-	1	ZX50	2CPX039050R9999	
	-	20	ZX50P20	2CPX062725R9999	
30 x 30 mm, thread, both sides M8 Key width: 30 mm	-	1	ZX51	2CPX039051R9999	
	-	20	ZX51P20	2CPX062726R9999	
40 x 40 mm, thread, both sides M10 Key width: 40 mm	-	1	ZX52	2CPX039052R9999	
	-	20	ZX52P20	2CPX062560R9999	
50 x 60 mm, thread, both sides M12 Key width: 50 mm	-	1	ZX53	2CPX039053R9999	
	-	20	ZX53P20	2CPX062559R9999	
40 x 50 mm, thread, one side M12 Male thread: M12 x 65 mm	-	1	ZX54	2CPX039054R9999	
	-	20	ZX54P20	2CPX062727R9999	

Enclosures

Distribution panel system – System parts

Fastening material



ZW62



ZX256P10



ZX230P10



ZB61P10



ZW99

Article	Pieces	Order details		Price
		Type	Order code	
Insertion nut for WR profile	1	ZW62	2CPX039462R9999	
Set M 8	50	ZW62P50	2CPX062479R9999	

Insertion nut for profile rails, profile no. 1 and 2

L x W x D (mm)	Pieces	Type	Order code	Price
20 x 11 x 4, M5	10	ZX256P10	2CPX062515R9999	
20 x 14 x 4, M5	10	ZX248P10	2CPX062509R9999	
20 x 14 x 4, M6	10	ZX249P10	2CPX062510R9999	
20 x 14 x 4, M8	10	ZX250P10	2CPX062511R9999	

Sliding nut for profile rails, profile no. 1 and 2

L x W x D (mm)	Pieces	Type	Order code	Price
20 x 20 x 4, M3	10	ZX226P10	2CPX062494R9999	
20 x 20 x 4, M4	10	ZX227P10	2CPX062495R9999	
20 x 20 x 4, M5	10	ZX228P10	2CPX062496R9999	
20 x 20 x 4, M6	10	ZX229P10	2CPX062497R9999	
20 x 20 x 4, M8	10	ZX230P10	2CPX062498R9999	

Sliding nut for profile rails, for profile no. 3

L x W x D (mm)	Pieces	Type	Order code	Price
25 x 25 x 8, M5	10	ZX235P10	2CPX062639R9999	
25 x 25 x 6, M6	10	ZX231P10	2CPX062499R9999	
25 x 25 x 8, M8	10	ZX232P10	2CPX062500R9999	
25 x 25 x 8, M10	10	ZX233P10	2CPX062501R9999	
25 x 25 x 8, M12	10	ZX234P10	2CPX062502R9999	

Spacers, plastic

For raised or recessed mounting of DIN rails, incl. screws

Length	Pieces	Type	Order code	Price
10 mm long	10	ZB61P10	2CPX062393R9999	
length: 15 mm	10	ZB62P10	2CPX062394R9999	
length: 20 mm	10	ZB63P10	2CPX062395R9999	
length: 25 mm	10	ZB64P10	2CPX062396R9999	
length: 30 mm	10	ZB65P10	2CPX062397R9999	
length: 40 mm	10	ZB67P10	2CPX062398R9999	
length: 50 mm	10	ZB69P10	2CPX062399R9999	
By the metre, length 1 m	10	ZB70	2CPX038570R9999	

Vibration damper














For vibration-free installation of mounting plates and devices

Thread	Pieces	Type	Order code	Price
M 6 male thread and M 6 female thread	1	ZW98	2CPX060124R9999	
M10 female thread	1	ZW99	2CPX060125R9999	

Enclosures

Distribution panel system – System parts

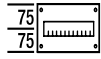
Fastening material

	Article	Pieces	Order details		Price
			Type	Order code	
 ZB21P4	Cross recess pan head screw	4	ZB21P4	2CPX062663R9999	
	Pozidriv PZ2, M5 x 8 mm	20	ZB21P20	2CPX068585R9999	
 ZB36P20	Phillips cross recess pan head screw with slotted hexalobular drive	20	ZB36P20	2CPX062390R9999	
	Pozidriv PZ2, M5 x 12 mm				
 ZB37P20	Hexalobular socket and slotted pan head screw*	20	ZB37P20	2CPX060202R9999	
	M5 x 12 mm / Torx T25				
 ZB22P20	Slotted cheese head screw	20	ZB22P20	2CPX068586R9999	
	M5 x 20 mm				
Cross recess pan head screw with slotted hexalobular drive					
 ZB32P4	Torx T25				
	M 4.8 x 9.5 mm	4	ZB32P4	2CPX064149R9999	
		20	ZB32P20	2CPX062651R9999	
		500	ZB32P500	2CPX062652R9999	
 ZB27P20	M 4.8 x 11.5 mm	20	ZB27P20	2CPX062588R9999	
		500	ZB27P500	2CPX062689R9999	
 ZX273P4	M 4.8 x 32 mm	4	ZX273P4	2CPX064153R9999	
Hexalobular socket pan head screw*					
 ZX910P10	M6 x 20 mm / Torx T30	10	ZX910P10	2CPX060203R9999	
	M6 x 30 mm / Torx T30	10	ZX912P10	2CPX060204R9999	
	M6 x 45 mm / Torx T30	10	ZX915P10	2CPX060205R9999	
Hexagon socket head cap screw					
 ZX260P10	M 5 x 10 mm	10	ZX260P10	2CPX062517R9999	
	M6 x 20 mm	10	ZX261P10	2CPX062518R9999	
	M6 x 30 mm	20	ZX257P20	2CPX068588R9999	
	M6 x 45 mm	20	ZX259P20	2CPX068589R9999	
Hexagon socket head cap screw					
 ZX263P10	M8 x 16 mm	10	ZX263P10	2CPX062520R9999	
	M8 x 20 mm	10	ZX264P10	2CPX062521R9999	
	M8 x 30 mm	10	ZX265P10	2CPX062522R9999	
 ZX258P10	Hexagon socket head cap screw and captive spring lock washer	10	ZX258P10	2CPX062516R9999	
	M6 x 12 mm				
 ZX270P10	Hexagon socket head cap screw, self-tapping	10	ZX270P10	2CPX062527R9999	
	For hole-diameter 5.5 mm M6 x 20				
 ZX283P10	Washer	10	ZX283P10	2CPX060281R9999	
	6 mm				

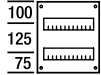
Enclosures

Distribution panel system – System parts

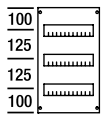
Covers for rail mounting devices, 125 mm DIN rail spacing



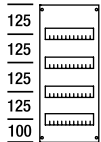
AS11



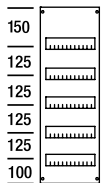
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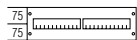
AS13



AS14



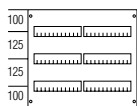
AS15



AS21



AS22



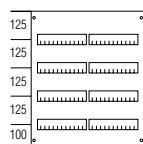
AS23

Article	Pieces	Order details		Price
		Type	Order code	
Covers 1 panel wide with 90° press and turn closure				
Height x width				
150 x 250 mm without slot	1	AG11	2CPX062801R9999	
150 x 250 mm with slot	1	AS11	2CPX062802R9999	
300 x 250 mm without slot	1	AG12	2CPX062803R9999	
300 x 250 mm with slot	1	AS12	2CPX062804R9999	
450 x 250 mm without slot	1	AG13	2CPX062805R9999	
450 x 250 mm with slot	1	AS13	2CPX062806R9999	
600 x 250 mm without slot	1	AG14	2CPX062807R9999	
600 x 250 mm with slot	1	AS14	2CPX062808R9999	
750 x 250 mm without slot	1	AG15	2CPX062809R9999	
750 x 250 mm with slot	1	AS15	2CPX062810R9999	
Covers 2 panel wide with 90° press and turn closure				
height x width				
150 x 500 mm without slot	1	AG21	2CPX062811R9999	
150 x 500 mm with slot	1	AS21	2CPX062812R9999	
300 x 500 mm without slot	1	AG22	2CPX062813R9999	
300 x 500 mm with slot	1	AS22	2CPX062814R9999	
450 x 500 mm without slot	1	AG23	2CPX062815R9999	
450 x 500 mm with slot	1	AS23	2CPX062816R9999	

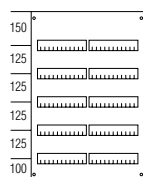
Enclosures

Distribution panel system – System parts

Covers for rail mounting devices, 125 mm DIN rail spacing



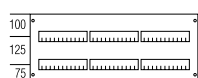
AS24



AS25



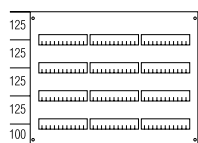
AS31



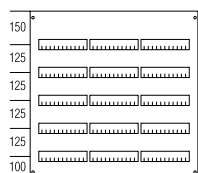
AS32



AS33



AS34



AS35

Article	Pieces	Order details		Price
		Type	Order code	
Covers 2 panel wide with 90° press and turn closure				
Height x width				
600 x 500 mm without slot	1	AG24	2CPX062817R9999	
600 x 500 mm with slot	1	AS24	2CPX062818R9999	
Covers 3 panel wide with 90° press and turn closure				
height x width				
150 x 750 mm without slot	1	AG31	2CPX062821R9999	
150 x 750 mm with slot	1	AS31	2CPX062822R9999	
300 x 750 mm without slot	1	AG32	2CPX062823R9999	
300 x 750 mm with slot	1	AS32	2CPX062824R9999	
450 x 750 mm without slot	1	AG33	2CPX062825R9999	
450 x 750 mm with slot	1	AS33	2CPX062826R9999	
600 x 750 mm without slot	1	AG34	2CPX062827R9999	
600 x 750 mm with slot	1	AS34	2CPX062828R9999	
750 x 750 mm without slot	1	AG35	2CPX062829R9999	
750 x 750 mm with slot	1	AS35	2CPX062830R9999	

Enclosures

Distribution panel system – System parts

Covers for rail mounting devices, 150 mm DIN rail spacing



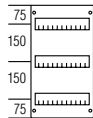
AH1



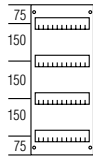
AS11



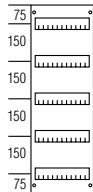
AS212



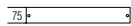
AS213



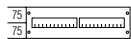
AS214



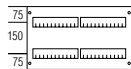
AS215



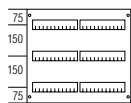
AH2



AS21



AS222



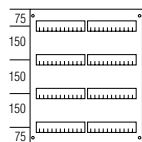
AS223

Article	Pieces	Order details		Price
		Type	Order code	
Covers 1 panel wide with 90° press and turn closure				
Height x width				
75 x 250 mm without slot	1	AH1	2CPX070387R9999	
150 x 250 mm without slot	1	AG11	2CPX062801R9999	
150 x 250 mm with slot	1	AS11	2CPX062802R9999	
300 x 250 mm without slot	1	AG212	2CPX062831R9999	
300 x 250 mm with slot	1	AS212	2CPX062832R9999	
450 x 250 mm without slot	1	AG213	2CPX062833R9999	
450 x 250 mm with slot	1	AS213	2CPX062834R9999	
600 x 250 mm without slot	1	AG214	2CPX062835R9999	
600 x 250 mm with slot	1	AS214	2CPX062836R9999	
750 x 250 mm without slot	1	AG215	2CPX062837R9999	
750 x 250 mm with slot	1	AS215	2CPX062838R9999	
Covers 2 panel wide with 90° press and turn closure				
height x width				
75 x 500 mm without slot	1	AH2	2CPX070388R9999	
150 x 500 mm without slot	1	AG21	2CPX062811R9999	
150 x 500 mm with slot	1	AS21	2CPX062812R9999	
300 x 500 mm without slot	1	AG222	2CPX062839R9999	
300 x 500 mm with slot	1	AS222	2CPX062840R9999	
450 x 500 mm without slot	1	AG223	2CPX062841R9999	
450 x 500 mm with slot	1	AS223	2CPX062842R9999	

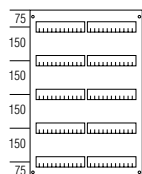
Enclosures

Distribution panel system – System parts

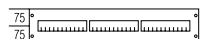
Covers for rail mounting devices, 150 mm DIN rail spacing



AS224



AS225



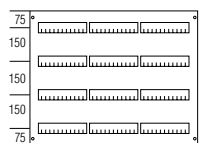
AS31



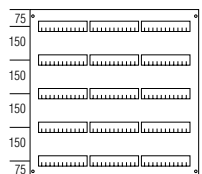
AS232



AS233



AS234



AS235

Article	Pieces	Order details		Price
		Type	Order code	
Covers 2 panel wide with 90° press and turn closure				
Height x width				
600 x 500 mm without slot	1	AG224	2CPX062843R9999	
600 x 500 mm with slot	1	AS224	2CPX062844R9999	
Covers 3 panel wide with 90° press and turn closure				
height x width				
150 x 750 mm without slot	1	AG31	2CPX062821R9999	
150 x 750 mm with slot	1	AS31	2CPX062822R9999	
300 x 750 mm without slot	1	AG232	2CPX062847R9999	
300 x 750 mm with slot	1	AS232	2CPX062848R9999	
450 x 750 mm without slot	1	AG233	2CPX062849R9999	
450 x 750 mm with slot	1	AS233	2CPX062850R9999	
600 x 750 mm without slot	1	AG234	2CPX062851R9999	
600 x 750 mm with slot	1	AS234	2CPX062852R9999	
750 x 750 mm without slot	1	AG235	2CPX062853R9999	
750 x 750 mm with slot	1	AS235	2CPX062854R9999	

Enclosures

Distribution panel system – System parts

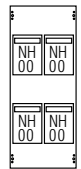
Covers 1 panel wide with cut-out



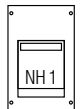
AG71



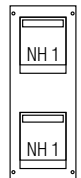
AG65



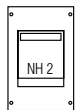
AG73



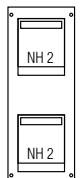
AG72



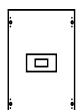
AG173



AG161



AG174



AG200

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Covers 1 panel wide with press and turn closure					
Height x width					
300 x 250 mm, with cut-out For 1 fuse switch disconnectors size 00	M(B)T135(B)	1	AG71	2CPX062873R9999	
300 x 250 mm, with cut-out For 2 fuse switch disconnectors size 00	M(B)T136(B)	1	AG65	2CPX062870R9999	
600 x 250 mm, with cut-out For 4 fuse switch disconnectors size 00	M(B)T137(B)	1	AG73	2CPX062875R9999	
450 x 250 mm, with cut-out For 1 fuse switch disconnectors size 1	M(B)T142(B)	1	AG72	2CPX062874R9999	
750 x 250 mm, with cut-out For 2 fuse switch disconnectors size 1	M(B)T143(B)	1	AG173	2CPX062899R9999	
450 x 250 mm, with cut-out For 1 fuse switch disconnectors size 2	M(B)T144(B)	1	AG161	2CPX062887R9999	
750 x 250 mm, with cut-out For 2 fuse switch disconnectors size 2	M(B)T145(B)	1	AG174	2CPX062900R9999	
300 x 250 mm, with cut-out					
For OT switch OT160M3	MA160ALAB	1	AG200	2CPX062931R9999	
For OT switch OT200E03P, OT250E03P	MA200ALAB MA250ALAB	1	AG201	2CPX062932R9999	

Enclosures

Distribution panel system – System parts

Covers 1 panel wide with cut-out



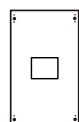
AG205



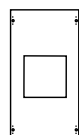
AG196



AG206



AG207



AG1304



AG127



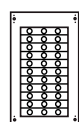
AG175



AG160



AG121



AG131

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Covers 1 panel wide with press and turn closure					
Height x width					
300 x 250 mm, with cut-out For MCCB Tmax T1, T2, T3, XT1, XT3	M(B)A190T	1	AG205	2CPX062936R9999	
300 x 250 mm, with cut-out					
For MCCB Tmax T1	MA100ALSB MA160ALSB	1	AG196	2CPX062927R9999	
For MCCB Tmax T3	MA200ALSB MA250ALSB	1	AG197	2CPX062928R9999	
300 x 250 mm, with cut-out For MCCB Tmax XT2	M(B)A191T	1	AG206	2CPX062855R9999	
450 x 250 mm, with cut-out For MCCB Tmax XT4	M(B)A193T	1	AG207	2CPX062856R9999	
450 x 250 mm, with cut-out For MCCB Tmax T4	M(B)A192T	1	AG1304	2CPX064157R9999	
300 x 250 mm, with cut-out					
For S700	M(B)H150	1	AG127	2CPX062986R9999	
for S750	M(B)H151	1	AG128	2CPX062989R9999	
150 x 250 mm, with cut-out for flexible conduit connector	M(B)V180 M(B)V181 M(B)V182	1	AG175	2CPX062901R9999	
300 x 250 mm, with cut-out For mounting fuse socket 5 x 3 x D02	M(B)R102(B)	1	AG160	2CPX062886R9999	
300 x 250 mm, with cut-out For mounting fuse socket Space for horizontal devices 134 mm	M(B)R102H	1	AG121	2CPX062969R9999	
450 x 250 mm, with cut-out For mounting fuse socket Space for horizontal devices 295 mm	M(B)R103H	1	AG131	2CPX062970R9999	

Enclosures

Distribution panel system – System parts

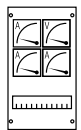
Covers, 1 panel wide with cut-out / with window



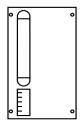
AG132



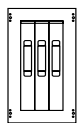
AG164



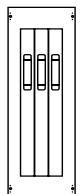
AG165



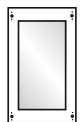
AG168



AG185



AG188



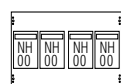
AG12S

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Covers, 1 panel wide, with 90° press and turn closure					
Height x width					
150 x 250 mm, with cut-out For measurement instruments, 96 x 96 mm	M(B)U156	1	AG132	2CPX062992R9999	
300 x 250 mm, with cut-out For measurement instruments, 96 x 96 mm	M(B)U157	1	AG164	2CPX062890R9999	
450 x 250 mm, with cut-out For measurement instruments, 96 x 96 mm	M(B)U158	1	AG165	2CPX062891R9999	
450 x 250 mm, with cut-out For switchgear cabinet lighting	-	1	AG168	2CPX062894R9999	
450 x 250 mm, with cut-out For 3 fuse switch disconnectors size 00, ZE59 100 mm busbar centre spacing	ML152B	1	AG185	2CPX062911R9999	
750 x 250 mm, with cut-out For 3 fuse switch disconnectors size 00, ZE55 185 mm busbar centre spacing	ML100B	1	AG188	2CPX062914R9999	
Covers with window					
1 panel wide with press and turn closure					
300 x 250 mm, with window	-	1	AG12S	2CPX062228R9999	
450 x 250 mm, with window	-	1	AG13S	2CPX062230R9999	
600 x 250 mm, with window	-	1	AG14S	2CPX062232R9999	

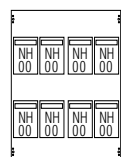
Enclosures

Distribution panel system – System parts

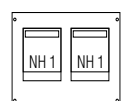
Covers 2 panel wide with cut-out



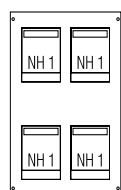
AG75



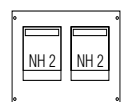
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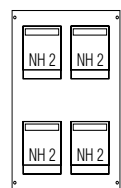
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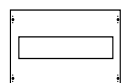
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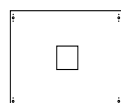
AG92



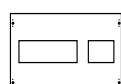
AG66



AG259



AG1404



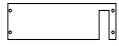
AG227

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Covers, 2 panel wide, with 90° press and turn closure					
Height x width					
300 x 500 mm, with cut-out For 4 fuse switch disconnectors size 00	M(B)T236(B) M(B)T250(B)	1	AG75	2CPX062876R9999	
600 x 500 mm, with cut-out For 8 fuse switch disconnectors size 00	M(B)T237(B)	1	AG79	2CPX062877R9999	
450 x 500 mm, with cut-out For 2 fuse switch disconnectors size 1	M(B)T242(B) M(B)T251(B)	1	AG82	2CPX062878R9999	
750 x 500 mm, with cut-out For 4 fuse switch disconnectors size 1	M(B)T243(B)	1	AG83	2CPX062879R9999	
450 x 500 mm, with cut-out For 2 fuse switch disconnector size 2	M(B)T244(B)	1	AG92	2CPX062884R9999	
750 x 500 mm, with cut-out For 4 fuse switch disconnector size 2	M(B)T245(B)	1	AG66	2CPX062871R9999	
300 x 500 mm, with cut-out For MCCB Tmax T1, T2, T3, XT1, XT3	M(B)A290T	1	AG259	2CPX062979R9999	
450 x 500 mm, with cut-out For MCCB Tmax T4/T5, 3 and 4 pole	M(B)A292T	1	AG1404	2CPX064158R9999	
For MCCB Tmax T5	MA400ALSB MA630ALSB	1	AG198	2CPX062929R9999	
300 x 500 mm, with cut-out For S700	M(B)H250	1	AG227	2CPX062987R9999	
for S750	M(B)H251	1	AG228	2CPX062990R9999	

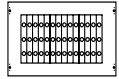
Enclosures

Distribution panel system – System parts

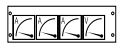
Covers 2 panel wide with cut-out



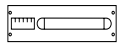
AG176



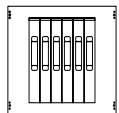
AG172



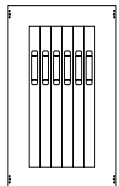
AG162



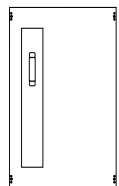
AG166



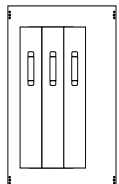
AG186



AG189



AG182



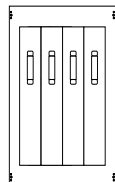
AG181

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Covers, 2 panel wide, with 90° press and turn closure					
Height x width					
150 x 500 mm, with cut-out for flexible conduit connector	M(B)V281 M(B)V282	1	AG176	2CPX062902R9999	
300 x 500 mm, with cut-out For mounting fuse socket 14 x 3 x D02	M(B)R202(B)	1	AG172	2CPX062898R9999	
150 x 500 mm, with cut-out For measurement instruments, 96 x 96 mm	M(B)U257	1	AG162	2CPX062888R9999	
150 x 500 mm, with cut-out For switchgear cabinet lighting	M(B)U270	1	AG166	2CPX062892R9999	
450 x 500 mm, with cut-out For 6 fuse switch disconnectors size 00, ZE59 100 mm busbar centre spacing	ML252B	1	AG186	2CPX062912R9999	
750 x 500 mm, with cut-out For 6 fuse switch disconnectors size 00, ZE55 For switch disconnector fuse, ABB SlimLine XR Cut-out 300 mm, width 185 mm busbar centre spacing	ML200B -	1 1	AG189 AG177	2CPX062915R9999 2CPX062903R9999	
750 x 500 mm, with cut-out For 1 fuse switch disconnector sizes 1 to 3, ZE56 - ZE58	-	1	AG182	2CPX062908R9999	
750 x 500 mm, with cut-out For 3 fuse switch disconnector sizes 1 to 3, ZE56 - ZE58	-	1	AG181	2CPX062907R9999	

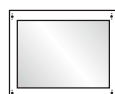
Enclosures

Distribution panel system – System parts

Covers, 2 panel wide with cut-out



AG183



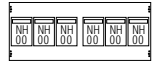
AG22S

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Covers, 2 panel wide, with 90° press and turn closure					
Height x width					
750 x 500 mm, with cut-out	ML21B	1	AG183	2CPX062909R9999	
For 4 fuse switch disconnectors sizes 1-3	ML22B				
ZE56 - ZE58	ML23B				
750 x 500 mm, with cut-out	-	1	AG179	2CPX062905R9999	
For switch disconnector fuse, ABB SlimLine XR					
Cut-out 400 mm, width					
Covers with window, 2 panel wide, with 90° press and turn closure					
300 x 500 mm, with window	-	1	AG22S	2CPX062229R9999	
450 x 500 mm, with window	-	1	AG23S	2CPX062231R9999	
600 x 500 mm, with window	-	1	AG24S	2CPX062233R9999	

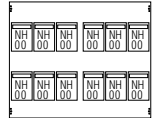
Enclosures

Distribution panel system – System parts

Covers 3 panel wide with cut-out



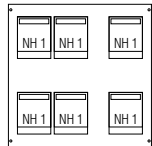
AG84



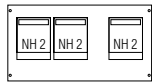
AG85



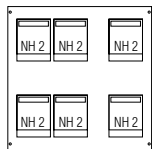
AG90



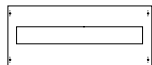
AG91



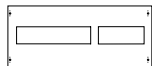
AG93



AG67



AG359



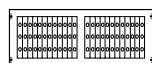
AG327

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Covers with cut-out, 3 panel wide with press and turn closure					
Height x width					
300 x 750 mm, with cut-out For 6 fuse switch disconnectors size 00	M(B)T336(B) M(B)T350(B)	1	AG84	2CPX062880R9999	
600 x 750 mm, with cut-out For 12 fuse switch disconnectors size 00	M(B)T337(B)	1	AG85	2CPX062881R9999	
450 x 750 mm, with cut-out For 3 fuse switch disconnectors size 1	M(B)T342B M(B)T351(B)	1	AG90	2CPX062882R9999	
750 x 750 mm, with cut-out For 6 fuse switch disconnectors size 1	M(B)T343(B)	1	AG91	2CPX062883R9999	
450 x 750 mm, with cut-out For 3 fuse switch disconnectors size 2	M(B)T344(B)	1	AG93	2CPX062885R9999	
750 x 750 mm, with cut-out For 6 fuse switch disconnectors size 2	M(B)T345(B)	1	AG67	2CPX062872R9999	
300 x 750 mm, with cut-out For MCCB Tmax T1, T2, T3, XT1, XT3	M(B)A390T	1	AG359	2CPX062980R9999	
300 x 750 mm, with cut-out					
For S700	M(B)H350	1	AG327	2CPX062988R9999	
for S750	M(B)H351	1	AG328	2CPX062991R9999	

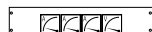
Enclosures

Distribution panel system – System parts

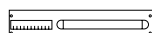
Covers 3 panel wide with cut-out



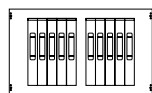
AG321



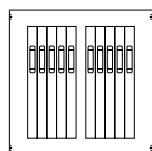
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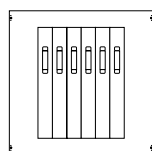
AG167



AG187



AG190



AG184

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Covers with cut-out, 3 panel wide, with 90° press and turn closure					
Height x width					
300 x 750 mm, with cut-out For mounting fuse socket 24 x 3 x D02	M(B)R302(B)	1	AG321	2CPX062971R9999	
150 x 750 mm, with cut-out For measurement instruments, 96 x 96 mm	M(B)U357	1	AG163	2CPX062889R9999	
150 x 750 mm, with cut-out For switchgear cabinet lighting	M(B)U370	1	AG167	2CPX062893R9999	
450 x 750 mm, with cut-out For 10 fuse switch disconnectors, ZE59 100 mm busbar centre spacing	ML352B	1	AG187	2CPX062913R9999	
750 x 750 mm, with cut-out For 10 fuse switch disconnectors, ZE55 185 mm busbar centre spacing	ML300B	1	AG190	2CPX062916R9999	
750 x 750 mm, with cut-out For switch disconnector fuse, ABB SlimLine XR Cut-out 2 x 250 mm width 185 mm busbar centre spacing	-	1	AG178	2CPX062904R9999	
750 x 750 mm, with cut-out For 6 fuse switch disconnectors, ZE56 - ZE58	-	1	AG184	2CPX062910R9999	
750 x 750 mm, with cut-out For switch disconnector fuse, ABB SlimLine XR Cut-out 600 mm, width	-	1	AG180	2CPX062906R9999	

Enclosures

Distribution panel system – System parts

Cover parts



ED137P4



ED138P4



ED139P4



ED135P4



ED110



ED58P10



ED50P12



ED136P4



ED41P4



ZB35P5

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Cover holder 45 mm high For fastening on EDF mounting frame profiles, or for fastening a partition. For DIN rails 35 x 7.5 mm use only this cover holder.	M(B)R...03	4	ED137P4	2CPX062600R9999	
		40	ED137P40	2CPX062601R9999	
Cover holder 52.5 mm high For fastening (insert, turn) on EDF or WR mounting frame profiles, or for fastening a partition. For DIN rails 35 x 15 mm use only this cover holder.	All modules	4	ED138P4	2CPX062630R9999	
		12	ED138P12	2CPX062602R9999	
		40	ED138P40	2CPX062603R9999	
		1600	ED138P1600	2CPX062702R9999	
Cover holder 88 mm high For fastening (insert, turn) on EDF or WR mounting frame profiles, or for fastening a partition; Use when installing devices with greater depths or in conjunction with busbar systems		4	ED139P4	2CPX062604R9999	
		40	ED139P40		
Spacer Used to extend the cover holder by 25 mm	M(B)R...03	4	ED135P4	2CPX062610R9999	
		40	ED135P40		
Cover holder (left/right)		1	ED110	2CPX039320R9999	
DIN rail adapter For the cover holder ED138 and ED139 Snap onto the DIN rail from the front.		10	ED58P10	2CPX062338R9999	
90° press and turn closure	All covers	12	ED50P12	2CPX062337R9999	
Screw insert Metric thread. For attaching cover plates made of Macrolon, sheet metal or aluminium onto the standard EDF cover holders.		4	ED136P4	2CPX062611R9999	
90° press and turn closure For attaching cover plates made of Macrolon, sheet metal or aluminium onto the standard cover holders.		4	ED41P4	2CPX062332R9999	
Sealing nipple For retrofitting in standard panel covers (drill 6 mm hole)		5	ZB35P5	2CPX062392R9999	

Enclosures

Distribution panel system – System parts

Raising frame/ Terminal safety covers



ED212

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Raising frame for covers					
For panels with cover holders 52.5 mm (ED138.), plastic frame					
to advance the cover by 25 or 35 mm					
External dimensions in mm					
1 panel wide					
300 x 250	AG12	1	ED212	2CPX062782R9999	
450 x 250	AG13	1	ED213	2CPX062783R9999	
600 x 250	AG14	1	ED214	2CPX062784R9999	
750 x 250	AG15	1	ED215	2CPX062785R9999	
2 panel wide					
300 x 500	AG22	1	ED222	2CPX062787R9999	
450 x 500	AG23	1	ED223	2CPX062788R9999	
600 x 500	AG24	1	ED224	2CPX062789R9999	
750 x 500	AG25	1	ED225	2CPX062790R9999	
3 panel wide					
300 x 750	AG32	1	ED232	2CPX062792R9999	
450 x 750	AG33	1	ED233	2CPX062793R9999	
600 x 750	AG34	1	ED234	2CPX062794R9999	
750 x 750	AG35	1	ED235	2CPX062795R9999	
Order separately per frame:					
To raise by 25 mm, 1 x ED135P4					
To raise by 35 mm, 1 x ED139P4					

Enclosures

Distribution panel system – System parts

Busbar systems for fuse switch disconnecter modules



ZH55



ZH214



ZH211



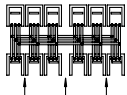
ZH311



ZH216



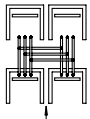
ZH212



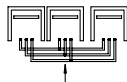
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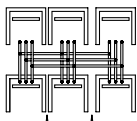
ZH217



ZH218



ZH317



ZH318

Size..	I_n	CU busbar in mm	Conne- ction	No. of discon- nectors	Type ...	Pieces	Order details		Price
							Type	Order code	
Busbar systems with feeder cable, 35 mm², length 500 mm									
Size 00	320 A	20 x 5 mm	M8	4	-	1	ZH55	2CPX038559R9999	
Busbar systems without feeder cables									
Size 00	320 A	20 x 5	M8	2	MT136B	1	ZH214	2CPX060443R9999	
Size 00	320 A	20 x 5	M8	4	MT236B	1	ZH211	2CPX060440R9999	
Size 00	320 A	20 x 5	M8	6	MT336B	1	ZH311	2CPX060450R9999	
Size 00	320 A	20 x 5	M8	4	MT137B	1	ZH216	2CPX060445R9999	
Size 00	320 A	20 x 5	M8	4	-	5	ZH216P5	2CPX062418R9999	
Size 00	320 A	20 x 5	M8	8	MT237B	1	ZH212	2CPX060441R9999	
Size 00	320 A	20 x 5	M8	12	MT337B	1	ZH312	2CPX060451R9999	
Sizes 1 and 2	440 A	30 x 5	M10	2	MT242B MT244B	1	ZH217	2CPX060446R9999	
Sizes 1 and 2	630 A	30 x 10	M10	4	MT243B MT245B	1	ZH218	2CPX060447R9999	
Sizes 1 and 2	440 A	30 x 5	M10	3	MT342B MT344B	1	ZH317	2CPX060456R9999	
Sizes 1 and 2	630 A	30 x 10	M10	6	MT343B MT345B	1	ZH318	2CPX060457R9999	

> **Important note:** For a single row of disconnectors use 3 straight or three angled cable lugs, and for a double row of disconnectors, use 3 angled cable lugs for the connection of incoming lines.

Enclosures

Distribution panel system – System parts

Trim covers and insulating plates for fuse switch disconnectors



ZH425



ZH426



ZH427



ZH428



ZH439



ZH440



ZH447



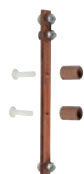
ZH449



ZH442



ZX148



ZH53

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Size 00 fuse switch disconnector					
Single trim cover	MT135B	1	ZH425	2CPX062952R9999	
Double trim cover	MT136B MT137B MT236B MT237B MT250B	1	ZH426	2CPX062953R9999	
Triple trim cover	MT336B MT337B MT350B	1	ZH427	2CPX062954R9999	
Single trim cover, closed	-	1	ZH428	2CPX062955R9999	
Double trim cover, closed	-	1	ZH429	2CPX062956R9999	
Triple trim cover, closed	-	1	ZH430	2CPX062957R9999	
Size 1 fuse switch disconnector					
Single trim cover	MT...42B MT...43B MT...51B	1	ZH438	2CPX062961R9999	
Double trim cover	-	1	ZH439	2CPX062962R9999	
Single trim cover, closed	-	1	ZH440	2CPX062963R9999	
Size 2 fuse switch disconnector					
Single trim cover	MT144B	1	ZH447	2CPX039842R9999	
For modules 1 panel wide	MT145B				
Single trim cover	MT344B	1	ZH448	2CPX062965R9999	
For modules 3 panel wide	MT345B				
Double trim cover	MT244B MT245B MT344B MT345B	1	ZH449	2CPX062966R9999	
Single trim cover, closed	-	1	ZH442	2CPX062939R9999	
Insulating plate for unoccupied busbar ends for					
Fuse switch disconnectors					
incl. fastening material					
Size 00	-	1	ZX148	2CPX044018R9999	
1	-	1	ZX128	2CPX039128R9999	
2	-	1	ZX129	2CPX039129R9999	
N/PE rails for fastening behind the cross members for					
Size 00 fuse switch disconnector					
Cu 20 x 4 mm, incl. fastening material	-	1	ZH53	2CPX038557R9999	
Size 1 fuse switch disconnector					
Cu 20 x 4 mm, incl. fastening material	-	1	ZH54	2CPX038558R9999	

Enclosures

Distribution panel system – System parts

Fuse switch disconnectors



ZH411



ZH412



ZH431



ZH441

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Fuse switch disconnectors for mounting with EDF and WR mounting frames on disconnector cross members					
Size 00 fuse switch disconnector 160 A, with M8 screw connection without trim cover	MT135B MT...36B MT...37B	1	ZH411	2CPX062947R9999	
Size 00 fuse switch disconnector 160 A, with clip terminals up to 50 mm ² without trim cover	-	1	ZH412	2CPX062948R9999	
Size 1 fuse switch disconnector 250 A, with M10 screw connection without trim cover	MT...42B MT...43B	1	ZH431	2CPX062958R9999	
Size 2 fuse switch disconnector 400 A, with M10 screw connection without trim cover	MT...44B MT...45B	1	ZH441	2CPX062964R9999	

Enclosures

Distribution panel system – System parts

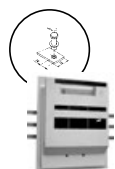
Fuse switch disconnectors



ZH414



ZH415



ZH19



ZH413



ZH433

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Fuse switch disconnectors for mounting with EDF mounting frames on busbar systems, Cu 12 x 5 mm or Cu 12 x 10 mm, busbar spacing 40 mm					
Size 00 fuse switch disconnector 160 A, with clip terminals up to 50 mm ² without trim cover	ED...TA	1	ZH414	2CPX062950R9999	
Size 00 fuse switch disconnector 160 A, with triple terminals up to 10 mm ² without trim cover	-	1	ZH415	2CPX062951R9999	
Size 1 fuse switch disconnector 250 A, with M10 screw connection with trim cover	-	1	ZH19	2CPX038204R9999	
Fuse switch disconnectors for mounting with WR mounting frames on busbar systems, Cu 12 x 5 mm or Cu 12 x 10 mm, busbar spacing 40 mm					
Size 00 fuse switch disconnector 160 A, with M8 screw connection without trim cover	MT250B MT350B	1	ZH413	2CPX062949R9999	
Size 1 fuse switch disconnector 250 A, with M10 screw connection without trim cover	MT251B MT351B	1	ZH433	2CPX062960R9999	

Enclosures

Distribution panel system – System parts

Fuse switch disconnectors



ZE58

Article	To be used for...	Pieces	Order details		Price
			Type	Order code	
Fuse switch disconnectors, busbar centre spacing 185 mm					
Size 00, 160 A, 50 mm width	ML100B	1	ZE55	2CPX061040R9999	
	ML200B				
	ML300B				
Size 1, 250 A, 100 mm width	ML21B	1	ZE56	2CPX061041R9999	
	ML31B				
Size 2, 400 A, 100 mm width	ML22B	1	ZE57	2CPX061042R9999	
	ML32B				
Size 3, 630 A, 100 mm width	ML23B	1	ZE58	2CPX061043R9999	
	ML33B				



ZE59

Fuse switch disconnectors, busbar centre spacing 100 mm					
Size 00, 160 A, 50 mm width	ML...52B	1	ZE59	2CPX061044R9999	



ZE66

1 adapter set for size 00 disconnectors 3 pieces for one disconnector	-	1	ZE66	2CPX061051R9999	
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ZK270P3

Claw clamp rail adapter for size 00 disconnectors ZE55 and ZE59 3 pcs. for one rail	-	3	ZK270P3	2CPX062428R9999	
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> **Important note:** If size 00 fuse switches (ZE59) are installed in several adjacent modules, the busbar system must be set back using the adapter set.

Enclosures

Distribution panel system – System parts

Mounting fuse sockets



ZE60



ZE61



ZE62

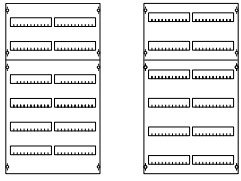


ZA4P10

Article	Pieces	Order details		Price
		Type	Order code	
Neozed mounting fuse socket E18, width 26 mm	1	ZE60	2CPX061045R9999	
For push-in guard rings, 3-pole, with covers and labelling strips, with E18 thread, fuses max. 63 A	10	ZE60P10	2CPX062400R9999	
Diazed mounting fuse socket E27, width 42 mm	1	ZE61	2CPX061046R9999	
For push-in guard rings, 3-pole, with covers and labelling strips, with E27 thread, fuses max. 25 A	10	ZE61P10	2CPX062401R9999	
Diazed mounting fuse socket E33, width 56 mm	1	ZE62	2CPX061047R9999	
For push-in guard rings, 3-pole, with covers and labelling strips, with E33 thread, fuses max. 63 A	10	ZE62P10	2CPX062402R9999	
Trim covers instead of mounting fuse sockets Colour similar to RAL 7035 to comply with the touch protection IPXXC Usable width from 16 up to 34 mm	10	ZA4P10	2CPX062374R9999	

Enclosures

Distribution panel system – Distribution panels DIN rail mounting devices

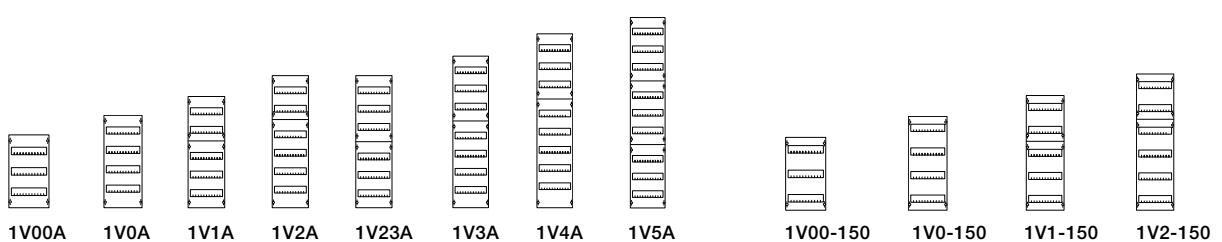
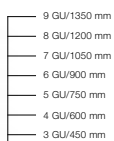


2V2A

2V2-150

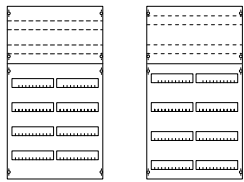
- Extension with DIN rails 35 x 15 mm
- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are to be installed.
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another.
- Without N/PE Quick-terminals
- The EDF profile rails are included in the scope of delivery

Height			Width			Cover distribution (mm)			Minimum cabinet depth of (mm)	Order details		Price
OH	GU	mm	PW	mm	SU	top	centre	bottom		Type	Order code	
125 mm DIN rail spacing												
00	3	450	1	250	36	450	-	-	120	1V00A	2CPX037580R9999	
			2	500	72	450	-	-	120	2V00A	2CPX037581R9999	
0	4	600	1	250	48	600	-	-	120	1V0A	2CPX037591R9999	
			2	500	96	600	-	-	120	2V0A	2CPX037592R9999	
1	5	750	1	250	60	300	-	450	120	1V1A	2CPX037610R9999	
			2	500	120	300	-	450	120	2V1A	2CPX037611R9999	
2	6	900	1	250	72	300	-	600	120	1V2A	2CPX037622R9999	
			2	500	144	300	-	600	120	2V2A	2CPX037623R9999	
2	6	900	1	250	72	450	-	450	120	1V23A	2CPX037634R9999	
			2	500	144	450	-	450	120	2V23A	2CPX037635R9999	
3	7	1050	1	250	84	450	-	600	120	1V3A	2CPX037639R9999	
			2	500	168	450	-	600	120	2V3A	2CPX037640R9999	
4	8	1200	1	250	96	450	-	750	120	1V4A	2CPX037651R9999	
			2	500	192	450	-	750	120	2V4A	2CPX037652R9999	
5	9	1350	1	250	108	450	450	450	120	1V5A	2CPX037665R9999	
			2	500	216	450	450	450	120	2V5A	2CPX037666R9999	
150 mm DIN rail spacing												
00	3	450	1	250	36	450	-	-	120	1V00-150	2CPX077800R9999	
			2	500	72	450	-	-	120	2V00-150	2CPX077801R9999	
0	4	600	1	250	48	600	-	-	120	1V0-150	2CPX077802R9999	
			2	500	96	600	-	-	120	2V0-150	2CPX077803R9999	
1	5	750	1	250	60	300	-	450	120	1V1-150	2CPX077804R9999	
			2	500	120	300	-	450	120	2V1-150	2CPX077805R9999	
2	6	900	1	250	72	300	-	600	120	1V2-150	2CPX077808R9999	
			2	500	144	300	-	600	120	2V2-150	2CPX077809R9999	



Enclosures

Distribution panel system – Distribution panels DIN rail mounting devices with terminals



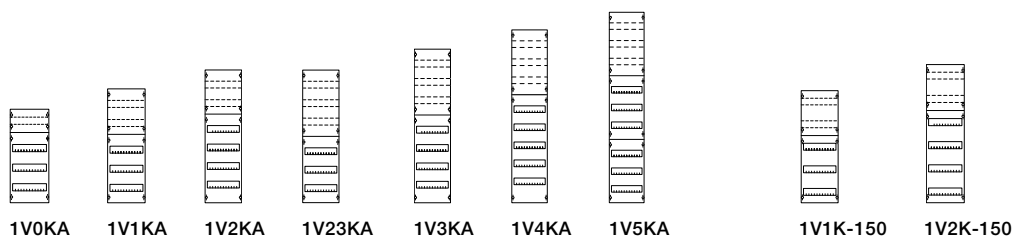
2V2KA

2V2K-150

- DIN rails fixed for terminals using ZK90P2 insulator
- DIN rails for terminals and for rail mounting devices 35 x 15 mm
- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are to be installed.
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another.
- Without N/PE Quick-terminals
- The EDF profile rails are included in the scope of delivery

Height			Width			Cover distribution (mm)			Minimum cabinet depth	Order details		Price
OH	GU	mm	PW	mm	SU	top	centre	bottom	of (mm)	Type	Order code	
125 mm DIN rail spacing												
0	4	600	1	250	48	150	-	450	120	1V0KA	2CPX037593R9999	
			2	500	96	150	-	450	120	2V0KA	2CPX037594R9999	
1	5	750	1	250	60	300	-	450	120	1V1KA	2CPX037612R9999	
			2	500	120	300	-	450	120	2V1KA	2CPX037613R9999	
2	6	900	1	250	72	300	-	600	120	1V2KA	2CPX037624R9999	
			2	500	144	300	-	600	120	2V2KA	2CPX037625R9999	
2	6	900	1	250	72	450	-	450	120	1V23KA	2CPX037637R9999	
			2	500	144	450	-	450	120	2V23KA	2CPX037638R9999	
3	7	1050	1	250	84	450	-	600	120	1V3KA	2CPX037641R9999	
			2	500	168	450	-	600	120	2V3KA	2CPX037642R9999	
4	8	1200	1	250	96	450	-	750	120	1V4KA	2CPX037653R9999	
			2	500	192	450	-	750	120	2V4KA	2CPX037654R9999	
5	9	1350	1	250	108	450	450	450	120	1V5KA	2CPX037667R9999	
			2	500	216	450	450	450	120	2V5KA	2CPX037668R9999	
150 mm DIN rail spacing												
1	5	750	1	250	60	300	-	450	120	1V1K-150	2CPX077806R9999	
			2	500	120	300	-	450	120	2V1K-150	2CPX077807R9999	
2	6	900	1	250	72	300	-	600	120	1V2K-150	2CPX077810R9999	
			2	500	144	300	-	600	120	2V2K-150	2CPX077811R9999	

- 9 GU/1350 mm
- 8 GU/1200 mm
- 7 GU/1050 mm
- 6 GU/900 mm
- 5 GU/750 mm
- 4 GU/600 mm
- 3 GU/450 mm



1V0KA

1V1KA

1V2KA

1V23KA

1V3KA

1V4KA

1V5KA

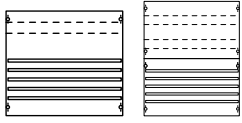
1V1K-150

1V2K-150

Enclosures

Distribution panel system – Distribution panels

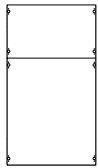
Busbars 40 mm with terminals and touch guard



2V002A 2V02A

- Busbar centre spacing 40 mm
- With 5 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current (I_n) max. 360 A
- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are to be installed
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another
- The EDF profile rails are included in the scope of delivery

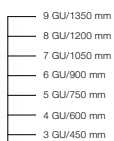
Height			Width			Cover distribution (mm)			Minimum cabinet depth of (mm)	Order details		Price
OH	GU	mm	PW	mm	SU	top	centre	bottom		Type	Order code	
00	3	450	1	250	36	450	-	-	120	1V002A	2CPX037590R9999	
			2	500	72	450	-	-	120	2V002A	2CPX037609R9999	
0	4	600	1	250	48	300	-	300	120	1V02A	2CPX037606R9999	
			2	500	96	300	-	300	120	2V02A	2CPX037607R9999	



2B2A

- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are to be installed
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another
- The EDF profile rails are included in the scope of delivery

00	3	450	1	250	36	450	-	-	120	1B00A	2CPX037585R9999	
			2	500	72	450	-	-	120	2B00A	2CPX037586R9999	
0	4	600	1	250	48	600	-	-	120	1B0A	2CPX037601R9999	
			2	500	96	600	-	-	120	2B0A	2CPX037602R9999	
1	5	750	1	250	60	750	-	-	120	1B1A	2CPX037620R9999	
			2	500	120	750	-	-	120	2B1A	2CPX037621R9999	
2	6	900	1	250	72	300	-	600	120	1B2A	2CPX037632R9999	
			2	500	144	300	-	600	120	2B2A	2CPX037633R9999	
3	7	1050	1	250	84	450	-	600	120	1B3A	2CPX037649R9999	
			2	500	168	450	-	600	120	2B3A	2CPX037650R9999	
4	8	1200	1	250	96	450	-	750	120	1B4A	2CPX037661R9999	
			2	500	192	450	-	750	120	2B4A	2CPX037662R9999	
5	9	1350	1	250	108	450	450	450	120	1B5A	2CPX037675R9999	
			2	500	216	450	450	450	120	2B5A	2CPX037676R9999	



1V002A



1V02A



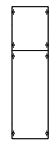
1B00A



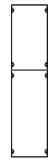
1B0A



1B1A



1B2A



1B3A



1B4A

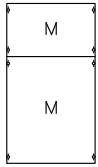


1B5A

Enclosures

Distribution panel system – Distribution panels

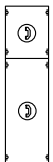
Mounting plates and communications technology



2M2A

- Mounting plates are steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are to be installed
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another
- The EDF profile rails are included in the scope of delivery

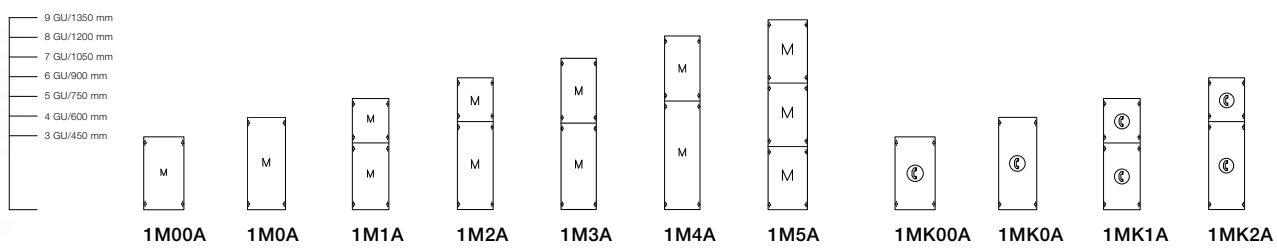
Height			Width			Cover distribution (mm)			Minimum cabinet depth of (mm)	Order details		Price
OH	GU	mm	PW	mm	SU	top	centre	bottom		Type	Order code	
00	3	450	1	250	36	450	-	-	120	1M00A	2CPX037582R9999	
			2	500	72	450	-	-	120	2M00A	2CPX037583R9999	
0	4	600	1	250	48	600	-	-	120	1M0A	2CPX037595R9999	
			2	500	96	600	-	-	120	2M0A	2CPX037596R9999	
1	5	750	1	250	60	300	-	450	120	1M1A	2CPX037614R9999	
			2	500	120	300	-	450	120	2M1A	2CPX037615R9999	
2	6	900	1	250	72	300	-	600	120	1M2A	2CPX037626R9999	
			2	500	144	300	-	600	120	2M2A	2CPX037627R9999	
3	7	1050	1	250	84	450	-	600	120	1M3A	2CPX037643R9999	
			2	500	168	450	-	600	120	2M3A	2CPX037644R9999	
4	8	1200	1	250	96	450	-	750	120	1M4A	2CPX037655R9999	
			2	500	192	450	-	750	120	2M4A	2CPX037656R9999	
5	9	1350	1	250	108	450	450	450	120	1M5A	2CPX037669R9999	
			2	500	216	450	450	450	120	2M5A	2CPX037670R9999	



1MK2A

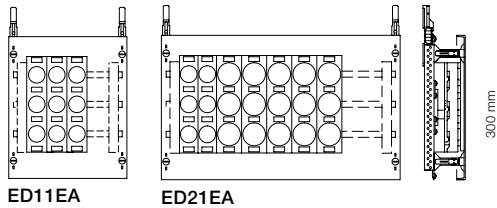
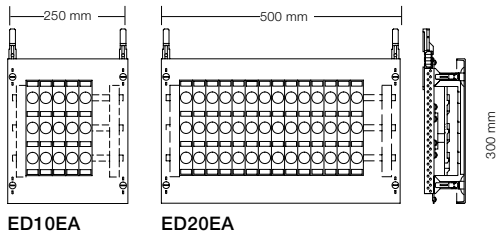
- Mounting cross members are steplessly depth-adjustable using deep-mounting bracket ED33
- For drill-free mounting using M4 captive nuts
- Distribution board panels or panel combinations must have the same height (Grid Units) as the cabinets in which they are to be installed
- In floor-standing or switchgear cabinets, two panels or panel combinations must be installed above one another
- The EDF profile rails are included in the scope of delivery

00	3	450	1	250	36	450	-	-	120	1MK00A	2CPX037179R9999	
0	4	600	1	250	48	600	-	-	120	1MK0A	2CPX037180R9999	
1	5	750	1	250	60	300	-	450	120	1MK1A	2CPX037181R9999	
2	6	900	1	250	72	300	-	600	120	1MK2A	2CPX037182R9999	



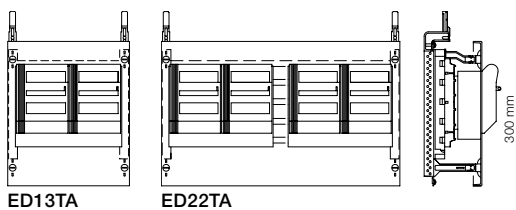
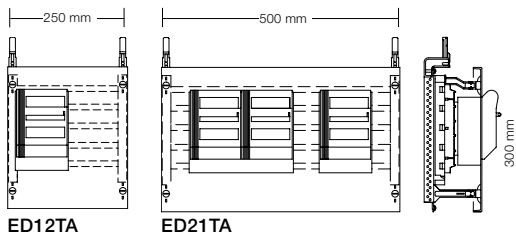
Enclosures

Distribution panel system – Combination sets Busbar system 40 / 60 mm for devices



- With 3-pole mounting fuse sockets
- Busbar centre spacing 60 mm
- With 3 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current (I_n) max. 250 A
- Combination sets can only be used together with distribution board panels

Height		Width			Devices			Order details			
OH	GU	mm	PW	mm	SU	Design	Number of	Minimum cabinet depth of (mm)	Type	Order code	Price
0	2	300	1	250	24	D02 (ZE60)	5	200	ED10EA	2CPX037800R9999	
			2	500	48	D02 (ZE60)	14	200	ED20EA	2CPX037804R9999	
0	2	300	1	250	24	Diazed E27 (ZE61)	3	200	ED11EA	2CPX037801R9999	
			2	500	48	Diazed E27 (ZE61) / Diazed E33N (ZE62)	2 / 5	200	ED21EA	2CPX037805R9999	



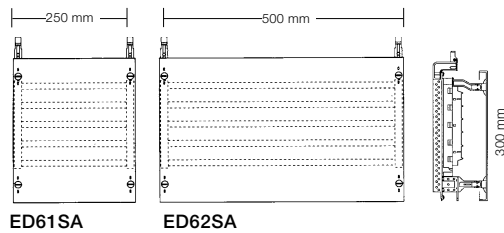
- With 3-pole fuse switch disconnecter
- Busbar centre spacing 40 mm
- With 3 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current (I_n) max. 360 A
- Combination sets can only be used together with distribution board panels

0	2	300	1	250	24	Size 00 (ZH414)	1	200	ED12TA	2CPX037802R9999	
			2	500	48	Size 00 (ZH414)	3	200	ED21TA	2CPX037806R9999	
0	2	300	1	250	24	Size 00 (ZH414)	2	200	ED13TA	2CPX037803R9999	
			2	500	48	Size 00 (ZH414)	4	200	ED22TA	2CPX037807R9999	

Enclosures

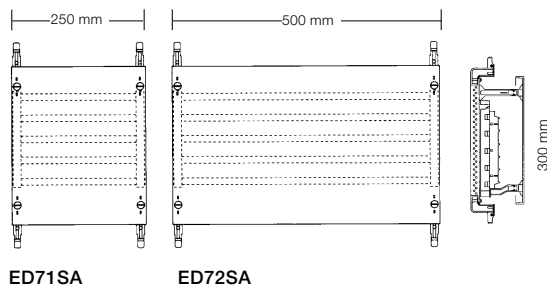
Distribution panel system – Combination sets

Busbar system



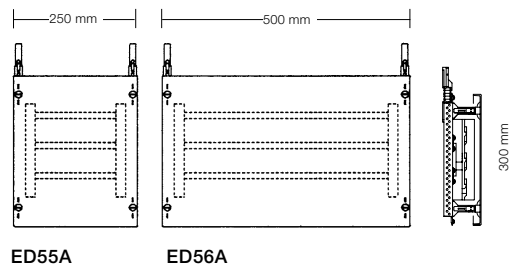
- Busbar centre spacing 40 mm
- With 5 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current (I_n) max. 360 A
- Combination sets are inserted to the top or bottom of a distribution board panel and attached to the other side of the cabinet

Height		Width		SU	Minimum cabinet depth	Order details		Price
OH	GU	mm	PW			mm	Type	
0	2	300	1	250	24	200	ED61SA	2CPX037810R9999
			2	500	48	200	ED62SA	2CPX037811R9999



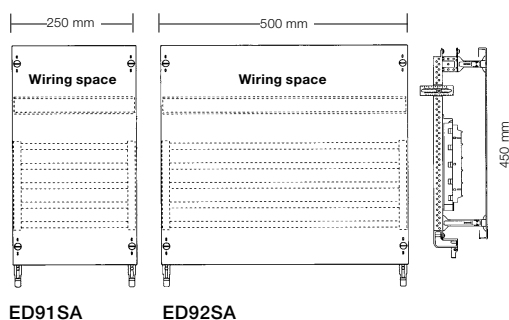
- Busbar centre spacing 40 mm
- With 5 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current (I_n) max. 360 A
- Combination sets are inserted to the top or bottom of a distribution board panel and thus intended to be inserted in between

0	2	300	1	250	24	200	ED71SA	2CPX037812R9999
			2	500	48	200	ED72SA	2CPX037813R9999



- Busbar centre spacing 60 mm
- With 3 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current (I_n) max. 360 A
- Combination sets are inserted to the top or bottom of a distribution board panel and attached to the other side of the cabinet

0	2	300	1	250	24	200	ED55A	2CPX037808R9999
			2	500	48	200	ED56A	2CPX037809R9999

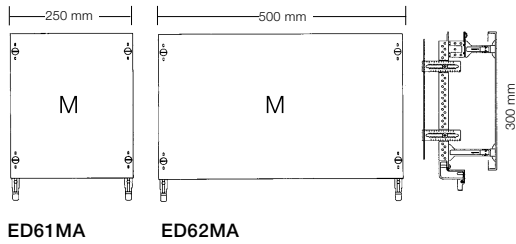


- With additional rail for terminals
- Busbar centre spacing 60 mm
- With 3 pole busbars 12 x 5 mm
- With busbar holder type ZB5
- Rated current (I_n) max. 360 A
- Combination sets are inserted to the top or bottom of a distribution board panel and attached to the other side of the cabinet

0	3	450	1	250	36	200	ED91SA	2CPX037816R9999
			2	500	72	200	ED92SA	2CPX037817R9999

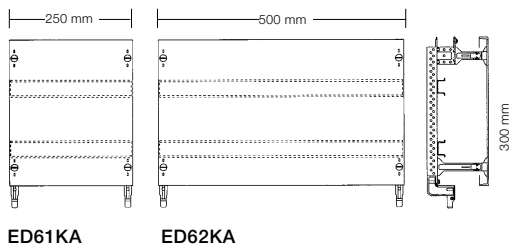
Enclosures

Distribution panel system – Combination sets Mounting plates, terminals and MCCBs Tmax



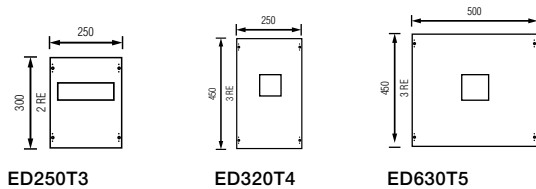
- Mounting plates are steplessly depth-adjustable using deep-mounting bracket ZW59P2
- Combination sets are inserted to the top or bottom of a distribution board panel and attached to the other side of the cabinet
- The installation depth between the deep-mounting bracket and the cover is up to 178 mm

Height			Width			From Cabinet depth	Order details		
OH	GU	mm	PW	mm	SU		Type	Order code	Price
0	2	300	1	250	24	200	ED61MA	2CPX037820R9999	
			2	500	48	200	ED62MA	2CPX037821R9999	



- With horizontal DIN rails 35 x 7.5 mm
- DIN rails fixed using ZK90P2 insulator
- Stepped supply formats
- 150 mm DIN rail spacing (adjustment possible, if required)
- For double insulated installations
- Combination sets are inserted to the top or bottom of a distribution board panel and thus intended to be inserted in between

0	2	300	1	250	24	200	ED61KA	2CPX037822R9999	
			2	500	48	200	ED62KA	2CPX037823R9999	
0	3	450	1	250	36	200	ED91KA	2CPX037824R9999	
			2	500	72	200	ED92KA	2CPX037825R9999	



- For MCCBs ABB Tmax
- ED250T3 Tmax T1/XT1, 2 x 3 pole, 1 x 4 pole, Tmax T2, 2 x 3 pole, 1 x 4 pole, Tmax T3/XT3, 1 x 3 pole, 1 x 4 pole, in the compact distribution board only 1 x Tmax T1, lever operated, max. I_n up to 100 A
- ED320T4, Tmax, T4, 3 pole
- ED630T5, Tmax, T4, 4 pole and Tmax, T5, 3 and 4 pole combination sets can only be used together with distribution board panels

0	2	300	1	250	24	200	ED250T3	2CPX037826R9999	
0	3	450	1	250	36	200	ED320T4	2CPX037827R9999	
			2	500	72	200	ED630T5	2CPX037828R9999	

Distribution panel system – Distribution panels / combination sets

General accessories



ED30P2



ED31P2



ED32P2



ZK300



ZK113B



ZK113G



ZK10P10



ZK14



ZK15

Article	Pieces	Order details		Price
		Type	Order code	
Panel connector for EDF profile For any combination of distribution board panels or of EDF profile rails mounting plate panels, up to a maximum height of 9 grid units	2	ED30P2	2CPX062302R9999	
Lowering connector for EDF profile For compensating recessed mounting levels, with busbar or mounting plate panels, up to a maximum height of 9 grid units	2	ED31P2	2CPX062303R9999	
Lowering bracket for EDF profile To compensate the level difference between the front and rear fixing points	2	ED32P2	2CPX062304R9999	

N/PE busbar system for distribution board panels

Cu 12 x 5 mm, max. connection 95 mm²

1 panel wide	1	ZK300	2CPX038551R9999	
2 panel wide	1	ZK301	2CPX038552R9999	

Article	Number of terminals 1.5 - 4 mm ²	Number of terminals 2.5 - 25 mm ²	External dimensions H x W x D in mm	Pieces	Order details		Price
					Type	Order code	
N Quick-terminals	5	0	23 x 32 x 21	1	ZK50B	2CPX062750R9999	
For Quick carrier	5	1	32 x 32 x 31	1	ZK51B	2CPX062751R9999	
	8	2	32 x 49 x 31	1	ZK82B	2CPX062752R9999	
	11	3	32 x 65 x 31	1	ZK113B	2CPX062753R9999	
	14	4	32 x 82 x 31	1	ZK144B	2CPX062754R9999	
	17	5	32 x 98 x 31	1	ZK175B	2CPX062755R9999	
	20	6	32 x 115 x 31	1	ZK206B	2CPX062756R9999	
PE Quick-terminals	5	1	32 x 32 x 31	1	ZK51G	2CPX062757R9999	
For quick carriers	8	2	32 x 49 x 31	1	ZK82G	2CPX062758R9999	
	11	3	32 x 65 x 31	1	ZK113G	2CPX062759R9999	
	14	4	32 x 82 x 31	1	ZK144G	2CPX062760R9999	
	17	5	32 x 98 x 31	1	ZK175G	2CPX062761R9999	
	20	6	32 x 115 x 31	1	ZK206G	2CPX062762R9999	
Connecting bridges For Quick-terminals				10	ZK10P10	2CPX062763R9999	
Quick carrier For distribution board panels Usable width for Quick-terminals 214 mm				1	ZK14	2CPX064983R9999	
Adapter for ZK50B Engaging the ZK50B N Quick-terminal in the adapter ZK15, leads to ZK50BT to be laterally fastened UK5... , A3 or to the DIN rail				1	ZK15	2CPX064984R9999	

Distribution panel system – Distribution panels / Combination sets

General accessories



ZX66P4



ED44P10



ED45P10



ED59P10



ED42P10



ED43P10



ED47



ZA1P5









ZA122

Article	Pieces	Order details		Price
		Type	Order code	
Device support connector	4	ZX66P4	2CPX062562R9999	
For the connection of EDF and WR mounting frames	50	ZX66P50	2CPX068614R9999	
Wire holder	10	ED44P10	2CPX062335R9999	
For routing of wires, installation depth 28.5 mm, to be inserted into the DIN rail from the rear.	50	ED44P50	2CPX062308R9999	
	1000	ED44P1000	2CPX062703R9999	
	10	ED45P10	2CPX062336R9999	
Wire holder	10	ED45P10	2CPX062336R9999	
For routing of wires or for holding a plastic tube \varnothing 38 mm, installation depth 55 mm, to be inserted into the DIN rail from the rear	50	ED45P50	2CPX062310R9999	
	1000	ED45P1000	2CPX062704R9999	
	10	ED59P10	2CPX062339R9999	
DIN rail adapter	10	ED59P10	2CPX062339R9999	
For ED44 or ED45. Snap onto the DIN rail from the front				
Console for wire holder ED44 or ED45	10	ED42P10	2CPX062333R9999	
To be inserted into the DIN rail from the rear.				
Console for wire holder ED44 or ED45	10	ED43P10	2CPX062334R9999	
Snap onto the DIN rail from the front.				
Cover	1	ED47	2CPX039309R9999	
For visual screening of wiring routed in the wire holders ED44 and ED45, 1 m long.				
Slot covers	5	ZA1P5	2CPX062384R9999	
For 12 space units, break-off type, colour RAL 7035	50	ZA1P50	2CPX062378R9999	
	1	ZA2	2CPX038231R9999	
By the metre	1	ZA2	2CPX038231R9999	
Colour RAL 7035	20	ZA2P20	2CPX062379R9999	
Cleaner for covers	1	ZA122	2CPX038293R9999	
Spray dispenser, 500 ml				

Distribution panel system – Distribution panels / combination sets

General accessories

	Article	Pieces	Order details		Price
			Type	Order code	
ZA8	Labelling strips				
	20 mm, self-adhesive, 1 panel wide	1	ZA8	2CPX060200R9999	
		5	ZA8P5	2CPX062598R9999	
		40	ZA8P40		
	20 mm, self-adhesive, 2 panel wide	1	ZA9	2CPX060201R9999	
		5	ZA9P5	2CPX062599R9999	
		50	ZA9P50		
	20 mm, self-adhesive, 3 panel wide	1	ZA7	2CPX060004R9999	
		5	ZA7P5	2CPX062597R9999	
	20 mm, self-adhesive, by the metre	1	ZA10	2CPX038241R9999	
		10	ZA10P10	2CPX062706R9999	
	20 mm, self-adhesive with additional transparent film, by the metre	1	ZA11	2CPX038230R9999	
		10	ZA11P10	2CPX062707R9999	
	16 mm, self-adhesive, by the metre	1	ZA12	2CPX038242R9999	
		10	ZA12P10	2CPX062708R9999	
	Labelling system for busbars L1, L2, L3, N, PE, 1 sheet = 120 different stickers	1	ZA71	2CPX038458R9999	
ZA71					
	Labelling system Self-adhesive, for labelling by hand or by machine, consisting of: 1 sheet with 10 strips	1	ZA27	2CPX038495R9999	
ZA27					
	Labelling system For distribution board panels up to 6 GU	1	ZA73	2CPX038497R9999	
ZA73					
	Labelling system For distribution board panels up to 9 GU	1	ZA74	2CPX038498R9999	
ZA74					
	Labelling system For 8 x 12 SU	1	ZA78	2CPX031569R9999	
ZA78					
	Legend for 72 devices SU	1	ZA79	2CPX031570R9999	
ZA79					

TwinLine S 43

Product benefits



The complete cabinet system in all sizes

The fully comprehensive product range of modular wall-mounting and floor-standing cabinets includes the types TwinLine-G (depth of 225 mm) and TwinLine-L (depth of 275 mm) and provides a solution for every application. All cabinets are designed according to IEC 61439. The modular system is simple in planning, quick in assembly and safe in application.



Innovative cable entry

A wide range of flange types provides the right solution for every application. All flanges are suited for all flange openings and knockouts of the complete TwinLine cabinets. The flanges can be attached without the need of tools thanks to the handy push and lock technology.



Simple connection in series of all cabinets

All TwinLine cabinets can be connected in both, horizontally and vertically directions. Uprights for side-by-side positioning and connection sets for stacking the cabinets can be easily installed.



Time-saving plinth installation and safe transport

The new plinth concept provides a safe transport in the workshop and on-site. The plinth contains knockouts and has the possibility to install wiring ducts for cable support. The standard heights of 50 mm and 100 mm can be stacked and combined in order to fulfil installation needs.



Optimal accessibility and ease of installation

TwinLine offers unrestricted access during operation, expansion, maintenance and functional monitoring. With its 180-degree door opening and the door locking system, with the possibility to switch the door hinges from right to left it guarantees excellent flexibility.



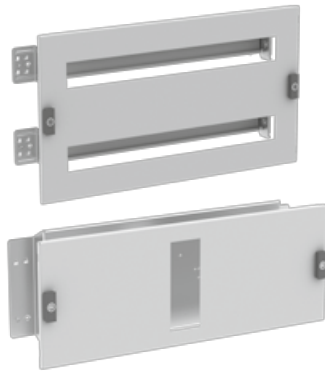
Removable frame for CombiLine S covers

With its wide range of the new modular distribution panel system, called CombiLine S, ABB offers the right solution for every application. The removable frame as standard gives the possibility to remove all covers in one handling and provides a quick assembly.



Flexibility in the assembling of internal configuration

With its new mounting concept for the CombiLine S system, TwinLine provides more flexibility and access for installation and wiring also outside of the cabinet. There is also the option to have continuous mounting plates that can be adjusted in depth.



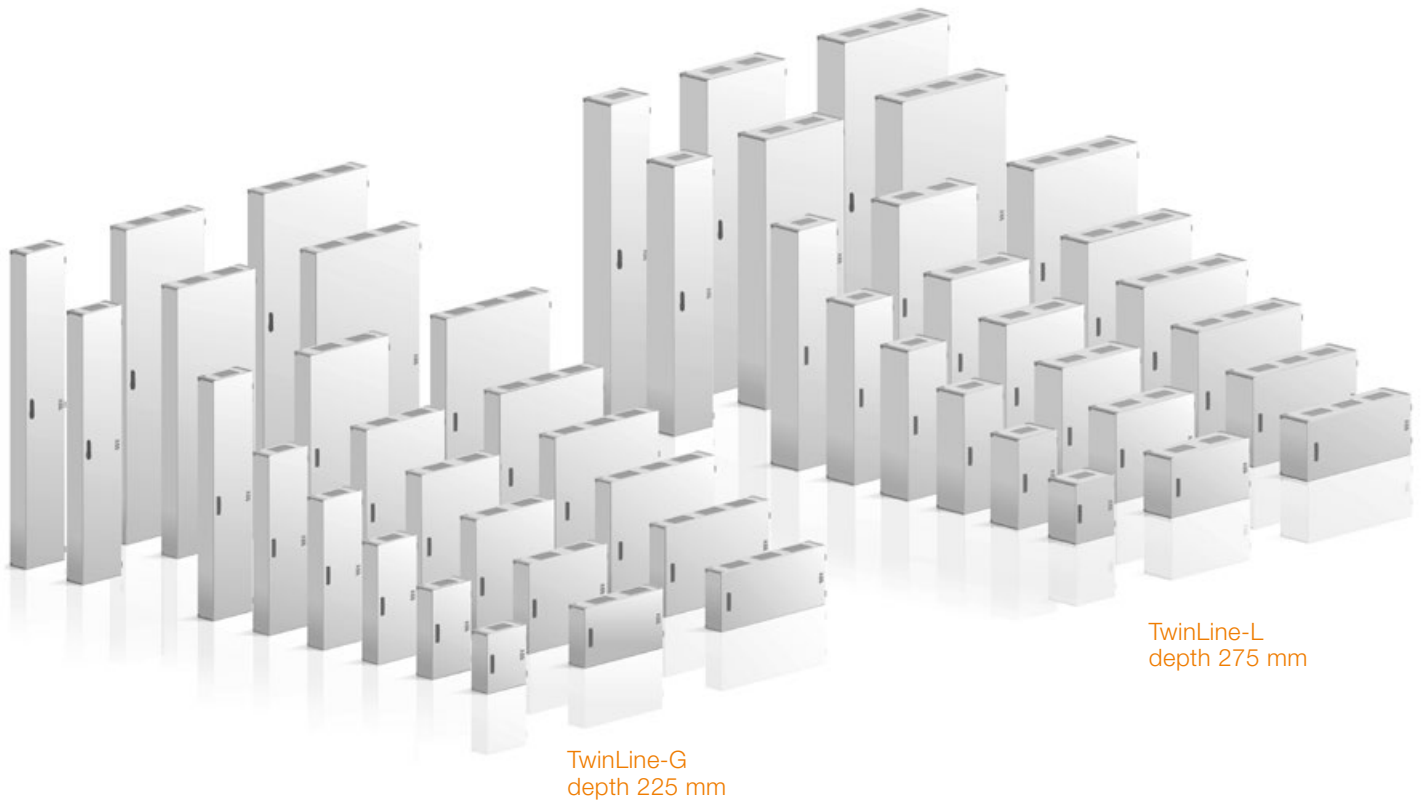
The right internal configuration for every type of application

The wide range of the internal configuration system CombiLine S fits in all TwinLine S 43 cabinets. CombiLine S provides a time-saving installation due to hook-in technology and a simple closure system for covers with the ¼ turn quick-lock.

TwinLine S 43

The complete cabinet system in all sizes

Simple in planning, Quick in assembly, Safe in application

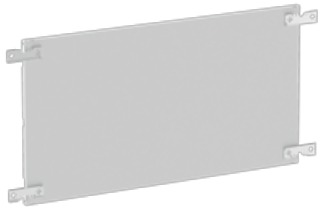
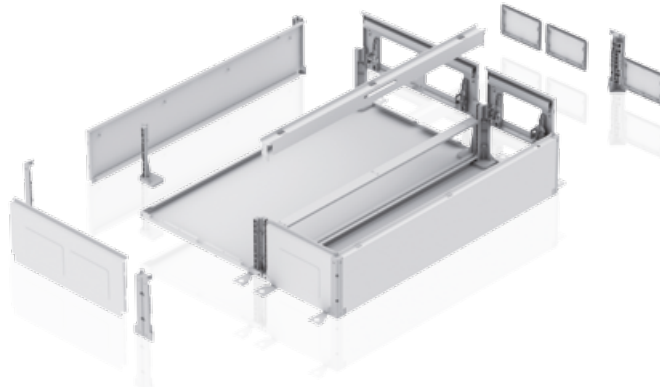


Cabinet type	TwinLine-G			TwinLine-L		
Degree of protection	up to IP43			up to IP43		
Protection class	⚡			⚡		
Depth	225			275		
Width	300	600	800	300	600	800
Height	400	600	800	400	600	800
	1000	1200	1400	1000	1200	1400
	1600	1800	2000	1600	1800	2000

> Dimensions in mm

TwinLine S 43

System overview



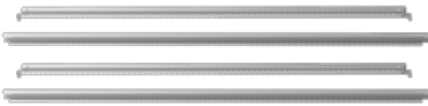
Rear wall



Top and bottom plate



Side walls



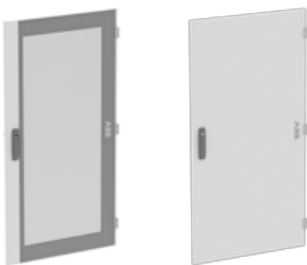
Installation set for removable frame



Uprights for side-by-side positioning of cabinets



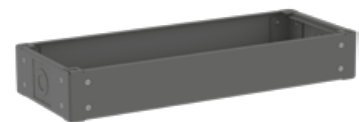
Internal cable container



Transparent or sheet steel doors



Flanges



Plinth

TwinLine S 43

Innovative cable entry

The usable cable entry area is one of largest cable entries available on the market. A wide range of flange types provides the right solution for every application. All flanges are suited for all flange openings and knockouts of the complete TwinLine cabinets. The flanges can be attached without the need of tools thanks to the handy push and lock technology.

- All flanges are compatible with all flange openings and knockouts within the entire TwinLine system
- Wide range of new flanges
- Tool-free flange installation thanks to push and lock technology



Membrane flange

- 2-component flange with integrated seal, material: plastic
- Tool-free installation thanks to push and lock technology
- Optimal cable entry by a combination of hard and soft components
- Additional fixing and centring



Flange for M screw fittings

- 2-component flange with integrated seal, material: plastic
- Tool-free installation thanks to push and lock technology
- With two different hole patterns



Flange with cable sleeves

- 2-component flange with integrated seal, material: plastic
- Tool-free installation thanks to push and lock technology



Closing flange

- 2-component flange with integrated seal, material: plastic
- Tool-free installation thanks to push and lock technology
- Can be used as closing flange or for customization, e.g. for cable sleeves or screw fittings



Closing flange

- With foam seal around perimeter, material: sheet steel 2 mm
- Continuous protective earth connection via flange fastener
- Can be used as closing flange or for customization, e.g. for cable sleeves or screw fittings

TwinLine S 43

Technical specifications

Technical specifications	
Standards / regulations	IEC 61439 -1/-2/-3*
Protection class	I, earthed, in combination with CAEC6
Degree of protection	IP43 Without door IP30
Mechanical impact strength	IK 08 for the cabinet enclosure IK 07 in the area of the flange knockouts IK 07 for transparent doors IK 08 for sheet steel doors
Conditions of installation	Indoor installation Ambient air temperature max. + 40°C Ambient air temperature min. - 5°C Operating temperature max. + 55°C Storage temperature max. + 55°C Storage temperature min. - 40°C

Product features	
Housing and door	Sheet steel, RAL 7035, powder-coated Door opening angle: 180 degrees Doors with espagnolette closure Doors for wall-mounting cabinets: with latch plate and 3 mm double bit pin Doors for floor-standing cabinets: with swivel handle and 3 mm double bit pin
Assembly options	Prepared to be fitted with CombiLine S modules and mounting plates
Forms of delivery	Build-up cabinets out of sets

* Powerloss determined by calculation with the method of IEC 60890 in accordance with IEC 61439-1 par. 10.10.4

Enclosures

TwinLine S 43 Rear walls



ESBN0612

Article	Height in mm	Order details		Price	Pcs.	
		Type	Order code			
Rear walls						
With external mounting brackets						
Width 300 mm	400	ESBN0304	2CPX078100R9999		1	
	600	ESBN0306	2CPX078101R9999		1	
	800	ESBN0308	2CPX078102R9999		1	
	1000	ESBN0310	2CPX078103R9999		1	
	1200	ESBN0312	2CPX078104R9999		1	
	1400	ESBN0314	2CPX078105R9999		1	
	1600	ESBN0316	2CPX078106R9999		1	
	1800	ESBN0318	2CPX078107R9999		1	
	2000	ESBN0320	2CPX078108R9999		1	
	Width 600 mm	400	ESBN0604	2CPX078109R9999		1
		600	ESBN0606	2CPX078110R9999		1
		800	ESBN0608	2CPX078111R9999		1
1000		ESBN0610	2CPX078112R9999		1	
1200		ESBN0612	2CPX078113R9999		1	
1400		ESBN0614	2CPX078114R9999		1	
1600		ESBN0616	2CPX078115R9999		1	
1800		ESBN0618	2CPX078116R9999		1	
2000		ESBN0620	2CPX078117R9999		1	
Width 800 mm		400	ESBN0804	2CPX078118R9999		1
		600	ESBN0808	2CPX078120R9999		1
		800	ESBN0808	2CPX078120R9999		1
	1000	ESBN0810	2CPX078121R9999		1	
	1200	ESBN0812	2CPX078122R9999		1	
	1400	ESBN0814	2CPX078123R9999		1	
	1600	ESBN0816	2CPX078124R9999		1	
	1800	ESBN0818	2CPX078125R9999		1	
	2000	ESBN0820	2CPX078126R9999		1	

Enclosures

TwinLine S 43 Top and bottom plate



ESPL0600



ESCL0600

Article	Width in mm	Order details		Price	Pcs.
		Type	Order code		
Top and bottom plates					
Type 1: One plate, all flanges open					
One plate, all flanges closed with knockouts					
Depth 225 mm	300	ESPG0300	2CPX078145R9999		2
	600	ESPG0600	2CPX078146R9999		2
	800	ESPG0800	2CPX078147R9999		2
Depth 275 mm	300	ESPL0300	2CPX078148R9999		2
	600	ESPL0600	2CPX078149R9999		2
	800	ESPL0800	2CPX078150R9999		2
Type 2: Both plates, all flanges closed with knockouts					
Depth 225 mm	600	ESCG0600	2CPX078373R9999		2
	800	ESCG0800	2CPX078374R9999		2
Depth 275 mm	600	ESCL0600	2CPX078375R9999		2
	800	ESCL0800	2CPX078376R9999		2

Enclosures

TwinLine S 43 Side walls / uprights for side-by-side positioning of cabinets



ESSL0012

Article	Height in mm	Order details		Price	Pcs.
		Type	Order code		
Side walls					
Depth 225 mm	400	ESSG0004	2CPX078127R9999		2
	600	ESSG0006	2CPX078128R9999		2
	800	ESSG0008	2CPX078129R9999		2
	1000	ESSG0010	2CPX078130R9999		2
	1200	ESSG0012	2CPX078131R9999		2
	1400	ESSG0014	2CPX078132R9999		2
	1600	ESSG0016	2CPX078133R9999		2
	1800	ESSG0018	2CPX078134R9999		2
	2000	ESSG0020	2CPX078135R9999		2
	Depth 275 mm	400	ESSL0004	2CPX078136R9999	
600		ESSL0006	2CPX078137R9999		2
800		ESSL0008	2CPX078138R9999		2
1000		ESSL0010	2CPX078139R9999		2
1200		ESSL0012	2CPX078140R9999		2
1400		ESSL0014	2CPX078141R9999		2
1600		ESSL0016	2CPX078142R9999		2
1800		ESSL0018	2CPX078143R9999		2
2000		ESSL0020	2CPX078144R9999		2



ESUL0012

Uprights for side-by-side positioning of cabinets					
Depth 225 mm	400	ESUG0004	2CPX078223R9999		1
	600	ESUG0006	2CPX078224R9999		1
	800	ESUG0008	2CPX078225R9999		1
	1000	ESUG0010	2CPX078226R9999		1
	1200	ESUG0012	2CPX078227R9999		1
	1400	ESUG0014	2CPX078228R9999		1
	1600	ESUG0016	2CPX078229R9999		1
	1800	ESUG0018	2CPX078230R9999		1
	2000	ESUG0020	2CPX078231R9999		1
	Depth 275 mm	400	ESUL0004	2CPX078232R9999	
600		ESUL0006	2CPX078233R9999		1
800		ESUL0008	2CPX078234R9999		1
1000		ESUL0010	2CPX078235R9999		1
1200		ESUL0012	2CPX078236R9999		1
1400		ESUL0014	2CPX078237R9999		1
1600		ESUL0016	2CPX078238R9999		1
1800		ESUL0018	2CPX078239R9999		1
2000		ESUL0020	2CPX078240R9999		1

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

TwinLine S 43 Installation set / internal cable container / mounting plates



ESIN0012

Article	Height in mm	Width in mm	Order details		Price	Pcs.
			Type	Order code		
Installation set with removable frame						
For internal configuration in 300 mm, 600 mm, 800 mm wide cabinets	400		ESIN0004	2CPX078420R9999		1
	600		ESIN0006	2CPX078421R9999		1
	800		ESIN0008	2CPX078422R9999		1
	1000		ESIN0010	2CPX078423R9999		1
	1200		ESIN0012	2CPX078424R9999		1
	1400		ESIN0014	2CPX078425R9999		1
	1600		ESIN0016	2CPX078426R9999		1
	1800		ESIN0018	2CPX078427R9999		1
	2000		ESIN0020	2CPX078428R9999		1



ESAI0212

Internal cable container						
With hinged internal blind cover For 800 mm wide cabinets	600		ESAI0206	2CPX078215R9999		1
	800		ESAI0208	2CPX078216R9999		1
	1000		ESAI0210	2CPX078217R9999		1
	1200		ESAI0212	2CPX078218R9999		1
	1400		ESAI0214	2CPX078219R9999		1
	1600		ESAI0216	2CPX078220R9999		1
	1800		ESAI0218	2CPX078221R9999		1
	2000		ESAI0220	2CPX078222R9999		1



TZM304

Mounting plates						
Sheet steel 2 mm, galvanised	600	600	TZM204	2CPX010598R9999		1
		800	TZM304	2CPX010605R9999		1
	1200	600	TZM208	2CPX010602R9999		1
		800	TZM308	2CPX010609R9999		1
	1800	600	TZM2012	2CPX010941R9999		1
		800	TZM312	2CPX010942R9999		1

Enclosures

TwinLine S 43 Sheet steel doors



ESAS0612



ESAS0618

Article	Height in mm	Order details		Price	Pcs.
		Type	Order code		
Doors for wall-mounting cabinets, with latch plate and double bit 3 mm					
Doors for floor-standing cabinets, with swivel handle and double bit 3 mm					
Width 300 mm	400	ESAS0304	2CPX078151R9999		1
	600	ESAS0306	2CPX078152R9999		1
	800	ESAS0308	2CPX078153R9999		1
	1000	ESAS0310	2CPX078154R9999		1
	1200	ESAS0312	2CPX078155R9999		1
	1400	ESAS0314	2CPX078156R9999		1
	1600	ESAS0316	2CPX078157R9999		1
	1800	ESAS0318	2CPX078158R9999		1
	2000	ESAS0320	2CPX078159R9999		1
	Width 600 mm	400	ESAS0604	2CPX078160R9999	
600		ESAS0606	2CPX078161R9999		1
800		ESAS0608	2CPX078162R9999		1
1000		ESAS0610	2CPX078163R9999		1
1200		ESAS0612	2CPX078164R9999		1
1400		ESAS0614	2CPX078165R9999		1
1600		ESAS0616	2CPX078166R9999		1
1800		ESAS0618	2CPX078167R9999		1
2000		ESAS0620	2CPX078168R9999		1
Width 800 mm		400	ESAS0804	2CPX078169R9999	
	600	ESAS0806	2CPX078170R9999		1
	800	ESAS0808	2CPX078171R9999		1
	1000	ESAS0810	2CPX078172R9999		1
	1200	ESAS0810	2CPX078172R9999		1
	1400	ESAS0814	2CPX078174R9999		1
	1600	ESAS0816	2CPX078175R9999		1
	1800	ESAS0818	2CPX078176R9999		1
	2000	ESAS0820	2CPX078177R9999		1

Where to find more:
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Enclosures

TwinLine S 43 Transparent doors



ESAT0612

Article	Height in mm	Order details		Price	Pcs.
		Type	Order code		
Doors for wall-mounting cabinets, with latch plate and double bit 3 mm					
Doors for floor-standing cabinets, with swivel handle and double bit 3 mm					
Width 600 mm	600	ESAT0606	2CPX078178R9999		1
	800	ESAT0608	2CPX078179R9999		1
	1000	ESAT0610	2CPX078180R9999		1
	1200	ESAT0612	2CPX078181R9999		1
	1400	ESAT0614	2CPX078182R9999		1
	1600	ESAT0616	2CPX078183R9999		1
	1800	ESAT0618	2CPX078184R9999		1
	2000	ESAT0620	2CPX078185R9999		1
	Width 800 mm	600	ESAT0806	2CPX078186R9999	
800		ESAT0808	2CPX078187R9999		1
1000		ESAT0810	2CPX078188R9999		1
1200		ESAT0812	2CPX078189R9999		1
1400		ESAT0814	2CPX078190R9999		1
1600		ESAT0816	2CPX078191R9999		1
1800		ESAT0818	2CPX078192R9999		1
2000		ESAT0820	2CPX078193R9999		1



ESAT2618

Width 800 mm For 800 mm wide cabinet With internal cable container	600	ESAT2606	2CPX078194R9999		1
	800	ESAT2608	2CPX078195R9999		1
	1000	ESAT2610	2CPX078196R9999		1
	1200	ESAT2612	2CPX078197R9999		1
	1400	ESAT2614	2CPX078198R9999		1
	1600	ESAT2616	2CPX078199R9999		1
	1800	ESAT2618	2CPX078200R9999		1
	2000	ESAT2620	2CPX078201R9999		1

Enclosures

TwinLine S 43 Flanges



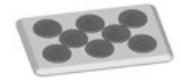
TZ101



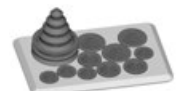
TZ102



TZ103



TZ110



TZ111



TZ112



TZ104



TZ105



TZ107



TZ106

Article	Order details		Price	Pcs.
	Type	Order code		
Membrane flange				
Material: plastic				
For cable sections 2 x 6 - 32.5 mm, 2 x 6 - 25 mm, 4 x 6 - 19 mm, 10 x 6 - 15 mm, 2 x 6 - 12 mm, 31 x 6 - 11 mm, 1 x 6 - 7 mm	TZ101	2CPX010450R9999		1
	TZ101P10	2CPX010451R9999		10
	TZ101P100	2CPX010826R9999		100

Flanges for M screw fittings

Material: plastic

1 x M 63 / M 50, 2 x M 32 / M 20, 5 x M 25, 5 x M 20	TZ102	2CPX010452R9999		1
	TZ102P10	2CPX010453R9999		10
4 x M20 / M25, 18 x M20	TZ103	2CPX010454R9999		1
	TZ103P10	2CPX010455R9999		10

Flanges with cable sleeves

Material: plastic

Flanges with 8 cable sleeves For cable sections 8 x 13 - 34 mm	TZ110	2CPX010850R9999		1
Flanges with 11 cable sleeves For cable sections 1 x 14 - 54 mm, 3 x 13 - 34 mm, 3 x 13 - 26.5 mm, 4 x 5 - 21 mm	TZ111	2CPX010851R9999		1
Flange with 1 cable sleeve For cable sections 1 x 14 - 68 mm	TZ112	2CPX010852R9999		1
Flange with 2 cable sleeves For cable sections 2 x 14 - 68 mm	TZ104	2CPX010456R9999		1
Flange with 3 cable sleeves For cable sections 3 x 14 - 54 mm	TZ105	2CPX010457R9999		1

Closing flanges

Material: plastic

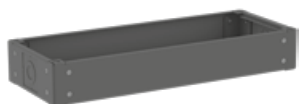
	TZ107	2CPX010460R9999		1
	TZ107P10	2CPX010461R9999		10
Material: sheet steel	TZ106	2CPX010458R9999		1
	TZ106P10	2CPX010459R9999		10

Enclosures

TwinLine S 43 Plinth



ESAG0605







ESAL0610

Article	Width mm	Order details		Price	Pcs.
		Type	Order code		
Plinth, height 50 mm, color RAL 7012					
Depth 225 mm	300	ESAG0305	2CPX078202R9999		1
	600	ESAG0605	2CPX078204R9999		1
	800	ESAG0805	2CPX078206R9999		1
Depth 275 mm	300	ESAL0305	2CPX078208R9999		1
	600	ESAL0605	2CPX078210R9999		1
	800	ESAL0805	2CPX078212R9999		1
Plinth, height 100 mm, color RAL 7012					
Depth 225 mm	300	ESAG0310	2CPX078203R9999		1
	600	ESAG0610	2CPX078205R9999		1
	800	ESAG0810	2CPX078207R9999		1
Depth 275 mm	300	ESAL0310	2CPX078209R9999		1
	600	ESAL0610	2CPX078211R9999		1
	800	ESAL0810	2CPX078213R9999		1

Enclosures

TwinLine S 43 Lock replacement parts

		Order details			
		Article	Type	Order code	Price
Swivel handle and operating pins					
		ESAC1001		2CPX010900R9999	1
		ESAC1002		2CPX010901R9999	1
		ESAC1003		2CPX010902R9999	1
		ESAC1004		2CPX010903R9999	1
		ESAC1005		2CPX010904R9999	1
		ESAC1006		2CPX010905R9999	1
		ESAC1007		2CPX010906R9999	1
		ESAC1008		2CPX010907R9999	1
		ESAC1009		2CPX010908R9999	1
		ESAC1010		2CPX010909R9999	1
		ESAC1013		2CPX010912R9999	1
		ESAC1011		2CPX010910R9999	1
		ESAC1012		2CPX010911R9999	1
Latch plates and operating pins					
		TZ517		2CPX010926R9999	1
		TZ518		2CPX010927R9999	1
		ZH130		2CPX060490R9999	1
		ZH131		2CPX060491R9999	1
		ZH132		2CPX060492R9999	1
		ZH133		2CPX060493R9999	1
		ZH134		2CPX060494R9999	1
		ZH135		2CPX060495R9999	1
		ZH136		2CPX060496R9999	1
		ZH137		2CPX060497R9999	1

*1 In scope of delivery of doors for floor-standing cabinets
 *2 In scope of delivery of doors for wall-mounting cabinets



ZH91



ZH160

ZH157



ZH162

ZH165



ESAC2004



ESAC2008



TZ511



TZ501

Article	Order details		Price	Pcs.
	Type	Order code		
Universal key	ZH91	2CPX066091R9999		1
Double bit 3 mm/5 mm				
Triangular 8 mm, square 6 mm/8 mm				
Double bit 3 mm*	ZH160	2CPX060660R9999		1
Double bit 5 mm	ZH161	2CPX060661R9999		1
Triangular 7 mm	ZH157	2CPX060657R9999		1
Triangular 8 mm	ZH158	2CPX060658R9999		1
Square 6 mm	ZH162	2CPX060662R9999		1
Square 7 mm	ZH163	2CPX060663R9999		1
Square 8 mm	ZH164	2CPX060664R9999		1
Daimler-Benz	ZH165	2CPX060665R9999		1

Espagnolette closure*

Closure for door height 400 mm	ESAC2004	2CPX010913R9999		1
Espagnolette closure height 600 mm	ESAC2006	2CPX010914R9999		1
Espagnolette closure height 800 mm	ESAC2008	2CPX010915R9999		1
Espagnolette closure height 1000 mm	ESAC2010	2CPX010916R9999		1
Espagnolette closure height 1200 mm	ESAC2012	2CPX010917R9999		1
Espagnolette closure height 1400 mm	ESAC2014	2CPX010918R9999		1
Espagnolette closure height 1600 mm	ESAC2016	2CPX010919R9999		1
Espagnolette closure height 1800 mm	ESAC2018	2CPX010920R9999		1
Espagnolette closure height 2000 mm	ESAC2020	2CPX010921R9999		1

Espagnolette guide*	TZ511	2CPX010495R9999		1
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Shoe* For espagnolette closure	TZ501	2CPX010485R9999		1
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*Accessory included in the scope of delivery

Enclosures

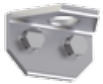
TwinLine S 43 General accessories



ESAC3001P2



ESAC3003P4



ESAC3004P2



TZ637



TZ628P10



ESAC3002



TZ626



TZ601



TZ604



TZ605

Article	Order details		Price	Pcs.
	Type	Order code		
Mounting brackets 2 pcs* To mount the cabinet to the wall, to connect the plinth with the back of the cabinet or to connect cabinets in the back when using ESAC3002	ESAC3001P2	2CPX078410R9999		2
Transport lugs 4 pcs	ESAC3003P4	2CPX078412R9999		4
Lifting reinforcement for side-by-side structures 2 pcs For transporting side-by-side structures	ESAC3004P2	2CPX078413R9999		2
Door hinge: 180 degree*	TZ637	2CPX078414R9999		1
Closing plugs for hinge cutout	TZ628P10	2CPX010854R9999		1
Connection set for stacking cabinets	ESAC3002	2CPX078411R9999		1
Protective frame for stacking cabinets	TZ626	2CPX010778R9999		1
Mounting rails* For mounting frame holder	TZ601	2CPX010779R9999		1
Mounting frame holder centre* For internal and external cable container	TZ604	2CPX010782R9999		1
Mounting frame holder* left or right	TZ605	2CPX010783R9999		1

*Accessory included in the scope of delivery



ZL8



ZA16



ZA116



ZA6



ZA5



ZA123

Article	Order details		Price	Pcs.
	Type	Order code		
Door earthing set 10 mm ²	ZL8	2CPX038001R9999		1
Spray paint can Colour RAL 7035, 150 ml	ZA16	2CPX038235R9999		1
Touch-up applicator Colour RAL 7035, 12 ml	ZA116	2CPX039042R9999		1
Document holder DIN A4 Self-adhesive with transparent sleeve	ZA6	2CPX038227R9999		1
Self-adhesive with transparent sleeve	ZA6P10	2CPX062380R9999		10
Self-adhesive with transparent sleeve and reinforced back	ZA61P10	2CPX062375R9999		10
Document holder DIN A4 Self-adhesive	ZA13	2CPX038233R9999		1
Self-adhesive	ZA13P10	2CPX062381R9999		10
Document holder DIN A5 Self-adhesive	ZA5	2CPX038228R9999		1
Self-adhesive	ZA5P10	2CPX062382R9999		10
Document holder support plate For document holder ZA13. to screw on to the door strengthening profiles	ZA123	2CPX038471R9999		1
For document holder ZA5. to screw on to the door strengthening profiles	ZA125	2CPX038472R9999		1

CombiLine S distribution panel system

Product benefits

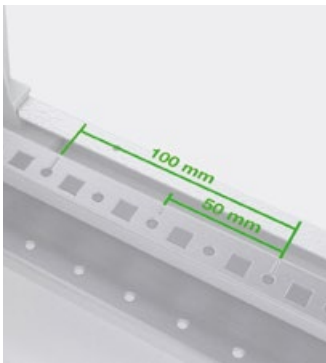


One internal configuration system for all cabinets

All internal configuration and the busbar system for the cable containers up to 400 A fits in both cabinet depths. The internal configuration up to 800 A and the busbar system behind the device area also fits in a 275 mm cabinet depth.

Flexible in assembling

With its new mounting concept CombiLine S provides more flexibility and access for installation and wiring. Placed horizontally on two trestles, the assembly and wiring is very comfortable. An other option is to swing-out the whole internal configuration to have access from all sides.



Assembly of internal configuration

CombiLine S provide a time-saving installation due the hook-in technology. This quick assembly limits the numbers of screws. Markers in 50 mm grid are on the mounting profiles for simple positioning.

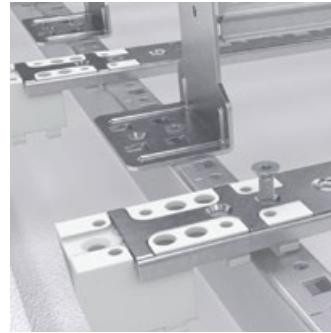
Easy handling of covers

Time-saving fixation and adjustment as well as the simple closure system with 1/4 turn quick-lock provides easy handling of the covers and standard earth connection. When using devices in the covers a safe earth connection is guaranteed through 6 mm² cable with ring shoes on both sides. Optimal accessibility give the hinge set with 90 degree opening angle.



Optimal accessibility and ease of installation

The removable frame as standard gives the possibility to remove all covers in one handling and provides a quick access.



Wiring system

One support for different dimensions of wiring ducts; to have the same level for horizontal and vertical usage. An additional profile for stabilization of wiring duct and for mounting wire holders is available.

Form of internal separation up to form 2b

For the busbar system behind the device area is a horizontal transparent partition available. To separate the busbar system in external cable container it is possible to use a vertical separation.

CombiLine S distribution panel system

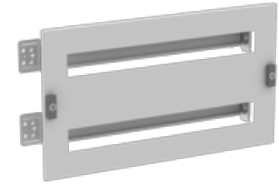
The right module for every type of Application



Tmax breakers



OT breakers



DIN rail components



Standard covers



Covers for measuring instruments



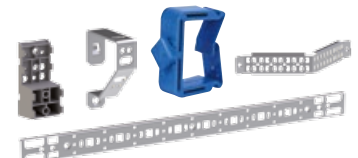
Mounting plates



Internal form of separation form 2b



Busbar systems



Accessories

Enclosures

CombiLine S distribution panel system Technical specifications

Technical specifications	
Standards / regulations	IEC 61439 -1/-2/-3
Protection class	I, earthed
Degree of protection	IPXXC

Electrical characteristics	
Rated impulse withstand voltage (U_{imp})	6 kV
Overvoltage category	III
Pollution degree	3
Rated current (I_n)	up to 800 A
Rated peak withstand current (I_{pk})	up to 67 kA
Rated short-time withstand current (I_{cw}) 1.0 sec.	up to 32 kA
Rated frequency (f)	50 - 60 Hz
Rated insulation voltage (U)	1000 V
Rated operational voltage (U_e)	690 V

Enclosures

CombiLine S for moulded case circuit breaker Tmax, horizontal



CHCC1511



CHDC1511

Tmax breaker horizontal 3-/4-pole

- Unequipped set for ABB Tmax as an incomer or outgoing breaker
- For fixed version with lever operation and front terminals
- Sheet steel cover with cut-out for 3*-/4-pole breaker
- Cover with 1/4 turn quick-lock

Width mm	Height mm	For device				Minimum cabinet depth	Order details			
		I_n max A	Type	Numbers of breakers	Numbers of poles		Type	Order code	Price	Pcs.
600	150	160	Tmax XT1	1	3/4	225	CHCA1511	2CPX078241R9999		1
	200	160	Tmax XT2	1	3/4	225	CHCB1511	2CPX078242R9999		1
	200	250	Tmax XT3	1	3/4	225	CHCC1511	2CPX078243R9999		1
	200	250	Tmax XT4	1	3/4	225	CHCD1511	2CPX078244R9999		1
	200	320	Tmax T4	1	3/4	225	CHCE1511	2CPX078245R9999		1
	300	630	Tmax T5	1	3/4	275	CHCF1511	2CPX078246R9999		1
	400	800	Tmax T6	1	3/4	275	CHCG1511	2CPX078247R9999		1
800	150	160	Tmax XT1	1	3/4	225	CHDA1511	2CPX078248R9999		1
	200	160	Tmax XT2	1	3/4	225	CHDB1511	2CPX078249R9999		1
	200	250	Tmax XT3	1	3/4	225	CHDC1511	2CPX078250R9999		1
	200	250	Tmax XT4	1	3/4	225	CHDD1511	2CPX078251R9999		1
	200	320	Tmax T4	1	3/4	225	CHDE1511	2CPX078252R9999		1
	300	630	Tmax T5	1	3/4	275	CHDF1511	2CPX078253R9999		1
	400	800	Tmax T6	1	3/4	275	CHDG1511	2CPX078254R9999		1

*For 3 poles breakers please order accessory flange codes: AD3305 XT1 3P Flange for plate-mounting - AD3306 XT2 3P Flange for plate-mounting - AD3307 XT3 3P Flange for plate-mounting - AD3308 XT4 3P Flange for plate-mounting.

Tmax breaker horizontal 4-pole + RC sel.

- Unequipped set for ABB Tmax as an incomer or outgoing breaker
- For fixed version with lever operation and front terminals
- Sheet steel cover with cut-out for 4-pole breaker and RC Sel.
- Cover with 1/4 turn quick-lock



CHCC1611



CHDC1611

Width mm	Height mm	For device				Minimum cabinet depth	Order details			
		I_n max A	Type	Numbers of breakers	Numbers of poles		Type	Order code	Price	Pcs.
600	200	160	Tmax XT1	1	4 + RC sel.	225	CHCA1611	2CPX078255R9999		1
	200	160	Tmax XT2	1	4 + RC sel.	225	CHCB1611	2CPX078256R9999		1
	200	250	Tmax XT3	1	4 + RC sel.	225	CHCC1611	2CPX078257R9999		1
	200	250	Tmax XT4	1	4 + RC sel.	225	CHCD1611	2CPX078258R9999		1
	200	320	Tmax T4	1	4 + RC sel.	225	CHCE1611	2CPX078259R9999		1
	300	630	Tmax T5	1	4 + RC sel.	275	CHCF1611	2CPX078260R9999		1
	800	200	160	Tmax XT1	1	4 + RC sel.	225	CHDA1611	2CPX078261R9999	
200		160	Tmax XT2	1	4 + RC sel.	225	CHDB1611	2CPX078262R9999		1
200		250	Tmax XT3	1	4 + RC sel.	225	CHDC1611	2CPX078263R9999		1
200		250	Tmax XT4	1	4 + RC sel.	225	CHDD1611	2CPX078264R9999		1
200		320	Tmax T4	1	4 + RC sel.	225	CHDE1611	2CPX078265R9999		1
300		630	Tmax T5	1	4 + RC sel.	275	CHDF1611	2CPX078266R9999		1

Enclosures

CombiLine S for moulded case circuit breaker Tmax, vertical



CVAC1511

CVCC1511

DVDC1511

Tmax breaker vertical 3-/4-pole

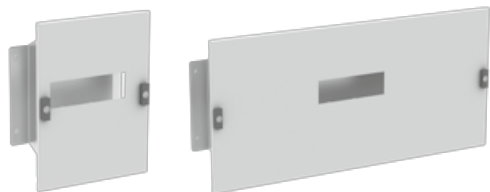
- Unequipped set for ABB Tmax as an incomer or outgoing breaker
- For fixed version with lever operation and front terminals
- Sheet steel cover with cut-out for 3*-/4-pole breaker
- Cover with 1/4 turn quick-lock

Width mm	Height mm	For device				Minimum cabinet depth	Order details		Price	Pcs.
		I_n max A	Type	Numbers of breakers	Numbers of poles		Type	Order code		
300	300	160	Tmax XT1	1	3/4	225	CVAA1511	2CPX078267R9999		1
	300	250	Tmax XT2	1	3/4	225	CVAB1511	2CPX078268R9999		1
	300	250	Tmax XT3	1	3/4	225	CVAC1511	2CPX078269R9999		1
	300	250	Tmax XT4	1	3/4	225	CVAD1511	2CPX078270R9999		1
	350	320	Tmax T4	1	3/4	225	CVAH1511	2CPX078271R9999		1
	350	630	Tmax T5	1	3/4	275	CVAH1511	2CPX078271R9999		1
600	300	160	Tmax XT1	1	3/4	225	CVCA1511	2CPX078272R9999		1
	300	160	Tmax XT2	1	3/4	225	CVCB1511	2CPX078273R9999		1
	300	250	Tmax XT3	1	3/4	225	CVCC1511	2CPX078274R9999		1
	300	250	Tmax XT4	1	3/4	225	CVCD1511	2CPX078275R9999		1
	350	320	Tmax T4	1	3/4	225	CVCH1511	2CPX078276R9999		1
	350	630	Tmax T5	1	3/4	275	CVCH1511	2CPX078276R9999		1
	450	800	Tmax T6	1	3/4	275	CVCG1511	2CPX078277R9999		1
800	300	160	Tmax XT1	1	3/4	225	CVDA1511	2CPX078278R9999		1
	300	160	Tmax XT2	1	3/4	225	CVDB1511	2CPX078279R9999		1
	300	250	Tmax XT3	1	3/4	225	CVDC1511	2CPX078280R9999		1
	300	250	Tmax XT4	1	3/4	225	CVDD1511	2CPX078281R9999		1
	350	320	Tmax T4	1	3/4	225	CVDH1511	2CPX078282R9999		1
	350	630	Tmax T5	1	3/4	275	CVDH1511	2CPX078282R9999		1
	450	800	Tmax T6	1	3/4	275	CVDG1511	2CPX078283R9999		1

*For 3 poles breakers please order accessory flange codes: AD3305 XT1 3P Flange for plate-mounting - AD3306 XT2 3P Flange for plate-mounting - AD3307 XT3 3P Flange for plate-mounting - AD3308 XT4 3P Flange for plate-mounting.

Enclosures

CombiLine S for moulded case circuit breaker Tmax, vertical



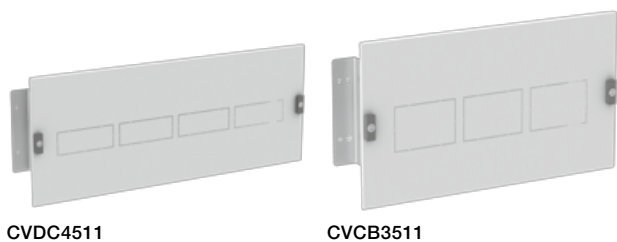
CVAC1611

DVDC1611

Tmax breaker vertical 4-pole + RC sel.

- Unequipped set for ABB Tmax as an incomer or outgoing breaker
- For fixed version with lever operation and front terminals
- Sheet steel cover with cut-out for 4-pole breaker and RC Sel.
- Cover with 1/4 turn quick-lock

Width mm	Height mm	For device				Minimum cabinet depth	Order details		Price	Pcs.
		I_n max A	Type	Numbers of breakers	Numbers of poles		Type	Order code		
300	300	160	Tmax XT1	1	4 + RC sel.	225	CVAA1611	2CPX078284R9999		1
	350	250	Tmax XT2	1	4 + RC sel.	225	CVAB1611	2CPX078285R9999		1
	350	250	Tmax XT3	1	4 + RC sel.	225	CVAC1611	2CPX078286R9999		1
	350	250	Tmax XT4	1	4 + RC sel.	225	CVAD1611	2CPX078287R9999		1
	450	320	Tmax T4	1	4 + RC sel.	225	CVAE1611	2CPX078288R9999		1
	450	630	Tmax T5	1	4 + RC sel.	275	CVAF1611	2CPX078289R9999		1
600	300	160	Tmax XT1	1	4 + RC sel.	225	CVCA1611	2CPX078290R9999		1
	350	160	Tmax XT2	1	4 + RC sel.	225	CVCB1611	2CPX078291R9999		1
	350	250	Tmax XT3	1	4 + RC sel.	225	CVCC1611	2CPX078292R9999		1
	350	250	Tmax XT4	1	4 + RC sel.	225	CVCD1611	2CPX078293R9999		1
	450	320	Tmax T4	1	4 + RC sel.	225	CVCE1611	2CPX078294R9999		1
	450	630	Tmax T5	1	4 + RC sel.	275	CVCF1611	2CPX078295R9999		1
800	300	160	Tmax XT1	1	4 + RC sel.	225	CVDA1611	2CPX078296R9999		1
	350	160	Tmax XT2	1	4 + RC sel.	225	CVDB1611	2CPX078297R9999		1
	350	250	Tmax XT3	1	4 + RC sel.	225	CVDC1611	2CPX078298R9999		1
	350	250	Tmax XT4	1	4 + RC sel.	225	CVDD1611	2CPX078299R9999		1
	450	320	Tmax T4	1	4 + RC sel.	225	CVDE1611	2CPX078300R9999		1
	450	630	Tmax T5	1	4 + RC sel.	275	CVDF1611	2CPX078301R9999		1



Tmax breaker vertical side-by-side

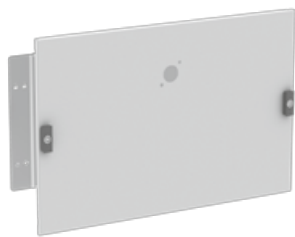
- Unequipped set for ABB Tmax as an incomer or outgoing breaker
- For fixed version with lever operation and front terminals
- Sheet steel cover with knock-out for 3*-/4-pole breaker side by side
- Cover with 1/4 turn quick-lock

Width mm	Height mm	For device				Minimum cabinet depth	Order details		Price	Pcs.
		I_n max A	Type	Numbers of breakers	Numbers of poles		Type	Order code		
600	300	250	Tmax XT1	3	3/4	225	CVCA3511	2CPX078398R9999		1
	300	250	Tmax XT2	3	3/4	225	CVCB3511	2CPX078399R9999		1
	300	250	Tmax XT3	3	3/4	225	CVCC3511	2CPX078400R9999		1
	300	250	Tmax XT4	3	3/4	225	CVCD3511	2CPX078401R9999		1
800	300	250	Tmax XT1	4	3/4	225	CVDA4511	2CPX078402R9999		1
	300	250	Tmax XT2	4	3/4	225	CVDB4511	2CPX078403R9999		1
	300	250	Tmax XT3	4	3/4	225	CVDC4511	2CPX078404R9999		1
	300	250	Tmax XT4	4	3/4	225	CVDD4511	2CPX078405R9999		1

*For 3 poles breakers please order accessory flange codes: AD3305 XT1 3P Flange for plate-mounting - AD3306 XT2 3P Flange for plate-mounting - AD3307 XT3 3P Flange for plate-mounting - AD3308 XT4 3P Flange for plate-mounting.

Enclosures

CombiLine S for switch disconnecter OT, horizontal



CHCQ1513



CHDQ1513

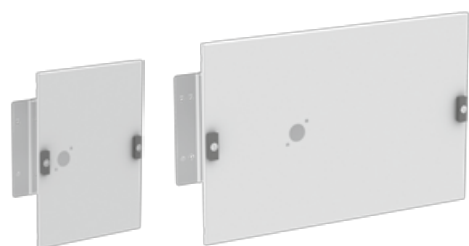
OT switch disconnecter horizontal

- Unequipped set for ABB OT...E03/04P as an incomer or outgoing switch
- Sheet steel cover with cut out for rotary handle in top of the center
- Cover fixed with one 1/4 turn quick-lock
- Important: in case of using switch disconnectors OT630 and OT800 it is not possible to use bus-bar system behind the mounting plate

Width mm	Height mm	For device				Minimum cabinet depth	Order details			
		I_n max A	Type	Numbers of breakers	Numbers of poles		Type	Order code	Price	Pcs.
600	350	400	OT200, OT250, OT315, OT400	1	3/4	225	CHCQ1513	2CPX078302R9999		1
	500	800	OT630, OT800	1	3/4	275	CHCR1513	2CPX078377R9999		1
800	350	400	OT200, OT250, OT315, OT400	1	3/4	225	CHDQ1513	2CPX078303R9999		1
	500	800	OT630, OT800	1	3/4	275	CHDR1513	2CPX078378R9999		1

Enclosures

CombiLine S for switch disconnecter OT, vertical



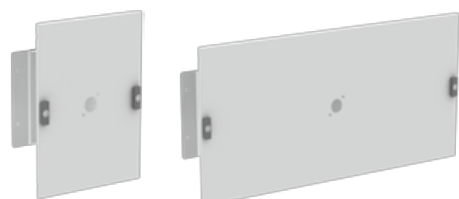
CVAP1513

CVDQ1513

OT switch disconnecter vertical left

- Unequipped set for ABB OT...E03/04P as an incomer or outgoing switch
- Sheet steel cover with cut out for rotary handle on the left side
- Cover fixed with one 1/4 turn quick-lock
- Important: in case of using switch disconnectors OT630 and OT800 it is not possible to use bus-bar system behind the mounting plate

Width mm	Height mm	For device				Minimum cabinet depth	Order details		Price	Pcs.
		I_n max A	Type	Numbers of breakers	Numbers of poles		Type	Order code		
300	350	250	OT200, OT250	1	3/4	225	CVAP1513	2CPX078304R9999		1
600	350	400	OT200, OT250,	1	3/4	225	CVCQ1513	2CPX078305R9999		1
	OT315, OT400									
	500	800	OT630, OT800	1	3/4	275	CVCR1513	2CPX078379R9999		1
800	350	400	OT200, OT250,	1	3/4	225	CVDQ1513	2CPX078306R9999		1
	OT315, OT400									
	500	800	OT630, OT800	1	3/4	275	CVDR1513	2CPX078380R9999		1



CVAP1514

CVDQ1514

OT switch disconnecter vertical center

- Unequipped set for ABB OT...E12/22P as an incomer or outgoing switch vertical
- Sheet steel cover with cut out for rotary handle in the center
- Cover fixed with 1/4 turn quick-lock
- Important: in case of using switch disconnectors OT630 and OT800 it is not possible to use bus-bar system behind the mounting plate

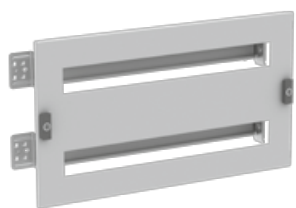
Width mm	Height mm	For device				Minimum cabinet depth	Order details		Price	Pcs.
		I_n max A	Type	Numbers of breakers	Numbers of poles		Type	Order code		
300	350	250	OT200, OT250	1	3/4	225	CVAP1514	2CPX078307R9999		1
600	350	400	OT200, OT250,	1	3/4	225	CVCQ1514	2CPX078308R9999		1
	OT315, OT400									
	500	800	OT630, OT800	1	3/4	275	CVCR1514	2CPX078381R9999		1
800	350	400	OT200, OT250,	1	3/4	225	CVDQ1514	2CPX078309R9999		1
	OT315, OT400									
	500	800	OT630, OT800	1	3/4	275	CVDR1514	2CPX078382R9999		1

Enclosures

CombiLine S for DIN rail components



CKDB1615



CKDB2630

DIN rail distance 150 mm for S200

- Unequipped set for DIN rail components
- Din rail distance 150 mm
- System pro M S200, switch OT160 (front level)
- DIN rail is fixed on a mounting bracket
- The material is aluminium
- On the back-side it is possible to use Unifix L
- Cover with 1/4 turn quick-lock

Width mm	Height mm	Additional information				Minimum cabinet depth	Order details		Price	Pcs.
		I_n max A	Space units (SU)	Din rail distance	Numbers of rows		Type	Order code		
600	150	160	24	150	1	225	CKDB1615	2CPX078318R9999		1
800	150	160	36	150	1	225	CKDB1815	2CPX078319R9999		1
600	300	160	48	150	2	225	CKDB2630	2CPX078406R9999		1
800	300	160	72	150	2	225	CKDB2830	2CPX078407R9999		1

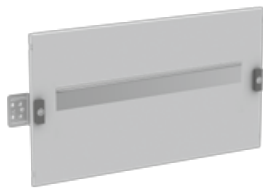


CKDB1620

DIN rail distance 200 mm for S200, Tmax

- Unequipped set for DIN rail components
- Din rail distance 200 mm
- System pro M S200, switch OT160 (front level)
- Tmax, XT1, XT3 breaker 3+4 pole version (back level)
- DIN rail is fixed on a mounting bracket
- The material is aluminium
- On the back-side it is possible to use Unifix L,
- A depth adapter enables the same depth of MCCB and DIN rail components S200
- Cover is with DIN cut-out

Width mm	Height mm	Additional information				Minimum cabinet depth	Order details		Price	Pcs.
		I_n max A	Space units (SU)	Din rail distance	Numbers of rows		Type	Order code		
300	200	250	12	200	1	225	CKDC1320	2CPX078320R9999		1
600	200	250	24	200	1	225	CKDC1620	2CPX078321R9999		1
800	200	250	36	200	1	225	CKDC1820	2CPX078322R9999		1

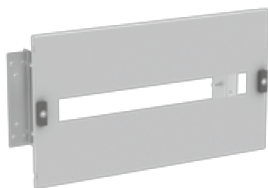


CKDR1630

DIN rail for Tmax 4 pole + RC sel.

- Unequipped set for Tmax breaker, XT1, XT3 4 pole with RC sel.
- DIN rail is fixed on a mounting bracket
- The material is aluminium
- On the back-side it is possible to use Unifix L,
- A depth adapter enables the same depth of MCCB and DIN rail components S200
- Cover is with DIN cut-out
- Cover fixed with 1/4 turn quick-lock

Width mm	Height mm	Additional information				Minimum cabinet depth	Order details			
		I_n max A	Space units (SU)	Din rail distance	Numbers of rows		Type	Order code	Price	Pcs.
600	300	250	24	300	1	225	CKDR1630	2CPX078383R9999		1
800	300	250	36	300	1	225	CKDR1830	2CPX078384R9999		1

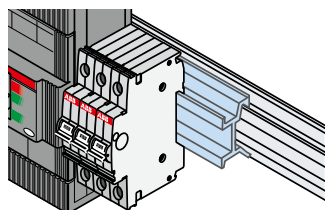


CKDU1630

DIN rail for Unifix H

- Unequipped set for System Unifix H
- The System Unifix H can be fixed on supports
- Cover is with DIN cut-out
- Cover fixed with one 1/4 turn quick-lock

Width mm	Height mm	Additional information				Minimum cabinet depth	Order details			
		I_n max A	Space units (SU)	Din rail distance	Numbers of rows		Type	Order code	Price	Pcs.
600	300	250	24	300	1	225	CKDU1630	2CPX078385R9999		1
800	300	250	36	300	1	225	CKDU1830	2CPX078386R9999		1



Article	Width in mm	Order details			Pcs.
		Type	Order code	Price	
Depth adapters Enables the depth of miniature circuit-breakers to be adapted to that of moulded-case circuit-breakers mounted on the same DIN rail.	600	AP6000			1
Depth adapters for Tmax XT1-XT3					

Enclosures

CombiLine S covers closed



CACP3030



CACP6030



CACP8030



CACP6060



CACP8060

Article	Height in mm	Order details		Price	Pcs.
		Type	Order code		
Cover closed					
Material sheet steel. With one 1/4 turn quick-lock per side					
Width 300 mm	50	CACP3005	2CPX078340R9999		1
	100	CACP3010	2CPX078341R9999		1
	150	CACP3015	2CPX078342R9999		1
	200	CACP3020	2CPX078343R9999		1
	250	CACP3025	2CPX078344R9999		1
	300	CACP3030	2CPX078345R9999		1
	400	CACP3040	2CPX078346R9999		1
Width 600 mm	50	CACP6005	2CPX078350R9999		1
	100	CACP6010	2CPX078351R9999		1
	150	CACP6015	2CPX078352R9999		1
	200	CACP6020	2CPX078353R9999		1
	250	CACP6025	2CPX078354R9999		1
	300	CACP6030	2CPX078355R9999		1
	400	CACP6040	2CPX078356R9999		1
Width 800 mm	50	CACP8005	2CPX078360R9999		1
	100	CACP8010	2CPX078361R9999		1
	150	CACP8015	2CPX078362R9999		1
	200	CACP8020	2CPX078363R9999		1
	250	CACP8025	2CPX078364R9999		1
	300	CACP8030	2CPX078365R9999		1
	400	CACP8040	2CPX078366R9999		1
	Cover closed				
Material sheet steel. With two 1/4 turn quick-lock per side					
Width 300 mm	500	CACP3050	2CPX078347R9999		1
	600	CACP3060	2CPX078348R9999		1
	800	CACP3080	2CPX078349R9999		1
Width 600 mm	500	CACP6050	2CPX078357R9999		1
	600	CACP6060	2CPX078358R9999		1
	800	CACP6080	2CPX078359R9999		1
Width 800 mm	500	CACP8050	2CPX078367R9999		1
	600	CACP8060	2CPX078368R9999		1
	800	CACP8080	2CPX078369R9999		1

Enclosures

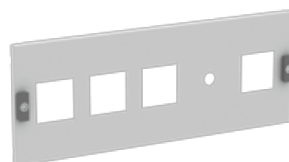
CombiLine S covers for measuring instruments



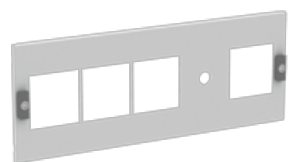
CKUA6020



CKUB6020



CKUC6020



CKUD6020



CAE06

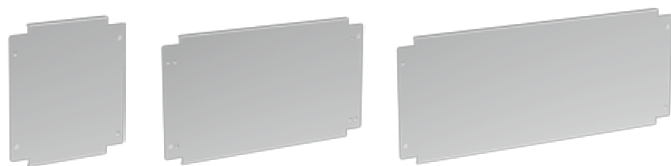


CAHCP10

Article	Width in mm	Order details		Price	Pcs.
		Type	Order code		
Covers for universal measuring instruments					
For 2 measuring instrument 72 x 72 mm Cover fixed with one 1/4 turn screws on every side Material sheet steel Height 200 mm	600	CKUA6020	2CPX078310R9999		1
	800	CKUA8020	2CPX078311R9999		1
For 2 measuring instrument 96 x 96 mm Cover fixed with one 1/4 turn screws on every side Material sheet steel Height 200 mm	600	CKUB6020	2CPX078312R9999		1
	800	CKUB8020	2CPX078313R9999		1
For 4 universal measuring instruments 72 x 72 mm Cover fixed with one 1/4 turn screws on every side Material sheet steel Height 200 mm	600	CKUC6020	2CPX078314R9999		1
	800	CKUC8020	2CPX078315R9999		1
For 4 universal measuring instruments 96 x 96 mm Cover fixed with one 1/4 turn screws on every side Material sheet steel Height 200 mm	600	CKUD6020	2CPX078316R9999		1
	800	CKUD8020	2CPX078317R9999		1
Cover earthing set Connection between cover and structure, when using devices in the cover Cable diameter 6 mm ²		CAEC6	2CPX078462R9999		1
Hinge set for covers Opening angle 90° Per cover are 2 pcs. required		CAHCP10	2CPX078485R9999		1

Enclosures

CombiLine S mounting plates



CAMF3030

CAMF6030

CAMF8030

- Mounting plate is for fixed mounted on profile
- Distance between mounting plate and cover is 110 mm
- Material sheet steel

Width mm	Height mm	Usable space		Minimum cabinet depth	Order details		Price	Pcs.
		Height mm	Width mm		Type	Order code		
300	300	295	216	225	CAMF3030	2CPX078323R9999		1
600	150	145	432	225	CAMF6015	2CPX078324R9999		1
	200	195	432	225	CAMF6020	2CPX078325R9999		1
	250	245	432	225	CAMF6025	2CPX078326R9999		1
	300	295	432	225	CAMF6030	2CPX078327R9999		1
	400	395	432	225	CAMF6040	2CPX078328R9999		1
	500	495	432	225	CAMF6050	2CPX078329R9999		1
	600	595	432	225	CAMF6060	2CPX078330R9999		1
	800	795	432	225	CAMF6080	2CPX078331R9999		1
800	150	145	648	225	CAMF8015	2CPX078332R9999		1
	200	195	648	225	CAMF8020	2CPX078333R9999		1
	250	245	648	225	CAMF8025	2CPX078334R9999		1
	300	295	648	225	CAMF8030	2CPX078335R9999		1
	400	395	648	225	CAMF8040	2CPX078336R9999		1
	500	495	648	225	CAMF8050	2CPX078337R9999		1
	600	595	648	225	CAMF8060	2CPX078338R9999		1
	800	795	648	225	CAMF8080	2CPX078339R9999		1

Enclosures

CombiLine S internal form of separation Form 2b



CKFH1620

- Set to separate the busbar behind device area
- Touch protection in front of the busbar system
- Mounting position horizontal
- Material is transparent plastic

Width mm	Height mm	Order details		Price	Pcs.
		Type	Order code		
600	200	CKFH1620	2CPX078463R9999		1
800	200	CKFH1820	2CPX078464R9999		1



CKFH2620

- Set to separate the busbar behind device area
- Touch protection in front of the busbar system and in addition top or bottom
- Mounting position horizontal
- Material is transparent plastic

Width mm	Height mm	Order details		Price	Pcs.
		Type	Order code		
600	200	CKFH2620	2CPX078465R9999		1
800	200	CKFH2820	2CPX078466R9999		1



CKFH3620

- Set to separate the busbar behind device area
- Touch protection behind the busbar system
- Mounting position horizontal
- Material is transparent plastic

Width mm	Height mm	Order details		Price	Pcs.
		Type	Order code		
600	200	CKFH3620	2CPX078467R9999		1
800	200	CKFH3820	2CPX078468R9999		1



CKFV8060

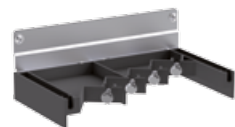
Article	Height in mm	Order details		Price	Pcs.	
		Type	Order code			
Set to separate the busbars in external cable container to the device area Mounting position vertical Material transparent plastic Depth 225 mm	600	CKFV8060	2CPX078469R9999		1	
	800	CKFV8080	2CPX078470R9999		1	
	1000	CKFV8100	2CPX078471R9999		1	
	1200	CKFV8120	2CPX078472R9999		1	
	1400	CKFV8140	2CPX078473R9999		1	
	1600	CKFV8160	2CPX078474R9999		1	
	1800	CKFV8180	2CPX078475R9999		1	
	2000	CKFV8200	2CPX078476R9999		1	
	Depth 275 mm	600	CKFV9060	2CPX078477R9999		1
		800	CKFV9080	2CPX078478R9999		1
		1000	CKFV9100	2CPX078479R9999		1
		1200	CKFV9120	2CPX078480R9999		1
1400		CKFV9140	2CPX078481R9999		1	
1600		CKFV9160	2CPX078482R9999		1	
1800		CKFV9180	2CPX078483R9999		1	
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Enclosures

CombiLine S busbar system



CKBS1161



CKBS1231



CKBS2161



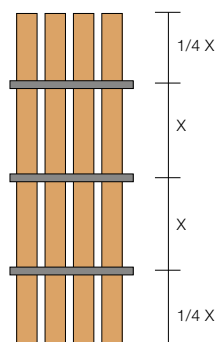
CKBS2231

Article	Width in mm	Min. cabinet depth mm	Order details		Price	Pcs.
			Type	Order code		
Busbar support linear for flat busbars Behind the device area Rated (I_n) max. 630 A Rated peak withstand current (I_{pk}) up to 68 kA Rated short-time withstand current (I_{cw}) 1.0 sec. up to 32 kA To find the right numbers of supports to achieve the short-circuit see the table below, numbers of support 1	600	275	CKBS1161	2CPX078447R9999		1
	800	275	CKBS1181	2CPX078448R9999		1
Busbar support scaled for flat busbars For external cable container Rated current (I_n) max. 630 A Rated peak withstand current (I_{pk}) up to 48 kA Rated short-time withstand current (I_{cw}) 1.0 sec. up to 23 kA To find the right numbers of supports to achieve the short-circuit see the table below, numbers of support 1	300	225	CKBS1231	2CPX078449R9999		1
Busbar support linear for shaped busbars Behind the device area Rated current (I_n) max. 800 A Rated peak withstand current (I_{pk}) up to 74 kA Rated short-time withstand current (I_{cw}) 1.0 sec. up to 35 kA To find the right numbers of supports to achieve the short-circuit see the table below, numbers of support 1	600	275	CKBS2161	2CPX078370R9999		1
	800	275	CKBS2181	2CPX078371R9999		1
Busbar support scaled for shaped busbars For internal or external cable container Rated current (I_n) max. 800 A Rated peak withstand current (I_{pk}) up to 74 kA Rated short-time withstand current (I_{cw}) 1.0 sec. up to 35 kA To find the right numbers of supports to achieve the short-circuit see the table below, numbers of support 1	200/300	225	CKBS2231	2CPX078372R9999		1

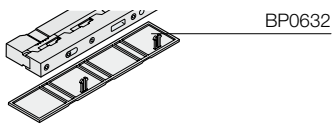
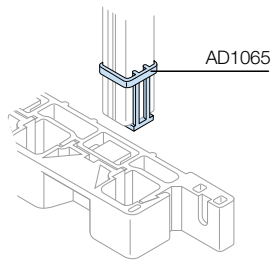
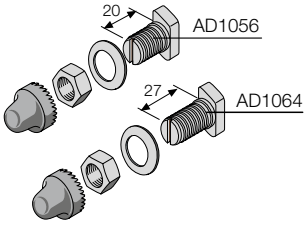
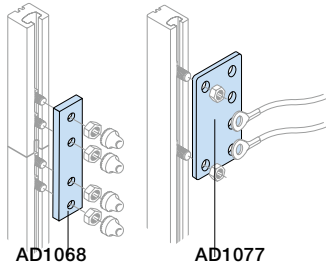
Table for rated peak withstand current I_{pk} / rated short-time withstand current I_{cw} (1 sec.)

Busbar Type	I_n in A	Busbar support	No. of busbars per phase	No. support H = 1750 mm		No. support H = 1750 mm		No. support H = 1750 mm		No. support H = 1750 mm	
				Max. X (mm)	Max. X (mm)	Max. X (mm)	Max. X (mm)	Max. X (mm)	Max. X (mm)		
Busbar support linear for flat busbar				17kA / 10kA		40kA / 20kA		48kA / 23kA		67kA / 32kA	
BR0250	250	CKBS1161	1	4	500	-	-	-	-	-	-
BR0400	400	CKBS1181	1	4	500	6	350	6	350	-	-
BR0630	630	CKBS1181	1	4	600	4	600	4	600	9	250
Busbar support scaled for flat busbars											
BR0250	250	CKBS1231	1	8	275	-	-	-	-	-	-
BR0400	400	CKBS1231	1	8	275	15	125	18	100	-	-
BR0630	630	CKBS1231	1	8	275	15	125	18	100	-	-
Busbar Type	I_n in A	Busbar support	No. of busbars per phase	No. support	Max. X (mm)	No. support	Max. X (mm)	No. support	Max. X (mm)	No. support	Max. X (mm)
Busbar support linear for shaped busbars				17kA / 10kA		40kA / 20kA		48kA / 23kA		63kA / 30kA	
BA0400	400	CKBS2161	1	5	425	5	425	5	425	-	-
BA0800	800	CKBS2181	1	4	550	4	550	4	550	-	-
Busbar support scaled for shaped busbars											
BA0400	400	CKBS2231	1	5	425	5	425	5	425	-	-
BA0800	800	CKBS2231	1	5	425	5	425	5	425	4	550

Max X = maximum distance not to be exceeded between two consecutive busbar holders



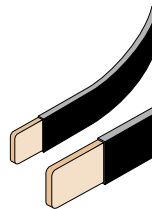
The distance between the first busbar holder and the end of the busbar must not exceed 1/4 of "X".



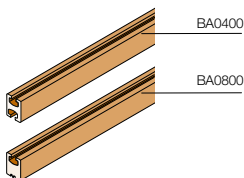
Article	Order details			Pcs.
	Type	Order code	Price	
Joints for busbars with shaped section				
No. 4 copper 400 A branch joints		AD1077		4
No. 4 joints for joining busbars with shaped section 400 / 800 A		AD1068		4
Hammer seal screws for busbars with shaped section				
No. 12 M8 screws L = 20 mm for flexible busbars and cable shoes complete with screw-covering cap		AD1056		12
No. 12 M8 screws L = 27 mm for flat busbars 10 mm complete with screw-covering cap		AD1064		12
Resting bases for busbars with shaped section				
No. 4 resting bases for 400 / 800 A busbars		AD1065		4
Busbars holders end cover				
No. 2 terminal covers for linear busbar holders CKBS1161, CKBS1181		BP0632		1

Enclosures

CombiLine S busbar system

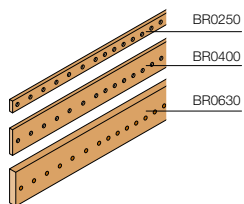


BF1602



BA0400

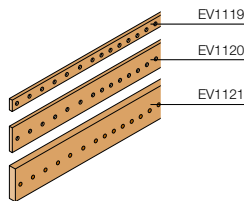
BA0800



BR0250

BR0400

BR0630



EV1119


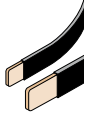
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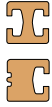
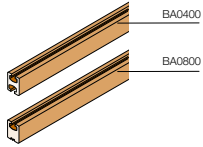
EV1121


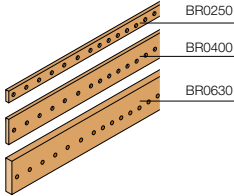


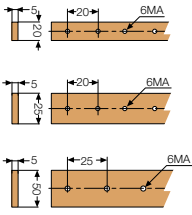
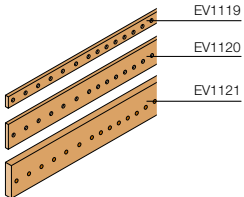
Article	Dimensions Length mm	I _n A	Order details		Price	Pcs.
			Type	Order code		
Flexible Busbars						
Flexible busbars insulated with self-extinguishing material						
No. 2 flexible busbars, section 20 x 3	2000	250	BF1602			2
No. 2 flexible busbars, section 20 x 5	2000	400	BF2502			2
No. 2 flexible busbars, section 24 x 6	2000	500	BF4002			2
No. 2 flexible busbars, section 32 x 5	2000	630	BF4012			2
Distribution busbars with shaped section						
Busbar I _n = 400 A	1730	400	BA0400			1
Busbar I _n = 800 A	1730	800	BA0800			1
Flat busbar						
Copper busbars drilled and threaded for rapid connection of the conductors						
Can be used with both linear CKBS1161, CKBS1181 and scaled CKBS1231 busbar holder						
No. 2 copper busbar 15 x 5	1750	250	BR0250			2
No. 2 copper busbar 25 x 5	1750	400	BR0400			2
No. 2 copper busbar 30 x 10	1750	630	BR0630			2
Earthing busbars*						
Busbar can be mounted directly on the mounting profile or busbar 20 x 5 mm on the support for horizontal installation;						
Copper busbars drilled and threaded for rapid connection of the conductors						
No. 2 earthing busbars 20 x 5 threaded M6	2000		EV1119			2
No. 2 earthing busbars 25 x 5 threaded M6	2000		EV1120			2
No. 2 earthing busbars 50 x 5 threaded M6	2000		EV1121			2
Support universal, for horizontal installation			CASHP2	2CPX078450R9999		2
For a Din rail or cable fastening rail or earth busbar max. 20 x 5 mm			CASHP50	2CPX078451R9999		50
For fix mounting						
Material is metal						

* Busbar dimensions can be selected according to IEC 61439-1 table 5

Cross section	Code	I_n in A	No. busbar/phase	Dimensions			
				Cu busbar in mm	Section dimensions mm ²	Length mm	Weight kg
Flexible busbars up to 630 A							
							
	BF1602	250	1	20 x 3	60	2000	1.42
	BF2502	400	1	20 x 5	100	2000	2.15
	BF4002	500	1	24 x 6	144	2000	3
	BF4012	630	1	32 x 5	160	2000	3.36

Busbars with shaped section for applications up to 800 A							
							
	BA0400	400	1	20 x 20	200	1730	4
	BA0800	800	1	20 x 20	280	1730	4,4

Cross section	Code	I_n in A	No. busbar/phase	Dimensions			
				Cu busbar in mm	Section dimensions mm ²	Length mm	Weight kg
Flat busbars for distribution up to 630 A							
							
	BR0250	250	1	15 x 5	75	1750	1.35
	BR0400	400	1	25 x 5	125	1750	1.8
	BR0630	630	1	30 x 10	300	1750	4.4

Cross section	Code	Threading	pitch	Dimensions		
				Cu busbar in mm	Section dimensions mm ²	Length mm
Flat drilled and threaded busbars for earthing connections*						
						
	EV1119	6 MA	20	20 x 5	100	2000
	EV1120	6 MA	20	25 x 5	125	2000
	EV1121	6 MA	25	50 x 5	250	2000

* Busbar dimensions can be selected according to IEC 61439-1 table 5

Enclosures

CombiLine S accessories, mounting support



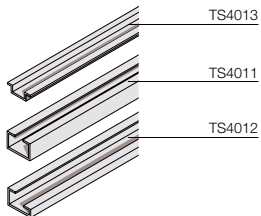
CASHP2

Article	Width mm	Order details		Price	Pcs.
		Type	Order code		
Support universal, for horizontal installation For a Din rail or cable fastening rail or earth busbar max. 20 x 5 mm Material is metal		CASHP2	2CPX078450R9999		2
		CASHP50	2CPX078451R9999		50



CASVP2

Support universal, for vertical installation For a Din rail or cable fastening Material is metal		CASVP2	2CPX078452R9999		2
		CASVP50	2CPX078453R9999		50



Section for accessories

Length 2000 mm

No. 2 sections EN50024 C30		TS4011			2
No. 2 sections EN50035 G32		TS4012			2
No. 2 DIN sections EN50022		TS4013			2



CAHB16

Horizontal mounting profile for busbar support and cable fixing Mounted on the back level of the vertical mounting profile Material metal	300	CAHB3	2CPX078456R9999		1
	600	CAHB6	2CPX078457R9999		1
	800	CAHB8	2CPX078458R9999		1

Enclosures

CombiLine S accessories, wiring system



CASWP2



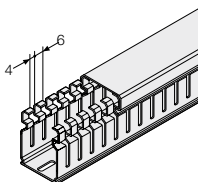
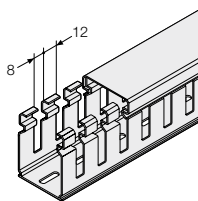
CAHW6



ED44P10



ED45P10



Article	Width mm	Order details		Price	Pcs.
		Type	Order code		
Support for wiring duct For wiring ducts with 60 mm and 80 mm height Material is Polyamid (PA)		CASWP2	2CPX078454R9999		2
		CASWP50	2CPX078455R9999		50

Horizontal mounting profile for Wiring system Mounted on support for wiring duct Material metal	600	CAHW6	2CPX078459R9999		1
	800	CAHW8	2CPX078461R9999		1

Wire holder

For horizontal mounting profile

Depth 28.5 mm		ED44P10	2CPX062335R9999		10
		ED44P50	2CPX062308R9999		50
		ED44P1000	2CPX062703R9999		1000
Depth 55 mm		ED45P10	2CPX062336R9999		10
		ED45P50	2CPX062310R9999		50
		ED45P1000	2CPX062704R9999		1000

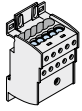
Wiring ducts

For horizontal and vertical installation RAL 7035, lenght 2000 mm

Slot 8 - 12 mm					
Base x Height in mm					
		60 x 60	05 067		1
		60 x 80	05 087		1
		80 x 60	05 069		1
		80 x 80	05 089		1
Slot 4 - 6 mm					
Base x Height in mm					
		60 x 60	05 167		1
		60 x 80	05 187		1
		80 x 60	05 169		1
		80 x 80	05 189		1

Enclosures

CombiLine S distribution system, modular dividers



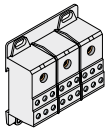
AD1080



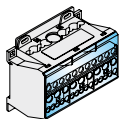
AD1081



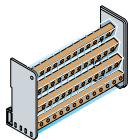
AD1030
AD1031



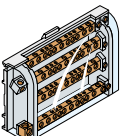
AD1075
AD1006



AD1004

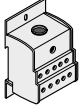

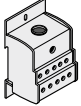

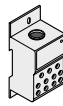
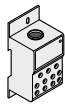
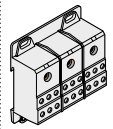
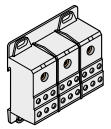


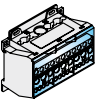
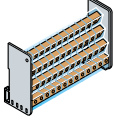
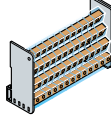
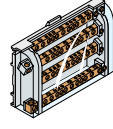
AD1028
AD1029



AD1027

Article	Order details			Pcs.
	Type	Order code	Price	
Single-pole				
Modular 125 A	Ⓛ	AD1076		1
Modular 125 A	Ⓛ	AD1080		1
Modular 175 A	Ⓛ	AD1007		1
Modular 175 A	Ⓛ	AD1081		1
Modular 250 A	Ⓛ	AD1030		1
Modular 400 A	Ⓛ	AD1031		1
Three-pole				
Modular 125 A	Ⓛ	AD1075		1
Modular 175 A	Ⓛ	AD1006		1
Four-pole				
Modular 125 A		AD1004		1
Modular 125 A - medium - 93 x 89 x 48 (H x L x P)		AD1028		1
Modular 125 A - large - 96 x 126 x 48 (H x L x P)		AD1029		1
Modular 160 A		AD1027		1
Amounting accessories				
Connection accessory between two AD 1080		AD1083		1

		Single-pole						Three-poles	
									
Code		AD1076	AD1080(1)	AD1007	D1081(2)	AD1030	AD1031	AD1075	AD1006
I_n	(A)	125	125	175	175	250	400	125	175
I_{cw}	(kA)	4.4	4.2	11	1.1	21	21	4.4	11
Version	pole	1	1	1	1	1	1	3	3
Installation		DIN35/plate	DIN35/plate	DIN35/plate	DIN35/plate	DIN35/plate	DIN35/plate	DIN35/plate	DIN35/plate
Power supply Ø cable (mm ²)	min.	10	6	16	10	35	95	10	16
	max	35	35	70	70	120	185	35	70
No. outgoing feeder Ø cable (mm ²)	1,5÷10					4	4		
	2,5÷16	10	6	10	6	5	5	6	6
	2,5÷25					2	2		
Dimensions H x W x D	(mm)	71 x 45 x 42,5	74 x 27 x 47	71 x 45 x 42,5	92 x 35 x 49	95.5 x 45 x 49	95.5 x 45 x 49	71.5 x 80 x 42,5	71.5 x 80 x 42,5
No. DIN modules		2,5	1,5	2,5	2	3	3	4,5	4,5
Rated service voltage U_e	(V)	1000 V _{ac}	1000 V _{ac}	1000 V _{ac}	1000 V _{ac}	1000 V _{ac}	1000 V _{ac}	1000 V _{ac}	1000 V _{ac}
		1500 V _{dc}	1500 V _{dc}	1500 V _{dc}	1500 V _{dc}	1500 V _{dc}	1500 V _{dc}	1500 V _{dc}	1500 V _{dc}
Degree of protection	IP	20	20	20	20	20	20	20	20

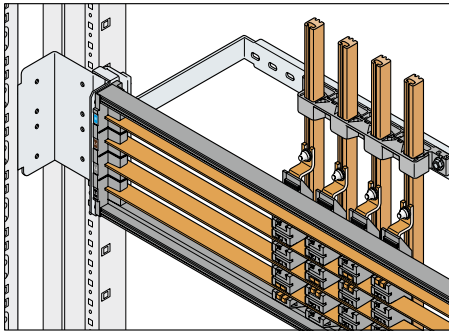
		Four poles			
					
Code		AD1004	AD1028	AD1029	AD1027
I_n	(A)	125	125	125	160
I_{cw}	(kA)	10	4.2	4.2	6.2
I_{pk}	(kA)	24	25	25	20
Version	poli	4.2	4	4	4
Installation		DIN35/plate	DIN35/plate	DIN35/plate	DIN35
Power supply Ø cable (mm ²)	min.	6	6	6	10
	max	35	25 with cable terminal	25 with cable terminal	50
No. outgoing feeder Ø cable (mm ²)	1/6	5/phase			
	1.5/6	4/neutral			
	1.5/10	2/phase	7	9	
		6/neutral			
	1.5/16			2	
	2.5/16				8
6/25		2	2	3	
Dimensions H x W x D	(mm)	74.5 x 98 x 45	93 x 89 x 48	96 x 126 x 48	90 x 160.5 x 50
No. DIN modules		5,5	5	7	9
Rated service voltage U_e	(V)	1000 V _{ac}	440	440	440
		1500 V _{dc}			
Degree of protection	IP	20	20	20	20

⁽¹⁾ Possibility of putting in parallel with AD1083 connections

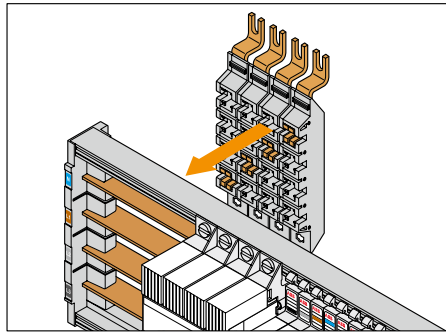
⁽²⁾ Possibility of putting in parallel with comb type connection (not supplied)

Enclosures

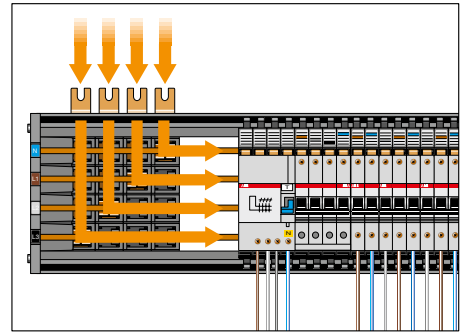
CombiLine S distribution system Unifix, overview



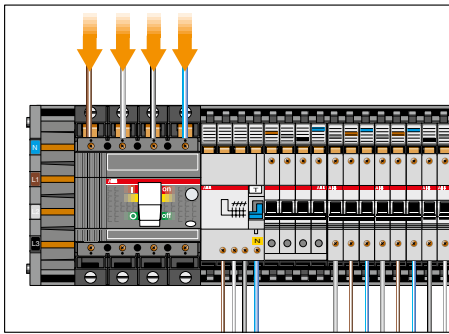
Direct connection with the 400/800 A system of busbars with shaped section.



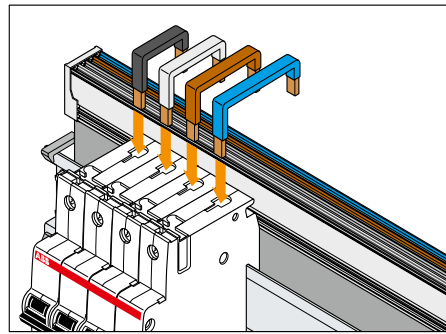
Feeder module for 400 A frame (L1-L2-L3-N).



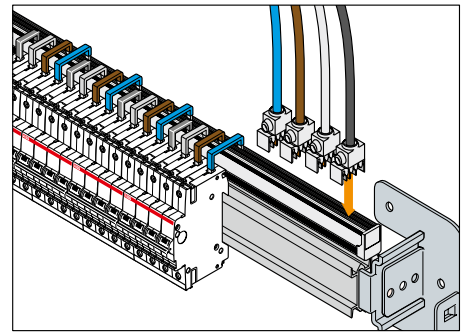
Direct power supply of the bases by means of feeder module ED2209.



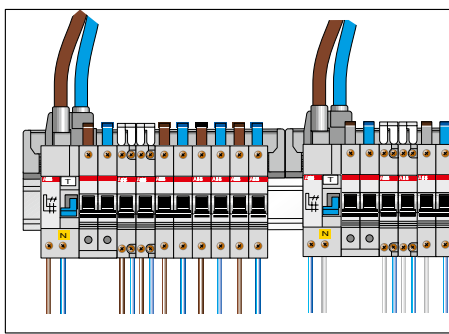
Power supply by means of general row circuit-breaker.



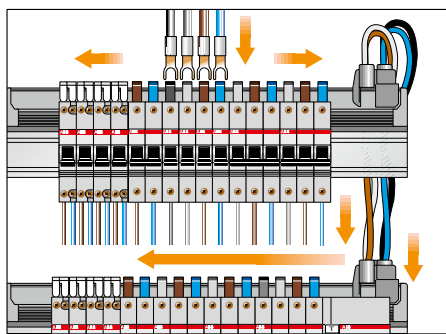
Connections (L1-L2-L3-N) for System pro M modular apparatus.



Power supply of the busbar with 100 A feeder module without cable. Terminal capacity 35mm².



Direct power supply of the busbars by means of feeder module.



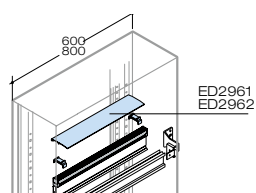
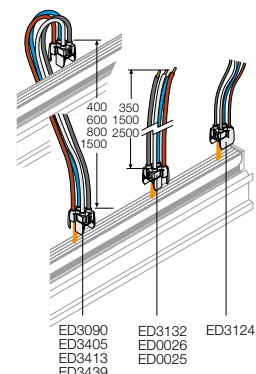
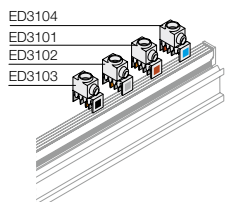
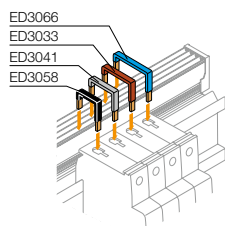
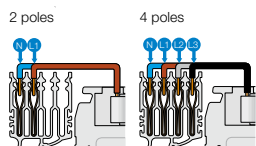
Power supply by means of modules and cables in parallel.

Where to find more:

Chapter 14 of
Solutions for electrical installation in
buildings - technical details

Enclosures

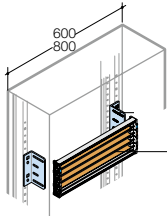
CombiLine S distribution system Unifix L



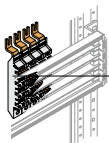
Article	Order details			Pcs.
	Type	Order code	Price	
2-pole busbars				
100 A 2P 8 module busbar, width 200 mm	ED2985			6
100 A 2P 12 module busbar, width 400 mm	ED2993			6
100 A 2P 18 module busbar, width 450 mm	ED3009			6
100 A 2P 24 module busbar, width 600 mm	ED3017			6
100 A 2P 36 module busbar, width 800 mm	ED3025			6
4-pole busbars				
100 A 4P 12 module busbar, width 400 mm	ED2944			6
100 A 4P 18 module busbar, width 450 mm	ED2951			6
100 A 4P 24 module busbar, width 600 mm	ED2969			6
100 A 4P 36 module busbar, width 800 mm	ED2977			6
Connections for various apparatus				
Connection with 2 conductors L/N 16 A	ED3108			6
Connection with 3 conductors L1/L2/L3 16 A	ED3116			6
Connection with 4 conductors L1/L2/L3/N 16 A single phase	ED3124			6
Connection with 2 conductors L1/N 40 A	ED3355			6
Connection with 3 conductors L1/L2/L3 40 A	ED3363			6
Connection with 4 conductors L1/L2/L3/N 40 A	ED3371			6
Connections for apparatus				
No. 10 connections L1-N 40 A	ED3272			10
No. 10 connections L2-N 40 A	ED3280			10
No. 10 connections L3-N 40 A	ED3298			10
No. 10 connections L 1 100 A	ED3033			10
No. 10 connections L 2 100 A	ED3041			10
No. 10 connections L 3 100 A	ED3058			10
No. 10 connections N 100 A	ED3066			10
Feeder with 4P 100 A cable, width 350 mm	ED3132			10
Feeder with 4P 100 A cable, width 1500 mm	ED0026			10
Feeder with 4P 100 A cable, width 1500 mm	ED0025			10
Power supply modules with cable				
Parallel module 2P 100 A with cable, width 600 mm	ED3082			6
Parallel module 4P 100 A with cable, width 400 mm	ED3405			6
Parallel module 4P 100 A with cable, width 600 mm	ED3090			6
Parallel module 4P 100 A with cable, width 800 mm	ED3413			6
Parallel module 4P 100 A with cable, width 1500 mm	ED3439			6
Power supply modules without cable In 100 A				
No. 10 single-pole power supply terminals L1	ED3101			10
No. 10 single-pole power supply terminals L2	ED3102			10
No. 10 single-pole power supply terminals L3	ED3103			10
No. 10 single-pole power supply terminals N	ED3104			10
Accessories				
N°10 busbar covers, width 600 mm	ED2961			10
N°2 busbar covers, width 800 mm	ED2962			2

Enclosures

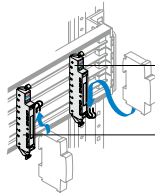
CombiLine S distribution system Unifix H



ED2183
ED2191

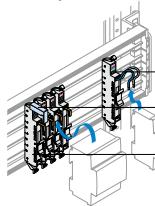


ED2209



ED2894
ED2902

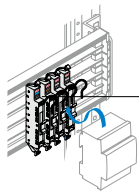
ED2910
ED2928



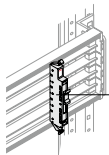
ED2654
ED2662
ED2670

ED0004

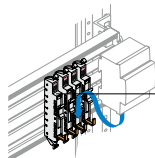
ED2531-ED2549
ED2564-ED2556



ED2720-ED2738
ED2746-ED2753
ED2551-ED2552
ED2553-ED2554

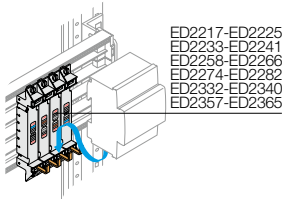


ED2845
ED2550

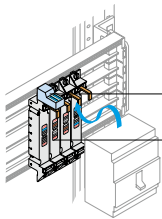


ED2572-ED2590
ED2598-ED2506

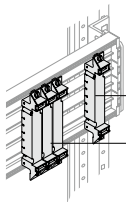
Article	Order details		Price	Pcs.
	Type	Order code		
Frames for Tmax				
Frame with 24 DIN module busbar	ED2183			1
Frame with 36 DIN module busbar	ED2191			1
Feeder modules				
4P 400 A feeder module (for ED2183-ED2191)	ED2209			1
Basic modules In 16 A				
Basic module for DIN L1-N top 16 A	ED2894			1
Basic module for DIN L1-L2 top 16 A	ED2902			1
Basic module for DIN L1-N bottom 16 A	ED2910			1
Basic module for DIN L1-L2 bottom 16 A	ED2928			1
Basic modules In 40 A				
Basic module L1/Neutral top 40 A	ED2654			1
Basic module L2/Neutral top 40 A	ED2662			1
Basic module L3/Neutral top 40 A	ED2670			1
Basic modules In 63 A				
Basic module L1 top 63 A	ED2531			1
Basic module L2 top 63 A	ED2549			1
Basic module L3 top 63 A	ED2556			1
Basic module Neutral top 63 A	ED2564			1
Basic module L1 bottom 63 A	ED2572			1
Basic module L2 bottom 63 A	ED2590			1
Basic module L3 bottom 63 A	ED2598			1
Basic module Neutral bottom 63 A	ED2606			1
Basic modules In 100 A				
Basic module with cable L1 top 100 A	ED2720			10
Basic module with cable L2 top 100 A	ED2738			2
Basic module with cable L3 top 100 A	ED2746			1
Basic module with cable Neutral top 100 A	ED2753			1
Basic modules ≤ In 40 A S800				
Basic module L1 top ≤ 40 A	ED2557			1
Basic module L2 top ≤ 40 A	ED2558			1
Basic module L3 top ≤ 40 A	ED2559			1
Basic module Neutral top ≤ 40 A	ED2560			1
Basic modules ≤ In 125 A S800				
Basic module L1 top 125 A	ED2551			1
Basic module L2 top 125 A	ED2552			1
Basic module L3 top 125 A	ED2553			1
Basic module Neutral bottom 125 A	ED2554			1
Basic module false pole, width 27 mm	ED2557			1



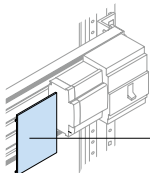
ED2217-ED2225
ED2233-ED2241
ED2258-ED2266
ED2274-ED2282
ED2332-ED2340
ED2357-ED2366



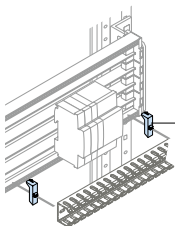
ED0001
ED0002
ED0003
ED2290-ED2308
ED2316-ED2324



ED2373
ED2381
ED2399



ED2407



ED2936

Article	Order details			Pcs.
	Type	Order code	Price	
Basic modules ≤ In 160 A, Tmax XT1				
Basic module L1 top L2 bottom	ED2217			1
Basic module L2 top L1 bottom	ED2225			1
Basic module L3 top Neutral bottom	ED2233			1
Basic module Neutral top L3 bottom	ED2241			1
Basic module false pole for residual current release RC221	ED2373			1
Basic module false pole for solenoid operator	ED2381			1

Basic modules ≤ In 250 A, Tmax XT3				
Basic module L1 top	ED2290			1
Basic module L2 top	ED2308			1
Basic module L3 top	ED2316			1
Basic module N top	ED2324			1
Basic module L1 bottom	ED2332			1
Basic module L2 bottom	ED2340			1
Basic module L3 bottom	ED2357			1
Basic module N bottom	ED2365			1
Basic module false pole for residual current release RC221	ED2373			1

Accessories				
Basic module false pole for DDA	ED2845			1
Basic module false pole for modular MDRC	ED2852			1
No. 2 IP20 covers (for ED2183-ED2191), width 173 mm (10 DIN modules)	ED2407			2
No. 6 duct supports 40 x 60 mm (only for modular apparatus)	ED2936			6

Spare parts				
No. 10 terminal covers for Tmax XT1	ED0001			10
No. 10 terminal covers for Tmax XT3	ED0003			10
No. 10 terminal covers for S200/F200	ED0004			10

Enclosures

CombiLine S distribution system Unifix, technical data

Technical characteristics	Unifix H	Unifix L
Unifix systems		
Rated service voltage (U_p)	690 V AC	400 V AC
Rated insulation voltage (U)	1000 V AC	500 V AC
Rated impulse withstand voltage (U_{imp})	8 kV	6 kV
Rated frequency	50/60 Hz	50/60 Hz
Rated current (I_p)		
central power supply	400 A	100 A
lateral power supply	320 A	80 A
Rated short-time withstand current (I_{pw})	25 kA	-
Maximum peak current (I_{pk})	52,5 kA - 400 V	-
Maximum installable circuit-breaker size	250 A	100 A
Conditioned short-circuit current (I_{cc})		
Tmax XT1	50 kA - 400 V	-
Tmax XT3	50 kA - 400 V	-
With circuit-breaker		
S200	-	6 kA - 400 V
S200M	-	10 kA - 400 V
S200P	-	25 kA - 400 V
Degree of protection	IP20 with accessory	IP20
Characteristics of the insulating material	Self-extinguishing thermoplastic V1 (UL94)	Self-extinguishing thermoplastic V1 (UL94)
Characteristics of the conductor material	Electrolytic copper	Electrolytic copper
Width	24/600	12/400
(No. modules/mm)	36/800	24/600
		36/800
Installation of Unifix system		
Frame for Tmax XT series		
300 x 600 mm (H x L)	ED2183	-
300 x 800 mm (H x L)	ED2191	-
Fixing brackets Height 300 mm	AD1097	-
Crosspiece for direct connection to the rear busbars with shaped section with PB0803		
Width 600 mm	TL1000	-
Width 800 mm	TL1100	-
Busbar 4P		
12 mod.	-	ED2993
18 mod.	-	ED3009
24 mod.	-	ED3017
36 mod.	-	ED3025
Busbar 4P		
12 mod.	-	ED2944
18 mod.	-	ED2951
24 mod.	-	ED2969
36 mod.	-	ED2977
Fixing support		
24 mod.	-	GD1520
36 mod.	-	GD1530

⁽¹⁾ Select circuit-breakers in version with front terminals for copper cables.

Enclosures

CombiLine S distribution system Unifix, selecting table

Series of circuit-breakers	Unifix H		Unifix L
Unifix systems			
Table for selecting connections according to the circuit-breaker			
SN201	(top power supply)		
DS941	ED2654 L1/N 40 A	-	ED3272 L1/N 40 A
	ED2662 L2/N 40 A	-	ED3280 L2/N 40 A
	ED2670 L3/N 40 A	-	ED3298 L3/N 40 A
S200 - DS200	(top power supply)	(bottom power supply)	
F200 up to 63A (Unifix L)	ED2531 L1 63A	ED2572 L1 63A	ED3033 L1 100A
	ED2549 L2 63A	ED2590 L2 63A	ED3041 L2 100A
	ED2556 L3 63A	ED2598 L3 63A	ED3058 L3 100A
	ED2564 N 63A	ED2606 N 63A	ED3066 N 100A
	ED2845 False pole module	-	-
S800	(top power supply)		
	ED2557 L1 ≤32A	-	-
	ED2558 L2 ≤32A	-	-
	ED2559 L3 ≤32A	-	-
	ED2560 N ≤32A	-	-
	ED2551 L1 125A	-	-
	ED2552 L2 125A	-	-
	ED2553 L3 125A	-	-
	ED2554 N 125A	-	-
	ED2550 False pole module	-	-
S280 (80-100A)	(top power supply)		
E200 up to 100A - RS370 - F200 80/100A (Unifix H)	ED2720 L1 100A	-	ED3132 pow. supply L1/L2/L3/N - 350mm
	ED2738 L2 100A	-	ED0026 pow. supply L1/L2/L3/N - 1500mm
	ED2746 L3 100A	-	ED0025 pow. supply L1/L2/L3/N - 2500mm
	ED2753 N 100A	-	-
MDRC - Various apparatus	(top power supply)	(bottom power supply)	
	ED2894 L1/N 16A	ED2910 L1/N 16A	ED3108 pow. supply 2 cables L1/N 16A
	ED2902 L1/L2 16A	ED2928 L1/L2 16A	ED3116 pow. supply 3 cables L1/L2/L3 16A
	-	-	ED3124 pow. supply 4 cables L1/L2/L3/N 16A
	-	-	ED3355 pow. supply 2 cables L1/N 40A
	-	-	ED3363 pow. supply 3 cables L1/L2/L3 40A
	-	-	ED3371 pow. supply 4 cables L1/L2/L3/N 71A
Circuit-breaker	(top/bottom power supply)		
Tmax XT1	ED2217 L1 Top/L2 Bottom	-	-
	ED2225 L2 Top/L1 Bottom	-	-
	ED2233 L3 Top/N Bottom	-	-
Residual current	ED2241 N Top/L3 Bottom	-	-
Solenoid operator	ED2373 False pole module	-	-
	ED2381 False pole module	-	-
Circuit-breaker	(top power supply)	(bottom power supply)	
Tmax XT3	ED2290 L1	ED2332 L1	-
	ED2308 L2	ED2340 L2	-
	ED2316 L3	ED2357 L3	-
Residual current	ED2324 N	ED2365 N	-
	ED2373 False pole module	-	-

⁽¹⁾ Select circuit-breakers in version with front terminals for copper cables.

Livorno Series emergency consumer units

Technical details designed to facilitate installation

Three degrees of protection IP40, IP55, IP65 allow to install these emergency consumer units in any environment, residential, tertiary or industrial.

The self-extinguishing thermoplastic frame ensures resistance to abnormal heat and fire



14 The front door is equipped with a protective glass that can be broken in case of need using the glass-breaking hammer (included)

The flush-mounting, wall-mounting or DIN rail versions offer extensive installation choices



The Livorno Series is a range of emergency consumer units equipped with an emergency breakable glass to quickly and effectively stop systems or services in the case of malfunctions or dangers

that may occur in residential, tertiary or industrial installations.

Made of self-extinguishing thermoplastic material, these devices are mainly ins-

talled in those environments that have greater risk of fire.

The flush- and wall-mounting versions can be equipped with a luminous button and glass-breaking hammer.

Enclosures

Livorno Series emergency consumer units



Consumer units, technical specifications

Protection class	IP40, IP55 or IP65, according to version.
Version	flush- and wall-mounting.
Colour	RAL 3000 red and RAL 7035 grey.
Installation temperature	-25°C ÷ +60°C.
Resistance to heat	ball thermopressure up to +85°C according to EN 60695-10-2 standard.
Front door	breakable glass 0.75 (IK05 degree).
Material	self-extinguishing thermoplastic material, resistant to abnormal heat and fire up to 650°C (glow wire test), according to IEC 60695-2-11 standard.
Door lock	coded-type key
Included accessories	module covers (per DIN rail versions) 4 screw cover plugs certification plate

Consumer units with emergency button, technical specifications

Protection degree	IP55.
Version	flush- and wall-mounting
Colour	RAL 3000 red.
Installation temperature	-25°C ÷ +60°C.
Rated operating voltage Ue	250 V.
Utilisation category	AC 12.
Rated operating voltage Ie	2 A.
Rated insulation voltage Ui	250 V.
Pollution degree	3.
Fuses	10 A, gG type, 10.3x38 mm.
Front door	breakable glass 0.75 (IK05 degree).
Material	self-extinguishing thermoplastic material, resistant to abnormal heat and fire up to 650°C (glow wire test), according to IEC 60695-2-11 standard.
Luminous button	with 1 NO contact + 1 NC contact (2 A, 250 V).
Included accessories	glass-breaking hammer.
Optional accessories	12 or 24 V bulb lamp (incandescent), or 250 V (fluorescent).
Conformity	EN 60947-5-1 standard.
Mark of approval	IMQ according to EN 60947-5-1



13 183

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13 144 - 13 154

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13 143 - 13 153

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Description	IP rating	Dimensions WxHxD [mm]	Order details		Pack. pc.
			Type	Order code	
Flush-mounting version					
RAL 3000 red colour. Possible installation on flush-mounting box with 83.5 mm centre distance. Equipped with luminous button (bulb lamp* - 12 V and 24 V incandescent or 250 V fluorescent), with 1 NO contact + 1 NC contact (2 A, 250 V), complete with glass-breaking hammer. Ⓢ	IP55	100x100x50	-	13 183	1/13
RAL 3000 red colour. With DIN rail x 6 mod.	IP40	200x245x82	-	13 144	1/7
RAL 3000 red colour. With panel.	IP40	200x245x82	-	13 154	1/7
RAL 7035 grey colour. With DIN rail x 6 mod.	IP40	200x245x82	-	13 143	1/7
RAL 7035 grey colour. With panel.	IP40	200x245x82	-	13 153	1/7

* lamp not included

Enclosures

Livorno Series emergency consumer units



13 180

Description	IP rating	Dimensions WxHxD [mm]	Order details		Pack. pc.
			Type	Order code	
Wall-mounting version					
RAL 3000 red colour. Equipped with luminous button (bulb lamp* - 12 V and 24 V incandescent or 250 V fluorescent), with 1 NO contact + 1 NC contact (2 A, 250 V), complete with glass-breaking hammer.	IP55	100x100x50	-	13 180	1/14



13 171 - 13 175

RAL 3000 red colour. Equipped with flanges for easy branch connections. With DIN rail x 8 mod.	IP65	205x220x140	-	13 171	1/6
RAL 3000 red colour. Equipped with flanges for easy branch connections. With panel.	IP65	205x220x140	-	13 175	1/6



13 170 - 13 174

RAL 7035 grey colour. Equipped with flanges for easy branch connections. With DIN rail x 8 mod.	IP65	205x220x140	-	13 170	1/6
RAL 7035 grey colour. Equipped with flanges for easy branch connections. With panel.	IP65	205x220x140	-	13 174	1/6



13 161 - 13 165

RAL 3000 red colour. With DIN rail x 8 mod.	IP55	165x180x110	-	13 161	1/12
RAL 3000 red colour. With panel.	IP55	165x180x110	-	13 165	1/12



13 160 - 13 164

RAL 7035 grey colour. With DIN rail x 8 mod.	IP55	165x180x110	-	13 160	1/12
RAL 7035 grey colour. With panel.	IP55	165x180x110	-	13 164	1/12



13 141 - 13 151

RAL 3000 red colour. With DIN rail x 6 mod.	IP40	170x210x110	-	13 141	1/6
RAL 3000 red colour. With panel.	IP40	170x210x110	-	13 151	1/6



13 140 - 13 150

RAL 7035 grey colour. With DIN rail x 6 mod.	IP40	170x210x110	-	13 140	1/6
RAL 7035 grey colour. With panel. * lamp not included	IP40	170x210x110	-	13 150	1/6

* lampada non fornita



13 190



13 187 - 13 188 - 13 189



13 186



12 858

Description	Order details		Pack. pc.
	Type	Order code	
Accessories			
Spare lid for consumer units with emergency button	-	13 190	10/40
Bulb lamp for 12 V luminous button - incandescent	-	13 187	10/120
Bulb lamp for 24 V luminous button - incandescent	-	13 188	10/120
Bulb lamp for 250 V luminous button - fluorescent	-	13 189	10/120
Glass-breaking hammer	-	13 186	10/300
Fixing brackets for IP65 insulated consumer units only	-	12 858	20/240

IP44, IP55 and IP65 Junction boxes

The details make the difference

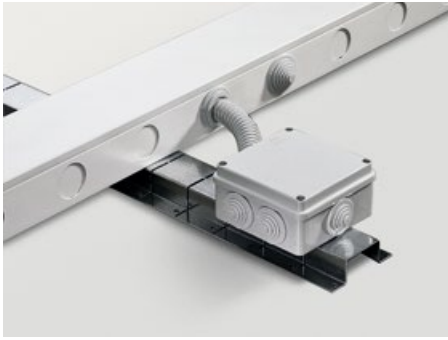
High resistance to heat and chemical and atmospheric agents

Installation temperature from -25 °C to +60 °C



Three lid types available: press-on, with steel screws and with plastic screws with a ¼ turn closing

Boxes with protection degree IP55 and IP65 are composed of a patented lid produced in a single pressing phase together with its seal



A wide range for all needs. There are IP44 for press-on lid boxes with cable glands, IP55 for screw-on lid boxes with cable glands and IP65 for screw-on lid box with smooth sides.



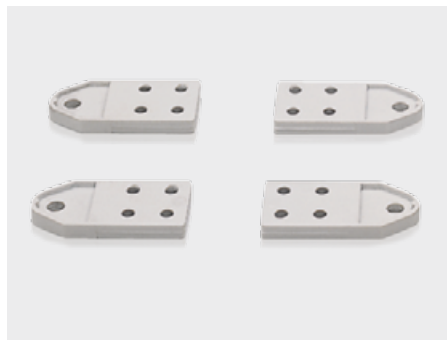
Some versions of the IP44 and IP55 junction boxes are already equipped with cable glands.



Boxes with protection degree IP55 and IP65 are composed of a patented lid produced in a single pressing phase together with its seal.



Now new: All IP65 junction boxes (with smooth sides) are manufactured in halogen free thermoplastic material.



Wall-mounting is also possible. All junction boxes measuring 160x135, 220x170 and 310x240 mm can be mounted on the wall with brackets (accessory; code 12858).



All IP44, IP55 and IP65 junction boxes are also available in thermoplastic material, self-extinguishing in compliance with UL 94 V2 Standard and resistant to abnormal heat and fire up to 960°C GWT.

Enclosures

IP44, IP55 and IP65 Junction boxes



IP44 boxes



IP44 boxes



IP55

- IP44, IP55 and IP65 Junction boxes for swimming pool control equipment, washing car centers, garages, building services, automatic garden lighting and watering, traffic signs, photovoltaic installations.
- Protection degree: IP44 for press-on lid boxes with cable glands, IP55 for screw-on lid boxes with cable glands, IP65 for screw-on lid box with smooth sides
- Shock resistant: IK07 for IP44 boxes, IK08 for IP55 and IP65 boxes
- IP44 and IP55 boxes with press-on lids in thermoplastic material, self-extinguishing in compliance with UL 94 HB Standard and resistant to abnormal heat and fire up to 650°C (glow wire flammability index) in compliance with IEC 60695-2-11 Standard
- IP65 boxes with screw-on lids in halogen free thermoplastic material, self-extinguishing in compliance with UL 94 HB Standard and resistant to abnormal heat and fire up to 650°C (glow wire flammability index) in compliance with IEC 60695- 2-11 Standard
- Installation temperature from -25°C to +60°C; Resistant to heat: ball thermopressure up to +85°C for IP44, IP55 and IP65 junction boxes
- Boxes with protection degree IP55 and IP65 are composed of a patented lid produced in a single pressing phase together with its seal
- All junction boxes made in compliance with IEC 60670-1 and IEC 60670-22 Standards
- IP44 and IP55 junction boxes in thermoplastic material obtained the IMQ mark of approval
- All the boxes are RoHS compliance

All IP44, IP55 and IP65 junction boxes are also available in thermoplastic material, self-extinguishing in compliance with UL 94 V2 Standard and resistant to abnormal heat and fire up to 960°C (glow wire flammability index) in compliance with IEC 60695-2-11 Standard.

Description	Dimensions HxWxD [mm]	Order code	Price	Box/Pack No items
IP44 boxes - GWT 650°C				
With cable glands and press-on lid				
IP44-Snap-on cover - GWT 650°C	Ø 60 - H 35	00800		240/240
	Ø 80 - H 40	00802		144/144
	65x65x32	00808		168/168
	80x80x40	00810		100/100
IP55 waterproof boxes with plastic 1/4 turn screws - GWT 650°C				
With cable glands and low screw-on lid RAL 7035				
IP55-Cable glands-low lid-1/4TS GWT 650°C	100x100x50	1SL0816A00		1/54
	105x70x50	1SL0820A00		1/70
	100x100x80	1SL0821A00		1/40
	153x110x66	1SL0822A00		1/32
IP55-Cable glands-low lid-1/4TS GWT 650°C*	160x135x77	1SL0824A00		1/18
	220x170x80	1SL0826A00		1/12
	310x240x110	1SL0828A00		1/6

* Can be wall-mounted using wall brackets code 12858.



2CSC001087F0014

IP65



2CSC001068F0014

IP65



2CSC001069F0014

IP55



2CSC001070F0014

IP65



2CSC001071F0014

IP65

Description	Dimensions HxWxD	Order code	Price	Box/Pack No items
	[mm]			
IP65 waterproof boxes with plastic 1/4 turn screws - GWT 650°C halogen free				
With smooth sides and low screw-on lid RAL 7035				
IP65-Smooth-low lid-1/4TS GWT 650°C halogen free	100x100x50	1SL0846A00		1/60
	105x70x50	1SL0850A00		1/100
	100x100x80	1SL0851A00		1/40
	153x110x66	1SL0852A00		1/32
IP65-Smooth-low lid-1/4TS GWT 650°C halogen free*	160x137x77	1SL0854A00		1/24
	220x170x80	1SL0856A00		1/12
	310x240x110	1SL0858A00		1/6
	With smooth sides and transparent low screw-on lid			
IP65-Smooth-low transparent lid-1/4TS GWT 650°C halogen free	153x110x66	1SL0872A00		1/34
IP65-Smooth-low transparent lid-1/4TS GWT 650°C halogen free*	160x135x77	1SL0874A00		1/24
	220x170x80	1SL0876A00		1/12
	310x240x110	1SL0878A00		1/6
IP55 waterproof boxes with steel screws - GWT 650°C				
With cable glands and high screw-on lid RAL 7035				
IP55- Cable glands-low lid - GWT 650°C	100x100x50	00816		1/54
	105x70x50	00820		1/70
	100x100x80	00821		1/40
	153x110x66	00822		1/32
IP65 waterproof boxes with steel screws - GWT 650°C halogen free				
With smooth sides and high screw-on lid RAL 7035				
IP65- Smooth W.-low lid - GWT 650°C halogen free	100x100x50	00846		1/60
	105x70x50	00850		1/100
	100x100x80	00851		1/40
	153x110x66	00852		1/34
With Smooth sides and transparent high screw-on lid				
IP65- Smooth W.-transparent. low lid-153X110X66 GWT 650°C halogen free	151x110x66	00872		1/34

* Can be wall-mounted using wall brackets code 12858.

Enclosures

IP44, IP55 and IP65 Junction boxes



2CSC001073F0014

IP55



2CSC001073F0014

IP65



2CSC001074F0014

IP65

Description	Dimensions HxWxD [mm]	Order code	Price	Box/Pack No items
IP55 waterproof boxes with plastic 1/4 turn screws - GWT 650°C				
With Cable glands and high screw-on lid RAL 7035				
IP55-Cable glands-high lid -1/4TS GWT 650°C	160x135x150	1SL0830A00		1/16
	220x170x150	1SL0832A00		1/8
	310x240x160	1SL0834A00		1/4
IP65 waterproof boxes with plastic 1/4 turn screws - GWT 650°C halogen free				
With Smooth sides and high screw-on lid RAL 7035				
IP65-Smooth-high lid -1/4TS GWT 650°C halogen free	160x135x150	1SL0860A00		1/16
	220x170x150	1SL0862A00		1/8
	310x240x160	1SL0864A00		1/4
With Smooth sides and transparent high screw-on lid				
IP65-Smooth-high transparent lid -1/4TS GWT 650°C halogen free*	160x135x150	1SL0880A00		1/16
	220x170x150	1SL0882A00		1/8
	310x240x160	1SL0884A00		1/4

* Can be wall-mounted using wall brackets code 12858.

Enclosures

IP 44, IP 55 and IP 65 junction boxes in thermoplastic material



IP44



IP44



IP55



IP65



IP65

Description	Dimensions HxWxD [mm]	Order code	Price	Box/Pack No items
IP 44 boxes - GWT 960 °C				
With cable glands and press-on lid	Ø 60 - H 35	1SL0900A00		240/240
	Ø 80 - H 40	1SL0901A00		144/144
	65x65x32	1SL0902A00		168/168
	80x80x40	1SL0903A00		100/100
IP 55 waterproof boxes with plastic 1/4 turn screws - GWT 960 °C				
With cable glands and low screw-on lid RAL 7035	100x100x50	1SL0916A00		1/54
	105x70x50	1SL0920A00		1/70
	100x100x80	1SL0921A00		1/40
	153x110x66	1SL0922A00		1/32
	160x135x77	1SL0924A00(*)		1/18
	220x170x80	1SL0926A00(*)		1/12
	310x240x110	1SL0928A00(*)		1/6
IP 65 waterproof boxes with plastic 1/4 turn screws - GWT 960 °C				
With smooth sides and low screw-on lid RAL 7035	100x100x50	1SL0946A00		1/60
	105x70x50	1SL0950A00		1/100
	100x100x80	1SL0951A00		1/40
	153x110x66	1SL0952A00		1/32
	160x137x77	1SL0954A00(*)		1/24
	220x170x80	1SL0956A00(*)		1/12
	310x240x110	1SL0958A00(*)		1/6
With smooth sides and transparent low screw-on lid	153x110x66	1SL0972A00		1/34
	160x135x77	1SL0974A00(*)		1/24
	220x170x80	1SL0976A00(*)		1/12
	310x240x110	1SL0978A00(*)		1/6

(*) Can be wall-mounted using wall brackets code 12 858.

Enclosures

IP 44, IP 55 and IP 65 junction boxes in thermoplastic material



IP55

2CSC001089F0014



IP65

2CSC001081F0014



IP65

2CSC001082F0014



IP55

2CSC001083F0014



IP65

2CSC001084F0014



IP65

2CSC001085F0014

Description	Dimensions HxWxD [mm]	Order code	Price	Box/Pack No items
IP 55 waterproof boxes with steel screws - GWT 960 °C				
With cable glands and high screw-on lid RAL 7035	100x100x50	1SL0904A00		1/54
	105x70x50	1SL0905A00		1/70
	100x100x80	1SL0906A00		1/40
	153x110x66	1SL0907A00		1/32
IP 65 waterproof boxes with steel screws - GWT 960 °C				
With smooth sides and high screw-on lid RAL 7035	100x100x50	1SL0908A00		1/60
	105x70x50	1SL0909A00		1/100
	100x100x80	1SL0910A00		1/40
	153x110x66	1SL0911A00		1/34
With smooth sides and transparent high screw-on lid	151x110x66	1SL0912A00		1/34
IP 55 waterproof boxes with plastic 1/4 turn screws - GWT 960 °C				
With cable glands and high screw-on lid RAL 7035	160x135x150	1SL0930A00		1/16
	220x170x150	1SL0932A00		1/8
	310x240x160	1SL0934A00		1/4
IP 65 waterproof boxes with plastic 1/4 turn screws - GWT 960 °C				
With smooth sides and high screw-on lid RAL 7035	160x135x150	1SL0960A00		1/16
	220x170x150	1SL0962A00		1/8
	310x240x160	1SL0964A00		1/4
With smooth sides and transparent high screw-on lid	160x135x150	1SL0980A00 ^(*)		1/16
	220x170x150	1SL0982A00 ^(*)		1/8
	310x240x160	1SL0984A00 ^(*)		1/4

^(*) Can be wall-mounted using wall brackets code 12 858.

Enclosures

Accessories for IP44, IP55 and IP65 Junction boxes

Technical characteristics of metric cable clamps:

Protection degree IP68

Material: polyamide 6.6, self-extinguishing material according to UL94V2 Standard and resistant to abnormal heat and to fire up to 750°C (glow wire test) according to IEC 60695-2-11 Standard

Operational temperature: from -20°C up to +120°C (short period of time)

Colour: RAL 7035 grey;

Neoprene seal;

Thread pitch: 1.5 mm; Thread angle: 60°

Tightening with a plate crown on the whole diameter of cable (excluded the possibility to damage the cable itself)

Possibility to recover the cable clamp without compromising its efficiency.

Technical characteristics nuts of with metric pitch collar

Material: polyamide 6.6, self-extinguishing material according to UL94 V2 Standard and resistant to abnormal heat and to fire up to 750°C (glow wire test) according to IEC 60695-2-11 Standard

Operational temperature: from -20°C up to +120°C (continuous) from -20°C up to +120°C (short period of time)

Colour: RAL 7035 grey

Thread pitch: 1.5 mm; Thread angle: 60°.



2CSC001089F0014

PG pitch



2CSC001087F0014

PG pitch



2CSC001088F0014

metric pitch



2CSC001089F0014

metric pitch

Cable glands and nuts - PG pitch

Pitch	Torque values		For cables diameter		Cable gland		Nut x cable gland		Cable clamp	Nuts x cable
	N x m	Min (mm)	Max (mm)	Order code	Price	Order code	Price	Box/pack	Box/pack	
Pg 9	3.75	6.5	8.5	00931		00941		100/500	100/3000	
11	3.75	8	10	00932		00942		100/500	100/3000	
13.5	3.75	8	11	00933		00943		50/500	50/1500	
16	5	11	14	00934		00944		50/300	50/1500	
21	7.5	14.5	18	00935		00945		50/300	50/1500	
29	7.5	19	26	00936		00946		25/150	50/600	
36	7.5	30	34	00937		00947		25/75	25/300	
42	7.5	30	38	00938		00948		15/60	25/300	

In compliance with CEI EN 50262 Standard.

Cable glands and nuts - metric pitch

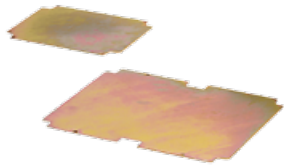
Pitch	Torque values		Cables diameter		Cable gland		Nut		Box/pack	Cable clamp
	N x m	Min (mm)	Max (mm)	Order code	Price	Order code	Price	No Items	No Items	
12 x 1.5	2.7	3.5	7	00951		00961		100/1200	100/3000	
16 x 1.5	5	5.5	10	00952		00962		100/500	100/3000	
20 x 1.5	7	7	13	00953		00963		100/500	50/1500	
25 x 1.5	7.5	10	17	00954		00964		50/250	50/1500	
32 x 1.5	8	12	21	00955		00965		25/150	50/500	
40 x 1.5	8	19	28	00956 *		00966		25/75	25/300	
50 x 1.5	10	27	35	00957 *		00967		15/60	25/300	
63 x 1.5	10	34	45	00958 *		00968		10/40	20/100	

In compliance with CEI EN 50262 Standard.

* Cable clamps and M40, M50 and M63 nuts are available on request.

Enclosures

Accessories for IP44, IP55 and IP65 Junction boxes



Metal base plates

2CSC001089F0014



Cable Clamps

2CSC001089F0014



Conduit clamps

2CSC001089F0014

Description	Order code	Price	Box/Pack No items
Metal base plates			
Metal base plate for boxes with dimensions 160x135x77	1/10		00900
Metal base plate for boxes with dimensions 220x170x80	1/5		00902
Metal base plate for boxes with dimensions 310x240x110	1/5		00904
All metal base plates listed above are equipped with fixing screws type 3.5x9.5.			
Cable Clamps - Protection Degree: IP55			
Cable clamp for conduit Ø 20 mm	100/1500		00908
Cable clamp for conduit Ø 25 mm	100/1000		00910
Cable clamp for conduit Ø 32 mm	50/400		00912
Conduit clamps - Box Connector - Protection Degree: IP67			
Conduit clamp Ø 16 mm	00430		500/500
Conduit clamp Ø 20 mm	00431		300/300
Conduit clamp Ø 25 mm	00432		150/150
Conduit clamp Ø 32 mm	00433		100/100
Conduit clamp Ø 40 mm	00434		50/50
Conduit clamp Ø 50 mm	00435		50/50

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Junction box 3665

Fast, strong, and solid: discover secure installations

Cable retention makes installation fast and simple

Watertight (IP65) thanks to membrane cable entries



Secure cable lock replaces cable glands

Secure cable lock evident from a distance of up to 5 m

Plenty of space for electrical connections



Cable retention makes installation quick and easy

Simply click the cable retention firmly into the membrane cable entries; you don't need any tools for this.



Watertight (IP65) junction box thanks to membrane cable entries

Simply guide the cables by hand through one of the ten membrane cable entries to get a watertight result (IP65).



Secure cable retention replaces cable glands

When the cables have been guided into the box, close the cable retention by clicking and you're done! Traditional cable glands are completely superfluous.



Strain-resistant thanks to the cable retention

The innovative cable retention of the junction box 3665 also works as a strain relief (push & pull).



Plenty of jointing room for mounting

The jointing space of 120×120×60 mm (l×w×h) is generous, so joints can be fitted quickly and simply.



Secure and lightning fast

The cover of the junction box 3665 can also be fitted without tools, and simply clicks into place by hand. Job done!

Enclosures

Junction box 3665



1SPA007130F0800

3665

Description	Number of cable entries with sealing membranes	Mounting	Order code	Price	Full box qty (pc.)
3665					
Cablebox universal IP65 with 8 sealing membranes on the side an 2 on the back side. Complete with 3 click-on cable retention clips for cables diameter 8-16 mm.	10	Universal	1SPA007130F0800		36



1SPA007130F0820

3665KV

Description	Order code	Price	Full box qty (pc.)
3665KV			
Cable retention clip for cable box 3665	1SPA007130F0820		100

CJ8/16 Cable joint

The details make the difference

Transparent lid allows visual inspection

After closing the screw-type cap on top, the cable joint can be put into the ground immediately, it no longer needs to be kept level until the resin has hardened



Cut-outs on all four sides to use a feedthrough, T- or Y-branched sleeve

Suitable for cable thicknesses from 8 mm up to 14.5 mm

CJ8/16 Cable joint

The details make the difference



Cable with a diameter of 8 to 14.5 mm can be cut and prepared for use in the cable joint. The inserts can easily slide over the cable.



The electrical connections can be made outside the box.



The required number of entries can be made by removing the cutouts with a set of pliers.



The assembly can slide into the box and the inserts will assure that the resin will not leak out during the hardening process.



There is more than enough space inside the box for all the connections.



The clear lid allows for visual inspection.



The resin is supplied as 2 split components resin and activator. The resin and activator need to be mixed until a homogenous colour is reached. (without need to touch material).



The resin can be poured into the box (funnel included).



After closing of the screw type lid the box needs no longer to be level and there is no need to wait until the resin has completely hardened before putting the joint back into the ground. (saves time).

Enclosures

CJ8/16 Cable joint



2CS001105F0014

Cable Joint Kit

Unique design, eliminates the need for foam seals. Cables can be connected outside the casing. Ample space for both joining and derivation. Transparent lid allows for visual inspection.

Comes complete with resin, gloves, sand-linen, three inserts and instruction manual. The universal underground jointing solution for professionals and do-it-yourself alike.

Description	Order code	Price
Cable Joint Kit: universal connection; universal T- or X- split; for cables 8-14,5 mm	1SPA007189F0101	

Solutions for electrical installation in buildings

Quick product references

Wiring diagrams

MCBs	15/2
RCDs	15/4
RCD-blocks	15/6
RCBOs	15/7
Residual current relays	15/8
Auxiliary elements	15/12
Protection and safety	15/17
Command and signalling	15/33
Control and automation	15/41
Energy efficiency	15/49

Overall dimensions

Product with modular profile	15/58
Product without modular profile	15/66

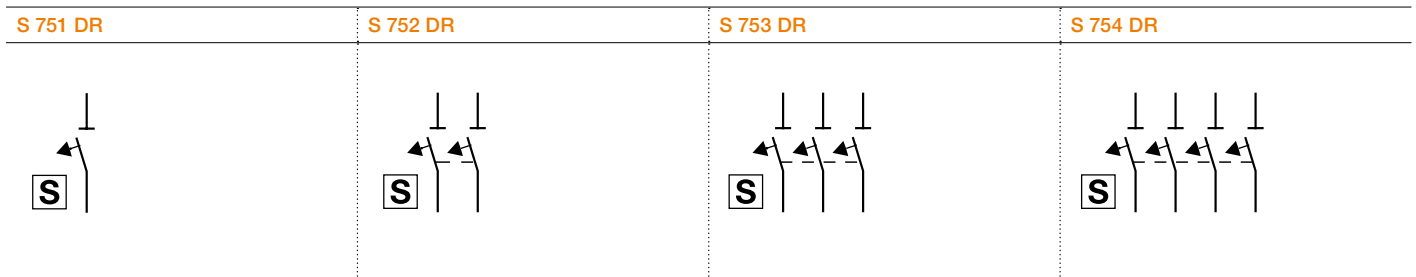
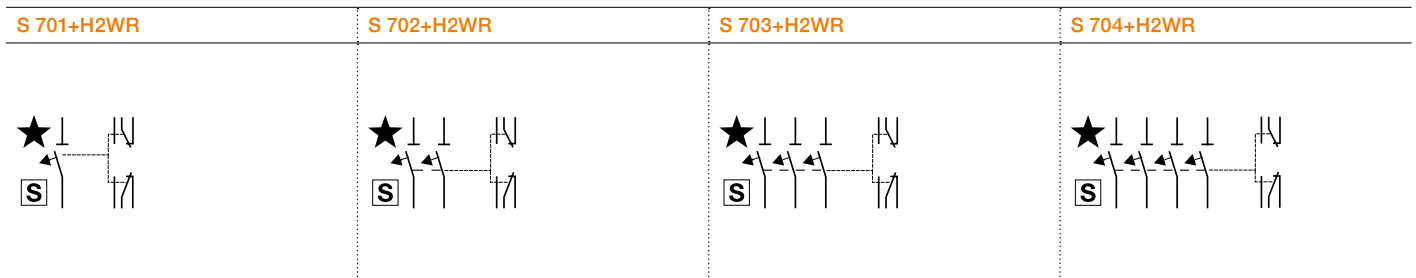
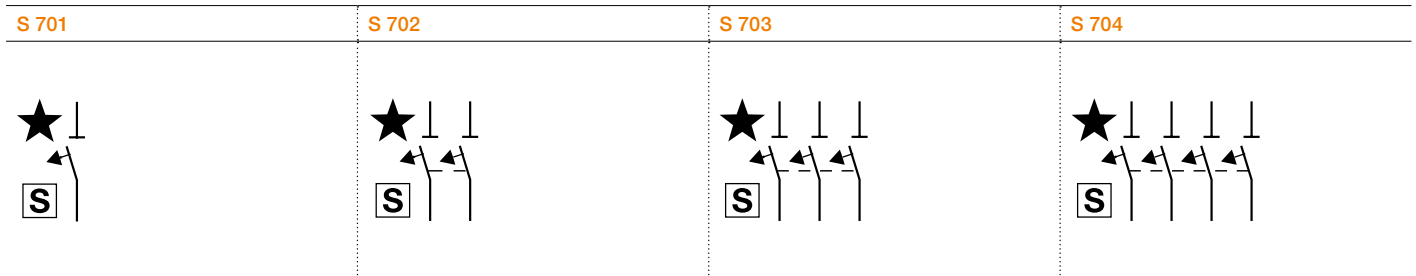
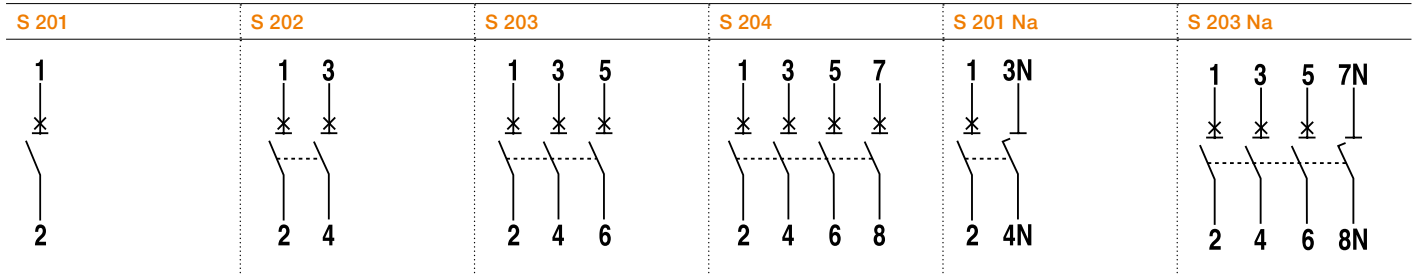
Worldwide marks and approvals

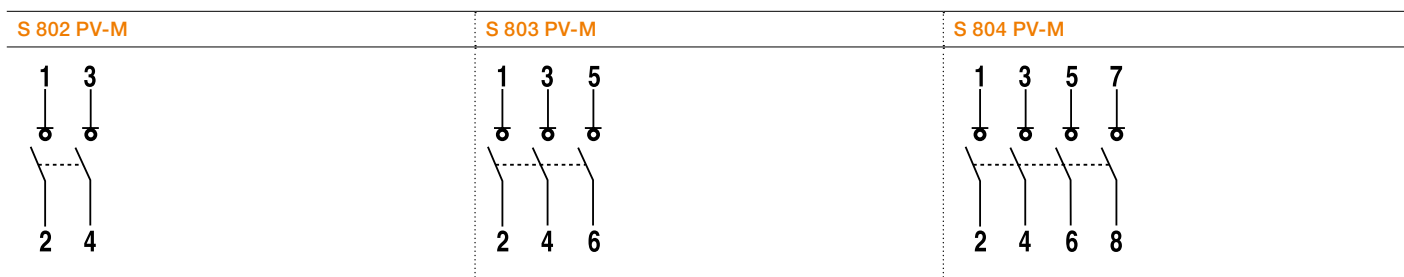
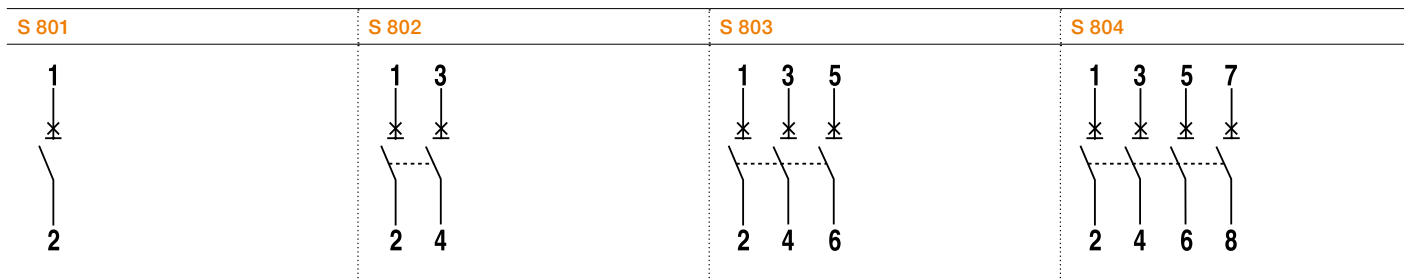
MCBs and RCDs	15/162
MDRCs	15/170

Quick product references

MCBs wiring diagrams

MCBs

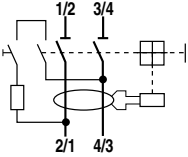
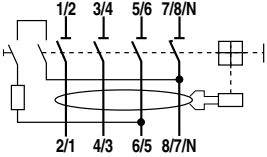
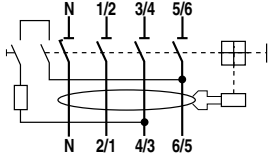
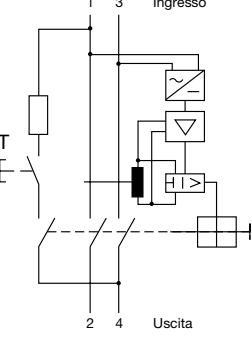
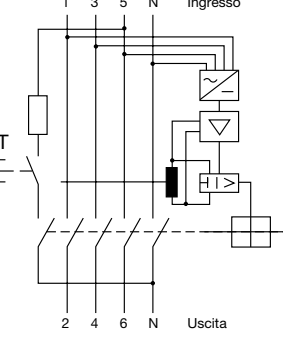
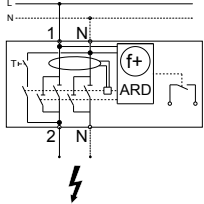
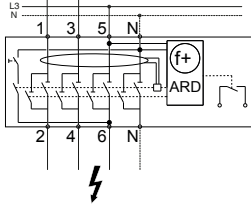
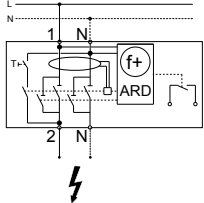
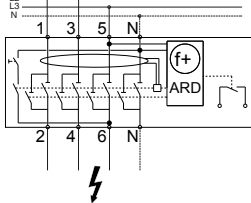




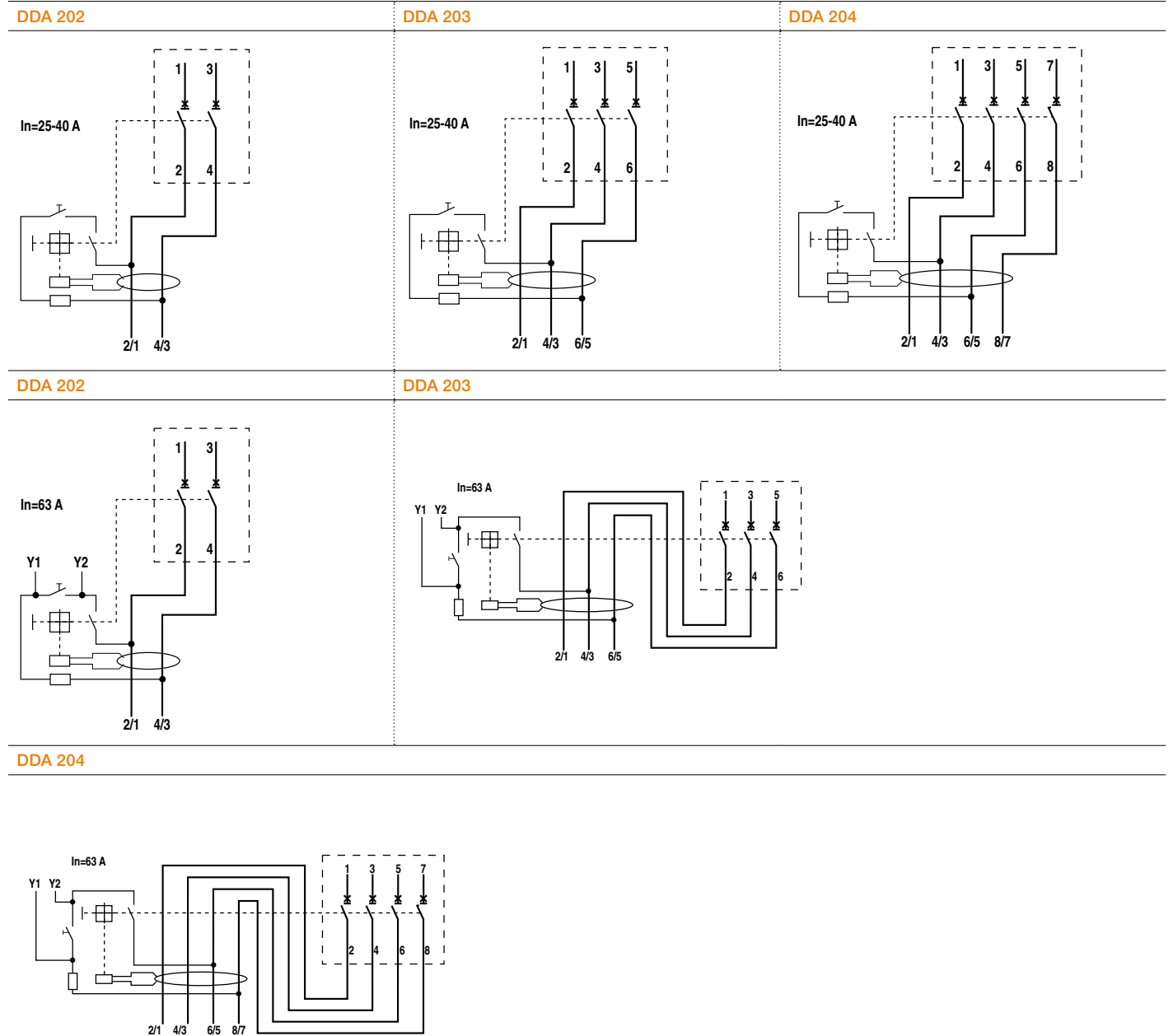
Quick product references

RCDs wiring diagrams

RCDs

<p>F 202</p> 	<p>F 204</p> 	<p>F 204 left neutral</p> 
<p>F 202 B</p> 	<p>F 204 B</p> 	
<p>F-ARI 2 Test</p> 	<p>F-ARI 4 Test</p> 	
<p>F-ATI 2 Test</p> 	<p>F-ATI 4 Test</p> 	

RCD-blocks



Quick product references

RCDs wiring diagrams

RCD-blocks

DDA 202 AE	DDA 203 AE	DDA 204 AE
DDA 202 B type	DDA 203 B type	DDA 204 B type
<p>In=25 A</p>	<p>In=25 A</p>	<p>In=25 A</p>
<p>In=40-63 A</p>	<p>In=40-63 A</p>	<p>In=40-63 A</p>
DDA 802	DDA 803	DDA 804

RCBOs

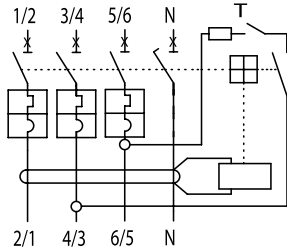
<p>DS201</p>	<p>DS202C</p>	
<p>DS 202</p>	<p>DS 203</p>	<p>DS 204</p>
<p>DS 202</p>	<p>DS 203</p>	
<p>DS 204</p>	<p>DSE201 - DSE201 M</p>	

Quick product references

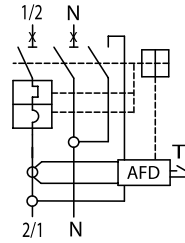
RCDs wiring diagrams

RCBOs

DS203NC

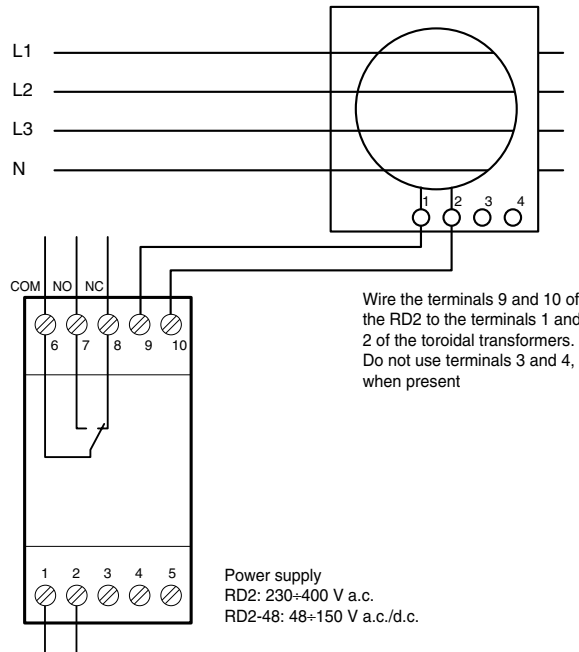


AFDD

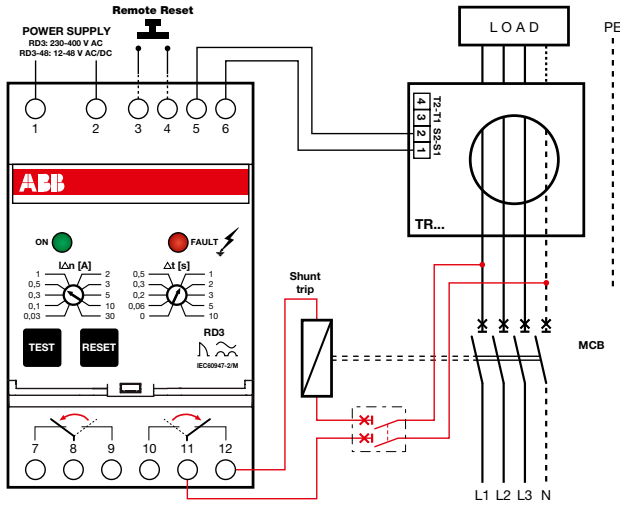


Residual current relays

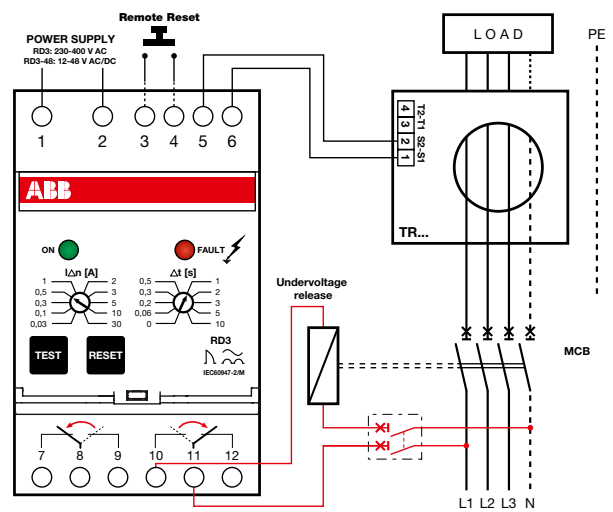
RD2 residual current relays



RD3 - undervoltage release wiring

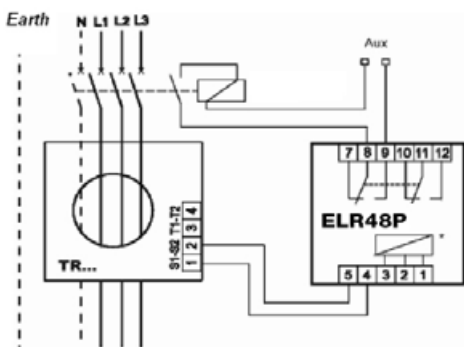


RD3 - shunt trip wiring

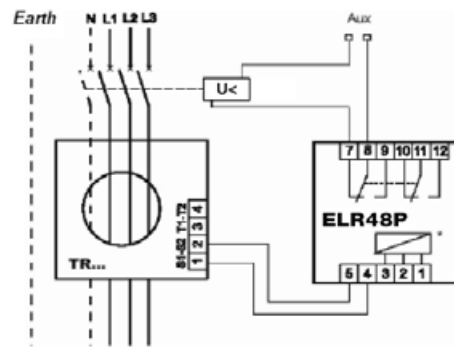


* The residual current protection is not active when this circuit breaker is switch-off

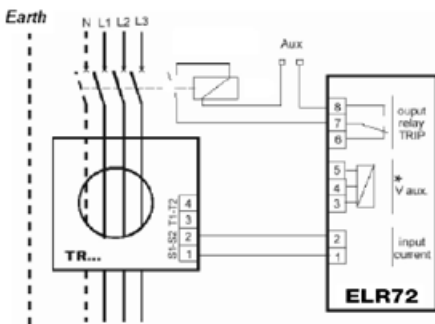
ELR48P - shunt trip wiring



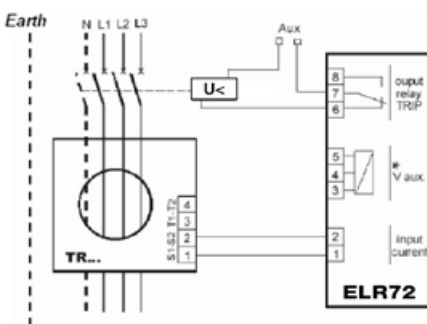
ELR48P - undervoltage release wiring



ELR72 - shunt trip wiring



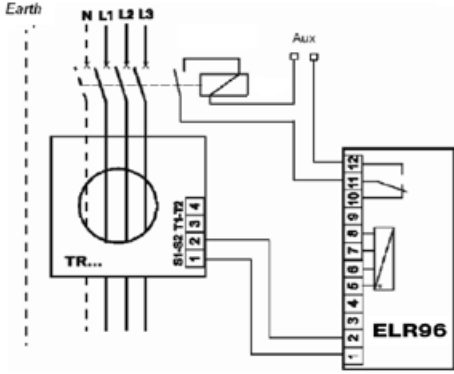
ELR72 - undervoltage release wiring



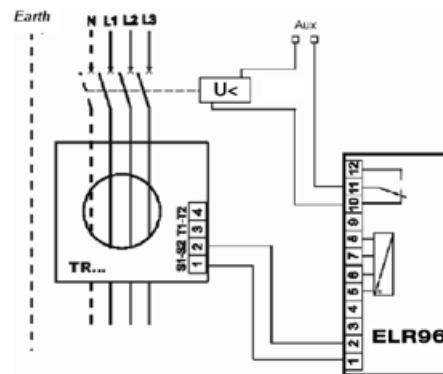
Quick product references

RCDs wiring diagrams

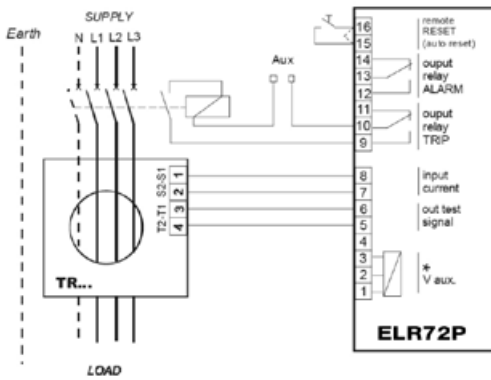
ELR96 - shunt trip wiring



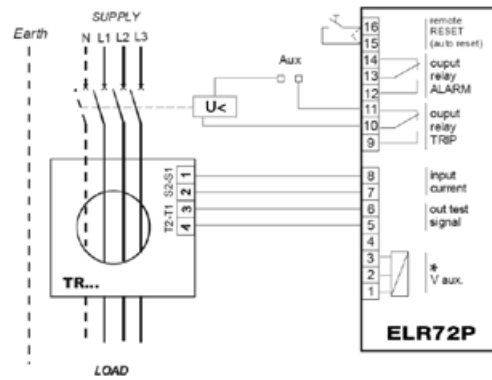
ELR96 - undervoltage release wiring



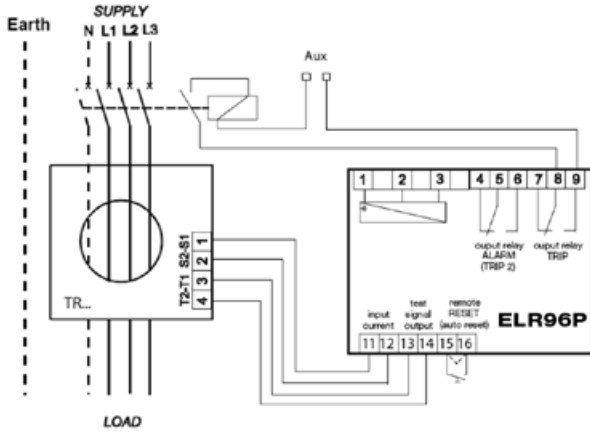
ELR72P - shunt trip wiring



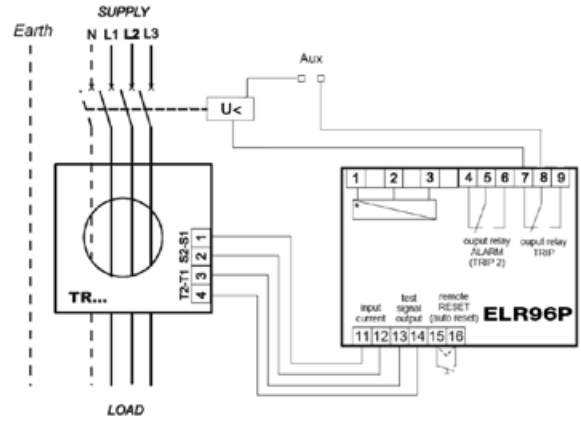
ELR72P - undervoltage release wiring



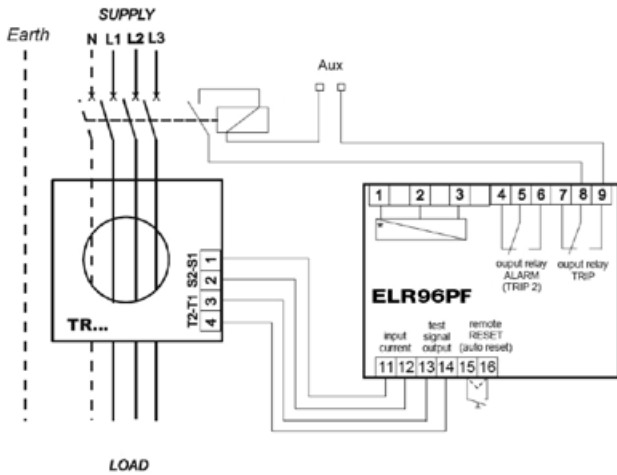
ELR96P - shunt trip wiring



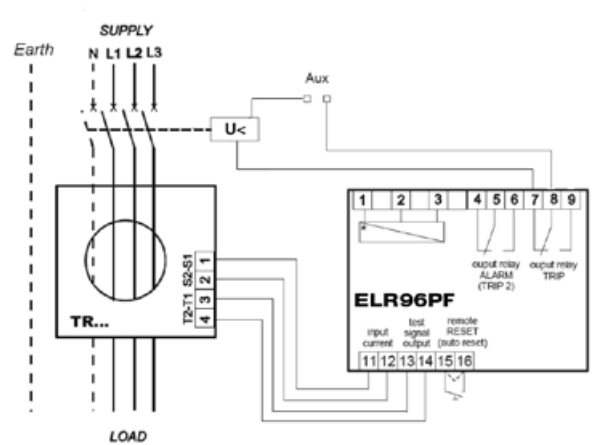
ELR96P - undervoltage release wiring



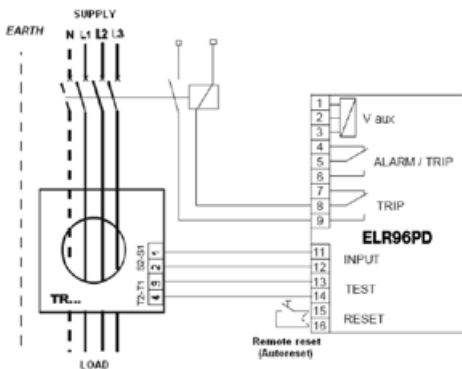
ELR96PF - shunt trip wiring



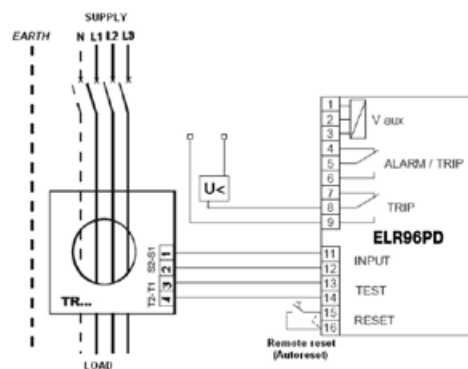
ELR96PF - undervoltage release wiring



ELR96PD - shunt trip wiring



ELR96PD - undervoltage release wiring



Quick product references

Auxiliary elements

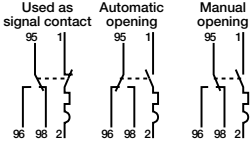
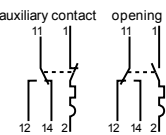
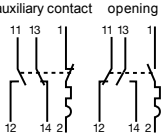
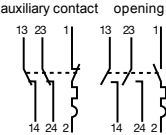
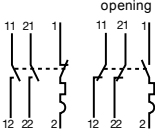
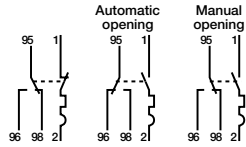
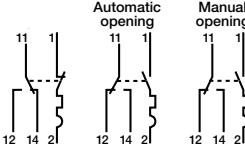
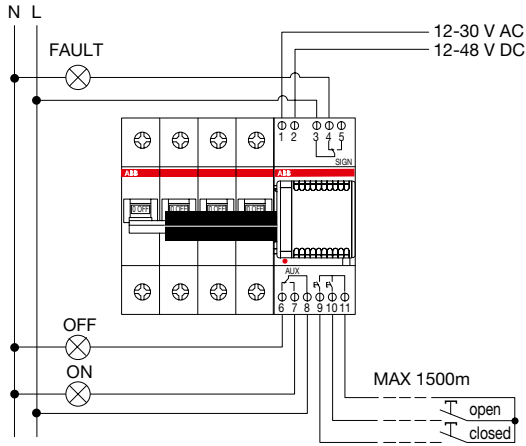
S2C-S/H6R	S2C-H6R	S2C-H6-11R	S2C-H6-20R
 <p>Used as signal contact Automatic opening Manual opening</p>	 <p>auxiliary contact opening</p>	 <p>auxiliary contact opening</p>	 <p>auxiliary contact opening</p>
S2C-H6-02R	SN201-S	SN201-IH	
 <p>opening</p>	 <p>Automatic opening Manual opening</p>	 <p>Automatic opening Manual opening</p>	

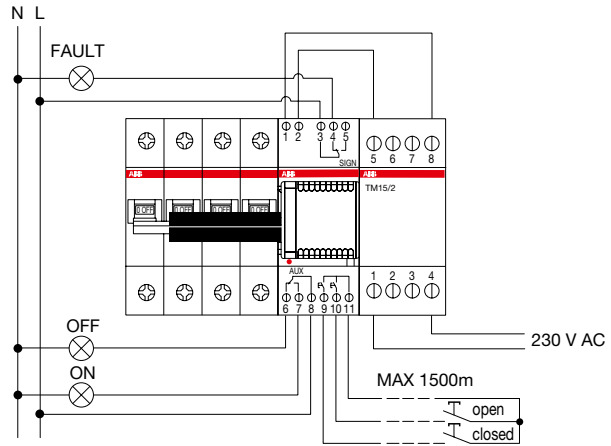
ABB has a full product range of auxiliary contacts completed by the S2C-S/H6R universal contacts. An auxiliary contact indicates the position of the MCB. A signal contact indicates the MCB position plus the fault event, i.e., overload or short-circuit.

Wiring diagrams for S2C-CM motor operating devices

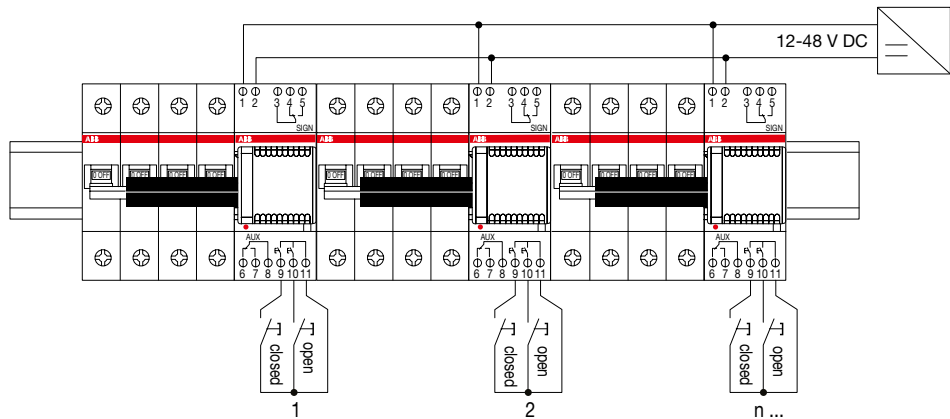
Low voltage use: 12...30 V AC, 12...48 V DC



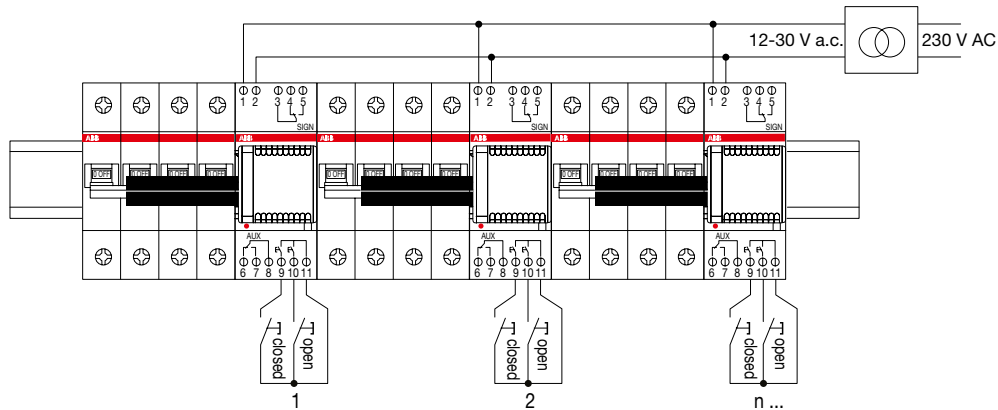
Use at 230 V AC via a TM15/12 bell transformer



Low voltage use of several motor operating devices: 12...30 V AC, 12...48 V DC



Use of several motor operating devices at 230 V AC via a single safety transformer

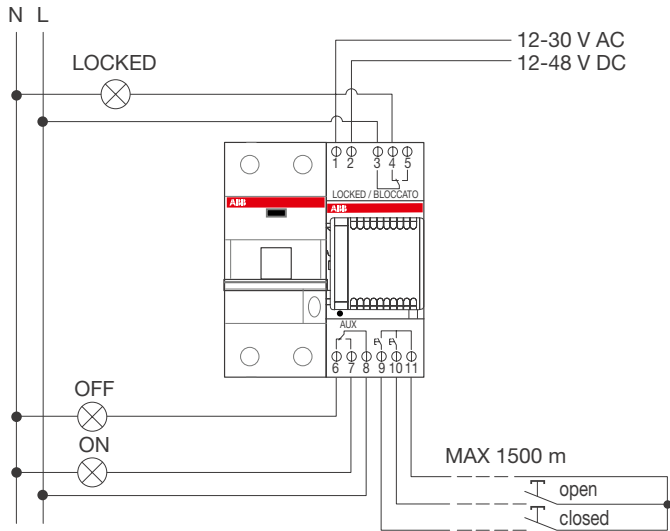


Quick product references

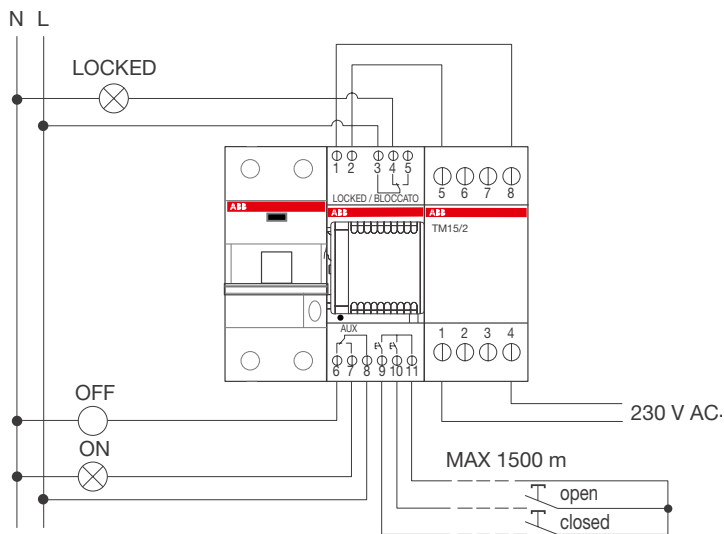
Auxiliary elements

Wiring diagrams for DS2C-CM motor operating devices

Low voltage use 12...30 V AC, 12...48 V DC

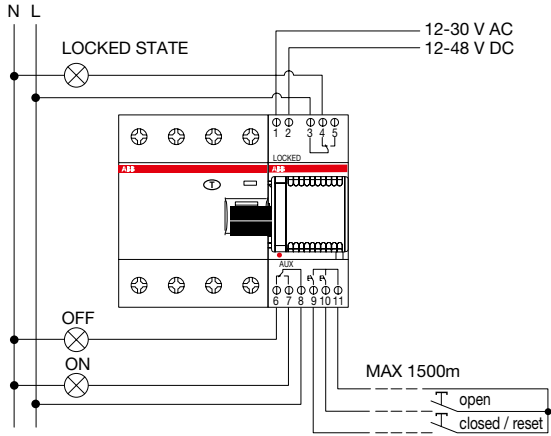


Use at 230 V AC via a TN15/12 transformer

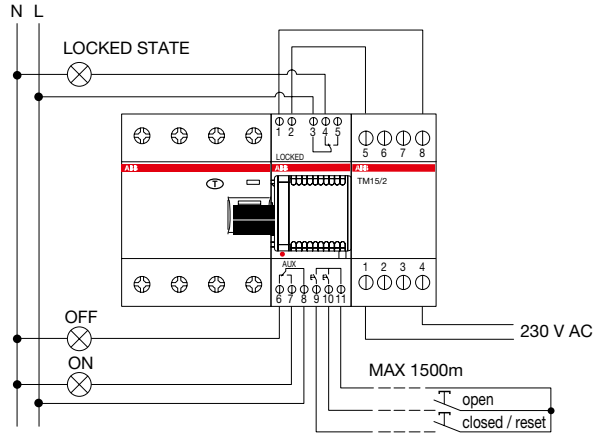


Wiring diagrams for motor operating device F2C-CM and F2C-ARI auto-reclosing unit

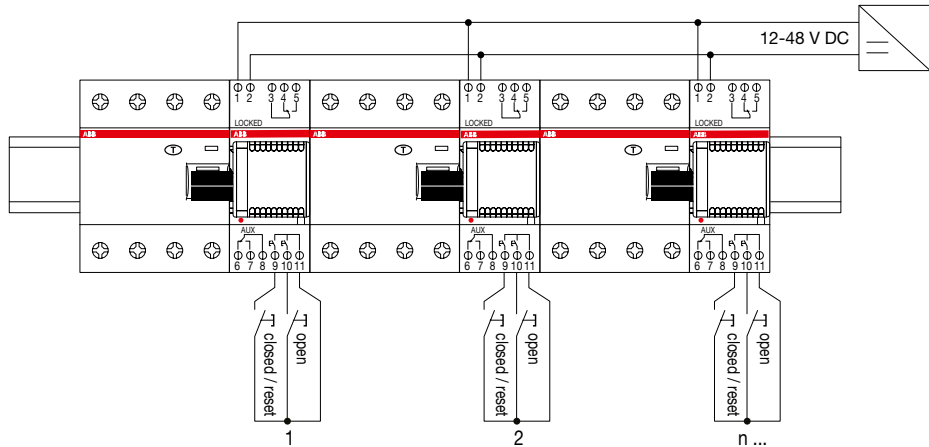
Low voltage use: 12...30 V AC, 12...48 V DC



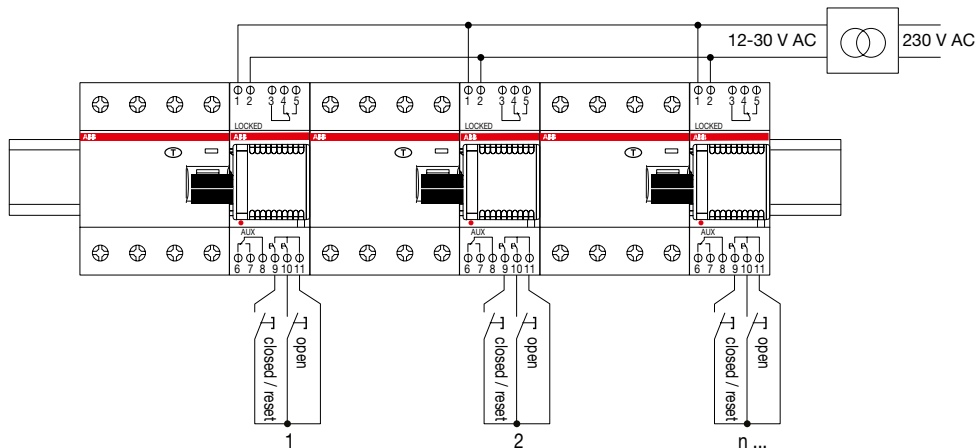
Use at 230 V AC via a TM15/12 bell transformer



Low voltage use of several motor operating devices or auto-reclosing units: 12-30 V AC, 12-48 V DC



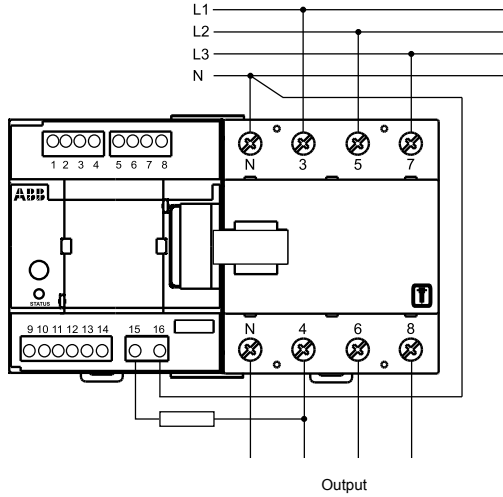
Use of several motor operating devices or auto-reclosing units at 230 V AC via a single transformer



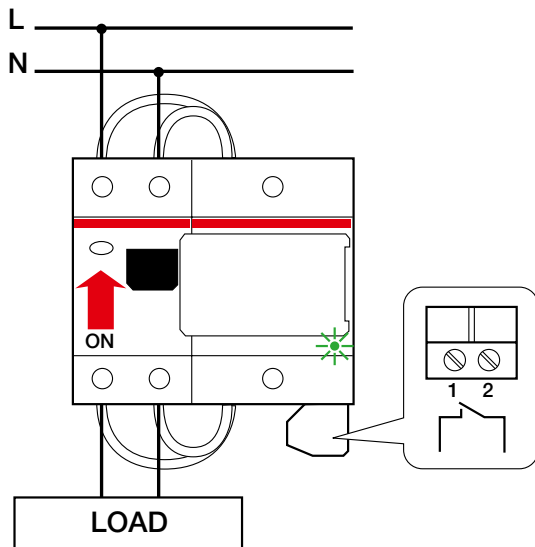
Quick product references

Auxiliary elements

Wiring diagram for F2 CM4 motor operating devices



Wiring diagram for F2C-ARH and F2C-ARH-T

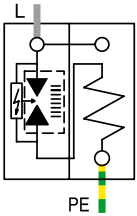


Quick product references

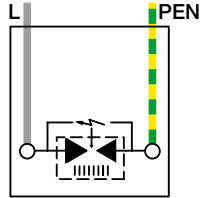
Protection and safety wiring diagrams

Surge Protective Devices - Type 1

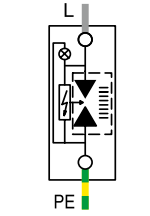
Single pole Type 1 SPD



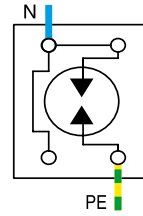
OVR T1 25 255



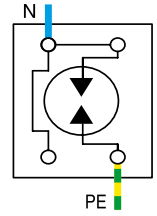
OVR T1 25 440-50



OVR T1 25 255-7

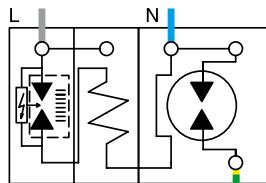


OVR T1 50 N

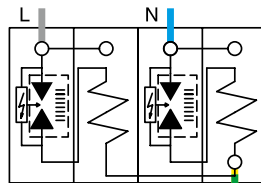


OVR T1 100 N

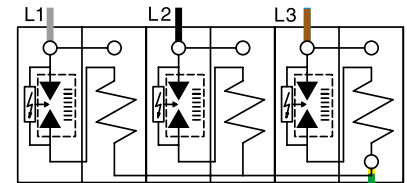
Multipole Type 1 SPD



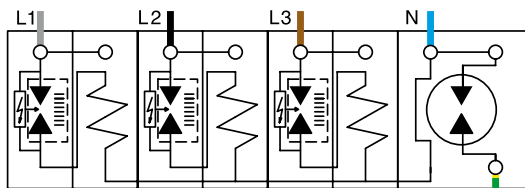
OVR T1 1N 25 255



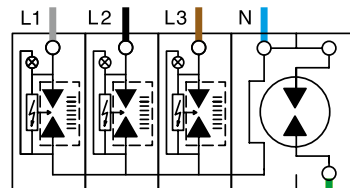
OVR T1 2L 25 255



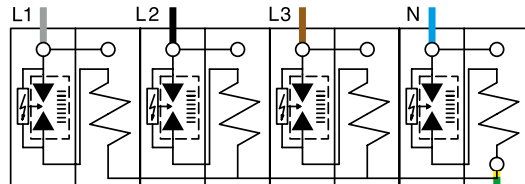
OVR T1 3L 25 255



OVR T1 3N 25 255

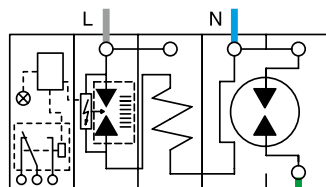


OVR T1 3N 25 255-7

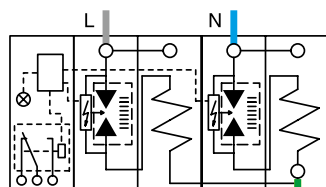


OVR T1 4L 25 255

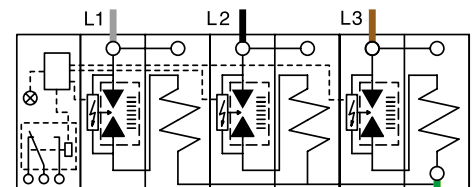
Multipole Type 1 SPD with remote indication (TS)



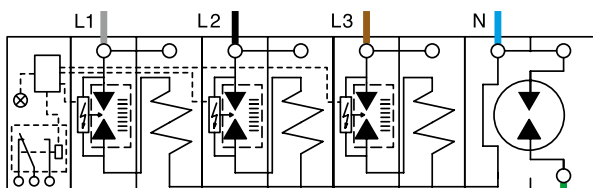
OVR T1 1N 25 255 TS



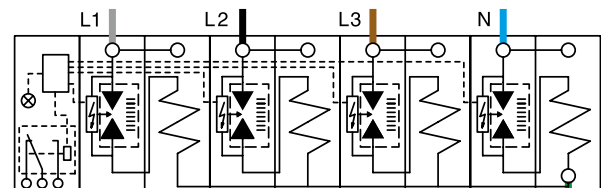
OVR T1 2L 25 255 TS



OVR T1 3L 25 255 TS



OVR T1 3N 25 255 TS

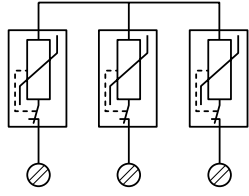


OVR T1 4L 25 255 TS

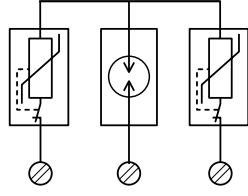
Quick product references

Protection and safety wiring diagrams

Surge Protective Devices - Photovoltaic SPDs - OVR PV

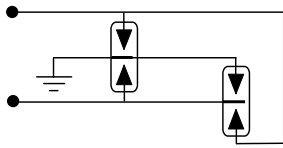


OVR PV T2 40-600 P QS

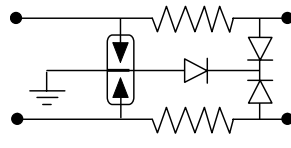


OVR PV T2 40-1000/1500 P QS

Surge Protective Devices - Low Current SPDs - OVR TC

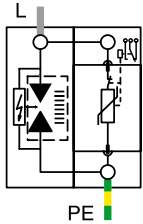


OVR TC 200 V in parallel

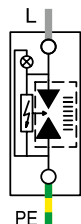


OVR TC / xx V / 200 FR in series

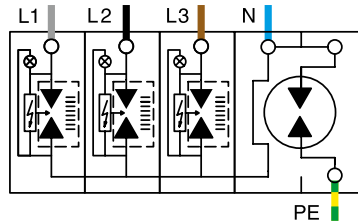
Surge Protective Devices - Type 1+2



OVR T1+2 25 255 TS



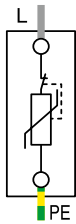
OVR T1+2 15 255-7



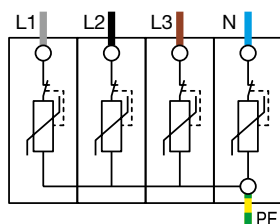
OVR T1+2 3N 15 255-7

Surge Protective Devices - Type 1+2 / Type 2

Non pluggable Type 2 SPDs



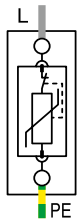
OVR T2 40 275 QS
OVR T2-T3 20 QS



OVR T2 4L 40-275 P QS

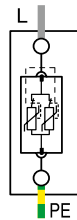
Pluggable Type 1+2 / Type 2 SPDs

Single pole Type 2 SPD



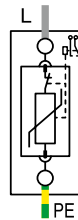
OVR T2-T3 20-275 P QS,
OVR T2 40-275 P QS,
OVR T2-T3 20-440 P QS,
OVR T2 40-275 P QS

Single pole Type 2 SPD with safety reserve (s)



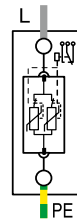
OVR T2 40-275s P QS,
OVR T2 80 275s P QS,
OVR T2 40-440s P QS,
OVR T2 80-440s P QS,
OVR T1+2 7 275s P

Single pole Type 2 SPD with remote indication (TS)



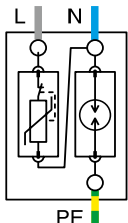
OVR T2-T3 20-275 P TS QS,
OVR T2 40-275 P TS QS,
OVR T2-T3 20-440 P TS QS,
OVR T2 40-440 P TS QS

Single pole Type 2 SPD with safety reserve (s) and remote indication (TS)

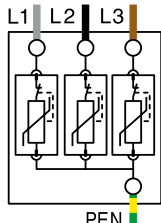


OVR T2 40-275s P TS QS,
OVR T2 80-275s P TS QS,
OVR T2 40-440s P TS QS,
OVR T2 80-440s P TS QS

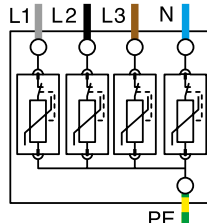
Multipole Type 2 SPD



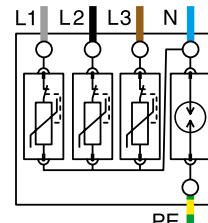
OVR T2-T3 1N 20-275 P QS,
OVR T2 1N 40-275 P QS



OVR T2-T3 3L 20-275 P QS,
OVR T2 3L 40-275 P QS

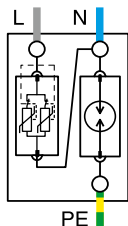


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OVR T2 4I 40-275 P QS

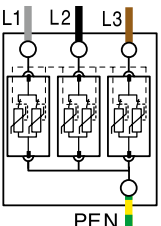


OVR T2-T3 3N 20-275 P QS,
OVR T2 3N 40-275 P QS

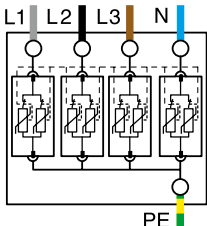
Multipole Type 2 SPD with safety reserve (s)



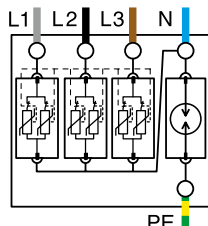
OVR T2 1N 40-275s P QS,
OVR T2 1N 80-275s P QS,
OVR T1+2 1N 7 275s P



OVR T2 3L 40-275s P QS,
OVR T2 3L 80-275s P QS,
OVR T1+2 3L 7 275s P

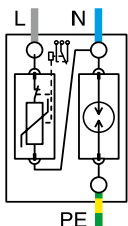


OVR T2 4L 40-275s P QS,
OVR T2 4L 80-275s P QS,
OVR T1+2 4L 7 275s P

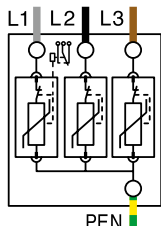


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OVR T1+2 3N 7 275s P

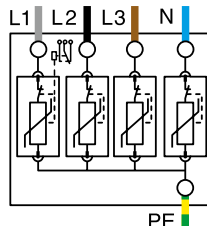
Multipole Type 2 SPD with remote indication (TS)



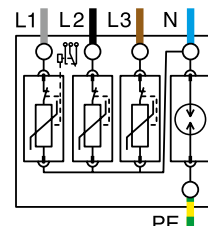
OVR T2-T3 1N 20-275 P TS QS,
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OVR T2-T3 3L 20-275 P TS QS,
OVR T2 3L 40-275 P TS QS

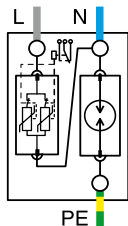


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OVR T2 4I 40-275 P TS QS

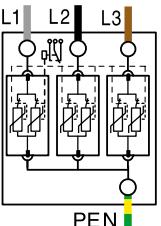


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OVR T2 3N 40-275 P TS QS

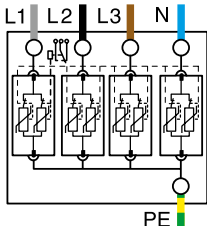
Multipole Type 2 SPD with safety reserve (s) and remote indication (TS)



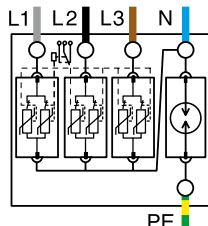
OVR T2 1N 40-275s P TS QS,
OVR T2 1N 80-275s P TS QS



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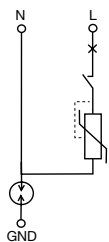


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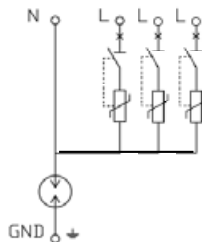


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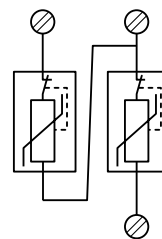
Type 2 auto-protected SPD



OVR Plus N1 20



OVR Plus N3 20



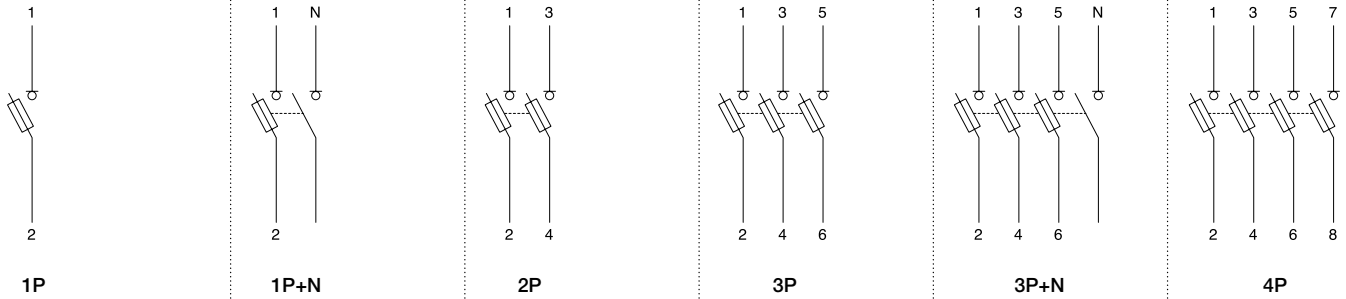
OVR T2 2L 20-75 P

Type 2 Special 24/48 AC & DC - OVR 75 V

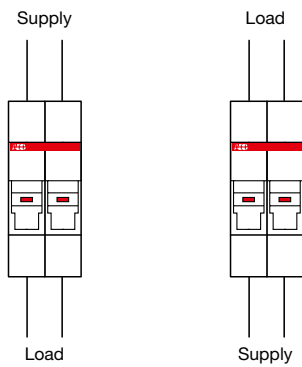
Quick product references

Protection and safety wiring diagrams

E90

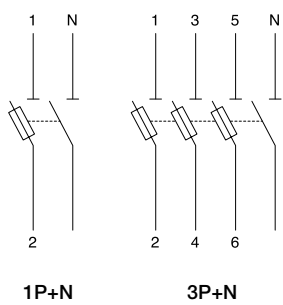


E 90 with blown fuse indicator light in alternate current

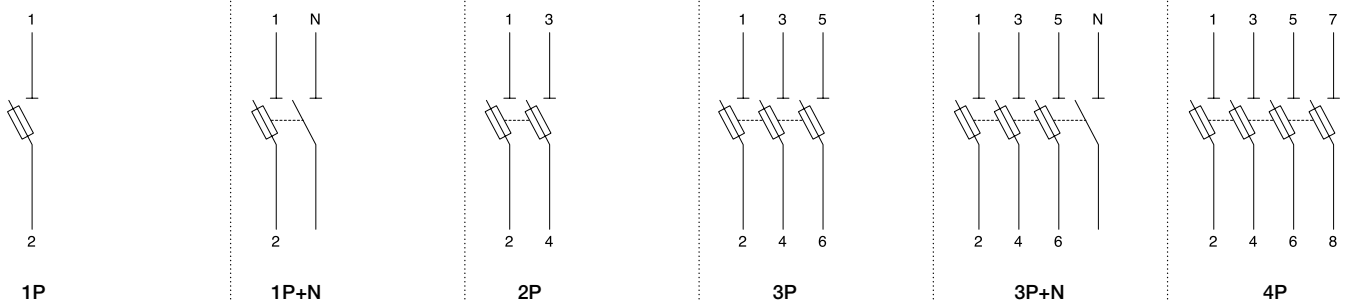


For direct current systems please refer to E 90 PV wiring diagram

E90h

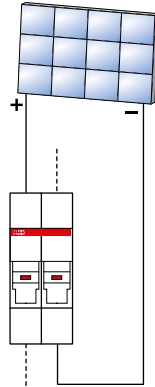
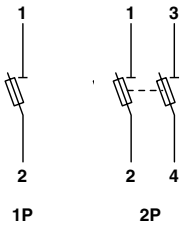


E90



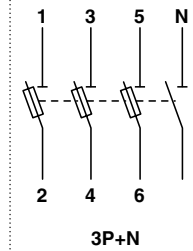
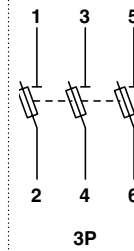
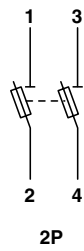
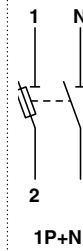
E90 PV

E 90 PV with blown fuse indicator light in direct current

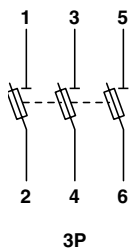
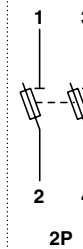


In direct current systems, since the LED allows the current to flow only from positive to negative, the wiring of the blown fuse indicator version should follow the current direction as shown in the diagram

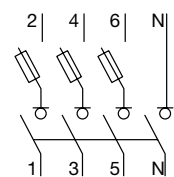
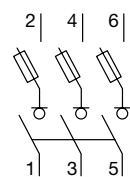
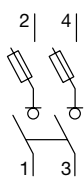
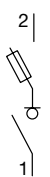
E90 50/125



E90 30/60 J class



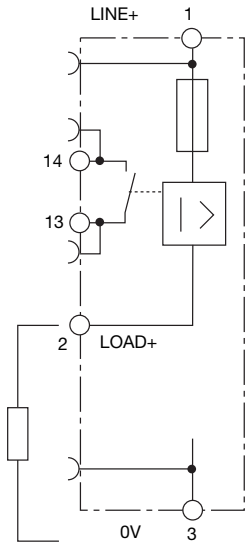
ILTS-E



Quick product references

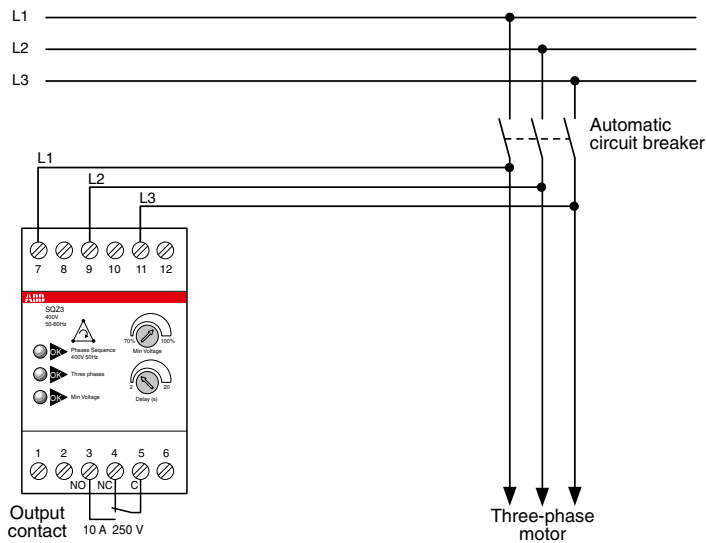
Protection and safety wiring diagrams

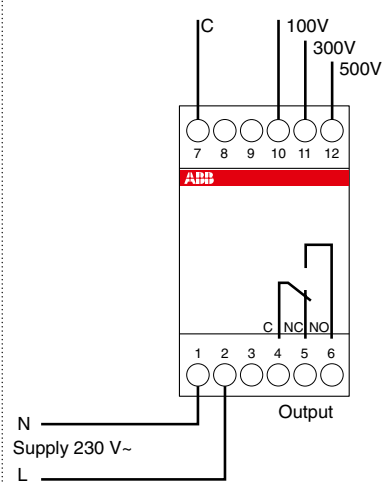
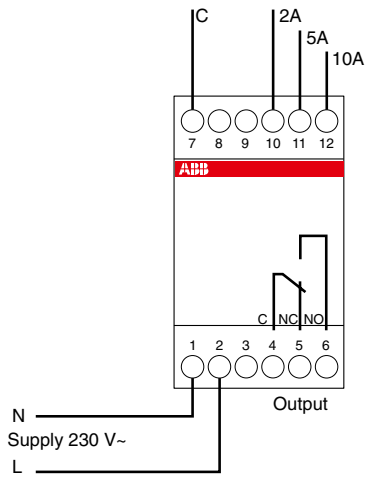
EPD24



EPD24-TB-101
 without signal input
 with signal output F
 (single signal, NO)
 Operating condition: 13-14 closed
 Fault condition: 13-14 open

SQZ3

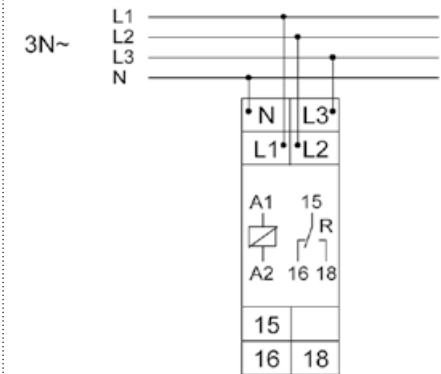
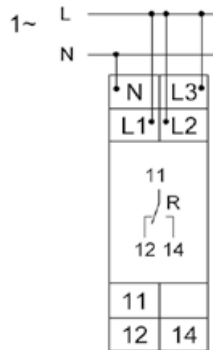
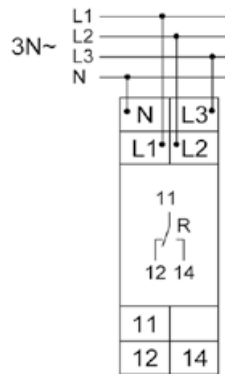
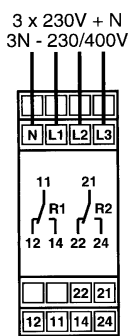




E 236 US 1, E 236 US 2

E236-US 1.1 and US 2.1

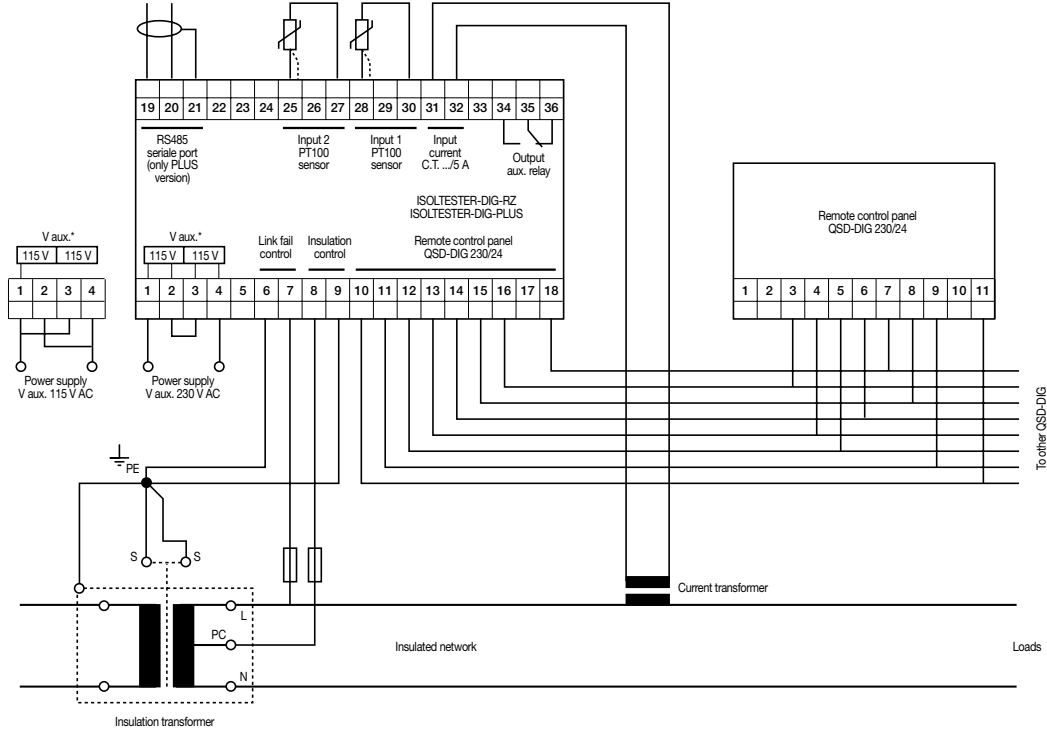
E236-US 1.1D



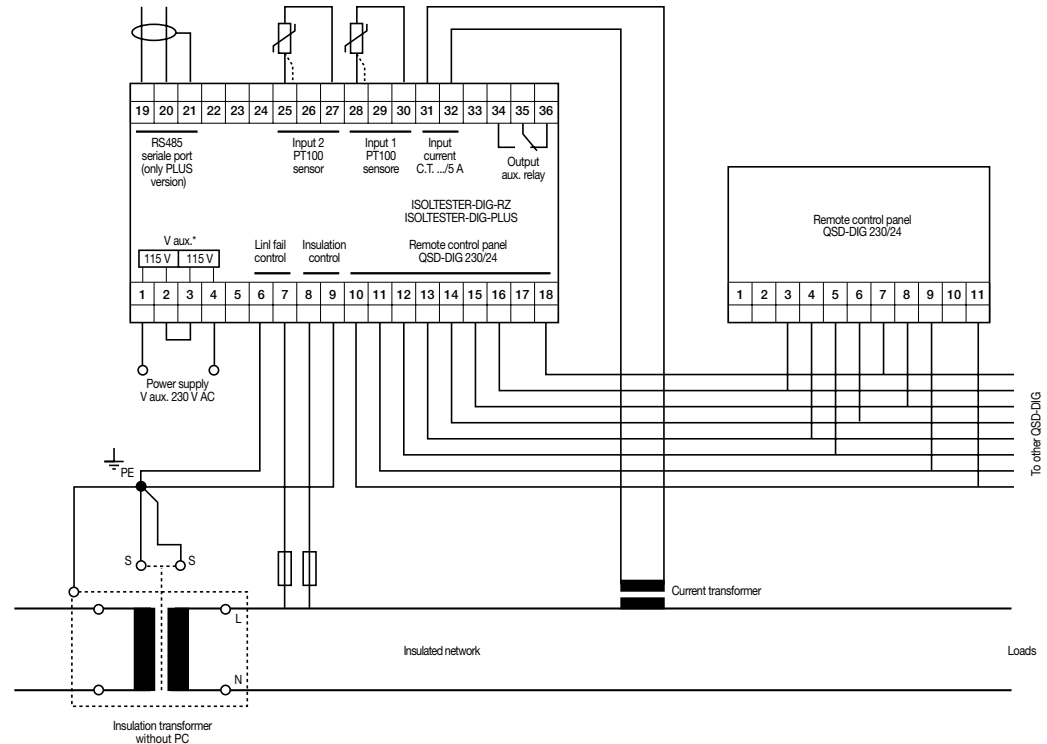
Quick product references

Protection and safety wiring diagrams

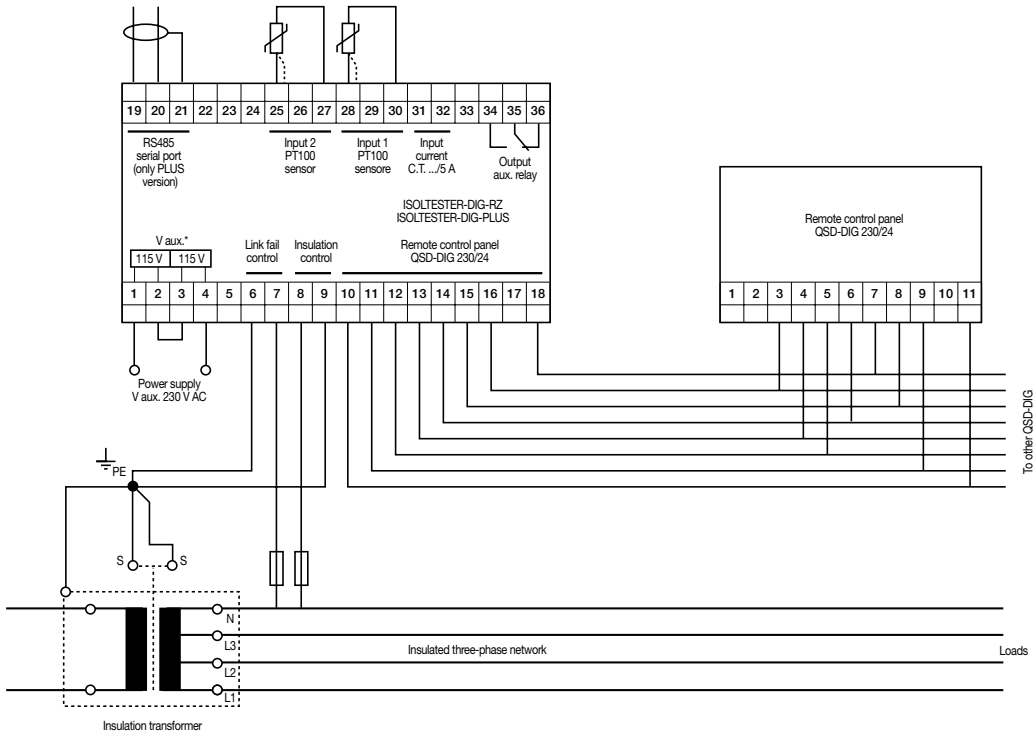
ISOLTESTER-DIG, QSD-DIG and SELVTESTER-24 - with transformer with central socket (PC)



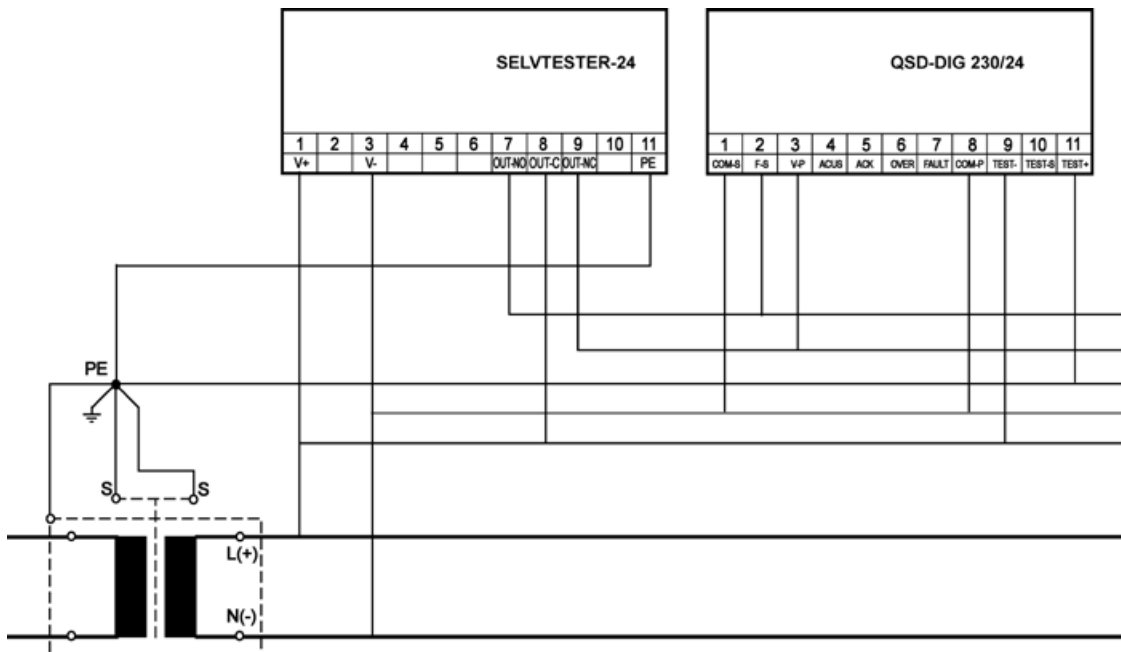
ISOLTESTER-DIG, QSD-DIG and SELVTESTER-24 -



ISOLTESTER-DIG, QSD-DIG and SELVTESTER-24 -



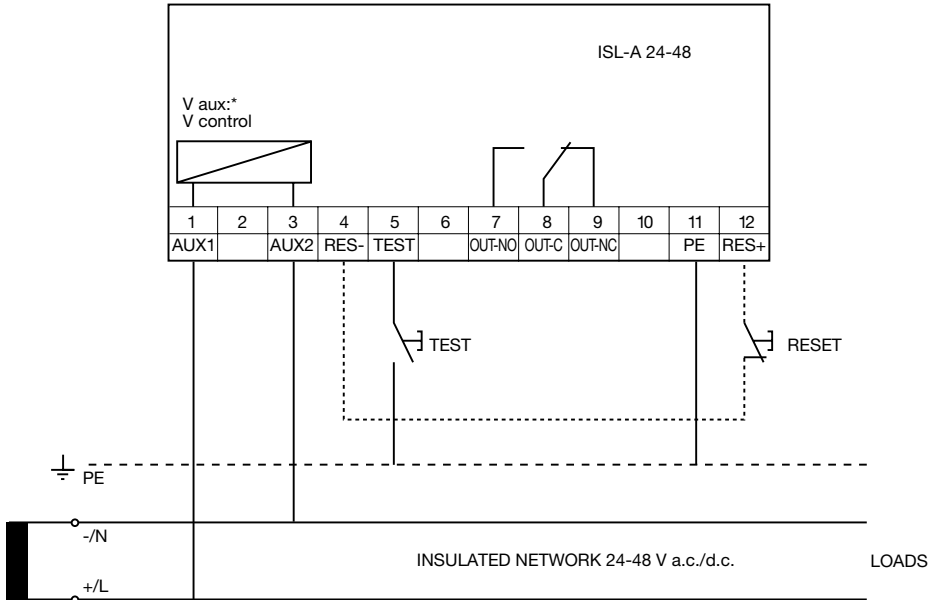
ISOLTESTER-DIG, QSD-DIG and SELVTESTER-24 -



Quick product references

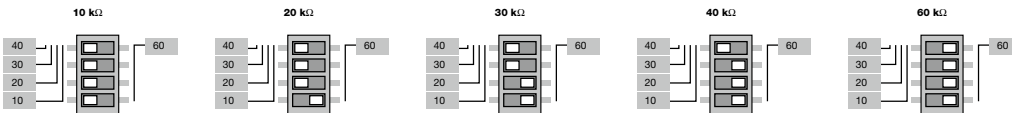
Protection and safety wiring diagrams

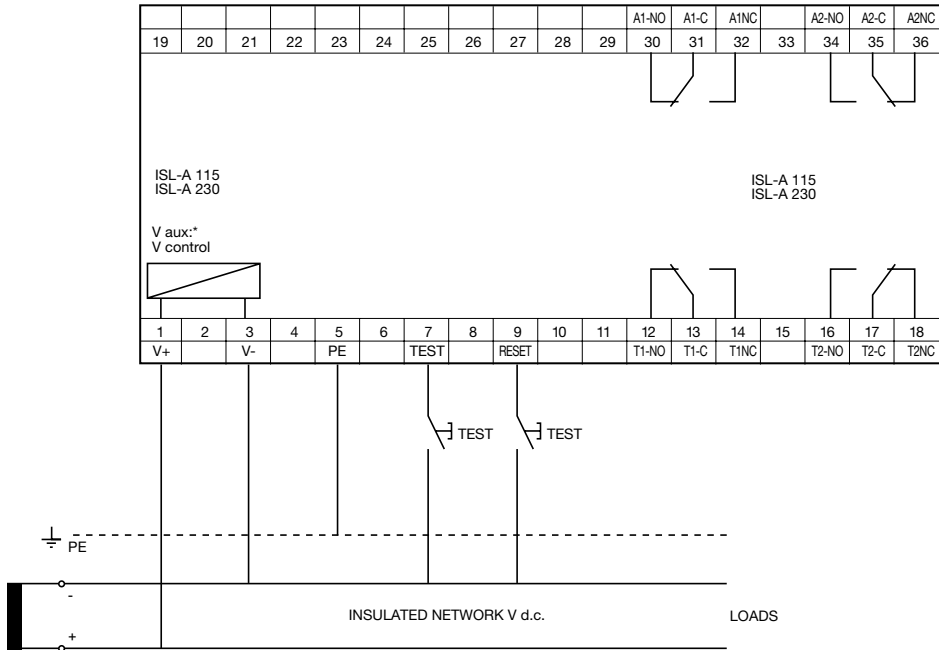
ISL-A 24-48



MICROSWITCH SETTINGS

The front microswitches allow the insulation threshold level to be adjusted between 10 and 60 kΩ, as shown below:





MICROSWITCH SETTINGS

The front microswitches are used for adjusting the insulation threshold level, enabling the fail-safe function and configuring the reset mode for both the alarm and trip thresholds.

Microswitches A, B, C, D for programming the trip and alarm thresholds:

ALARM		TRIP	
300 kΩ:	A=0, B=0, C=0, D=0	100 kΩ:	A=0, B=0, C=0, D=0
150 kΩ:	A=1, B=0, C=0, D=0	60 kΩ:	A=1, B=0, C=0, D=0
80 kΩ:	A=1, B=1, C=0, D=0	40 kΩ:	A=1, B=1, C=0, D=0
50 kΩ:	A=1, B=1, C=1, D=0	20 kΩ:	A=1, B=1, C=1, D=0
30 kΩ:	A=1, B=1, C=1, D=1	10 kΩ:	A=1, B=1, C=1, D=1

Microswitch E for configuring the FAIL SAFE mode

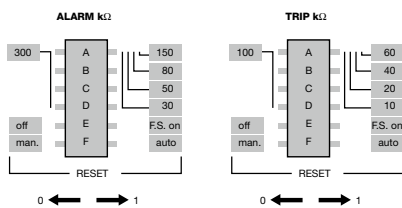
E=0 fail safe mode disabled

E=1 fail safe mode enabled

Microswitch F for configuring the RESET mode

F=0 manual reset

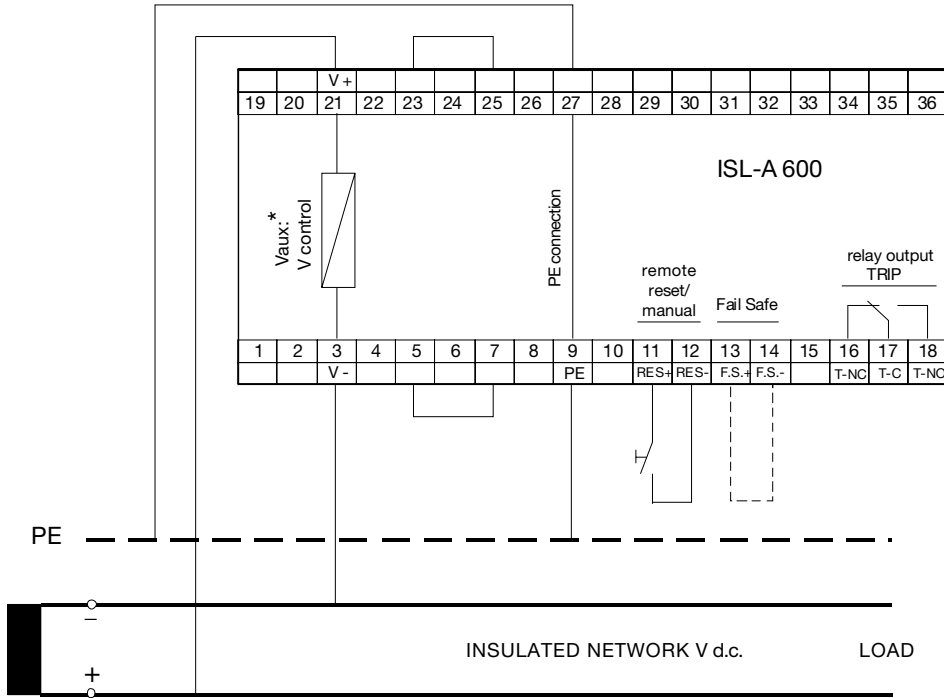
F=1 automatic reset



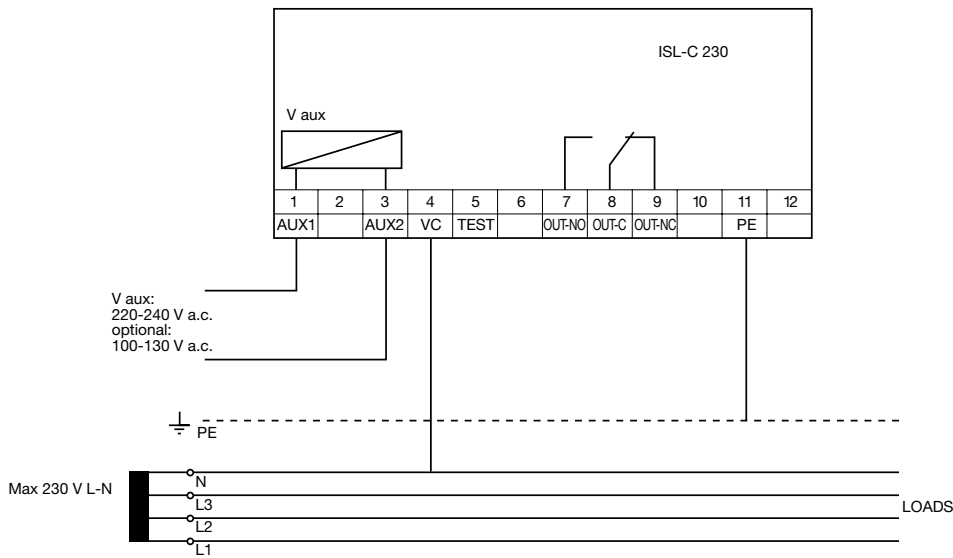
Quick product references

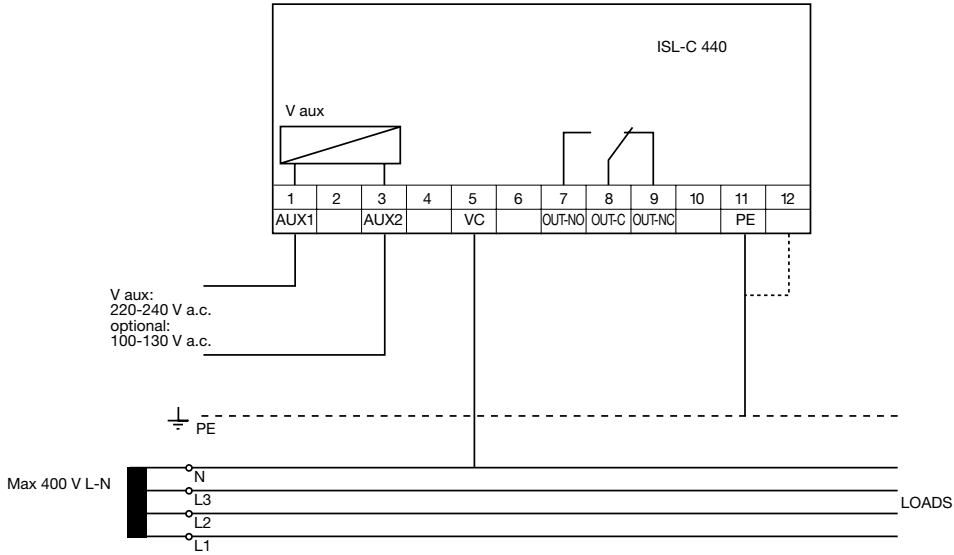
Protection and safety wiring diagrams

ISL-A 600



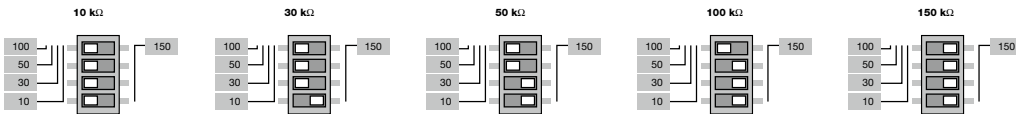
ISL-C 230





MICROSWITCH SETTINGS

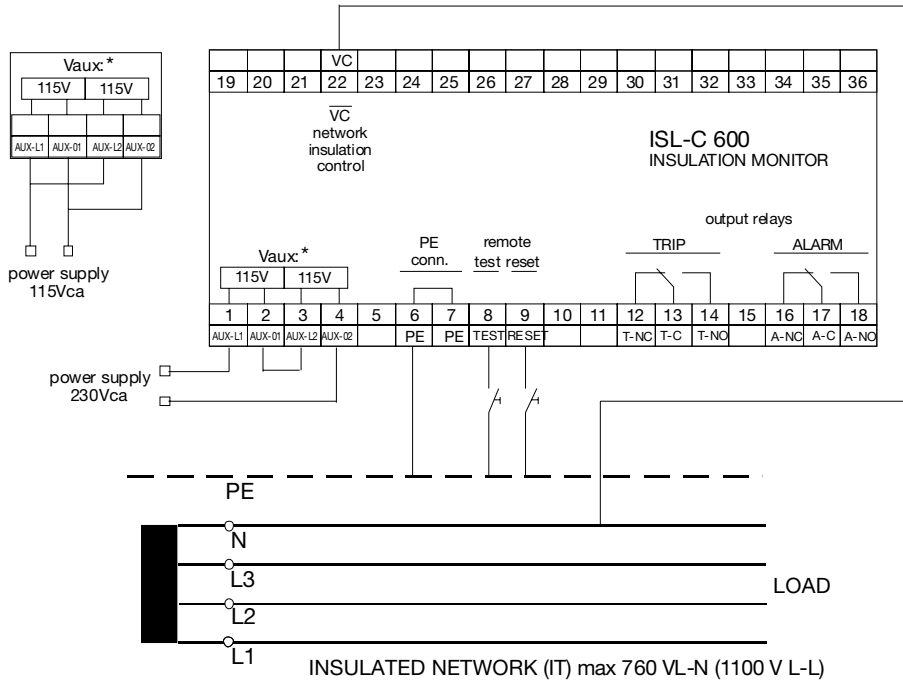
The front microswitches are used for adjusting the insulation threshold level between 10 and 150 k Ω , as shown below:



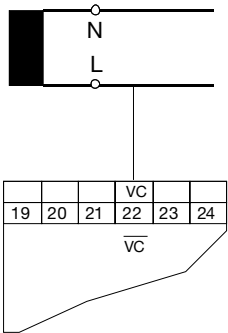
Quick product references

Protection and safety wiring diagrams

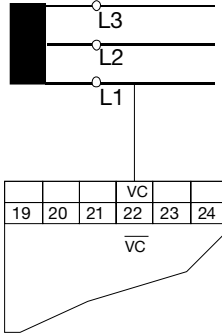
ISL-C 600



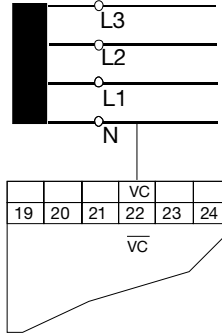
Max 760V L-N

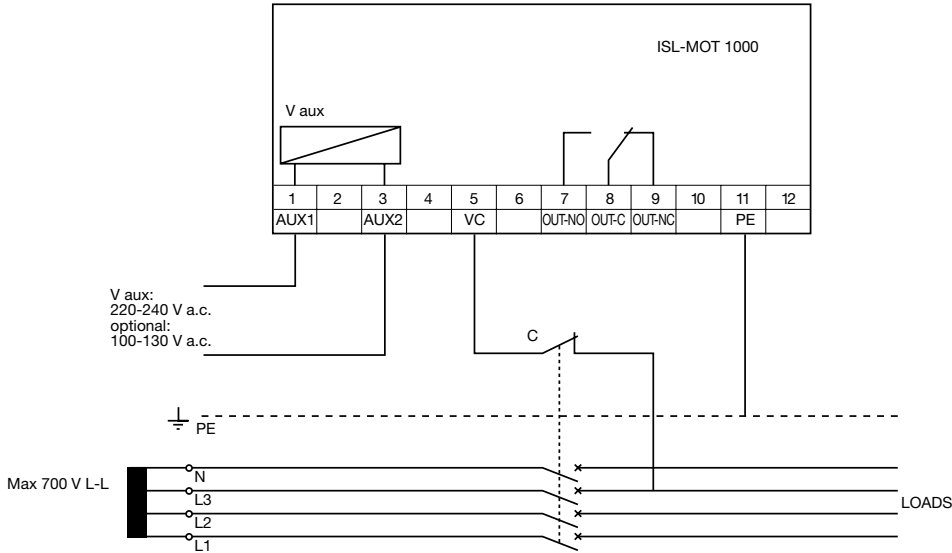


Three-phase network without neutral
Max 760V L-L



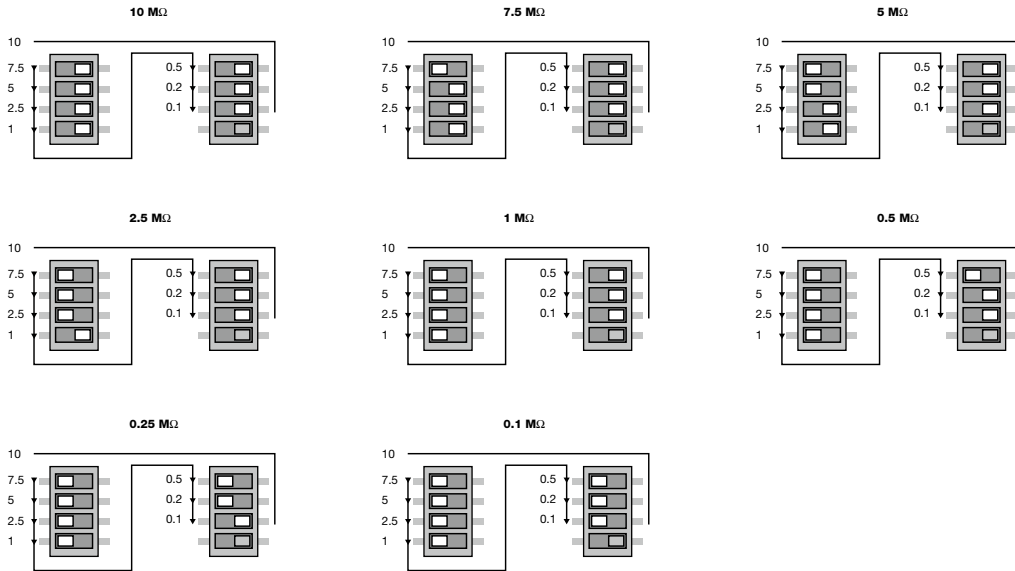
Three-phase network with neutral
Max 1100V L-L





MICROSWITCH SETTINGS

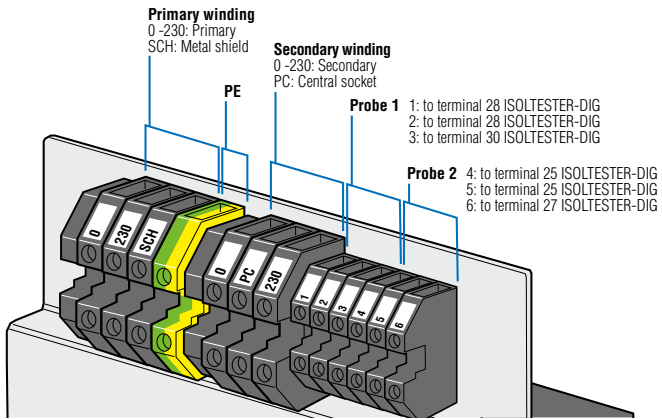
The front microswitches are used for adjusting the insulation threshold level between 0.1 and 10 MΩ. A total of 7 microswitches are used, divided into two groups as shown below:



Quick product references

Protection and safety wiring diagrams

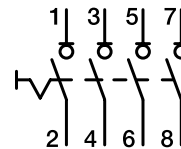
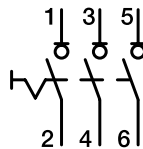
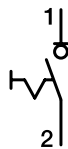
TI



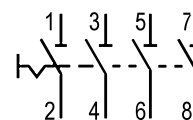
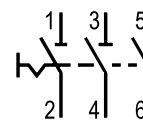
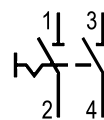
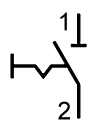
Quick product references

Command and signalling wiring diagrams

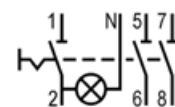
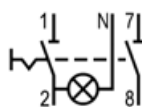
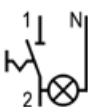
E200/SD 200/SHD 200



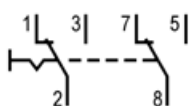
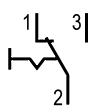
E210



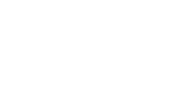
ON / OFF switch



Off switches with indicator lamps



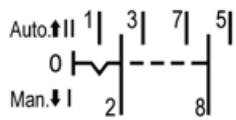
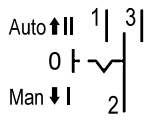
Change-over switches



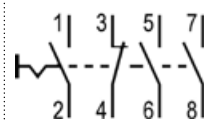
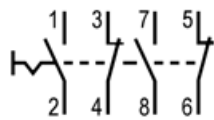
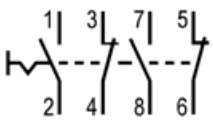
Quick product references

Command and signalling wiring diagrams

E210 group switches



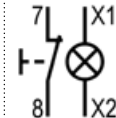
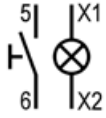
E210 control switches



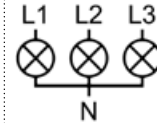
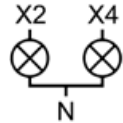
E210 pushbutton



E210 luminous Pushbutton

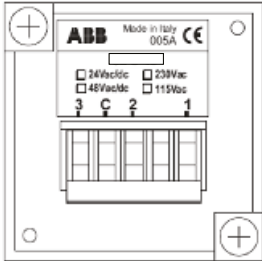


E210 indicator Light

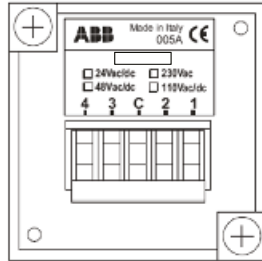


SL

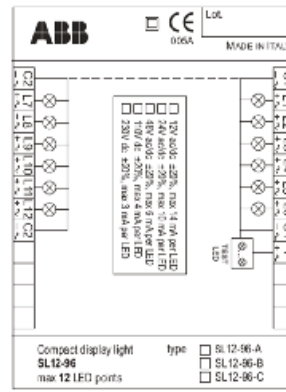
SL-3-48 24Vac/dc
 SL-3-48 48Vac/dc
 SL-3-48 115Vac
 SL-3-48 115Vdc
 SL-3-48 230Vac



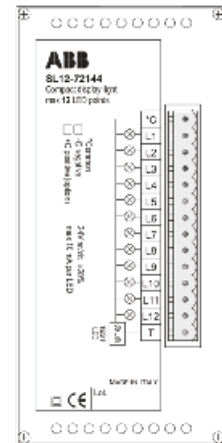
SL-4-48 24Vac/dc
 SL-4-48 48Vac/dc
 SL-4-48 115Vac
 SL-4-48 115Vdc
 SL-4-48 230Vac



SL-12-96 24Vac/dc
 SL-12-96 48Vac/dc
 SL-12-96 115Vac
 SL-12-96 115Vdc
 SL-12-96 230Vac



SL-12-72144 24Vac/dc
 SL-12-72144 48Vac/dc
 SL-12-72144 115Vac
 SL-12-72144 115Vdc
 SL-12-72144 230Vac



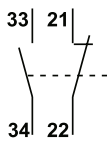
ESB EN

Contact Blocks

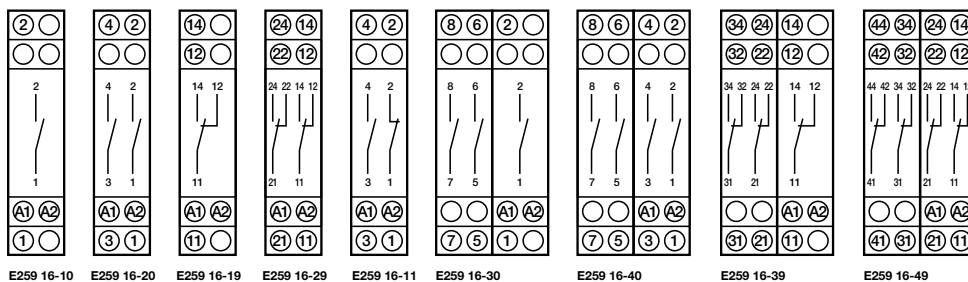
EH 04-20



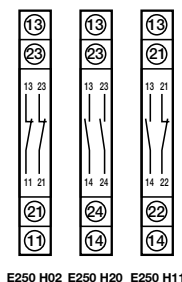
EH 04-11



E259



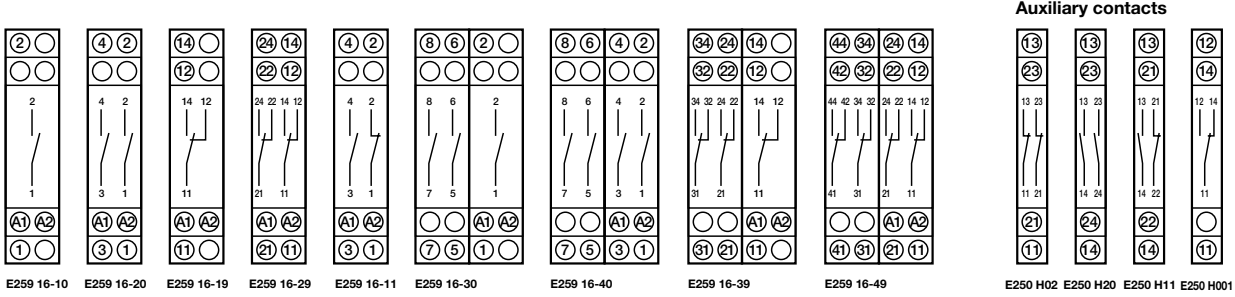
Auxiliary contacts



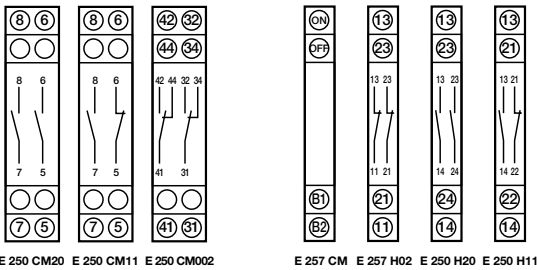
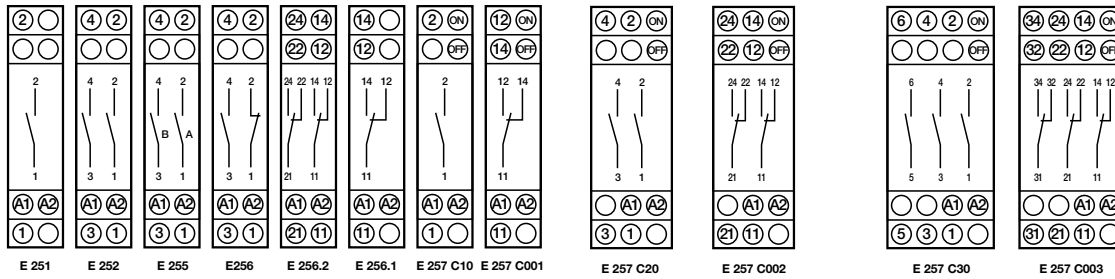
Quick product references

Command and signalling wiring diagrams

E250

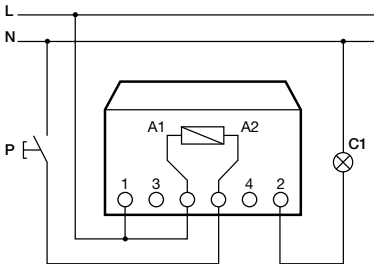


E255, E257

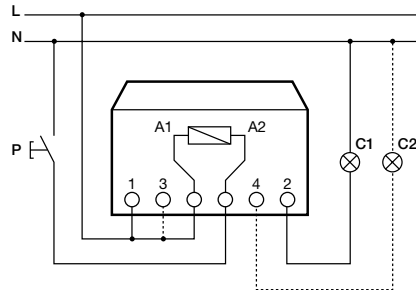


FLR

FLR1-12, FLR1-230

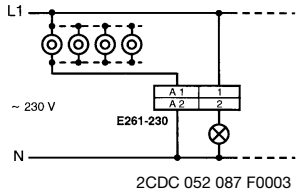


FLR5-12, FLR5-230

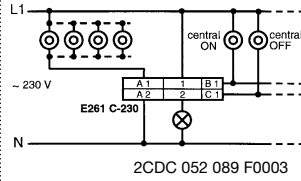


E260

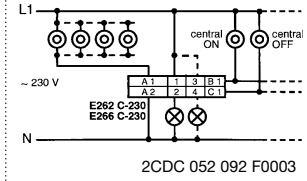
E 261-230



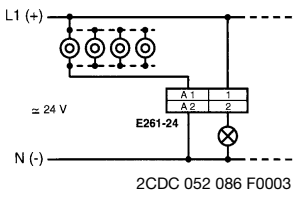
E 261 C-230



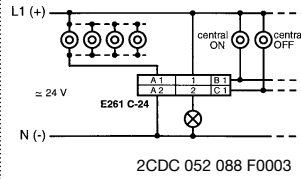
E 266 C-230



E 261-24



E 261 C-24

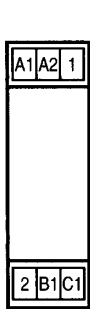


* E 260 C
Caution!
The same electr. potential must be applied to terminals A1, B1 and C1.

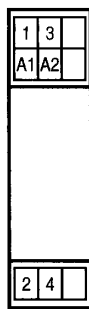
E260



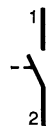
E 266 C
E 262 C



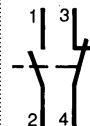
E 261
E 261 C



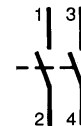
E 266
E 262



E 261-



E 266

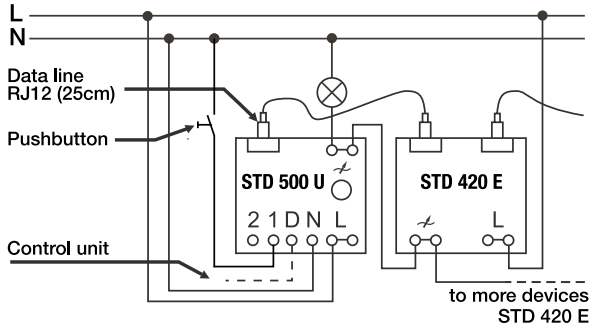


E 262

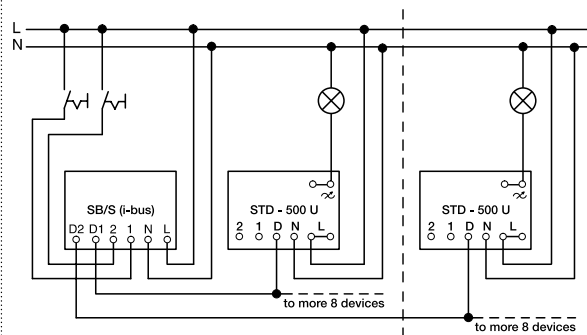
Quick product references

Command and signalling wiring diagrams

STD



STD-500 U

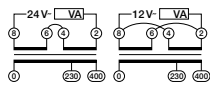


STD-500 U, SB/S or PSB/S

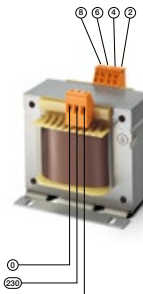
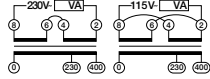
TM-C, TM-S, TM-I

TM-C

Label on product:
12-24 V output

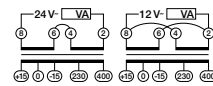


115-230 V output

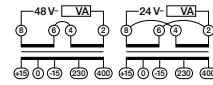


TM-S, TM-I

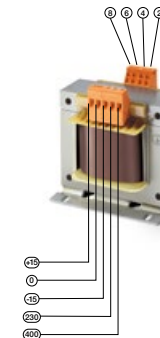
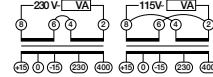
Label on product:
12-24 V output TM-S



24-48 V output TM-S

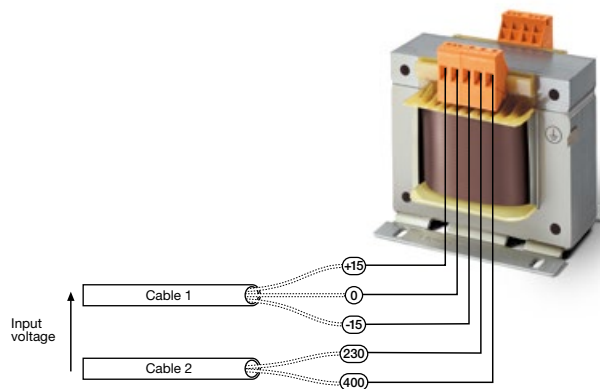


115-230 V output TM-I



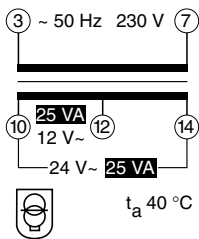
Primary voltage TM-I, TM-S

		Cable 2	
		230	400
Cable 1	-15	215V	385V
	0	230V	400V
	15	245V	415V

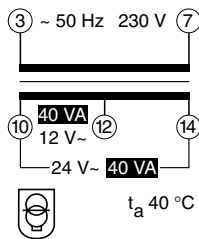


TS-C

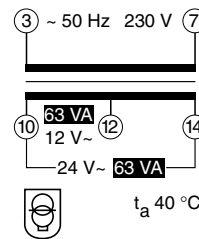
TS25/12-24 C



TS40/12-24 C

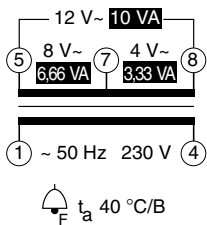


TS63/12-24 C

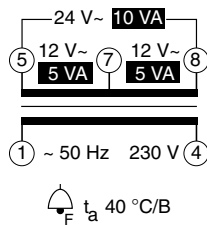


TM

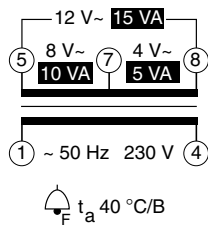
TM10/12



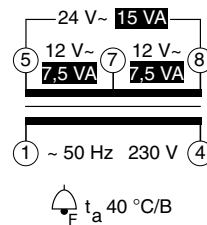
TM10/24



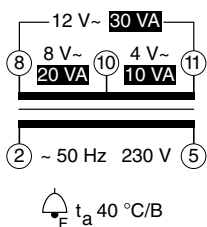
TM15/12



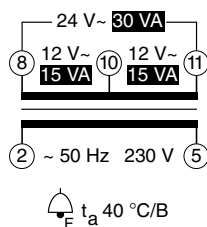
TM15/24



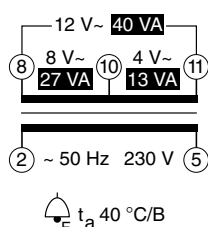
TM30/12



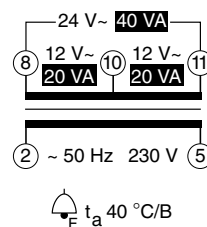
TM30/24



TM40/12



TM40/24

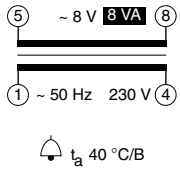


Quick product references

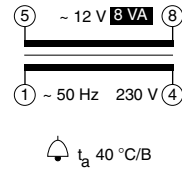
Command and signalling wiring diagrams

TS

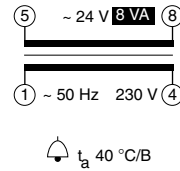
TS8/8



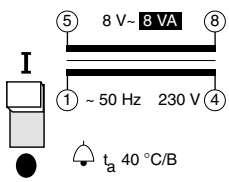
TS8/12



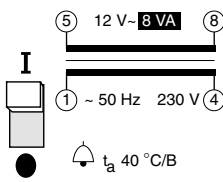
TS8/24



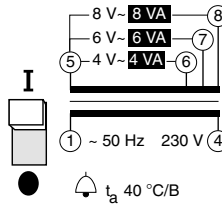
TS8/8 SW



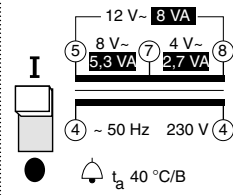
TS8/12 SW



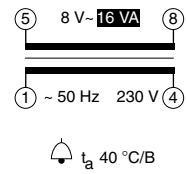
TS8/4-6-8 SW



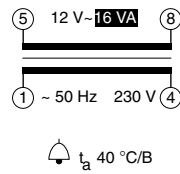
TS8/4-8-12 SW



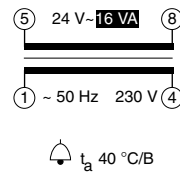
TS16/8



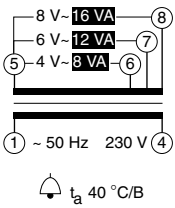
TS16/12



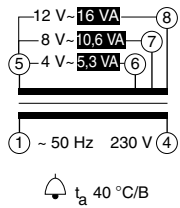
TS16/24



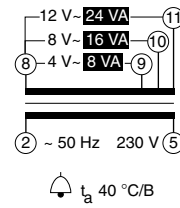
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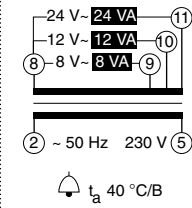
TS16/4-8-12



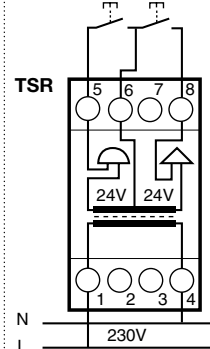
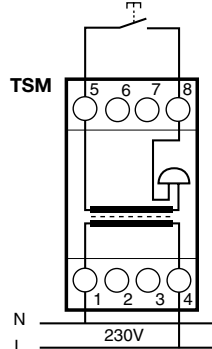
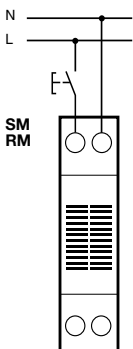
TS24/4-8-12



TS24/8-12-24



SM, RM...

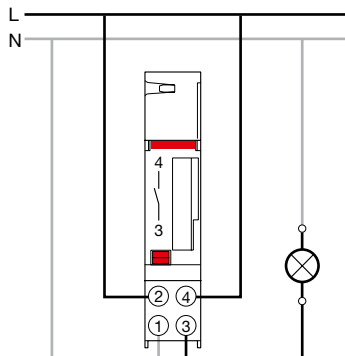


Quick product references

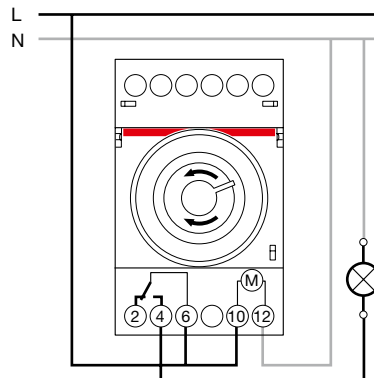
Control and automation wiring diagrams

AT

AT1, AT1-R

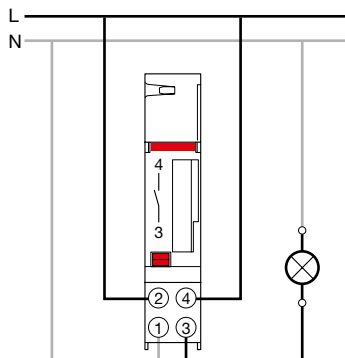


AT3, AT3-R, AT3-7R

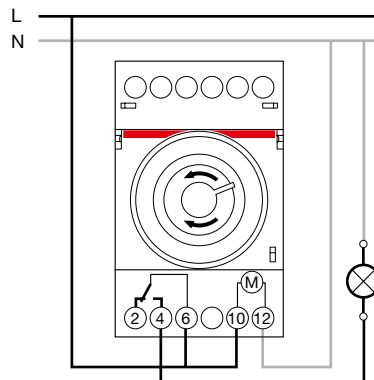


AT

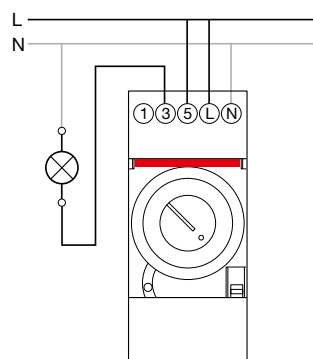
AT1, AT1-R



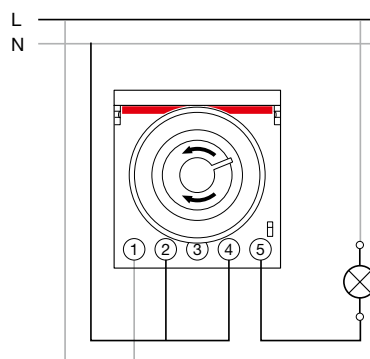
AT3, AT3-R, AT3-7R



AT2, AT2-R, AT2-7R



ATP, ATP-R, ATP-7R

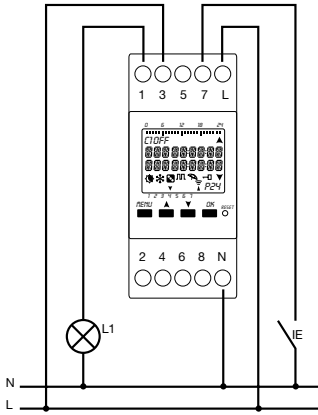


Quick product references

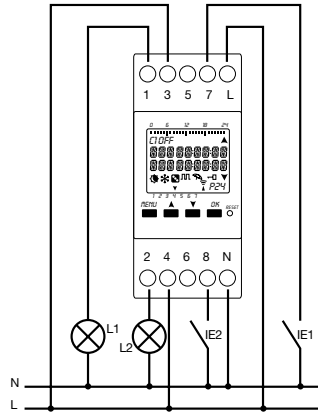
Control and automation wiring diagrams

D Line

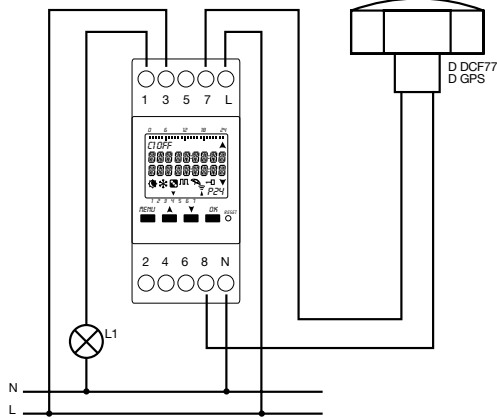
D1 and D1 PLUS



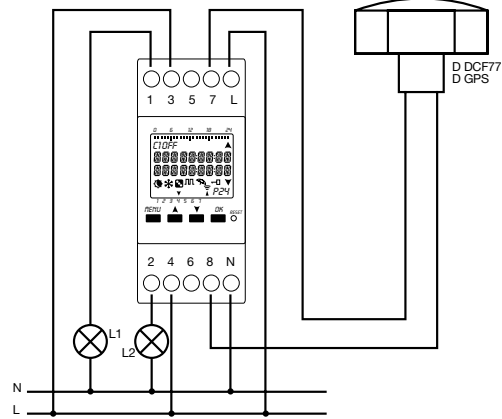
D2 and D2 PLUS



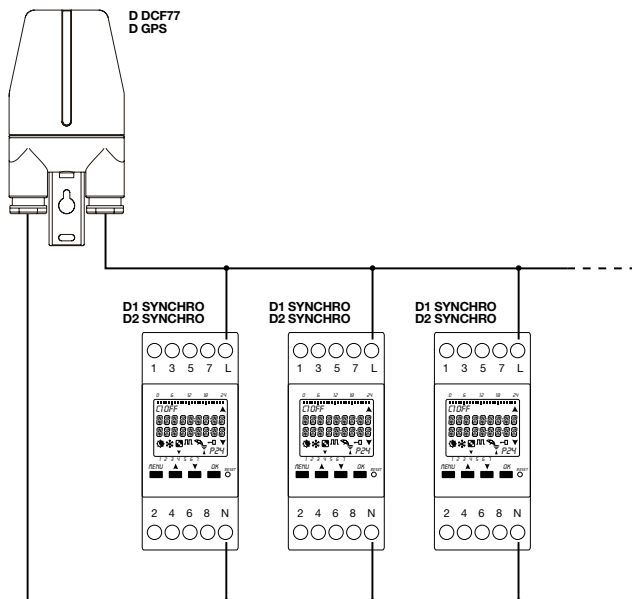
D1 SYNCHRO



D2 SYNCHRO



DCF77 and GPS antenna wirings

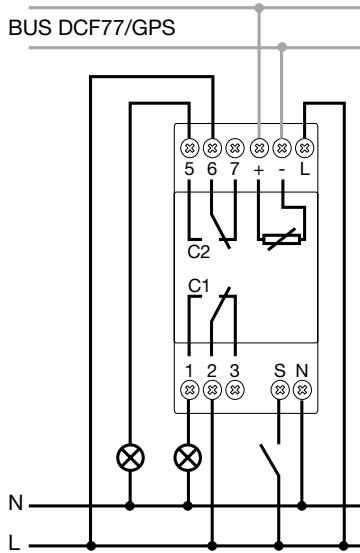


The D DCF77 or D GPS antenna allows you to control up to 10 instruments. The polarity of the first instrument is regardless, while the others have to respect the polarity of the first one.

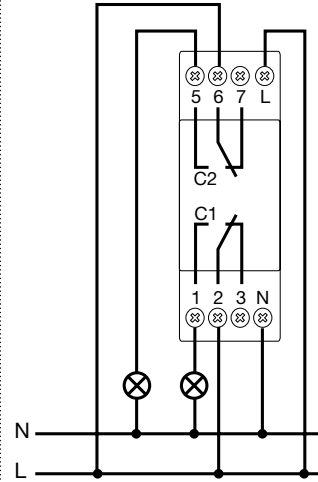
D 365

D 365

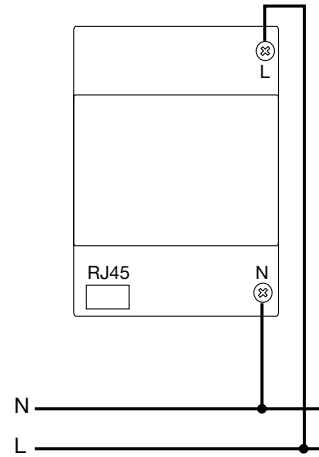
BUS DCF77/GPS



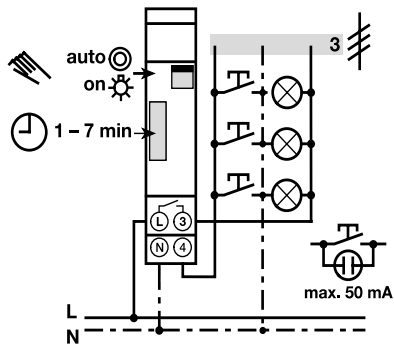
D 365 CE



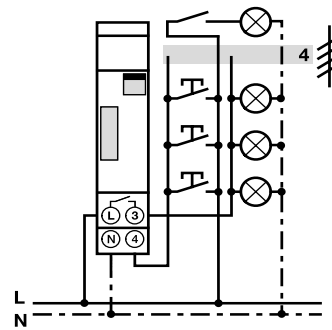
D 365 LAN



E 232

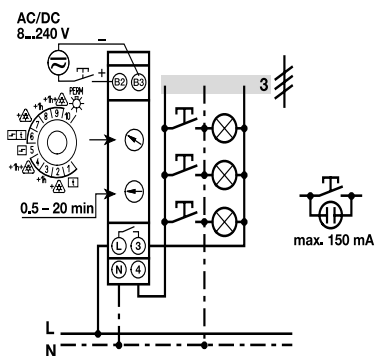


E 232-230 3 conductor

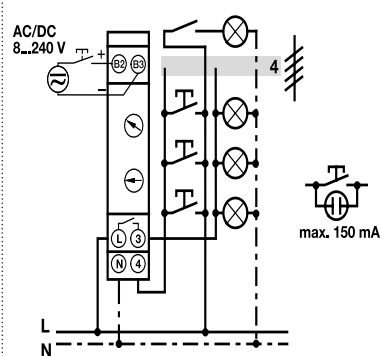


E 232-230 4 conductor

2CDC 052 031 F0007



E 232E-8/230 Multi 10 3 conductor



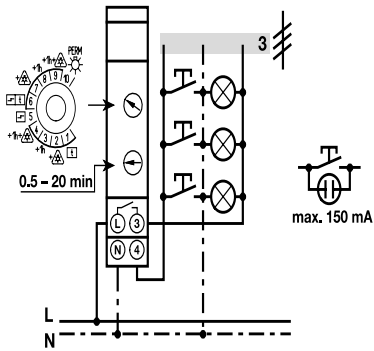
E 232E-8/230 Multi 10 4 conductor

2CDC 052 035 F0007

Quick product references

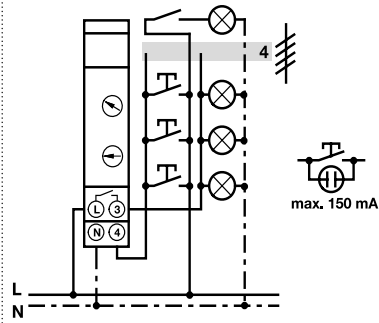
Control and automation wiring diagrams

E 232



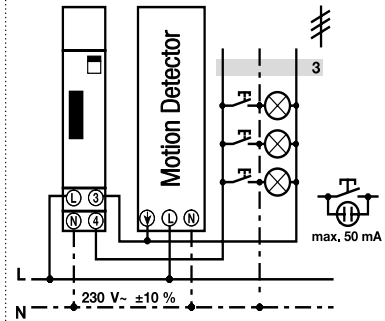
E 232E-230 Multi 10 3 conductor

2CDC 052 032 F0007



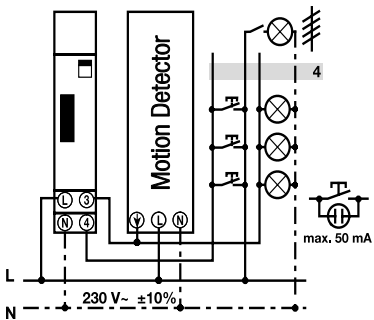
E 232E-230 Multi 10 4 conductor

2CDC 052 033 F0007



E 232E-8/230 Multi 10 3 conductor
E 232E 8/230 3 conductor
E 232E 230 Multi 10 3 conductor
E 232E 230 N 3 conductor
E 232-230 3 conductor

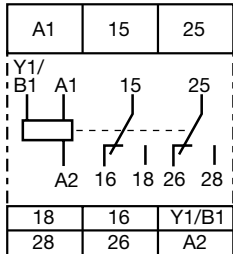
2CDC 052 037 F0007



E 232E-8/230 Multi 10 4 conductor
E 232E 8/230 4 conductor
E 232E 230 Multi 10 4 conductor
E 232E 230 N 4 conductor
E 232-230 4 conductor

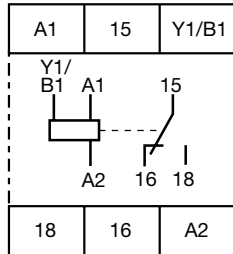
2CDC 052 039 F0007

CT-MFD.21



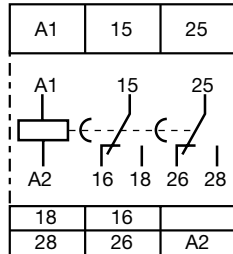
2CDC 252 113 F0b06

CT-MFD.12



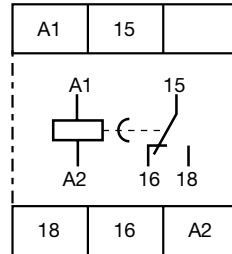
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CT-ERD.22



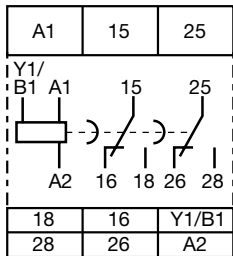
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CT-ERD.12



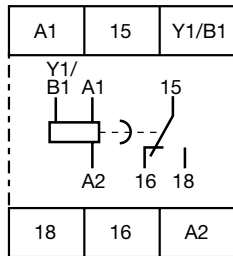
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CT-AHD.22



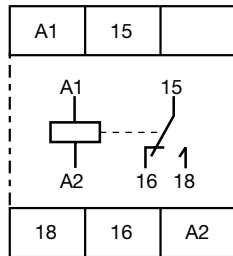
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CT-AHD.12



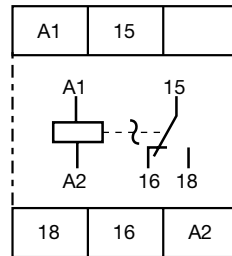
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CT-VWD.12



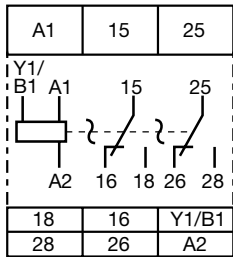
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CT-EBD.12



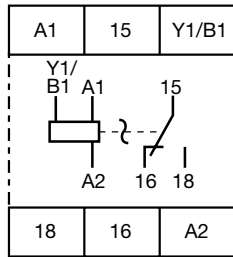
2CDC 252 180 F0b05

CT-TGD.22



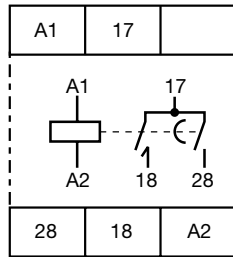
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CT-TGD.12



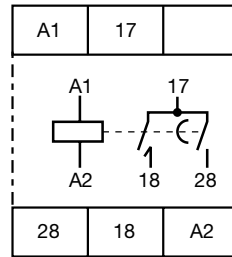
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CT-SDD.22

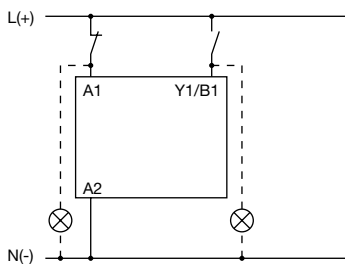


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CT-SAD.22



2CDC 252 160 F0b06



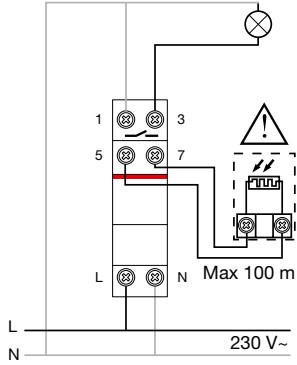
2CDC 252 102 F0b06

Wiring notes for devices with control input
A parallel load to the control input is possible

Quick product references

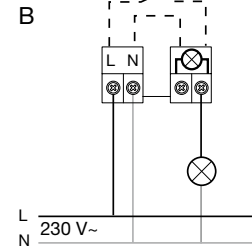
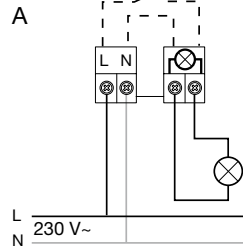
Control and automation wiring diagrams

T1, T1 PLUS

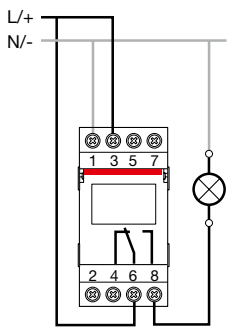


T1 POLE

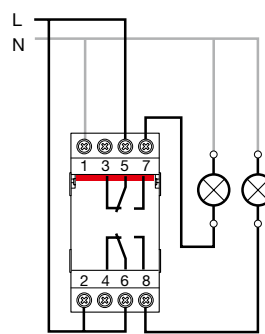
230 V~ -30T60
 ~ 16 (3)A / 250 V~



TWA-1

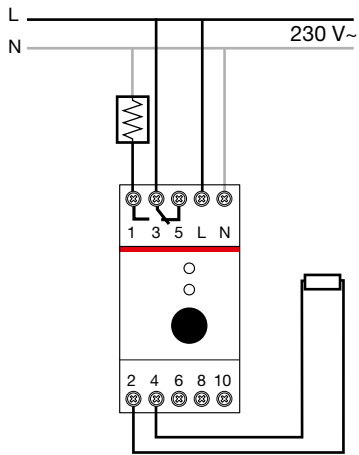


TWA-2

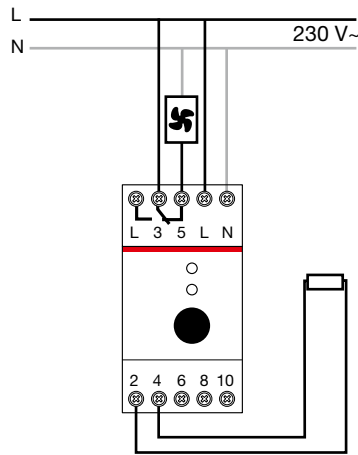


THS-C, THS-W

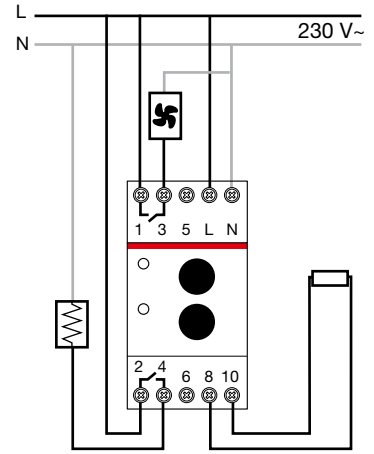
Heating



Cooling

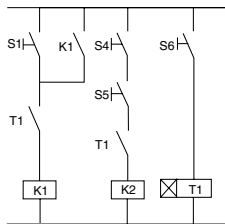


THS-S

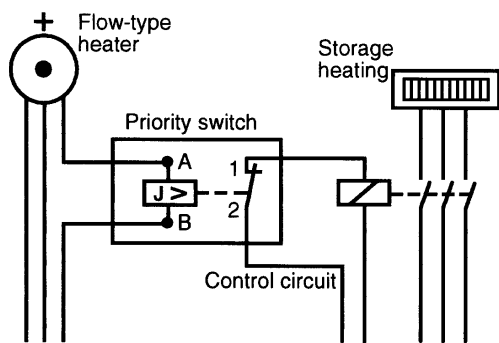


CL

Logic links instead of wiring



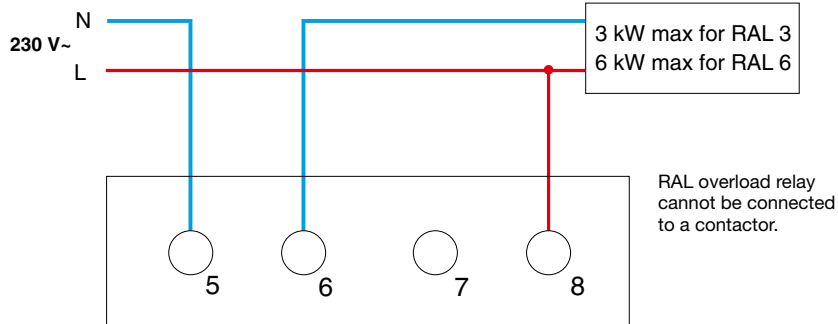
E 450



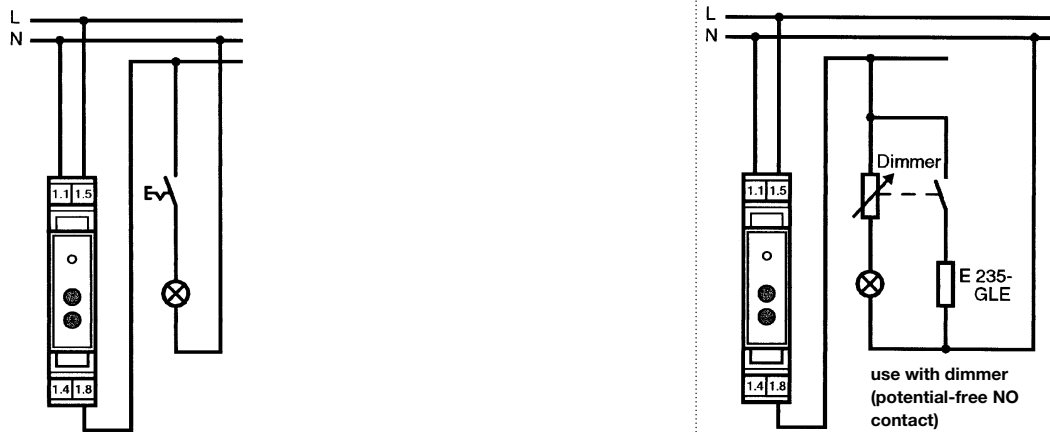
Quick product references

Control and automation wiring diagrams

RAL



E 235

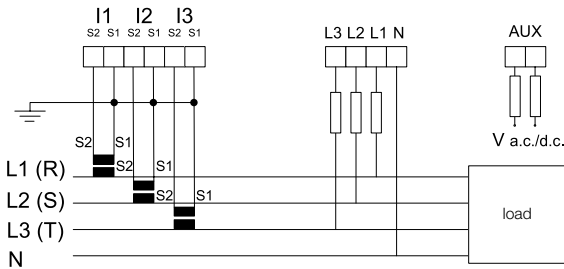


Quick product references

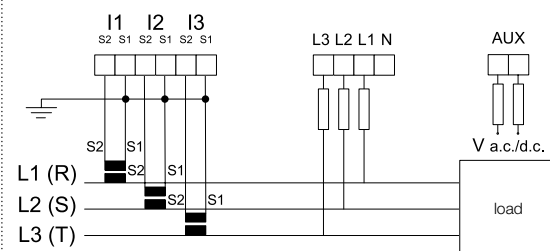
Energy efficiency wiring diagrams

M2M measurement input and auxiliary power supply connections

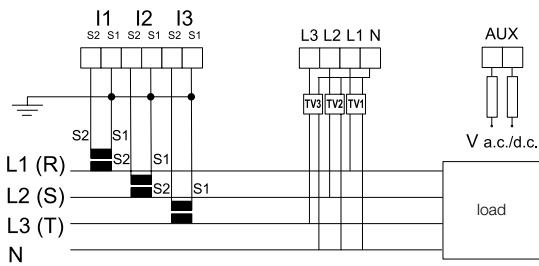
Three-phase + neutral with 3 CT



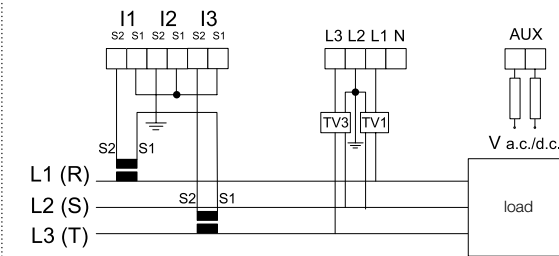
Three-phase with 3 CT



Three-phase + neutral with 3 CT and 3 VT

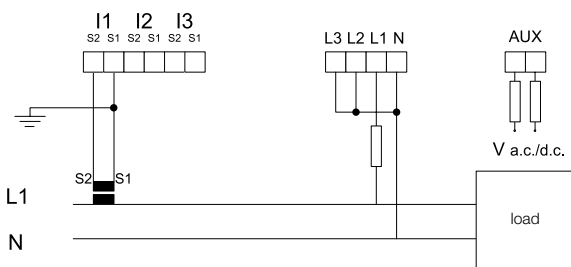


ARON Three-phase with 2 CT and 2 VT

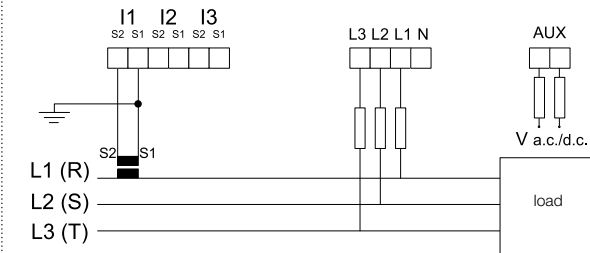


Not suitable for the M2M LV and M2M LV MODBUS models.

Single-phase with 1 CT



Balanced three-phase with 1 CT

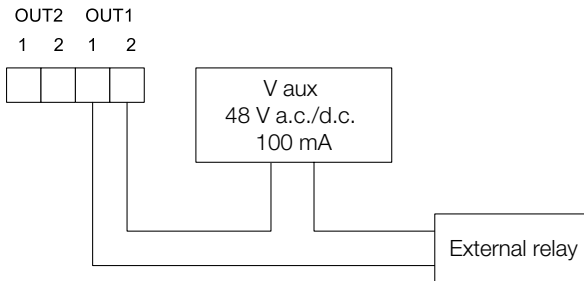


Quick product references

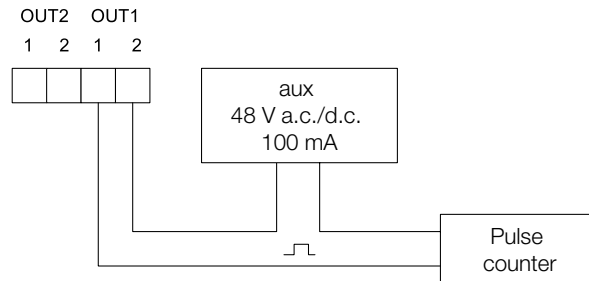
Energy efficiency wiring diagrams

M2M Analogue and digital output connections, digital inputs

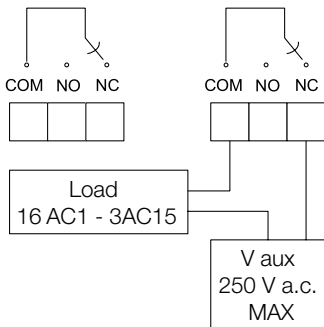
Digital outputs as alarms with external relay for control of loads



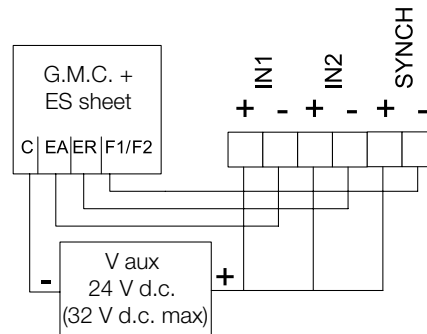
Digital outputs as pulses



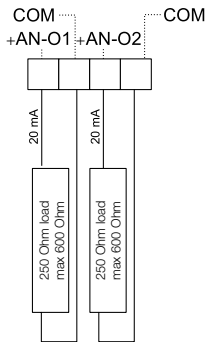
M2M ALARM electromechanical relay outputs



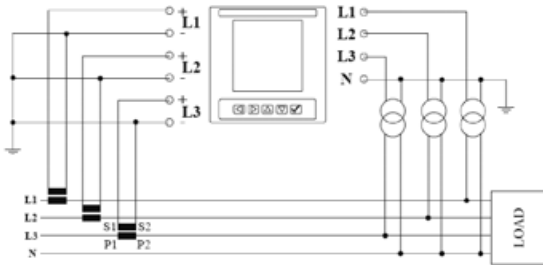
M2M I/O digital inputs (example in NPN mode)



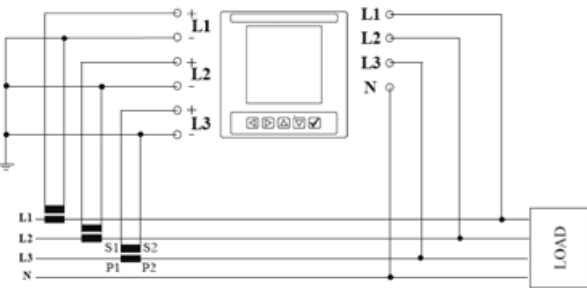
M2M I/O analogue outputs



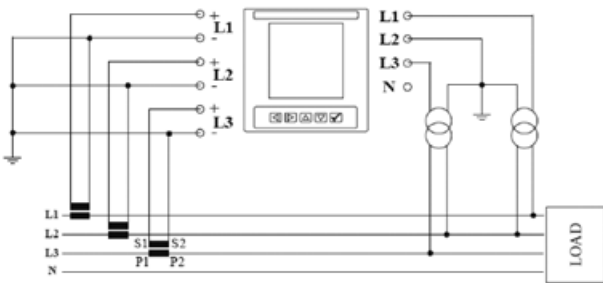
4 wires insertion



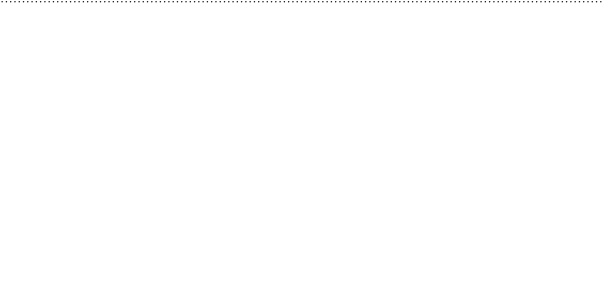
Insertion with 3 CTs and 3 VTs



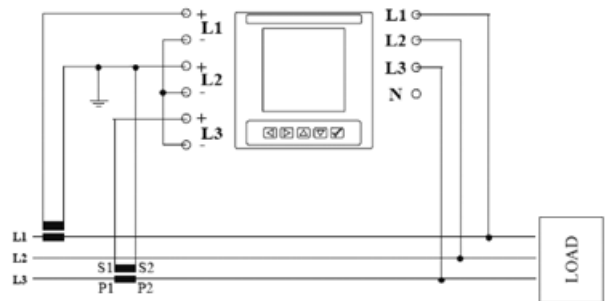
Insertion with 3 CTs



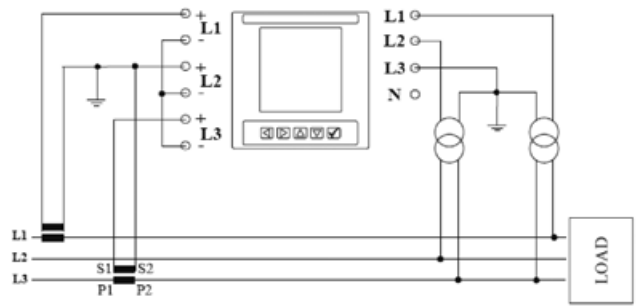
Insertion with 3 CTs and 2 VTs



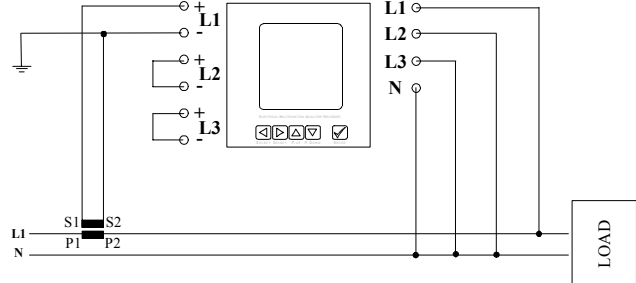
3 wires insertion



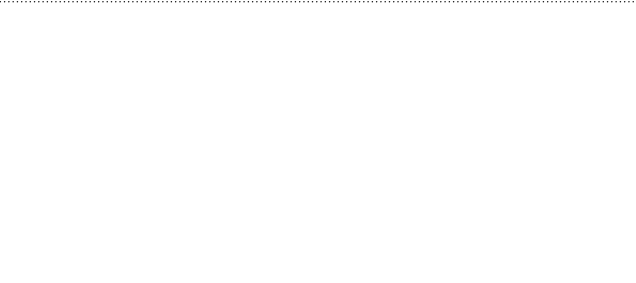
Insertion with 2 CTs



Insertion with 2 CTs and 2 VTs (Aron)



Single phase insertion with 1CT

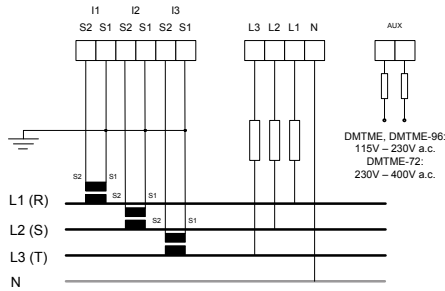


Quick product references

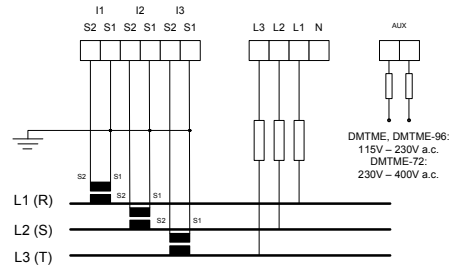
Energy efficiency wiring diagrams

DMTME

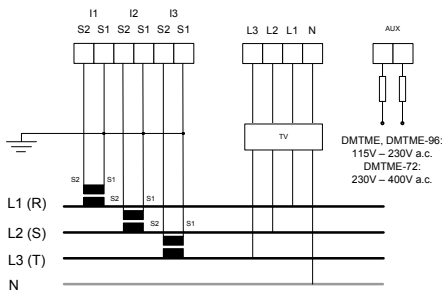
Three-phase with neutral and 3 CTs



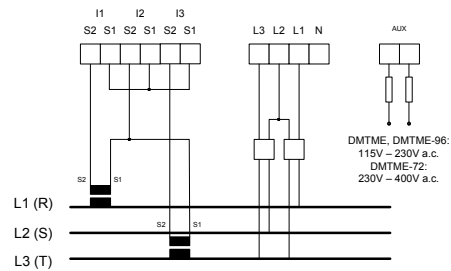
Three-phase with 3 CTs



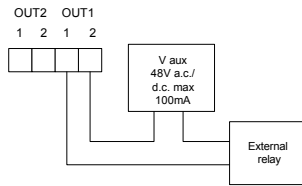
Three-phase with neutral and 3 CTs and 3 VTs
Up to 500 V phase-neutral a direct connection is possible



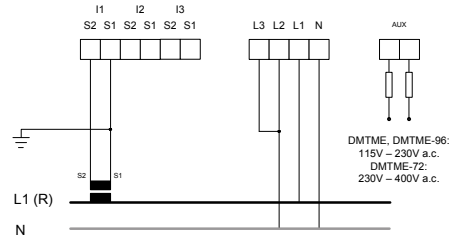
Aron type three-phase with 2 CTs and 2 VTs
With symmetric and unbalanced network, 3 CTs and up to 800 V, beyond this value must use VT.



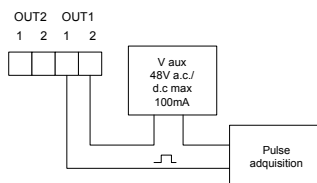
Digital output used as alarm with external relays for load command



Single phase with neutral and 1 CTs

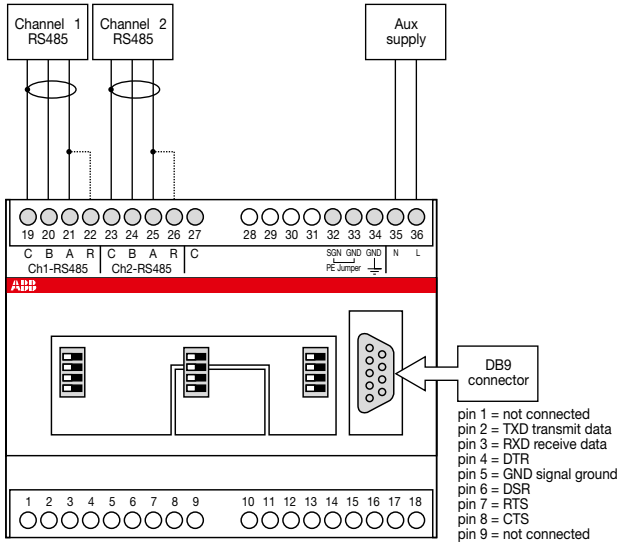


Digital output used as pulses

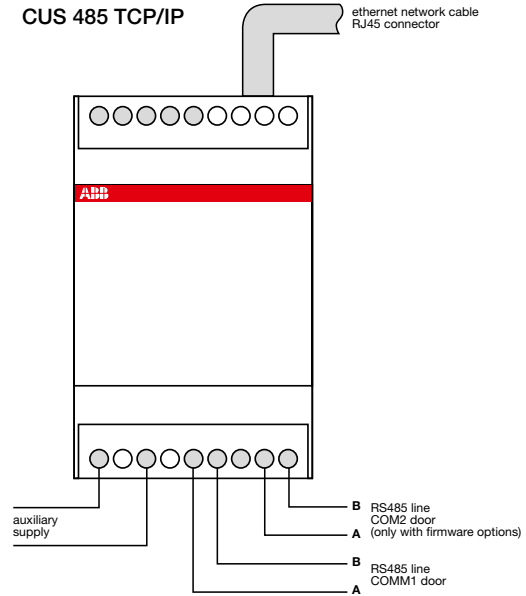


CUS

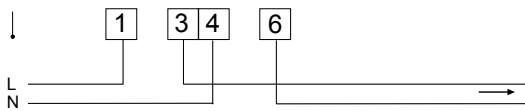
CUS RS485/232



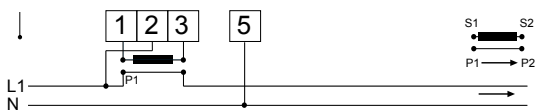
CUS 485 TCP/IP



A series A41

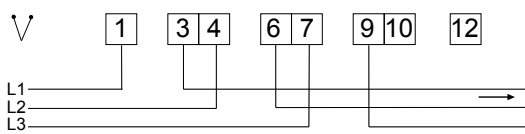


A series A42

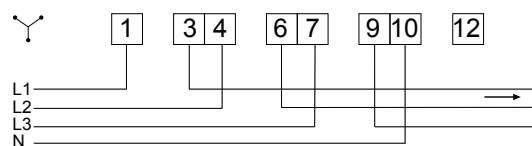


A series A43

3 wire connection, 2 elements



4 wire connection, 3 elements

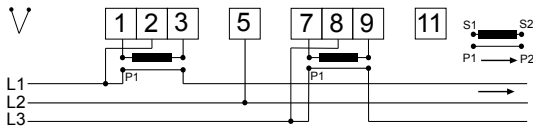


Quick product references

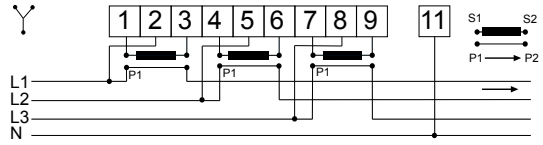
Energy efficiency wiring diagrams

A series A44

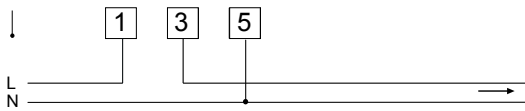
3 wire connection, 2 elements



4 wire connection, 3 elements

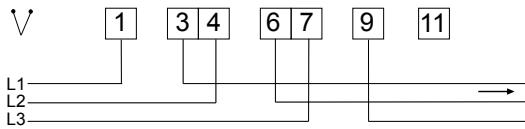


B series B21

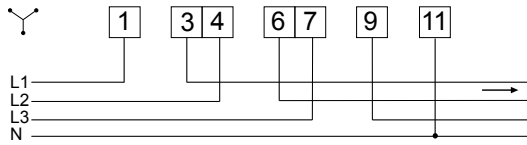


B series B23

3 wire connection, 2 elements

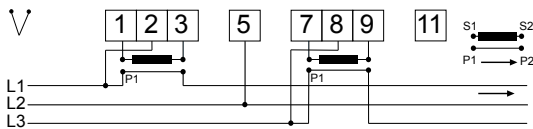


4 wire connection, 3 elements

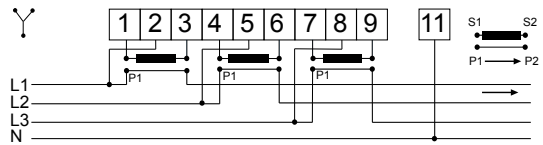


B series B24

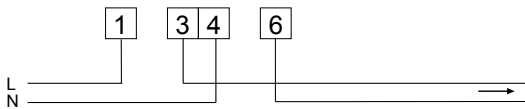
3 wire connection, 2 elements



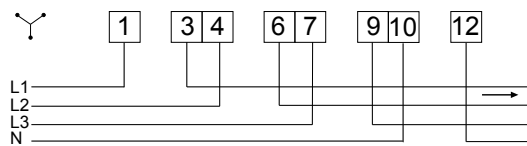
4 wire connection, 3 elements



C series C11

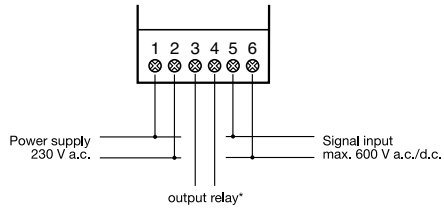


C series C13

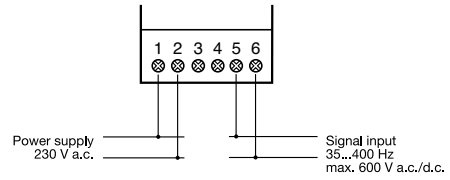


Digital instruments

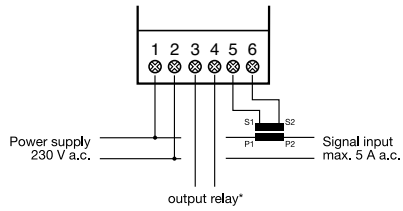
VLMD-1-2 and VLMD-1-2-R
VLMD P and VLMD-R P



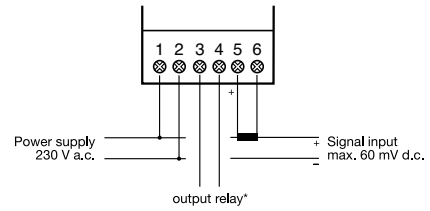
FRZ-DIG



AMTD-1 and AMTD-1-R
AMTD-1 P and AMTD-1-R P

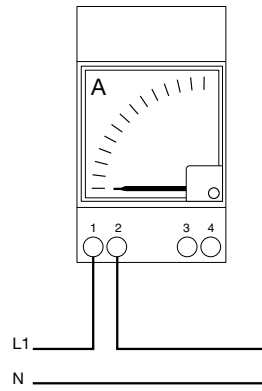
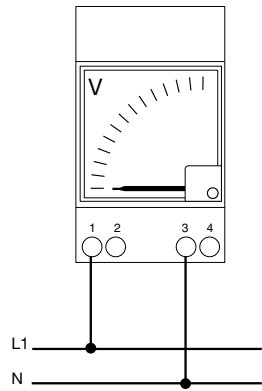


AMTD-2 and AMTD-2-R
AMTD-2 P and AMTD-2-R P

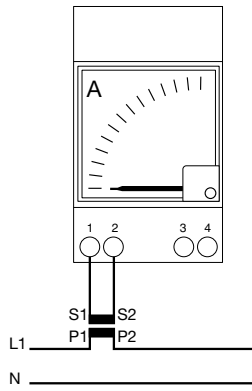


*Only for instruments with output relay

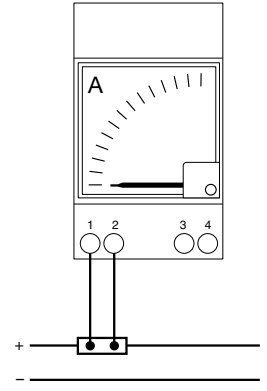
Analogue instruments



Direct insertion



Indirect insertion using C.T.



Indirect insertion using shunt

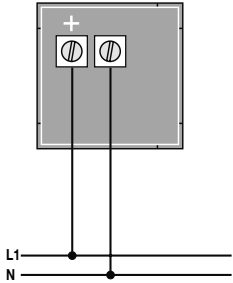
Quick product references

Energy efficiency wiring diagrams

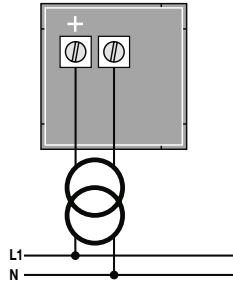
Front panel analogue instruments

Voltmeter for alternating current

Direct insertion

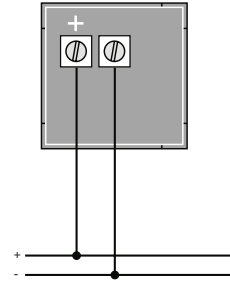


Insertion via VT



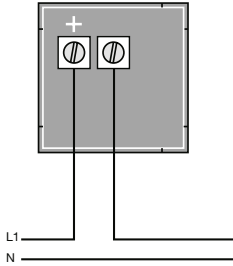
Voltmeter for direct current

Direct insertion

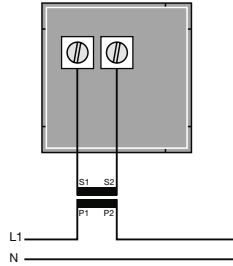


Ammeter for alternating current

Direct insertion

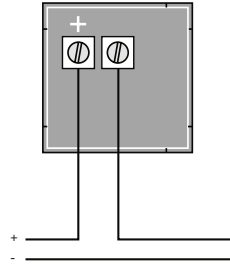


Insertion via CT

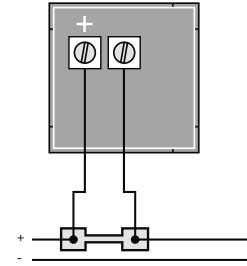


Ammeter for direct current

Direct insertion

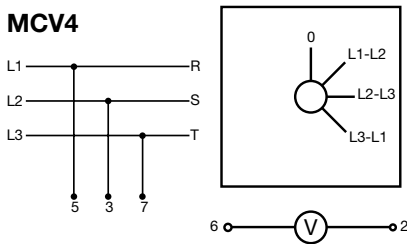


Insertion with Shunt

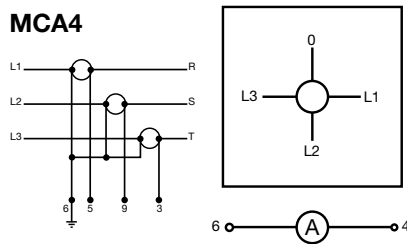


MCV, MCA, QCV and QCA

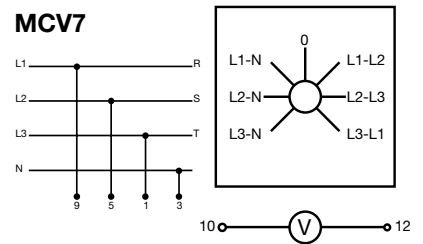
MCV4



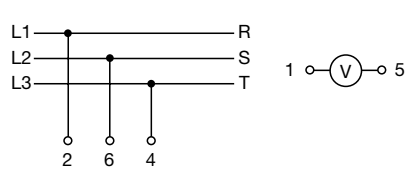
MCA4



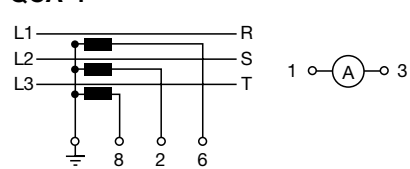
MCV7



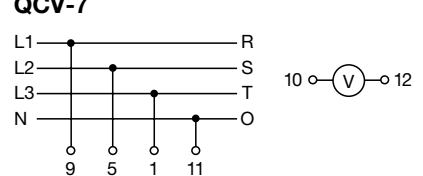
QCV-4



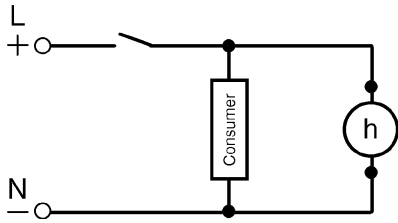
QCA-4



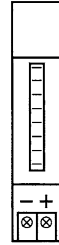
QCV-7



E 233



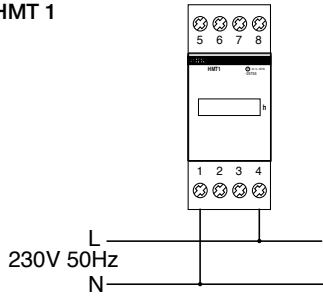
elapsed-time meter



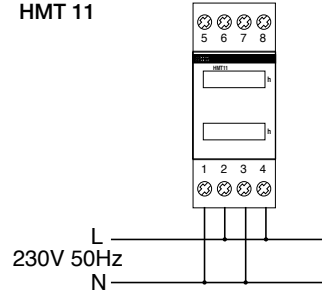
E 233-15/48 DC

HMT

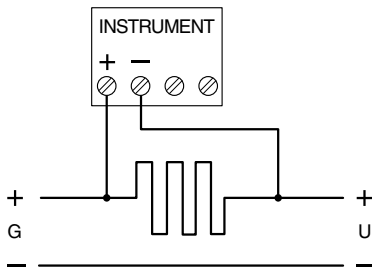
HMT 1



HMT 11






SNT



Quick product references


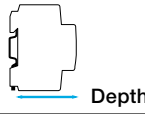

Overall dimensions

Modular products	 Width		 Depth		 Max. dimensions	
	modules	mm	DIN-rail to door	DIN-rail to front	max depth	max height
Miniature circuit breakers						
S 201	1	17.5	44	-	69	88
S 201 Na	2	35				
S 202	2	35				
S 203	3	52.5				
S 203 Na	4	70				
S 204	4	70				
S 200 with bottom aux. cont.	See drawings					
S 201 S	1	17.5	44	-	69	89
S 203 S	3	52.5				
S 201 U	1	17.5	44	-	71	92
S 202 U	2	35				
S 203 U	3	52.5				
S 204 U	4	70				
S 201 UDC	1	17.5	44	-	71	92
S 202 UDC	2	35				
S 203 UDC	3	52.5				
S 204 UDC	4	70				
SU 201 M	1	17.5	49.5	-	69	111
SU 202 M	2	35				
SU 203 M	3	52.5				
SU 204 M	4	70				
SN 201	1	17.6	43.5	58	68.9	91.8
S 201 80-100A	1	17.5	44	58	69	88.8
S 202 80-100A	2	35				
S 203 80-100A	3	52.5				
S 204 80-100A	4	70				
S 291	1.5	26.25	43.5	65	68	90
S 292	3	52.5				
S 293	4.5	78.75				
S 294	6	105				
S 700	See drawings					
S750DR	See drawings					
S 801	1.5	26.5	52	82.5	88.5	95
S 802	3	53				
S 803	4.5	79.5				
S 804	6	106				
S 801_-R	1.5	26.5	52	82.5	88.5	142
S 802_-R	3	53				
S 803_-R	4.5	79.5				
S 804_-R	6	106				

Modular products	Width		Depth		Max. dimensions	
	modules	mm	DIN-rail to door	DIN-rail to front	max depth	max height
S 501	1.5	25	56.5	80	92	91
S 502	3	50				
S 503	4.5	75				
S 504	6	100				
Residual current devices						
F 202	2	35	44	-	69	88
F 204	4	70				
F 202 B	2	35	44	-	69	85
F 204 B	4	70				
F 204 B high ratings	4	72	44	60	69.5	85
F 204 125 A	2	72	44	60	69.5	-
DDA 200	See drawings					
DS 202 up to 40 A	4	70	44	-	69	93
DS 203 up to 40 A	5	87.5				
DS 204 up to 40 A	6	105				
DS 202 50, 63 A	4	70	44	-	69	93
DS 203 50, 63 A	7	122.5				
DS 204 50, 63 A	8	140				
DS201	2	35	43	58	69	85
DS202C						
DS203NC	4	70.4	-	-	69	85
DSE201 - DSE201 M	1	17.5	-	-	69	100 - 115
DDA 800	See drawings					
RD2	2	35	44	58	-	85
RD3	3.5	58.2	44.2	57.9	57.9	85
ELR	See drawings					
Toroidal transformers	See drawings					
Auxiliary elements and accessories						
S 2C-A_	1	17.5	44	-	69	85
S 2C-H11L	0.5	8.8				
S 2C-H20L						
S 2C-H02L						
S 2C-S/H 6R						
S 2C-H 6R						
S 2C-UA_	1	17.4	44	-	74	85
F 2C-A_						
S 2C-OVP						
F 2C 125A-SH/S2C-Nt	0.5	8.8	44	-	70	88
Bottom fixing aux. cont.	See drawings					
S 2C-EST	See drawings					
S 2C-BP	1	17.5	44	-	68	85

Quick product references


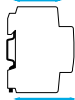

Overall dimensions

Modular products	 Width		 Depth		 Max. dimensions	
	modules	mm	DIN-rail to door	DIN-rail to front	max depth	max height
S 2C-CM	See drawings					
F 2C-ARI	See drawings					
F 2C-CM	See drawings					
F 2C-ARH	See drawings					
F 2C-ARH-T	See drawings					
Aux. elements for SN201	See drawings					
Aux. elements for S280 and S290	0.5	8.75	44	-	73	90
	1	17.5				
S800-AUX	See drawings					
S800-RSU-H	See drawings					
S800-RD+S800-RHE	See drawings					
Terminal covers	See drawings					
Enclosures	See drawings					
Flush frame	See drawings					
Busbars	See drawings					
Me flange	See drawings					
OH_2A_	See drawings					
Protection and safety						
Type 1 SPD 1 pole	1/2	17.8/35	45.5	58	-	85
Type 1 SPD 2 poles	4	70.4	43.5			
Type 1 SPD 2 poles + TS	5	88				
Type 1 SPD 3 poles	6	105				
Type 1 SPD 3 poles + TS	7	122.5				
Type 1 SPD 4 poles	8	140				
Type 1 SPD 4 poles + TS	9	157.5				
Type 1+2 SPD 1 pole	1/2	17.8/35				
E90 20/32 1 pole	1	17.5	-	-	64	85
E90 20/32 1 pole + N	2	35				
E90 20/32 2 poles	2	35				
E90 20/32 3 poles	3	52.5				
E90 20/32 3 poles + N	4	70				
E90 20/32 4 poles	4	70				
E90 50 1 pole	See drawings					
E90 50 1 pole + N						
E90 50 2 poles						
E90 50 3 poles						
E90 50 3 poles + N						
E90 125 1 pole	See drawings					
E90 125 1 pole + N						
E90 125 2 poles						
E90 125 3 poles						
E90 125 3 poles + N						

Modular products	Width		Depth		Max. dimensions	
	modules	mm	DIN-rail to door	DIN-rail to front	max depth	max height
E90 30 Class J 1 pole	See drawings					
E90 30 Class J 2 poles	See drawings					
E90 30 Class J 3 poles	See drawings					
E90 60 Class J 1 pole	See drawings					
E90 60 Class J 2 poles	See drawings					
E90 60 Class J 3 poles	See drawings					
ILTS-E 1 pole	1.5	27	44	70	70	90
ILTS-E 2 poles	3	54				
ILTS-E 3 poles	4.5	81				
ILTS-E 4 poles	6	108				
SQZ3	3	52.5	44	58	58	85
RH/RL	3	52.5	44	58	58	85
E 236 US1	2	35	44	60	65	87
E 236 US2						
E 236 US1.1	1	17.5	44	60	60	87
E 236 US2.1						
E 236 US1.1D						
Isoltester-DIG	6	105	44	56	61	90
PM554	See drawings					
CP415	See drawings					
Selvtester-24	3	52.5	44	58	58	85.5
QSD	See drawings					
TI	See drawings					
QSO	See drawings					
ISL-A 115	6	105	44	58	65	90
ISL-A 230						
ISL-A 600						
ISL-C 600						
ISL-A 24-28	3	52.5	44	58	65	85.5
ISL-C 230						
ISL-C 440						
ISL-MOT 1000						
QIT	See drawings					

Quick product references


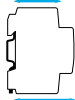

Overall dimensions


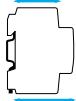
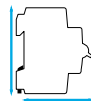
Modular products	 Width		 Depth		 Max. dimensions	
	modules	mm	DIN-rail to door	DIN-rail to front	max depth	max height
Command and signalling						
E201	1	17.5	44	58	70	85
E202	2	35				
E203	3	52.5				
E204	4	70				
E463	2.5	44	44	58	70	85
E210	0.5	9	43.5	58	67.9	85
E210	1	18				
ESB 20	1	17.5	44	58	58	85
ESB 24	2	35				
ESB 40	3	54				
ESB 63						
EN 20	1	17.5	44	58	58	85
EN 24	2	35				
EN 40	3	54				
EN 63						
E290	See drawings					
E 259 16-10	1	17.5	43.5	58	62	85
E 259 16-20						
E 259 16-11						
E 259 16-19						
E 259 16-29						
E 259 16-30	2	35.6	43.5	58	62	85
E 259 16-40						
E 259 16-39						
E 259 16-49						
E257-C003	2	35.6	43.5	58	62	85
E257-C30						
E257-C20	1.5	26.7	43.5	58	62	85
E257-C002						
E251	1	17.5	43.5	58	62	85
E252						
E256						
E256.1						
E256.2						
E257-C10						
E250 CM						
E250 CP						
E250 GM						
E257-CM	0.5	8.9	43.5	58	62	85
E250-H						
FLR	See drawings					

Modular products	Width		Depth		Max. dimensions							
	modules	mm	DIN-rail to door	DIN-rail to front	max depth	max height						
E261	1	17.5	43.4	58	58	85						
E261C												
E262												
E266												
E262C												
E266C												
STD	See drawings											
E 234 1 contact	1	17.5	43.4	58	58	70						
E 234 2 contacts						80						
TS 25 C	4	70	44	58	58	85						
TS 40 C		70										
TS 63 C		87.5										
TM10	2	35	44	58	58	85						
TM15												
TS8...16												
TM30							3	52.5	44	58	58	85
TM40												
TS24												
SM	1	17.5	44	58	58	85						
RM												
TSM	2	35	44	58	58	85						
TSR												
CP-D 15/0.83	1	18	44	58	58	91						
CP-D 24/0.42												
CP-D 24/2.5							4	71	44	58	58	91
CP-D 15/2.1												
CP-D 24/1.3							3	53	44	58	58	91
CP-D 24/4.2												
CP-D 24/4.2	5	89.9	44	58	58	91						
TM_	See drawings											
M117_	2.5	44	44	60	60	85						
M2071												
M1011	3	53	44	60	60	85						
M1363												
MA1-8001	See drawings											

Quick product references

Overall dimensions

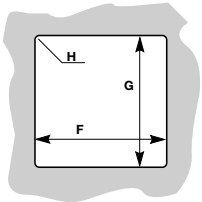
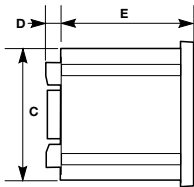
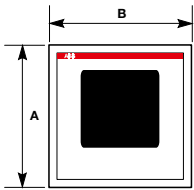
	 Width		 Depth		 Max. dimensions	
	modules	mm	DIN-rail to door	DIN-rail to front	max depth	max height
Modular products						
Control and automation						
AT1	1	17.8	44	60	60	88.5
AT1-R						
AT2	2	35				
AT2-R						
AT2-7R						
AT3	3	54				
AT-R						
AT-7R						
ATP	See drawings					
D	2	35	43.8	60	60	90
D 365	3	52.5				
D 365 LAN						
D 365 CE	2	35				
D 365 DCF77	See drawings					
D 365 GPS	See drawings					
E 232-230	1	17.5	44	59	59	88
E 232 E					58	90
TWA-1	2	35.8	43.8	60	60	85
TWA-2						
T1, T1 PLUS	1	17.5	-	-	65	86
THS_	2	35	44	60	60	90
ATT GSM	4	71	-	58	58	85
CL	See drawings					
E 450	1	17.5	-	60	60	85
RAL	2	35	44	58	58	85
LSS1/2	5	87.5	-	58	58	85
E 235	1	17.5	-	58	58	85
LEE	See drawings					

Modular products	 Width		 Depth		 Max. dimensions	
	modules	mm	DIN-rail to door	DIN-rail to front	max depth	max height

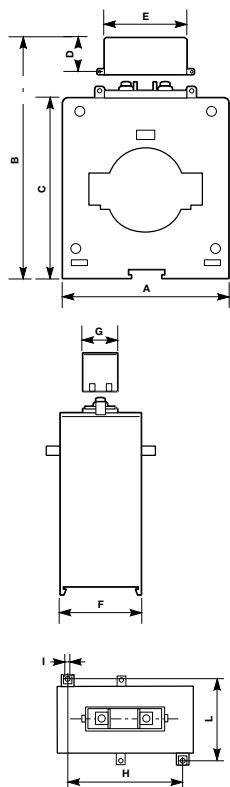
Energy efficiency						
Modular analogue measurement instruments	3	52.5	44	58	58	85
Modular digital measurement instruments	3	52.2	44	58	58	85
MCV, MCA	See drawings					
QCV, QCA	See drawings					
DMTME	6	105	44	58	58	90
CUS	6	105	44	58	58	90
CUS 485	3	52.5				
TRF M	3	52.5	44	58	58	85.5
TV2	See drawings					
Shunts	See drawings					
E 233	1	17.5	44	58	58	85
HMT	2	35	44	58	58	85
A41	4	70	44	65	65	97
A42						
A43	7	123				
A44						
B21	2	35				
B23	4	70				
B24						
C11	1	17.5				111
C13	3	54				122

Quick product references

Overall dimensions



Product without modular profile	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H
Front panel devices								
SL - 48	48	48	44	7	48	45	45	R3
SL - 72	144	72	-	9	55	67	137	R3
Analogue measurement instruments - 48	48	48	43	6	53	45±0.1	45±0.1	R3
Analogue measurement instruments - 72	72	72	67	6	53	68±0.7	68±0.7	R3
Analogue measurement instruments - 96	96	96	90	6	53	92±0.8	92±0.8	R3
Digital measurement instruments	36	72	32	6	51.5	68±0.8	33±0.8	R3
M2M	96	96	90	16	61	92	92	R3
ANR 96	96	96	90	14	115	92	92	R3
TMD	96	96	90	14	115	92	92	R3
DMTME - 96	96	96	90	13	90	92	92	R3
DMTME - 72	72	72	-	10	90	68	68	R3



Product without modular profile

A	B	C	D	E	F	G	H	I	L
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]

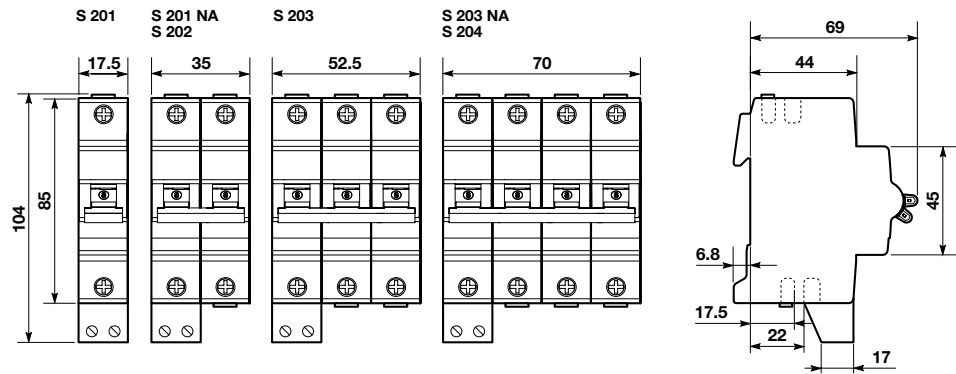
Measurement current transformers

CT MAX	see drawings									
CT PRO XT	see drawings									
CTA	see drawings									
CT6	105	121	100	18.5	75	61	21	82	3.7	76.7
CT8	125	142	120	18.5	50	61.5	21	82	3.7	76.7
CT8-V	109	141	119	18.5	50	41	21	-	-	-
CT12 up to 4000 A	180	196	175	18.5	50	68.5	21	156.8	3.7	84
CT12 5000 A, CT12 6000 A	272	290	265	25	50	-	-	-	-	50
CT12-V	109	186	165	18.5	50	41	21	-	-	-
CTO	see drawings									

Quick product references

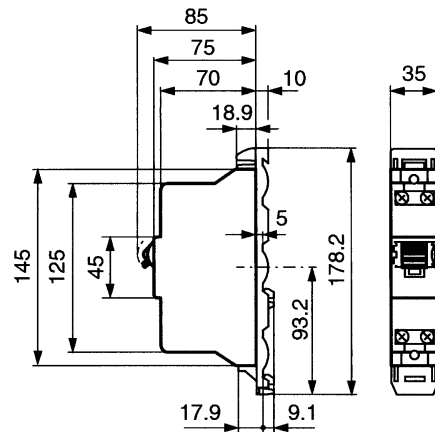
Overall dimensions

S 200 with bottom-fitting auxiliary contact

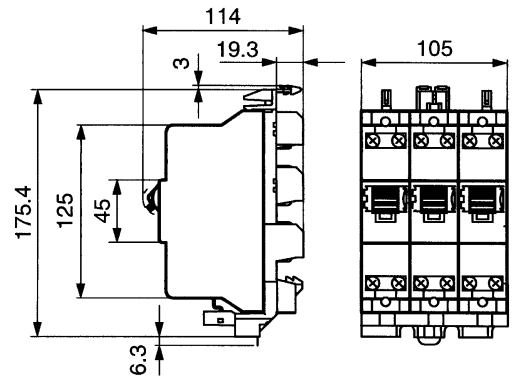


S 700

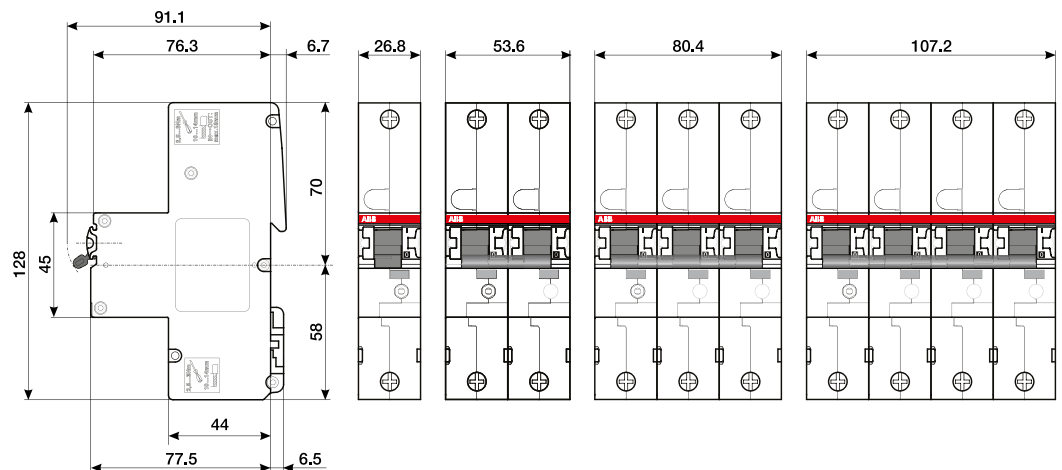
S 701 with DIN rail adapter



3 x S 701 with busbar adapter

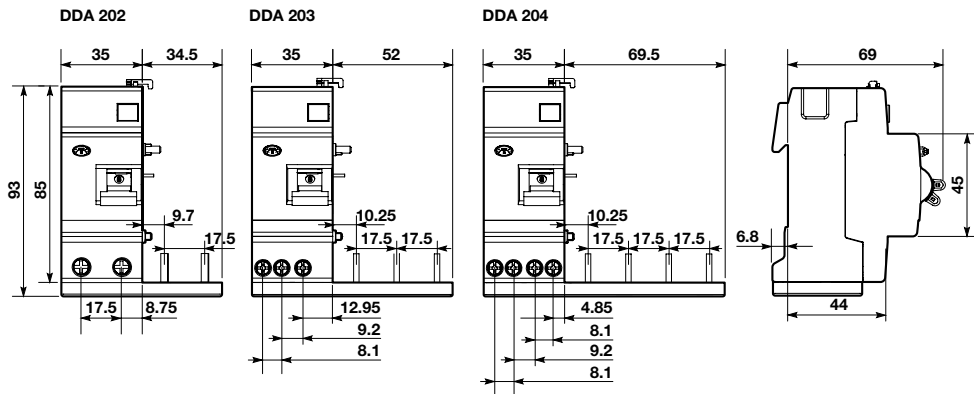


S 750 DR

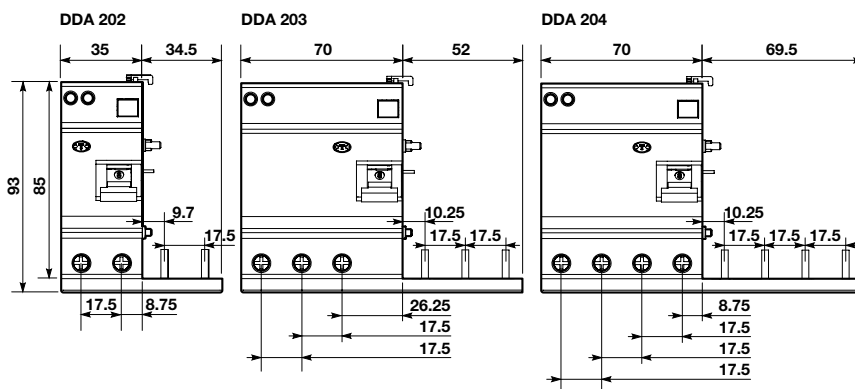


DDA 200

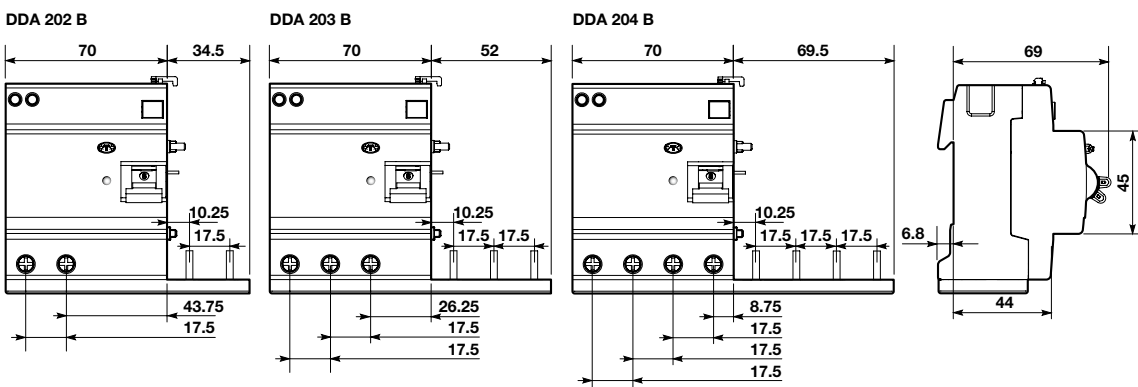
In=25-40 A



In=63 A



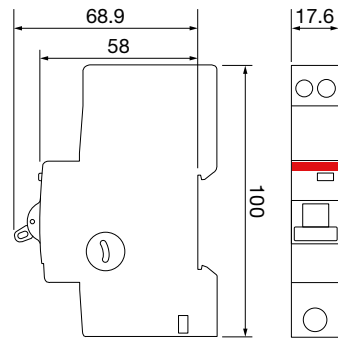
DDA 200 B



Quick product references

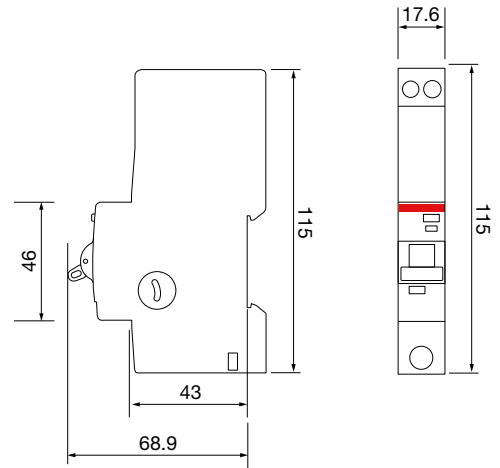
Overall dimensions

DSE201

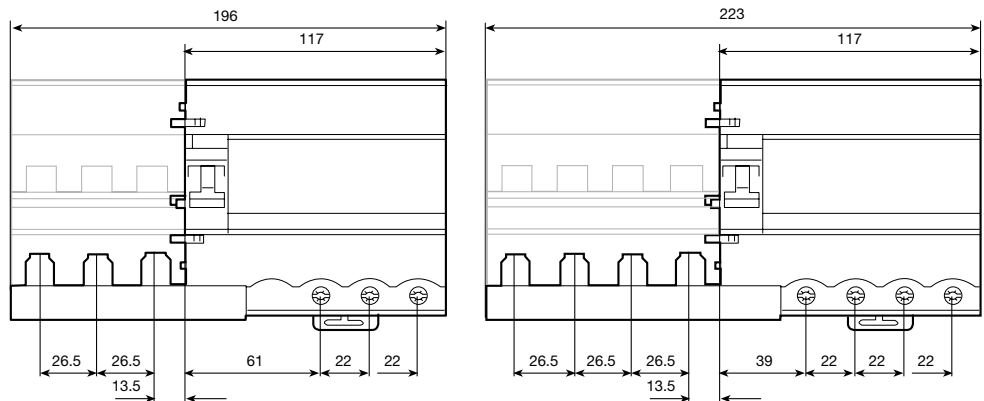
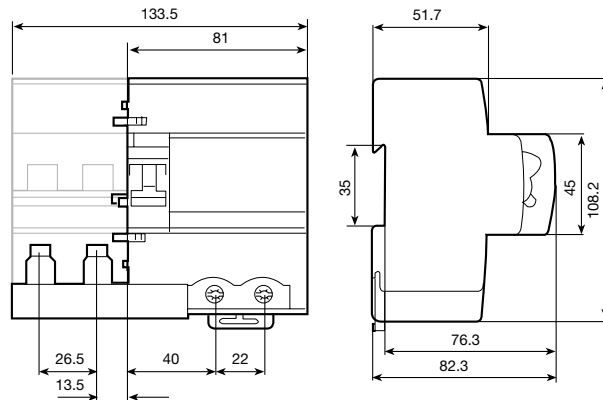


Dimensions in mm

DSE201 M

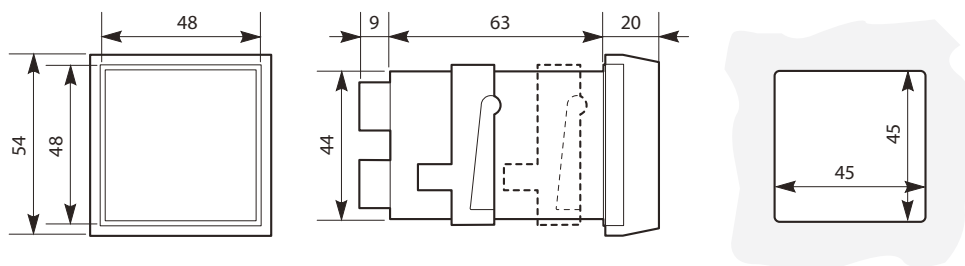


DDA 800 for S800 and DS800 series

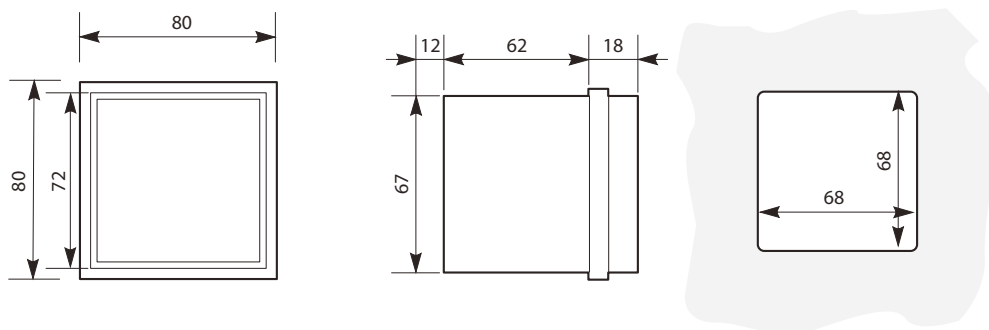


ELR front panel residual current relays

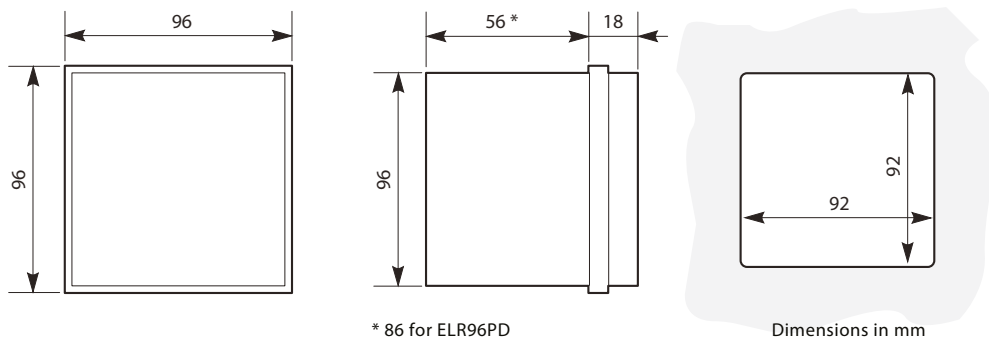
ELR48P



ELR72



ELR96

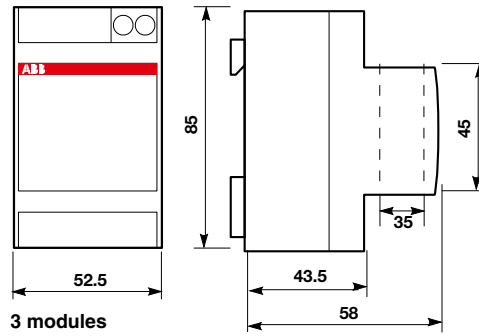


Quick product references

Overall dimensions

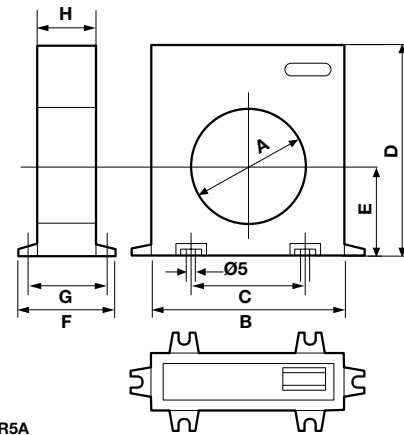
Toroidal transformers

TRM

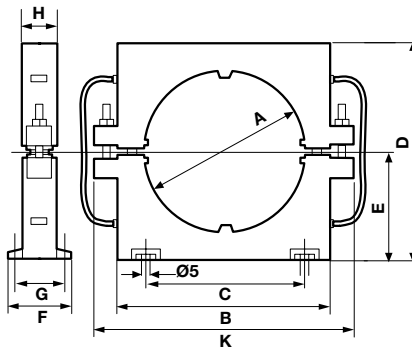


3 modules

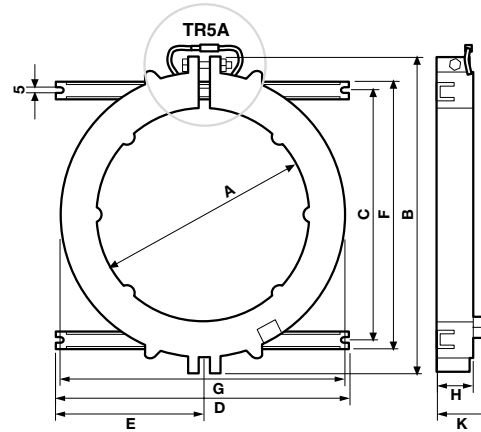
TR1, TR2, TR3, TR4, TR160, TR160A



TR4A

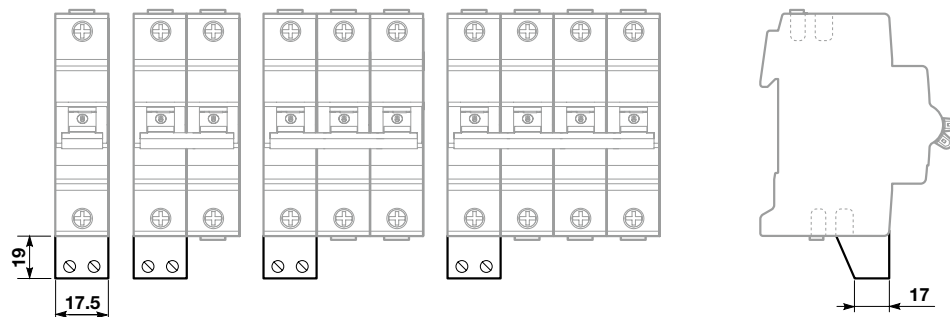


TR5, TR5A

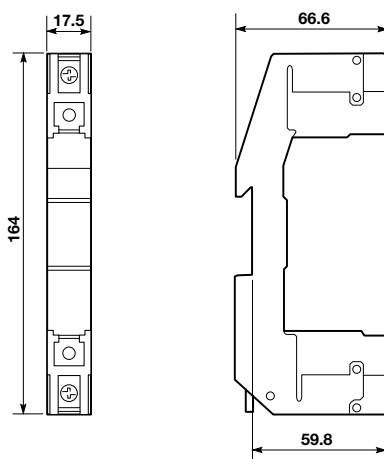


Type	Dimensions (mm)								
	A	B	C	D	E	F	G	H	K
TR1	35	100	60	110	47	50	43	30	-
TR2	60	100	60	110	47	50	43	30	-
TR3	80	150	110	160	70	50	43	30	-
TR4	110	150	110	160	70	50	43	30	-
TR4A	110	145	110	150	75	45	38	25	180
TR160	160	220	156	236	110	64	50	34	-
TR160A	160	220	156	236	110	64	50	34	-
TR5	210	310	240	290	145	260	280	36	55
TR5A	210	310	240	290	145	260	280	36	55

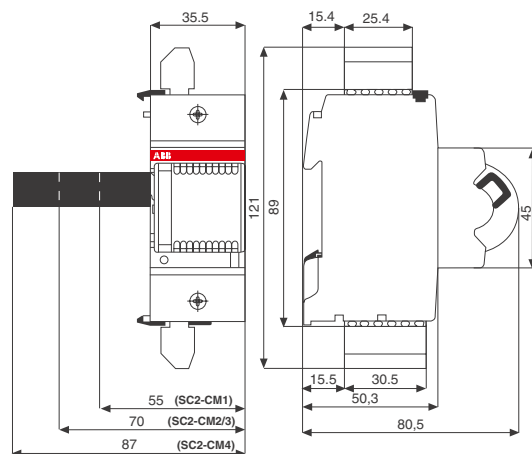
Bottom-fitting auxiliary contact (with S 200 MCB)



S 2C-EST



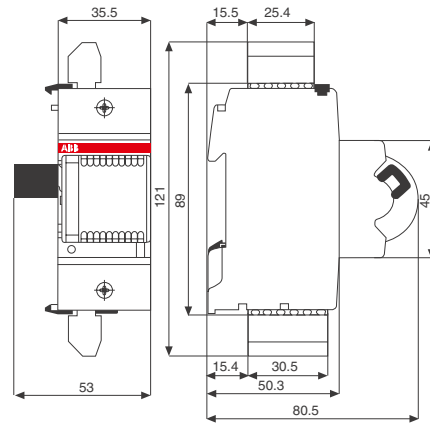
S 2C-CM



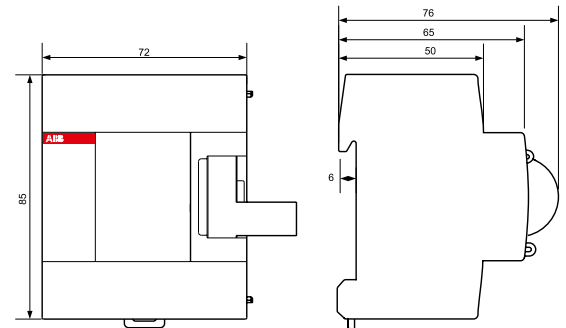
Quick product references

Overall dimensions

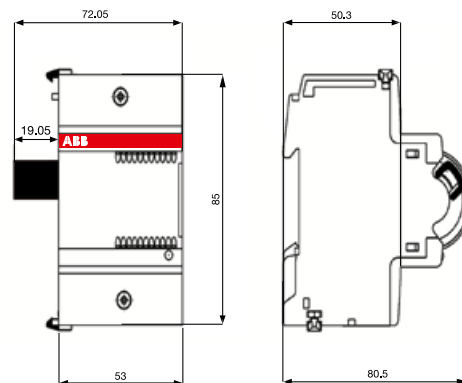
F2C-ARI, F2C-CM



F2 CM4

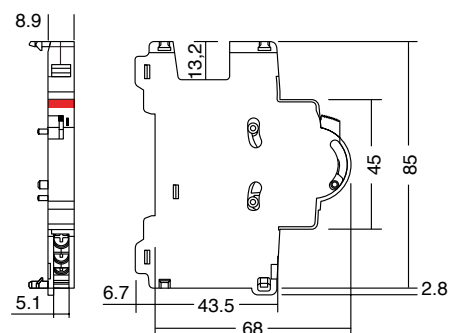


F2C-ARH, F2C-ARH-T

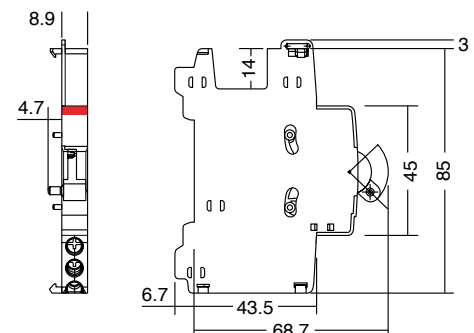


Auxiliary elements for SN 201 series

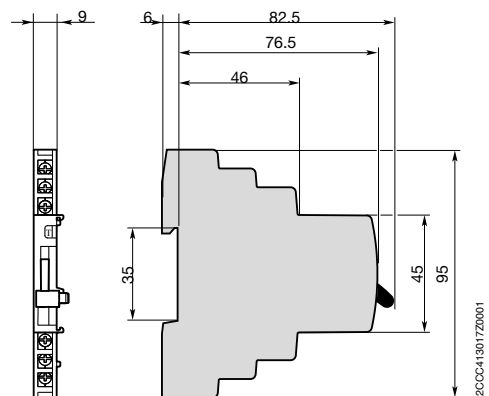
SN201-S



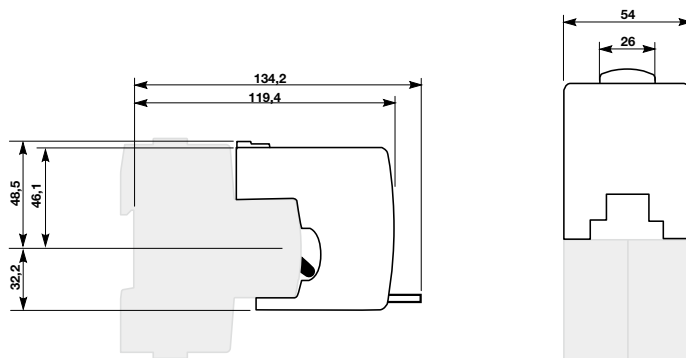
SN201-IH



S800-AUX, S800-AUX/ALT



S800-RSU-H, S500-RSU-H

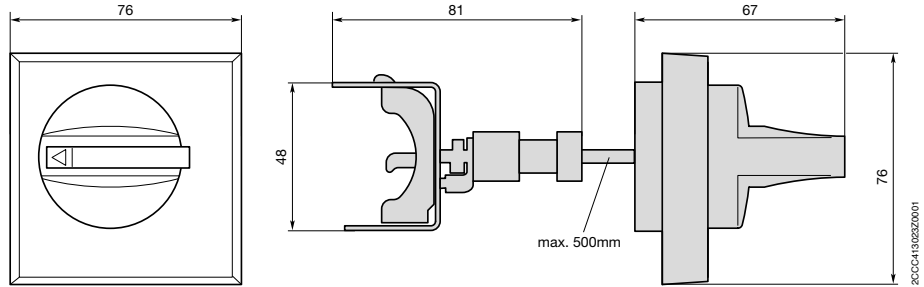


Quick product references

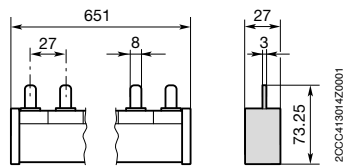
Overall dimensions

S800-RD+S800-RHE, S800-NT, S800-BB250, S800-BBPC120

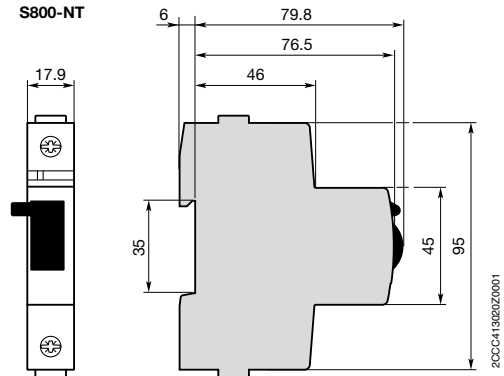
S800-RD+S800-RHE



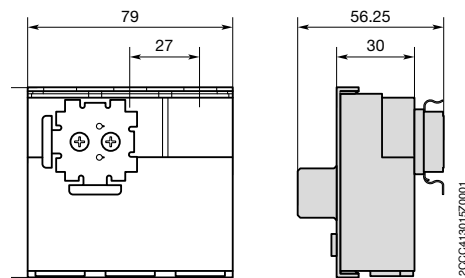
S800-BB250



S800-NT

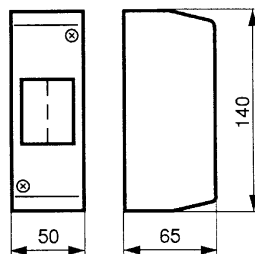


S800-BBPC120

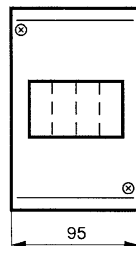


Terminal covers

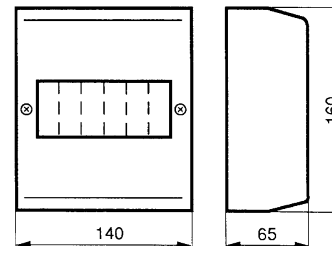
PCD 2 N



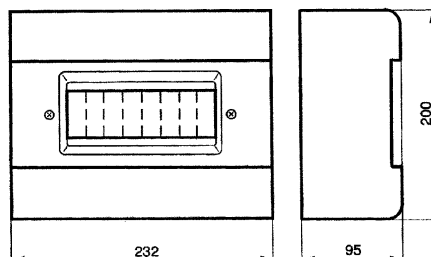
PCD 4 N



PCD 6 N



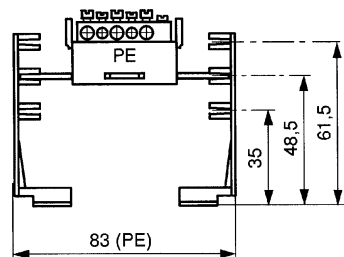
PCD 8 N



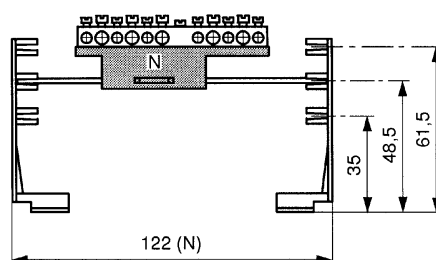
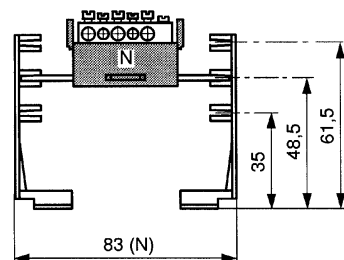
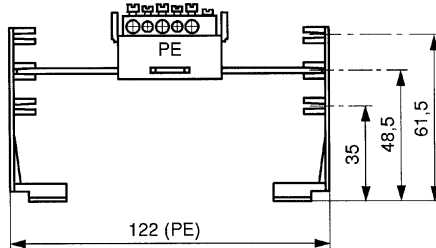
Enclosures of moulded-plastic

N + PE common terminals for QES

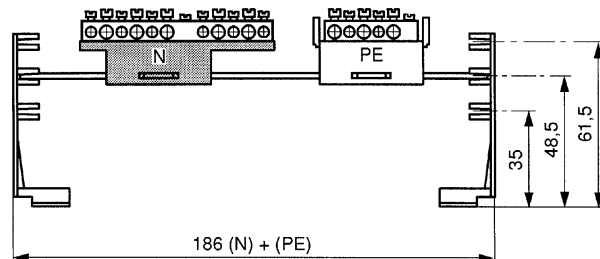
SMO 4



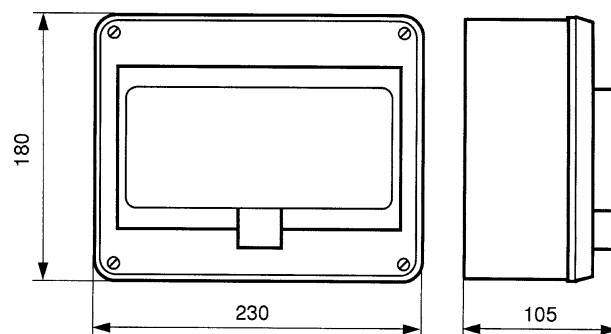
SMO 6



SMO 10



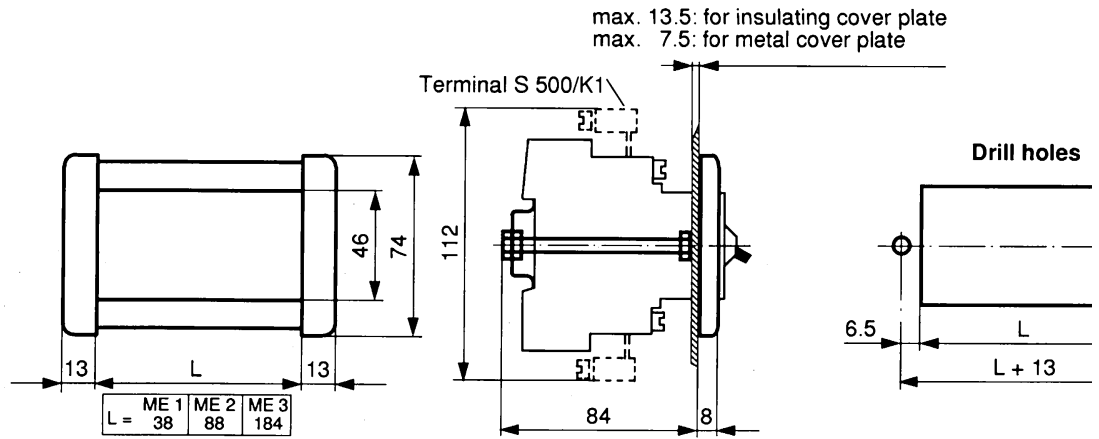
QES 10/3 N



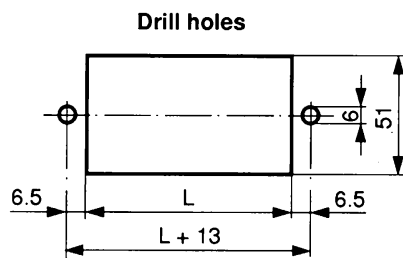
Quick product references

Overall dimensions

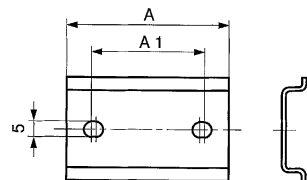
Flush frame



Type	Dim. L	Max. No. of modules (1 module=17.5 mm)
S 500 - ME 1	38 mm	for 2 module
S 500 - ME 2	88 mm	for 5 module
S 500 - ME 3	184 mm	for 10 module



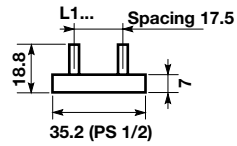
① In the case of DSW 1, the drill holes are vertical



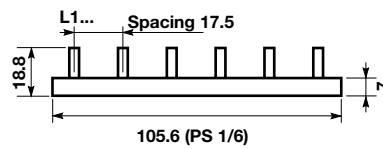
Name	A	A1
DSW	17.5	15
DSW 2	35	20
DSW 3	52.5	37.5
DSW 4	70	55
DSW 6	105	90

Busbars

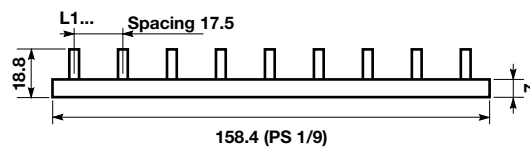
PS 1/2



PS 1/6



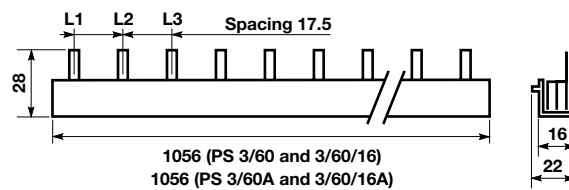
PS 1/9



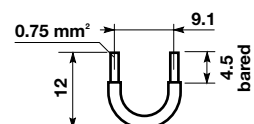
PS 1/12



PS 3/60



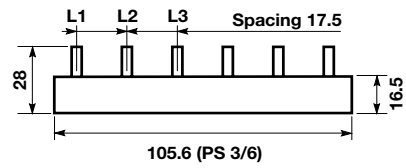
Auxiliary contact bridge HKB



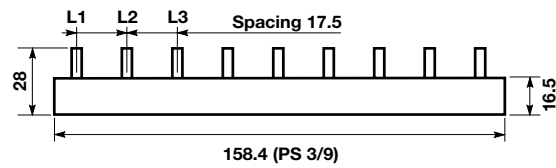
Quick product references

Overall dimensions

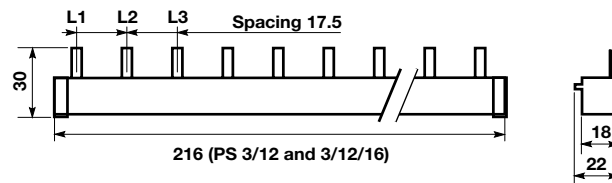
PS 3/6



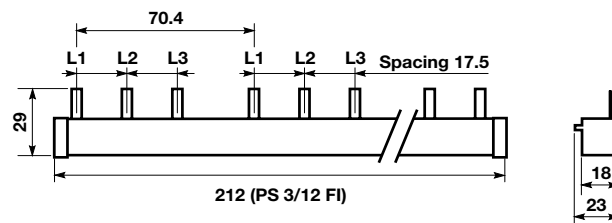
PS 3/9



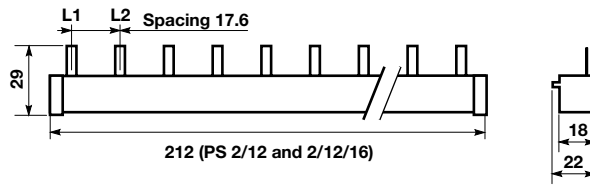
PS 3/12 (2CDL 230 001 R1012)



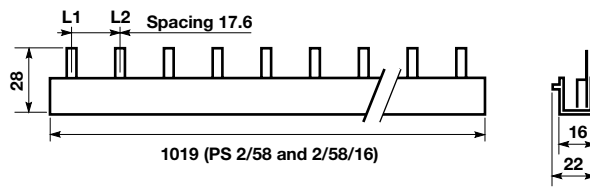
PS 3/12 FI (2CDL 230 002 R1012)



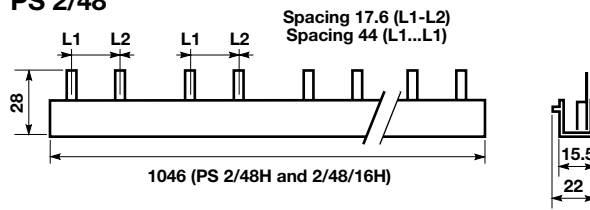
PS 2/12



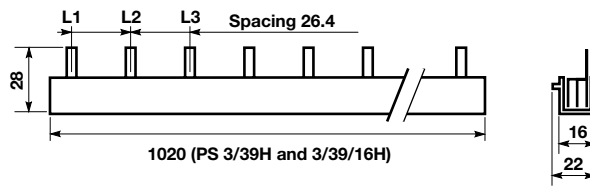
PS 2/58



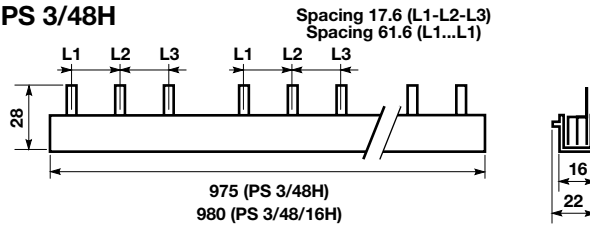
PS 2/48



PS 3/39H



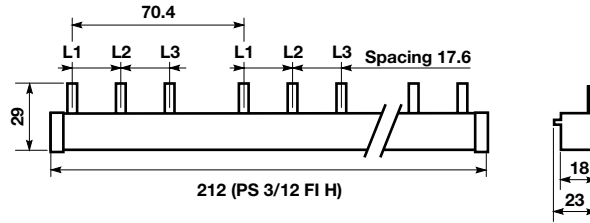
PS 3/48H



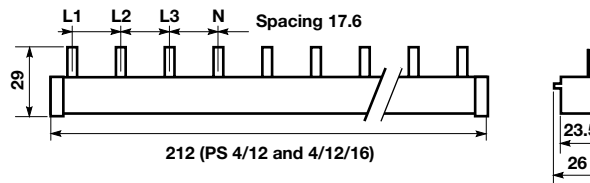
Quick product references

Overall dimensions

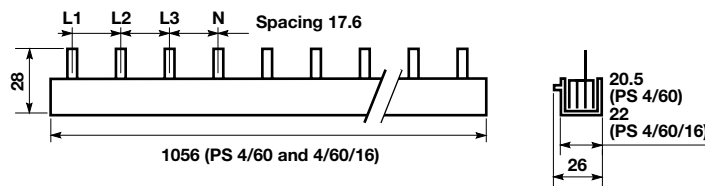
PS 3/12 FI H



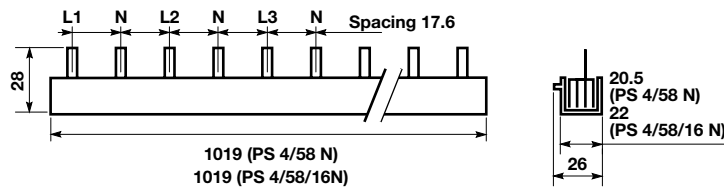
PS 4/12



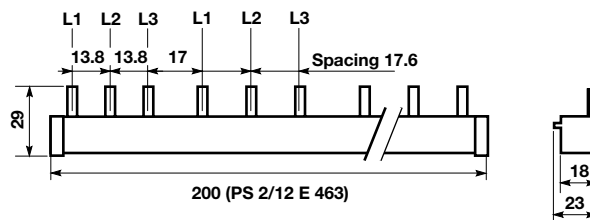
PS 4/60



PS 4/58 N



PS 3/12 E 463

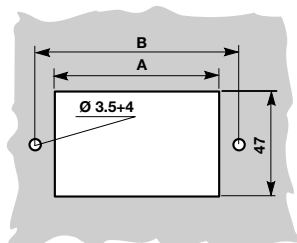


ME flange for rear board mounting

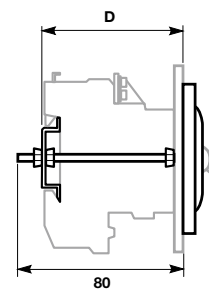
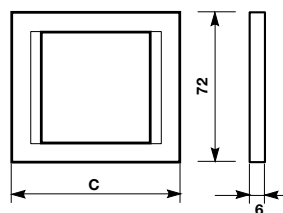
DEPHT D

57 mm for S 240-S 250-
S 270-S 280 circuit-breakers

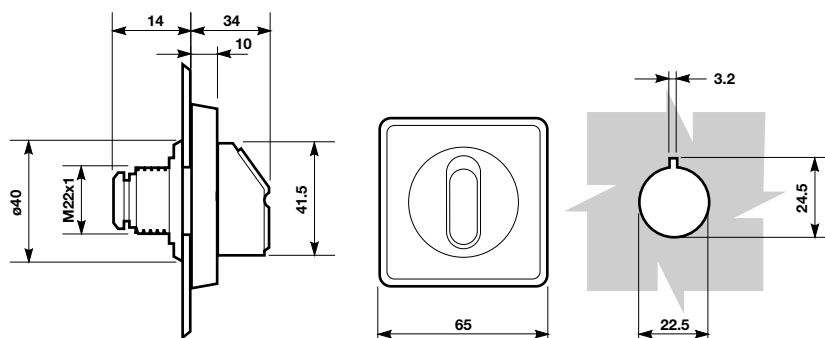
72 mm for S 210 circuit-breakers



TYPE	A	B	C
ME 1 - 1 module	18	40	50
ME 2 - 2 modules	36	57.5	67
ME 3 - 3 modules	54	75.5	85
ME 4 - 4 modules	72	93	103
ME 6 - 6 modules	108	129	139
ME 8 - 8 modules	144	164	172



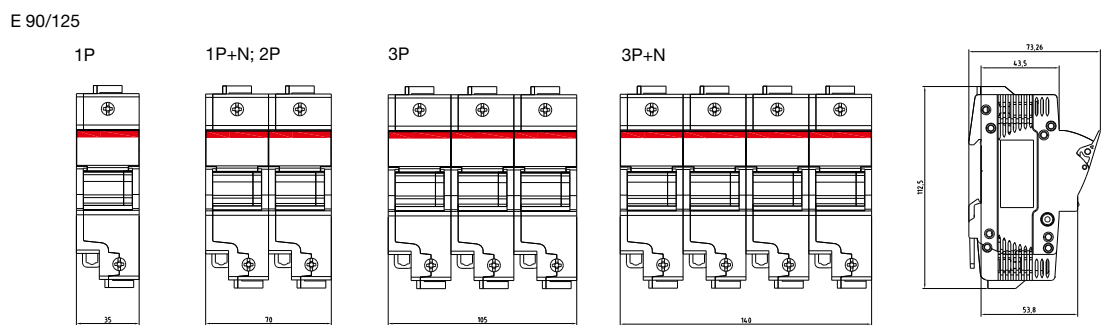
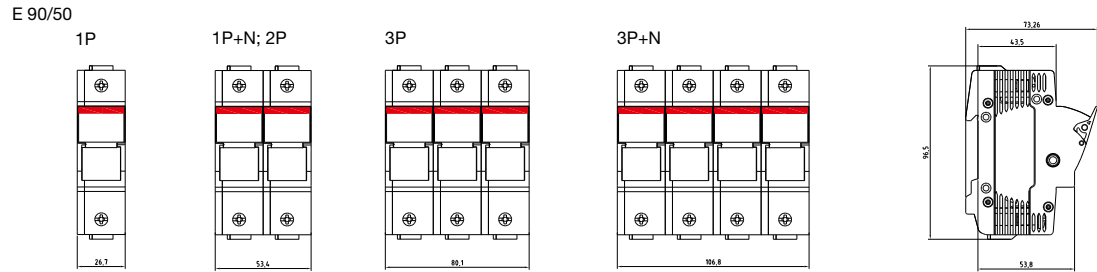
OH_2A_



Quick product references

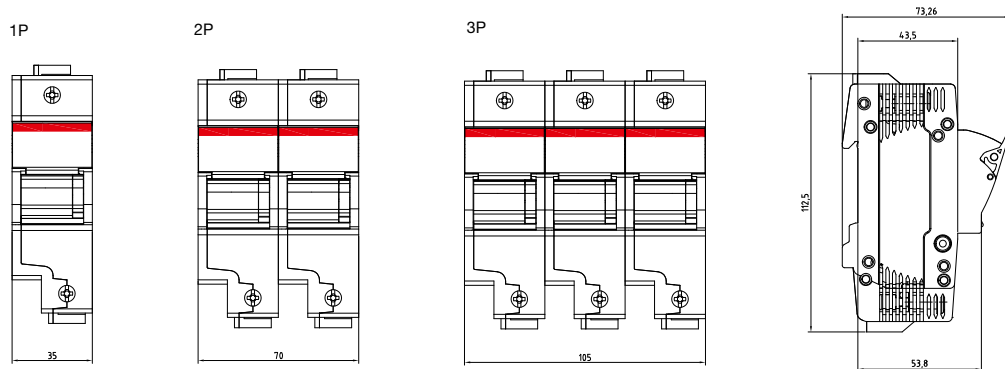
Overall dimensions

E90 50/125

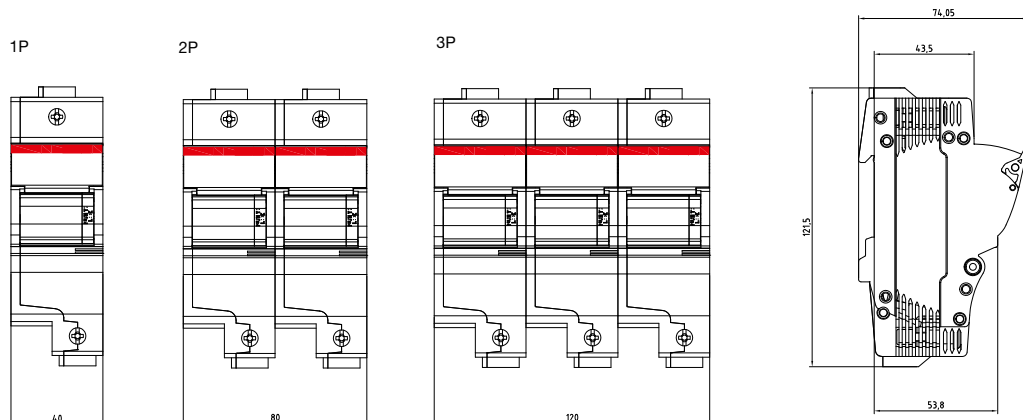


E90 30/60 J class

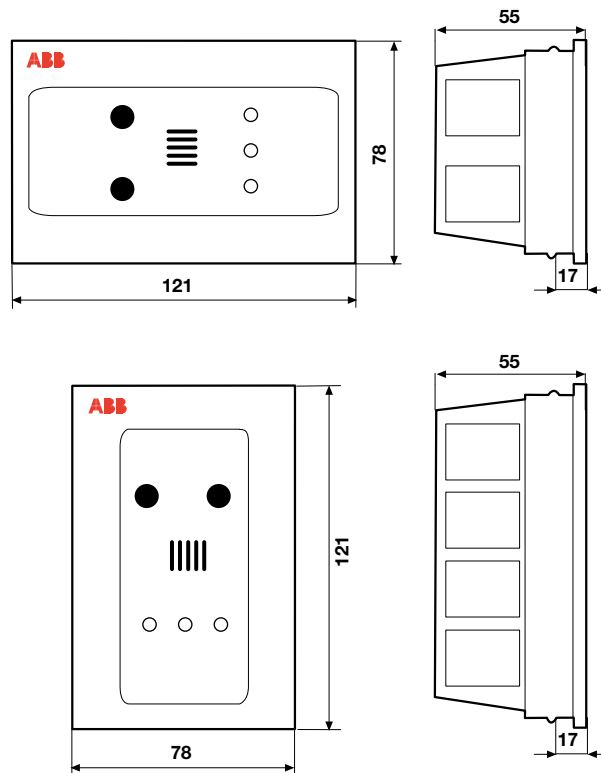
E 90/30 classJ



E 90/60 classJ



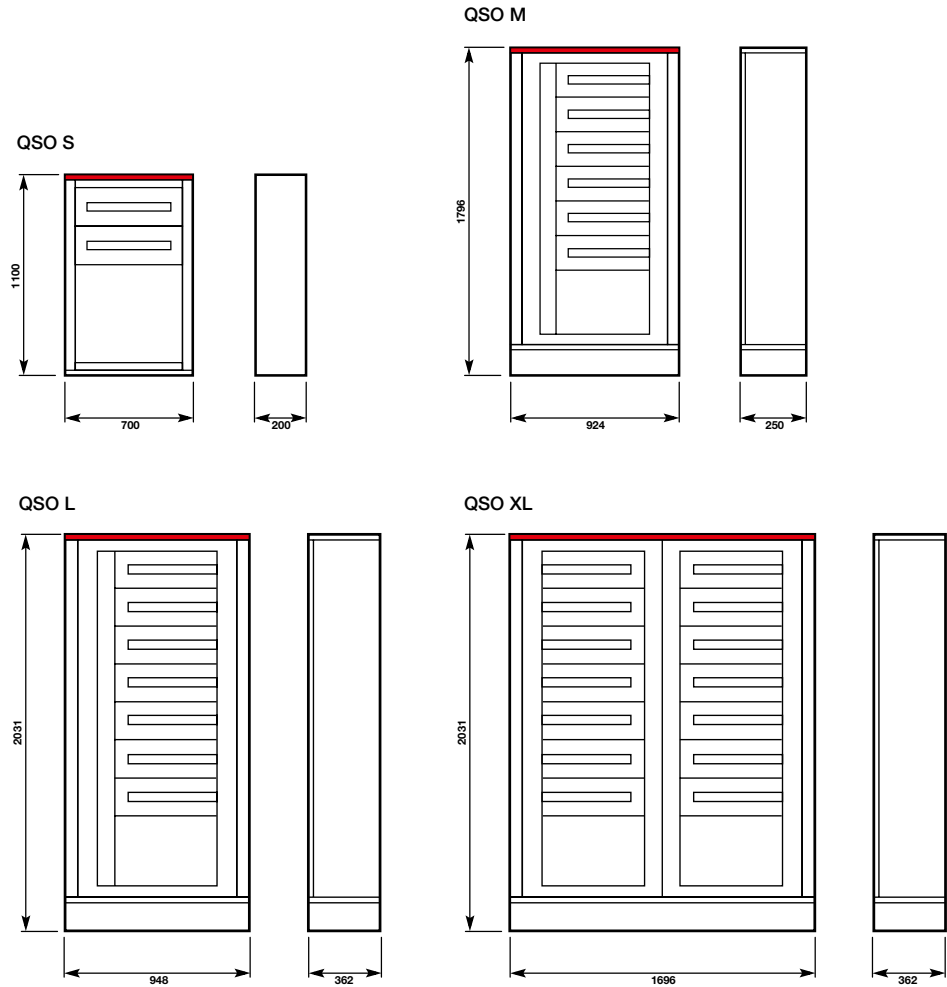
QSD remote signalling panels



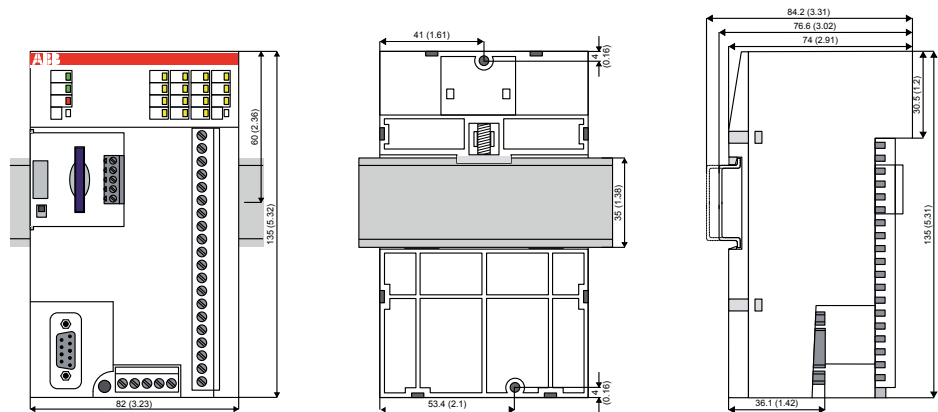
Quick product references

Overall dimensions

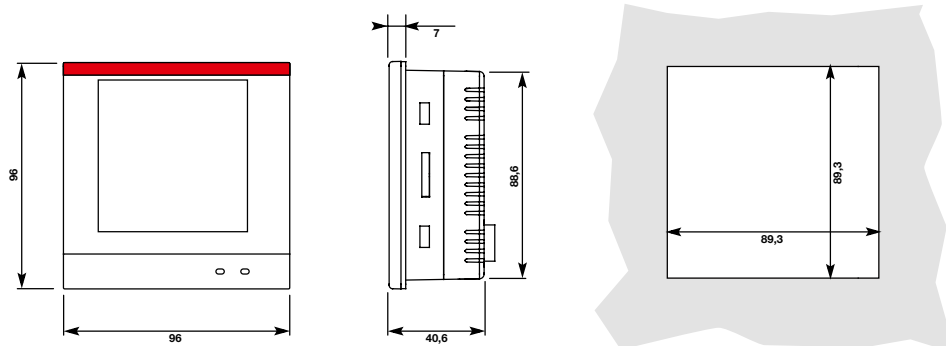
QSO electrical switchboard for medical locations



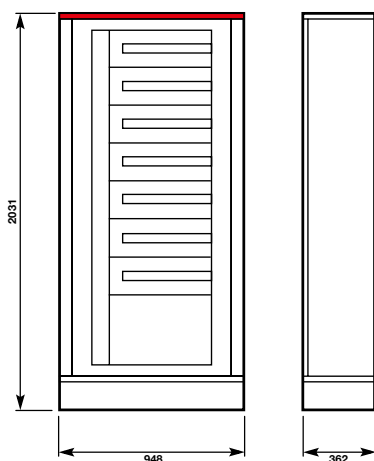
PM554



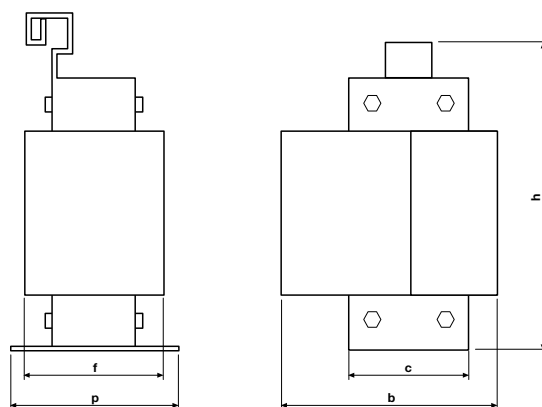
CP415



QIT



TI insulating transformers

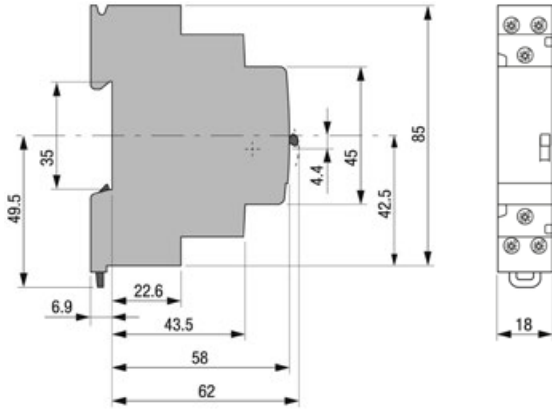


Dimensions	Rated output [KVA]			
	3	5	7,5	10
b [mm]	205	240	240	277
c [mm]	170	170	170	176
f [mm]	115	115	115	173
h [mm]	340	380	380	380
p [mm]	150	150	160	203
Weight [kg]	29,5	44	50,5	73

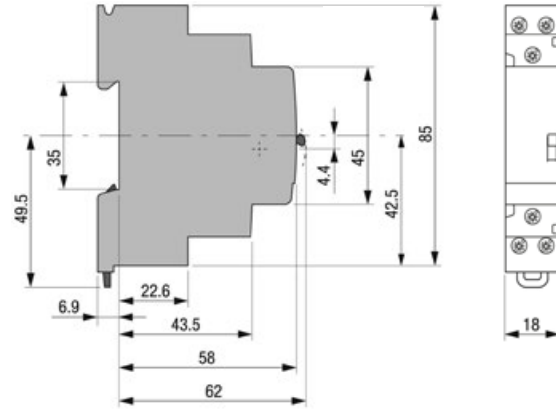
Quick product references

Overall dimensions

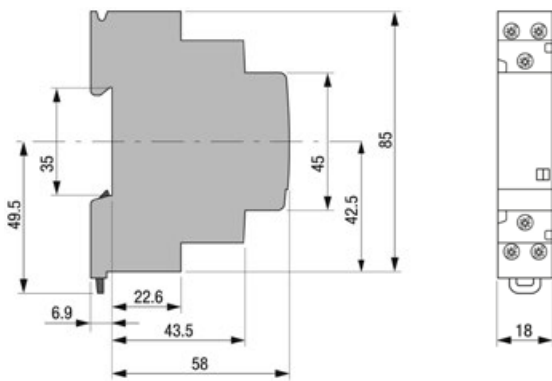
E290 Latching Relays



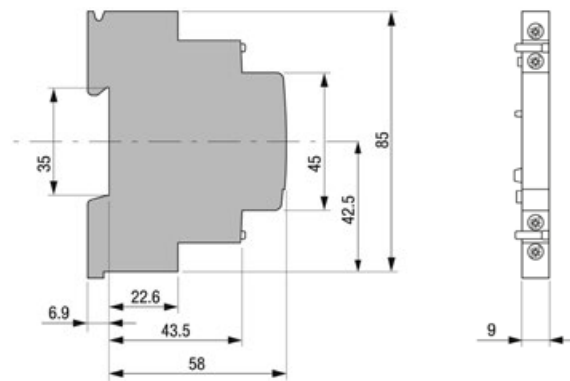
E297 Installation Relays



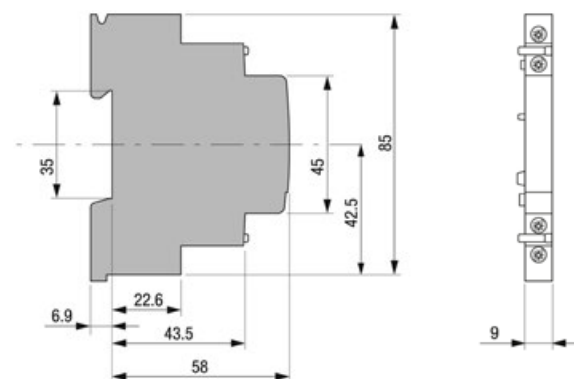
E291S Sequential Latching Relay



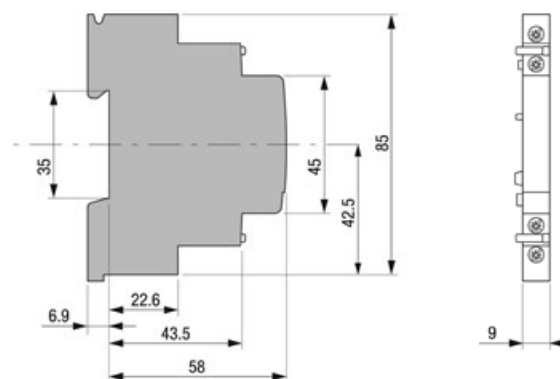
E298 Main Contact Module



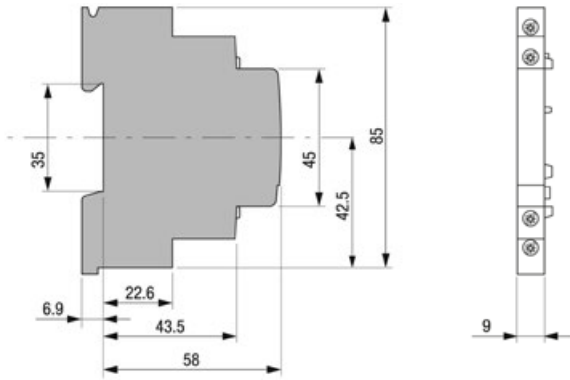
E292 Main Contact Module



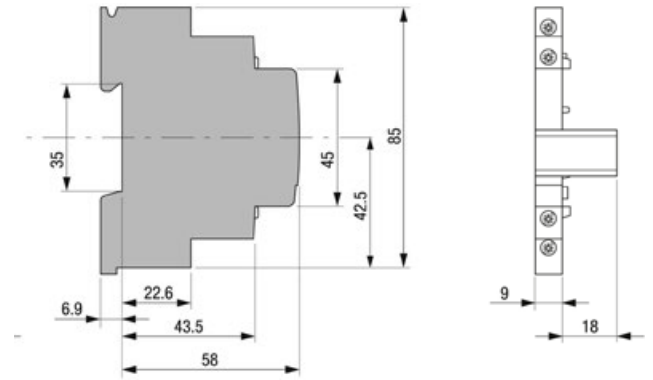
E299-11 Auxiliary Contact



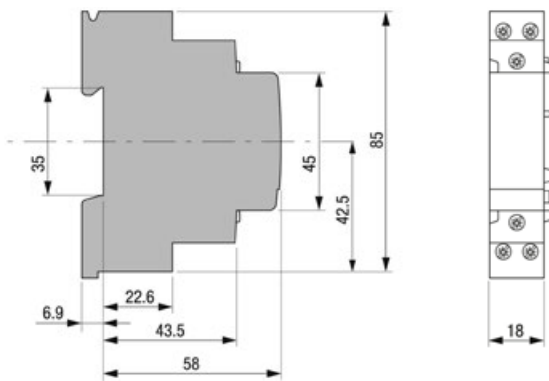
E293/X Central On-Off Control Module
(for same control voltage potential)



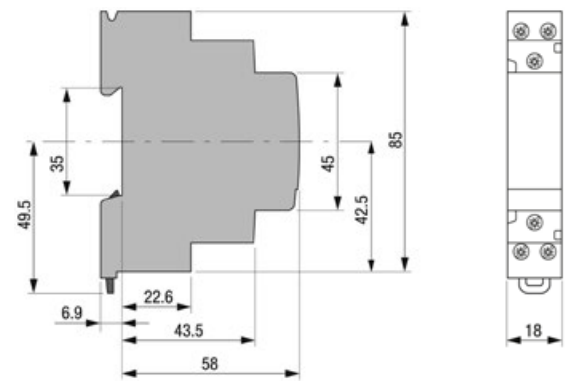
E295-PS Permanent Signal Module



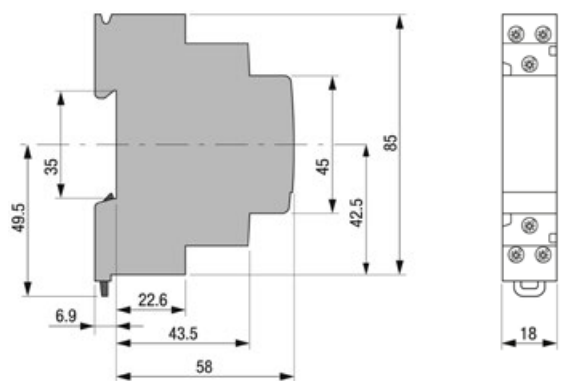
E294 Central On-Off Control Module
(for different control voltage potential)



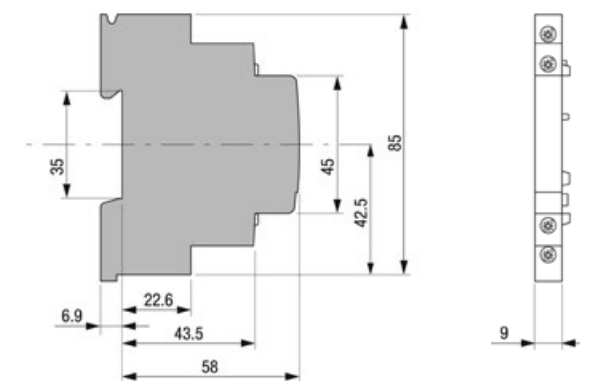
E296-CP Compensator



E295-GM Group Module



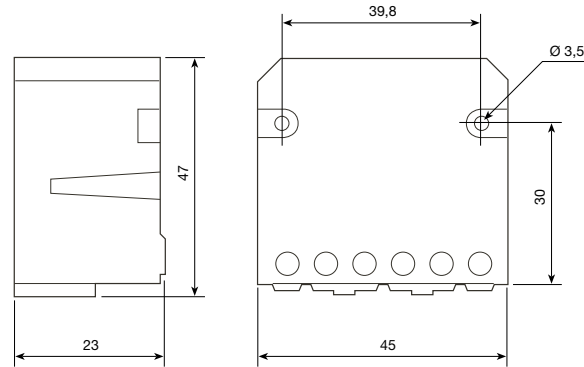
E299-11 Auxiliary Contact



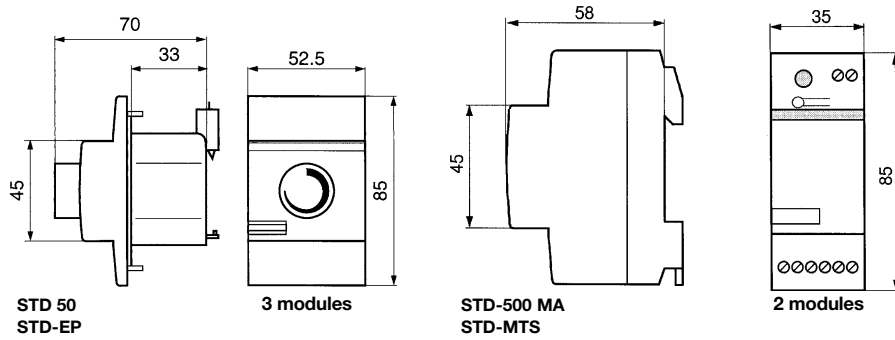
Quick product references

Overall dimensions

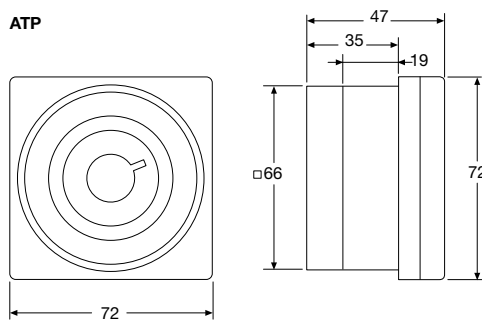
FLR pulse relays



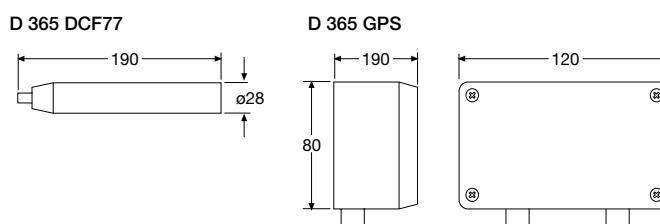
STD dimmers



AT electro-mechanical time switches



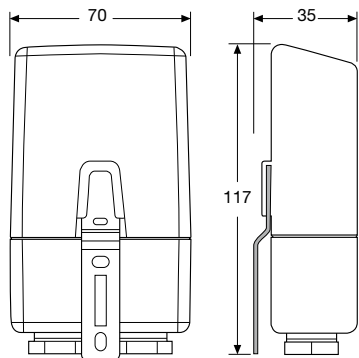
D Line digital time switches



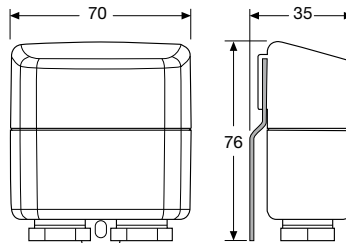
Quick product references

Overall dimensions

T1 POLE

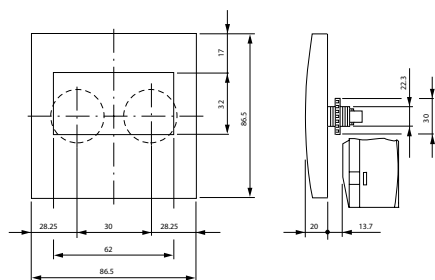


LS-D



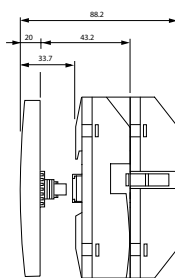
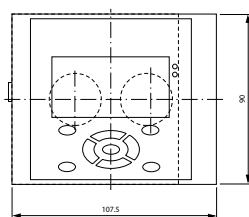
CL logic relays

CL-LDD



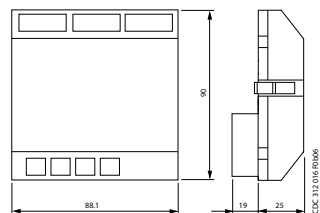
ZCHC 312 018 F0006

CL-LDD.K + CL-LDC.L.. + (CL-LDR or CL-LDT)



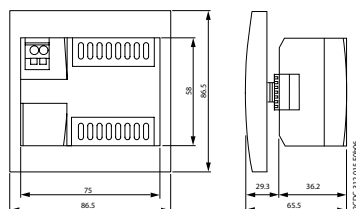
ZCHC 312 014 F0006

CL-LDR, CL-LDT



ZCHC 312 016 F0006

CL-LDC.S..

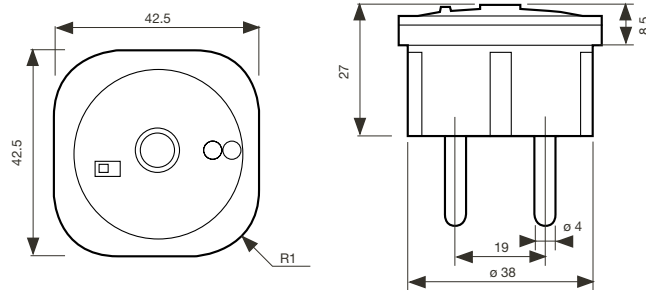


ZCHC 312 015 F0006

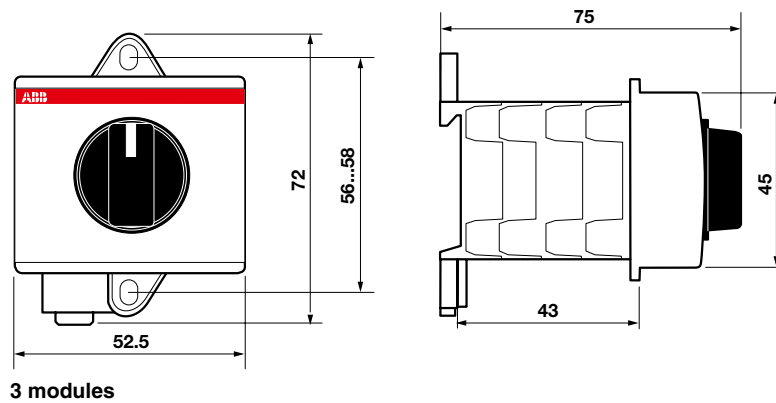
Quick product references

Overall dimensions

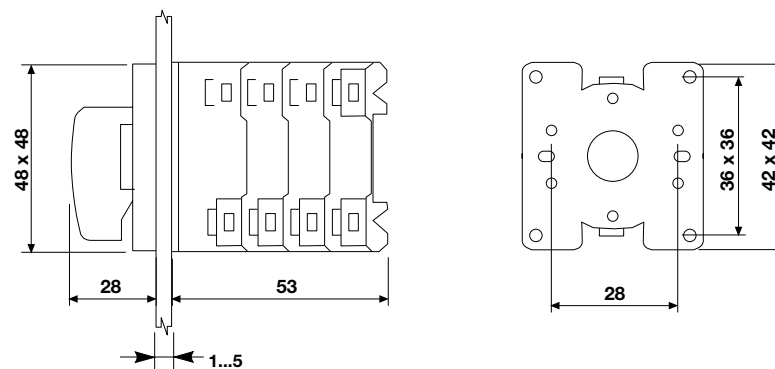
LEE 230 power failure signalling lamp



MCV - MCA voltmetric and ammetric switches

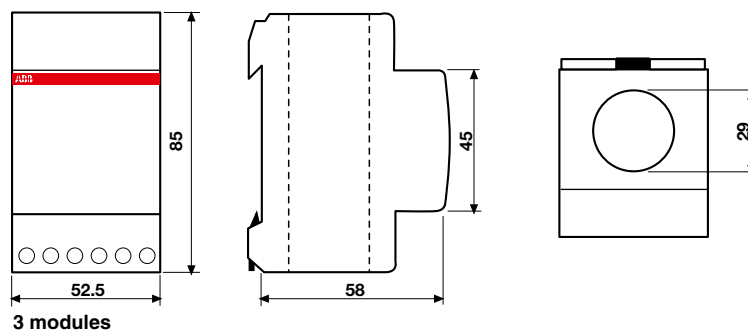


QCV - QCA front panel voltmetric and ammetric switches



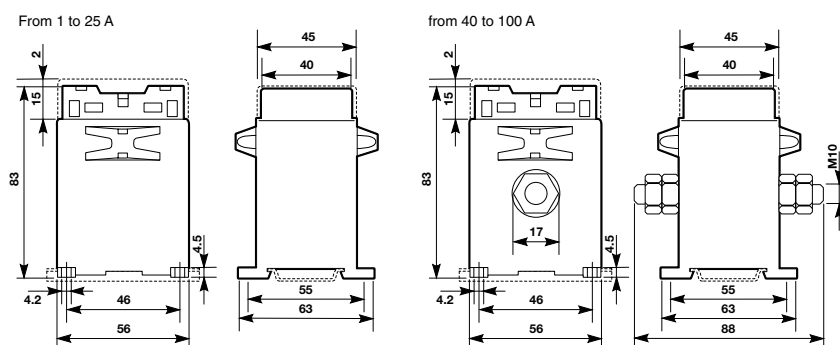
Modular current transformers with through primary

TRF M



Standard type current transformers.../5 A with wound primary

CTA

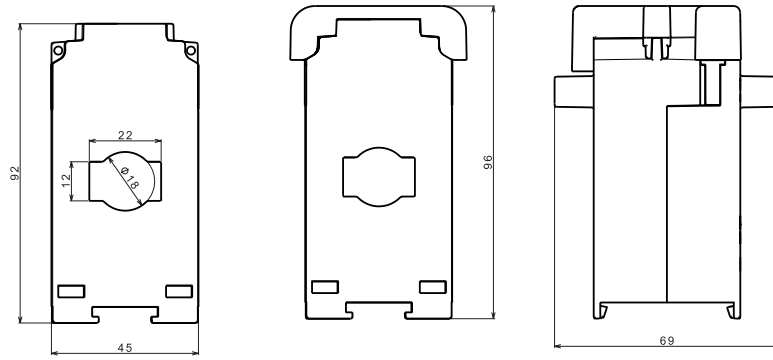


Quick product references

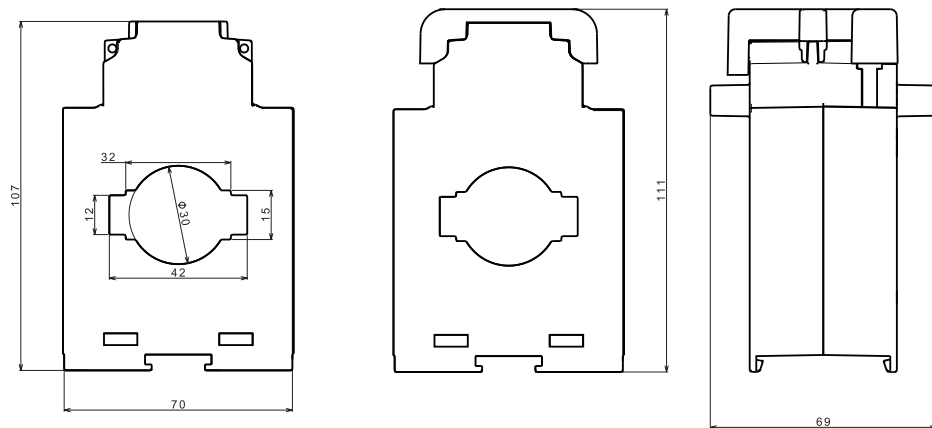
Overall dimensions

Standard type current transformers...5 A with through primary

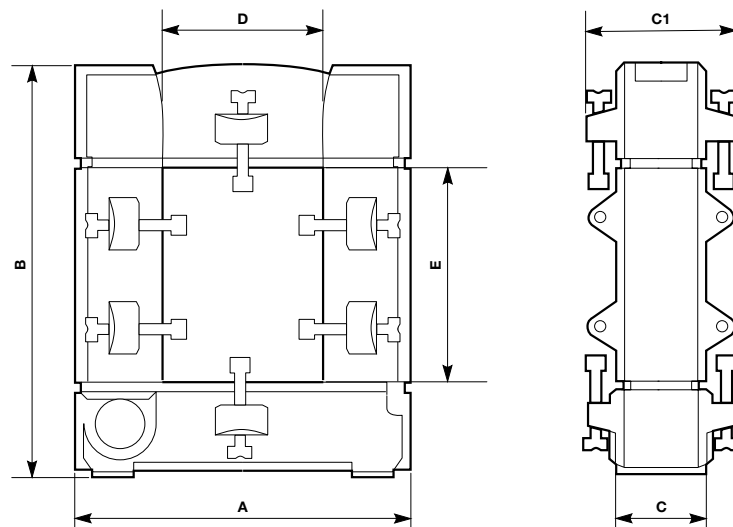
CT PRO XT



CT MAX

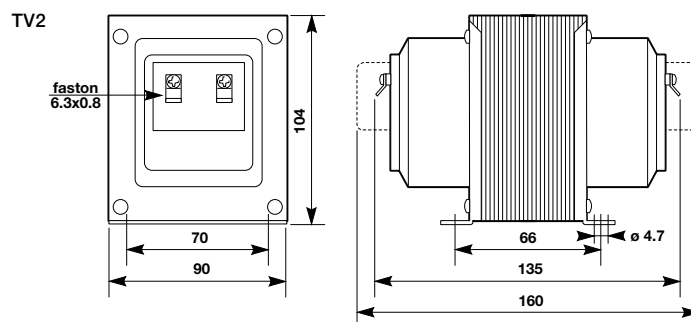


CTO



Tipo	A	B	C	C1	D	E
CT30...	93	106	34	58	20	30
CT80...	125	152	34	58	50	80
CT120...	155	198	34	58	80	120

Voltage transformers

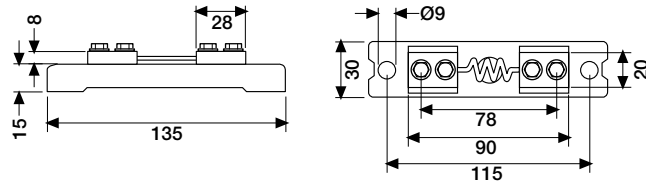


Quick product references

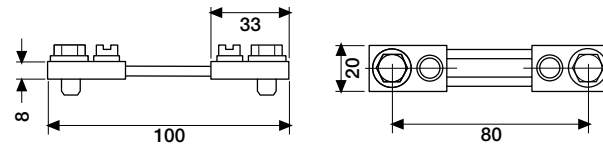
Overall dimensions

Shunts

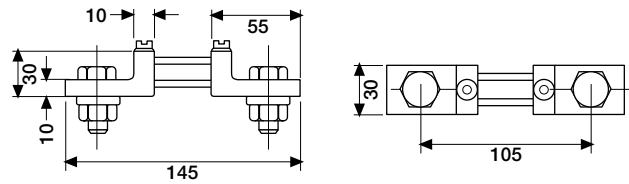
SNT1 ÷ 25 A/60 mV



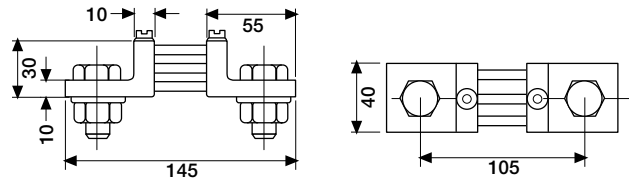
SNT30 ÷ 150 A/60 mV



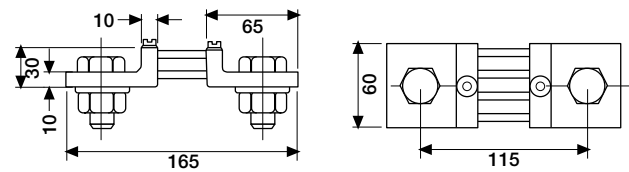
SNT200 ÷ 250 A/60 mV



SNT400 ÷ 600 A/60 mV

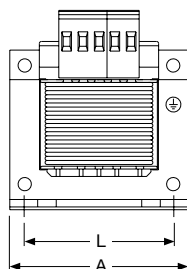
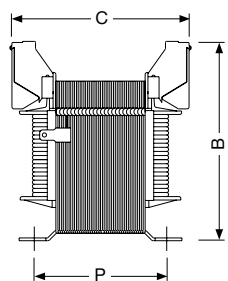


SNT800 ÷ 1000 A/60 mV

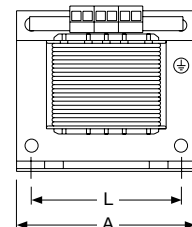
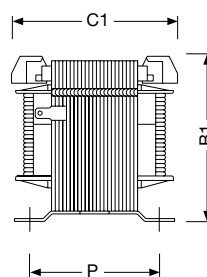


TM-C, TM-S, TM-I

from 50 up to 400 VA



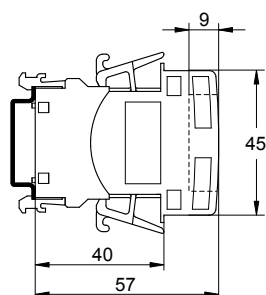
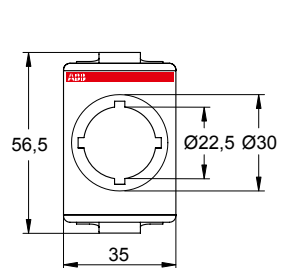
from 630 up to 2500 VA



TM-C, TM-S and TM-I Control, Safety and Insulating transformers

Power (VA)	Picture	Dimensions							Screw	Wheigh (Kg)
		A	B	B1	C	C1	P	L		
50	1	77	90	-	74	-	46	56	M4	1.1
100	1	86	96	-	87	-	63	64	M4	2
160	1	100	107	-	89	-	73	84	M5	3
200	1	100	107	-	89	-	73	84	M5	3.2
250	1	100	107	-	105	-	89	84	M5	3.6
320	1	123	122	-	102	-	73	90	M5	4.4
400	1	123	122	-	112	-	85	90	M5	5.5
630	2	154	-	150	-	126	90	122	M6	7.8
1000	2	155	-	150	-	168	133	122	M6	13.2
1600	2	196	-	195	-	200	125	155	M8	21.2
2000	2	196	-	195	-	220	143	155	M8	25.5
2500	2	196	-	195	-	230	153	155	M8	26.8

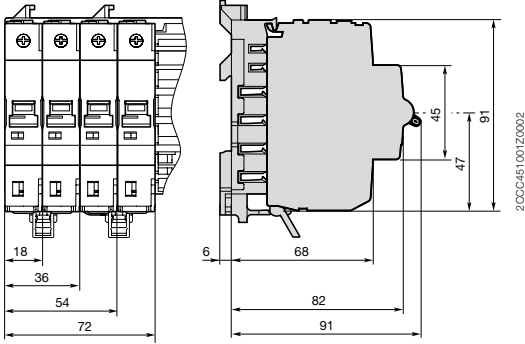
MA1-8001 DIN rail adapter



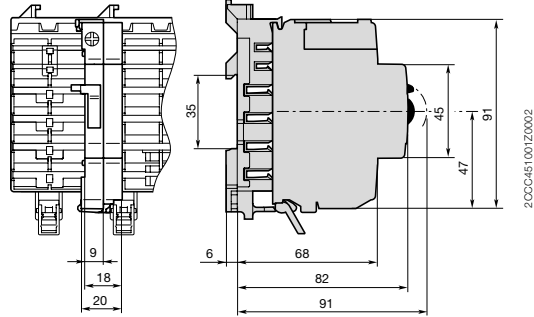
Quick product references

Overall dimensions

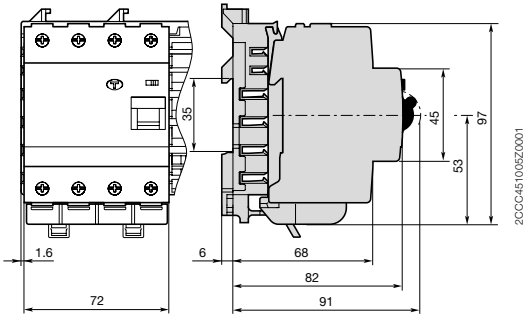
1-, 2-, 3- and 4-pole miniature circuit breakers S400



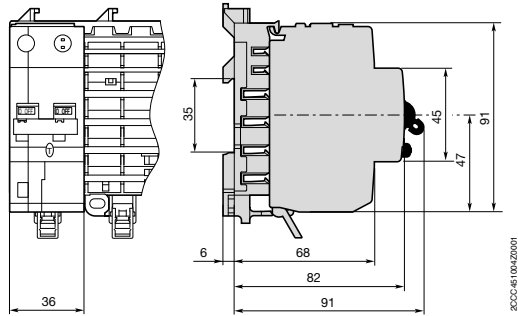
Neutral disconnector



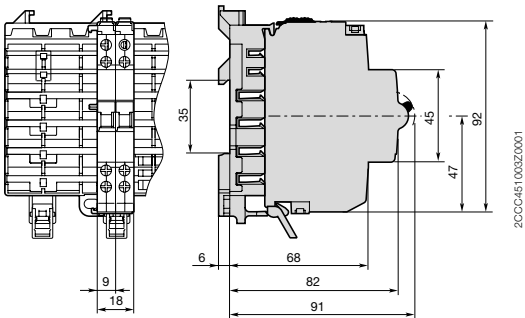
4-pole residual current operated circuit breaker, switch disconnector and surge arrester



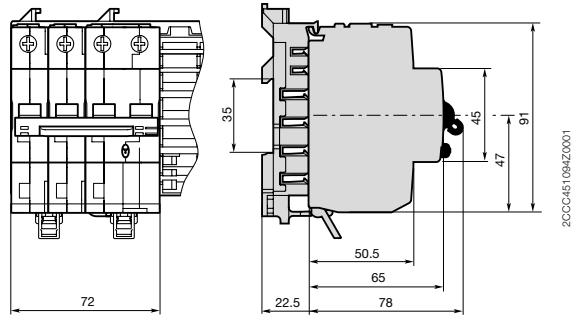
2-pole residual current operated circuit breaker



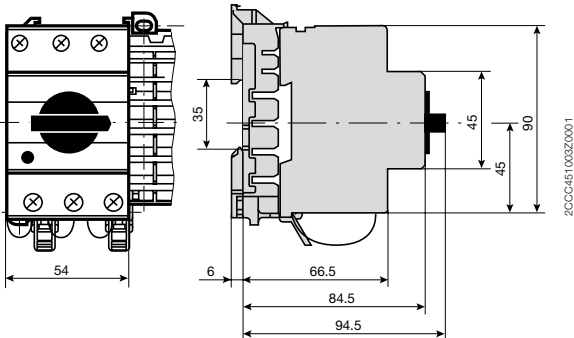
Auxiliary switch and signal contact



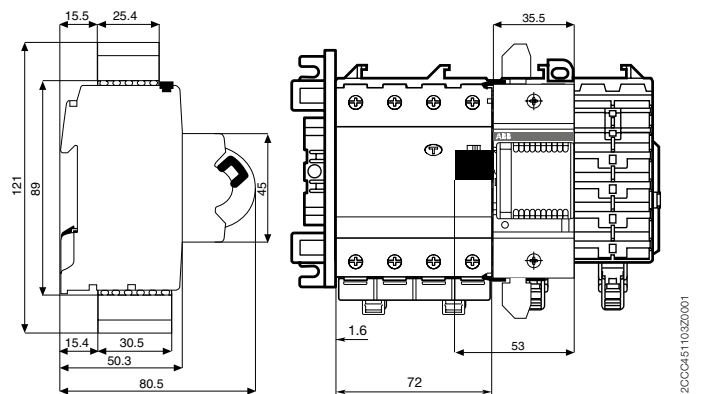
4-pole residual current operated circuit breaker



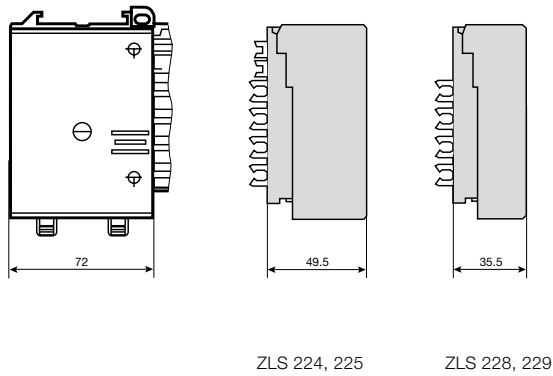
High performance manual motor starter MS325



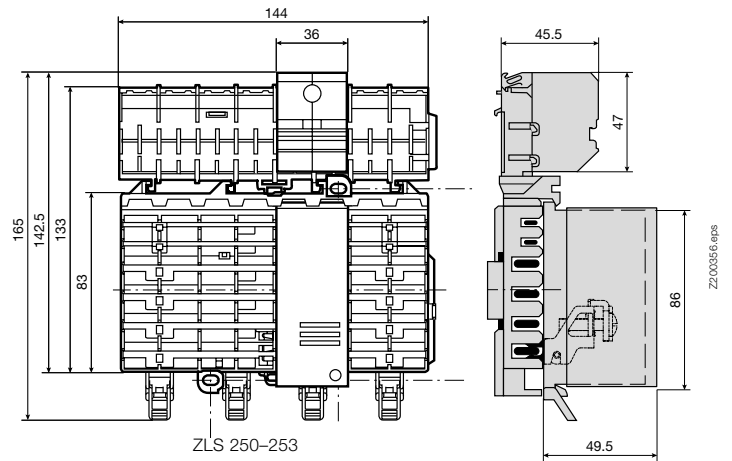
F4C-CM and F4C-ARI



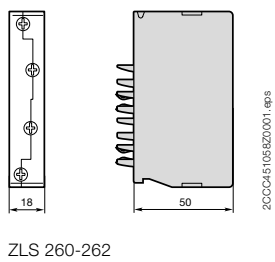
Incoming terminal blocks 100 A/160 A



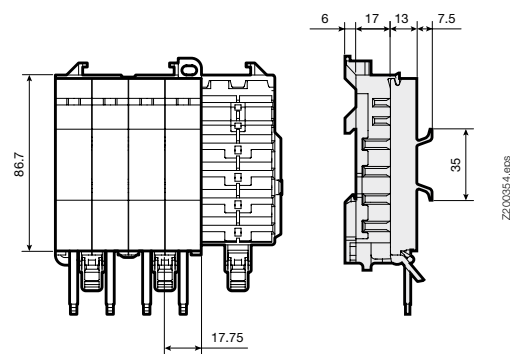
Incoming terminal component 200 A



Incoming terminal blocks 63 A Incoming terminal block LA, LB



Universal adapter 32 A, 63 A

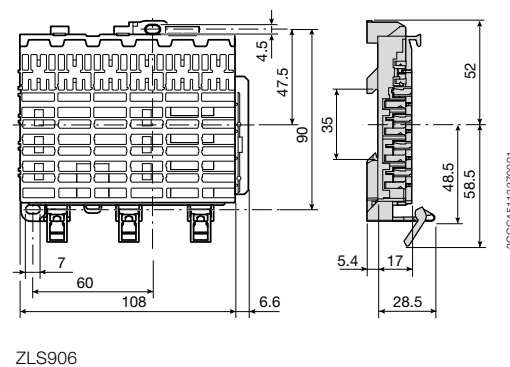
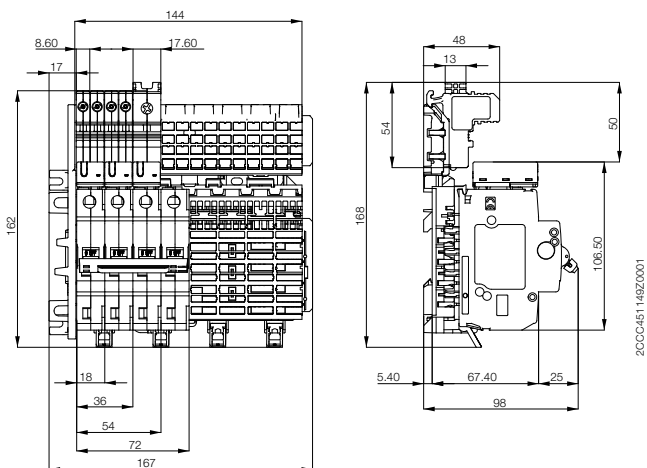


Socket base ZLS908

Receptacle
– 8 dimensional units

Socket base ZLS906

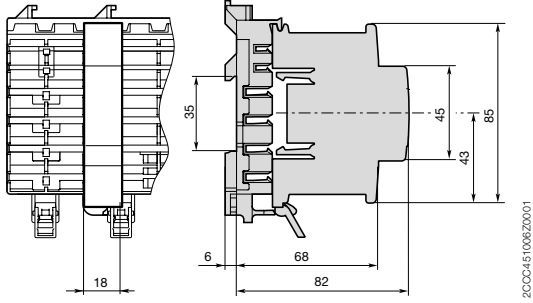
Receptacle
– 6 dimensional units



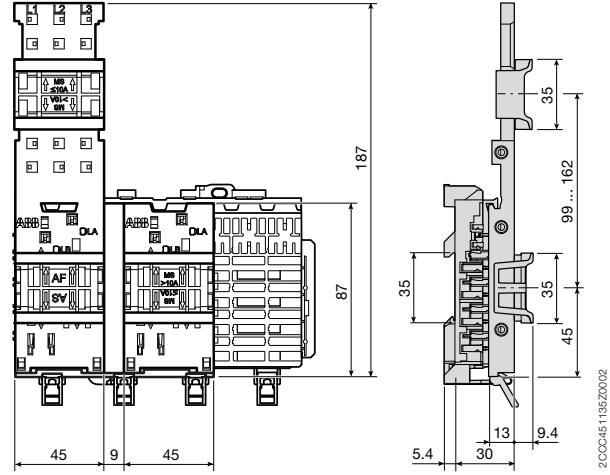
Quick product references

Overall dimensions

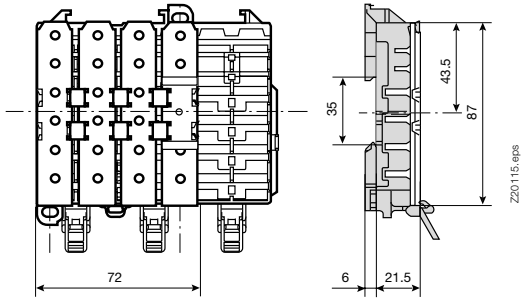
Intermediate piece ZLS 725



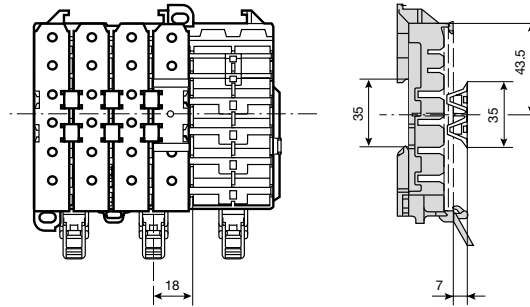
Combi module ZMS132, Adapter MS116/132



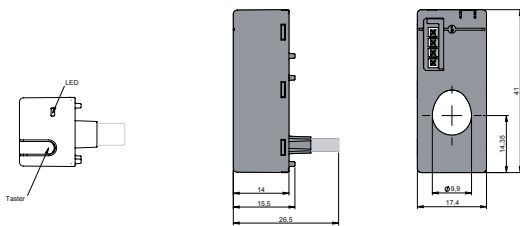
Busbar cover ZLS100



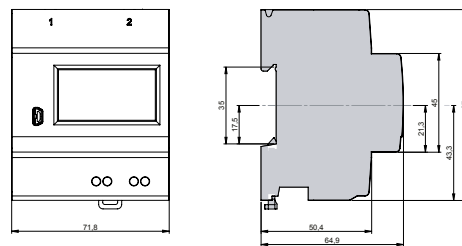
Extension adapter ZLS101



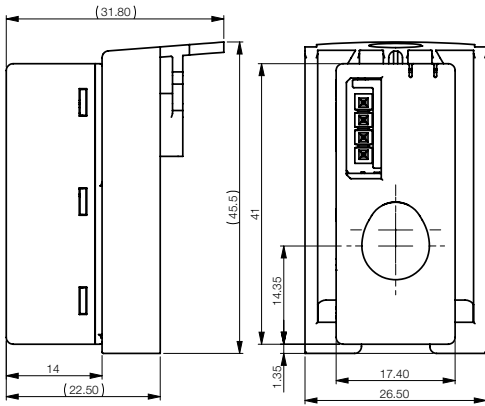
Sensor (CMS-100PS)



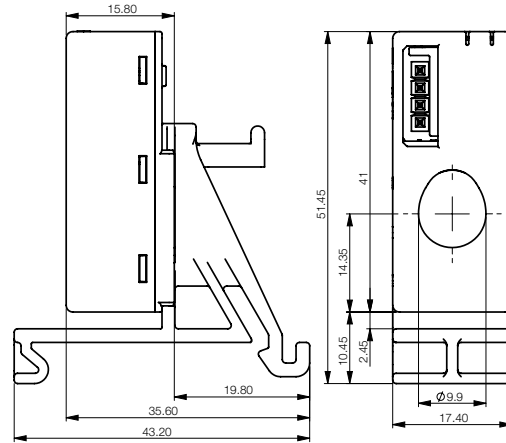
Control Unit (CMS-600)



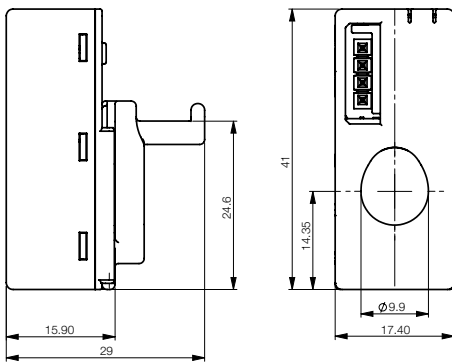
Sensor (CMS-100S8)



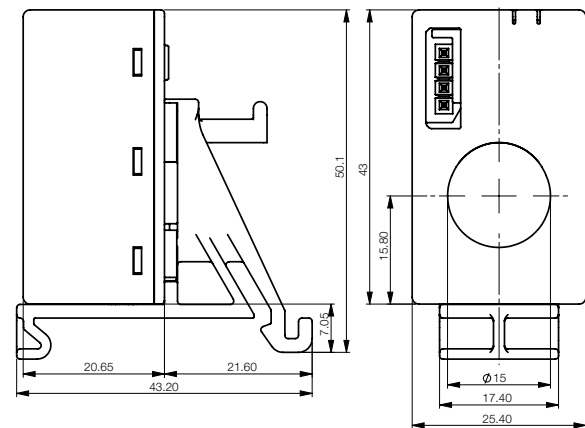
Sensor (CMS-100DR)



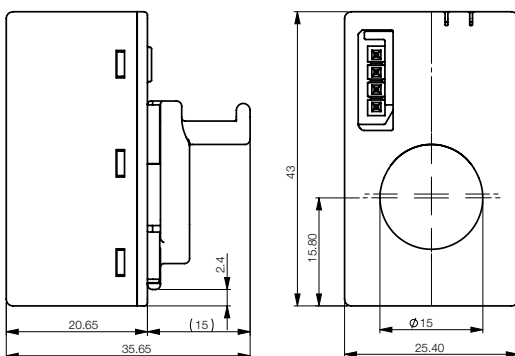
Sensor (CMS-100CA)



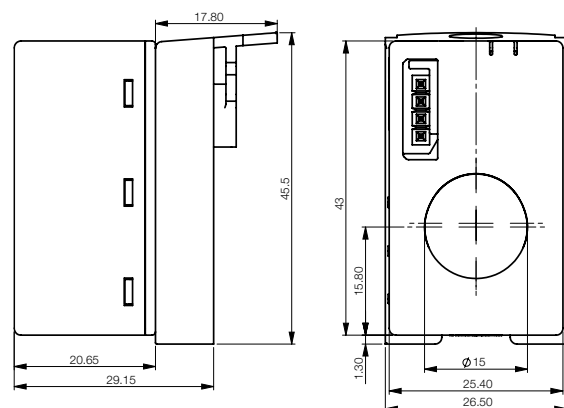
Sensor (CMS-200DR)



Sensor (CMS-200CA)



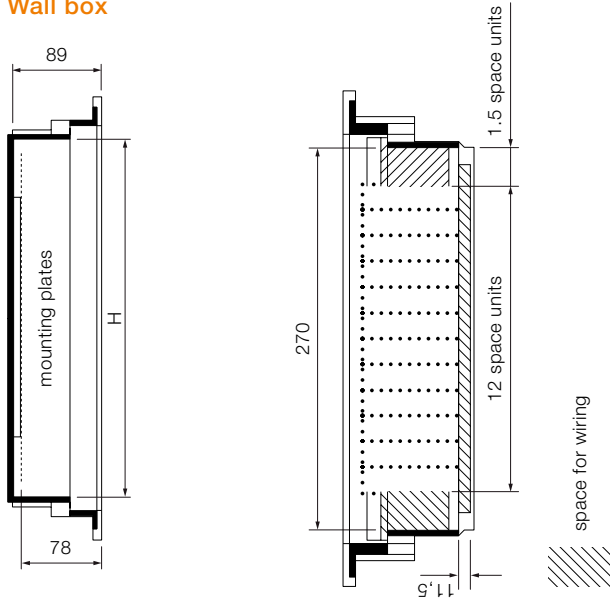
Sensor (CMS-200S8)



Quick product references

Overall dimensions UK500 Series

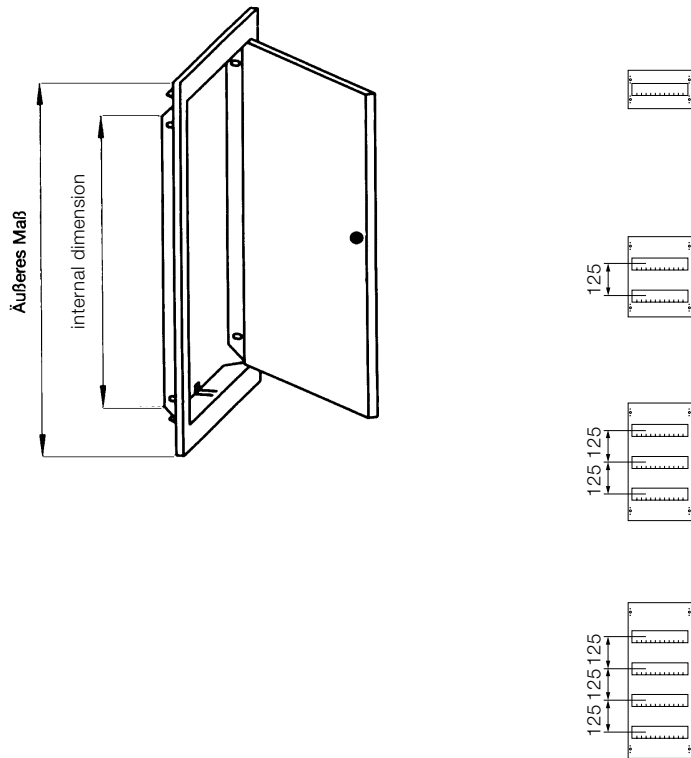
Wall box



Power loss and height DIN 43871 with over temperature ΔT

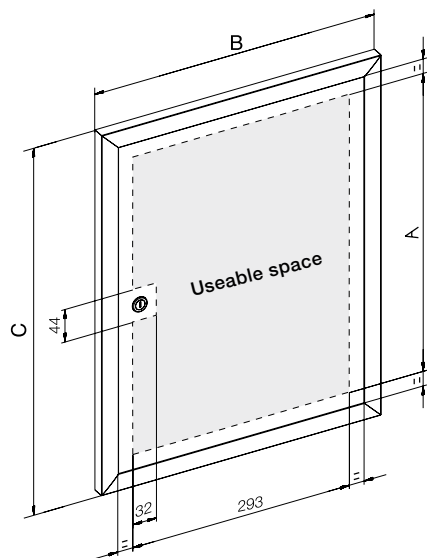
Type	Power loss (W)			Height in mm
	ΔT 20 K	ΔT 25 K	ΔT 30 K	
UK51...	10.0	13.0	16.0	250
UK52...	11.5	15.0	19.0	375
UK53...	14.5	19.0	24.0	500
UK54...	16.5	21.5	27.0	625

Trim frame



Type	Int. dimensions (H x W mm)	Ext. dimensions (H x W mm)	Weight in kg
BL510	282 x 297	352 x 367	1.5
BL516C	282 x 297	352 x 367	1.5
BL517C	282 x 297	352 x 367	1.5
BL517C	282 x 297	352 x 367	1.5
BL510K	282 x 297	352 x 367	1.5
BL520	407 x 297	477 x 367	1.9
BL526C	407 x 297	477 x 367	1.9
BL527C	407 x 297	477 x 367	1.9
BL528C	407 x 297	477 x 367	1.9
BL520K	407 x 297	477 x 367	1.9
BL530	532 x 297	602 x 367	2.3
BL536C	532 x 297	602 x 367	2.3
BL537C	532 x 297	602 x 367	2.3
BL538C	532 x 297	602 x 367	2.3
BL530K	532 x 297	602 x 367	2.3
BL530L	532 x 297	602 x 367	2.3
BL540	657 x 297	727 x 367	2.7
BL546C	657 x 297	727 x 367	2.7
BL547C	657 x 297	727 x 367	2.7
BL548C	657 x 297	727 x 367	2.7
BL540K	657 x 297	727 x 367	2.7
BL540L	657 x 297	727 x 367	2.7

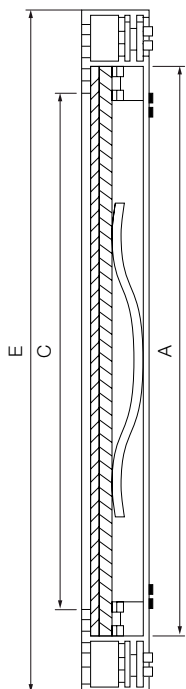
Control panel



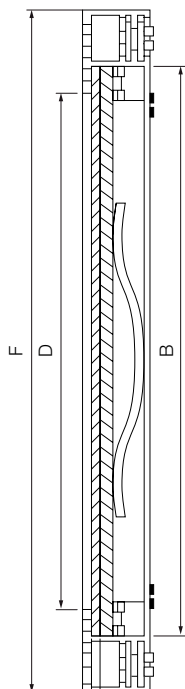
Type	A	B	C
FPT510	278	374	362
FPT520	403	374	487
FPT530	528	374	612

Picture frame door

Side view



Top view



2,5 mm
glass thickness

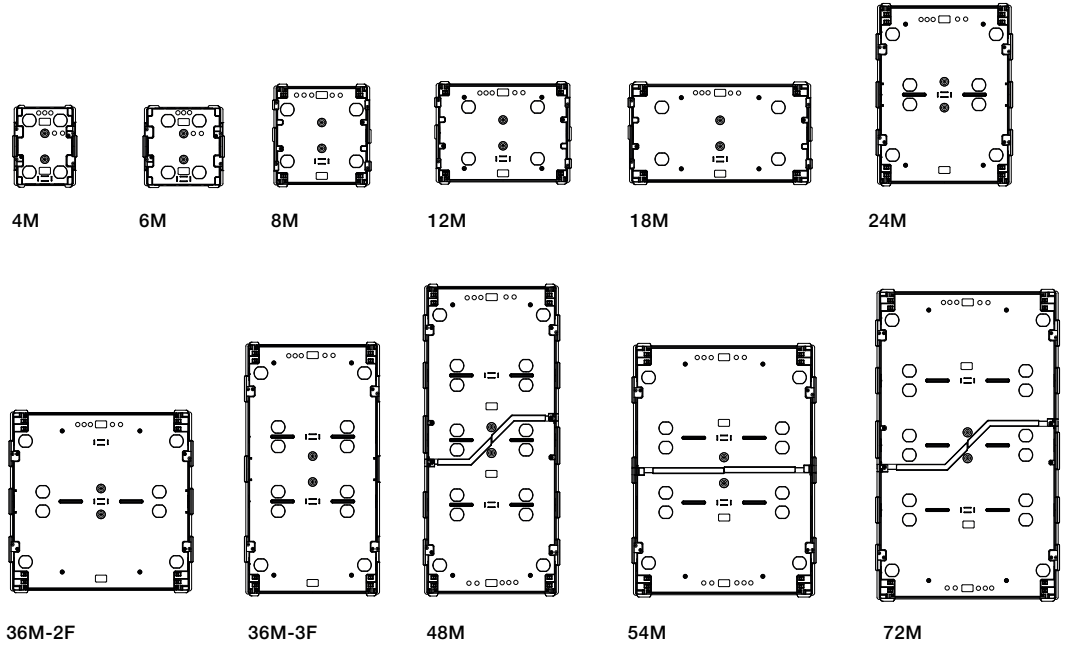
Type	A	B	C	D	E	F
BL521D	417	308	402	293	487	378
BL531D	542	308	526	293	612	378
BL527D	456	343	441	328	487	374
BL537D	581	343	566	328	612	374

Quick product references

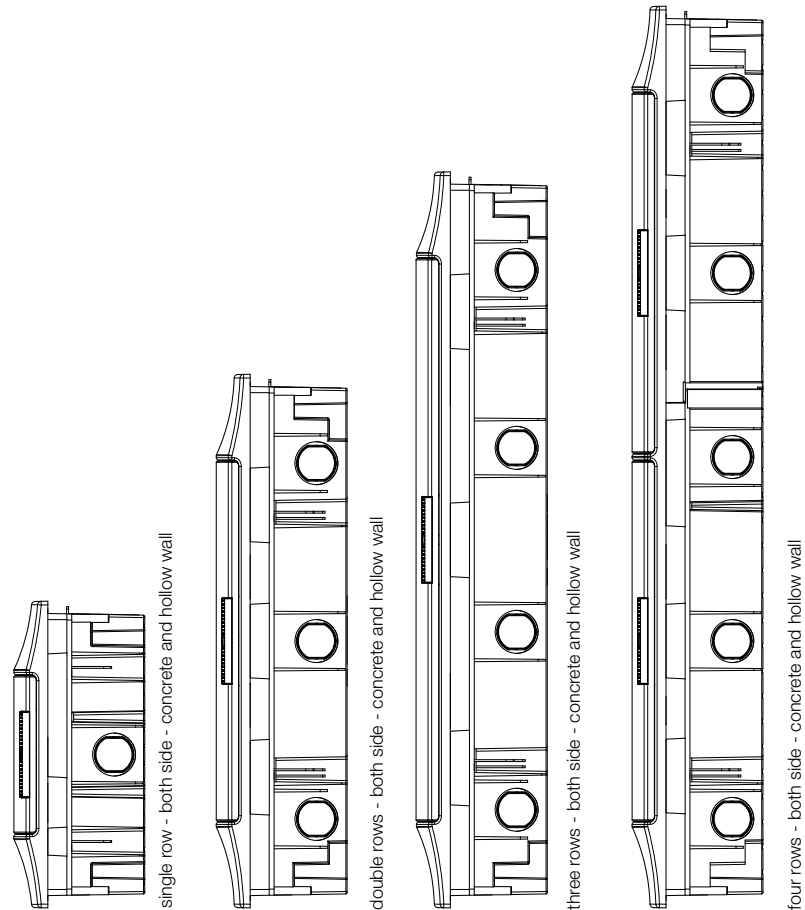
Overall dimensions

System pro E comfort MISTRAL41F

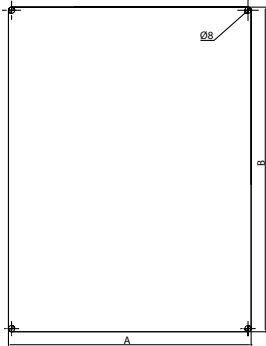
Box	
Modules	diam. 32
4 M	4
6 M	4
8 M	4
12 M	4
18 M	4
24 M	8
36 M – 2F	8
36 M – 3F	12
48 M	16
54 M	12
72 M	16



Site	
Modules	diam. 32
4 M	1
6 M	1
8 M	1
12 M	1
18 M	1
24 M	3
36 M – 2F	3
36 M – 3F	4
48 M	5
54 M	4
72 M	5



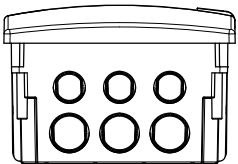
Hollow wall holes dimensions



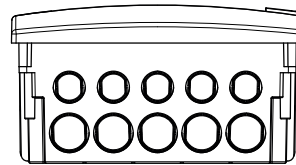
	A	B
4 M	143	183
6 M	183	183
8 M	223	231
12 M	311	231
18 M	421	231
24 M	311	416
36M - 2F	421	416
36M - 3F	311	581
48 M	311	716
54 M	421	581
72 M	421	716

Cable entry

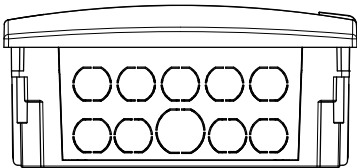
Modules	diam. 40	diam. 32	diam. 25	diam. 20	Flange
4	-	-	3	3	///
6	-	-	5	5	///
8	-	1	9	-	150x55
12	1	8	4	-	240x55
18	1	12	2	-	330x55



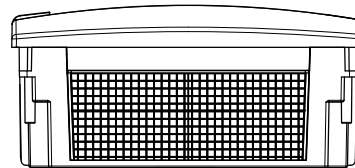
4 modules - top and bottom - concrete and hollow wall



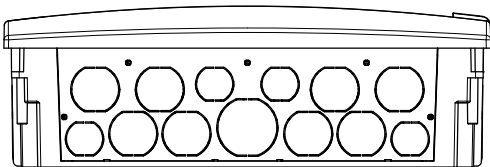
6 modules - top and bottom - concrete and hollow wall



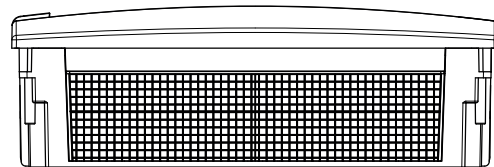
8 modules - top and bottom - hollow wall



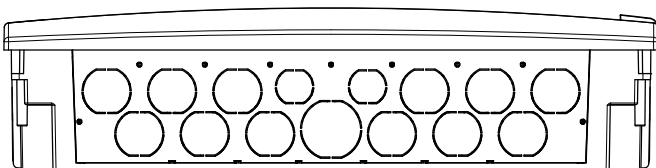
8 modules - top and bottom - concrete wall



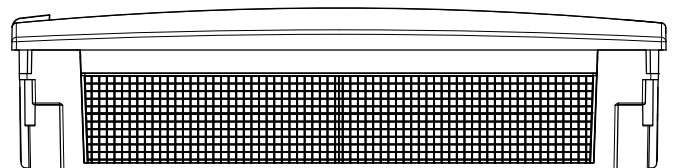
12 modules - top and bottom - hollow wall



12 modules - top and bottom - concrete wall



18 modules - top and bottom - hollow wall

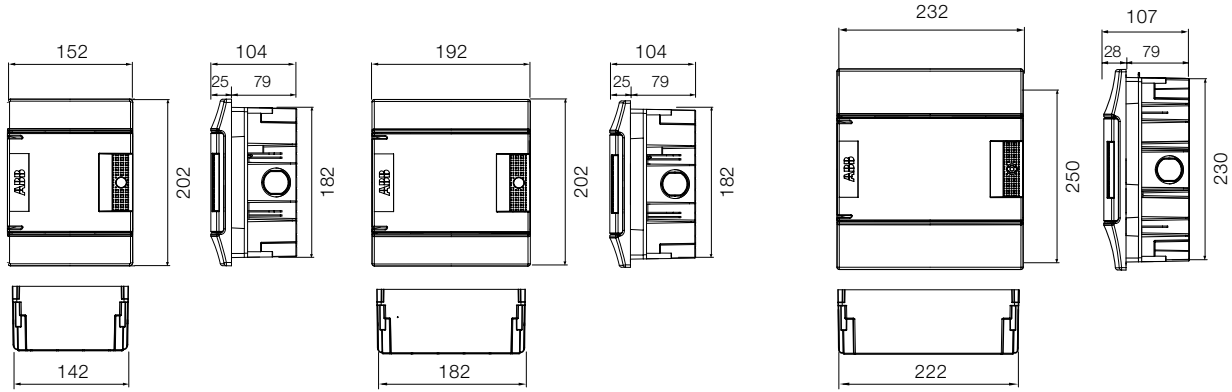


18 modules - top and bottom - concrete wall

Quick product references

Overall dimensions

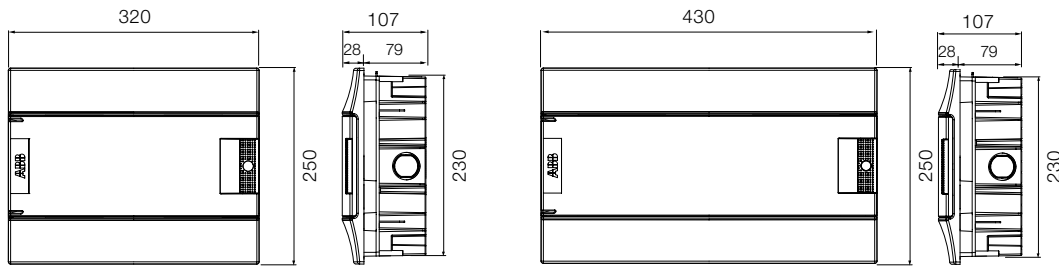
System pro E comfort MISTRAL41F



4 modules

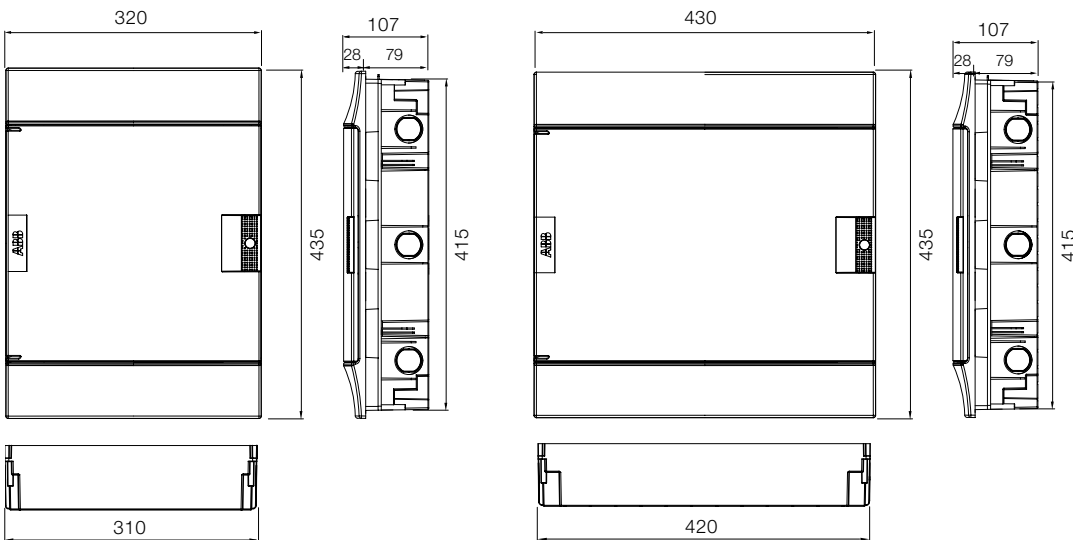
6 modules

8 modules



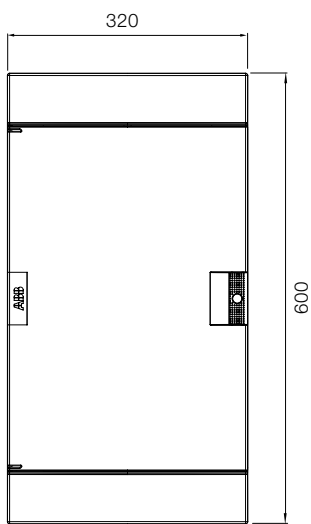
12 modules

18 modules

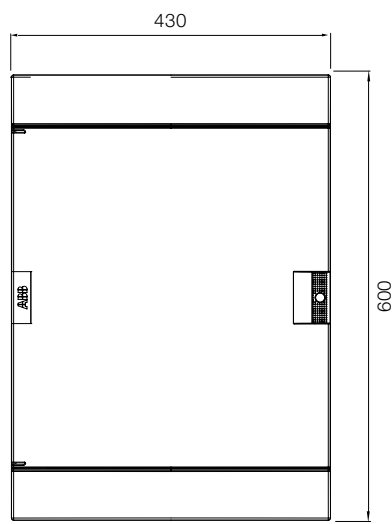


24 modules

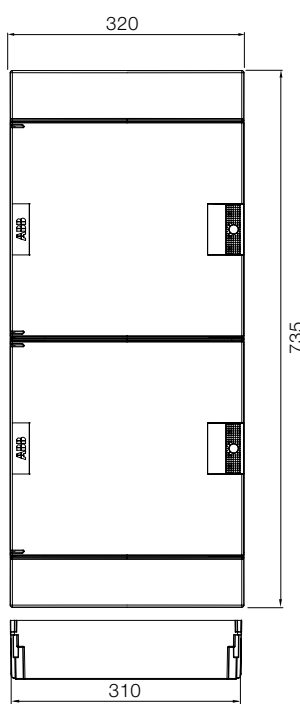
36 modules



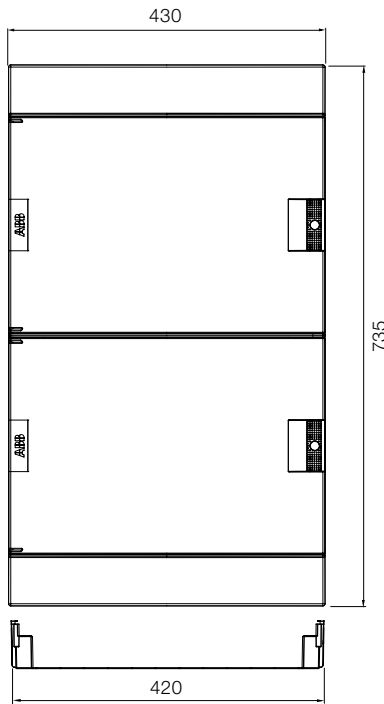
36 modules



54 modules



48 modules

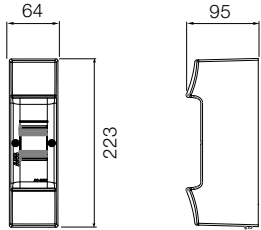


72 modules

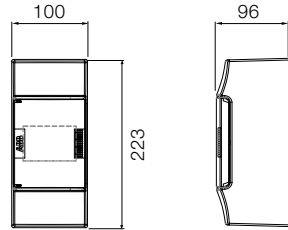
Quick product references

Overall dimensions

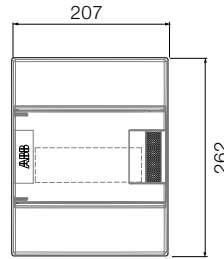
System pro E comfort MISTRAL41W



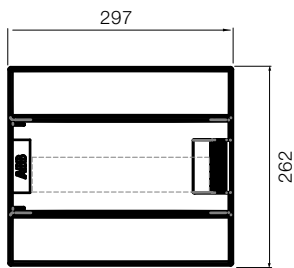
1 module



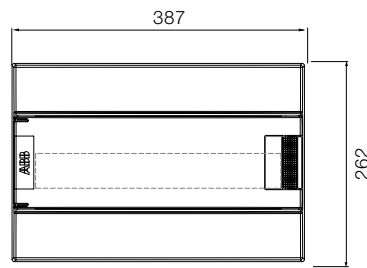
4 modules



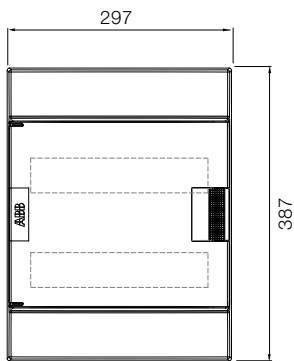
8 modules



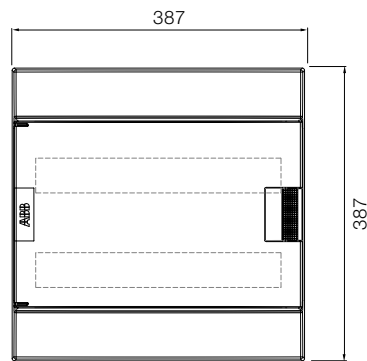
12 modules



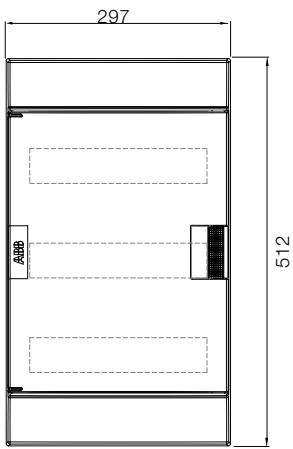
18 modules



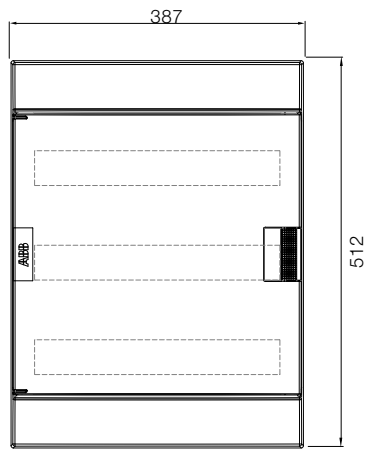
24 modules



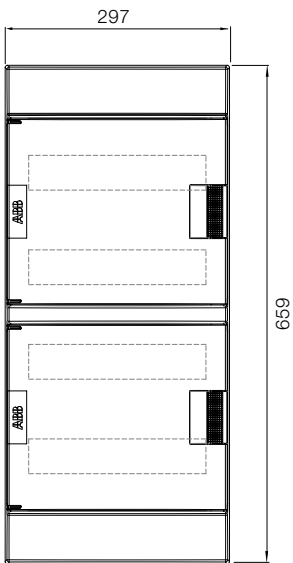
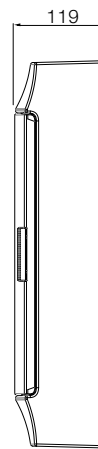
36 modules



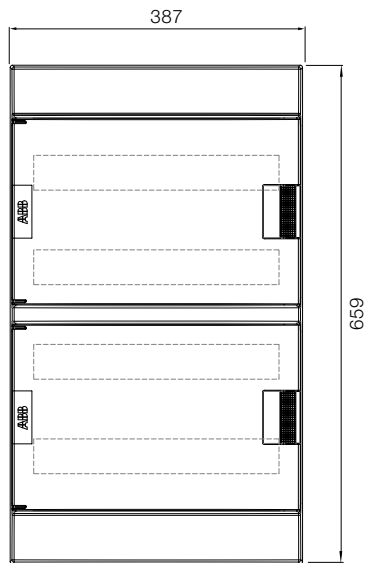
36 modules



54 modules



48 modules



72 modules

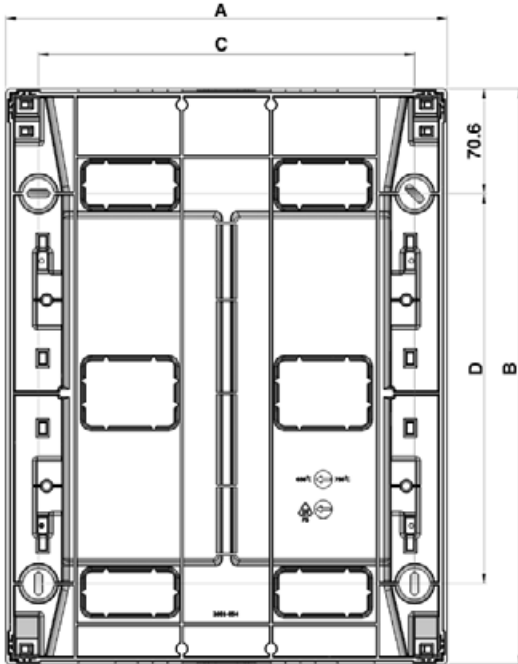


Quick product references

Overall dimensions

System pro *E* comfort MISTRAL41W

Consumer unit fixing template System pro *E* comfort MISTRAL41W



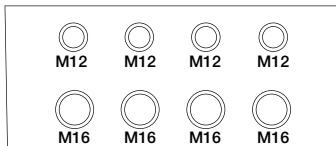
	A	B	C	D
8 Modules	206,5	262	163	137
12 Modules	297	262	253	137
18 Modules	387	262	343	137
24 Modules	297	387	253	262
36 Modules 18x2	387	387	343	262
36 Modules 12x3	297	512	253	387
48 Modules	297	659	253	518
54 Modules	387	512	343	387
72 Modules	387	659	343	518

System pro E comfort MISTRAL65

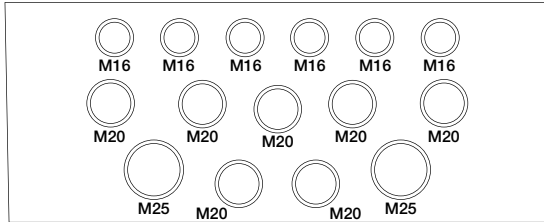
Cable gland table

Modules		Cable Glands		
		diam. 16	diam. 20	diam. 25
4	04x1	2	-	-
8	08x1	3	3	-
12	12x1	2	2	2
24	12x2	5	5	2
36	12x3	5	5	2
48	12x4	5	5	2
18	18x1	2	2	2
36	18x2	5	5	2
54	18x3	5	5	2
72	18x4	5	5	2

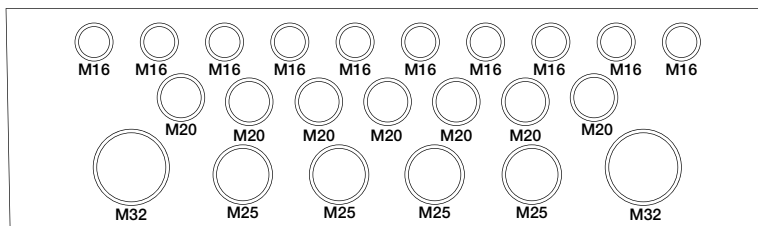
Modules		Holes				
		diam. 12	diam. 16	diam. 20	diam. 25	diam. 32
4	04x1	4	4	-	-	-
8	08x1	-	6	7	2	-
12	12x1	-	10	7	4	2
24	12x2	-	10	7	4	2
36	12x3	-	10	7	4	2
48	12x4	-	10	7	4	2
18	18x1	-	14	9	4	2
36	18x2	-	14	9	4	2
54	18x3	-	14	9	4	2
72	18x4	-	14	9	4	2



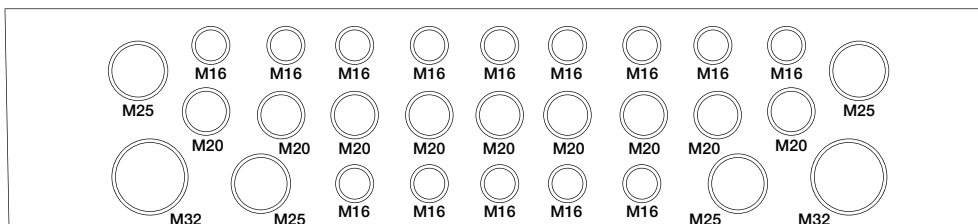
4 modules - top and bottom



8 modules - top and bottom



12 modules - top and bottom

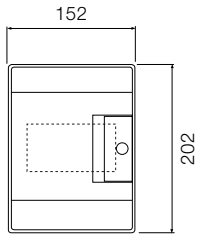


18 modules - top and bottom

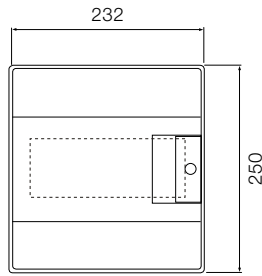
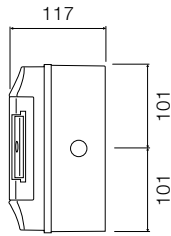
Quick product references

Overall dimensions

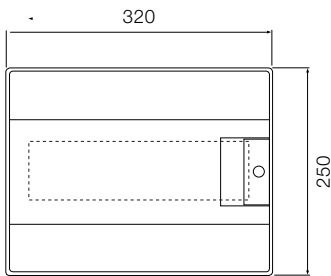
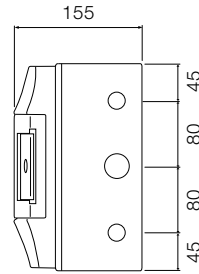
System pro E comfort MISTRAL65



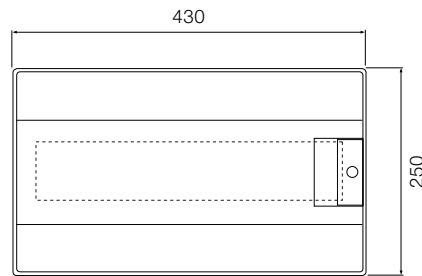
4 modules



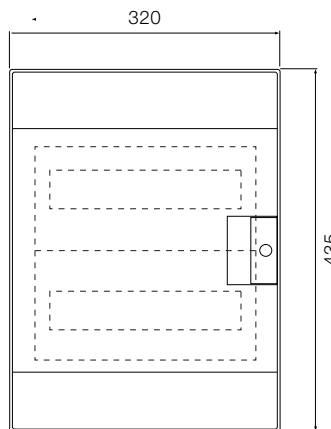
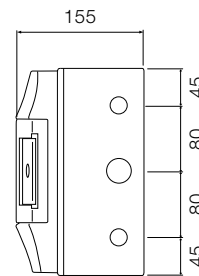
8 modules



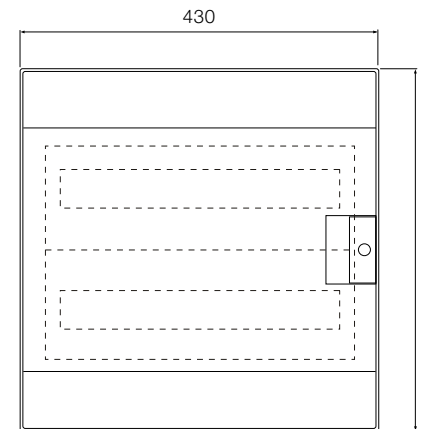
12 modules



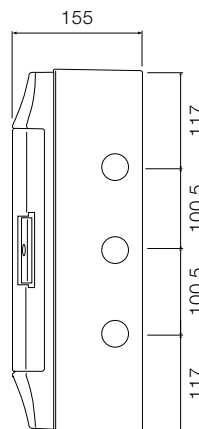
18 modules

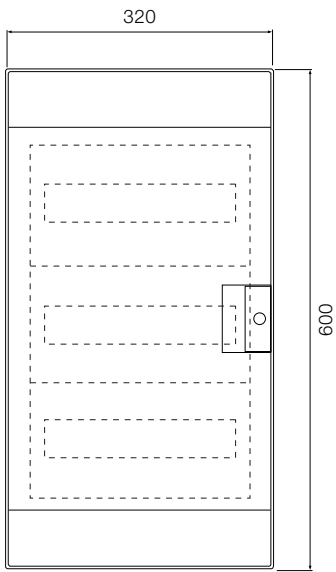


24 modules

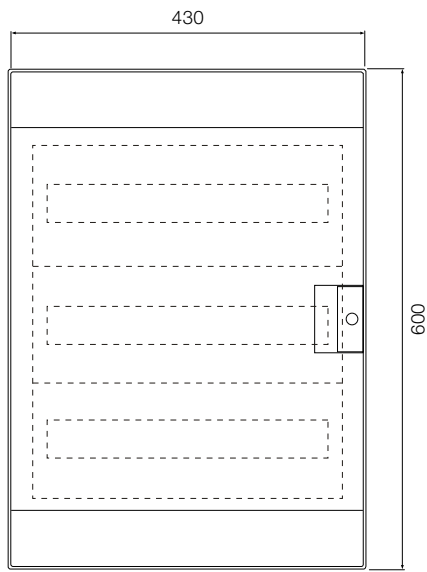


36 modules

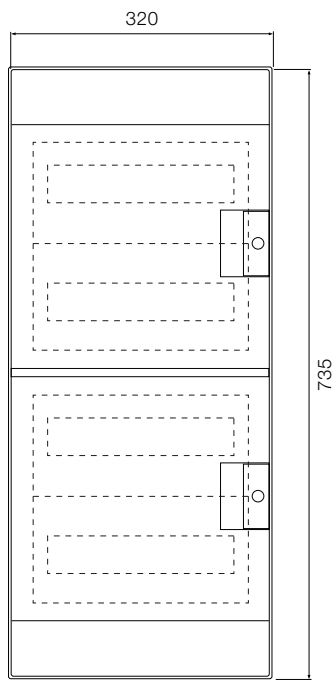
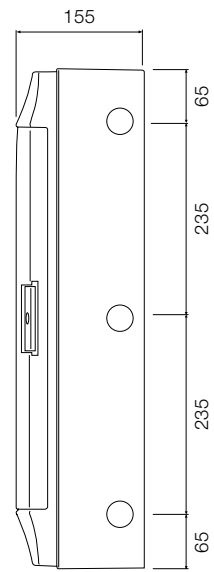




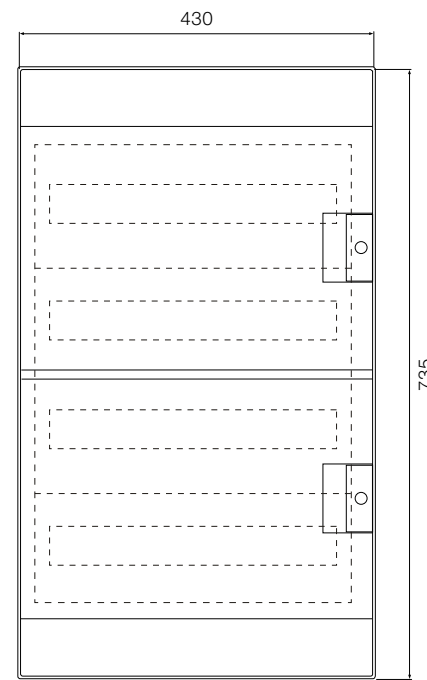
36 modules



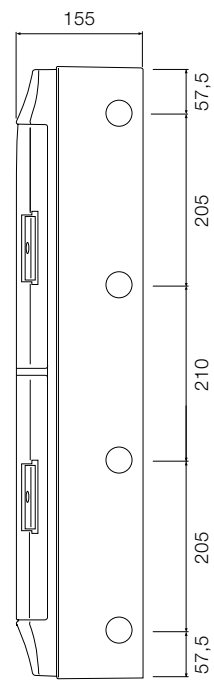
54 modules



48 modules



72 modules

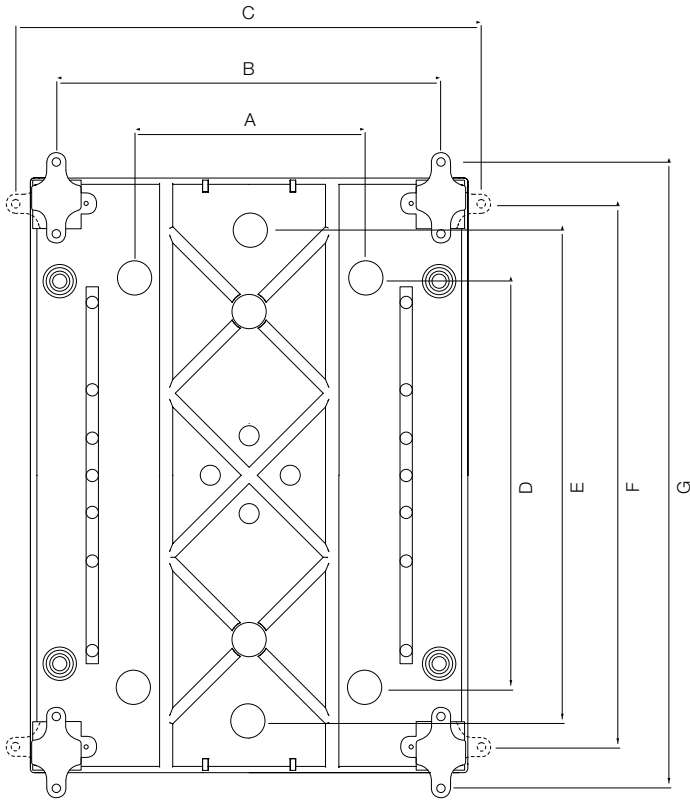


Quick product references

Overall dimensions

System pro E comfort MISTRAL65

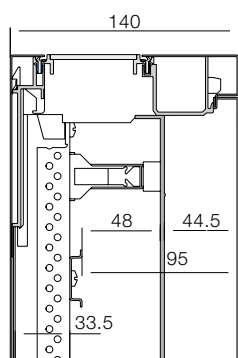
Consumer unit fixing template



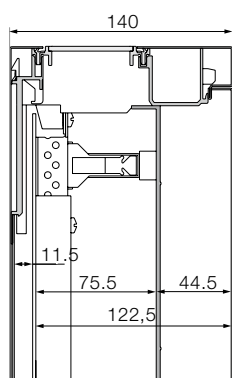
	A	B	C	D	E	F	G
4 Modules		113	173		140	163	223,5
8 Modules	90	194	254,5	180		212	272,5
12 Modules	170	282,5	343	180		212	272,5
18 Modules	280	392	452,5	125	175	212	272,5
24 Modules	170	282,5	343	310	360	397	457,5
36 Modules - 2 F	280	392	452,5	310	360	397	457,5
36 Modules - 3 F	170	282,5	343	475	525	562	622,5
48 Modules	170	282,5	343	610	660	697	757,5
54 Modules	280	392	452,5	475	525	562	622,5
72 Modules	280	392	452,5	610	660	697	757,5

AT/U Series

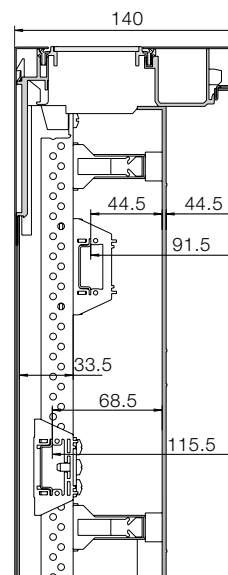
Wall-mounting with door, AT series



Compact distribution board panel

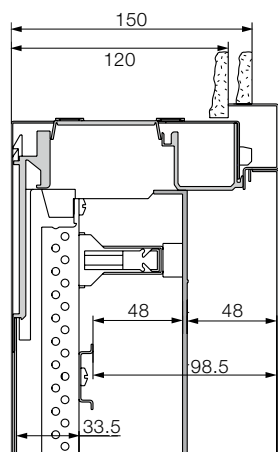


Panel with mounting plate

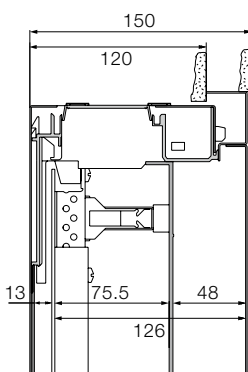


Panel for terminals

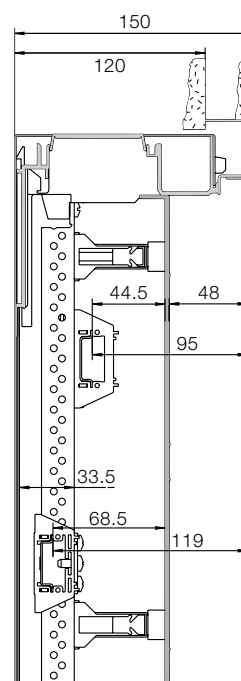
Flush-mounting with door, U series



Compact distribution board panel



Panel with mounting plate



Panel for terminals

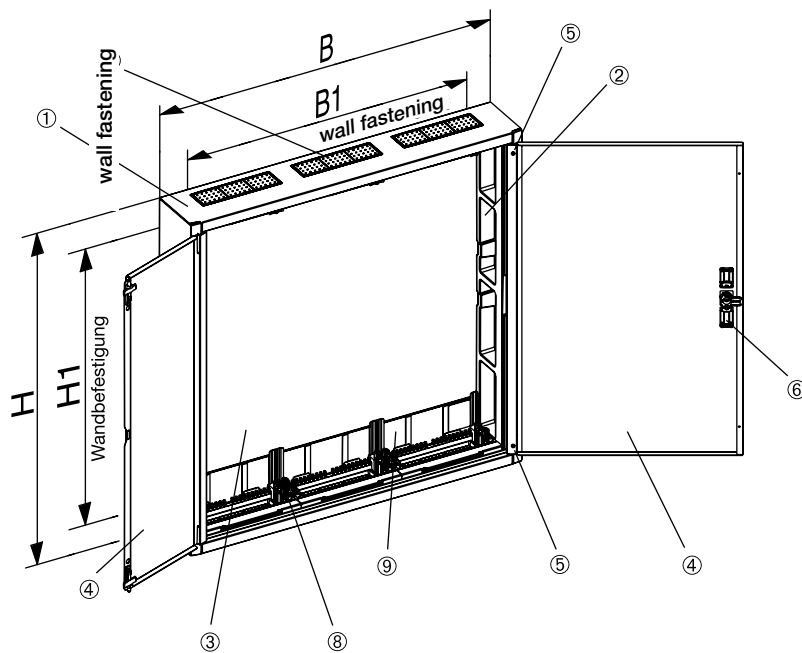
Quick product references

Overall dimensions

Compact distribution boards

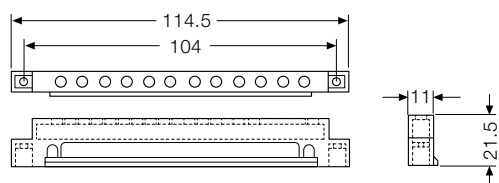
Type	H	W	H1	W1
AT22E	374	574	235	417
AT31	524	324	385	167
AT32, AT32TE, AT32R2, AT32TR2	524	574	385	417
AT41, AT41TE, AT41R3, AT41TR3	674	324	535	167
AT42, AT42TE, AT42M, AT42/2, AT42R3, AT42TR3	674	574	535	417
AT43, AT43R3, AT43TR3	674	824	535	667
AT51, AT51TE, AT51R4, AT51TR4	824	324	685	167
AT52, AT52TE, AT52K, AT52/2, AT52R4, AT52TR4	824	574	685	417
AT53, AT53M, AT53K, AT53R4, AT53TR4	824	824	685	667
AT54K, AK54E, AT54R4	824	1074	685	917
AT61, AT61TE, AT61R5, AT61TR5	974	324	835	167
AT62, AT62TE, AT62K, AT62R5, AT62TR5	974	574	835	417
AT63E, AT63K, AT63R5, AT63TR5	974	824	835	667
AT64K	974	1074	835	917
AT72, AT72K, AT72R6, AT72TR6	1124	574	985	417
AT73K, AT73R6, AT73TR6	1124	824	985	667

Dimensions in mm

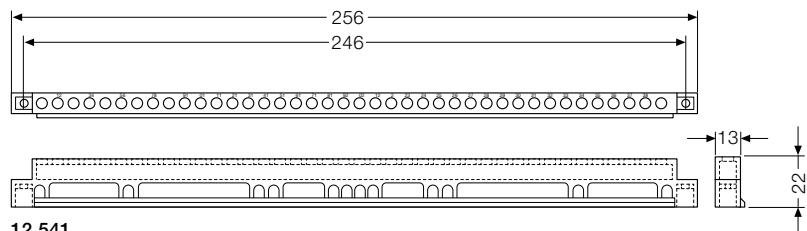


Terminal blocks for MISTRAL series

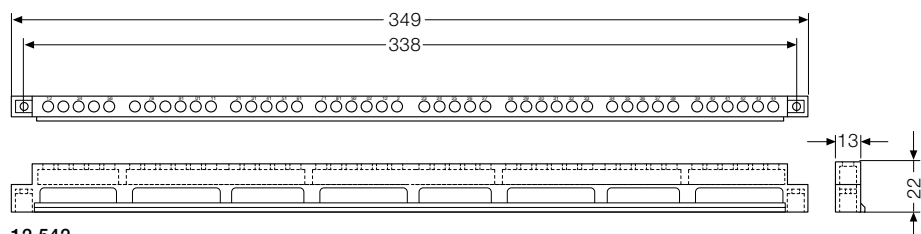
Terminal holders – dimensions



12 539



12 541



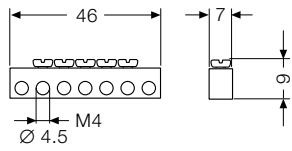
12 542

Quick product references

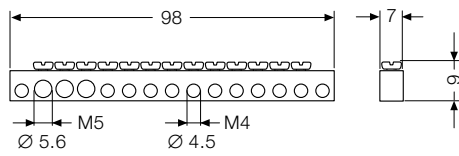
Overall dimensions

Terminal blocks for MISTRAL series

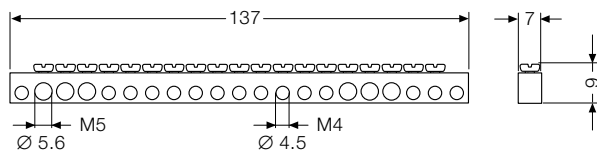
Terminal bars – dimensions



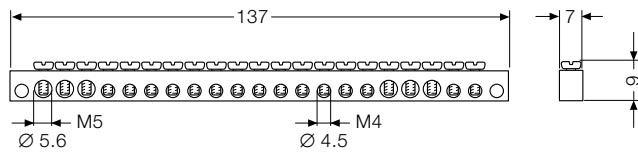
12 531



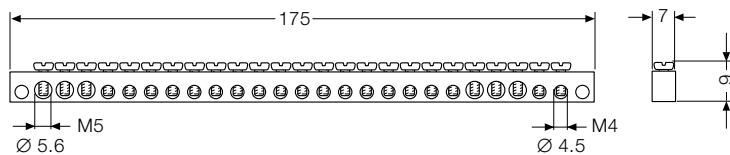
12 532



12 533



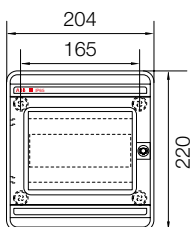
12 534



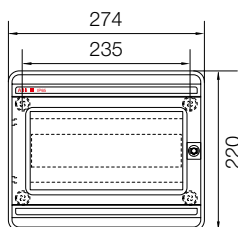
12 535

EUROPA65 Series wall-mounting consumer units

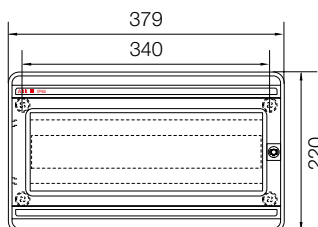
Front view



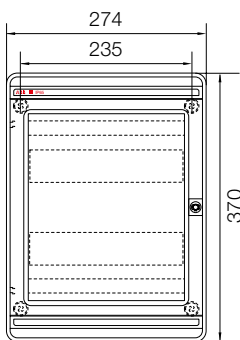
8 modules



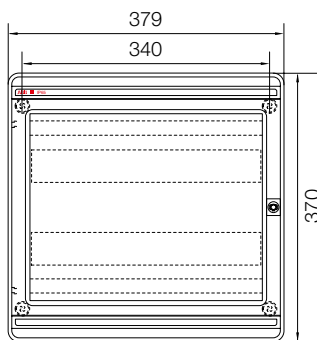
12 modules



18 modules

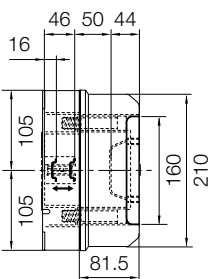


24 modules

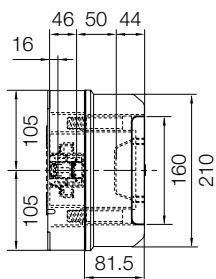


36 modules

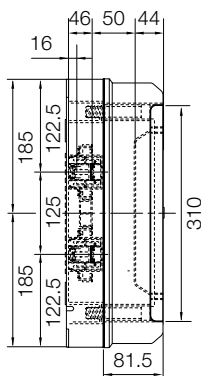
Side view



8 - 12 modules



18 modules



24 -36 modules

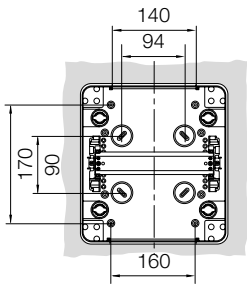
Dimensions mm

Quick product references

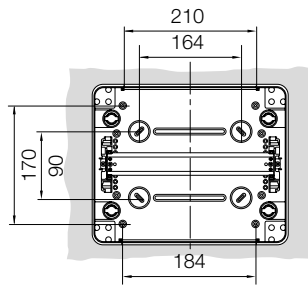
Overall dimensions

EUROPA65 Series wall-mounting consumer units

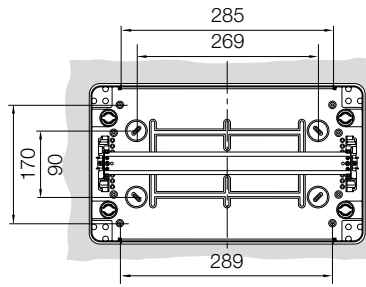
Drilling sheets



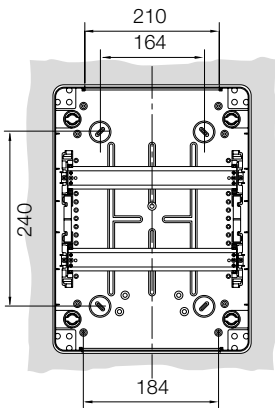
8 modules



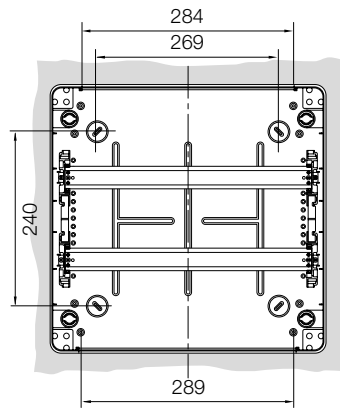
12 modules



18 modules



24 modules

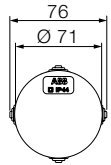


36 modules

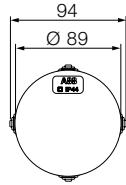
Modules	Code
8	1SL2748A01
12	1SL2752A01
18	1SL2753A01
24	1SL2754A01
36	1SL2755A01

IP44, IP55 and IP65 junction boxes

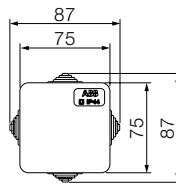
Front view



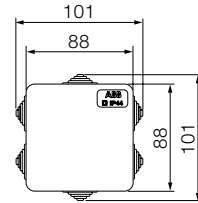
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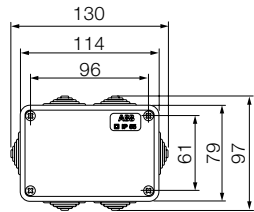
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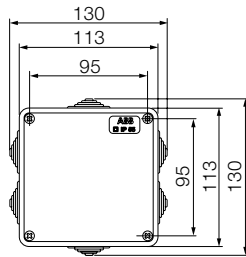
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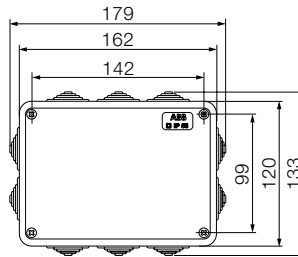
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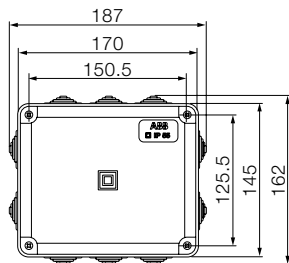
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1SL0905A00
1SL0909A00
1SL0920A00
1SL0950A00



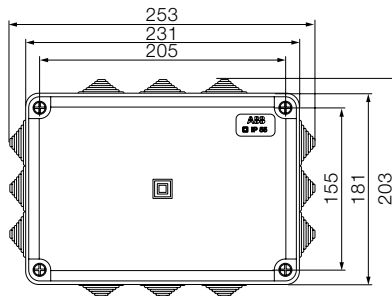
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00 821
00 846
00 851
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1SL0821A00
1SL0846A00
1SL0851A00
1SL0904A00
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1SL0951A00



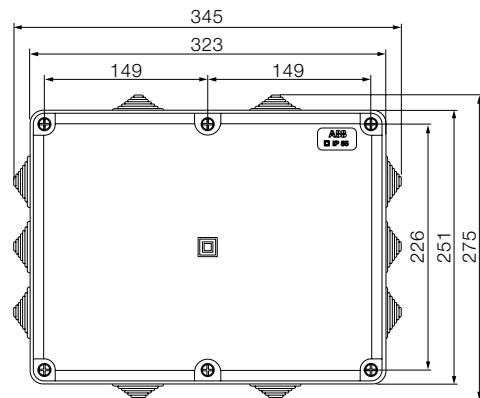
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1SL0907A00
1SL0911A00
1SL0912A00
1SL0922A00
1SL0972A00
1SL0985A00



1SL0824A00
1SL0830A00
1SL0854A00
1SL0860A00
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1SL0826A00
1SL0832A00
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1SL0876A00
1SL0884A00
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1SL0932A00
1SL0956A00
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1SL0976A00
1SL0984A00



1SL0828A00
1SL0834A00
1SL0858A00
1SL0864A00
1SL0878A00
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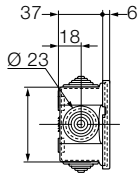
Quick product references

Overall dimensions

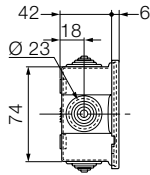
IP44, IP55 and IP65 junction boxes

Side view

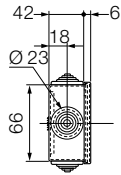
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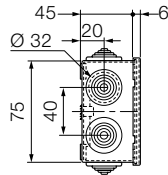
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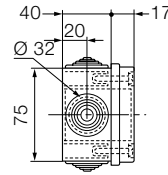
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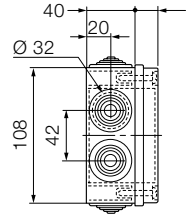
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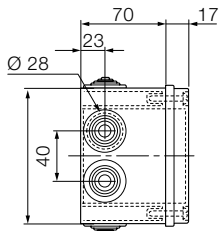
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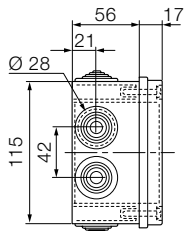
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1SL0950A00



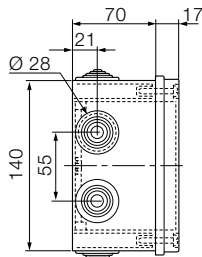
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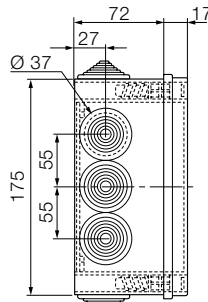
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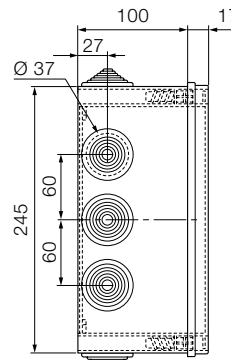
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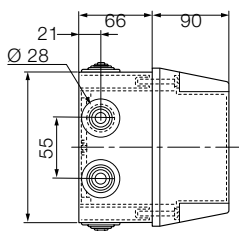
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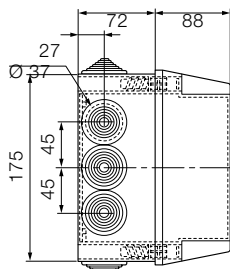
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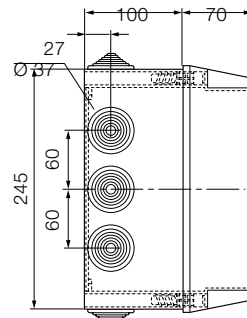
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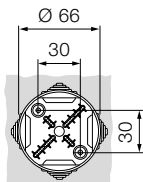


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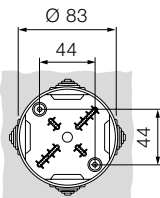


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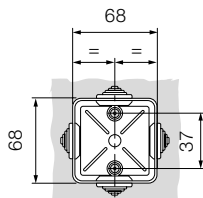
Drilling sheets and internal dimensions



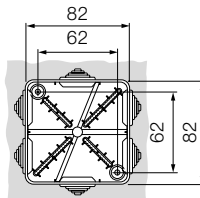
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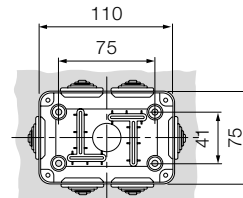
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00 808
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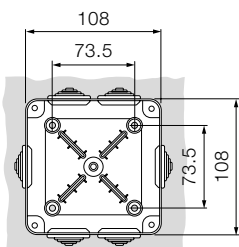


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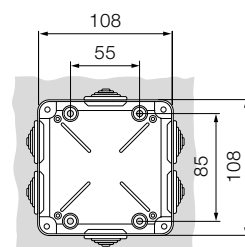
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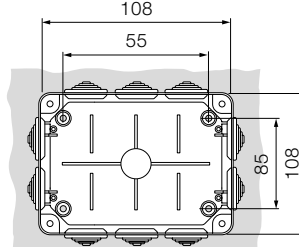
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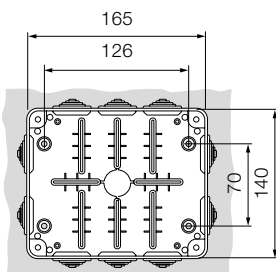
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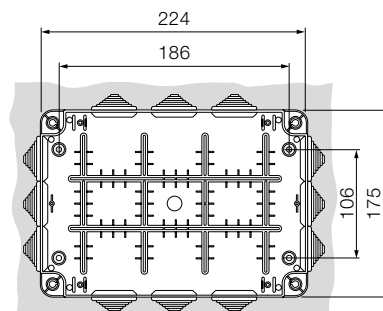
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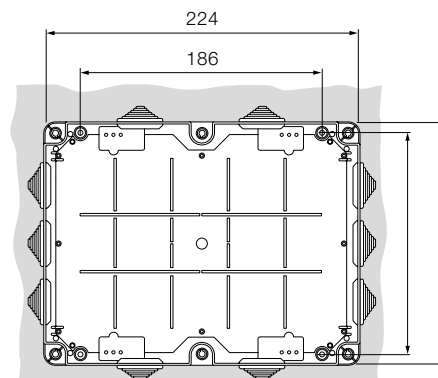
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1SL0856A00
1SL0862A00
1SL0884A00

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1SL0932A00
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1SL0962A00
1SL0976A00
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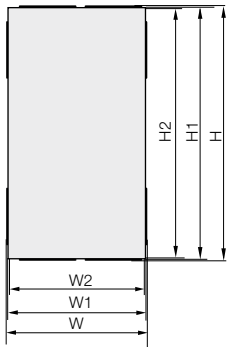
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Quick product references

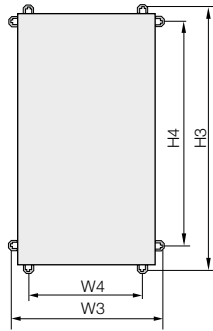
Overall dimensions

TwinLine S 43

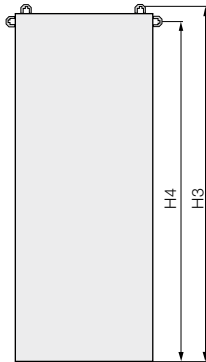
Front view
Wall-mounting and
floor-standing cabinet
External/internal dimensions



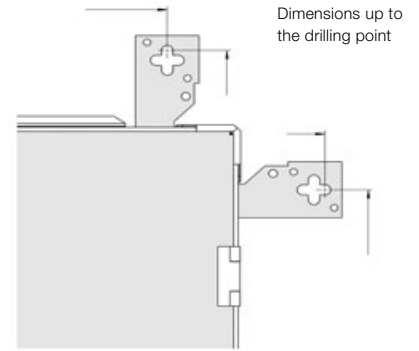
Front view
Wall-mounting cabinet
Wall fastening dimen-
sions



Front view
Floor-standing cabinet
Wall fastening dimen-
sions



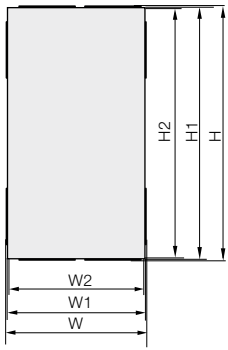
Front view
External fastening
Detail



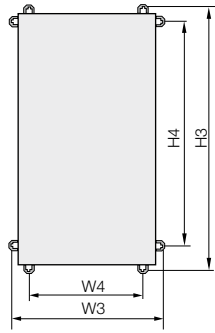
Cabinet types H x W x D	External dimensions in mm			Internal dimensions in mm		External dimensions with embossing in mm		Wall fastening dimensions in mm			
	H1	W1	D1	H2	W2	H	W	H3	W3	H4	W4
400 x 300 x 225	450	390	225	402	342	454	394	578.5	518.5	345	285
600 x 300 x 225	650	390	225	602	342	654	394	778.5	518.5	545	285
800 x 300 x 225	850	390	225	802	342	854	394	978.5	518.5	745	285
1000 x 300 x 225	1050	390	225	1002	342	1054	394	1178.5	518.5	945	285
1200 x 300 x 225	1250	390	225	1202	342	1254	394	1378.5	518.5	1145	285
1400 x 300 x 225	1450	390	225	1402	342	1454	394	1514	518.5	1292.5	285
1600 x 300 x 225	1650	390	225	1602	342	1654	394	1714	518.5	1492.5	285
1800 x 300 x 225	1850	390	225	1802	342	1854	394	1914	518.5	1692.5	285
2000 x 300 x 225	2050	390	225	2002	342	2054	394	2114	518.5	1892.5	285
400 x 600 x 225	450	660	225	402	612	454	664	578.5	788.5	345	555
600 x 600 x 225	650	660	225	602	612	654	664	778.5	788.5	545	555
800 x 600 x 225	850	660	225	802	612	854	664	978.5	788.5	745	555
1000 x 600 x 225	1050	660	225	1002	612	1054	664	1178.5	788.5	945	555
1200 x 600 x 225	1250	660	225	1202	612	1254	664	1378.5	788.5	1145	555
1400 x 600 x 225	1450	660	225	1402	612	1454	664	1514	788.5	1292.5	555
1600 x 600 x 225	1650	660	225	1602	612	1654	664	1714	788.5	1492.5	555
1800 x 600 x 225	1850	660	225	1802	612	1854	664	1914	788.5	1692.5	555
2000 x 600 x 225	2050	660	225	2002	612	2054	664	2114	788.5	1892.5	555
400 x 800 x 225	450	875	225	402	827	454	879	578.5	1003.5	345	770
600 x 800 x 225	650	875	225	602	827	654	879	778.5	1003.5	545	770
800 x 800 x 225	850	875	225	802	827	854	879	978.5	1003.5	745	770
1000 x 800 x 225	1050	875	225	1002	827	1054	879	1178.5	1003.5	945	770
1200 x 800 x 225	1250	875	225	1202	827	1254	879	1378.5	1003.5	1145	770
1400 x 800 x 225	1450	875	225	1402	827	1454	879	1514	1003.5	1292.5	770
1600 x 800 x 225	1650	875	225	1602	827	1654	879	1714	1003.5	1492.5	770
1800 x 800 x 225	1850	875	225	1802	827	1854	879	1914	1003.5	1692.5	770
2000 x 800 x 225	2050	875	225	2002	827	2054	879	2114	1003.5	1892.5	770

TwinLine S 43

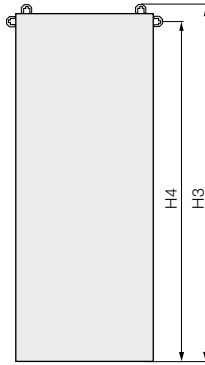
Front view
Wall-mounting and
floor-standing cabinet
External/internal dimensions



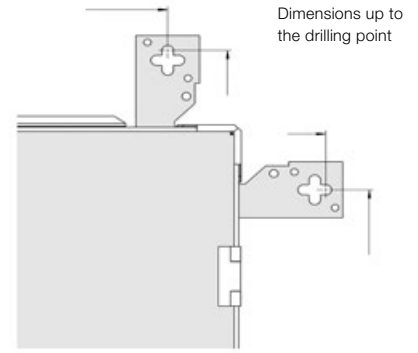
Front view
Wall-mounting cabinet
Wall fastening dimen-
sions



Front view
Floor-standing cabinet
Wall fastening dimen-
sions



Front view
External fastening
Detail



Cabinet types H x W x D	External dimensions in mm			Internal dimensions in mm		External dimensions with embossing in mm		Wall fastening dimensions in mm			
	H1	W1	D1	H2	W2	H	W	H3	W3	H4	W4
400 x 300 x 275	450	390	275	402	342	454	394	578.5	518.5	345	285
600 x 300 x 275	650	390	275	602	342	654	394	778.5	518.5	545	285
800 x 300 x 275	850	390	275	802	342	854	394	978.5	518.5	745	285
1000 x 300 x 275	1050	390	275	1002	342	1054	394	1178.5	518.5	945	285
1200 x 300 x 275	1250	390	275	1202	342	1254	394	1378.5	518.5	1145	285
1400 x 300 x 275	1450	390	275	1402	342	1454	394	1514	518.5	1292.5	285
1600 x 300 x 275	1650	390	275	1602	342	1654	394	1714	518.5	1492.5	285
1800 x 300 x 275	1850	390	275	1802	342	1854	394	1914	518.5	1692.5	285
2000 x 300 x 275	2050	390	275	2002	342	2054	394	2114	518.5	1892.5	285
400 x 600 x 275	450	660	275	402	612	454	664	578.5	788.5	345	555
600 x 600 x 275	650	660	275	602	612	654	664	778.5	788.5	545	555
800 x 600 x 275	850	660	275	802	612	854	664	978.5	788.5	745	555
1000 x 600 x 275	1050	660	275	1002	612	1054	664	1178.5	788.5	945	555
1200 x 600 x 275	1250	660	275	1202	612	1254	664	1378.5	788.5	1145	555
1400 x 600 x 275	1450	660	275	1402	612	1454	664	1514	788.5	1292.5	555
1600 x 600 x 275	1650	660	275	1602	612	1654	664	1714	788.5	1492.5	555
1800 x 600 x 275	1850	660	275	1802	612	1854	664	1914	788.5	1692.5	555
2000 x 600 x 275	2050	660	275	2002	612	2054	664	2114	788.5	1892.5	555
400 x 800 x 275	450	875	275	402	827	454	879	578.5	1003.5	345	770
600 x 800 x 275	650	875	275	602	827	654	879	778.5	1003.5	545	770
800 x 800 x 275	850	875	275	802	827	854	879	978.5	1003.5	745	770
1000 x 800 x 275	1050	875	275	1002	827	1054	879	1178.5	1003.5	945	770
1200 x 800 x 275	1250	875	275	1202	827	1254	879	1378.5	1003.5	1145	770
1400 x 800 x 275	1450	875	275	1402	827	1454	879	1514	1003.5	1292.5	770
1600 x 800 x 275	1650	875	275	1602	827	1654	879	1714	1003.5	1492.5	770
1800 x 800 x 275	1850	875	275	1802	827	1854	879	1914	1003.5	1692.5	770
2000 x 800 x 275	2050	875	275	2002	827	2054	879	2114	1003.5	1892.5	770

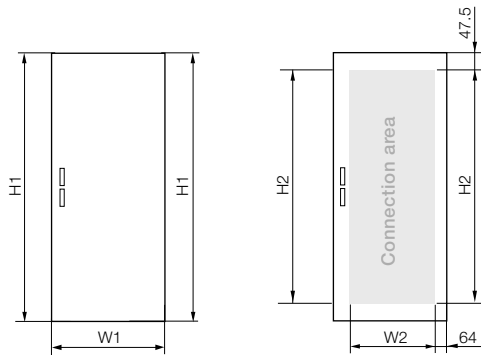
Quick product references

Overall dimensions

TwinLine S 43

External dimensions

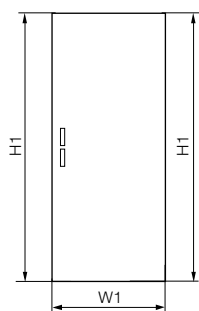
Dimensions of usable connection area



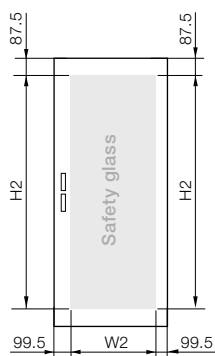
Sheet steel doors Type	External dimensions Height x width in mm		Internal dimensions Height x width in mm		Weight in kg	max. installation weight in kg
	H1	W1	H2	W2		
ESAS0304	443	379	348	213	4.75	5
ESAS0306	643	379	548	213	6.62	5
ESAS0308	843	379	748	213	7.81	5
ESAS0310	1043	379	948	213	9.72	5
ESAS0312	1243	379	1148	213	11.49	5
ESAS0314	1443	379	1348	213	13.50	5
ESAS0316	1643	379	1548	213	15.05	5
ESAS0318	1843	379	1748	213	16.58	5
ESAS0320	2043	379	1948	213	18.14	5
ESAS0604	443	649	348	483	6.95	5
ESAS0606	643	649	548	483	9.46	5
ESAS0608	843	649	748	483	11.64	5
ESAS0610	1043	649	948	483	13.83	5
ESAS0612	1243	649	1148	483	16.24	5
ESAS0614	1443	649	1348	483	18.88	5
ESAS0616	1643	649	1548	483	21.07	5
ESAS0618	1843	649	1748	483	23.25	5
ESAS0620	2043	649	1948	483	25.43	5
ESAS0804	443	864	348	698	8.70	7.5
ESAS0806	643	864	548	698	11.72	7.5
ESAS0808	843	864	748	698	14.41	7.5
ESAS0810	1043	864	948	698	17.10	7.5
ESAS0810	1243	864	1148	698	20.02	7.5
ESAS0814	1443	864	1348	698	23.17	7.5
ESAS0816	1643	864	1548	698	25.86	7.5
ESAS0818	1843	864	1748	698	28.54	7.5
ESAS0820	2043	864	1948	698	31.23	7.5

TwinLine S 43

External dimensions



Dimensions of viewing area



Transparent doors Type	External dimensions Height x width in mm		Viewing area Height x width in mm		Weight in kg
	H1	W1	H2	W2	
ESAT0606	643	649	468	450	9.63
ESAT0608	843	649	668	450	11.67
ESAT0610	1043	649	868	450	13.7
ESAT0612	1243	649	1068	450	15.96
ESAT0614	1443	649	1268	450	18.36
ESAT0616	1643	649	1468	450	20.4
ESAT0618	1843	649	1668	450	22.43
ESAT0620	2043	649	1868	450	24.46
ESAT0806	643	864	468	665	11.85
ESAT0808	843	864	668	665	14.3
ESAT0810	1043	864	868	665	16.74
ESAT0812	1243	864	1068	665	19.4
ESAT0814	1443	864	1268	665	22.23
ESAT0816	1643	864	1468	665	24.67
ESAT0818	1843	864	1668	665	27.12
ESAT0820	2043	864	1868	665	29.56
ESAT2606	643	864	468	450	11.66
ESAT2608	843	864	668	450	14.2
ESAT2610	1043	864	868	450	16.47
ESAT2612	1243	864	1068	450	19.5
ESAT2614	1443	864	1268	450	22.42
ESAT2616	1643	864	1468	450	24.96
ESAT2618	1843	864	1668	450	27.5
ESAT2620	2043	864	1868	450	30

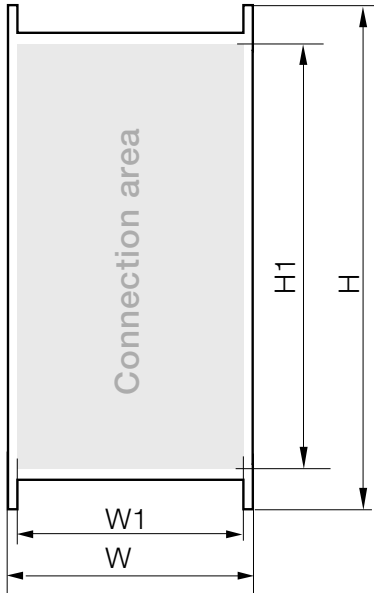
Quick product references

Overall dimensions

TwinLine S 43 mounting plate

External dimensions / Usable connection area

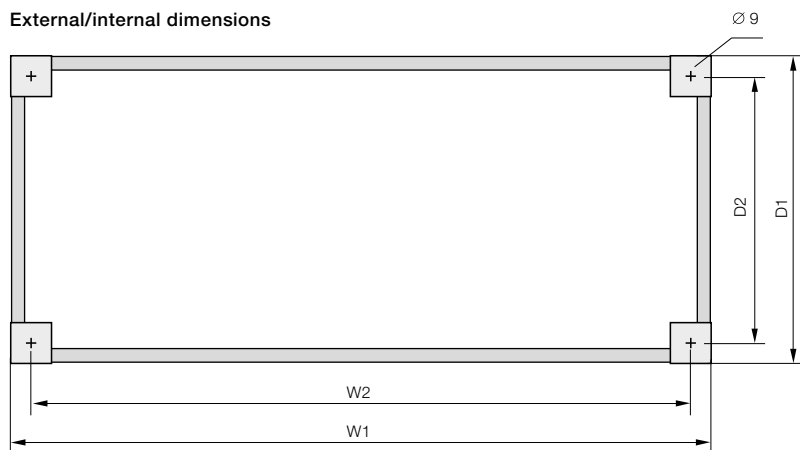
Mounting plate



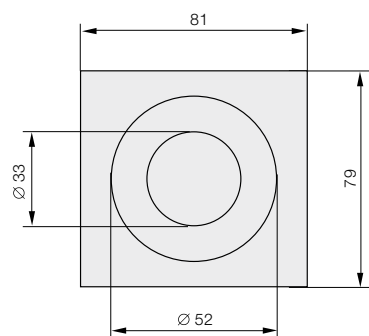
Type	External dimensions Width x depth in mm		Internal dimensions Width x depth in mm		Weight in kg
	H	W	H1	W1	
TZM204	600	496	522	410	3.51
TZM304	600	746	522	660	8.07
TZM208	1200	496	1122	410	11.82
TZM308	1200	746	1122	660	16.45
RM28	1800	496	1722	410	17.8
RM38	1800	746	1722	660	21

TwinLine S 43 plinth

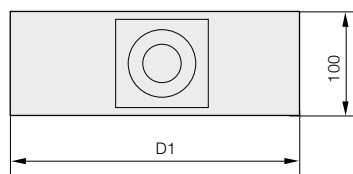
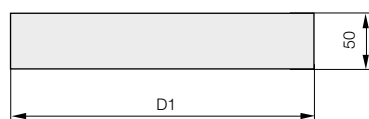
External/internal dimensions



Detail view for side knockout



View side knockout
TwinLine-G and -L

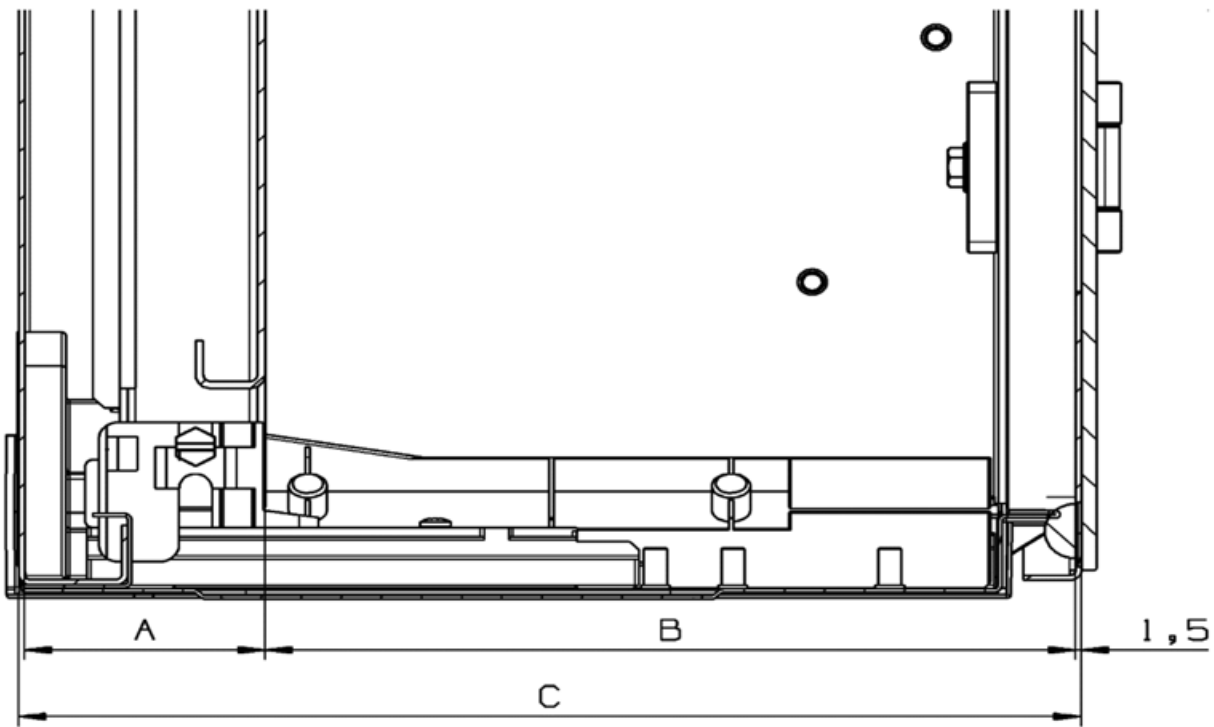


Type	External dimensions Width x depth in mm		Internal dimensions Width x depth in mm		Weight in kg
	W1	D1	W2	D2	
Plinth height 50 mm					
ESAL0305	390	253.5	360	223.5	1.57
ESAL0605	660	253.5	630	223.5	2.10
ESAL0805	875	253.5	845	223.5	2.53
ESAG0305	390	203.5	360	173.5	1.44
ESAG0605	660	203.5	630	173.5	1.98
ESAG0805	875	203.5	845	173.5	2.41
Plinth height 100 mm					
ESAL0310	390	253.5	360	223.5	2.59
ESAL0610	660	253.5	630	223.5	3.45
ESAL0810	875	253.5	845	223.5	4.13
ESAG0310	390	203.5	360	173.5	2.41
ESAG0610	660	203.5	630	173.5	3.27
ESAG0810	875	203.5	845	173.5	3.95

Quick product references

Overall dimensions

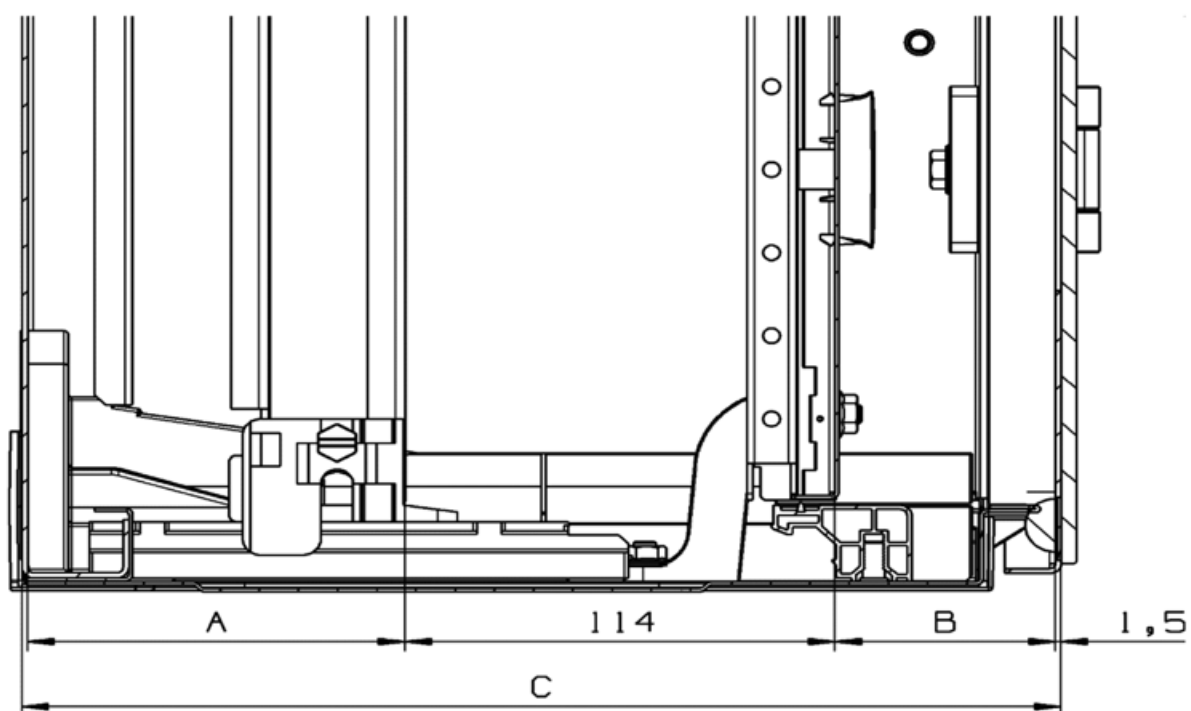
TwinLine S 43 Side view assembly with mounting plate



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Cabinet series	Depth (C) in mm	A in mm for installation position					
		Pos 3	Pos 2	Pos 1	Pos 0	Pos -1	Pos -2
TwinLine G	225	63	75.5	88	100.5	113	125.5
TwinLine L	275	63	75.5	88	100.5	113	125.5
Cabinet series	Depth (C) in mm	B in mm for installation position					
TwinLine G	225	159	146.5	134	121.5	109	96.5
TwinLine L	275	209	196.5	184	171.5	159	146.5

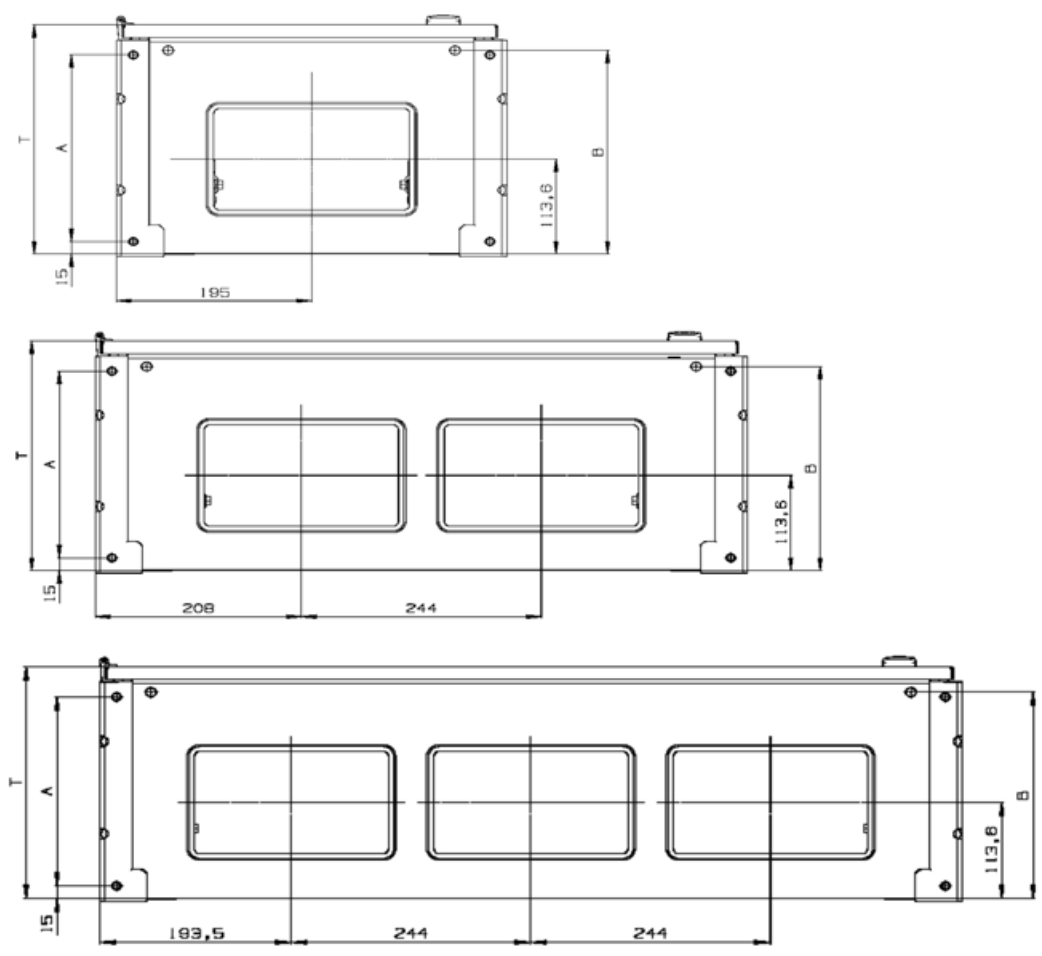
TwinLine S 43 Side view with FlexiLine for 225 mm und 275 mm depth



	Depth (C) in mm	A in mm	B in mm
TwinLine G	225	62	46
TwinLine L	275	100	58

Quick product references

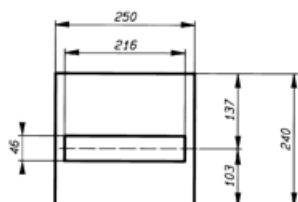
Overall dimensions



Depth in mm	A in mm	B in mm
225	173.5	170
275	223.5	244

Modular consumer units AI10N / AI11N

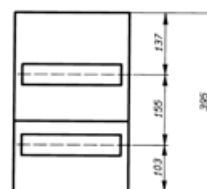
Basic enclosure



Modular enclosure



AI10N + AI11N

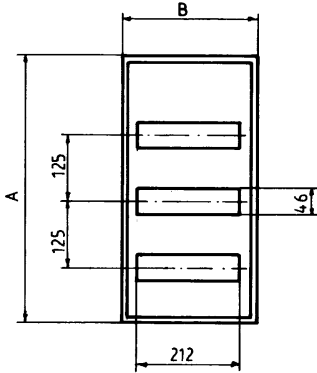


2-row combination

Quick product references

Overall dimensions

Hood-type consumer units A300



Allowed power loss hood-type consumer units A300

DIN 43871 with over temperature ΔT^*

Type	Power loss (W)		
	ΔT 20 K	ΔT 25 K	ΔT 30 K
A31...	12.5	16.5	21.0
A32...	15.0	20.0	25.0
A33...	17.0	22.0	28.0
A34...	20.5	27.0	34.0

*T is the temperature difference between upper temperature rise limit, mounted devices and ambient.

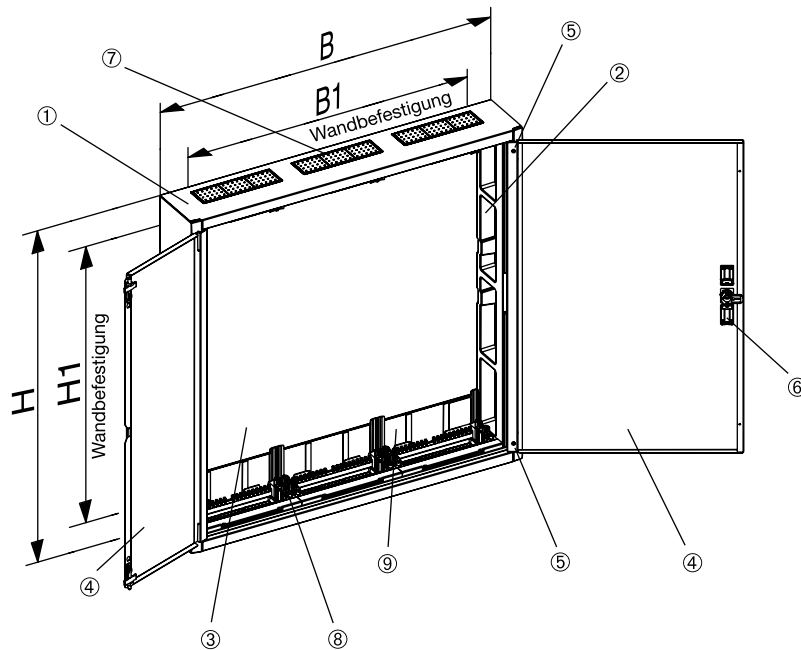


Type	A	B	C
A31...	245	295	110
A32...	385	295	110
A33...	510	295	110
A34...	635	295	110

Compact distribution boards

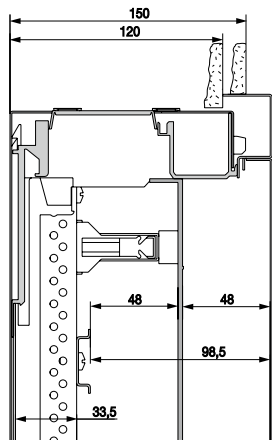
Type	H	W	H1	W1
AT22E, AL22	374	574	235	417
AT31, AL31	524	324	385	167
AT32, AT32TE, AT32R2, AT32TR2, AL32	524	574	385	417
AT41, AT41TE, AT41R3, AT41TR3, AL41	674	324	535	167
AT42, AT42TE, AT42M, AT42/2, AT42R3, AT42TR3, AL42	674	574	535	417
AT43, AT43R3, AT43TR3, AL43	674	824	535	667
AT51, AT51TE, AT51R4, AT51TR4, AL51	824	324	685	167
AT52, AT52TE, AT52K, AT52/2, AT52R4, AT52TR4, AL52	824	574	685	417
AT53, AT53M, AT53K, AT53R4, AT53TR4, AL53	824	824	685	667
AT54K, AK54E, AT54R4, AL54	824	1074	685	917
AT61, AT61TE, AT61R5, AT61TR5, AL61	974	324	835	167
AT62, AT62TE, AT62K, AT62R5, AT62TR5, AL62	974	574	835	417
AT63E, AT63K, AT63R5, AT63TR5, AL63	974	824	835	667
AT64K, AL64	974	1074	835	917
AT72, AT72K, AT72R6, AT72TR6, AL72	1124	574	985	417
AT73K, AT73R6, AT73TR6, AL73	1124	824	985	667

Dimensions in mm

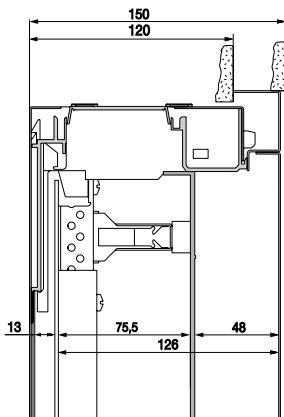


Quick product references

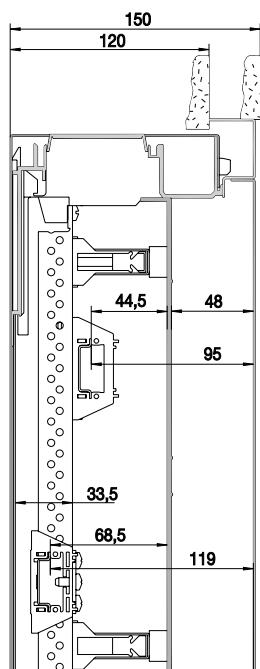
Overall dimensions



Distribution board panel



Mounting plate

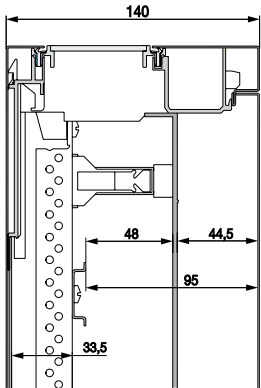


Panel for terminals

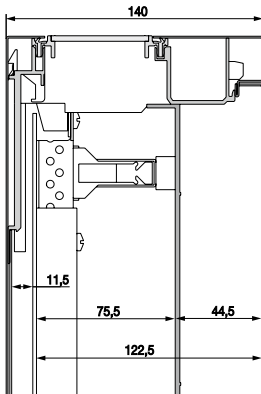
Flush-mounting with door. U

Type	Weight in kg	Power loss in Watts $\Delta t_{1,0} 20K$
U32	13.50	33.10
U32R2	13.00	33.10
U32TE	12.50	33.10
U32TR2	11.00	33.10
U41	10.50	24.30
U41R3	10.50	24.30
U41TE	9.00	24.30
U41TR3	9.50	24.30
U42	15.50	40.10
U42/2	16.50	40.10
U42D	16.50	40.10
U42FPT	17.00	40.10
U42M	18.50	40.10
U42R3	16.00	40.10
U42TE	14.00	40.10
U42TR3	14.00	40.10
U43	22.50	57.40
U43R3	23.00	57.40
U43TR3	19.50	57.40
U51	12.50	28.40
U51R4	12.00	28.40
U51TE	12.00	28.40
U51TR4	10.50	28.40
U52	18.50	46.30
U52/2	19.00	46.30
U52K	18.50	46.30
U52R4	18.00	46.30
U52TE	16.00	46.30
U52TR4	16.00	46.30
U53	26.50	65.60
U53K	26.00	65.60
U53M	29.00	65.60
U53R4	26.50	65.60
U53TR4	22.00	65.60
U54E	33.00	61.80
U54K	32.50	61.80
U54R4	33.50	61.80
U61	14.50	32.90
U61R5	14.50	32.90
U61TE	12.50	32.90
U61TR5	12.50	32.90
U62	22.00	53.10
U62K	22.00	53.10
U62R5	22.00	53.10
U62TE	19.00	53.10
U62TR5	19.00	53.10
U63E	31.00	53.30
U63K	30.50	53.30
U63R5	31.50	53.30
U63TR5	26.00	53.30
U64K	38.00	68.30
U72	25.00	59.80
U72K	25.00	59.80
U72R6	26.00	59.80
U72TR6	21.50	59.80
U73K	35.00	62.30
U73R6	35.50	62.30
U73TR6	28.50	62.30

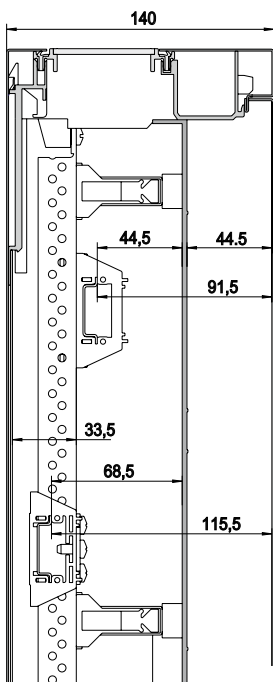
> Dimensions in mm



Distribution board panel



Mounting plate



Panel for terminals

Wall-mounting with door. AT

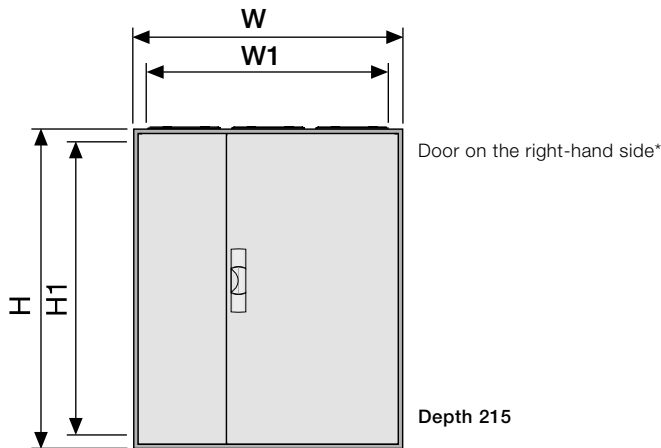
Type	Weight in kg	Power loss in Watts Δt_a 20K
AT22E	9.70	36.30
AT31	7.50	27.30
AT32	12.50	45.30
AT32R2	12.00	45.30
AT32TE	12.00	45.30
AT32TR2	11.50	45.30
AT41	9.50	33.30
AT41R3	10.00	33.30
AT41TE	9.00	33.30
AT41TR3	9.00	33.30
AT42	15.00	53.90
AT42/2	15.50	53.90
AT42M	17.50	53.90
AT42R3	15.00	53.90
AT42TE	13.00	53.90
AT42TR3	13.50	53.90
AT43	21.50	76.30
AT43R3	21.50	76.30
AT43TR3	18.00	76.30
AT51	11.50	39.20
AT51R4	11.50	39.20
AT51TE	11.50	39.20
AT51TR4	11.00	39.20
AT52	17.00	62.60
AT52/2	18.00	62.60
AT52K	17.50	62.60
AT52R4	18.00	62.60
AT52TE	18.00	62.60
AT52TR4	16.00	62.60
AT53	25.00	59.50
AT53K	25.00	59.50
AT53M	28.00	59.50
AT53R4	25.50	59.50
AT53TR4	21.50	59.50
AT54E	32.00	85.10
AT54K	31.00	85.10
AT54R4	32.50	85.10
AT54TR4	26.50	85.10
AT61	13.50	45.40
AT61R5	13.50	45.40
AT61TE	11.50	45.40
AT61TR5	12.00	45.40
AT62	21.00	49.60
AT62K	20.50	49.60
AT62R5	20.00	49.60
AT62TE	20.00	49.60
AT62TR5	20.00	49.60
AT63E	29.50	70.00
AT63K	29.00	70.00
AT63R5	29.00	70.00
AT63TR5	24.00	70.00
AT64K	36.00	100.10
AT72	23.50	57.30
AT72K	23.50	57.30
AT72R6	23.50	57.30
AT72TR6	20.00	57.30
AT73K	33.50	83.60
AT73R6	34.00	83.60
AT73TR6	30.50	83.60

> Dimensions in mm

Quick product references

Overall dimensions

A wall-mounting cabinets IP43

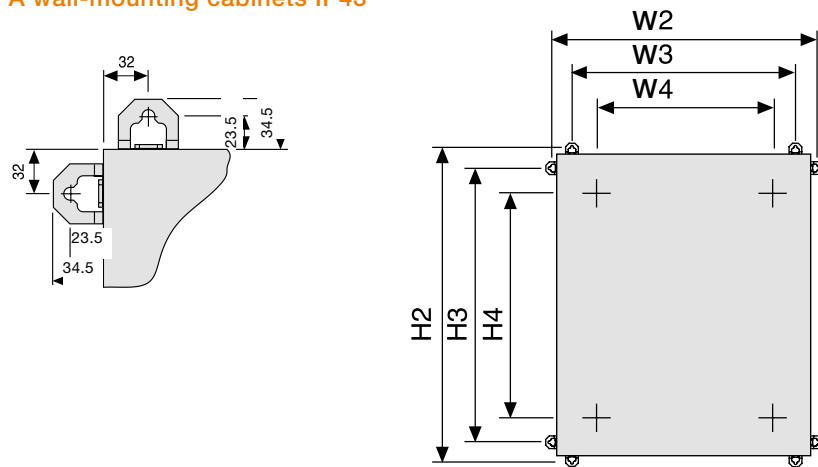


Type	OH	PW	SU	GU	Ext. dimensions		Int. dimensions		Door on the left-hand side*	Door on the right-hand side*	Weight	Power loss
					H	W	H1	W1	H x W	H x W	in kg	in watts $\Delta t_{10} 20K$
1/00A	00	1	36	3	500	300	452	252		471.4 x 272	6.20	28.80
2/00A		2	72		500	550	452	502		471.4 x 522	8.40	47.40
3/00A		3	108		500	800	452	752	471.4 x 260	471.4 x 510	12.20	67.10
4/00A		4	144		500	1050	452	1002	471.4 x 510	471.4 x 510	15.80	66.20
5/00A		5	180		500	1300	452	1252	471.4 x 510	471.4 x 760	19.60	83.60
1/0A	0	1	48	4	650	300	602	252		621.4 x 272	7.80	35.20
2/0A		2	96		650	550	602	502		621.4 x 522	11.40	56.20
3/0A		3	144		650	800	602	752	621.4 x 260	621.4 x 510	15.60	59.80
4/0A		4	192		650	1050	602	1002	621.4 x 510	621.4 x 510	16.80	80.90
5/0A		5	240		650	1300	602	1252	621.4 x 510	621.4 x 760	24.00	105.60
1/1A	1	1	60	5	800	300	752	252		771.4 x 272	9.80	41.60
2/1A		2	120		800	550	752	502		771.4 x 522	13.40	65.30
3/1A		3	180		800	800	752	752	771.4 x 260	771.4 x 510	18.00	69.70
4/1A		4	240		800	1050	752	1002	771.4 x 510	771.4 x 510	23.80	96.80
5/1A		5	300		800	1300	752	1252	771.4 x 510	771.4 x 760	28.00	128.40
1/2A	2	1	72	6	950	300	902	252		921.4 x 272	10.80	48.10
2/2A		2	144		950	550	902	502		921.4 x 522	15.60	51.90
3/2A		3	216		950	800	902	752	921.4 x 260	921.4 x 510	21.00	79.20
4/2A		4	288		950	1050	902	1002	921.4 x 510	921.4 x 510	26.80	112.60
5/2A		5	360		950	1300	902	1252	921.4 x 510	921.4 x 760	31.20	150.90
1/3A	3	1	84	7	1100	300	1052	252		1071.4 x 272	12.00	54.50
2/3A		2	168		1100	550	1052	502		1071.4 x 522	17.60	60.70
3/3A		3	252		1100	800	1052	752	1071.4 x 260	1071.4 x 510	23.60	87.50
4/3A		4	336		1100	1050	1052	1002	1071.4 x 510	1071.4 x 510	30.00	131.30
5/3A		5	420		1100	1300	1052	1252	1071.4 x 510	1071.4 x 760	35.20	171.20
1/4A	4	1	96	8	1250	300	1202	252		1221.4 x 272	14.00	60.80
2/4A		2	192		1250	550	1202	502		1221.4 x 522	19.20	68.30
3/4A		3	288		1250	800	1202	752	1221.4 x 260	1221.4 x 510	26.00	101.50
4/4A		4	384		1250	1050	1202	1002	1221.4 x 510	1221.4 x 510	32.40	147.40
5/4A		5	480		1250	1300	1202	1252	1221.4 x 510	1221.4 x 760	40.20	190.50
1/5A	5	1	108	9	1400	300	1352	252		1371.4 x 272	15.00	67.20
2/5A		2	216		1400	550	1352	502		1371.4 x 522	22.40	77.80
3/5A		3	324		1400	800	1352	752	1371.4 x 260	1371.4 x 510	29.20	118.10
4/5A		4	432		1400	1050	1352	1002	1371.4 x 510	1371.4 x 510	35.20	156.00
5/5A		5	540		1400	1300	1352	1252	1371.4 x 510	1371.4 x 760	44.00	205.60

> Dimensions in mm

* Double-wing doors on cabinets with three or more panel widths

A wall-mounting cabinets IP43



Type	OH	PW	SU	GU	Ext. fastening				Int. fastening		Weight in kg	Power loss in watts $\Delta t_{1,0} 20K$
					H2	H3	W2	W3	H4	W4		
1/00A	00	1	36	3	547	436	347	236	402	170	6.20	28.80
2/00A		2	72		547	436	597	486	402	420	8.40	47.40
3/00A		3	108		547	436	847	736	402	670	12.20	67.10
4/00A		4	144		547	436	1097	986	402	920	15.80	66.20
5/00A		5	180		547	436	1347	1236	402	1170	19.60	83.60
1/0A	0	1	48	4	697	586	347	236	552	170	7.80	35.20
2/0A		2	96		697	586	597	486	552	420	11.40	56.20
3/0A		3	144		697	586	847	736	552	670	15.60	59.80
4/0A		4	192		697	586	1097	986	552	920	16.80	80.90
5/0A		5	240		697	586	1347	1236	552	1170	24.00	105.60
1/1A	1	1	60	5	847	736	347	236	702	170	9.80	41.60
2/1A		2	120		847	736	597	486	702	420	13.40	65.30
3/1A		3	180		847	736	847	736	702	670	18.00	69.70
4/1A		4	240		847	736	1097	986	702	920	23.80	96.80
5/1A		5	300		847	736	1347	1236	702	1170	28.00	128.40
1/2A	2	1	72	6	997	886	347	236	852	170	10.80	48.10
2/2A		2	144		997	886	597	486	852	420	15.60	51.90
3/2A		3	216		997	886	847	736	852	670	21.00	79.20
4/2A		4	288		997	886	1097	986	852	920	26.80	112.60
5/2A		5	360		997	886	1347	1236	852	1170	31.20	150.90
1/3A	3	1	84	7	1147	1036	347	236	1002	170	12.00	54.50
2/3A		2	168		1147	1036	597	486	1002	420	17.60	60.70
3/3A		3	252		1147	1036	847	736	1002	670	23.60	87.50
4/3A		4	336		1147	1036	1097	986	1002	920	30.00	131.30
5/3A		5	420		1147	1036	1347	1236	1002	1170	35.20	171.20
1/4A	4	1	96	8	1297	1186	347	236	1152	170	14.00	60.80
2/4A		2	192		1297	1186	597	486	1152	420	19.20	68.30
3/4A		3	288		1297	1186	847	736	1152	670	26.00	101.50
4/4A		4	384		1297	1186	1097	986	1152	920	32.40	147.40
5/4A		5	480		1297	1186	1347	1236	1152	1170	40.20	190.50
1/5A	5	1	108	9	1447	1336	347	236	1302	170	15.00	67.20
2/5A		2	216		1447	1336	597	486	1302	420	22.40	77.80
3/5A		3	324		1447	1336	847	736	1302	670	29.20	118.10
4/5A		4	432		1447	1336	1097	986	1302	920	35.20	156.00
5/5A		5	540		1447	1336	1347	1236	1302	1170	44.00	205.60

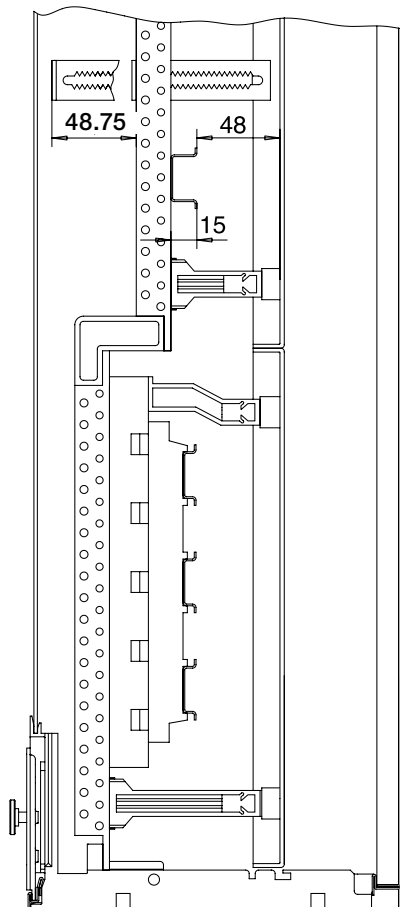
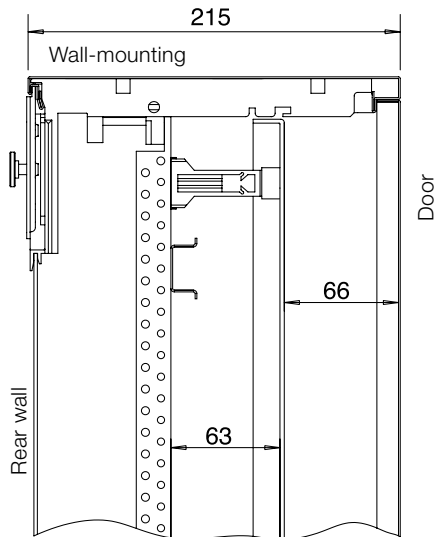
> Dimensions in mm

Quick product references

Overall dimensions

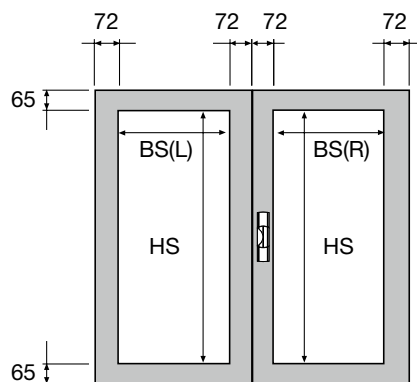
A wall-mounting cabinets IP43 Interior configuration

Cross section with distribution boards panels and combination sets



> Dimensions in mm

A wall-mounting cabinets IP43 transparent doors



Type	Cabinet				Door on the left	Door on the right	Window on the left	Window on the right
	A Cabinet	OH	PW	GU	H x W	H x W	HW x WW(L)	HW x WW(R)
TTS100	1/00A	00	1	3	-	471.4 x 272	-	341.4 x 128
TTS200	2/00A		2		-	471.4 x 522	-	341.4 x 378
TTS300	3/00A		3		471.4 x 260	471.4 x 510	341.4 x 116	341.4 x 366
TTS400	4/00A		4		471.4 x 510	471.4 x 510	341.4 x 366	341.4 x 366
TTS500	5/00A		5		471.4 x 510	471.4 x 760	341.4 x 366	341.4 x 616
TTS10	1/0A	0	1	4	-	621.4 x 272	-	491.4 x 128
TTS20	2/0A		2		-	621.4 x 522	-	491.4 x 378
TTS30	3/0A		3		621.4 x 260	621.4 x 510	491.4 x 116	491.4 x 366
TTS40	4/0A		4		621.4 x 510	621.4 x 510	491.4 x 366	491.4 x 366
TTS50	5/0A		5		621.4 x 510	621.4 x 760	491.4 x 366	491.4 x 616
TTS11	1/1A	1	1	5	-	771.4 x 272	-	641.4 x 128
TTS21	2/1A		2		-	771.4 x 522	-	641.4 x 378
TTS31	3/1A		3		771.4 x 260	771.4 x 510	641.4 x 116	641.4 x 366
TTS41	4/1A		4		771.4 x 510	771.4 x 510	641.4 x 366	641.4 x 366
TTS51	5/1A		5		771.4 x 510	771.4 x 760	641.4 x 366	641.4 x 616
TTS12	1/2A	2	1	6	-	921.4 x 272	-	791.4 x 128
TTS22	2/2A		2		-	921.4 x 522	-	791.4 x 378
TTS32	3/2A		3		921.4 x 260	921.4 x 510	791.4 x 116	791.4 x 366
TTS42	4/2A		4		921.4 x 510	921.4 x 510	791.4 x 366	791.4 x 366
TTS52	5/2A		5		921.4 x 510	921.4 x 760	791.4 x 366	791.4 x 616
TTS13	1/3A	3	1	7	-	1071.4 x 272	-	941.4 x 128
TTS23	2/3A		2		-	1071.4 x 522	-	941.4 x 378
TTS33	3/3A		3		1071.4 x 260	1071.4 x 510	941.4 x 116	941.4 x 366
TTS43	4/3A		4		1071.4 x 510	1071.4 x 510	941.4 x 366	941.4 x 366
TTS53	5/3A		5		1071.4 x 510	1071.4 x 760	941.4 x 366	941.4 x 616
TTS14	1/4A	4	1	8	-	1221.4 x 272	-	1091.4 x 128
TTS24	2/4A		2		-	1221.4 x 522	-	1091.4 x 378
TTS34	3/4A		3		1221.4 x 260	1221.4 x 510	1091.4 x 116	1091.4 x 366
TTS44	4/4A		4		1221.4 x 510	1221.4 x 510	1091.4 x 366	1091.4 x 366
TTS54	5/4A		5		1221.4 x 510	1221.4 x 760	1091.4 x 366	1091.4 x 616
TTS15	1/5A	5	1	9	-	1371.4 x 272	-	1241.4 x 128
TTS25	2/5A		2		-	1371.4 x 522	-	1241.4 x 378
TTS35	3/5A		3		1371.4 x 260	1371.4 x 510	1241.4 x 116	1241.4 x 366
TTS45	4/5A		4		1371.4 x 510	1371.4 x 510	1241.4 x 366	1241.4 x 366
TTS55	5/5A		5		1371.4 x 510	1371.4 x 760	1241.4 x 366	1241.4 x 616

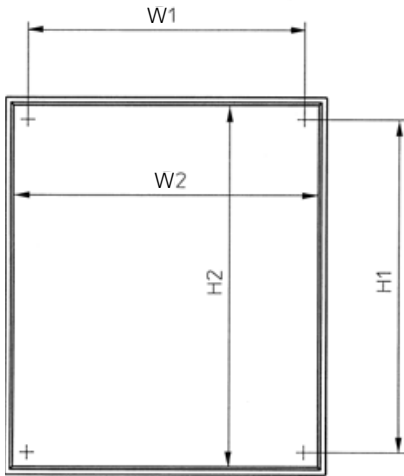
> Dimensions in mm

*Double-wing doors on cabinets with three or more panel widths

Quick product references

Overall dimensions

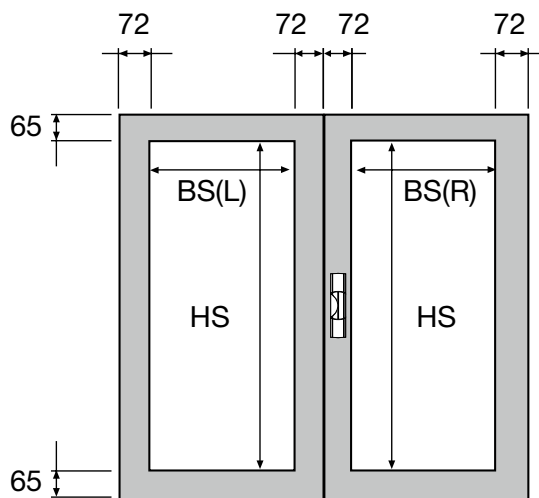
B wall-mounting cabinets IP43



Type	OH	PW	SU	GU	Ext. dimensions			Int. dimensions		Int. fastening dimensions		Weight in kg	Power loss in watts $\Delta t_{1,0} 20K$
					H	W	D	H2	W2	H1	W1		
1/00B	00	1	36	3	500	300	215	452	252	388	188	7,40	28,80
2/00B		2	72		500	550	215	452	502	388	438	9,60	47,40
3/00B		3	108		500	800	215	452	752	388	688	13,40	67,10
1/0B	0	1	48	4	650	300	215	602	252	538	188	9,00	35,20
2/0B		2	96		650	550	215	602	502	538	438	12,60	56,20
3/0B		3	144		650	800	215	602	752	538	688	16,80	59,80
4/0B		4	192		650	1050	215	602	1002	538	938	18,00	80,90
5/0B		5	240		650	1300	215	602	1252	538	1188	25,20	105,60
1/1B	1	1	60	5	800	300	215	752	252	688	188	10,80	41,60
2/1B		2	120		800	550	215	752	502	688	438	14,60	65,30
3/1B		3	180		800	800	215	752	752	688	688	19,20	69,70
4/1B		4	240		800	1050	215	752	1002	688	938	24,80	96,80
5/1B		5	300		800	1300	215	752	1252	688	1188	29,20	128,40
1/2B	2	1	72	6	950	300	215	902	252	838	188	12,00	48,10
2/2B		2	144		950	550	215	902	502	838	438	16,80	51,90
3/2B		3	216		950	800	215	902	752	838	688	22,20	79,20
4/2B		4	288		950	1050	215	902	1002	838	938	28,00	112,60
5/2B		5	360		950	1300	215	902	1252	838	1188	32,40	150,90
1/3B	3	1	84	7	1100	300	215	1052	252	988	188	13,20	54,50
2/3B		2	168		1100	550	215	1052	502	988	438	18,80	60,70
3/3B		3	252		1100	800	215	1052	752	988	688	24,80	87,50
4/3B		4	336		1100	1050	215	1052	1002	988	938	31,20	131,30
5/3B		5	420		1100	1300	215	1052	1252	988	1188	36,40	171,20
1/4B	4	1	96	8	1250	300	215	1202	252	1138	188	15,00	60,80
2/4B		2	192		1250	550	215	1202	502	1138	438	20,40	68,30
3/4B		3	288		1250	800	215	1202	752	1138	688	27,20	101,50
4/4B		4	384		1250	1050	215	1202	1002	1138	938	33,60	147,40
5/4B		5	480		1250	1300	215	1202	1252	1138	1188	41,40	190,50
1/5B	5	1	108	9	1400	300	215	1352	252	1288	188	16,20	67,20
2/5B		2	216		1400	550	215	1352	502	1288	438	23,60	77,80
3/5B		3	324		1400	800	215	1352	752	1288	688	30,40	118,10
4/5B		4	432		1400	1050	215	1352	1002	1288	938	36,40	156,00
5/5B		5	540		1400	1300	215	1352	1252	1288	1188	45,20	205,60

> Dimensions in mm

B wall-mounting cabinets IP43



Type	B wall-mounting cabinet	OH	PW	GU	Door on the left-hand side*	Door on the right-hand side*	Window on the left-hand side	Window on the right-hand side
					H x W	H x W	HW x WW(L)	HW x WW(R)
TTS100	1/00B	00	1	3	-	471.4 x 272	-	341.4 x 128
TTS200	2/00B		2		-	471.4 x 522	-	341.4 x 378
TTS300	3/00B		3		471.4 x 260	471.4 x 510	341.4 x 116	341.4 x 366
TTS400	-		4		471.4 x 510	471.4 x 510	341.4 x 366	341.4 x 366
TTS500	-		5		471.4 x 510	471.4 x 760	341.4 x 366	341.4 x 616
TTS10	1/0B	0	1	4	-	621.4 x 272	-	491.4 x 128
TTS20	2/0B		2		-	621.4 x 522	-	491.4 x 378
TTS30	3/0B		3		621.4 x 260	621.4 x 510	491.4 x 116	491.4 x 366
TTS40	4/0B		4		621.4 x 510	621.4 x 510	491.4 x 366	491.4 x 366
TTS50	5/0B		5		621.4 x 510	621.4 x 760	491.4 x 366	491.4 x 616
TTS11	1/1B	1	1	5	-	771.4 x 272	-	641.4 x 128
TTS21	2/1B		2		-	771.4 x 522	-	641.4 x 378
TTS31	3/1B		3		771.4 x 260	771.4 x 510	641.4 x 116	641.4 x 366
TTS41	4/1B		4		771.4 x 510	771.4 x 510	641.4 x 366	641.4 x 366
TTS51	5/1B		5		771.4 x 510	771.4 x 760	641.4 x 366	641.4 x 616
TTS12	1/2B	2	1	6	-	921.4 x 272	-	791.4 x 128
TTS22	2/2B		2		-	921.4 x 522	-	791.4 x 378
TTS32	3/2B		3		921.4 x 260	921.4 x 510	791.4 x 116	791.4 x 366
TTS42	4/2B		4		921.4 x 510	921.4 x 510	791.4 x 366	791.4 x 366
TTS52	5/2B		5		921.4 x 510	921.4 x 760	791.4 x 366	791.4 x 616
TTS13	1/3B	3	1	7	-	1071.4 x 272	-	941.4 x 128
TTS23	2/3B		2		-	1071.4 x 522	-	941.4 x 378
TTS33	3/3B		3		1071.4 x 260	1071.4 x 510	941.4 x 116	941.4 x 366
TTS43	4/3B		4		1071.4 x 510	1071.4 x 510	941.4 x 366	941.4 x 366
TTS53	5/3B		5		1071.4 x 510	1071.4 x 760	941.4 x 366	941.4 x 616
TTS14	1/4B	4	1	8	-	1221.4 x 272	-	1091.4 x 128
TTS24	2/4B		2		-	1221.4 x 522	-	1091.4 x 378
TTS34	3/4B		3		1221.4 x 260	1221.4 x 510	1091.4 x 116	1091.4 x 366
TTS44	4/4B		4		1221.4 x 510	1221.4 x 510	1091.4 x 366	1091.4 x 366
TTS54	5/4B		5		1221.4 x 510	1221.4 x 760	1091.4 x 366	1091.4 x 616
TTS15	1/5B	5	1	9	-	1371.4 x 272	-	1241.4 x 128
TTS25	2/5B		2		-	1371.4 x 522	-	1241.4 x 378
TTS35	3/5B		3		1371.4 x 260	1371.4 x 510	1241.4 x 116	1241.4 x 366
TTS45	4/5B		4		1371.4 x 510	1371.4 x 510	1241.4 x 366	1241.4 x 366
TTS55	5/5B		5		1371.4 x 510	1371.4 x 760	1241.4 x 366	1241.4 x 616

> Dimensions in mm

*Double-wing doors on cabinets with three or more panel widths

Quick product references

Overall dimensions

H and HS floor-standing cabinets IP43

ons

HS floor-standing cabinets

With mounted EDF installation set for installing distribution board panels, combination sets and modules on the EDF mounting frame, using the ZB15 assembly set, it is also possible to incorporate meter panels.

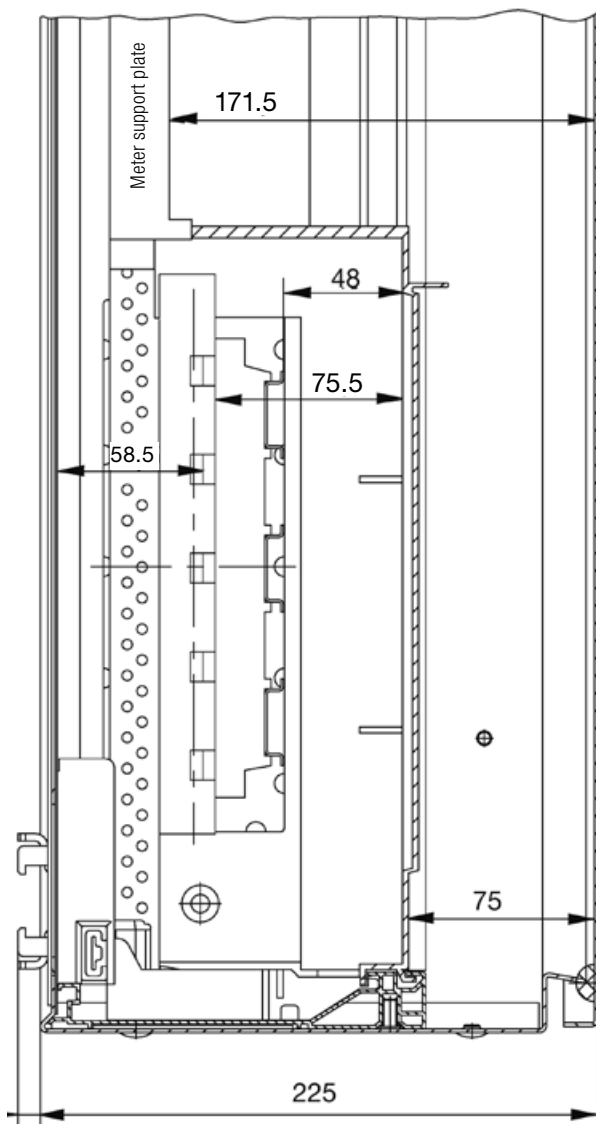
H floor-standing cabinets

With mounted EDF installation set for installing distribution board panels, combination sets and modules on the EDF mounting frame.

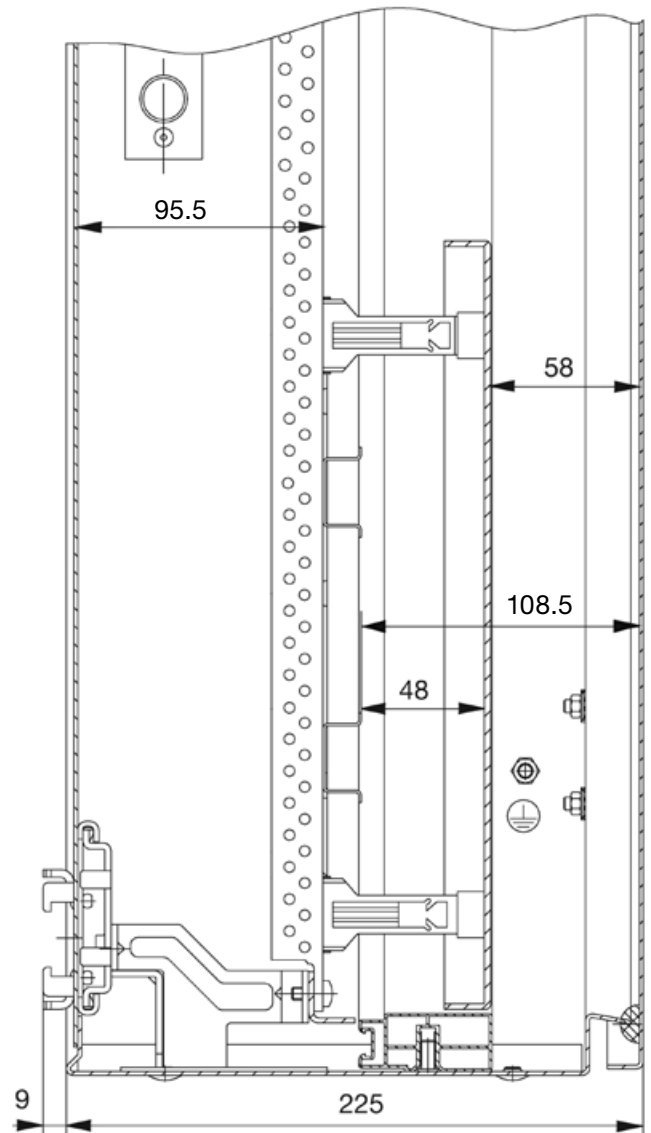
Type	Weight (kg)	Power loss	Ext. dimensions with plinth	Int. dimensi-
	with plinth	(W) $\Delta t_{1,0} 20K$	H x W x D	H1 x W1
1/8HS	30.33	67,40	1900 x 300 x 225	1802 x 252
2/8HS	44.62	119,20	1900 x 550 x 225	1802 x 502
3/8HS	57.20	170,90	1900 x 800 x 225	1802 x 752
4/8HS	73.41	206,80	1900 x 1050 x 225	1802 x 1002
1/8H	29.63	67,40	1900 x 300 x 225	1802 x 252
2/8H	43.88	119,20	1900 x 550 x 225	1802 x 502
3/8H	56.06	170,90	1900 x 800 x 225	1802 x 752
4/8H	70.83	206,80	1900 x 1050 x 225	1802 x 1002

> Dimensions in mm

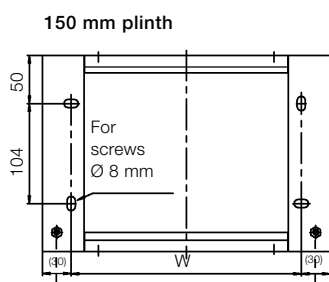
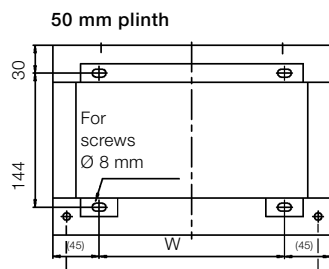
Cross section, HS cabinet with meter panel



Cross section H-cabinet with distribution board panels/modules on the EDF mounting frame



H and HS floor-standing cabinets IP43 Plinth dimensions



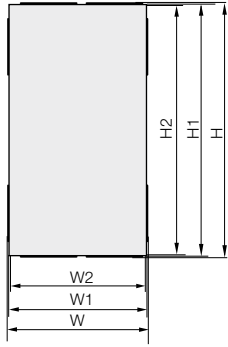
	Type	Fixing the plinth on the cabinet A in mm	Fixing the plinth on the floor B in mm
Hole spacing for fixing the plinth on the floor Plinth, height 50 mm	GSR1	270 mm	210 mm
	GSR2	520 mm	460 mm
	GSR3	770 mm	710 mm
	GSR4	1020 mm	960 mm
Hole spacing for fixing the plinth on the floor Plinth, height 150 mm	GRG1	270 mm	240 mm
	GRG2	520 mm	490 mm
	GRG3	770 mm	740 mm
	GRG4	1020 mm	990 mm

Quick product references

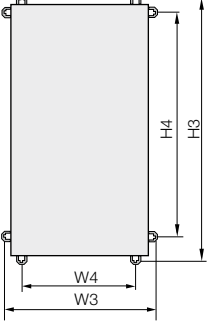
Overall dimensions

TwinLine-G, cabinet depth 225 mm \perp \square

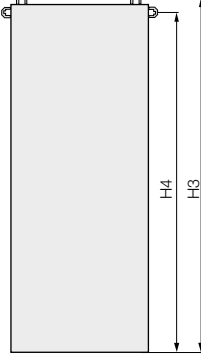
Front view
Wall-mounting and
floor-standing cabinet
External/internal dimensions



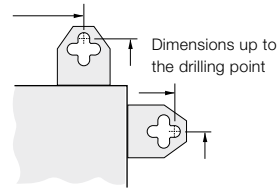
Front view
Wall-mounting cabinet
Wall fastening dimen-
sions



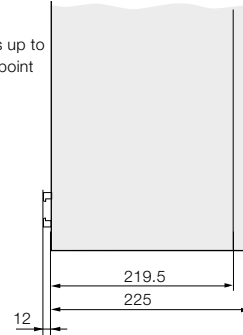
Front view
Floor-standing cabinet
Wall fastening dimen-
sions



Front view
External fastening
Detail



Side view
With/without door

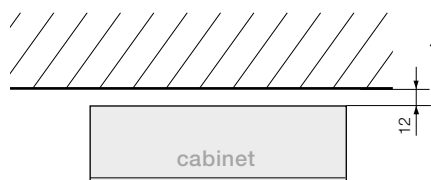


Height		Width		Type	External dimensions in mm		Internal dimensions in mm		External dimensions with flange knockout in mm		Wall fastening dimensions in mm			
GU	OH	PW			H1	W1	H2	W2	H	W	H3	W3	H4	W4
TwinLine-G wall-mounting cabinets \perp \square														
4	0	1	TG104	650	300	602	252	654	304	693.5	328	542	192	
		2	TG204	650	550	602	502	654	554	693.5	578	542	442	
		3	TG304	650	800	602	752	654	804	693.5	828	542	692	
		4	TG404	650	1050	602	1002	654	1054	693.5	1078	542	942	
		5	TG504	650	1300	602	1252	654	1304	693.5	1328	542	1192	
5	1	1	TG105	800	300	752	252	804	304	843.5	328	692	192	
		2	TG205	800	550	752	502	804	554	843.5	578	692	442	
		3	TG305	800	800	752	752	804	804	843.5	828	692	692	
		4	TG405	800	1050	752	1002	804	1054	843.5	1078	692	942	
		5	TG505	800	1300	752	1252	804	1304	843.5	1328	692	1192	
6	2	1	TG106	950	300	902	252	954	304	993.5	328	842	192	
		2	TG206	950	550	902	502	954	554	993.5	578	842	442	
		3	TG306	950	800	902	752	954	804	993.5	828	842	692	
		4	TG406	950	1050	902	1002	954	1054	993.5	1078	842	942	
		5	TG506	950	1300	902	1252	954	1304	993.5	1328	842	1192	
7	3	1	TG107	1100	300	1052	252	1104	304	1143.5	328	992	192	
		2	TG207	1100	550	1052	502	1104	554	1143.5	578	992	442	
		3	TG307	1100	800	1052	752	1104	804	1143.5	828	992	692	
		4	TG407	1100	1050	1052	1002	1104	1054	1143.5	1078	992	942	
		5	TG507	1100	1300	1052	1252	1104	1304	1143.5	1328	992	1192	
8	4	1	TG108	1250	300	1202	252	1254	304	1293.5	328	1142	192	
		2	TG208	1250	550	1202	502	1254	554	1293.5	578	1142	442	
		3	TG308	1250	800	1202	752	1254	804	1293.5	828	1142	692	
		4	TG408	1250	1050	1202	1002	1254	1054	1293.5	1078	1142	942	
		5	TG508	1250	1300	1202	1252	1254	1304	1293.5	1328	1142	1192	
9	5	1	TG109	1400	300	1352	252	1404	304	1443.5	328	1292	192	
		2	TG209	1400	550	1352	502	1404	554	1443.5	578	1292	442	
		3	TG309	1400	800	1352	752	1404	804	1443.5	828	1292	692	
		4	TG409	1400	1050	1352	1002	1404	1054	1443.5	1078	1292	942	
		5	TG509	1400	1300	1352	1252	1404	1304	1443.5	1328	1292	1192	
TwinLine-G floor-standing cabinets \perp \square														
12	8	1	TG112	1850	300	1802	252	1854	304	1872	328	1796	192	
		2	TG212	1850	550	1802	502	1854	554	1872	578	1796	442	
		3	TG312	1850	800	1802	752	1854	804	1872	828	1796	692	
		4	TG412	1850	1050	1802	1002	1854	1054	1872	1078	1796	942	
		5	TG512	1850	1300	1802	1252	1854	1304	1872	1328	1796	1192	

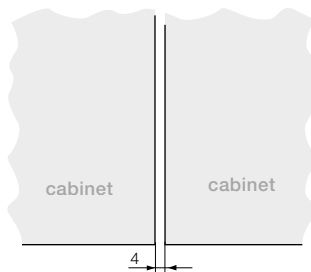
> Dimensions in mm

TwinLine-G, cabinet depth 225 mm, ≡ □

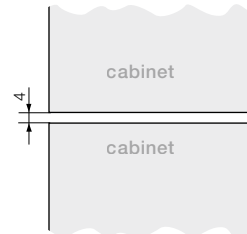
Type of installation
Cabinet to the wall



Type of installation
Cabinet combination
in series



Type of installation
Cabinet combination
on top of each other



Height		Width		Type	≡/□ Power loss in Watt* Δt _{1,0} 20K	≡ Cabinet weight in kg		□ Cabinet weight in kg		max. installation weight in kg
GU	OH	PW				With door	Without door	With door	Without door	
TwinLine-G wall-mounting cabinets ≡ □										
4	0	1	TG104	35.80	11.40	7.43	12.89	8.92	15.00	
		2	TG204	57.00	16.17	9.95	17.80	11.59	30.00	
		3	TG304	61.00	21.02	12.47	22.80	14.25	45.00	
		4	TG404	82.30	28.03	15.54	29.95	17.46	60.00	
		5	TG504	107.80	32.86	18.07	34.92	20.13	75.00	
5	1	1	TG105	42.30	13.17	8.40	14.86	10.10	20.50	
		2	TG205	66.10	18.72	11.22	20.60	13.11	41.00	
		3	TG305	71.00	24.29	14.03	26.37	16.11	61.50	
		4	TG405	99.00	32.45	17.40	34.71	19.67	82.50	
		5	TG505	131.20	38.03	20.22	40.49	22.68	103.00	
6	2	1	TG106	48.80	14.89	9.37	16.78	11.26	26.00	
		2	TG206	52.60	21.23	12.43	23.36	14.61	52.50	
		3	TG306	80.90	27.55	15.59	29.92	17.37	78.50	
		4	TG406	115.10	36.84	19.25	39.46	21.86	105.00	
		5	TG506	153.70	43.18	22.36	46.03	25.09	131.00	
7	3	1	TG107	55.40	17.14	10.72	19.23	12.81	31.50	
		2	TG207	61.40	24.36	14.25	26.74	16.64	63.50	
		3	TG307	93.50	31.56	17.79	34.23	20.46	95.50	
		4	TG407	133.70	42.23	21.87	45.19	24.83	127.50	
		5	TG507	174.30	49.44	25.41	52.69	28.66	159.00	
8	4	1	TG108	61.80	18.90	11.68	21.20	13.98	37.50	
		2	TG208	69.30	26.87	15.51	29.50	18.15	75.00	
		3	TG308	102.90	34.82	19.34	37.80	22.31	112.50	
		4	TG408	150.30	46.64	23.72	50.01	27.10	150.00	
		5	TG508	193.30	54.59	27.55	58.31	31.27	187.50	
9	5	1	TG109	68.20	20.66	12.65	23.15	15.14	43.00	
		2	TG209	79.10	29.38	16.77	32.23	19.65	86.00	
		3	TG309	119.30	38.08	20.89	41.35	24.16	129.00	
		4	TG409	157.50	51.04	25.57	54.77	29.31	172.50	
		5	TG509	208.80	59.74	29.69	63.87	33.82	215.50	
TwinLine-G floor-standing cabinets ≡ □										
12	8	1	TG112	64.00	26.17	15.78	28.89	18.50	60.00	
		2	TG212	113.00	40.22	23.81	43.73	27.31	120.00	
		3	TG312	162.60	51.87	29.54	56.17	33.84	180.00	
		4	TG412	202.10	69.40	36.27	74.59	41.46	240.00	
		5	TG512	230.80	80.19	41.11	86.17	47.09	300.00	

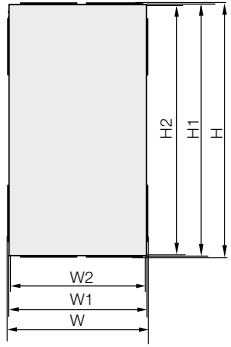
* General remarks on the determination of the power loss: Values according to DIN EN 61439-1 section 10.10.4.2.2; ambient temperature 35°C, internal temperature 55°C, the allowed device temperature must not be exceeded, levelling of the place of installation ≤ 2000 m altitude; internal form of separation = 1; side walls not covered

Quick product references

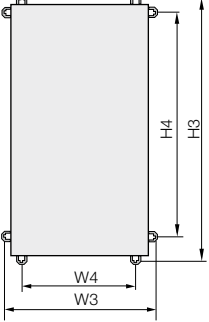
Overall dimensions

TwinLine-L, cabinet depth 275 mm ± □

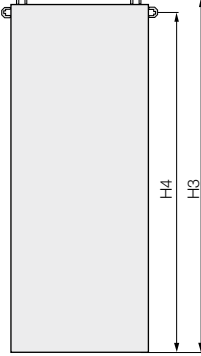
Front view
Wall-mounting and floor-standing cabinet
External/internal dimensions



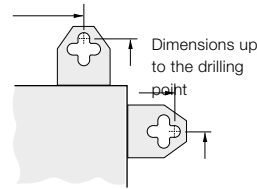
Front view
Wall-mounting cabinet
Wall fastening dimensions



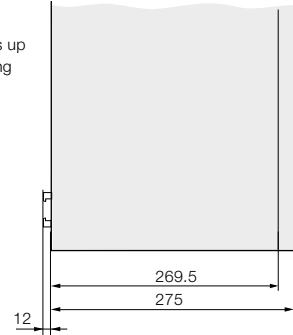
Front view
Floor-standing cabinet
Wall fastening dimensions



Front view
External fastening
Detail



Side view
With/without door

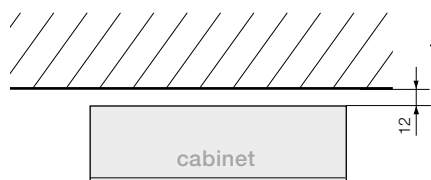


Height		Width		Type	External dimensions in mm		Internal dimensions in mm		External dimensions with flange knockout in mm		Wall fastening dimensions in mm			
GU	OH	PW			H1	W1	H2	W2	H	W	H3	W3	H4	W4
TwinLine-L wall-mounting cabinets ± □														
4	0	1	TL104	650	300	602	252	654	304	693.5	328	542	192	
		2	TL204	650	550	602	502	654	554	693.5	578	542	442	
		3	TL304	650	800	602	752	654	804	693.5	828	542	692	
		4	TL404	650	1050	602	1002	654	1054	693.5	1078	542	942	
		5	TL504	650	1300	602	1252	654	1304	693.5	1328	542	1192	
5	1	1	TL105	800	300	752	252	804	304	843.5	328	692	192	
		2	TL205	800	550	752	502	804	554	843.5	578	692	442	
		3	TL305	800	800	752	752	804	804	843.5	828	692	692	
		4	TL405	800	1050	752	1002	804	1054	843.5	1078	692	942	
		5	TL505	800	1300	752	1252	804	1304	843.5	1328	692	1192	
6	2	1	TL106	950	300	902	252	954	304	993.5	328	842	192	
		2	TL206	950	550	902	502	954	554	993.5	578	842	442	
		3	TL306	950	800	902	752	954	804	993.5	828	842	692	
		4	TL406	950	1050	902	1002	954	1054	993.5	1078	842	942	
		5	TL506	950	1300	902	1252	954	1304	993.5	1328	842	1192	
7	3	1	TL107	1100	300	1052	252	1104	304	1143.5	328	992	192	
		2	TL207	1100	550	1052	502	1104	554	1143.5	578	992	442	
		3	TL307	1100	800	1052	752	1104	804	1143.5	828	992	692	
		4	TL407	1100	1050	1052	1002	1104	1054	1143.5	1078	992	942	
		5	TL507	1100	1300	1052	1252	1104	1304	1143.5	1328	992	1192	
8	4	1	TL108	1250	300	1202	252	1254	304	1293.5	328	1142	192	
		2	TL208	1250	550	1202	502	1254	554	1293.5	578	1142	442	
		3	TL308	1250	800	1202	752	1254	804	1293.5	828	1142	692	
		4	TL408	1250	1050	1202	1002	1254	1054	1293.5	1078	1142	942	
		5	TL508	1250	1300	1202	1252	1254	1304	1293.5	1328	1142	1192	
9	5	1	TL109	1400	300	1352	252	1404	304	1443.5	328	1292	192	
		2	TL209	1400	550	1352	502	1404	554	1443.5	578	1292	442	
		3	TL309	1400	800	1352	752	1404	804	1443.5	828	1292	692	
		4	TL409	1400	1050	1352	1002	1404	1054	1443.5	1078	1292	942	
		5	TL509	1400	1300	1352	1252	1404	1304	1443.5	1328	1292	1192	
TwinLine-L floor-standing cabinets ± □														
12	8	1	TL112	1850	300	1802	252	1854	304	1872	328	1796	192	
		2	TL212	1850	550	1802	502	1854	554	1872	578	1796	442	
		3	TL312	1850	800	1802	752	1854	804	1872	828	1796	692	
		4	TL412	1850	1050	1802	1002	1854	1054	1872	1078	1796	942	
		5	TL512	1850	1300	1802	1252	1854	1304	1872	1328	1796	1192	

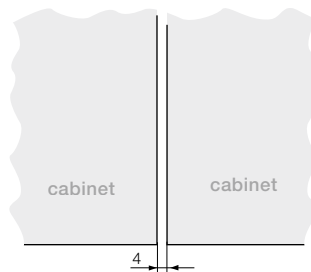
> Dimensions in mm

TwinLine-L, cabinet depth 275 mm \pm \square

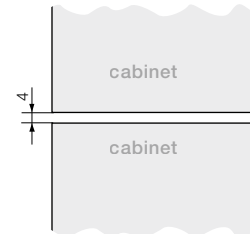
Type of installation
Cabinet to the wall



Type of installation
Cabinet combination
in series



Type of installation
Cabinet combination
on top of each other



Height		Width		Type	\pm/\square Power loss in Watt* $\Delta t_{1,0} 20K$	\pm Cabinet weight in kg		\square Cabinet weight in kg		max. installation weight in kg
GU	OH	PW				With door	Without door	With door	Without door	
TwinLine-L wall-mounting cabinets \pm/\square										
4	0	1	TL104	38.80	12.25	8.28	13.80	9.83	15.00	
		2	TL204	60.80	17.23	10.97	18.94	12.72	30.00	
		3	TL304	67.10	22.30	13.75	24.16	15.61	45.00	
		4	TL404	89.70	29.54	17.06	31.54	19.08	60.00	
		5	TL504	116.80	34.59	19.79	36.76	21.97	75.00	
5	1	1	TL105	45.80	14.13	9.37	15.89	11.13	20.50	
		2	TL205	70.20	19.90	12.40	21.86	14.36	41.00	
		3	TL305	78.00	25.68	15.43	27.86	17.60	61.50	
		4	TL405	108.90	34.08	19.03	36.45	21.38	82.50	
		5	TL505	145.10	39.87	22.06	42.46	24.64	103.00	
6	2	1	TL106	52.80	15.97	10.45	17.94	12.35	26.00	
		2	TL206	59.90	22.53	13.78	24.75	16.00	52.50	
		3	TL306	89.80	29.06	17.10	31.54	19.58	78.50	
		4	TL406	128.10	38.59	21.00	41.32	23.73	105.00	
		5	TL506	168.00	45.14	24.32	48.09	27.28	131.00	
7	3	1	TL107	59.80	18.34	11.89	20.51	14.09	31.50	
		2	TL207	65.20	25.77	15.67	28.25	18.15	63.50	
		3	TL307	102.80	33.19	19.41	35.97	22.20	95.50	
		4	TL407	145.70	44.10	23.74	47.19	27.14	127.50	
		5	TL507	189.20	51.51	27.48	54.91	30.88	159.00	
8	4	1	TL108	66.70	20.22	13.00	22.61	15.39	37.50	
		2	TL208	74.40	28.40	17.04	31.14	19.78	75.00	
		3	TL308	117.80	36.57	21.09	39.66	24.18	112.50	
		4	TL408	163.70	48.62	25.70	52.14	29.22	150.00	
		5	TL508	207.70	56.79	29.75	60.65	33.61	187.50	
9	5	1	TL109	52.20	22.39	14.09	24.69	16.68	43.00	
		2	TL209	86.00	31.03	18.42	34.03	21.42	86.00	
		3	TL309	126.00	39.95	22.76	43.35	26.16	129.00	
		4	TL409	179.10	53.14	27.68	57.02	31.55	172.50	
		5	TL509	222.10	62.05	32.01	66.34	36.29	215.50	
TwinLine-L floor-standing cabinets \pm/\square										
12	8	1	TL112	69.60	27.96	17.57	30.84	20.45	60.00	
		2	TL212	120.90	42.23	25.81	45.91	29.49	120.00	
		3	TL312	171.90	54.09	31.76	58.58	36.24	180.00	
		4	TL412	207.00	71.86	38.72	77.25	44.12	240.00	
		5	TL512	250.30	83.46	44.37	89.66	50.57	300.00	

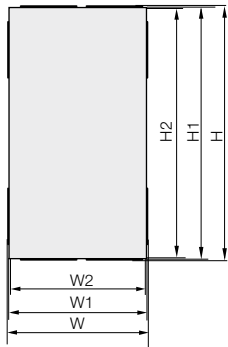
* General remarks on the determination of the power loss: Values according to DIN EN 61439-1, section 10.10.4.2.2; ambient temperature 35°C, internal temperature 55°C, the allowed device temperature must not be exceeded, levelling of the place of installation ≤ 2000 m altitude; internal form of separation = 1; side walls not covered

Quick product references

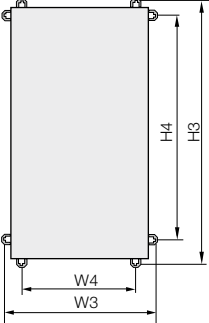
Overall dimensions

TwinLine-W, cabinet depth 350 mm ± □

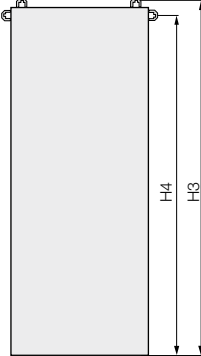
Front view
Wall-mounting and floor-standing cabinet
External/internal dimensions



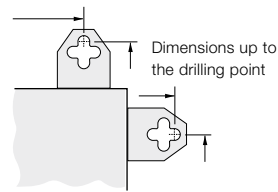
Front view
Wall-mounting cabinet
Wall fastening dimensions



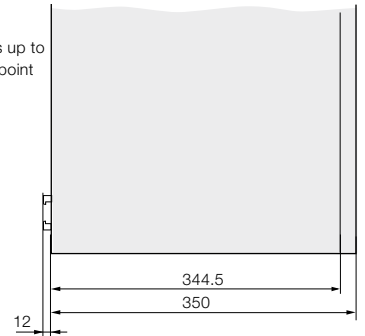
Front view
Floor-standing cabinet
Wall fastening dimensions



Front view
External fastening
Detail



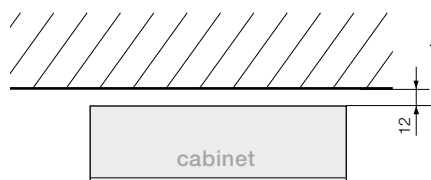
Side view
With/without door



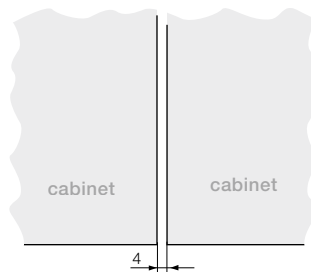
Height		Width		Type	External dimensions in mm		Internal dimensions in mm		External dimensions with flange knockout in mm		Wall fastening dimensions in mm			
GU	OH	PW			H1	W1	H2	W2	H	W	H3	W3	H4	W4
TwinLine-W wall-mounting cabinets ± □														
4	0	1	TW104	650	300	602	252	654	304	693.5	328	542	192	
		2	TW204	650	550	602	502	654	554	693.5	578	542	442	
		3	TW304	650	800	602	752	654	804	693.5	828	542	692	
		4	TW404	650	1050	602	1002	654	1054	693.5	1078	542	942	
		5	TW504	650	1300	602	1252	654	1304	693.5	1328	542	1192	
5	1	1	TW105	800	300	752	252	804	304	843.5	328	692	192	
		2	TW205	800	550	752	502	804	554	843.5	578	692	442	
		3	TW305	800	800	752	752	804	804	843.5	828	692	692	
		4	TW405	800	1050	752	1002	804	1054	843.5	1078	692	942	
		5	TW505	800	1300	752	1252	804	1304	843.5	1328	692	1192	
6	2	1	TW106	950	300	902	252	954	304	993.5	328	842	192	
		2	TW206	950	550	902	502	954	554	993.5	578	842	442	
		3	TW306	950	800	902	752	954	804	993.5	828	842	692	
		4	TW406	950	1050	902	1002	954	1054	993.5	1078	842	942	
		5	TW506	950	1300	902	1252	954	1304	993.5	1328	842	1192	
7	3	1	TW107	1100	300	1052	252	1104	304	1143.5	328	992	192	
		2	TW207	1100	550	1052	502	1104	554	1143.5	578	992	442	
		3	TW307	1100	800	1052	752	1104	804	1143.5	828	992	692	
		4	TW407	1100	1050	1052	1002	1104	1054	1143.5	1078	992	942	
		5	TW507	1100	1300	1052	1252	1104	1304	1143.5	1328	992	1192	
8	4	1	TW108	1250	300	1202	252	1254	304	1293.5	328	1142	192	
		2	TW208	1250	550	1202	502	1254	554	1293.5	578	1142	442	
		3	TW308	1250	800	1202	752	1254	804	1293.5	828	1142	692	
		4	TW408	1250	1050	1202	1002	1254	1054	1293.5	1078	1142	942	
		5	TW508	1250	1300	1202	1252	1254	1304	1293.5	1328	1142	1192	
9	5	1	TW109	1400	300	1352	252	1404	304	1443.5	328	1292	192	
		2	TW209	1400	550	1352	502	1404	554	1443.5	578	1292	442	
		3	TW309	1400	800	1352	752	1404	804	1443.5	828	1292	692	
		4	TW409	1400	1050	1352	1002	1404	1054	1443.5	1078	1292	942	
		5	TW509	1400	1300	1352	1252	1404	1304	1443.5	1328	1292	1192	
TwinLine-W floor-standing cabinets ± □														
12	8	1	TW112	1850	300	1802	252	1854	304	1872	328	1796	192	
		2	TW212	1850	550	1802	502	1854	554	1872	578	1796	442	
		3	TW312	1850	800	1802	752	1854	804	1872	828	1796	692	
		4	TW412	1850	1050	1802	1002	1854	1054	1872	1078	1796	942	
		5	TW512	1850	1300	1802	1252	1854	1304	1872	1328	1796	1192	
		6	TW612	1850	1550	1802	1502	1854	1554	1872	1578	1796	1442	

TwinLine-W, cabinet depth 350 mm \neq \square

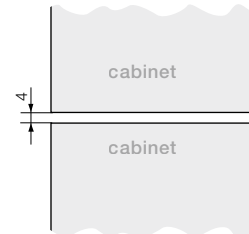
Type of installation
Cabinet to the wall



Type of installation
Cabinet combination
in series



Type of installation
Cabinet combination
on top of each other



Height		Width		Type	\neq/\square Power loss in Watt* $\Delta t_{1,0} 20K$	\neq Cabinet weight in kg		\square Cabinet weight in kg		max. installation weight in kg
GU	OH	PW	With door			Without door	With door	Without door		
TwinLine-W wall-mounting cabinets \neq \square										
4	0	1	TW104	43.00	13.50	9.47	15.13	11.16	15.00	
		2	TW204	65.90	18.79	12.58	20.60	14.38	30.00	
		3	TW304	75.90	24.17	15.62	26.16	17.61	45.00	
		4	TW404	100.10	31.76	19.27	33.92	21.44	60.00	
		5	TW504	129.30	37.12	22.32	39.46	24.66	75.00	
5	1	1	TW105	50.50	15.56	10.80	17.41	12.65	20.50	
		2	TW205	59.80	21.64	14.14	23.72	16.21	41.00	
		3	TW305	87.70	27.74	17.48	30.04	19.78	61.50	
		4	TW405	121.30	36.47	21.42	39.00	23.95	82.50	
		5	TW505	158.90	42.58	24.77	45.33	27.52	103.00	
6	2	1	TW106	58.20	17.58	12.06	19.65	14.13	26.00	
		2	TW206	68.20	24.44	15.69	26.79	18.04	52.50	
		3	TW306	102.80	31.29	19.33	33.91	21.95	78.50	
		4	TW406	144.80	41.16	23.57	44.06	26.46	105.00	
		5	TW506	185.80	48.02	27.20	51.19	30.07	131.00	
7	3	1	TW107	65.80	20.12	13.70	22.41	15.99	31.50	
		2	TW207	75.70	27.87	17.76	30.48	20.38	63.50	
		3	TW307	116.50	35.59	21.82	38.53	24.76	95.50	
		4	TW407	163.60	46.84	26.48	50.11	29.75	127.50	
		5	TW507	209.30	54.58	30.55	58.16	34.13	159.00	
8	4	1	TW108	52.00	22.18	14.96	24.81	17.48	37.50	
		2	TW208	82.70	30.67	19.32	33.56	22.20	75.00	
		3	TW308	132.60	39.15	23.67	42.42	26.93	112.50	
		4	TW408	180.80	51.55	28.63	55.25	32.33	150.00	
		5	TW508	227.50	60.03	32.98	64.10	37.06	187.50	
9	5	1	TW109	58.60	24.23	16.22	26.96	18.95	43.00	
		2	TW209	93.90	33.48	20.87	36.63	24.03	86.00	
		3	TW309	146.40	42.71	25.52	46.29	29.10	129.00	
		4	TW409	197.10	56.24	30.77	60.32	34.85	172.50	
		5	TW509	238.20	65.47	35.42	69.97	39.93	215.50	
TwinLine-W floor-standing cabinets \neq \square										
12	8	1	TW112	78.90	30.62	20.24	33.72	23.33	60.00	
		2	TW212	131.70	45.10	28.69	49.02	32.60	120.00	
		3	TW312	181.50	57.38	35.05	62.12	39.79	180.00	
		4	TW412	226.00	75.29	42.15	80.95	47.82	240.00	
		5	TW512	269.40	87.20	48.12	93.70	54.61	300.00	
		6	TW612	354.50	99.02	53.98	106.34	61.30	360.00	

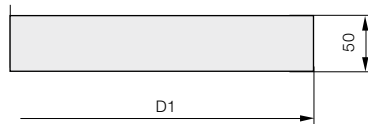
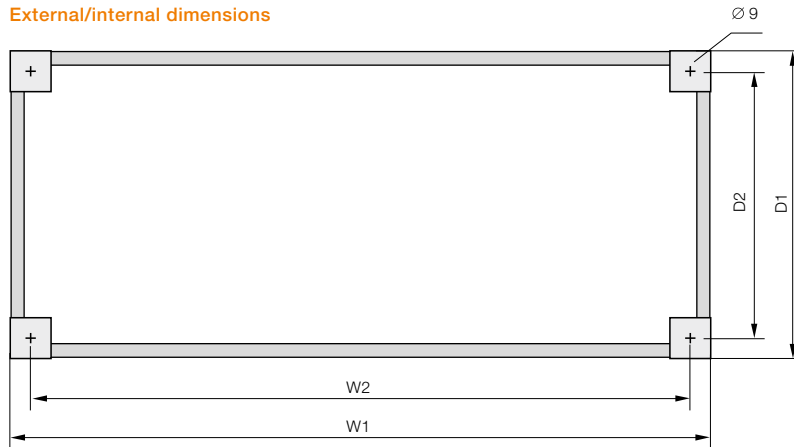
* General remarks on the determination of the power loss: Values according to DIN EN 61439-1, section 10.10.4.2.2; ambient temperature 35°C, internal temperature 55°C, the allowed device temperature must not be exceeded, levelling of the place of installation \leq 2000 m altitude; internal form of separation = 1; side walls not covered

Quick product references

Overall dimensions

TwinLine plinth, height 50 mm

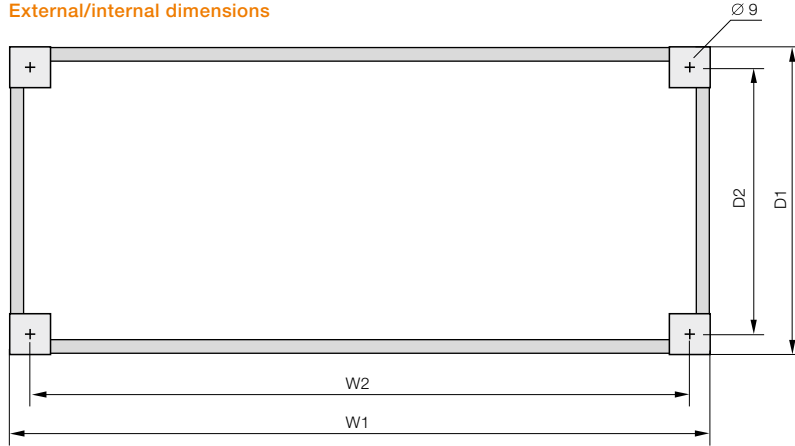
External/internal dimensions



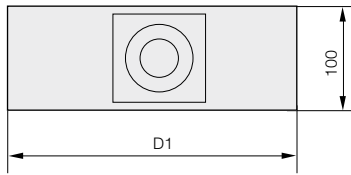
Height mm	Depth mm	Width PW	Type	External dimensions Width x depth in mm		Internal dimensions Width x depth in mm		Weight in kg
				W1	D1	W2	D2	
TwinLine-G, plinth 50 mm								
50	225	1	TZG105	300	203.5	270	173.5	1.37
		2	TZG205	550	203.5	520	173.5	1.91
		3	TZG305	800	203.5	770	173.5	3.14
		4	TZG405	1050	203.5	1020	173.5	2.93
		5	TZG505	1300	203.5	1270	173.5	3.44
TwinLine-L, plinth 50 mm								
50	275	1	TZL105	300	253.5	270	223.5	1.49
		2	TZL205	550	253.5	520	223.5	2.03
		3	TZL305	800	253.5	770	223.5	2.54
		4	TZL405	1050	253.5	1020	223.5	3.34
		5	TZL505	1300	253.5	1270	223.5	5.78
TwinLine-W, plinth 50 mm								
50	350	1	TZW105	300	328.5	270	298.5	1.67
		2	TZW205	550	328.5	520	298.5	2.21
		3	TZW305	800	328.5	770	298.5	2.72
		4	TZW405	1050	328.5	1020	298.5	5.03
		5	TZW505	1300	328.5	1270	298.5	5.97
		6	TZW605	1550	328.5	1520	298.5	6.90

TwinLine plinth, height 100 mm

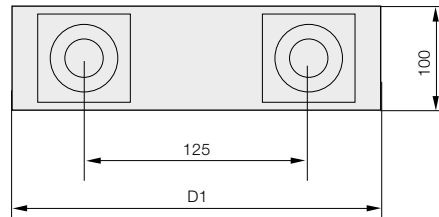
External/internal dimensions



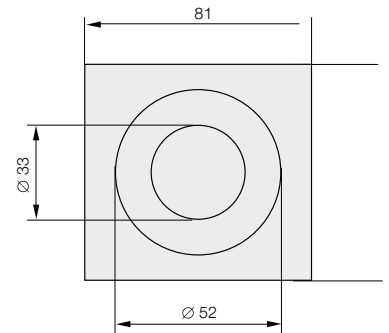
View side knockout
TwinLine-G and -L



View side knockout
TwinLine-W



Detail view for
side knockout



Height mm	Depth mm	Width PW	Type	External dimensions Width x depth in mm		Internal dimensions Width x depth in mm		Weight in kg
				W1	D1	W2	D2	
TwinLine-G, plinth 100 mm								
100	225	1	TZG110	300	203.5	270	173.5	2.22
		2	TZG210	550	203.5	520	173.5	3.06
		3	TZG310	800	203.5	770	173.5	3.87
		4	TZG410	1050	203.5	1020	173.5	4.67
		5	TZG510	1300	204.5	1270	173.5	5.47
TwinLine-L, plinth 100 mm								
100	275	1	TZL110	300	253.5	270	223.5	2.41
		2	TZL210	550	253.5	520	223.5	3.24
		3	TZL310	800	253.5	770	223.5	4.05
		4	TZL410	1050	253.5	1020	223.5	6.71
		5	TZL510	1300	254.5	1270	223.5	7.95
TwinLine-W, plinth 100 mm								
100	350	1	TZW110	300	328.5	270	298.5	2.68
		2	TZW210	550	328.5	520	298.5	3.52
		3	TZW310	800	328.5	770	298.5	4.32
		4	TZW410	1050	328.5	1020	298.5	6.98
		5	TZW510	1300	329.5	1270	298.5	8.22
		6	TZW610	1550	329.5	1520	298.5	9.45

Quick product references

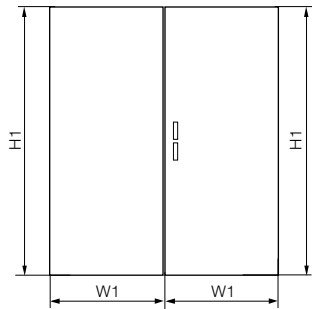
Overall dimensions

TwinLine doors, height 4 up to 7 GU

External dimensions

For all cabinets of a width of 4 panels and more

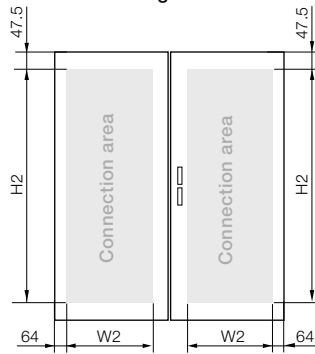
Double-wing doors



Usable connection area

For all cabinets of a width of 4 panels and more

Double-wing doors



Height GU	OH	Width PW	Type	Remark	External dimensions Height x width in mm		External dimensions Height x width in mm		Weight in kg
					H1	W1	H2	W2	
TwinLine wall-mounting cabinets, doors									
4	0	1	TZB104		643	289	548	123	5.46
		2	TZB204		643	539	548	373	7.75
		3	TZB304		643	789	548	623	10.11
		4*1	TZB204L	Door left	643	526 *2	548	373	7.77
			TZB204R	Door right	643	539	548	373	7.78
		5*1	TZB304L	Door left	643	776 *2	548	623	10.11
TZB304R	Door right		643	539	548	373	7.78		
5	1	1	TZB105		793	289	698	123	6.27
		2	TZB205		793	539	698	373	9.05
		3	TZB305		793	789	698	623	11.85
		4*1	TZB205L	Door left	793	526 *2	698	373	9.10
			TZB205R	Door right	793	539	698	373	9.05
		5*1	TZB305L	Door left	793	776 *2	698	623	11.89
TZB305R	Door right		793	539	698	373	9.05		
6	2	1	TZB106		943	289	848	123	7.03
		2	TZB206		943	539	848	373	10.32
		3	TZB306		943	789	848	623	13.58
		4*1	TZB206L	Door left	943	526 *2	848	373	10.41
			TZB206R	Door right	943	539	848	373	10.32
		5*1	TZB306L	Door left	943	776 *2	848	623	13.68
TZB306R	Door right		943	539	848	373	10.32		
7	3	1	TZB107		1093	289	998	123	7.94
		2	TZB207		1093	539	998	373	11.69
		3	TZB307		1093	789	998	623	15.42
		4*1	TZB207L	Door left	1093	526 *2	998	373	11.85
			TZB207R	Door right	1093	539	998	373	11.69
		5*1	TZB307L	Door left	1093	776 *2	998	623	15.57
TZB307R	Door right		1093	539	998	373	11.69		

*1 *4 or more panels wide: double-wing doors

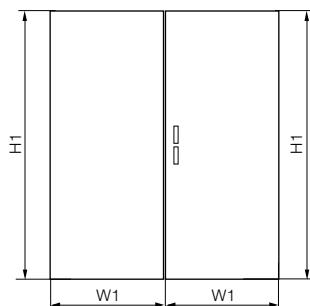
*2 Dimensions incl. central door bar

TwinLine doors, height 8 up to 12 GU

External dimensions

For all cabinets of a width of 4 panels and more

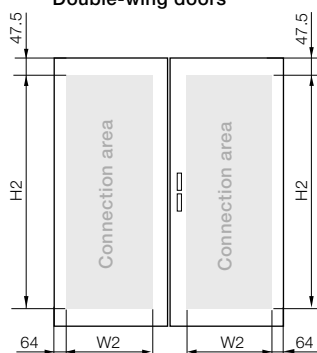
Double-wing doors



Usable connection area

For all cabinets of a width of 4 panels and more

Double-wing doors



Height GU	OH	Width		Type	Remark	External dimensions Height x width in mm		External dimensions Height x width in mm		Weight in kg
		PW				H1	W1	H2	W2	
TwinLine wall-mounting cabinets, doors										
8	4	1		TZB108		1243	289	1148	123	8.75
		2		TZB208		1243	539	1148	373	12.96
		3		TZB308		1243	789	1148	623	17.15
		4*	TZB208L	Door left	1243	526 *2	1148	373	13.17	
			TZB208R	Door right	1243	539	1148	373	12.96	
		5*	TZB308L	Door left	1243	776 *2	1148	623	17.36	
			TZB308R	Door right	1243	539	1148	373	12.96	
		9	5	1		TZB109		1393	289	1298
2				TZB209		1393	539	1298	373	14.23
3				TZB309		1393	789	1298	623	18.88
4*	TZB209L			Door left	1393	526 *2	1298	373	14.49	
	TZB209R			Door right	1393	539	1298	373	14.23	
5*	TZB309L			Door left	1393	776 *2	1298	623	19.14	
	TZB309R			Door right	1393	539	1298	373	14.23	
TwinLine floor-standing cabinets, doors										
12	8	1		TZB112		1843	289	1748	123	11.96
		2		TZB212		1843	539	1748	373	18.07
		3		TZB312		1843	789	1748	623	24.08
		4*	TZB212L	Door left	1843	526 *2	1748	373	18.45	
			TZB212R	Door right	1843	539	1748	373	18.03	
		5*	TZB312L	Door left	1843	776 *2	1748	623	24.49	
			TZB312R	Door right	1843	539	1748	373	18.03	
		6*	TZB312L	Door left	1843	776 *2	1748	623	24.49	
			TZB312R	Door right	1843	789	1748	623	24.08	

*Double-wing doors for all cabinets of a width of 4 panels and more

*2 Dimensions incl. central door bar

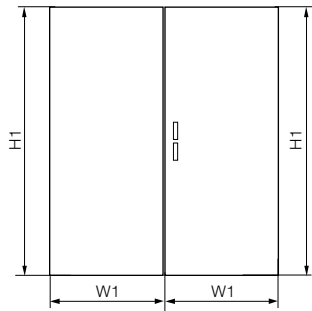
Quick product references

Overall dimensions

TwinLine Transparent doors, height 4 up to 7 GU

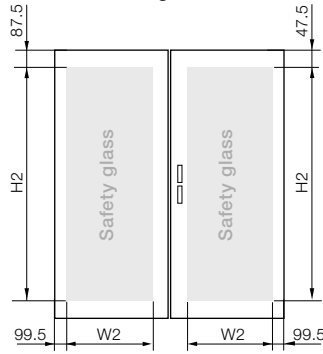
External dimensions

For all cabinets of a width of 4 panels and more
Double-wing doors



Dimensions of viewing area

For all cabinets of a width of 4 panels and more
Double-wing doors



Height		Width		Type	Remark	External dimensions Height x width in mm		Viewing area Height x width in mm		Weight in kg
GU	OH	PW				H1	W1	H2	W2	
TwinLine wall-mounting cabinets, doors										
4	0	2		TZT204		643	539	468	340	6.40
		3		TZT304		643	789	468	590	8.70
		4 ^{*1}		TZT204L	Door left	643	526 ^{*2}	468	340	6.50
				TZT204R	Door right	643	539	468	340	6.50
		5 ^{*1}		TZT304L	Door left	643	776 ^{*2}	468	590	8.40
				TZT204R	Door right	643	539	468	340	6.50
5	1	2		TZT205		793	539	618	340	7.60
		3		TZT305		793	789	618	590	10.20
		4 ^{*1}		TZT205L	Door left	793	526 ^{*2}	618	340	7.40
				TZT205R	Door right	793	539	618	340	7.50
		5 ^{*1}		TZT305L	Door left	793	776 ^{*2}	618	590	9.90
				TZT205R	Door right	793	539	618	340	7.50
6	2	2		TZT206		943	539	768	340	8.70
		3		TZT306		943	789	768	590	11.50
		4 ^{*1}		TZT206L	Door left	943	526 ^{*2}	768	340	8.50
				TZT206R	Door right	943	539	768	340	8.60
		5 ^{*1}		TZT306L	Door left	943	776 ^{*2}	768	590	11.40
				TZT206R	Door right	943	539	768	340	8.60
7	3	2		TZT207		1093	539	918	340	10.00
		3		TZT307		1093	789	918	590	13.00
		4 ^{*1}		TZT207L	Door left	1093	526 ^{*2}	918	340	9.70
				TZT207R	Door right	1093	539	918	340	9.80
		5 ^{*1}		TZT307L	Door left	1093	776 ^{*2}	918	590	13.00
				TZT207R	Door right	1093	539	918	340	9.80

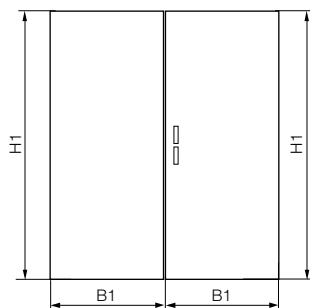
*1 *4 or more panels wide: double-wing doors

*2 Dimensions incl. central door bar

TwinLine Transparent doors, height 8 up to 12 GU

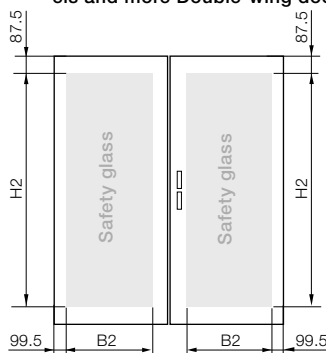
External dimensions

For all cabinets of a width of 4 panels and more Double-wing doors



Dimensions of viewing area

For all cabinets of a width of 4 panels and more Double-wing doors



Height		Width		Remark	External dimensions Height x width in mm		Viewing area Height x width in mm		Weight in kg
GU	OH	PW	Type		H1	W1	H2	W2	
TwinLine wall-mounting cabinets, doors									
8	4	2	TZB208		1243	539	1068	340	11.10
		3	TZB308		1243	789	1068	590	14.60
		4*	TZB208L	Door left	1243	526 *2	1068	340	10.90
			TZB208R	Door right	1243	539	1068	340	11.10
		5*	TZB308L	Door left	1243	776 *2	1068	590	14.60
			TZB208R	Door right	1243	539	1068	340	11.10
9	5	2	TZB209		1393	539	1218	340	12.20
		3	TZB309		1393	789	1218	590	16.10
		4*	TZB209L	Door left	1393	526 *2	1218	340	12.00
			TZB209R	Door right	1393	539	1218	340	11.50
		5*	TZB309L	Door left	1393	776 *2	1218	590	16.00
			TZB209R	Door right	1393	539	1218	340	11.50
TwinLine floor-standing cabinets, doors									
12	8	2	TZB212		1843	539	1668	340	15.60
		3	TZB312		1843	789	1668	590	20.70
		4*	TZB212L	Door left	1843	526 *2	1668	340	15.60
			TZB212R	Door right	1843	539	1668	340	15.40
		5*	TZB312L	Door left	1843	776 *2	1668	590	20.70
			TZB212R	Door right	1843	539	1668	340	15.40
		6*	TZB312L	Door left	1843	776 *2	1668	590	20.70
			TZB312R	Door right	1843	789	1668	590	19.90

*Double-wing doors for all cabinets of a width of 4 panels and more

*2 Dimensions incl. central door bar

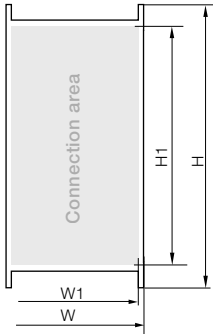
Quick product references

Overall dimensions

TwinLine mounting plates

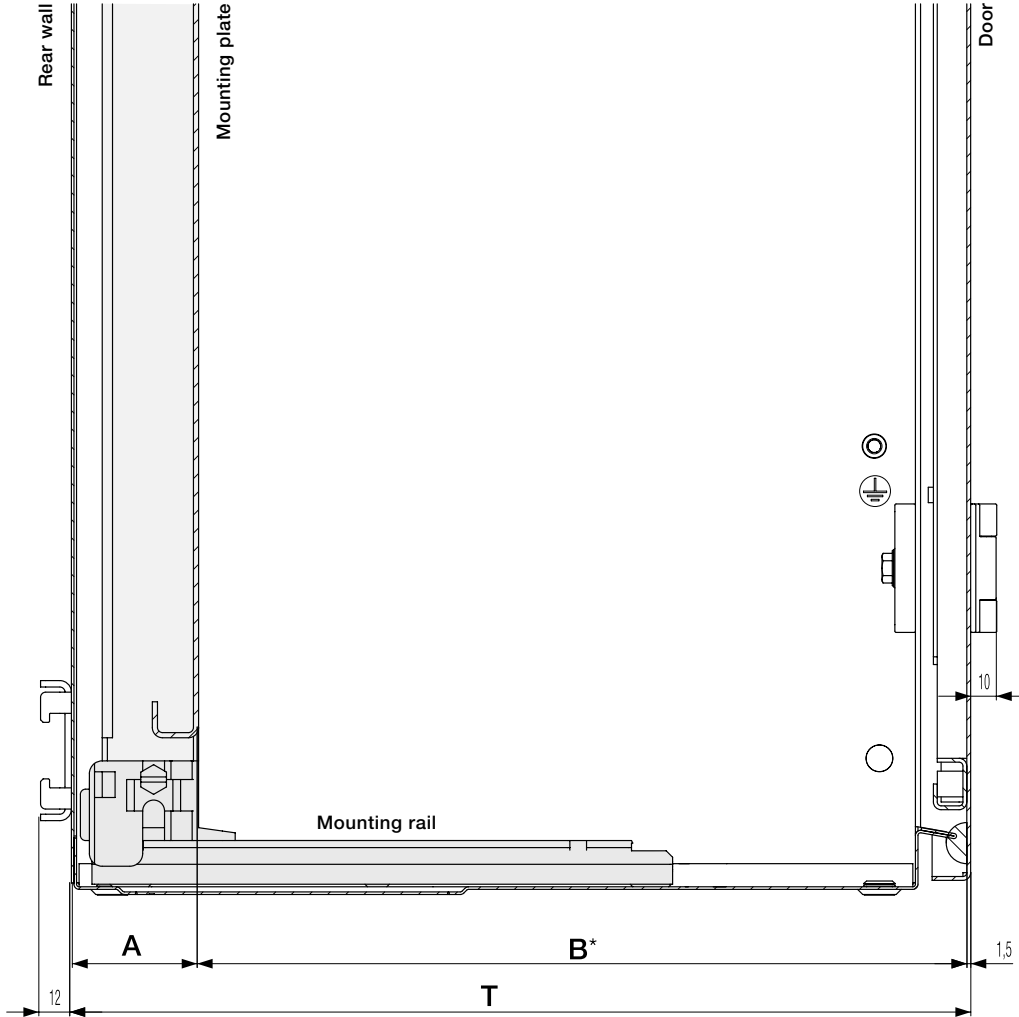
External dimensions / Usable connection area

Mounting plate

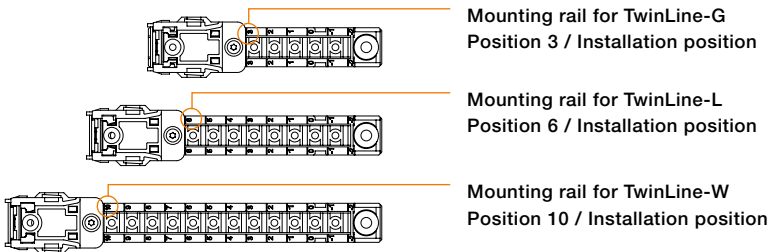


Height		Width		External dimensions in mm		Connection area in mm		Weight in kg
GU	OH	PW	Type	H	W	H1	W1	
Mounting plates for TwinLine wall-mounting cabinets ±								
4	0	1	TZM104	600	246	522	160	3.51
		2	TZM204	600	496	522	410	5.79
		3	TZM304	600	746	522	660	8.07
		4	TZM404	600	996	522	910	10.35
		5	TZM504	600	1246	522	1160	12.62
5	1	1	TZM105	750	246	672	160	4.43
		2	TZM205	750	496	672	410	7.30
		3	TZM305	750	746	672	660	10.17
		4	TZM405	750	996	672	910	13.03
		5	TZM505	750	1246	672	1160	15.90
6	2	1	TZM106	900	246	822	160	5.35
		2	TZM206	900	496	822	410	8.80
		3	TZM306	900	746	822	660	12.26
		4	TZM406	900	996	822	910	15.72
		5	TZM506	900	1246	822	1160	19.20
7	3	1	TZM107	1050	246	972	160	6.26
		2	TZM207	1050	496	972	410	10.31
		3	TZM307	1050	746	972	660	14.36
		4	TZM407	1050	996	972	910	18.40
		5	TZM507	1050	1246	972	1160	22.45
8	4	1	TZM108	1200	246	1122	160	7.18
		2	TZM208	1200	496	1122	410	11.82
		3	TZM308	1200	746	1122	660	16.45
		4	TZM408	1200	996	1122	910	21.09
		5	TZM508	1200	1246	1122	1160	25.72
9	5	1	TZM109	1350	246	1272	160	8.10
		2	TZM209	1350	496	1272	410	13.33
		3	TZM309	1350	746	1272	660	18.55
		4	TZM409	1350	996	1272	910	23.77
		5	TZM509	1350	1246	1272	1160	29.00
Mounting plates for TwinLine floor-standing cabinets ±								
12	8	1	RM18	1800	246	1722	160	10.80
		2	RM28	1800	496	1722	410	17.80
		3	RM38	1800	746	1722	660	21.00
		4	RM48	1800	996	1722	910	31.80

TwinLine Assembly with mounting plate



Mounting rail
Top view



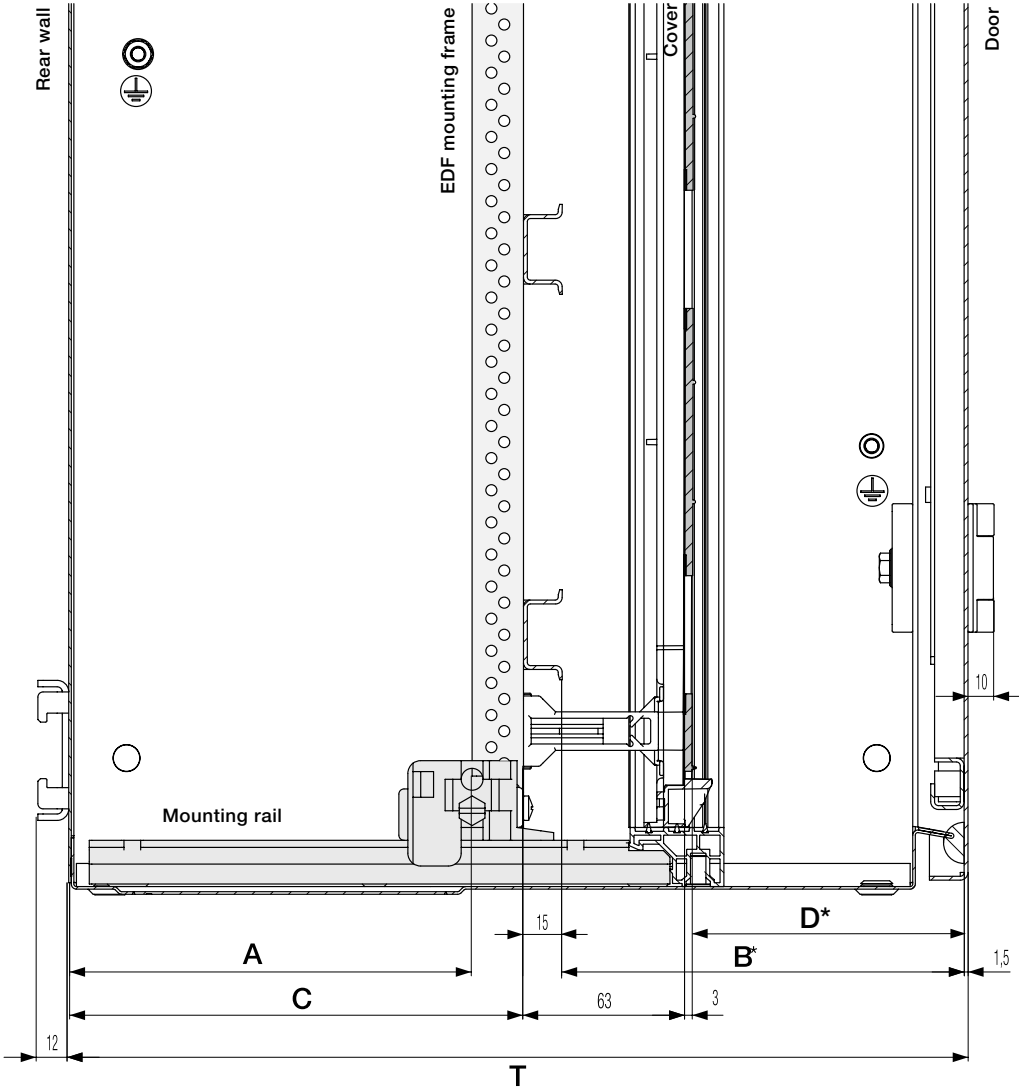
Cabinet series	Depth in mm	A in mm for installation position													
		10	9	8	7	6	5	4	3	2	1	0	-1	-2	
TwinLine G	225	-	-	-	-	-	-	-	52.5	65	77.5	90	102.5	115	
TwinLine L	275	-	-	-	-	50	62.5	75	87.5	100	112.5	125	137.5	150	
TwinLine W	350	48.5	61	73.5	86	98.5	111	123.5	136	148.5	161	173.5	186	198.5	
Cabinet series	Depth in mm	B* in mm for installation position													
TwinLine G	225	-	-	-	-	-	-	-	170	157.5	145	132.5	120	107.5	
TwinLine L	275	-	-	-	-	222.5	210	197.5	185	172.5	160	147.5	135	122.5	
TwinLine w	350	299	286.5	274	261.5	249	236.5	224	211.5	199	186.5	174	161.5	149	

* Referred to the surface of the connection area; (see page155); outside the connection area this dimension is reduced by 35 mm
> Dimensions in mm

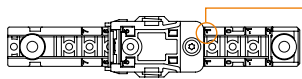
Quick product references

Overall dimensions

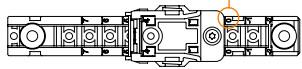
CombiLine modules on EDF mounting frame



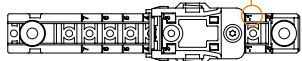
Mounting rail
Top view



Mounting rail
Position 1



Mounting rail
Position 0 / as delivered / Installation position



Mounting rail
Position -1

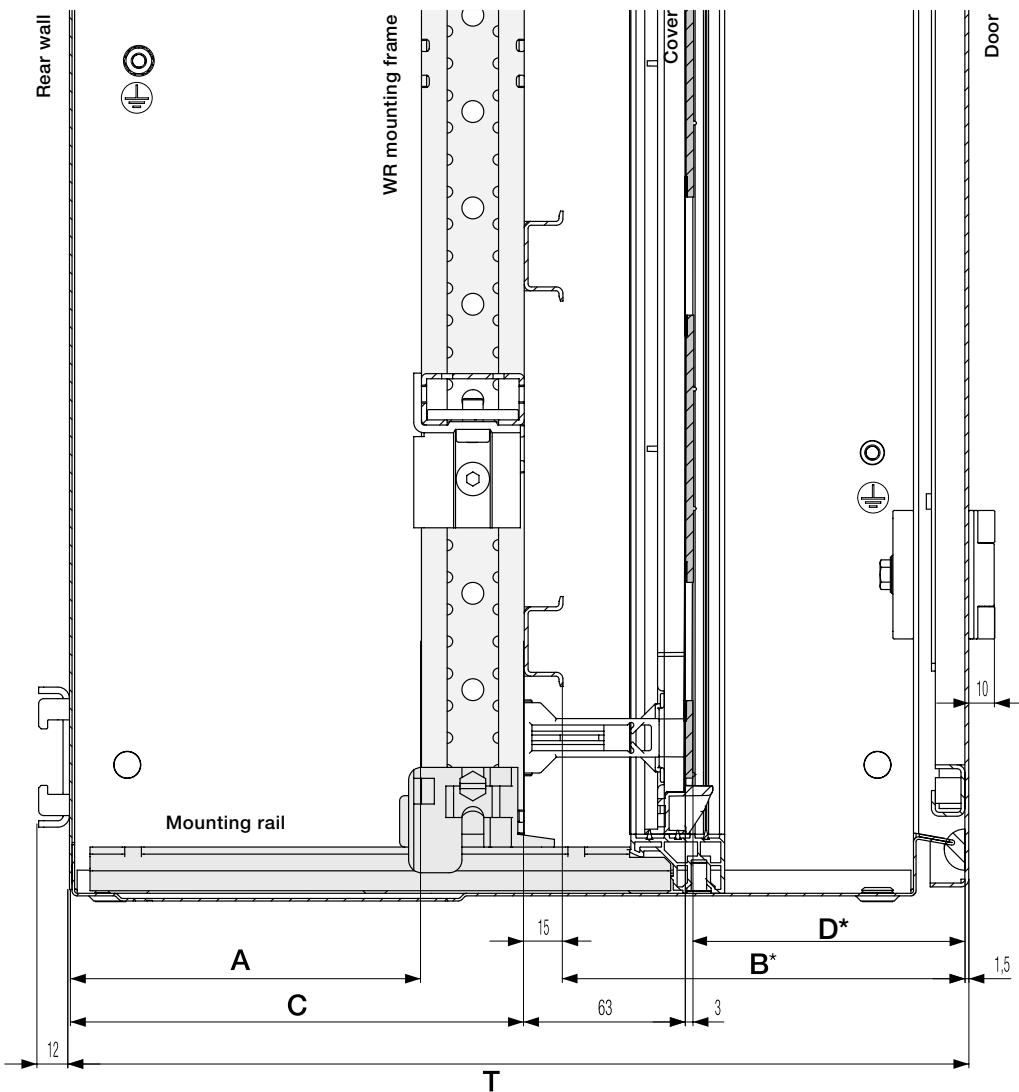
15

Cabinet series	Depth in mm	A in mm for installation part position			B in mm for installation position*			C in mm for installation position			D in mm for installation position*		
		1	0	-1	1	0	-1	1	0	-1	1	0	-1
TwinLine-G	225	60	72.5	85	127.5	115	102.5	80	92.5	105	76.5	64	51.5
TwinLine-L	275	95	107.5	120	142.5	130	117.5	115	127.5	140	91.5	79	66.5
TwinLine-W	350	143.5	156	168.5	169	156.5	144	163.5	176	188.5	117.5	105	92.5

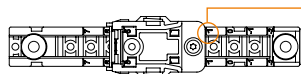
* Referred to the surface of the connection area (see page 156); outside the connection area this dimension is reduced by 35 mm

> Dimensions in mm

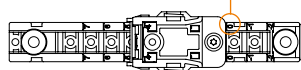
CombiLine modules on WR mounting frame



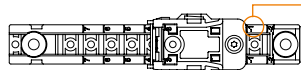
Mounting rail
Top view



Mounting rail
Position 1



Mounting rail
Position 0 / as delivered / Installation position



Mounting rail
Position -1

Schrankserie	Depth in mm	A in mm for installation part position			B in mm for installation position*			C in mm for installation position			D in mm for installation position*		
		1	0	-1	1	0	-1	1	0	-1	1	0	-1
TwinLine-G	225	40	52.5	65	127.5	115	102.5	80	92.5	105	76.5	64	51.5
TwinLine-L	275	75	87.5	100	142.5	130	117.5	115	127.5	140	91.5	79	66.5
TwinLine-W	350	123.5	136	148.5	169	156.5	144	163.5	176	188.5	117.5	105	92.5

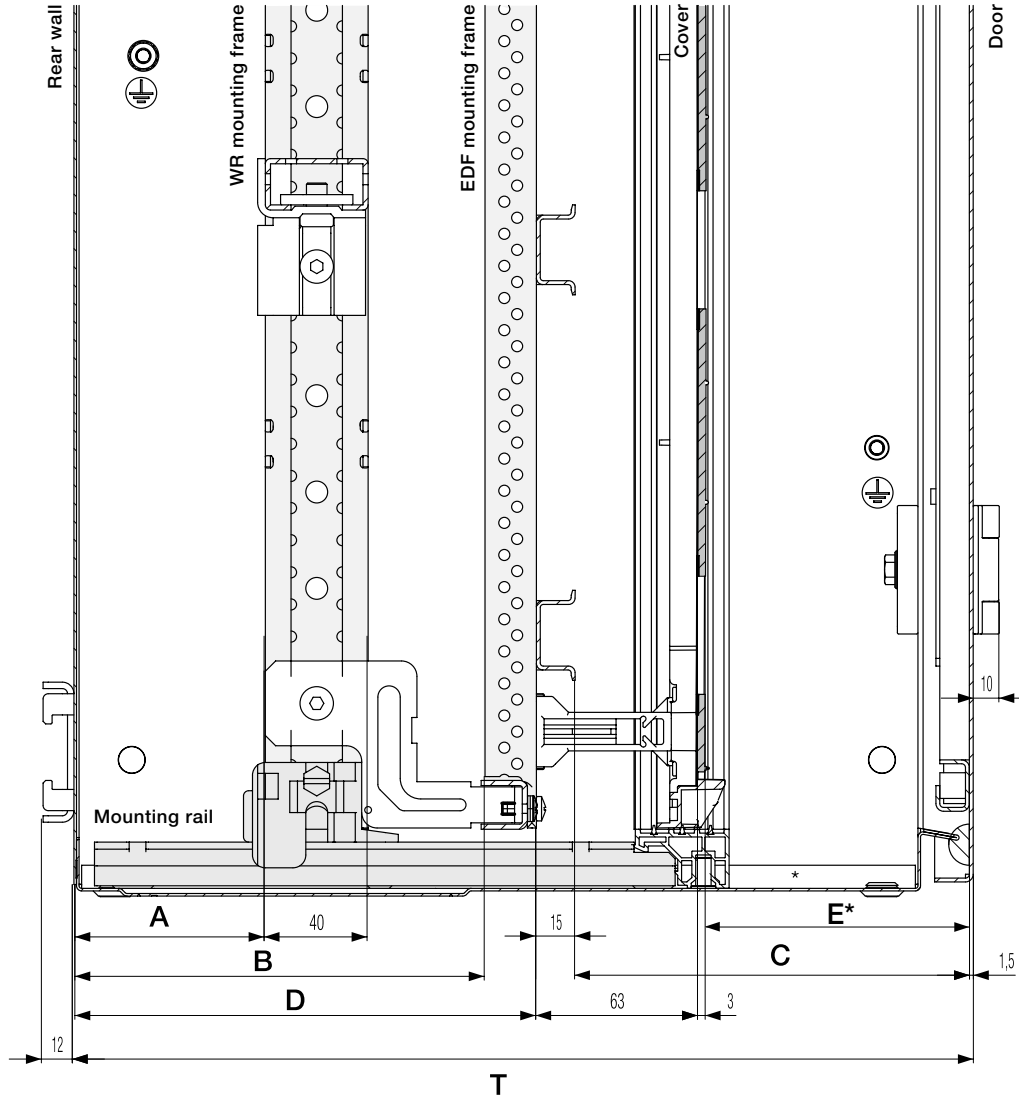
* Referred to the surface of the connection area (see page 157); outside the connection area this dimension is reduced by 35 mm

> Dimensions in mm

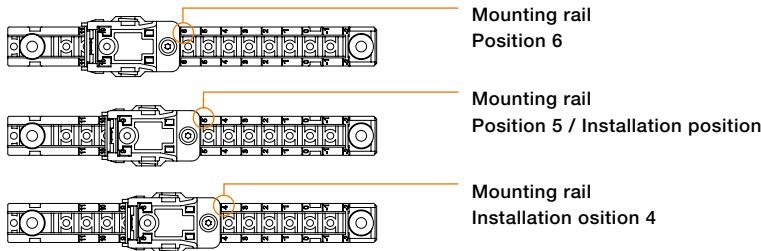
Quick product references

Overall dimensions

Assembly with EDF on WR mounting frame



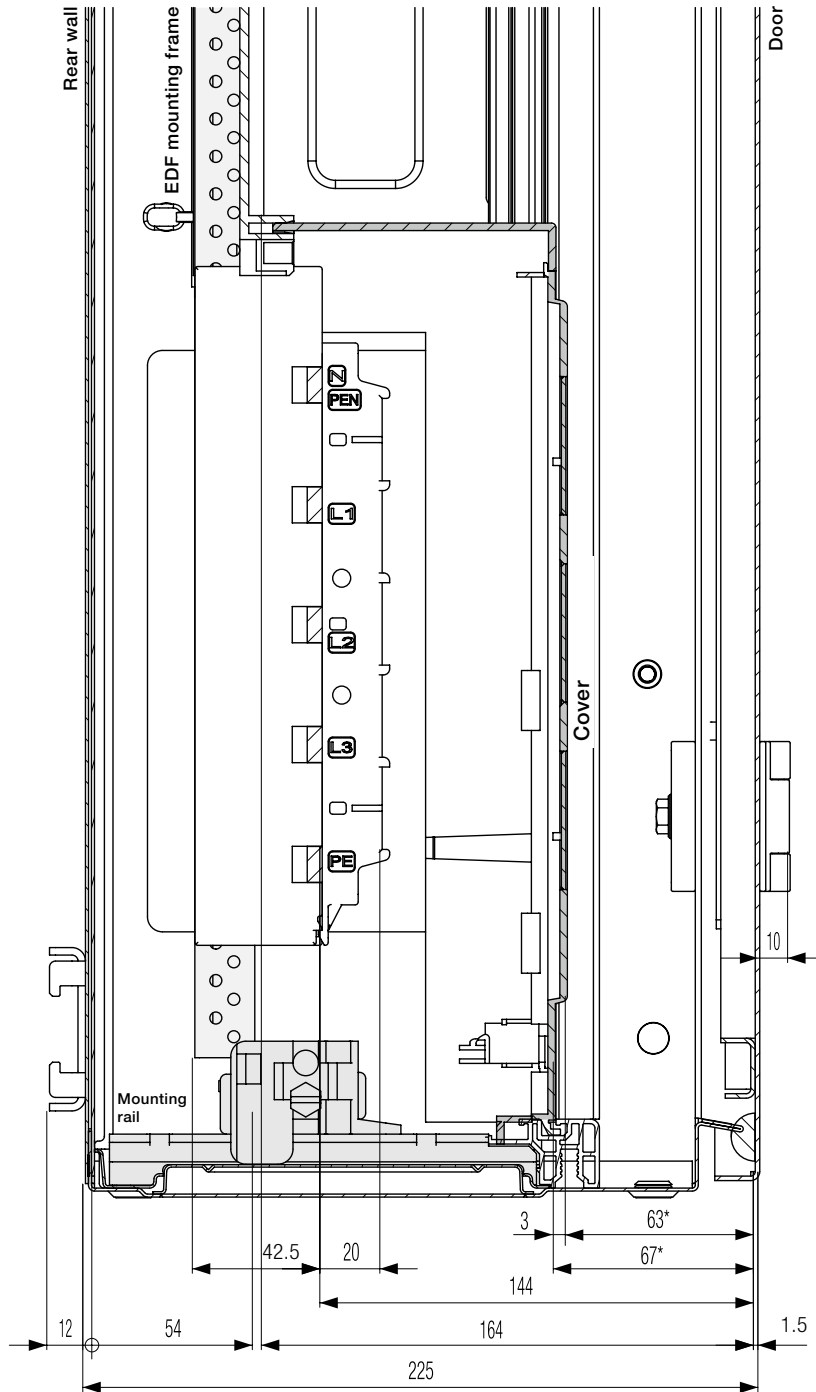
Mounting rail
Top view



Schrank- serie	Tiefe in mm	A in mm for installation part position			B in mm for installation position			C in mm for installation position*			D in mm for installation position			E in mm for installation position*		
		6	5	4	6	5	4	6	5	4	6	5	4	6	5	4
TwinLine-L	275	12.5	25	37.5	98	110.5	123	139.5	127	114.5	117.5	130	142.5	88.5	76	63.5
TwinLine-W	350	61	73.5	86	146.5	159	171.5	165.5	153	140.5	166.5	179	191.5	114.5	102	89.5

* Referred to the surface of the connection area (see page 158); outside the connection area this dimension is reduced by 35 mm
> Dimensions in mm

Assembly with meter panel for TwinLine-G 



Mounting rail
Top view



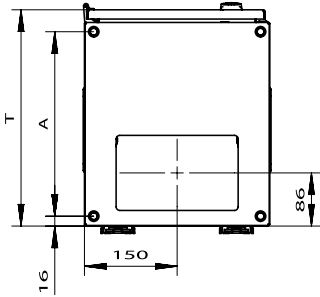
* Referred to the surface of the connection area (see page 159); outside the connection area this dimension is reduced by 35 mm
> Dimensions in mm

Quick product references

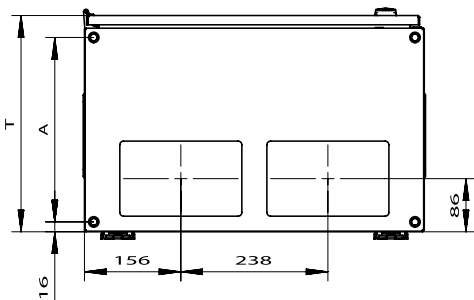
Overall dimensions

TwinLine Top view / side flange knockout, top and bottom

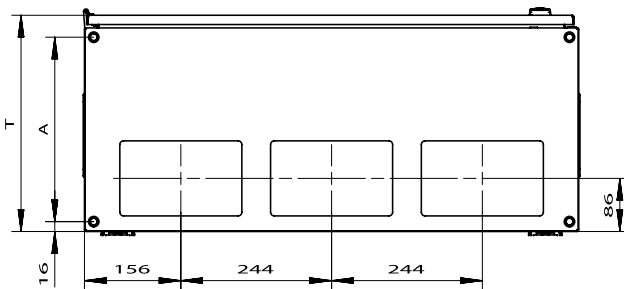
TG1...
TL1...
TW1...



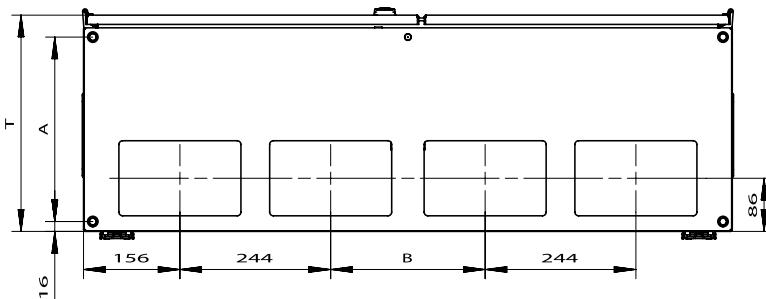
TG2...
TL2...
TW2...



TG3...
TL3...
TW3...



TG4...
TL4...
TW4...

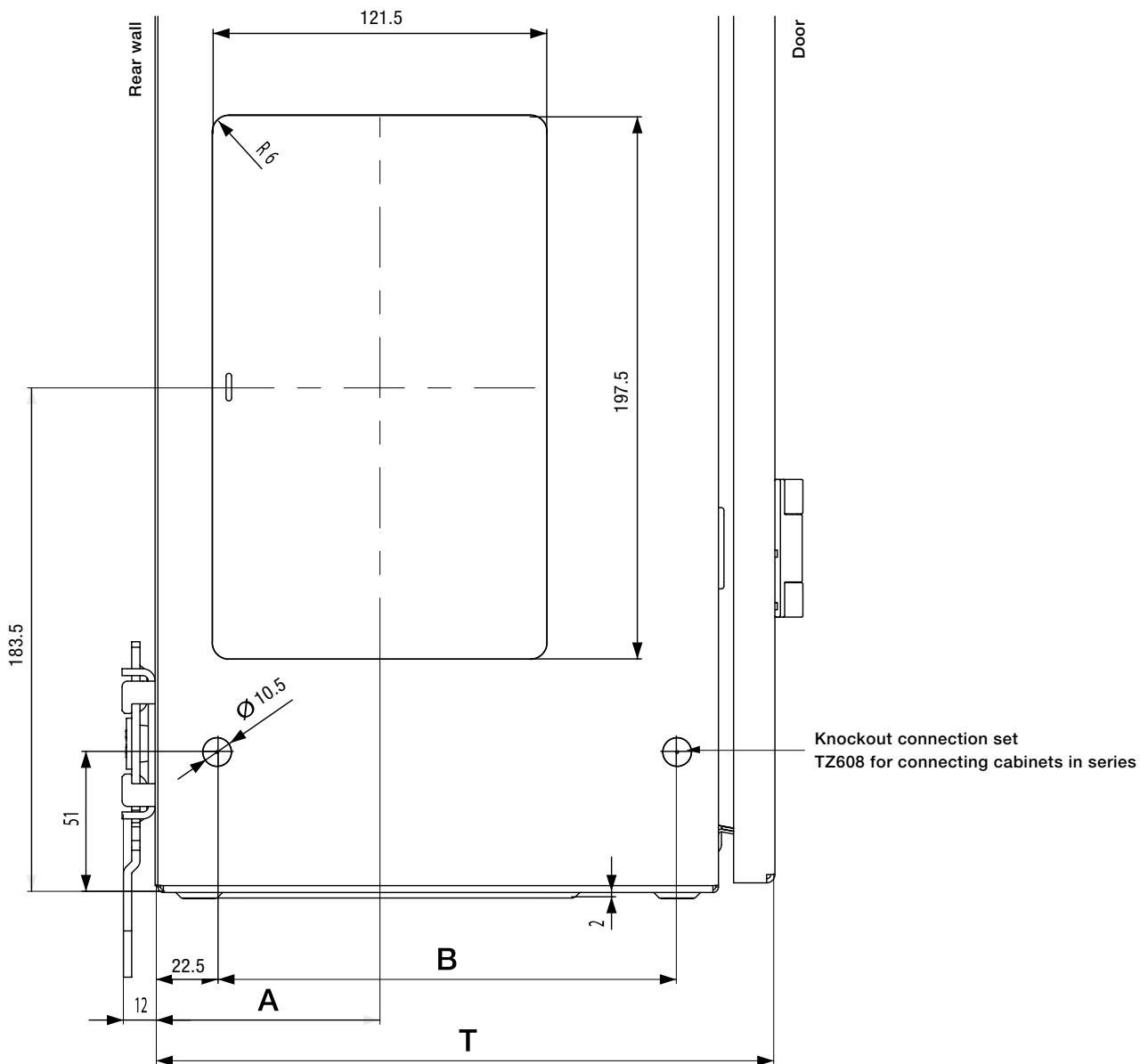


TG5...
TL5...
TW5...

TG6...
TL6...
TW6...

Cabinet series	Depth in mm	A in mm	B in mm / 4 panel wide	B in mm / 5 panel wide	B in mm / 6 panel wide
TwinLine-G	225	173.5	1 x 250 (250)	2 x 250 (500)	3 x 250 (750)
TwinLine-L	275	223.5			
TwinLine-W	350	298.5			

TwinLine Side view / side flange knockout, top and bottom



Cabinet series	Depth in mm	A in mm	B in mm
TwinLine-G	225	80.5	167
TwinLine-L	275	106.5	217
TwinLine-W	350	154.5	292

Quick product references

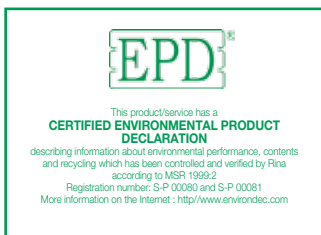
MCBs and RCDs worldwide marks and approvals

This is the present situation regarding worldwide marks and approvals for ABB System pro M compact range devices.

Although some products already obtained some approvals or certificates, they don't necessarily bear the related marks on the product.

	 AENOR - Spain 	 STB - Belarus 	 BBJ - Poland 	 BSMI - Taiwan 
S 200	■ S 200		■ S 200	
S 200 M	■ S 200 M		■ S 200 M	
S 200 M UC				
S 200 P	■ S 200 P		■ S 200 P	
S 200 S				
S 200 U				
S 200 UP				
S 200 UDC				
S 200 PR				
SU 200 PR				
SN 201				
S 280 80 - 100 A				
S 700				
S 750 DR				
S400M				
S 800				
S 500 -K, S 500UC-K				
F 200	■ F 200	■ F 200		■ F 200 ③
F-ATI Test				
F-ARI Test				
DDA 200				
DS 200		■ DS 200		
DS201		■ DS201		
DS202C		■ DS202C		
DDA 800		■ DDA 800		
SN201-S, SN201-IH				
DS401/402				















The F 200 range has obtained the EPD (Environmental Product Declaration), according to ISO 14040.



Legend:









- Approved
- Waiting for approval
- ① Supplementary protection
- ② Branch circuit protection
- ③ Available for F200 type for overseas markets
- ④ Only S 500-K range
- ⑤ Only DS202C M Type A and APR

The indicated approvals generally cover all available approvals worldwide. To verify the approval status in your country please contact your LSO.

						
CCC - China	CEBEC - Belgium	CERTIF - Portugal	CSA - Canada	DEMKO - Denmark	EZU - Czech Republic	FIMKO - Finland
						
■ S 200	■ S 200	■ S 200		■ S 200	■ S 200	■ S 200
■ S 200 M	■ S 200 M	■ S 200 M	■ S 200 M ①	■ S 200 M	■ S 200 M	■ S 200 M
■ S 200 P	■ S 200 P	■ S 200 P	■ S 200 P (≤ 25 A) ①	■ S 200 P	■ S 200 P	■ S 200 P
■ S 200 U			■ S 200 U ②			
■ S 200 UP			■ S 200 UP ②			
			■ S 200 UDC ②			
			■ S 200 PR ①			
			■ SU 200 PR ②			
■ SN 201						
■ S 280 80 - 100 A						
■ S400M ④						
■ S 800						
■ S 500-K, S 500UC-K						
■ F 200 ③	■ F 200	■ F 200				■ F 200
■ DS201	■ DS201					
■ SN201-S, SN201-IH						
■ DS401/402						

Quick product references

MCBs and RCDs worldwide marks and approvals

	 EAC - Russia 	 GOST - Ucraina 	 IMQ - Italy 	 IMQ CSV - Italy 
S 200	■ S 200		■ S 200	
S 200 M	■ S 200 M		■ S 200 M	
S 200 M UC				
S 200 P	■ S 200 P		■ S 200 P	
S 200 S			● S 200 S	
S 200 U				
S 200 UP				
S 200 UDC				
S 200 PR				
SU 200 PR				
SN 201			■ SN 201	
S 280 80 - 100 A	■ S 280 80 - 100 A		■ S 280 80 - 100 A	
S 750 DR	■ S 750 DR			
S400M	■ S400M			
S 800	■ S 800			
F 200	■ F 200	■ F 200	■ F 200	
F-ATI Test				
F-ARI Test				■ F-ARI Test
DDA 200	■ DDA 200	■ DDA 200	■ DDA 200	
DS 200	■ DS 200	■ DS 200	■ DS 200	
DS201	■ DS201		■ DS201	
DS202C	■ DS202C		■ DS202C	
DS203NC	■ DS203NC		■ DS203NC	
DDA 800		■ DDA 800		
F2C..	■ F2C..			
S 290 accessories	■ S 290 accessories			
DS401/402	■ DS401/402			

Legend:

■ Approved

● Waiting for approval

① Supplementary protection

② Branch circuit protection















③ Available for F200 type for overseas markets

④ Only S 500-K range

⑤ Only DS202C M Type A and APR

⑥ not available for F200 left neutral

The indicated approvals generally cover all available approvals worldwide. To verify the approval status in your country please contact your LSO.

						
IRAM - Argentina	KEMA - Netherland	LCIE - France	NEMKO - Norway	OVE - Austria	HDB/PSB - Singapore	SABS - South Africa
						
	■ S 200	■ S 200	■ S 200	■ S 200	■ S 200	■ S 200
	■ S 200 M	■ S 200 M	■ S 200 M	■ S 200 M	■ S 200 M	■ S 200 M
	■ S 200 P	■ S 200 P	■ S 200 P	■ S 200 P		
	● S 200 S	■ S 200 S		■ S 200 S		
	■ SN 201					
		■ S 280 80 - 100 A				
■ F 200 ③	■ F 200	■ F 200	■ F 200	■ F 200	■ F 200 ③	■ F 200 ③
		■ DDA 200				
		■ DS 200				
	■ DS201	■ DS201		■ DS201		
		■ DS202C				
	■ DS203NC					

Quick product references

MCBs and RCDs worldwide marks and approvals

				
	SEMKO - Sweden	SEV - Switzerland	SIQ - Slovenia	SIRIM - Malaysia
				
S 200	■ S 200	■ S 200	■ S 200	■ S 200
S 200 M	■ S 200 M	■ S 200 M	■ S 200 M	■ S 200 M
S 200 M UC				
S 200 P	■ S 200 P	■ S 200 P	■ S 200 P	
S 200 S		● S 200 S		
S 200 U				
S 200 UP				
S 200 UDC				
S 200 PR				
SU 200 PR				
SN 201				
S 280 80 - 100 A				
S 700				
S 750 DR				
S400E		■ S400E		
S400M		■ S400M		
S 800		■ S 800		
S 500-K, S 500UC-K				
F 200		■ F 200		■ F 200 ③
F 204 B				
F-ATI Test				
F-ARI Test				
DDA 200				
DS 200				
DS201		■ DS201		
DS202C				
DS203NC				
DSE201 - DSE201 M				
DDA 800				
DS401/402	■ DS401/402	■ DS401/402		

Legend:

■ Approved

● Waiting for approval

① Supplementary protection

② Branch circuit protection











③ Available for F200 type for overseas markets

④ Only S 500-K range

⑤ Only DS202C M Type A and APR







⑥ not available for F200 left neutral

The indicated approvals generally cover all available approvals worldwide. To verify the approval status in your country please contact your LSO.

					
RCM - Australia	UL - USA	VDE - Germany	IIS - Israel	KC - South Korea	
					
■ S 200	■ S 200 ①	■ S 200			
■ S 200 M	■ S 200 M ①	■ S 200 M			
■ S 200 P	■ S 200 P ①	■ S 200 M UC			
	■ S 200 U ②	■ S 200 P			
	■ S 200 UP ②	■ S 200 S			
	■ S 200 UDC ②				
	■ S 200 PR ①	■ S 200 PR			
	■ SU 200 PR ②	■ SU 200 PR			
■ SN 201					
■ S 280 80 - 100 A		■ S 700			
		■ S 750 DR			
		■ S400E			
		■ S400M ⑩			
	■ S 800				
	■ S 500-K, S 500UC-K				
■ F 200 ③	■ F 200 ④	■ F 200			
		■ F 204 B			
		■ F-ATI Test			
		■ DS 200	■ DS 200		
■ DS201		■ DS201	■ DS201	■ DS201	
■ DS202C		■ DS202C		■ DS202C	
		■ DS203NC	■ DS203NC		
■ DSE201 - DSE201 M					
		■ DS401/402			

Quick product references

MCBs and RCDs worldwide marks and approvals




	RIVER	MARINE	MARINE	MARINE
				
	RRR - Russia	ABS - USA	DNV - Norway	DNV-GL - Germany
				
S 200		■ S 200	■ S 200	■ S 200
S 200 M		■ S 200 M	■ S 200 M	■ S 200 M
S 200 MUC				
S 200 P			■ S 200 P	
S 200 S				
S 200 U				
S 200 UP				
S 200 UDC				
S 200 PR				
SU 200 PR				
SN 201				
S 280 80 - 100 A			■ S 280 80-100 A	
S 700				
S 750 DR				
S400E				
S400M			■ S400M	■ S400M
S 800			■ S 800	■ S 800
S 500 -K, S 500UC-K			■ S 500-K ④	
F 200	■ F 200			
F 204 B				
F-ATI Test				
F-ARI Test				
DDA 200				
DS 200				
DS201		■ DS201, DS201 M, DS201 M 110 V		■ DS201, DS201 M, DS201 M 110 V
DS202C		■ DS202C M, DS202C M 110 V		■ DS202C M, DS202C M 110 V
DS203NC				
DS 271				
DDA 800				

Legend:

- Approved
- Waiting for approval
- ① Supplementary protection
- ② Branch circuit protection
- ③ Available for F200 type for overseas markets
- ④ Only S 500-K range
- ⑤ Only DS202C M Type A and APR
- ⑥ not available for F200 left neutral



The indicated approvals generally cover all available approvals worldwide. To verify the approval status in your country please contact your LSO.



MARINE	MARINE	MARINE	
			
LRS - Great Britain	RINA - Italy	RMRS - Russia	
			
■ S 200	■ S 200	■ S 200	
■ S 200 M	■ S 200 M	■ S 200 M	
■ S 200 P	■ S 200 P	■ S 200 P	
■ S 800	■ S 800	■ S 800 ■ S 500-K ④	
	■ DS201 M 110 V	■ DS 200	
	■ DS202C M, DS202C M 110 V	■ DS201	
		■ DS202C M	

Quick product references

MDRCs worldwide marks and approvals

										
	BSI UK	CCC China	CEBEC Belgium	ENEC Europe	EAC Russia	GOST Russia	GOST Ucraina	IMQ Italy	KEMA Netherland	NF France
										
OVR					■ OVR T1 and T2	■ OVR T1 and T2				■ OVR T1 and T2
RD						■ RD	■ RD			
TR-TRM						■ TR-TRM	■ TR-TRM			
E 90		■ E90 ③, E90h ③, E90 PV			■ E90, E90h, E90 PV		■ E90, E90h, E90 PV, E90 CC	■ E90 ③, E90h ③		■ E90 ⑤, E90h ⑥
E90 50/125		■ E90 50/125			■ E90 50/125	■ E90 50/125				
E90										
E 200		■ E 200			■ E 200				■ E 200	
SD 200		■ SD 200			■ SD 200				■ SD 200	
SHD 200		■ SHD 200			■ SHD 200				■ SHD 200	
E210		■ E210 ②				■ E210				
ESB		■ ESB								
EN		■ EN								
E290					■ E290 ⑨					
E 259						■ E 259	■ E 259			
E 250						■ E 250	■ E 250			
E 260					■ E 260					
E 234		■ E 234				■ E 234				
AT						■ AT	■ AT			
D Line						● D				
E 232						■ E 232				
T line						■ T line	■ T line			
THS						■ THS				
RAL						■ RAL	■ RAL			
LSS1/2						■ LSS1/2	■ LSS1/2			
RH/RL						■ RH/RL	■ RH/RL			
SQZ3						■ SQZ3	■ SQZ3			
LEE 230						■ LEE 230	■ LEE 230			

Legend:

■ Approved whole range

● Waiting for approval

① Except for ESB/EN 20

② For series E219 CCC mark not needed

③ Just no LED versions









⑤ Version without neutral











⑥ Dedicated rang with neutral on left

⑦ IMQ available for TM up to 30 VA

⑧ VDE available only on M1175 (standard grey version) and M1175-C (with cover)





















⑨ E291S in preparation: will be available in 2016

			
SEV Swiss	UL/CSA USA/Canada	UL/CSA USA/Canada	VDE Germany
			
		● OVR T2	■ OVR T2 40 275
	■ E90 PV, E90 CC	■ E90	
		■ E90 50/125	
	■ E90 J		
			■ E 200 ■ SD 200 ■ SHD 200 ■ E210
		■ E210 ■ ESB ■ EN	■ E210
			■ E290 ②
		■ E 234	
			■ E 232

				
BV/F France	GL/D Germany	LRS Great Britain	RINA Italy	RMRS Russia
				
■ E90, E90h, E90 PV		● E90 ③, E90h ③	■ E90 ③, E90h ③	
■ E90 50/125		■ E90 50/125	■ E90 50/125	
■ ESB ① ■ EN ①	■ ESB ① ■ EN ①			
	■ E 260			

Quick product references

MDRCs worldwide marks and approvals

										
	BSI UK	CCC China	CEBEC Belgium	ENEC Europe	EAC Russia	GOST Russia	GOST Ucraina	IMQ Italy	KEMA Netherland	NF France
										
CT / CTA / TRFM						■ CT/CTA/ TRFM	■ CT/CTA/ TRFM			
MCA/MCV						■ MCA/MCV				
HMT						■ HMT				
TM						■ TM		■ TM ⑦		
TS						■ TS				
TS-C				■ TS-C		■ TS-C				
TSM/TSR						■ TSM/TSR	■ TSM/TSR			
SM/RM						■ SM/RM	■ SM/RM			
M1170						■ M1170				
M1173						■ M1173	■ M1173	■ M1173		
M1174			■ M1174			■ M1174	■ M1174			■ M1174
M1175						■ M1175	■ M1175			
M1363	■ M1363									
M1011										
M1011										
TM-C, TM-I, TM-S				■ TM-C, TM-I, TM-S		■ TM-C, TM-I, TM-S				

Legend:

- Approved whole range
- Waiting for approval
- ① Except for ESB/EN 20
- ② For series E219 CCC mark not needed
- ③ Just no LED versions
- ④ Dedicated range for chinese market
- ⑤ Version without neutral
- ⑥ Dedicated rang with neutral on left
- ⑦ IMQ available for TM up to 30 VA
- ⑧ VDE available only on M1175 (standard grey version) and M1175-C (with cover)
- ⑨ E291S in preparation: will be available in 2016

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