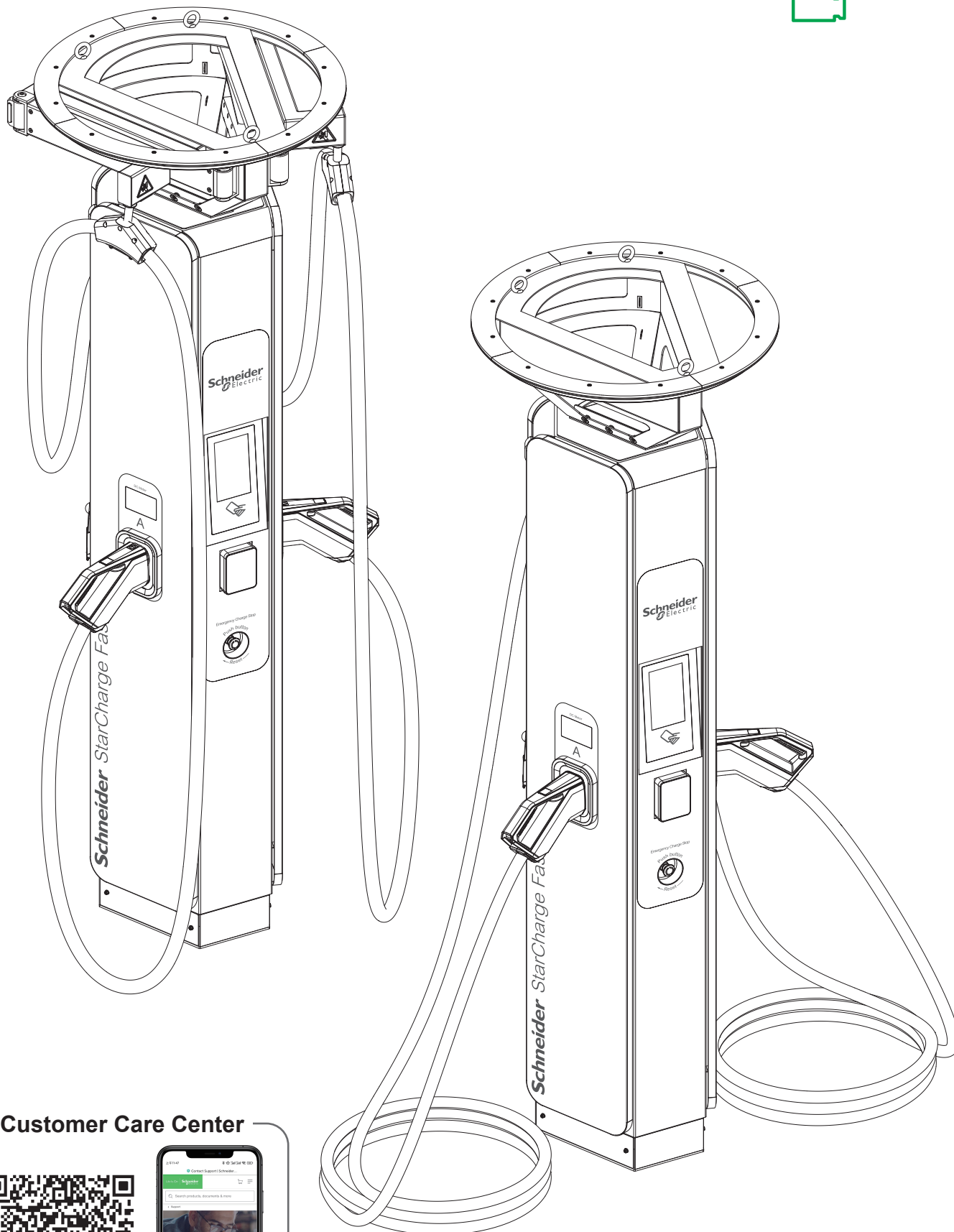
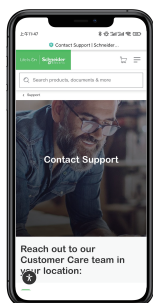


en Installation Manual

Schneider StarCharge Fast 720 Dispenser



Customer Care Center



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Legal Information



The information provided in this document contains general descriptions, technical characteristics and/or recommendations related to products/solutions.

This document is not intended as a substitute for a detailed study or operational and site-specific development or schematic plan. It is not to be used for determining suitability or reliability of the products/solutions for specific user applications. It is the duty of any such user to perform or have any professional expert of its choice (integrator, specifier or the like) perform the appropriate and comprehensive risk analysis, evaluation and testing of the products/solutions with respect to the relevant specific application or use thereof.

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Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

General

Warning Symbols Definitions

The following safety messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a "Danger" or "Warning" safety message indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol.

It is used to alert you to potential personal injury hazards.

Obey all safety messages that follow this symbol to avoid possible injury or death.

▲ DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in death** or serious injury.

▲ WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in death** or serious injury.

▲ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in minor or moderate injury**.

NOTICE

NOTICE is used to address practices not related to physical injury. The safety alert symbol shall not be used with this signal word.

Safety Instructions

▲ ▲ DANGER

HAZARD OF ELECTRICAL SHOCK, EXPLOSION OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices or equivalent local standards.
- This equipment must only be installed, commissioned and serviced by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Do not use this product if the enclosure, EV cable, or the EV connector is broken, cracked, open, or shows any other indication of damage.
- Do not put fingers or objects into the electric vehicle connector.
- The use of extension DC cables or vehicle connector adapters is not permitted.

Failure to follow these instructions will result in death or serious injury.

▲ WARNING

RISK OF BURNING

- Do not store flammable and explosive materials near the Charging Station.
- In case of overheating or fire starting near the Charging Station, press the emergency charge stop button of the Charging Station and unplug the car. Move away from the Charging Station and call the fire department.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

▲ CAUTION

HAZARD OF DEGRADATION OF EQUIPMENT PERFORMANCE

- You must be a licensed electrician and complete a training course to become a Schneider StarCharge Fast Charging Station certified installer.
- Schneider Electric will not accept any liability for consequences arising from the use of this material. Do not modify any mechanical or electrical parts.
- A qualified person is a person who has the skills and know-how relating to the construction, installation and operation of electrical equipment and who has received a safety training which enables him to recognize and avoid risks.

Failure to follow these instructions can result in injury or equipment damage.

NOTICE

RISK OF DAMAGING

- Schneider StarCharge Fast Charging Station should be installed, operated, serviced and maintained only by qualified personnel.
 - Schneider Electric will not accept any liability for consequences arising from the use of this material.
 - A qualified person is a person who has the skills and know-how relating to the construction, installation and operation of electrical equipment and who has received a safety training which enables him to recognize and avoid risks.
- Failure to follow these instructions can result in equipment damage.

Radio Equipment Conformity

EU Declaration of Conformity

Schneider StarCharge Fast 720 Dispenser is in compliance with the essential requirements and other relevant provisions of Radio Equipment Directive: 2014/53/EU.

The EU declaration of conformity for Schneider StarCharge Fast 720 Dispenser (EU1007178-0) can be downloaded on: www.se.com/docs.

UK Declaration of Conformity

Schneider StarCharge Fast 720 Dispenser is in compliance with the essential requirements and other relevant provisions of Radio Equipment Regulations 2017-UK SI 2017 No.1206.

The UK declaration of conformity for Schneider StarCharge Fast 720 Dispenser offer (UK1007180-0) can be downloaded on: www.se.com/uk/docs.

Communication Frequencies

	Operation Frequency	Output Power
RFID:	13.56 MHz	< 20 mW
GSM900:	TX: 880 MHz to 915 MHz RX: 925 MHz to 960 MHz	25.81 dBm
GSM1800:	TX: 1710 MHz to 1785 MHz RX: 1805 MHz to 1880 MHz	22.81 dBm
WCDMA		
Band1:	TX:1920-1980 MHz RX:2110-2170 MHz	25.00 dBm
Band8:	TX:880-915 MHz RX: 925-960 MHz	25.00 dBm
LTE		
Band1:	TX: 1920-1980 MHz RX: 2110-2170 MHz	25.00 dBm
Band3:	TX: 1710-1785 MHz RX: 1805-1880 MHz	25.00 dBm
Band7:	TX: 2500-2570 MHz RX: 2620-2690 MHz	25.00 dBm
Band8:	TX: 880-915 MHz RX: 925-960 MHz	25.00 dBm
Band20:	TX: 832-862 MHz RX: 791-821 MHz	25.00 dBm
Band28:	TX: 703-748 MHz RX: 758-803 MHz	25.00 dBm
Band38:	2570-2620 MHz(TDD)	25.00 dBm
Band40:	2300-2400 MHz(TDD)	25.00 dBm
Band41:	2496-2690 MHz(TDD)	25.00 dBm

Wireless Frequencies

Operate Freq. Band	Frequency Range (MHz)	Modulation	Channel Bandwidth	Data Rate
IEEE 802.11b	2412~2472	DSSS	20MHz	Up to 11Mbps
IEEE 802.11g	2412~2472	OFDM	20MHz	Up to 54Mbps
IEEE 802.11n 2.4GHz 20MHz	2412~2472	OFDM	20MHz	Up to 72.2Mbps
Channel Number	IEEE 802.11b/g, IEEE 802.11n HT20: 13 Channels			
Channel Step	WiFi: Channels with 5MHz step			

Standards and Compliance

Directive RE: 2014/53/UE	RE Directive: 2014/53/EU
Directive RoHS: 2011/65/UE, 2015/863/UE	RoHS Directive: 2011/65/EU: 2015/863/EU

Based on following standards:

EN IEC 61851-1:2019+AC:2023-12, EN 61851-23:2014+AC:2016-06, EN 61851-24:2014 + AC:2015, EN 61000-6-2:2005 + AC 2005,

EN IEC 61000-6-2:2019*, EN 61000-6-4:2007 + A1:2011, EN IEC 61000-6-4:2019**, EN IEC 61851-21-2:2021***

EN 301 489-1 V1.9.2(2011-09), EN 301 489-1 V2.2.3(2019-11)****, EN 301 489-3 V2.3.2(2023-01), EN 301 489-17 V3.2.4(2020-09)

EN 301 489-17 V3.3.1(2024-09), EN 301 489-52 V1.2.1(2021-11), EN 301 489-52 V1.3.1(2024-11)

EN 300 330 V2.1.1(2017-02), EN 301 511 V12.5.1(2017-03), EN 301 908-1 V15.2.1(2023-01), EN 301 908-2 V13.1.1(2020-06),

EN 301 908-13 V13.2.1(2022-02), EN 301 908-13 V13.3.1(2024-10)****, EN 300 328 V2.2.2(2019-07)

EN 62311:2008, EN IEC 62311:2020, EN 62479:2010

IEC 61439-7:2018

EN IEC 63000:2018

EN 18031-1:2024, EN 18031-2:2024, EN 18031-3:2024

EN ISO 15118-1:2019, EN ISO 15118-2:2016, EN ISO 15118-3:2016, EN ISO 15118-4:2019, EN ISO 15118-5:2019

* The EN IEC 61000-6-2:2019 is not a harmonized standard but the Schneider StarCharge Fast 720 Dispenser is already compliant with EN IEC 61000-6-2:2019.

** The EN IEC 61000-6-4:2019 is not a harmonized standard but the Schneider StarCharge Fast 720 Dispenser is already compliant with EN IEC 61000-6-4:2019.

*** The EN IEC 61851-21-2:2021 is not a harmonized standard but the Schneider StarCharge Fast 720 Dispenser is already compliant with EN IEC 61851-21-2:2021.

**** The EN 301 489-1 V2.2.3 (2019-11) is not a harmonized standard but the Schneider StarCharge Fast 720 Dispenser is already compliant with EN 301 489-1 V2.2.3(2019-11).

***** The EN 301 908-13 V13.3.1 (2024-10) is not a harmonized standard but the Schneider StarCharge Fast 720 Dispenser is already compliant with EN 301 908-13 V13.3.1(2024-10).

Important



To help you make the best use of your Charging Station, we have prepared this manual with the utmost care. It provides all the information you need to prepare for the installation and to install your equipment.

We urge you to read it attentively and follow its instructions.

- The product must be installed according to the specifications and requirements as defined by Schneider Electric. No responsibility is assumed by Schneider Electric if these requirements are not respected.
- Non-approved installation methods are performed at the risk of the contractor and void the (limited) warranty.
- Under no circumstances will compliance with the information in this manual relieve the user of his/her responsibility to comply with all applicable codes or safety standards.
- This document describes the most used installation and mounting scenarios.
- If situations arise in which it is not possible to perform an installation following the procedures provided in this document, contact Schneider Electric.
- Schneider Electric is not responsible for any damages that may result from custom installations that are not described in this document or for any failure to adhere to installation recommendations.

Preface

This guide describes the planning and physical installation of the Schneider StarCharge Fast 720 Dispenser. The Schneider StarCharge Fast Charging Stations are easy to install DC fast Charging Stations for electric vehicles. Fast Charging Stations are electrical installations with high electric currents.

Therefore, the installation must be planned carefully, and must be done by certified personnel only (according to local standards).

As the physical installation of all types is equal, they will be referred to hereafter as Schneider StarCharge Fast 720 Dispenser only and this will account for all types, unless specifically stated otherwise.

Schneider StarCharge Fast 720 Dispenser is available in different versions. The different versions are described in the scope of application section.

NOTE: Installing the Schneider StarCharge Fast 720 Dispenser requires at least one person and takes approximately 1-2 hours. This time estimate does not include the time needed to commission the Dispenser.

Scope of Application

Type of equipment applicable to this manual: Schneider StarCharge Fast 720 Dispenser.

List of references supported are:

Commercial Reference	Vehicle connector	Cable management	Cable range (m)	Payment Terminal
EVD1D720TBB	2 x CCS2	Yes	4.1	No
EVD1D720TBBC7	2 x CCS2	No	6.9	No
EVD1D720TBBC	2 x CCS2	Yes	4.1	Yes (Payter Appollo)
EVD1D720TBBC1	2 x CCS2	Yes	4.1	Yes (PAX IM30)

*For more customized commercial reference, please contact Schneider Electric.

▲ CAUTION

RISK OF TRIPPING ON LOOSE CABLE

- For versions not equipped with cable management system, it is mandatory to allocate a solution or space to place the cable in order to prevent cars from running on it.

Failure to follow these instructions can result in injury or equipment damage.

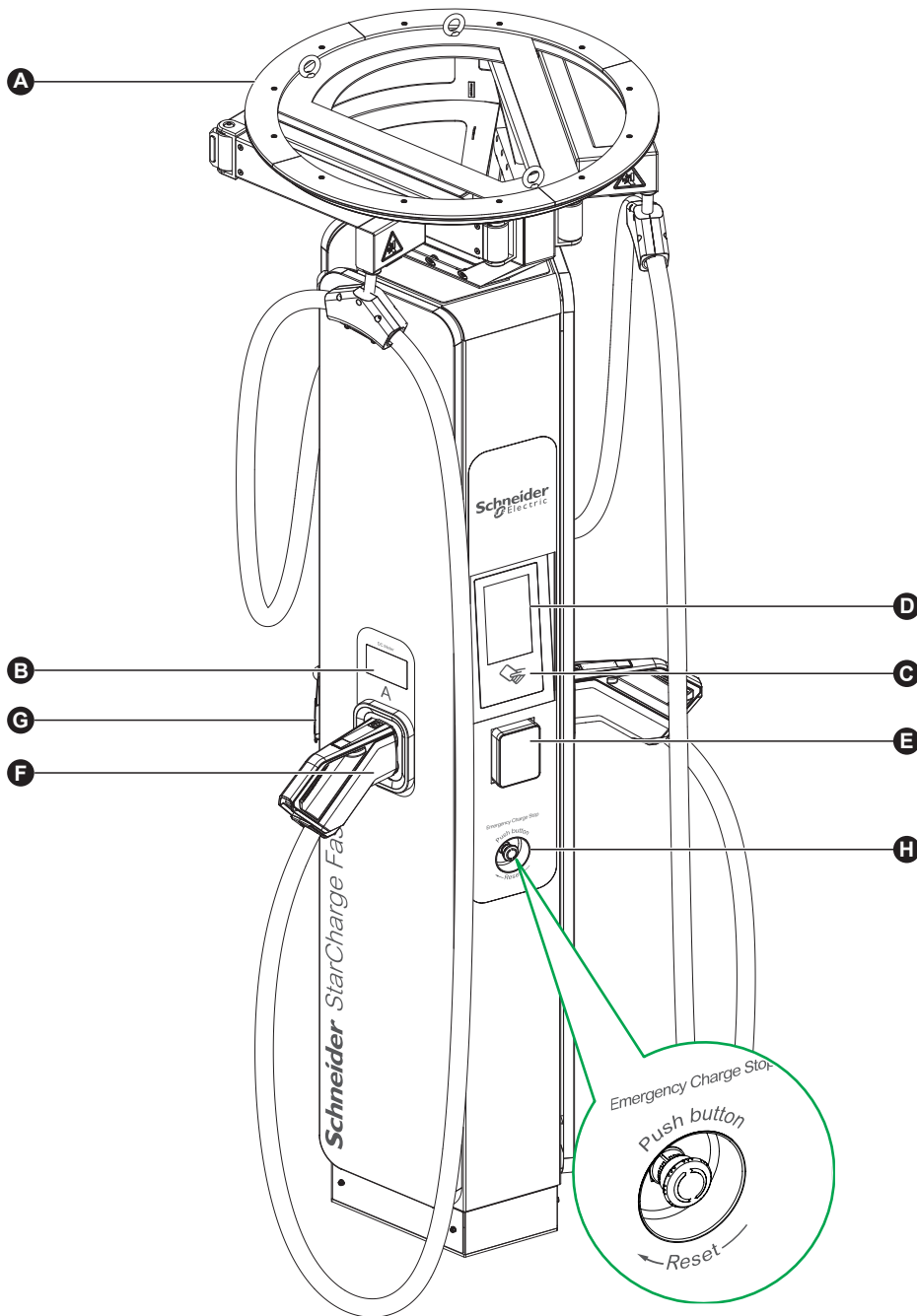
Available Documentation

Schneider StarCharge Fast available documents for each phase of the project:

Document	Reference	Content	Audiences
Schneider StarCharge Fast 720 Datasheet	998-24285450	Full Power Cabinet specifications	Site designer, installer, and station operator
Schneider StarCharge Fast 720 Power Cabinet Installation Guide	JPS6871301	Civil, mechanical, and electrical installation guidelines	Site engineer or installer/contractor
Schneider StarCharge Fast 720 Dispenser Installation Guide	JPS7899601	Civil, mechanical, and electrical installation guidelines	Site engineer or installer/contractor
Schneider StarCharge Fast 720 Owners Guide	D3998049	Operation and maintenance guidelines	Site operator and end user
Schneider StarCharge Fast 720 Commissioning Guide	D3998054	Electrical and Communication guidelines	Site engineer or installer/contractor/station operator
Schneider StarCharge Fast 720 OCPP Guide	D3999127	Integration rule of charger for Charge Point Operator	Charge Point Operator/Contractor
Schneider StarCharge Fast 720 Cybersecurity Guide	D3999124	Cybersecurity rules and guidelines	Charge Point Operator/Contractor

1

System Overview



A	Indicator Lights
B	DC Energy Meter Display
C	Card Tapping Area
D	Touch Screen
E	Credit Card Reader
F	Vehicle Connector Slot
G	Door Handle with Lock
H	Emergency Charge Stop

Image showing version equipped with cable management system and credit card reader.

2

Installation Environment

The environmental conditions listed in the table below should be taken into consideration when selecting the installation site of the Schneider StarCharge Fast Charging Station Dispenser.

Environmental parameter	Permissible Conditions
EMC environment	Industrial environment – Class A
Ambient temperature	-30°C ~ 55°C, derating after 50°C
Humidity	5%~ 95%
Altitude	Up to 2000 m
Degree of protection	IP55
Mechanical impact protection	IK10 (IK08 for screen)
Pollution degree	PD3
Mounting method	Stationary equipment, ground mounted or floor mounted
Ambience	Non explosive environments Housing corrosion protection level C4M Example of environment <ul style="list-style-type: none"> ■ Outdoor: Urban and industrial atmospheres, moderate sulphur dioxide pollution, coastal area with low salinity ■ Indoor: Production rooms with high humidity and some air pollution
Location	Avoid accumulation of sand, dust, snow etc.

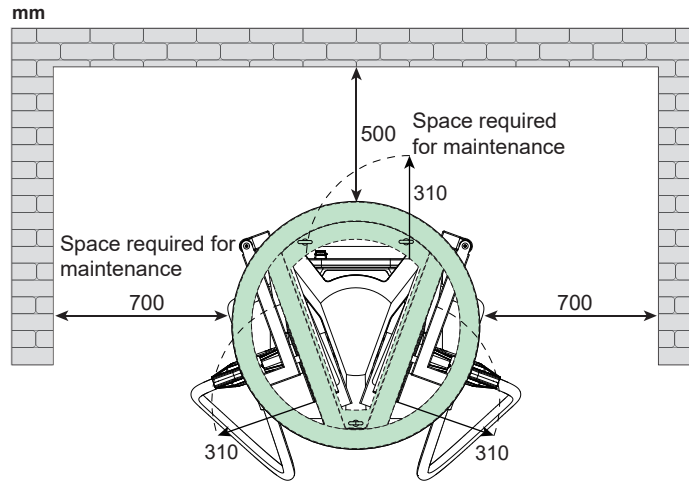
NOTE: Contact Schneider Electric if the Charging Station will be installed closer than 4 km to a sea/ocean coastline.

3.1 Maintenance Distance

NOTICE

RISK OF EQUIPMENT DAMAGE

Always follow the instructions described below when Charging Stations need to be installed near walls or other obstacles, a certain maintenance distance needs to be allocated. **Failure to follow these instructions can result in equipment damage.**



NOTE: Ensure that enough space is available around the installation pad to use a forklift and other lifting equipment, unpack crates, remove packing materials, and allow two people to freely move throughout the area. For versions equipped with Cable Management System, it is recommended to allow 500 mm clear space above the Dispenser for maintenance.

3.2 Underground Concrete Base

⚠ WARNING

HAZARD OF HEAVY EQUIPMENT FALLING

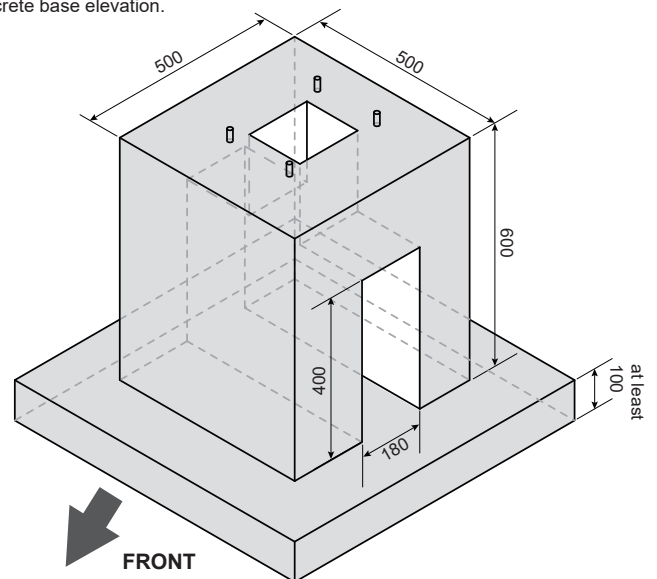
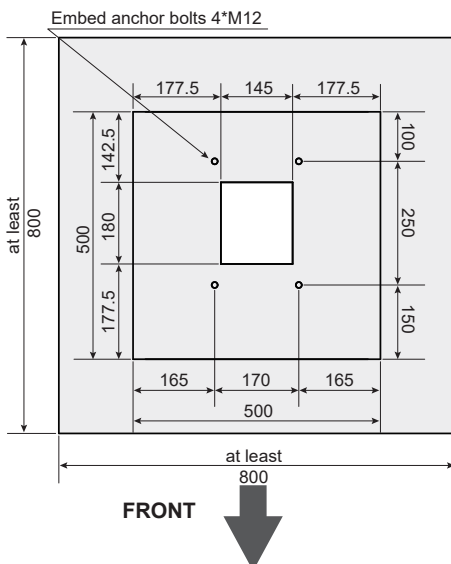
- The Schneider Starcharge Fast Charging Station shall be mounted on concrete flooring. If the Charging Station will be installed outdoors in sandy or soil ground or on a frost line, a concrete base is mandatory.
 - Always follow the instructions and information provided in this guide or a Schneider Electric approved mounting solution, to install the Schneider StarCharge Fast 720 Dispenser.
 - Non-approved installation methods are performed at the risk of the contractor and void the limited warranty.
- Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Before beginning work, check that the site meets these civil and mechanical requirements outlined below, as illustrated in the following image.

1. Underground concrete base guidelines

- The concrete pad must have a site drawing approved by a structural engineer for this specific site considering the soil behavior and/or any frost line and conforms to the mentioned specifications. Ensure a flat surface level with slight outward slope to drain any water, ensuring no obstacles prevent water draining from the base. The top of the concrete base must not be lower than the 0 finish floor level, and should not be higher than 200mm above the 0 finish floor. However it may be higher according to the different site situations and local regulations. Please consider the height of the screen and the vehicle connector when designing the concrete base elevation.

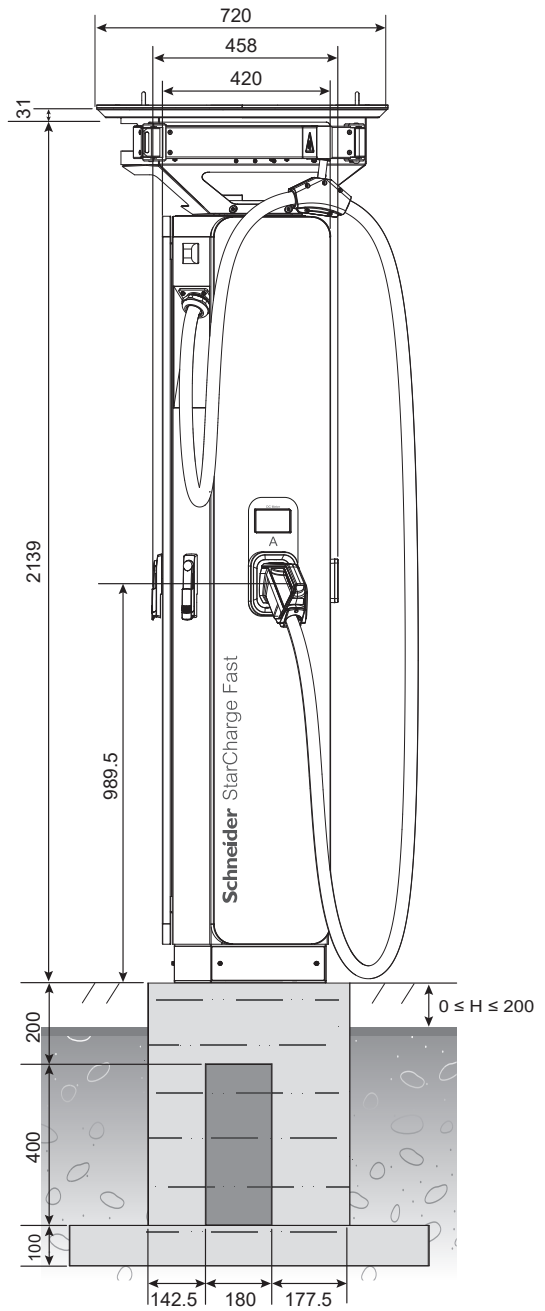
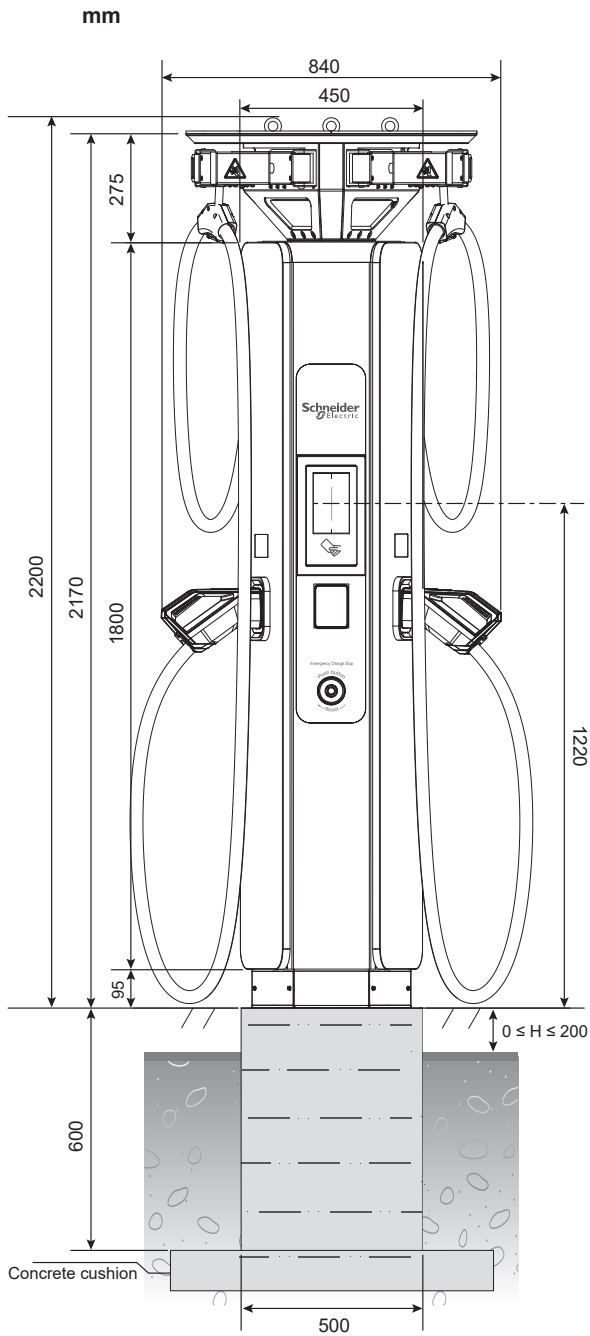
mm



- After the concrete has dried, 4 M12 screws with length L = 250 mm are fixed into the concrete pad according to the provided template (Appendix 2) with 30 - 40 mm of threads exposed.

3.2 Underground Concrete Base

2. Installation and construction



3.3 Cover Ranges of Charging Cable

It is possible to position the Schneider StarCharge Fast 720 Dispenser such that several parking spots can be served. Two vehicles can be charged at a time. The coverage ranges of the charging cable at different angles are shown in the figures that follow.

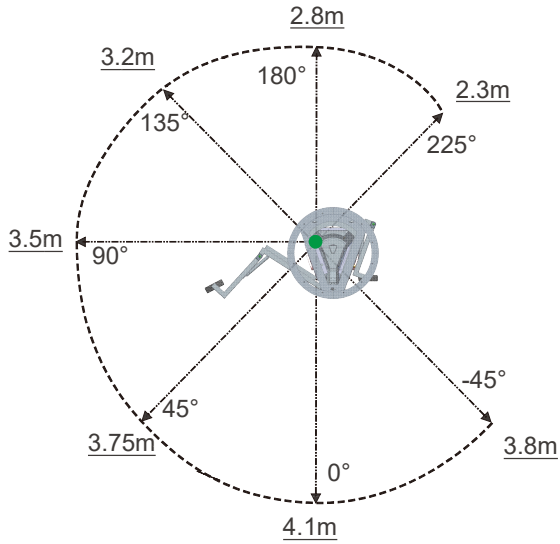
NOTE: The usable connector cable range with optional Cable Management System is 4.1 m.

For all other references the full length of the cable is usable providing extended range of 6.9 m.

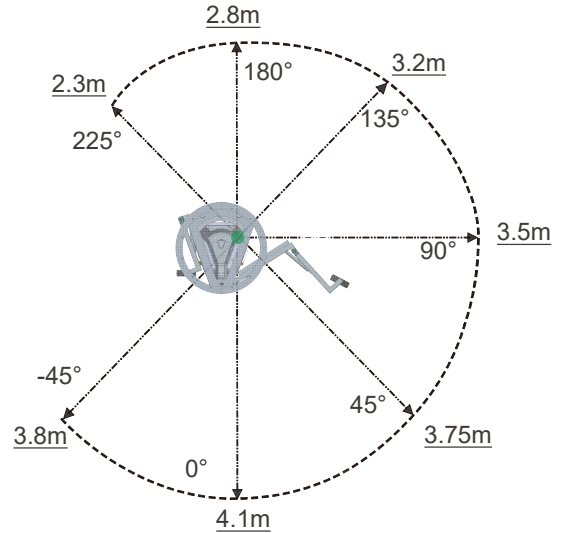
The measurement starting point of cable cover range is the gland where the cable is led out from the dispenser, and the measurement end point of cable cover range is where the cable connects to the charging connector (rear end of charging connector).

- The cover ranges of 5m charging cable with cable management:

Left

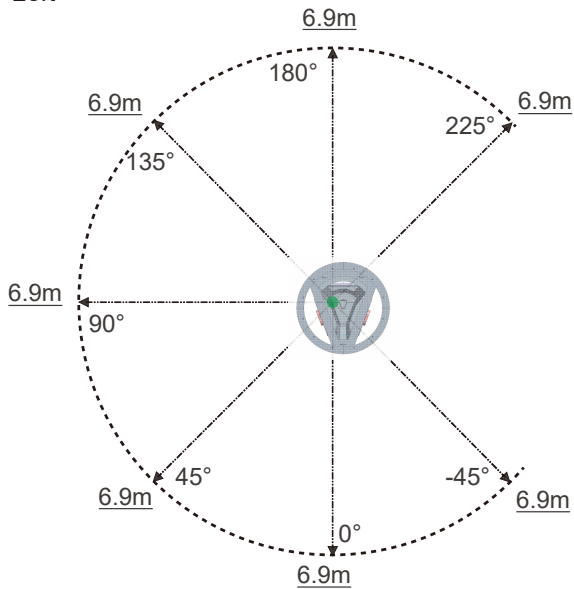


Right

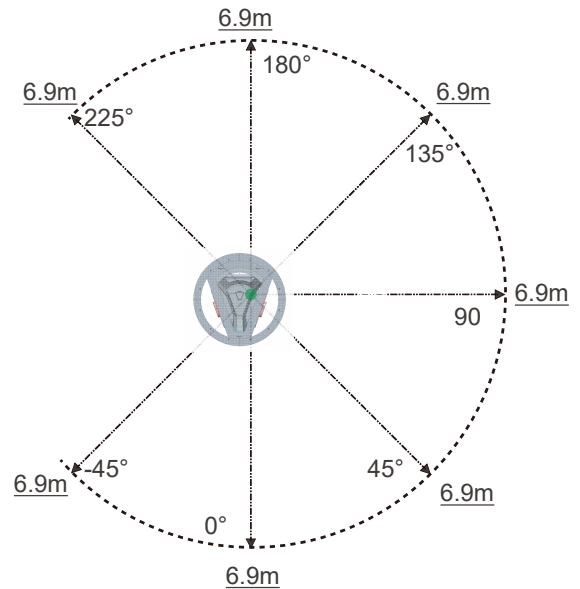


- The cover ranges of 7.5m charging cable without cable management:

Left



Right



3.4 Signage and Location

Use road signs and/or special marking to direct drivers to the Charging Station locations and to distinguish the Electric Vehicle parking spaces from ICE (Internal Combustion Engine) vehicles spaces.

To provide a secure comfortable environment for users, and to prevent vandalism and/or theft:

- Install the Charging Station in a location where it can be clearly seen and/or monitored.
- Use 24/7 security control.
- Install sufficient lighting around the Charging Station.
- For a comfortable user experience it is recommended to install a shed or other protection from the direct sunlight while using the Charging Station.

3.5 Bollards

It is advised to place bollards around the Charging Station to protect against cars collisions.

NOTE: Bollards limiting the access

When installing bollards around the Charging Station make sure all doors can still be opened to be able to service the Charging Station.

In case bollards are installed that are blocking the doors, make sure they are the removable kind.

If removable bollards are used, ensure the tool/key required to remove them is available in case of the Charging Station requiring services.

3.6 Tilt / Collision Sensor

Schneider StarCharge Fast 720 Dispenser is equipped with a tilt sensor that will interrupt output power/charging session if the sensor detects a tilt in the cabinet in any direction, for example if a vehicle collides with the Charging Station.

If triggered the indicator light will turn RED and any ongoing charging session will stop. The relevant error message will be shown on screen and an error code will be relayed to the OCPP backend if connected.

▲ WARNING**RISK OF FIRE AND/OR EQUIPMENT DAMAGE**

- Ensure the appropriate circuit protection, and metering is in place at the installation site.
- Ensure that a grounding conductor that complies with local codes is properly grounded to earth at the power distribution equipment.
- Ensure that a correctly rated, dedicated breaker is installed for each Charging Station.
- In the event of irregularities or disturbances in the operation of the device press the emergency charge stop button and unplug your car.
- In France, if the maximum power delivered by the product is modified, it has to be indicated on the product by customer.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

The electrical requirements for each type of Dispenser shall be followed according to this table:

Electrical Parameters						
DC output voltage	150 – 1000 Vdc					
DC output current	380 A max with boost mode up to 600A					
AC input voltage	220 – 240 Vac +/-10% 50/60Hz					
Earthing system	- TT - TN-S, TN-C-S					
Upstream Cables						
Suggested cable type	U1000 R2V Fine or Extra Fine Wire Strands					
Cable Entry						
Suggested copper conductor cross section:						
* The Power Cabinet requires 2 AC input power supply circuits: Circuit 1 and Circuit 2. The upstream circuit breakers and cables for each circuit should be selected according to half of the rated current and maximum current of the Power Cabinet.						
From	To	Function	Suggested cable with copper conduct		Suggested cable with aluminum conduct	
			Single-core cable	Multi-core cable	Single-core cable	Multi-core cable
Power distribution panel	480~720 kW range power cabinet	Circuit 1: L1	2 x (0.6kV/1kV 1 x 240mm ²)	Not applied	Not applied	Not applied
		Circuit 1: L2	2 x (0.6kV/1kV 1 x 240mm ²)			
		Circuit 1: L3	2 x (0.6kV/1kV 1 x 240mm ²)			
		Circuit 1: N	2 x (0.6kV/1kV 1 x 120mm ²)			
		Circuit 1: PE	2 x (0.6kV/1kV 1 x 120mm ²)			
		Circuit 2: L1	2 x (0.6kV/1kV 1 x 240mm ²)			
		Circuit 2: L2	2 x (0.6kV/1kV 1 x 240mm ²)			
		Circuit 2: L3	2 x (0.6kV/1kV 1 x 240mm ²)			
		Circuit 2: N	2 x (0.6kV/1kV 1 x 120mm ²)			
		Circuit 2: PE	2 x (0.6kV/1kV 1 x 120mm ²)			
Power distribution panel	360~480 kW range power cabinet	Circuit 1: L1	2 x (0.6kV/1kV 1 x 120mm ²)	2 x (0.6kV/1kV 3 x 150mm ² + 2 x 95mm ²)	2 x (0.6kV/1kV 1 x 185mm ²) 2 x (0.6kV/1kV 1 x 185mm ²) 2 x (0.6kV/1kV 1 x 185mm ²) 2 x (0.6kV/1kV 1 x 95mm ²)	2 x (0.6kV/1kV 3 x 240mm ² + 2 x 120mm ²)
		Circuit 1: L2	2 x (0.6kV/1kV 1 x 120mm ²)			
		Circuit 1: L3	2 x (0.6kV/1kV 1 x 120mm ²)			
		Circuit 1: N	1 x (0.6kV/1kV 1 x 120mm ²)			
		Circuit 1: PE	1 x (0.6kV/1kV 1 x 120mm ²)			
		Circuit 2: L1	2 x (0.6kV/1kV 1 x 120mm ²)			
		Circuit 2: L2	2 x (0.6kV/1kV 1 x 120mm ²)			
		Circuit 2: L3	2 x (0.6kV/1kV 1 x 120mm ²)			
		Circuit 2: N	1 x (0.6kV/1kV 1 x 120mm ²)			
		Circuit 2: PE	1 x (0.6kV/1kV 1 x 120mm ²)			
Power distribution panel	Power cabinet	Passive dry contact signal for opening upstream breakers	Not applied	1 x (RVV 2 x 0.5mm ²)	Not applied	Not applied
Router on-site	Power cabinet	Ethernet connection with CSMS backend	Not applied	1 x RJ45 CAT 6 shielded twisted pairs Ethernet cable	Not applied	Not applied
Power cabinet	Each dispenser	ConnectorA: DC+	2 x (0.6kV/1kV 1 x 150mm ²)	Not applied	2 x (0.6kV/1kV 1 x 240mm ²) 2 x (0.6kV/1kV 1 x 240mm ²) 2 x (0.6kV/1kV 1 x 240mm ²) 2 x (0.6kV/1kV 1 x 240mm ²) 1 x (0.6kV/1kV 1 x 35mm ²)	Not applied
		ConnectorA: DC-	2 x (0.6kV/1kV 1 x 150mm ²)			
		Connector B: DC+	2 x (0.6kV/1kV 1 x 150mm ²)			
		Connector B: DC-	2 x (0.6kV/1kV 1 x 150mm ²)			
		PE	1 x (0.6kV/1kV 1 x 25mm ²)			
		230VAC power supply: L	Not applied			
		230VAC power supply: N	Not applied			
Ethernet connection between power cabinet and dispenser	Not applied	1 x RJ45 CAT 6 shielded twisted pairs Ethernet cable	Not applied	Not applied		

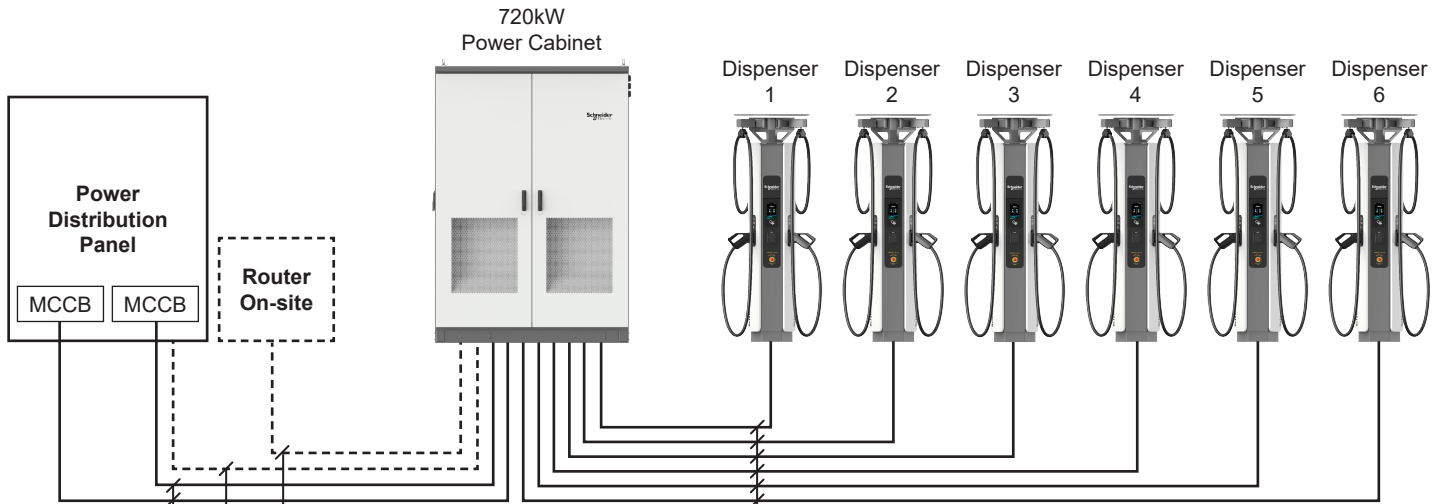
NOTE:

- The suggested cross-section above is based on the conditions: single-core or multi-core XLPE insulation cables on unperforated tray (reference installation method C in IEC 60364-5-52), single-layer touching arrangement, 40°C ambient air temperature.
- The necessary cable size calculations need to be verified according to site conditions, cable route, length, voltage drop. If you have future upgrade plans, it is recommended to install electric infrastructure suitable for the future installation.
- The AC busbars L1, L2 and L3 of Power Cabinet support the connection of a maximum of 2 copper or aluminum conductor cables with a cross-sectional area of 240mm². The AC busbars N and PE of Power Cabinet support the connection of a maximum of 2 copper or aluminum conductor cables with a cross-sectional area of 120mm².
- The DC busbars DC+ and DC- of Power Cabinet and Dispenser support the connection of a maximum of 2 copper or aluminum conductor cables with a cross-sectional area of 240mm².
- Bimetallic lugs must be used in the case of Aluminum cables.

4

Electrical Requirements

Wiring diagram (taking 720kW Power Cabinet and copper conductor cable as an example):



- **Optional:** Ethernet connection with CSMS backend
 - 1 x RJ45 CAT 6 shielded twisted pairs Ethernet cable

- **Optional:** Passive dry contact signal for opening upstream breakers
 - 1 x (RVV 2 x 0.5mm²)

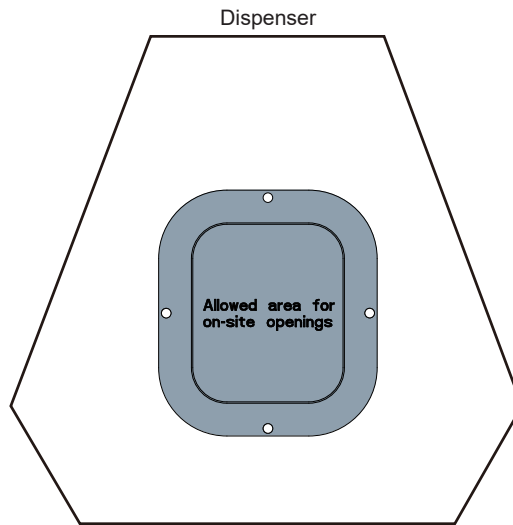
- **Each power cabinet requires 2 power supply circuits**
- **Each power supply circuit requires the following set of cables:**
 - L1: 2 x (0.6kV/1kV 1 x 240mm²)
 - L2: 2 x (0.6kV/1kV 1 x 240mm²)
 - L3: 2 x (0.6kV/1kV 1 x 240mm²)
 - N: 2 x (0.6kV/1kV 1 x 120mm²)
 - PE: 2 x (0.6kV/1kV 1 x 120mm²)

- **Each dispenser requires the following set of cables to connect with power cabinet:**
 - DC+ of connector A: 2 x (0.6kV/1kV 1 x 150mm²)
 - DC- of connector A: 2 x (0.6kV/1kV 1 x 150mm²)
 - DC+ of connector B: 2 x (0.6kV/1kV 1 x 150mm²)
 - DC- of connector B: 2 x (0.6kV/1kV 1 x 150mm²)
 - PE: 1 x (0.6kV/1kV 1 x 25mm²)
 - 230V AC power supply: 1 x (RVV 2 x 4mm²)
 - Ethernet connection: 1 x RJ45 CAT 6 shielded twisted pairs Ethernet cable



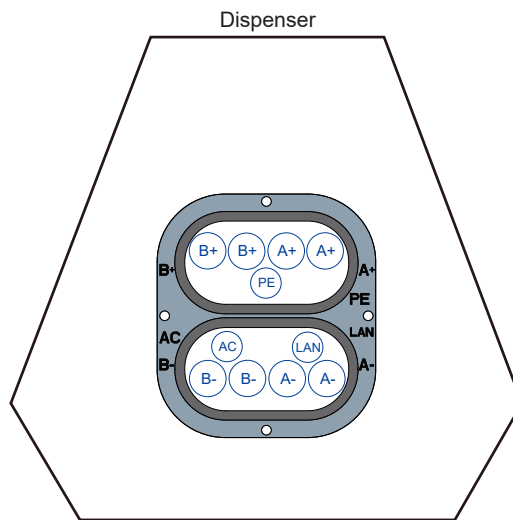
2 bottom cable entry cover palates are provided with the Dispenser. One is the plate without openings which is assembled on the Dispenser, and another one is the plate with pre-drilled openings which is in the packing accessory kit.

4.1 Bottom cable entry cover plate without openings



- The installer shall drill holes in the bottom cable entry plate for cable passage, based on the quantity and cross-section of on-site cables.
- After drilling holes in the bottom cable entry plate, protective measures must be implemented to prevent cable damage from sharp hole edges prior to cable routing and fixing. Recommended protective accessories include cable glands, or nylon/rubber buckle-type or tower-shaped grommets made of nylon or rubber, which shall be provided by the customer or installer based on the actual size and quantity of on-site cables.
- The space between cables, drilled openings in bottom cable entry plate, and the base plate of the cabinet shall be filled with fireproof sealing material to keep the IP protection.

4.2 Bottom cable entry cover plate with pre-drilled openings



- The space between cables, pre-drilled openings in bottom cable entry plate, and the base plate of the cabinet shall be filled with fireproof sealing material to keep the IP protection.
- The diagram above provides the recommended cable layout in pre-drilled openings, based on the routing path and termination location of cables inside the Dispenser.

5 Communication

5.1 Cellular and wireless signal

Use a signal detection device to ensure the signal is within the recommended strength according to the below guidelines:

Signal Quality	Cellular Signal	CSQ
	Excellent	> 15
	Fair	2 to 14
	Poor	< 2

5.2 Ethernet cable

Use RJ45 cat 6, shielded, twisted pairs.

6 Required Materials and Tools

Before you go to the site, please prepare the following tools/equipment:

- Forklift/Crane
- Step ladder
- Personal Protective Equipment (PPE)
- Cable cutter
- Wire stripper
- Wire presser/pliers
- Power drill
- Spirit level
- Toolbox
- Multimeter
- LOTO (Lock Out Tag Out) equipment

NOTE: The above tools should be selected according to the actual situation on-site.

7 Receiving, Handling

7.1 Receiving

⚠ DANGER

HAZARD OF HEAVY EQUIPMENT FALLING

Do not stand or move beneath the crate as it is being lifted or tilted.

Failure to follow these instructions will result in death or serious injury.

⚠ WARNING

HAZARD OF EQUIPMENT FALLING

- When handled from the bottom, the Charging Station must be lifted with care and held in place during transport by properly strapping them onto the forklift or handling equipment.
- Always transport and store the Charging Station in its original packaging.
- Ensure the load rating of all lifting equipment (forklift, crane and lifting straps, etc) is adequate for the weight of the Charging Station as shown below.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Do not install the Charging Station during harsh weather.
- If you must complete the installation in rain or wind, you must use a weather-proof shelter that covers all boxes and components to avoid water entering inside the enclosure.
- Ensure upstream protection breaker is locked in the Open (Off) position and a voltage absence test is performed before starting the installation.
- Do not use power tools during installation or servicing. Over-torquing can damage the equipment.

Failure to follow these instructions will result in death or serious injury.

7.2 Contents

Inside the Schneider StarCharge Fast shipping box you should find the below mentioned items and documents.
If there are any missing items or documents, please contact Schneider Electric for the necessary replacements.

Item	Quantity
Mounting template	1
Schneider StarCharge Fast 720 Dispenser	1
Keys	3
Generic RFID badge	2
User guidance sticker	1
Emergency charge stop cover plate	1
Bottom cable entry cover plate with pre-drilled openings	1
Safety labels in multiple languages	22
Insulation barrier between DC busbars (with the nut)	1

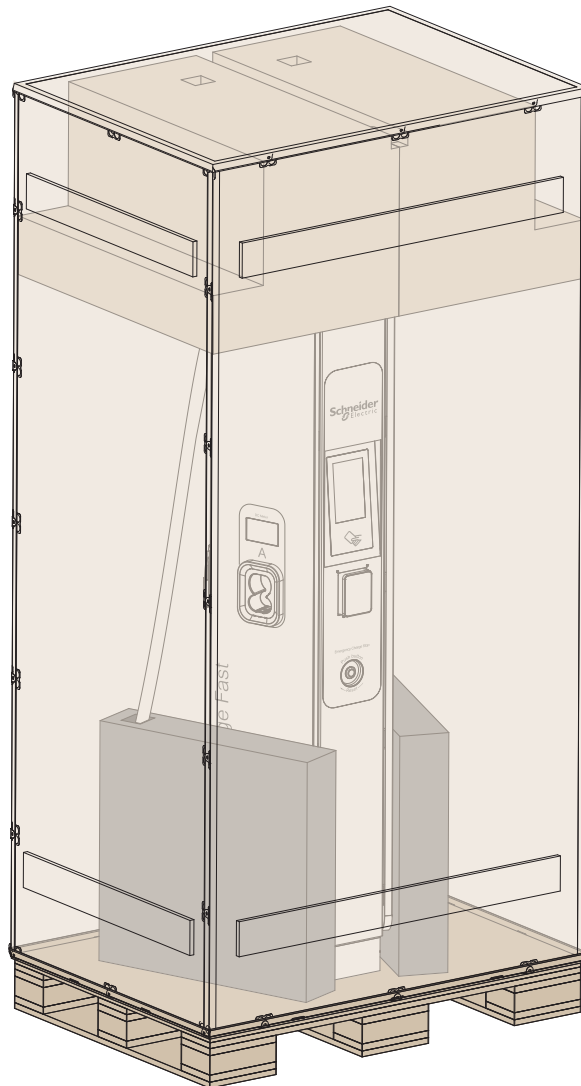
Documents

Installation manual

Each Schneider StarCharge Fast 720 Dispenser ships in one crate. Ensure you have correct crate at the installation site.

Commercial Reference	Shipping dimensions (W*D*H)	Shipping weight (kg)
EVD1D720TBB	1160*860*2370mm	320
EVD1D 720TBBC7	1160*860*2370mm	316
EVD1D 720TBBC	1160*860*2370mm	320
EVD1D 720TBCC1	1160*860*2370mm	320

*For more customized commercial reference, please contact Schneider Electric.



8

Unpacking and Inspection

⚠ CAUTION

HAZARD OF SHARP EDGES

It is recommended to wear protection gloves when unpacking the Charging Station as there could be sharp edges.
Failure to follow these instructions can result in injury.

⚠ CAUTION

HAZARD OF POTENTIAL LOOSE COMPONENTS INSIDE BOX

- At receiving always inspect the Tilt and Shock sensors on the crate for potential damage or mishandling.
 - If the sensors are triggered do not attempt to unpack, inform the transport agent and refuse reception.
- Failure to follow these instructions can result in injury or equipment damage.**



⚠ WARNING

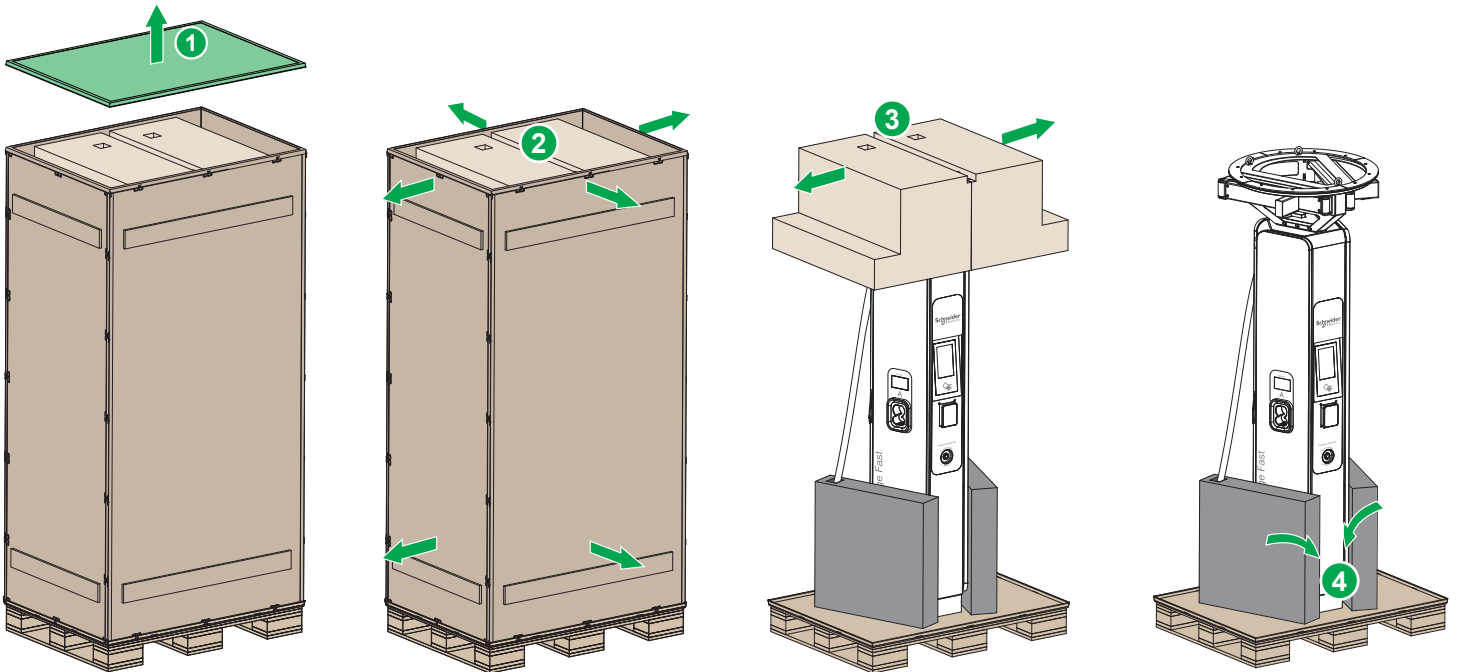
RISK OF EQUIPMENT DAMAGE

- 2 operators and safety step ladders are required to safely unbox the Schneider StarCharge Fast Charging Station.
- Failure to follow these instructions can result in death, serious injury, or equipment damage.**

8.1 Unpacking

Unpacking steps:

- Place the Dispenser crate close to where it will be installed.
- Remove the top cover of the wooden crate.
- Proceed to removing the side panels of the crate.
- Remove the inner foam protection profiles.
- Carefully remove the plastic wrapping around the charger.



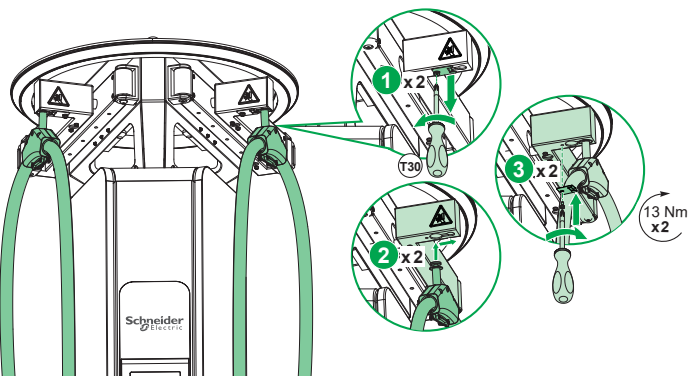
8.2 Inspection

After unpacking the Schneider StarCharge Fast 720 Dispenser, the installer should check all the items below:

- Appearance: check whether the appearance of the Dispenser is damaged, whether there is any damage such as paint loss, scratch, deformation, and whether the structure of Dispenser is damaged during transportation.
- Labels: check whether the nameplate of Dispenser is correct, clear and complete, and whether the safety warning signs are posted in place.
- Contents: check whether the documents and accessories are complete according to the list of contents above.
- After inspection ensure the Dispenser is covered/protected from the weather.

8.3 Install Cable Management (If applicable)

Unpack the DC cable from its attached BOX and attach to the cable management system before lifting the Dispenser.



- Remove the sealing plate.
- Insert the axis of charging cable clamp into the hole of the CMS. Move the charging cable clamp to the right position.
- Install the sealing plate.

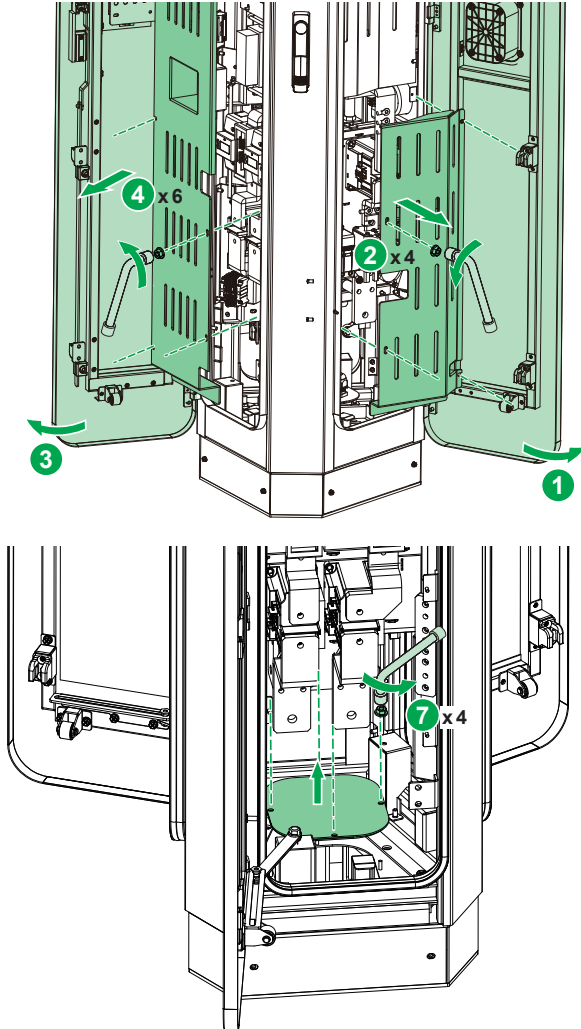
▲ WARNING

HAZARD OF HEAVY EQUIPMENT FALLING

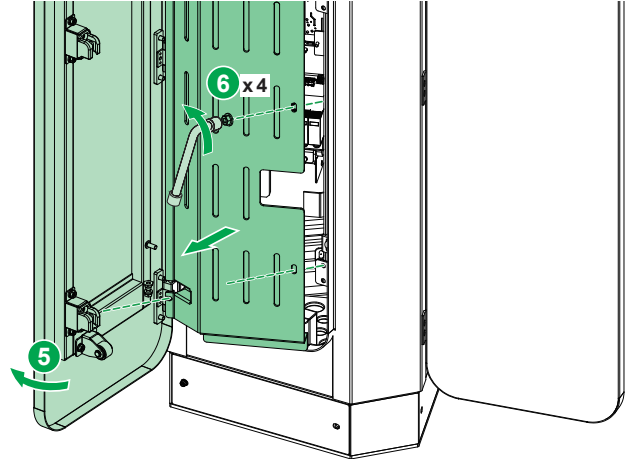
- The Schneider StarCharge Fast 720 Dispenser weighs 236~240 kg, ensure appropriate hoisting ropes and machinery.
- Extreme caution must be exercised while handling, lifting, or hoisting the Dispenser.
- Personal Protective Equipment required, hard hat, safety shoes, gloves.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

9.1 Before Hoisting

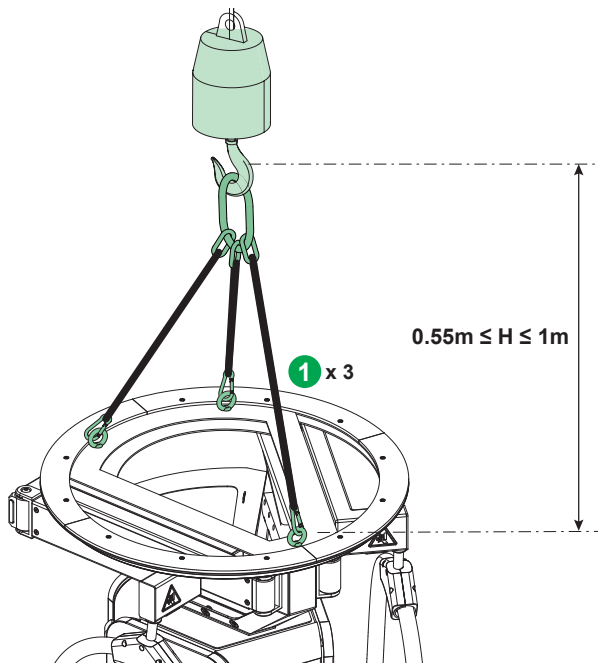


- Before lifting the Dispenser, open the door on right, left, and rear sides, and remove the bottom PC cover plates to expose the copper bars.



- Remove the bottom cable entry plate for the cables from Power Cabinet.

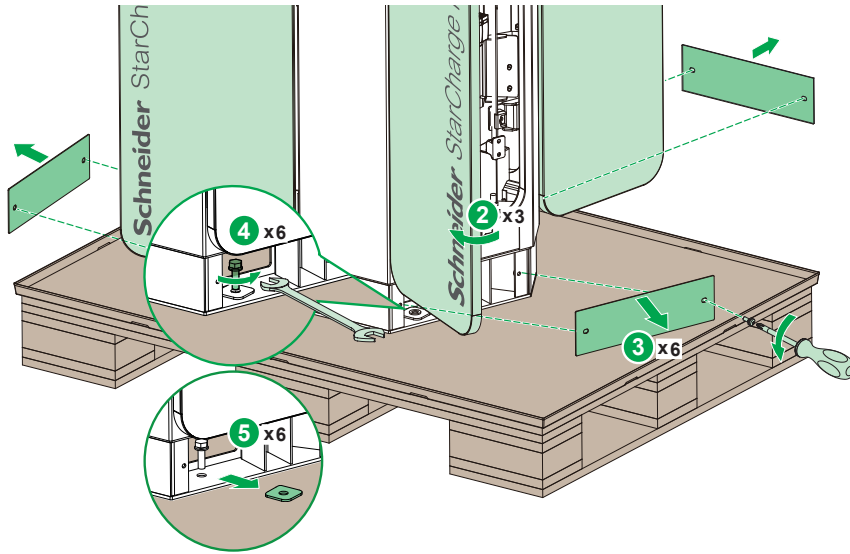
9.2 Hoisting



- Each of the top 3 lifting rings shall have a rope at each lifting point.
- The force center of the hook shall be located at a symmetrical force center.
- Ensure the suitable rope length.
- During hoisting, the top light should be protected from collision.
- The lifting ring is also used to fix the ceiling light. Do not remove the lifting ring after lifting is completed.

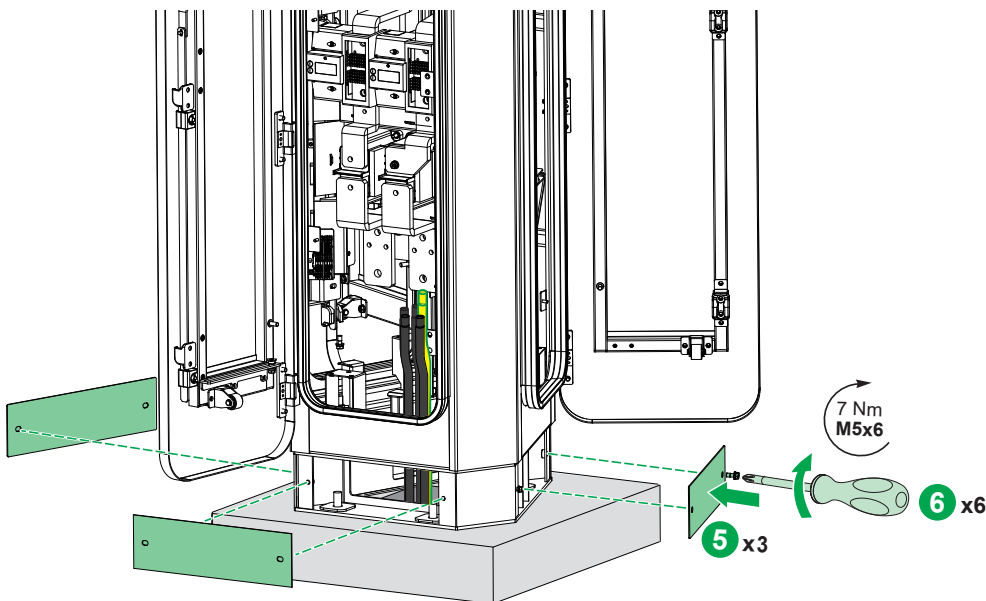
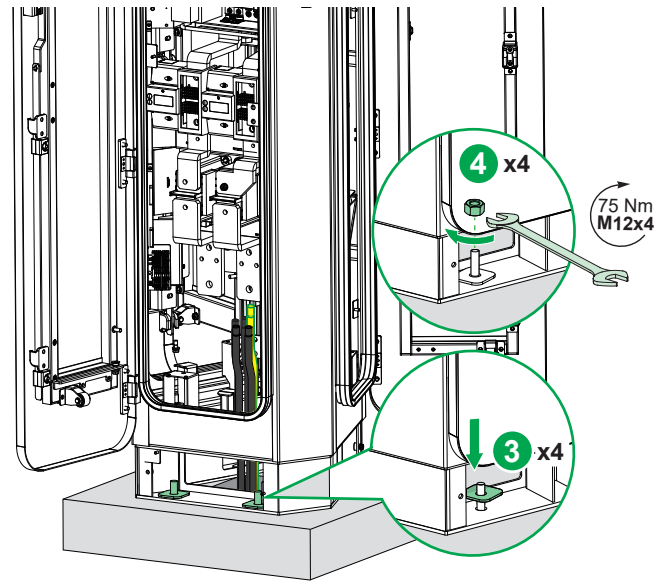
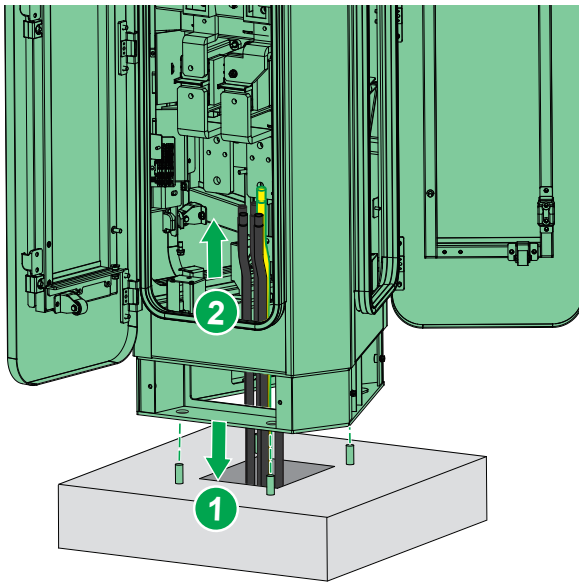
NOTE: The Dispenser can be damaged if the suitable rope length is not used.

9.2 Hoisting

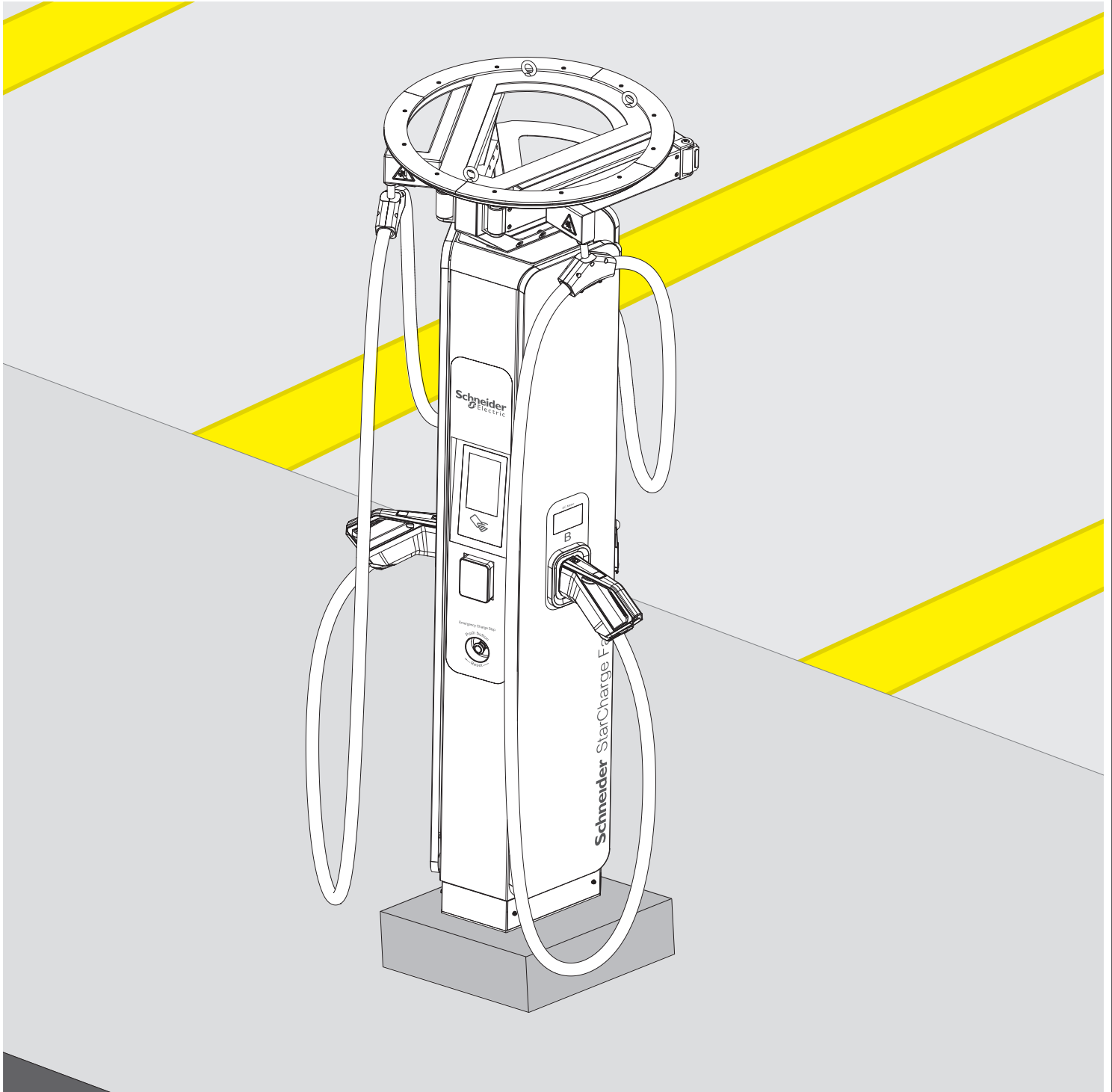


- Ensure the Dispenser is supported from the top before removing the pallet.
- The dispenser can be hoisted.
- Before lifting, the left, right and rear side doors shall be opened to facilitate observation and operation when threading cables into the cabinet from the bottom.

9.3 Fixing



9.3 Fixing



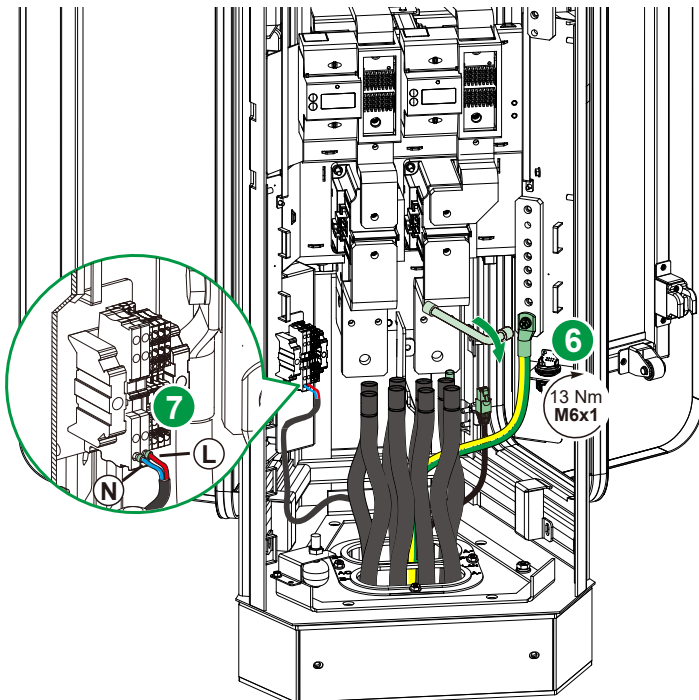
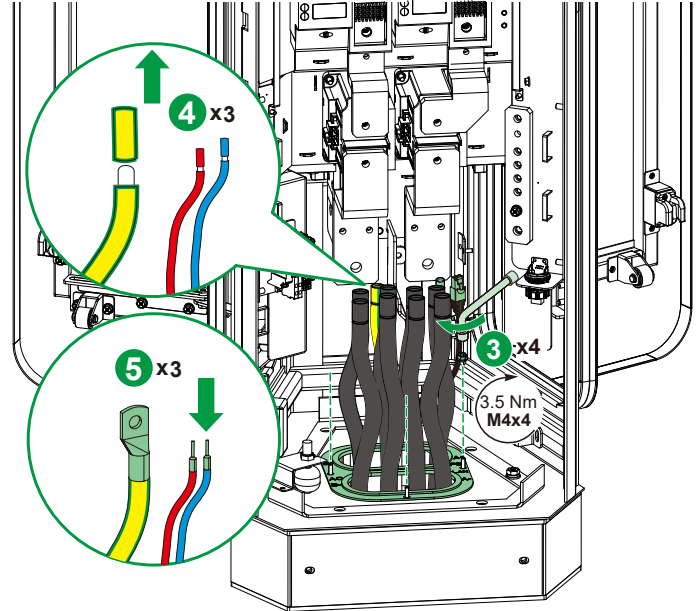
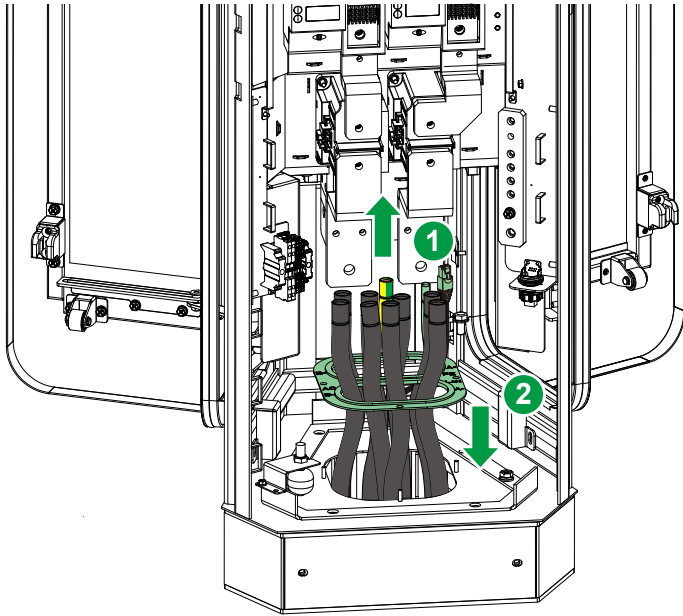
10 Connecting

10.1 Connecting the PE and 230V AC cables

⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

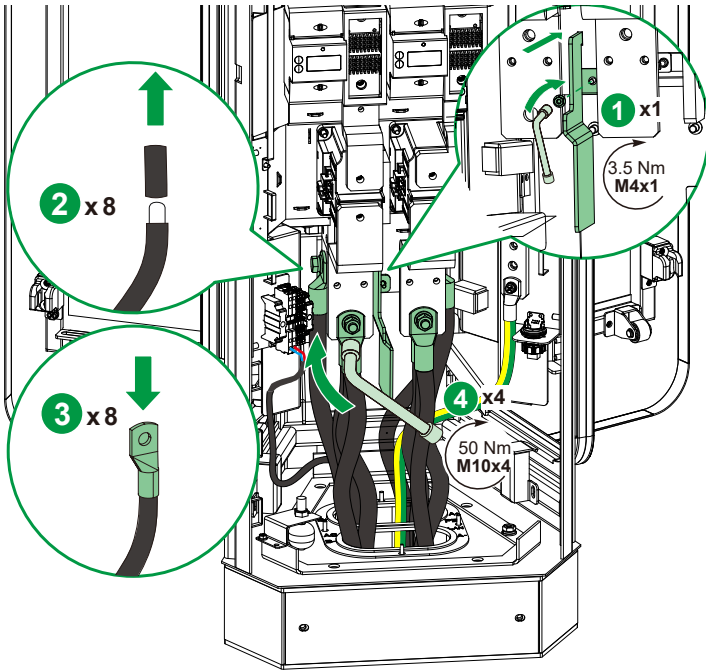
- It is recommended to make the PE wire longer than the phase wires to ensure that the PE wire stays connected the longest if the Dispenser is moved by an accident/collision.
 - Always connect the protective earth first, before connecting the N and phase wiring.
- Failure to follow these instructions will result in death or serious injury.



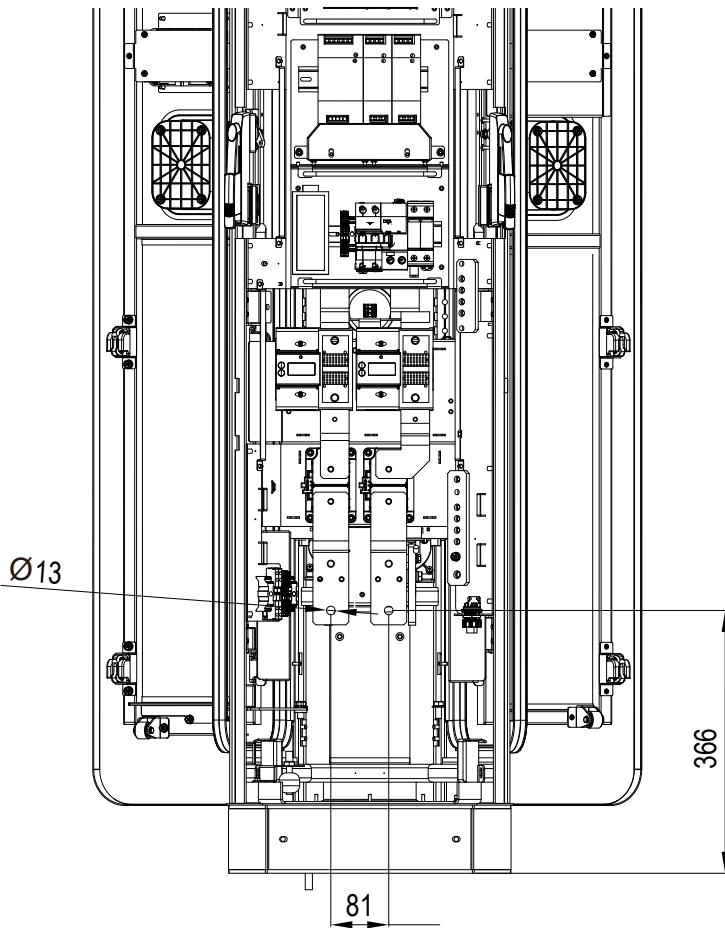
- Appropriate terminals shall be selected based on the cable cross-sectional area, conductor type, and bolt size.
- The wire stripping length shall be matched to the terminal model.
- Appropriate tools shall be selected for terminal crimping to ensure a secure crimp connection.
- Cables shall be labeled to avoid electrical faults caused by wiring errors.

10 Connecting

10.2 Connecting the DC cables

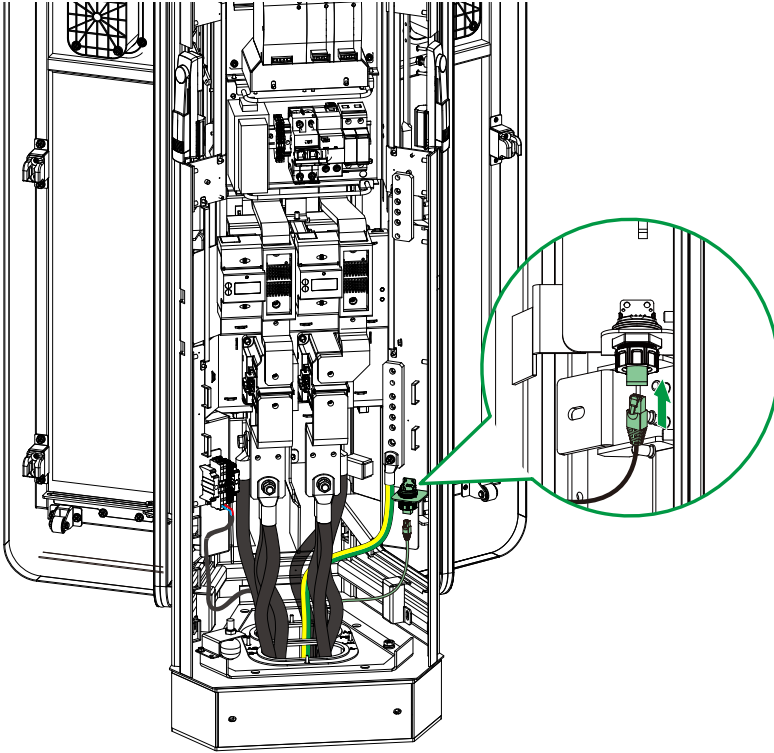


- Before connecting the DC power cables, the insulation barrier between bus-bars of DCA- and DCB- shall first be installed.
- Appropriate terminals shall be selected based on the cable cross-sectional area, conductor type, and bolt size.
- The wire stripping length shall be matched to the terminal model.
- Appropriate tools shall be selected for terminal crimping to ensure a secure crimp connection.
- Cables shall be labeled to avoid electrical faults caused by wiring errors.



10 Connecting

10.3 Connecting the Ethernet cable

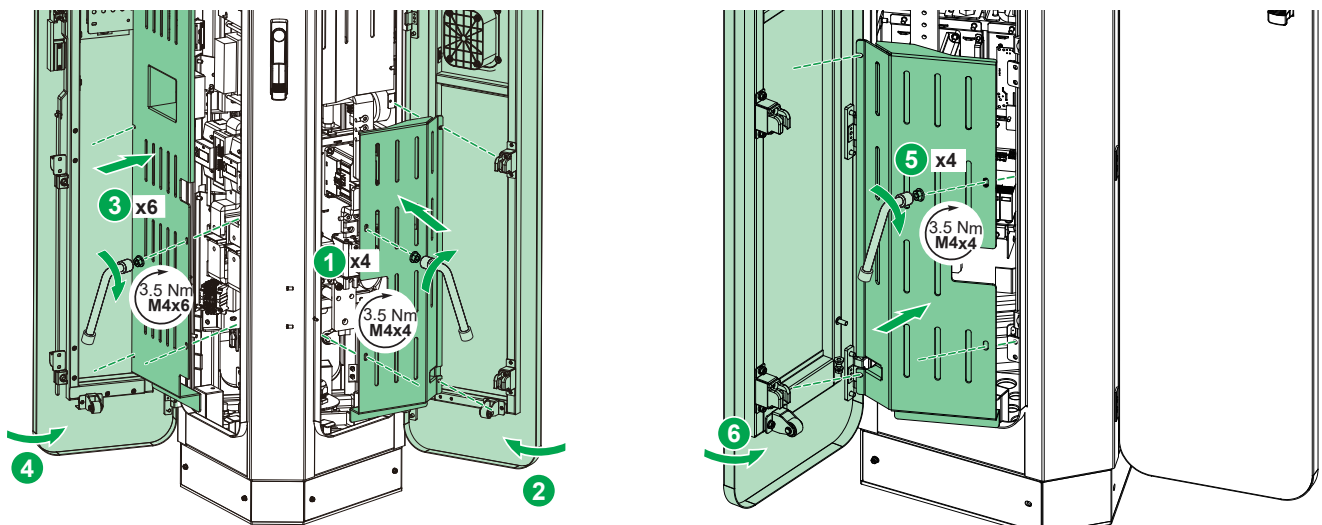


- Connect the RJ45 plug ethernet cable.
(The RJ45 port is already connected to the switch LAN port.)

10.4 Sealing the cables

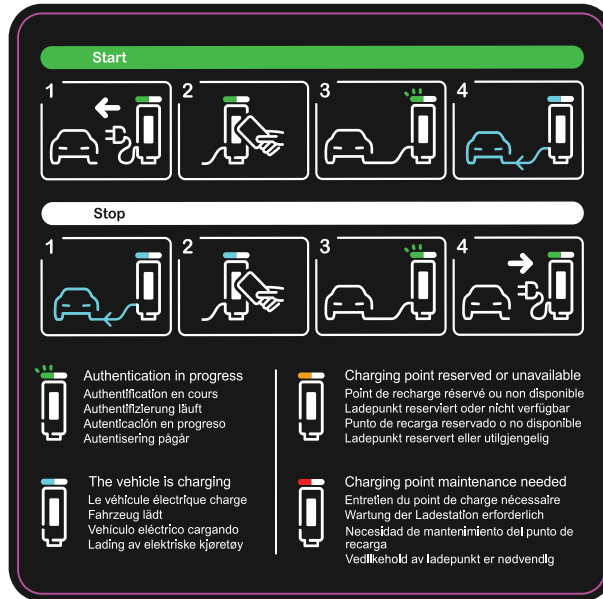
- Cable fireproof sealing construction shall be carried out after the completion of civil engineering and cable laying.
- Flexible organic sealing materials will harden in low-temperature environments. Before use, they should be appropriately heated until the material softens and then construction can proceed.
- Cable fireproof sealing construction usage procedure:
 - Clean the area to be sealed and the surface of the cable.
 - Open the incoming cable harness, connect and secure the cable, adjust the incoming code frozen (if any) to the appropriate position and secure it.
 - Fill the gaps between the cable and the incoming line code frozen tightly with flexible organic fireproofing material. The filling range of the flexible organic fireproofing material shall exceed the perimeter of the incoming line hole or the incoming line code frozen (if any) by more than 10mm, and the filling height shall be greater than 20mm.
 - Shape the sealed area, with the shape preferably being regular and the surface seamless. If additional cables need to be installed, the sealing should be promptly restored after the installation is completed.
 - On the outer side (outside the cabinet) of the cable surface at the sealing location, cable fireproof coating shall be evenly applied, with a thickness of not less than 1mm and a length of not less than 1500mm.
 - Clean up all the leftovers, garbage, and debris in the construction work area.
- In addition to complying with the above requirements, the construction of fireproof sealing for power engineering cables shall also comply with the provisions of the current relevant standards of the country where it is located.

10.5 Install the protection cover plates, and lock the doors

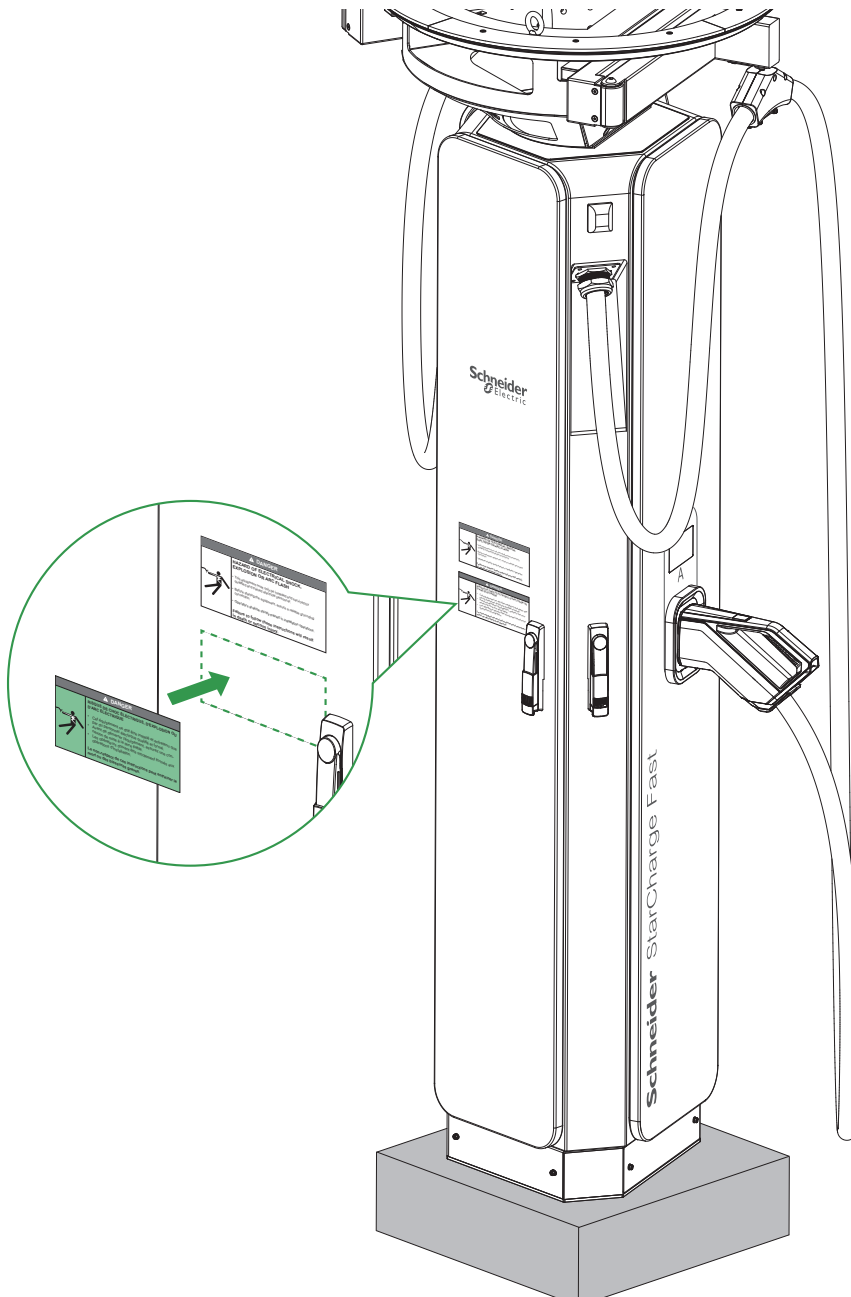


11 Finalization

- Complete the installation checklist (Appendix 1) and ensure any open points are closed for verification prior to commissioning.
- Place the provided user guidance sticker on a suitable/visible location on the Dispenser. (Optional).



- Place the provided safety label in the local language on the Dispenser, below the existing English safety label.



⚠ ⚠ DANGER

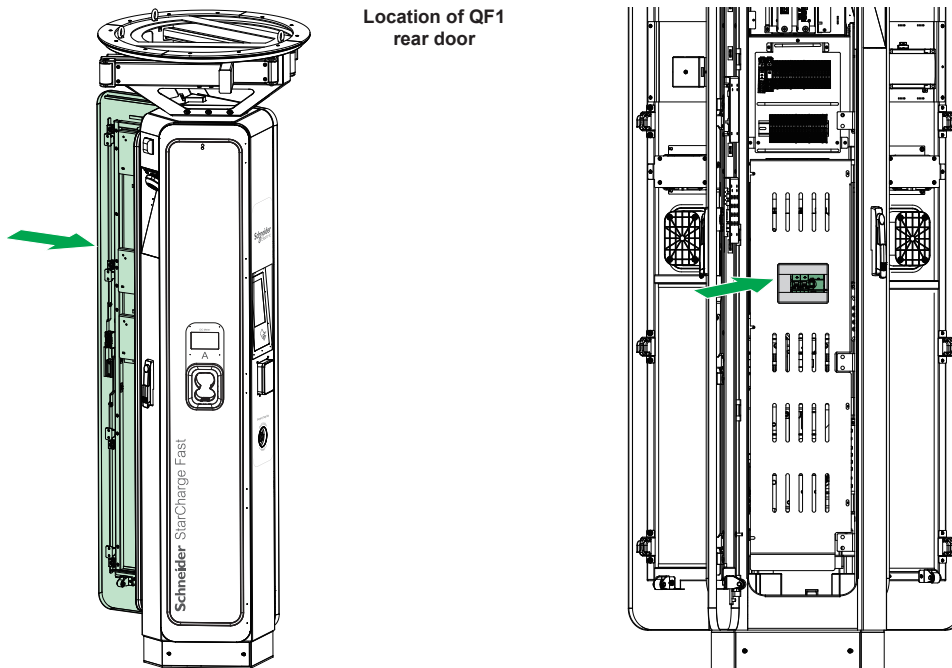
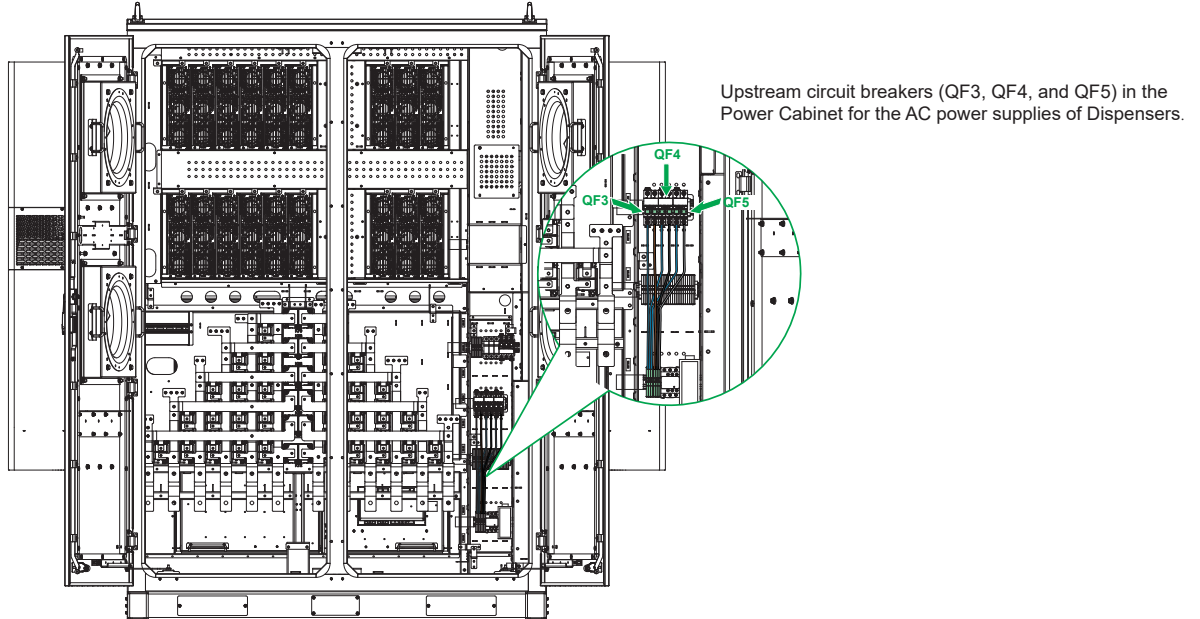
HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- When the system is in an open or dangerous condition, do not allow unqualified persons to go near it. Instruct/warn people about the potential harmful high voltages.
 - Make sure that the main upstream protection switch of the power supply for the product is set to the OFF position. Follow standard Lock-Out/Tag-Out procedures before proceeding.
 - Always perform a voltage absence test to confirm that electrical power is disconnected from the system.
- Failure to follow these instructions will result in death or serious injury.**

12.1 Startup

After completing the installation inspection checklist, you can proceed to Startup the charger to test the Power system:

- A** • Keep the upstream circuit breaker in the open (OFF) position in the Power Cabinet and proceed to close (ON) the QF1 breaker in the Dispenser.
- B** • Close and secure all the Dispenser doors.
- C** • Proceed to close the upstream circuit breaker QF3, QF4, and QF5 (ON) in the Power Cabinet.
- D** • Wait for 1 minute for the HMI and indicator lights to come online. The HMI screen will display a welcome screen. Verify that there is no error messages and that both indicator lights are stable green.
- E** • Switch off the Power Cabinet and Dispenser and wait 5 minutes before you proceed to commissioning.



12.2 Shutdown

⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK

It is mandatory to wait 5 minutes after the equipment is disconnected to allow capacitors to discharge before touching any internal parts.

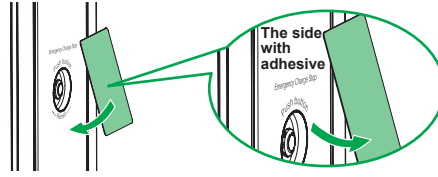
Failure to follow these instructions will result in death or serious injury.

To shutdown the system:

- A** • Open the Dispenser QF1 breaker(OFF).
- B** • Proceed to open the upstream circuit breaker (OFF) in the Power Cabinet.

13 Hide Emergency charge stop button (Optional)

If the emergency charge stop function is not required, peel off the protective film from the adhesive back of the emergency charge stop cover plate, attach it over the emergency charge stop button and its markings. Before attachment, clean the surface with alcohol or an appropriate solvent to remove any oil or dust. Press evenly during attachment to ensure a secure bond.



14 Recycle



Product Disposal

To comply with Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), devices marked with this symbol may not be disposed of as part of unsorted domestic waste inside the European Union.

Enquire with local authorities regarding proper disposal.

Product and packaging materials are recyclable as marked.

Please find below link and enter the product reference number for files: Product Environmental Profile and Product End of Life Instructions

checkaproduct.se.com

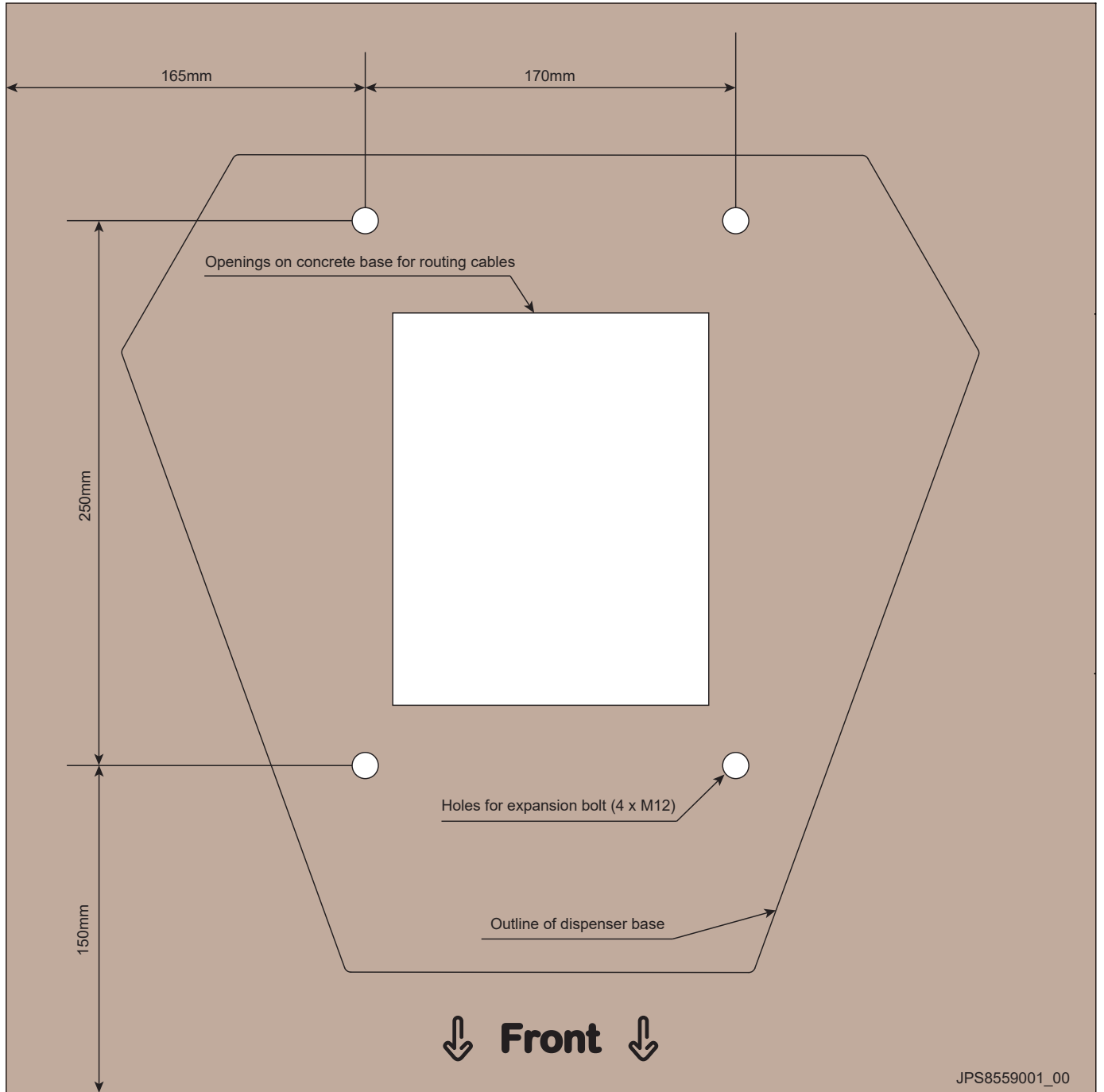
Appendix 1: Installation Check List

Category	Inspection or Verification	Remarks or Repairs
Structure	Check whether the Dispenser base plates and cable glands are fixed and sealed.	
	Check the Dispenser is well mounted on the concrete foundation and is leveled.	
	Check whether all doors operation and panels are intact, closed and locks are intact.	
	Check that the IP is maintained, gaskets and cable holes sealed and no openings permit dust, insects or rodents.	
	Check the necessary space is available for maintenance and all construction work is complete.	
Aesthetic	Check the appearance and cleanliness.	
	Check all signs and notices are clear and intact and remove the protective film from the HMI screen and the notices.	
Internal components	Verify the QF1 breaker is open position before energizing.	
	Check whether the internal components of the charger are intact (Removal of internal covers is not required).	
	Visually check for any loose component or wiring.	
	Check for any loose hardware or foreign objects in the bottom of the Dispenser.	
	Verify all grounding cables are secured on all doors and on the bottom of the charger.	
Electrical tests	Grounding resistance is $\leq 4\Omega$.	
	Check for over/under voltage.	
Power connections	The specifications of the cables used meet the power requirements of the Charging Station.	
	All power connections (AC, DC, and PE) are securely torqued according to the recommended values (DC: 50 Nm, PE: 13 Nm).	
	DC charging connector sequence are correct and identified on the cables.	
	Check clearance and creepage distances.	
	No leakage, damage, scratches on cable insulation and all electrical connections and wiring are correct and complete.	
	Check the Charging Cable and connectors are Intact.	
Communication	Ensure that the Ethernet cable connected to the RJ45 port.	

Verified by:

NOTE: Complete the installation checklist and ensure any open points are closed for verification prior to commissioning.

Appendix 2: Mounting Template



Appendix 3: Schematic Diagram

