IC PRIME CONTROL

BASIC FEATURES

- Fully automatic AirGENIO PRIME control system enabling individual setting and adjusting air speed and heating output for specific conditions.
- BMS control via Modbus RTU (Modbus TCP, BACnet With additional accessories)
- Five-level AC fan speed control or EC motor control
- Designed for single-phase fans
- Controls LPHW and electric coils
- NTC 10K temperature sensor input (measured in °C and °F)
- 36 months guarantee

The AirGENIO **IC PRIME** control unit is designed primarily for controlling 2VV industrial air curtains and fan heaters. The control unit shall be installed in dry indoor areas with an ambient temperature of +5°C up to + 40 °C and relative humidity of up to 90%. The electric IP rating of the control box is IP66 (for AC fans) or IP40 (for EC fans). The control unit housing is made of painted metal sheet.

PRIMARY PARAMETERS

Type	Description	[V/Hz]	Fan maximum current [A]	[IP]	[kg]	Fans*
ICPR1-M-ECX-XX-E2-0A0	Master, EC fans, Electric heater	115-230 / 50~60	N/A	40	4	20
ICPR1-M-ECX-XX-VF-0A0	Master, EC fans, Water heater	115-230 / 50~60	N/A	40	4	20
ICPR1-M-ECX-XX-S0-0A0	Master, EC fans, ambient	115-230 / 50~60	N/A	40	4	20
ICPR1-S-ECX-XX-E2-0A0	Slave, EC fans, Electric heater	115-230 / 50~60	N/A	40	4	20
ICPR1-S-ECX-XX-VF-0A0	Slave, EC fans, Water heater	115-230 / 50~60	N/A	40	4	20
ICPR1-S-ECX-XX-S0-0A0	Slave, EC fans, ambient	115-230 / 50~60	N/A	40	4	20
ICPR1-M-AC5-04-VF-0A0	Master, AC fans 4A, Water heater	230 / 50~60	4	66	14	N/A
ICPR1-S-AC5-04-VF-0A0	Slave, AC fans 4A, Water heater	230 / 50~60	4	66	14	N/A
ICPR1-M-AC5-07-E2-0A0	Master, AC fans 7A, Electric heater	230 / 50~60	7	66	16	N/A
ICPR1-M-AC5-07-VF-0A0	Master, AC fans 7A, Water heater	230 / 50~60	7	66	16	N/A
ICPR1-M-AC5-07-S0-0A0	Master, AC fans 7A, ambient	230 / 50~60	7	66	16	N/A
ICPR1-S-AC5-07-E2-0A0	Slave, AC fans 7A, Electric heater	230 / 50~60	7	66	16	N/A
ICPR1-S-AC5-07-VF-0A0	Slave, AC fans 7A, Water heater	230 / 50~60	7	66	16	N/A
ICPR1-S-AC5-07-S0-0A0	Slave, AC fans 7A, ambient	230 / 50~60	7	66	16	N/A
ICPR1-M-AC5-16-E2-0A0	Master, AC fans 16A, Electric heater	230 / 50~60	16	66	23	N/A
ICPR1-M-AC5-16-VF-0A0	Master, AC fans 16A, Water heater	230 / 50~60	16	66	23	N/A
ICPR1-M-AC5-16-S0-0A0	Master, AC fans 16A, ambient	230 / 50~60	16	66	23	N/A
ICPR1-S-AC5-16-E2-0A0	Slave, AC fans 16A, Electric heater	230 / 50~60	16	66	23	N/A
ICPR1-S-AC5-16-VF-0A0	Slave, AC fans 16A, Water heater	230 / 50~60	16	66	23	N/A
ICPR1-S-AC5-16-S0-0A0	Slave, AC fans 16A, ambient	230 / 50~60	16	66	23	N/A

* - Maximum number of connected EC fans to one control unit

Description of AirGENIO IC PRIME control

This control type is an advanced, yet user-friendly solution designed to optimize climate separation with cutting-edge technology. With minimal maintenance needs, AirGENIO PRIME provides a smart, reliable, and energy-efficient approach to air curtain control, enhancing both performance and convenience.

COMPLEXITY IN DESIGN
- Advanced Features
- Energy Optimization Algorithms
- Integration with BMS
- Cloud Capabilities

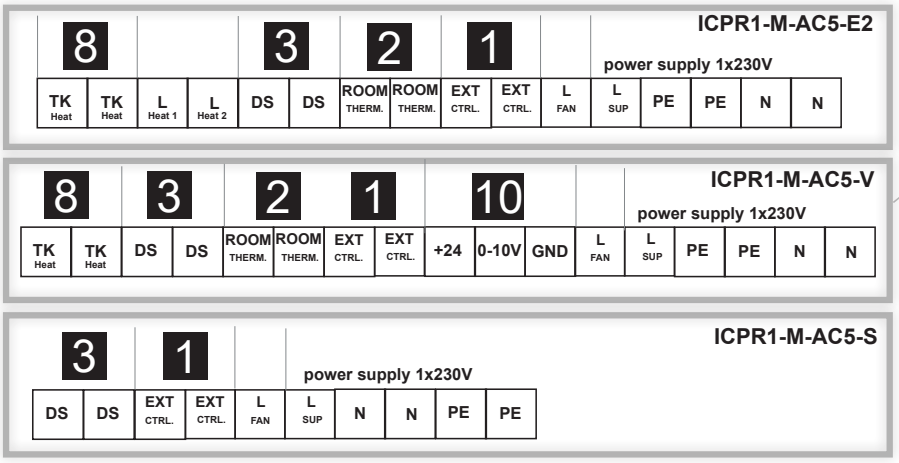
SIMPLICITY IN OPERATION
- Intuitive Interface
- Automated control
- Preset Modes
- Minimal Maintenance Needs

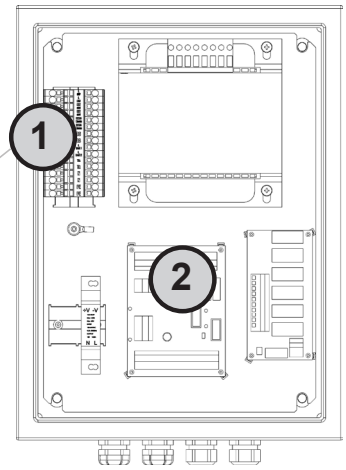
AirGENIO PRIME APPLICATION
- Controller extended functionalities
- Advanced settings
- User-friendly interface
- Wifi communication

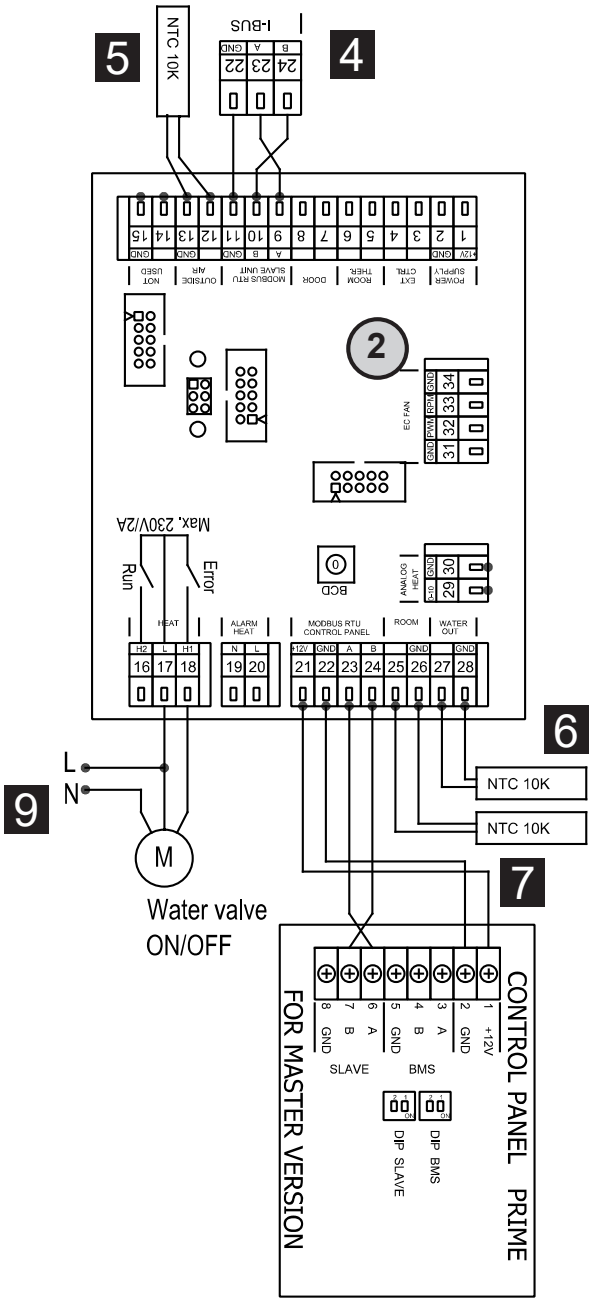
Remote controller can be used to:
- AUT/MAN Control
- Alarm display
- Integrated automatic antifreeze protection of LPHW coil with adjustable limit temperatures
- Door switch and/or external switch can be optionally used for automatic control of air curtain
- Door switch advanced option
- Closed door after-running - adjustable time and temperature
- Room thermostat and/or outside temperature sensor can be optionally used for fully automatic heating control
- Integrated Day/Week time schedule manager
- SUMMER/WINTER mode
- Error indication contact

WIRING DIAGRAMS

ICPR1-M-ACx...





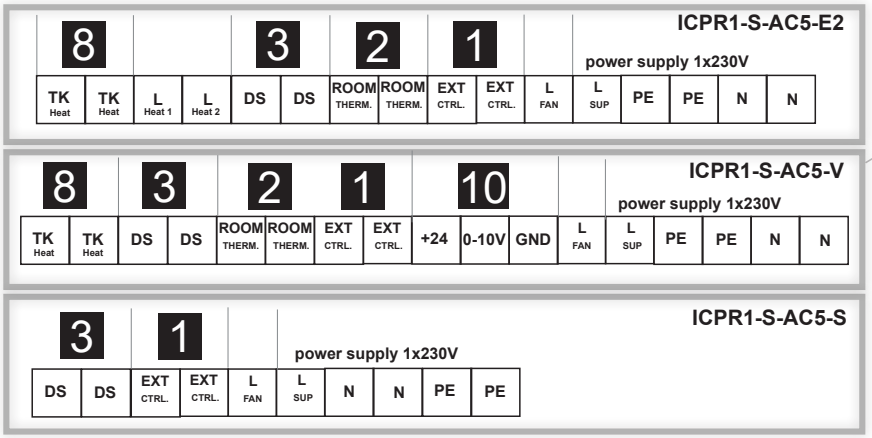


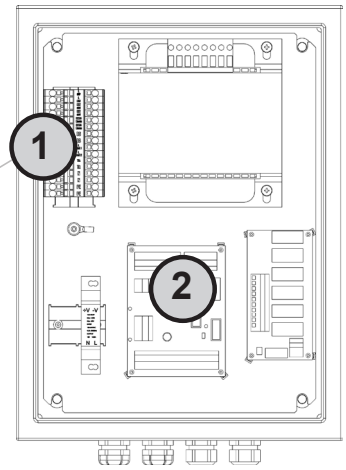
Enable ON/OFF valve and deactivate RUN/ ERROR

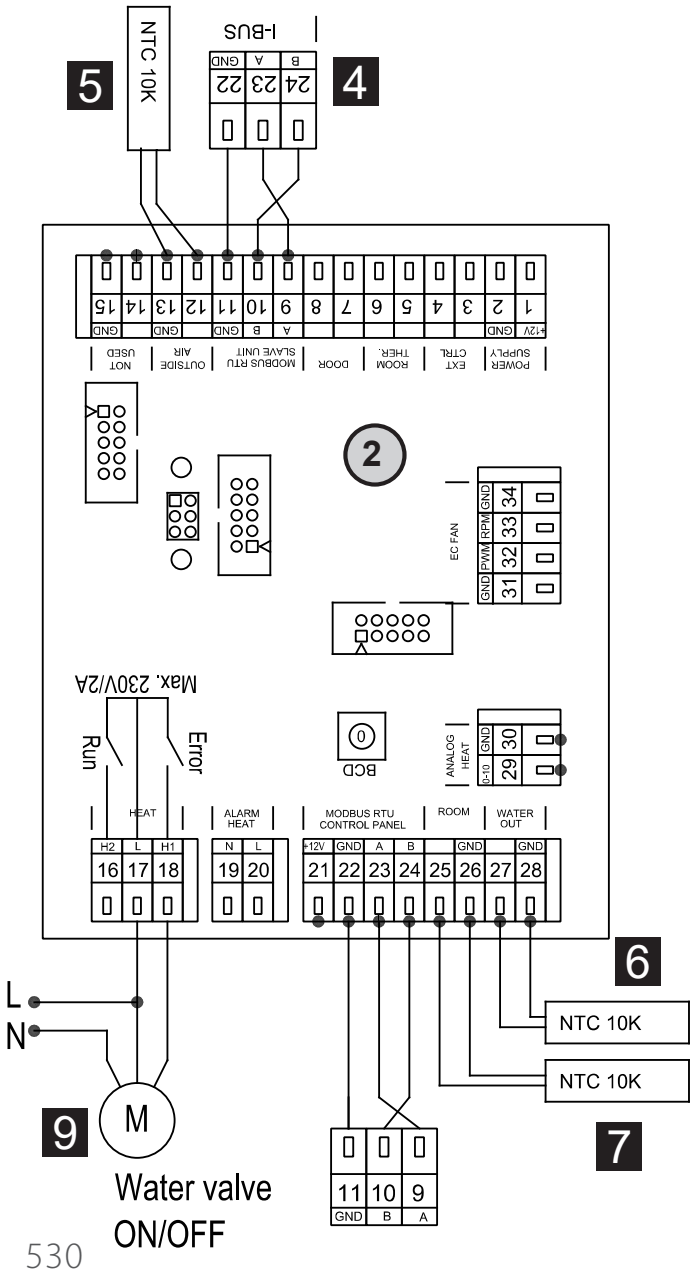
Enable RUN/ERROR and deactivate ON/OFF valve

	EN
1	External control - (input, ON/OFF)
2	Room Thermostat (input, NO/NC)
3	DOOR contact (input, NO/NC)
4	SLAVE unit connection
5	Outside air sensor (not included in delivery)
6	Antifreeze sensor for water version
7	Room sensor (not included in delivery)
8	ERROR or HEAT2
9	Water valve control ON/OFF or RUN
10	Water valve control (0-10V)

ICPR1-S-ACx...







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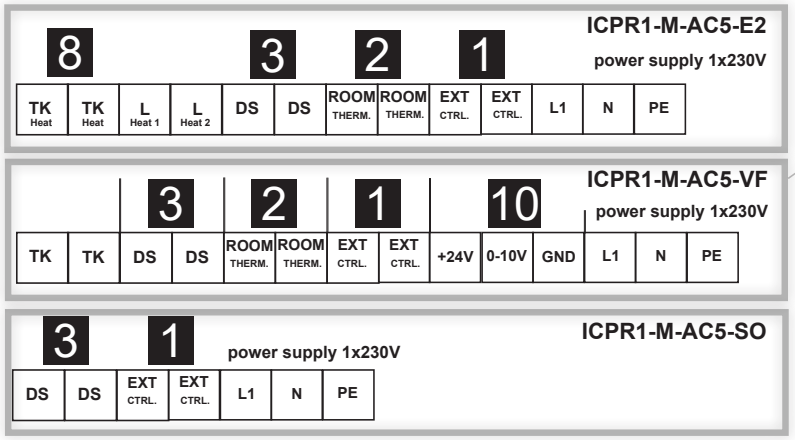
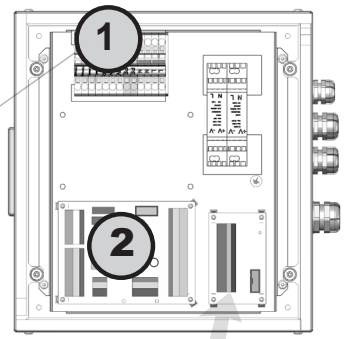
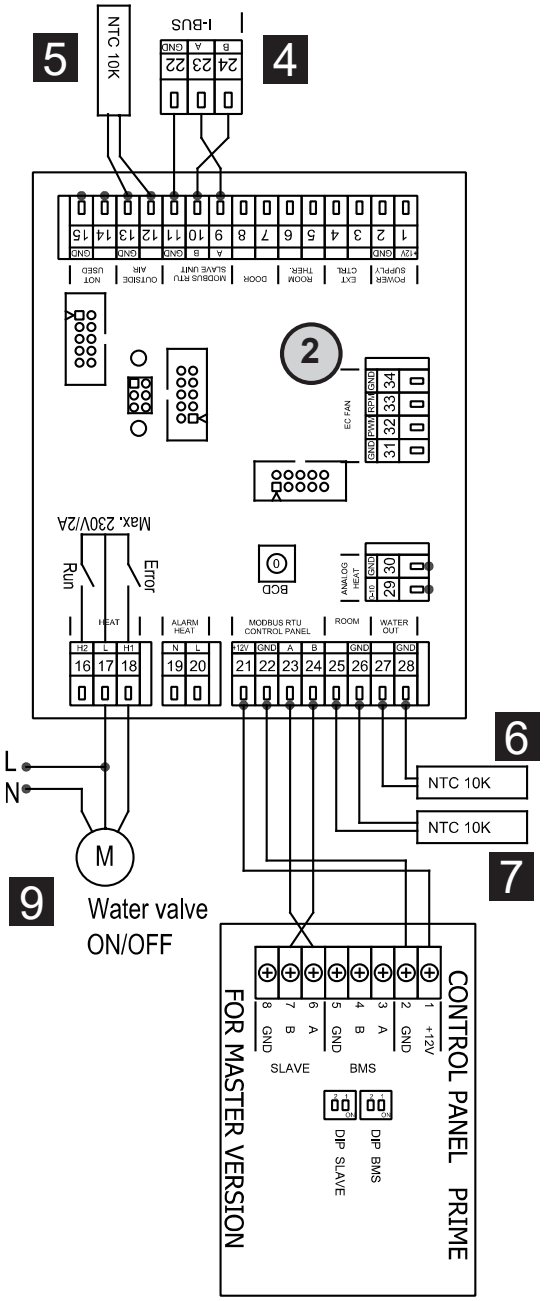
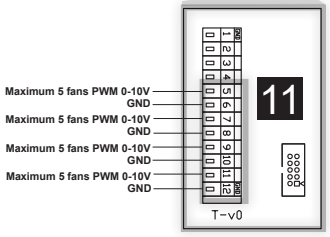
ICPR1-M-ECx...









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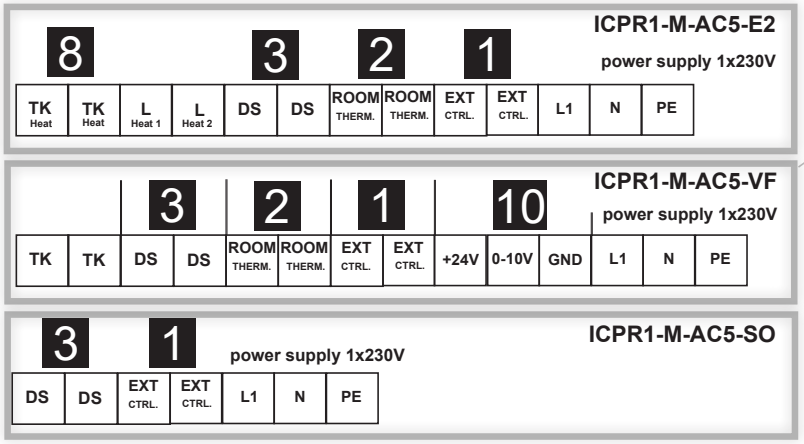
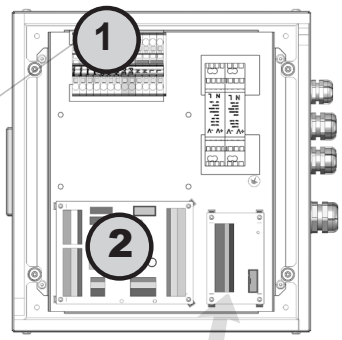
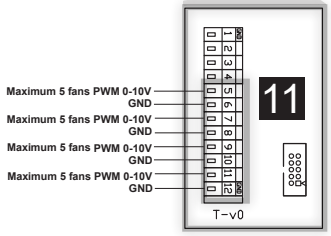
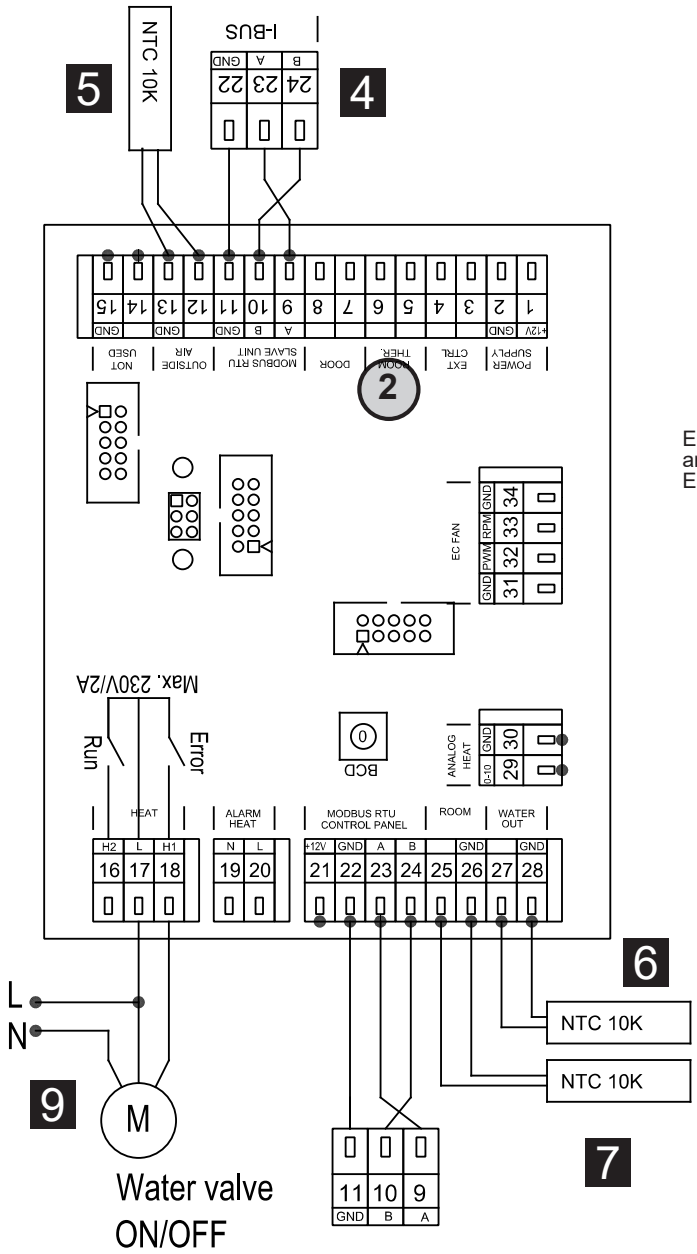
ICPR1-S-ECx...









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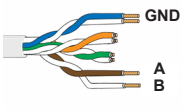
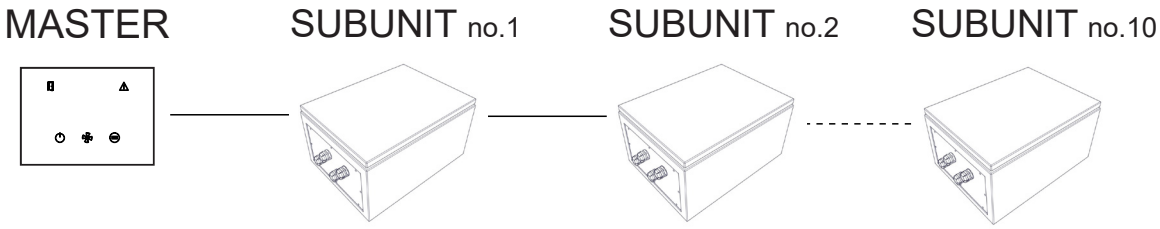
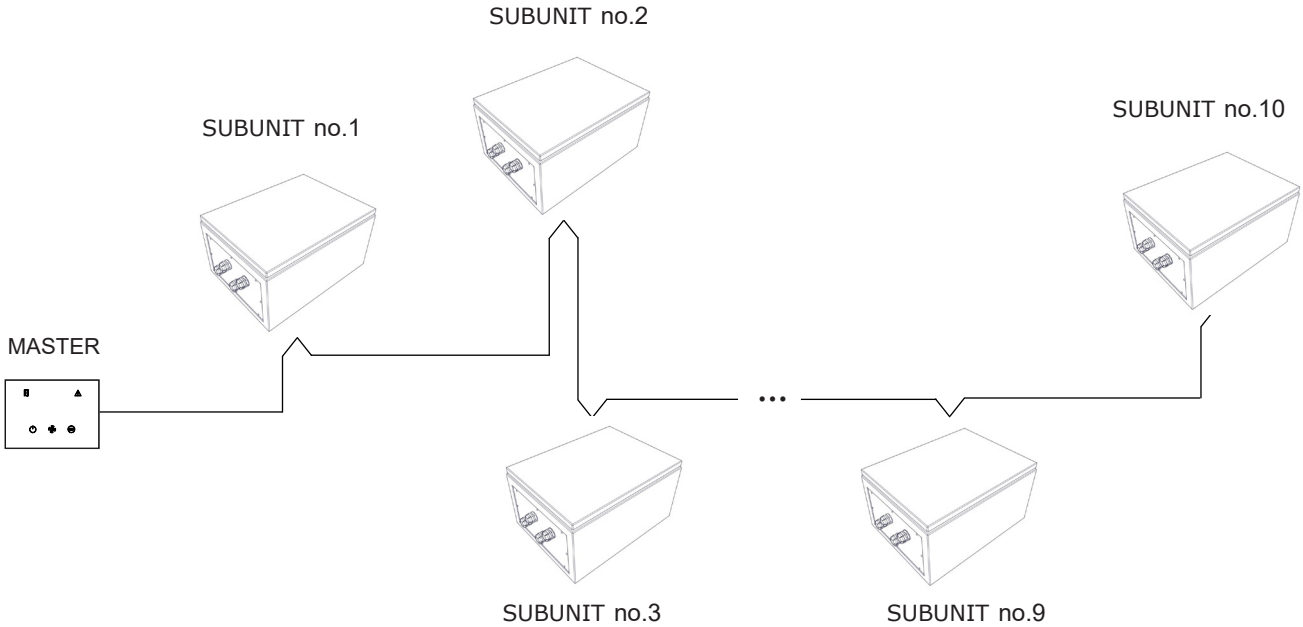
Chaining

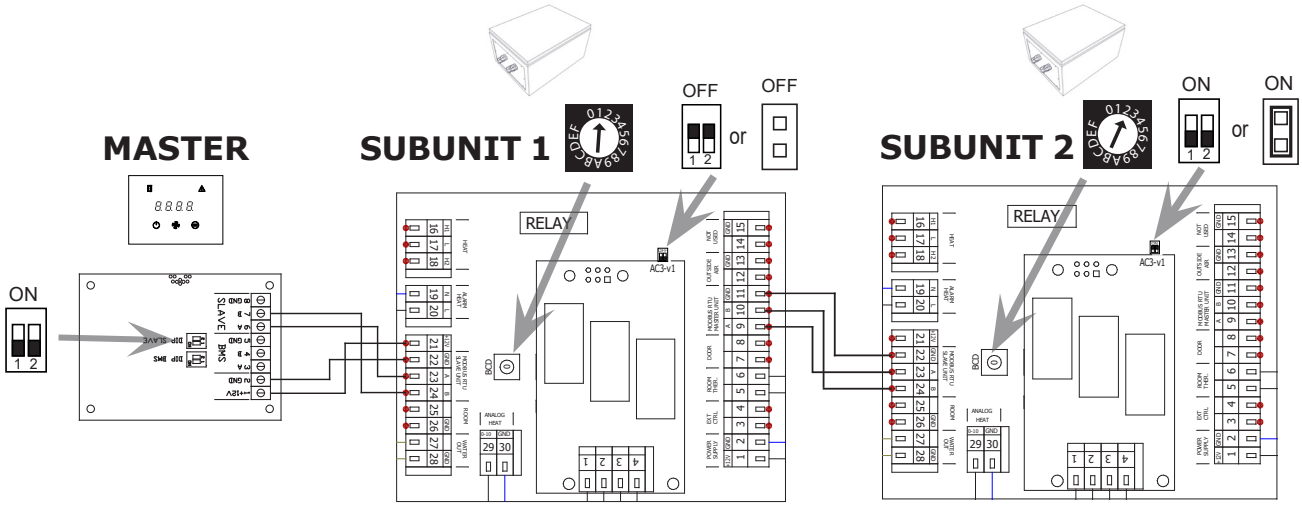


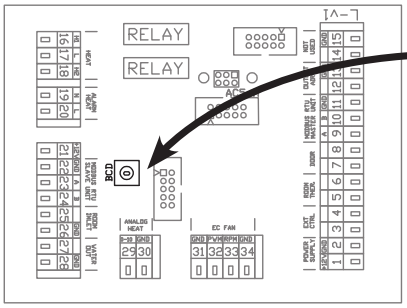
UTP-CAT5



Max 150m



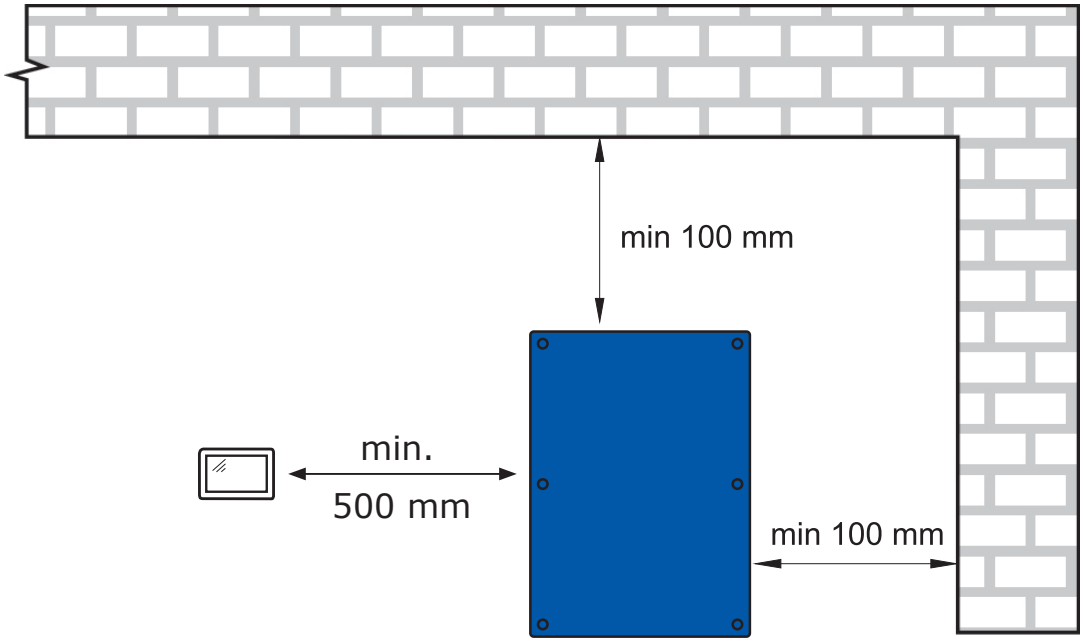




SLAVE	BCD	SLAVE	BCD
NO.1	1	NO. 6	6
NO.2	2	NO. 7	7
NO. 3	3	NO. 8	8
NO. 4	4	NO. 9	9
NO. 5	5	NO. 10	A

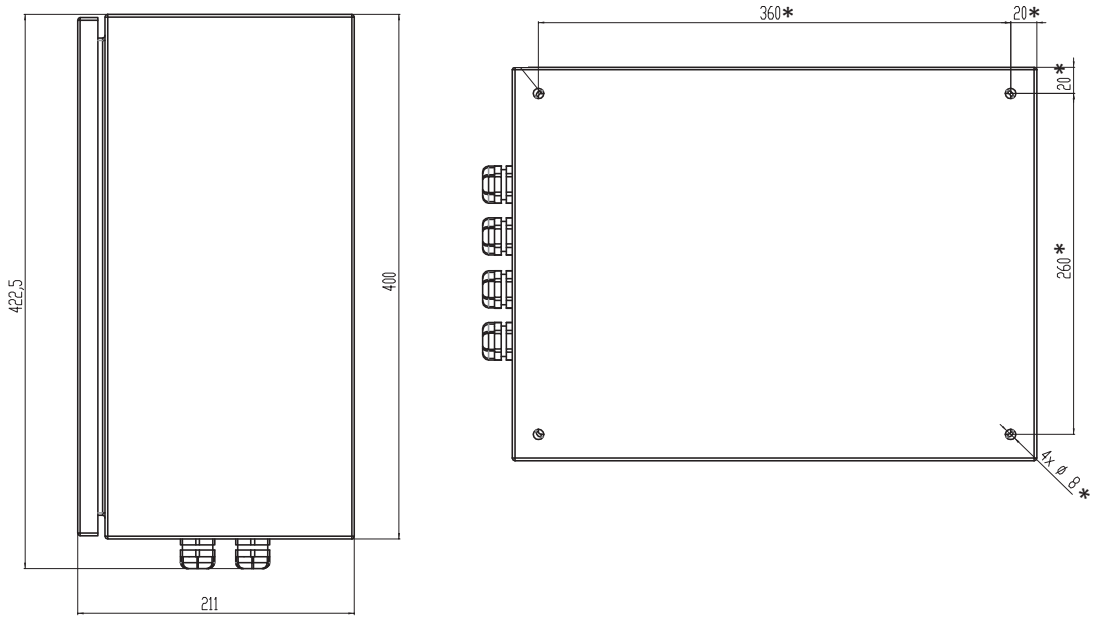
INSTALLATION AND ASSEMBLY

- The control unit is intended to be installed on a wall in the vertical position.
- The control unit must be installed in such a way that the air can flow around to prevent overheating.
- Comply with minimum recommended standoff distances. The control unit must be installed in such a way that ensures sufficient access for maintenance, service and disassembling.
- The control unit is attached using screws and dowels or bolts on a wall.
- There must not be any flammable materials within a distance of 100 mm from the regulator.
- The controller must be installed in a visible and easily accessible location.



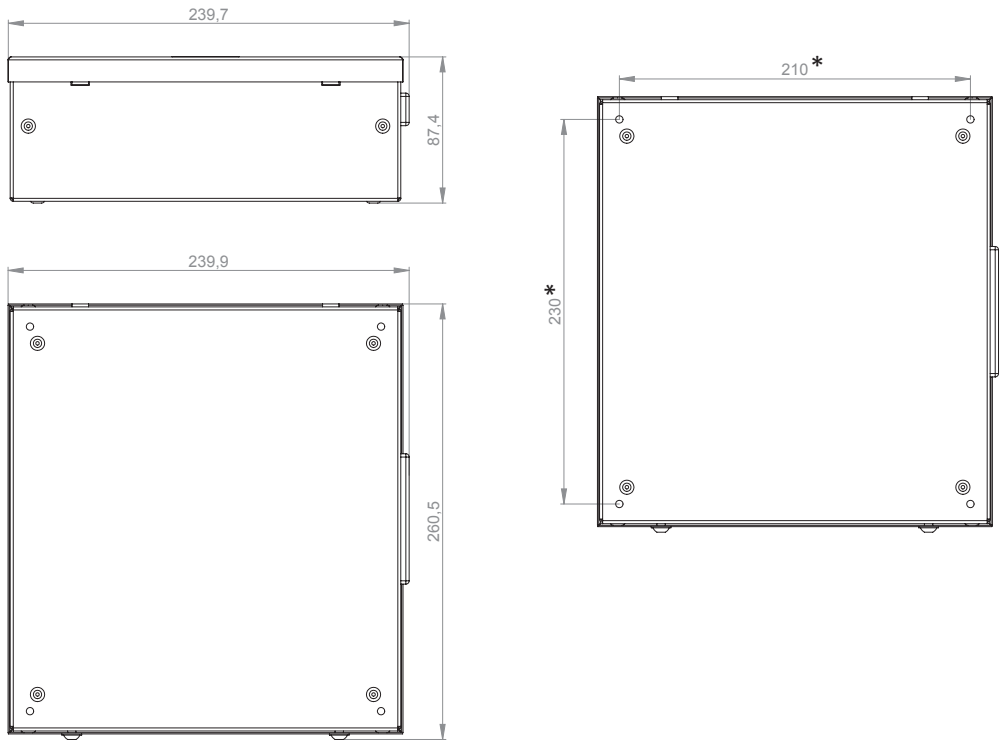
DIMENSIONS

ICPR1-X-AC.....



* Dimensions for wall-mounted regulation

ICPR1-X-ECX



* Dimensions for wall-mounted regulation

ACCESSORIES

More details can be found on the relevant page in catalog

2-way or 3-way valve with servo drive

ZV2-24V-xx,x-xx (24V, 0-10V)
ZV3-24V-xx,x-xx (24V, 0-10V)

Mixing point
SMU 2 – mixing unit is designed for controlling the heat-output of water-type heat exchangers. It is used especially for controlling standalone water-type air heaters, heaters inbuilt into the ventilation units, heaters in air curtains, and so on.

Contactor
STYKAC-20-LC2 – three-phase contactor, 400V, max. resistance load 20 A, necessary for switching electric heaters.

Magnetic door contact
DK-B-3

Industrial door switch
DS

ACCESSORIES

Wall-mounted temperature sensor
CT-ROOM

Temperature sensor (3,2m; NTC)
ND-CT-32

Room thermostat
TER-P

AirGENIO-PRIME-CLOUD
Cloud module for 2VV AirGENIO PRIME control

AirGENIO-PRIME-BMS
BMS module for 2VV AirGENIO PRIME control (Modbus TCP, BACnet)

KEY TO CODING

ICPR1-M-ECX-XX-VF-0 A0

A0 - 2VV version
U0 - 2VV UL version

0 - Control box in standard colour

S0 - Ambient version
E2 - Electic heating - 2steps
VF - Water heating

XX - Not specified (EC fans)
04 - Max.load 4A (AC fans)
07 - Max.load 7A (AC fans)
16 - Max. load 16A (AC fans)

ECX - For EC fans
AC5 - For AC fans 5speeds

M - Master
S - Slave

ICPR1 - IC PRIME Control unit 1st generation