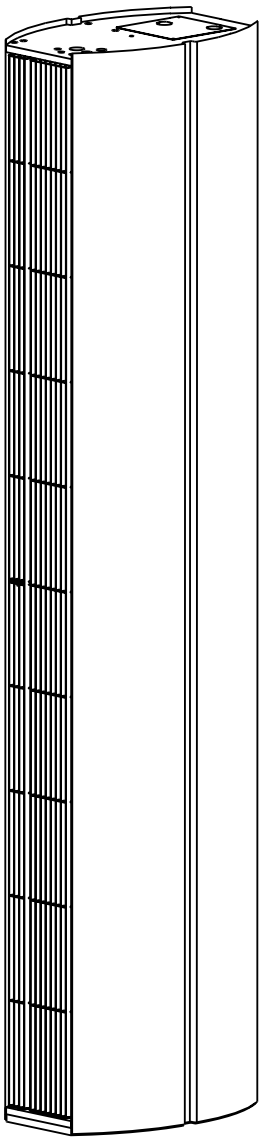
AD Corinte A/E - ADCS



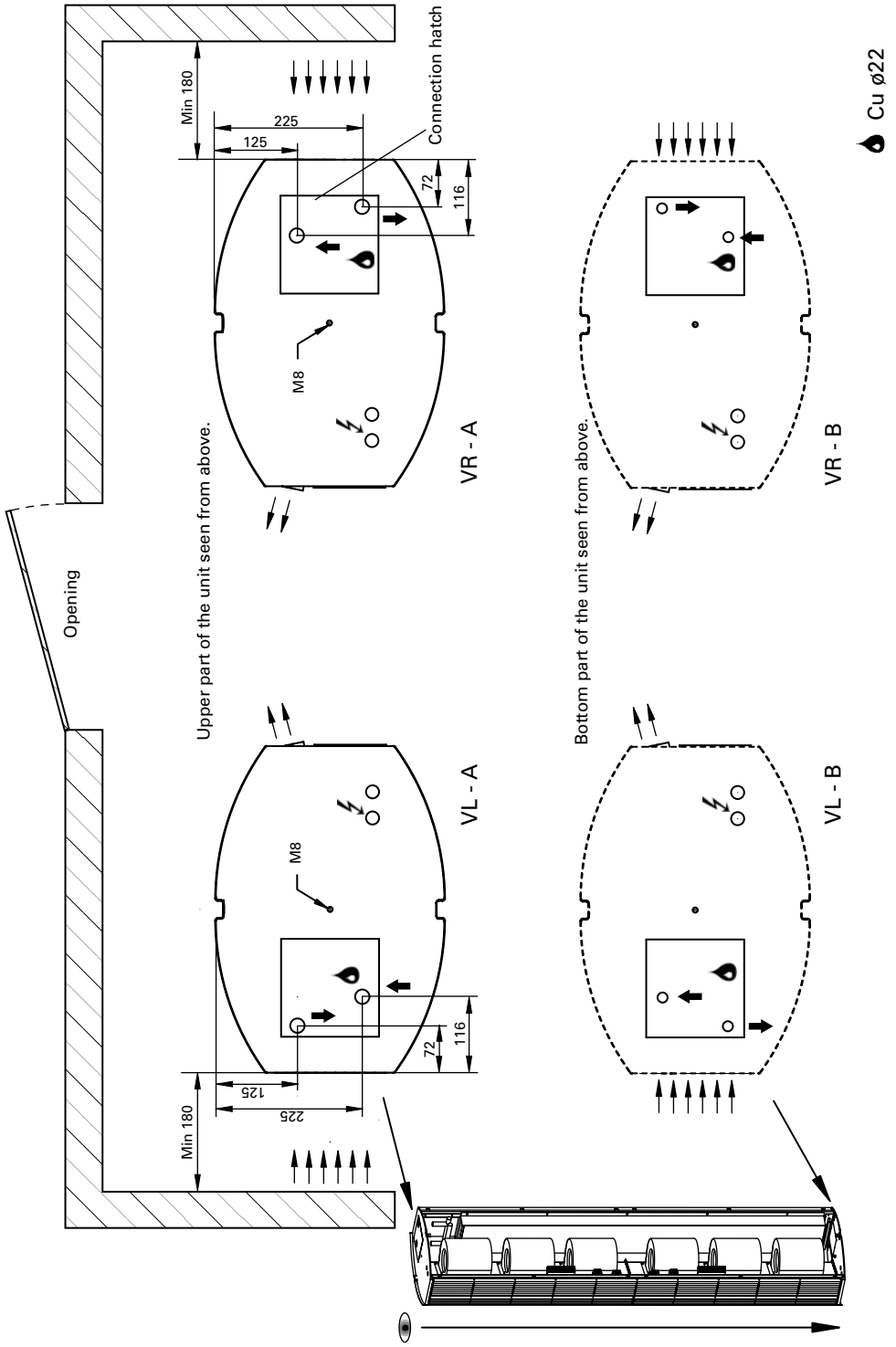
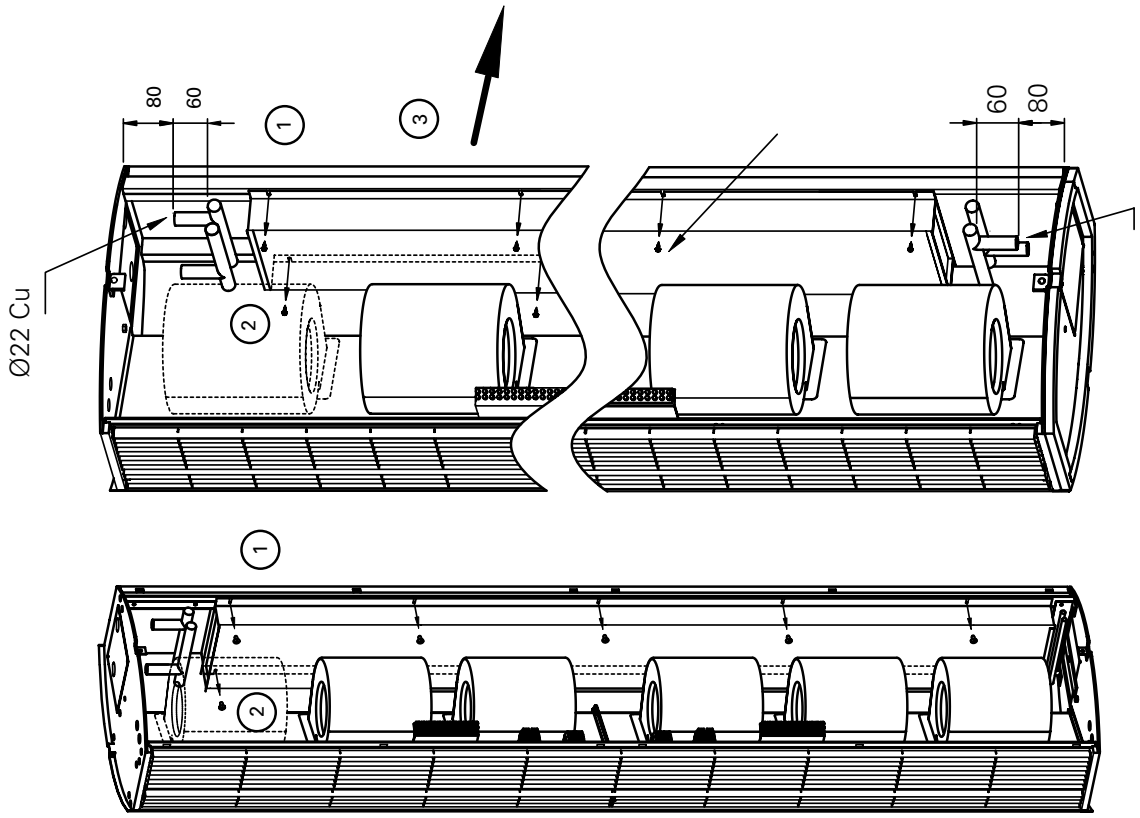

Min 180
225
125
Connection hatch
72
116
M8
VR - A
VR - B
Cu ø22
Opening
Upper part of the unit seen from above.
Bottom part of the unit seen from above.
VL - A
VL - B
M8
72
116
125
225
Min 180

Fig 1



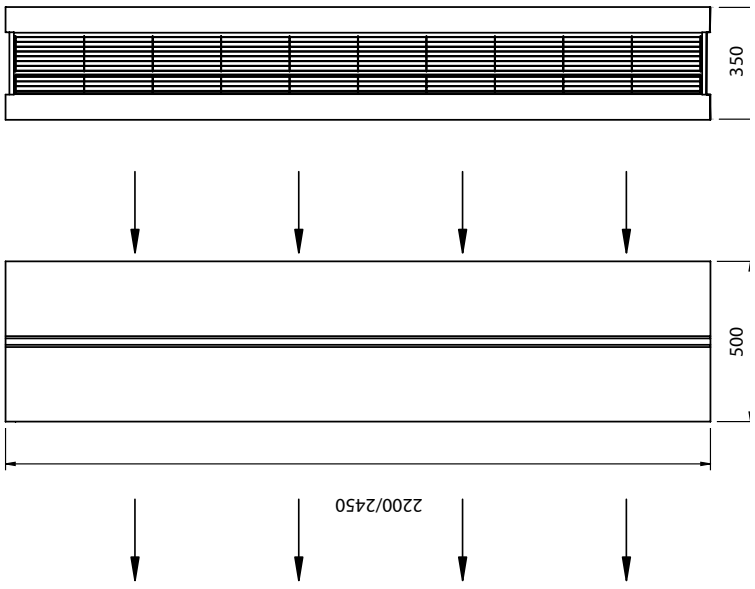


Fig 2

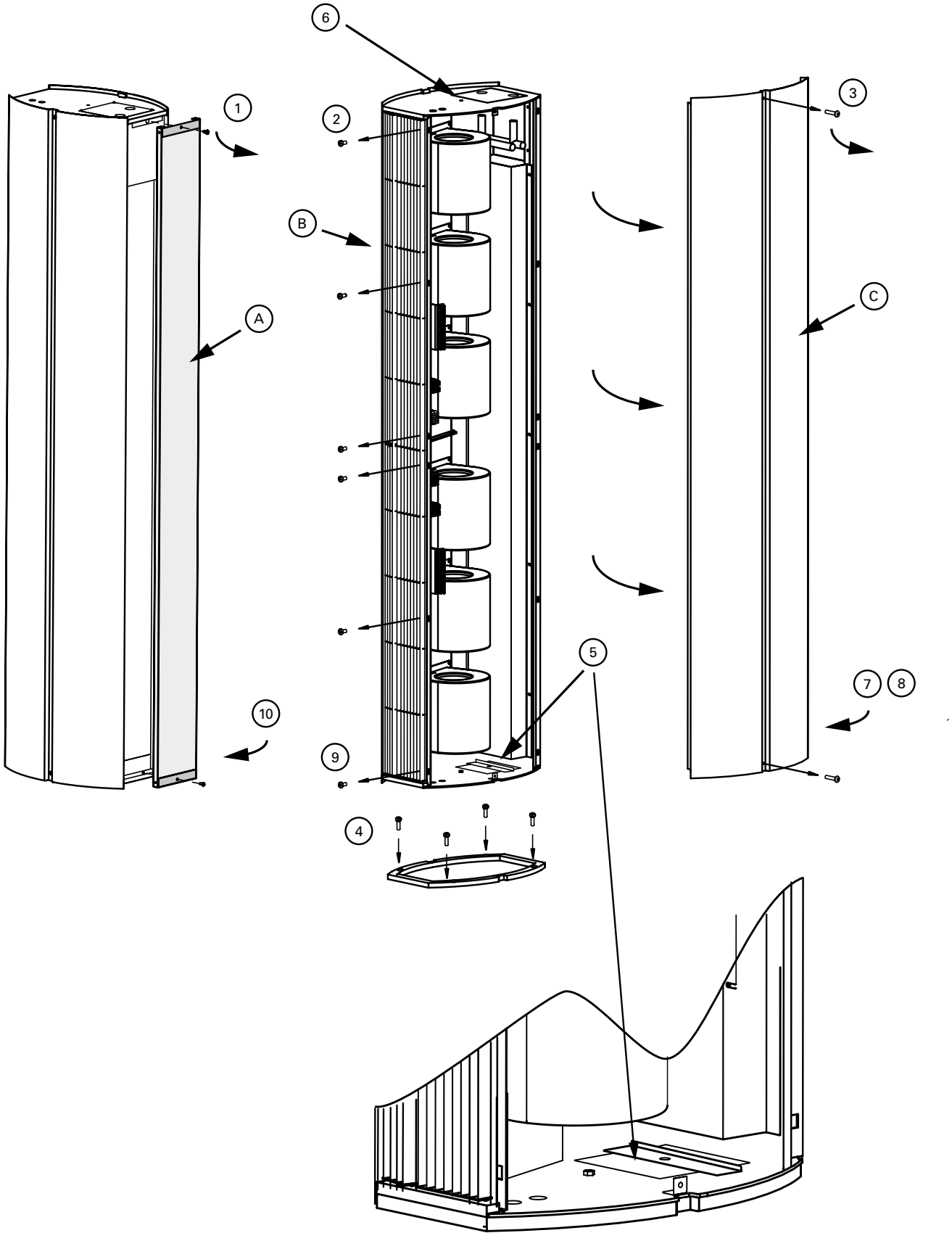


Fig 3

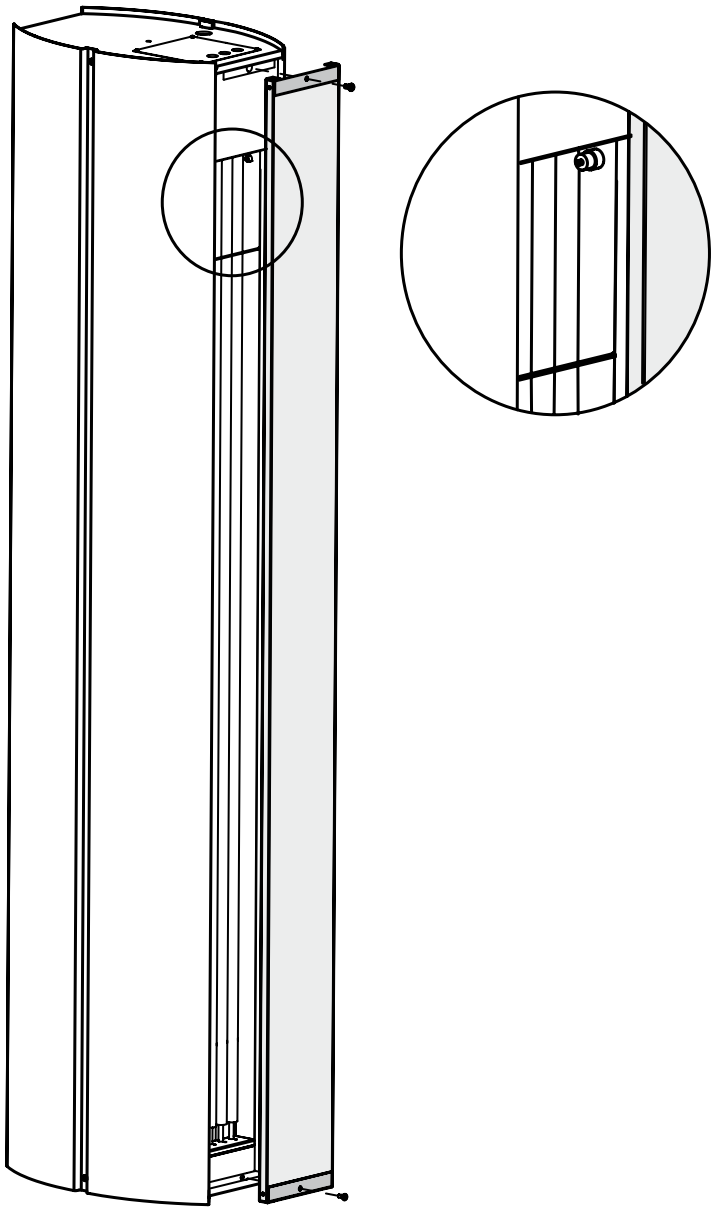


Fig 4

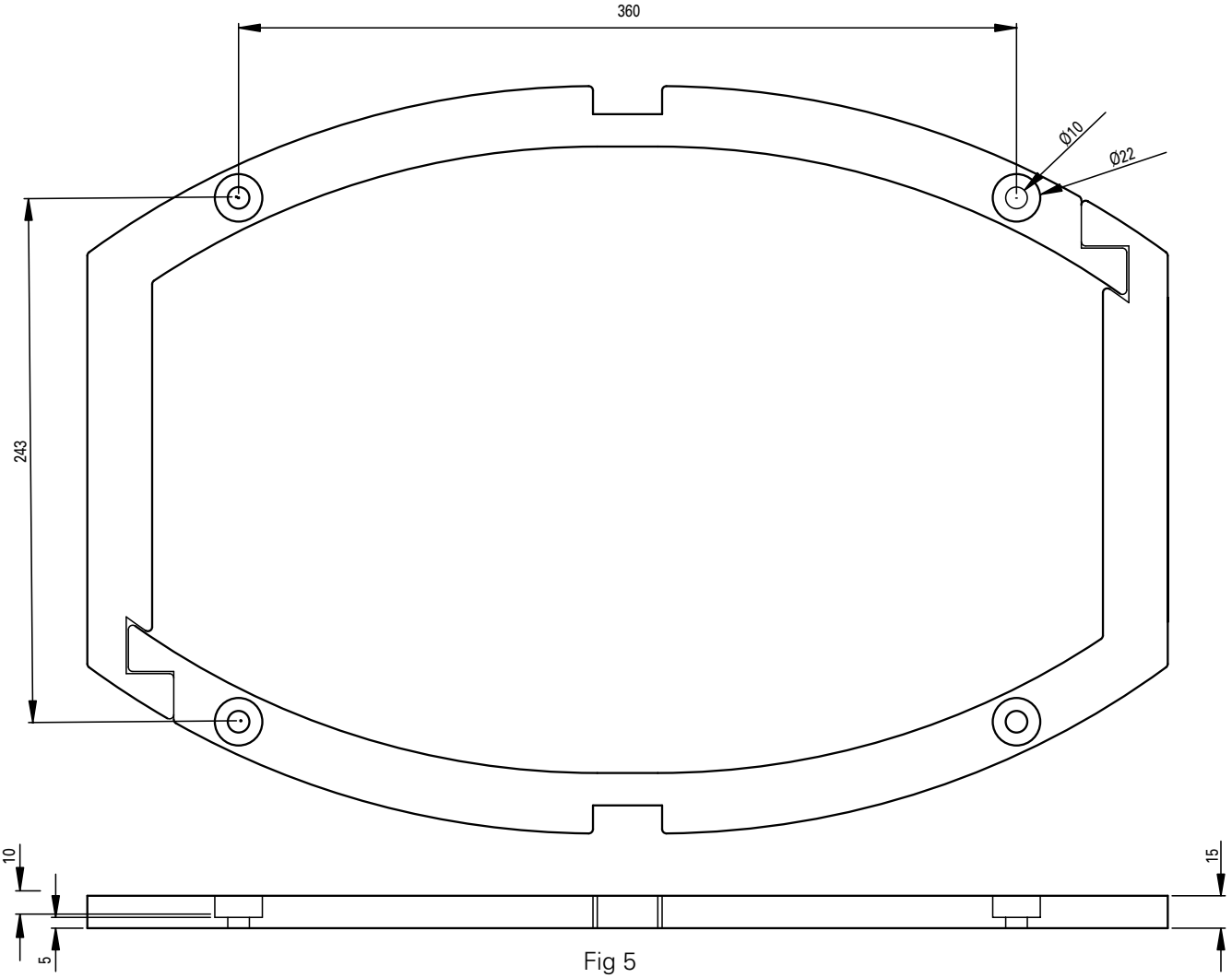


Fig 5

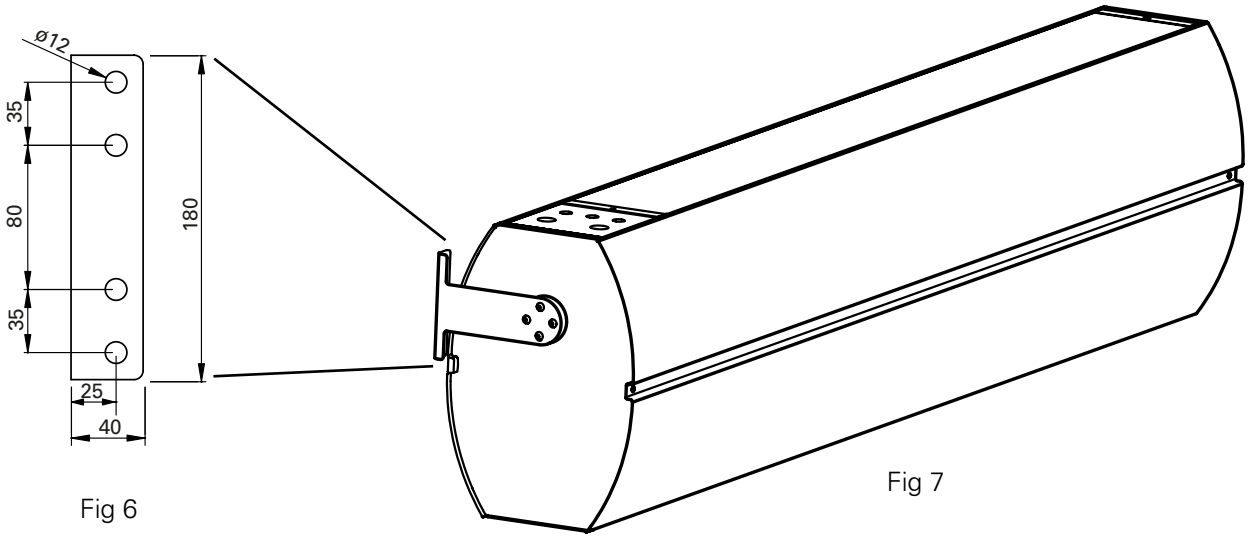


Fig 6

Fig 7

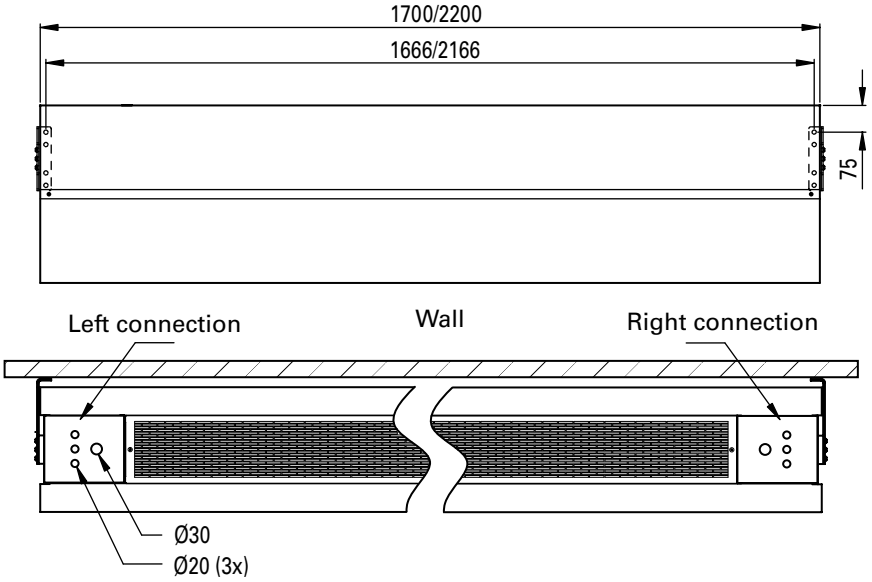

1700/2200
1666/2166
75
Left connection
Wall
Right connection
Ø30
Ø20 (3x)

Fig 8

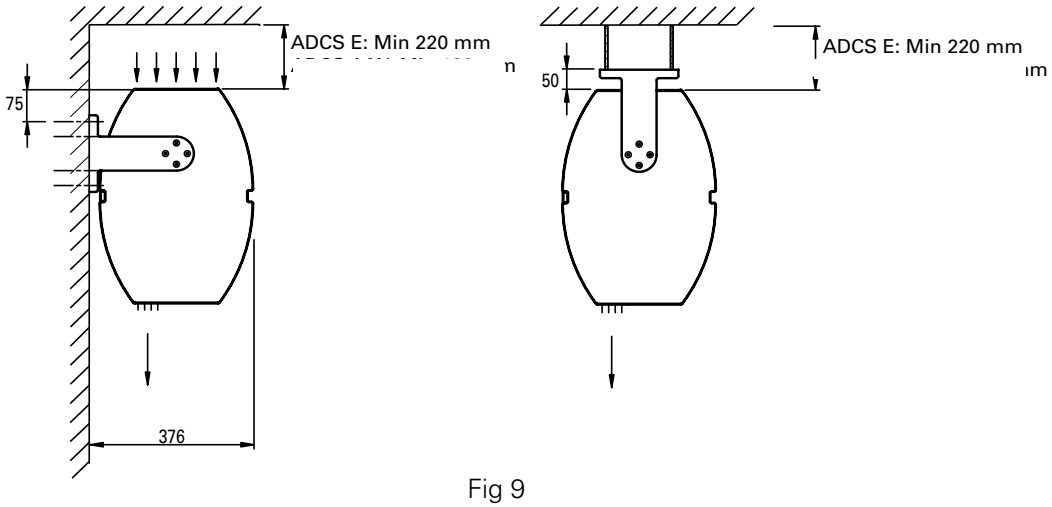

ADCS E: Min 220 mm
75
376
ADCS E: Min 220 mm
50

Fig 9

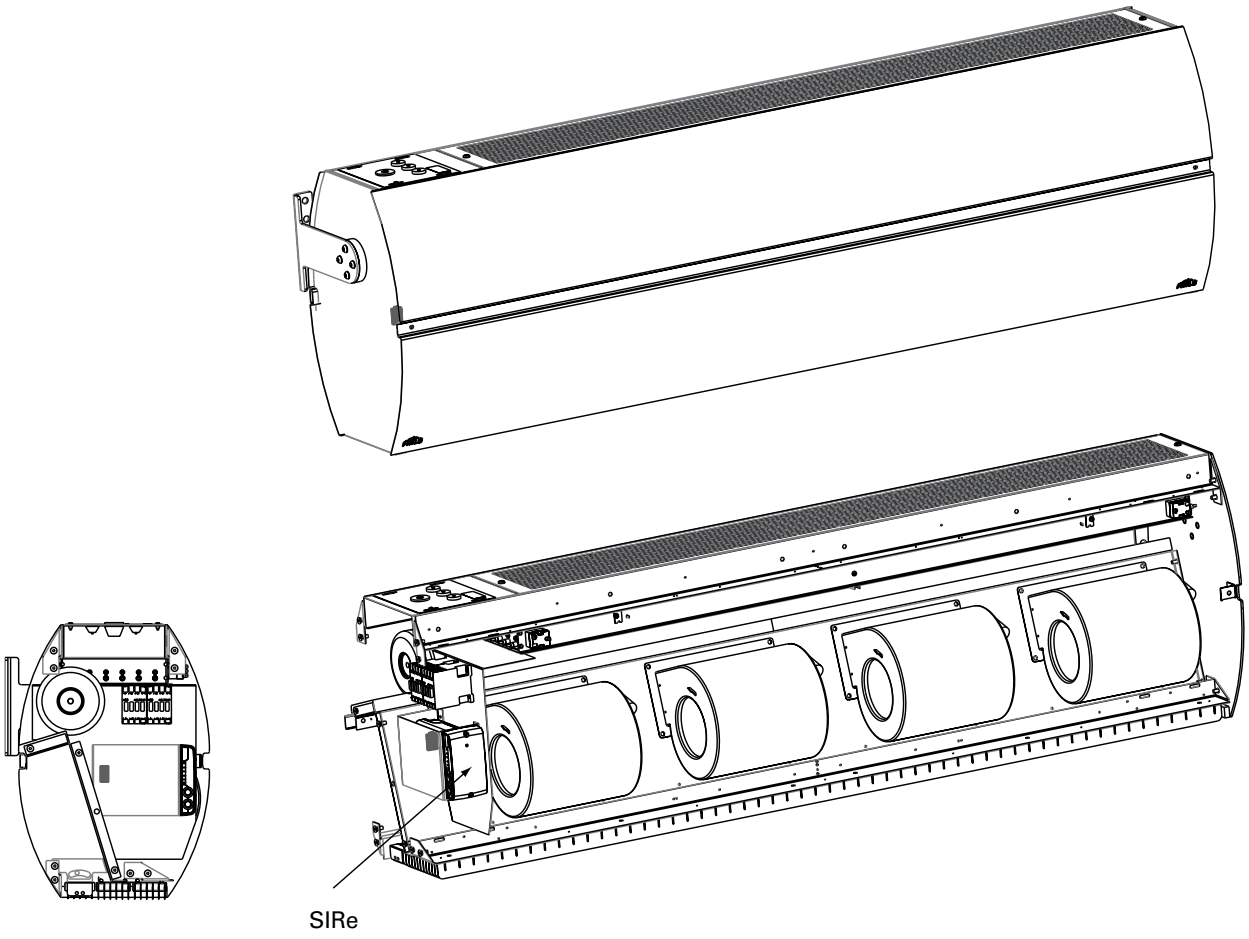
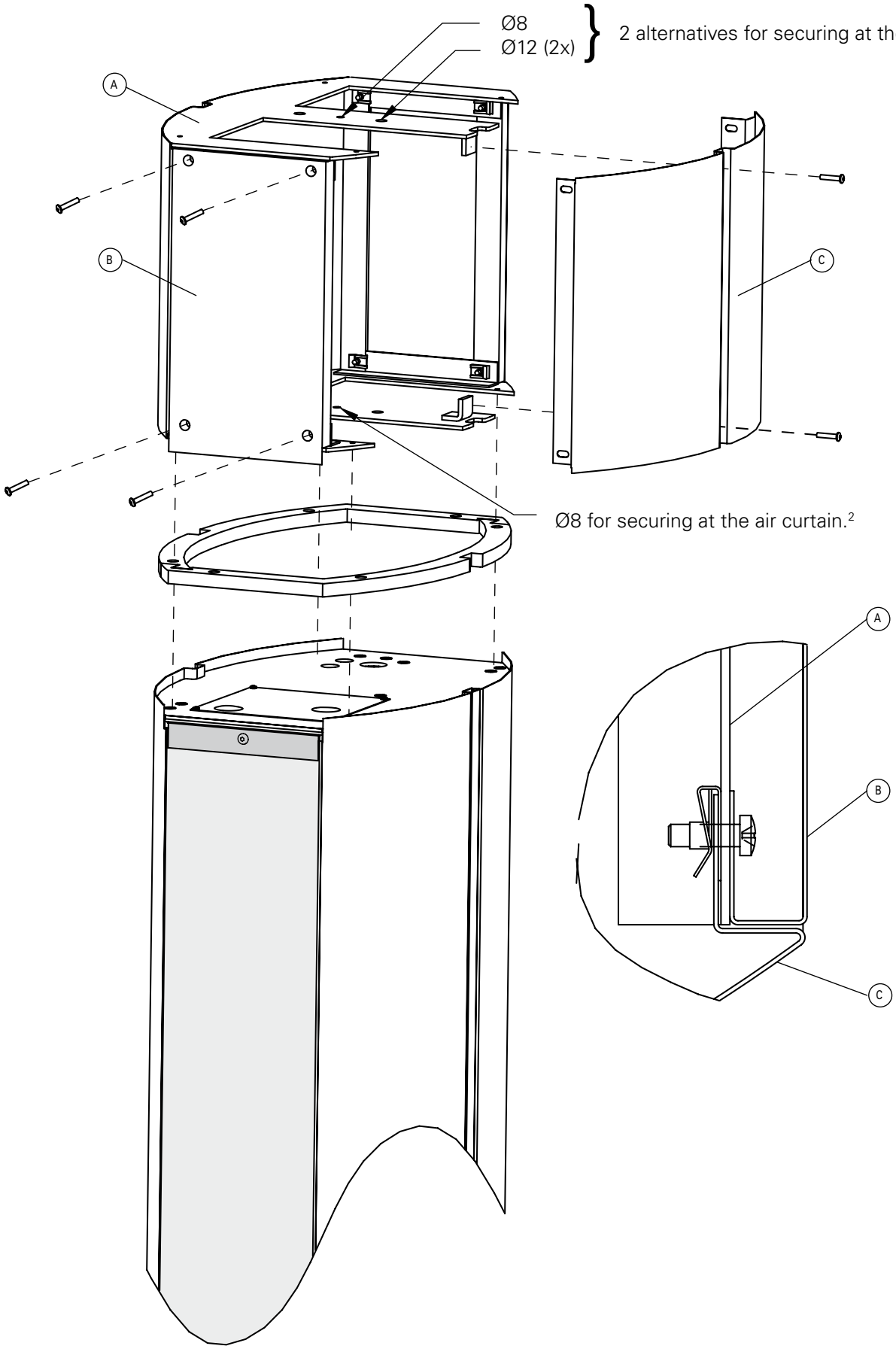


Fig 10

ADCEH

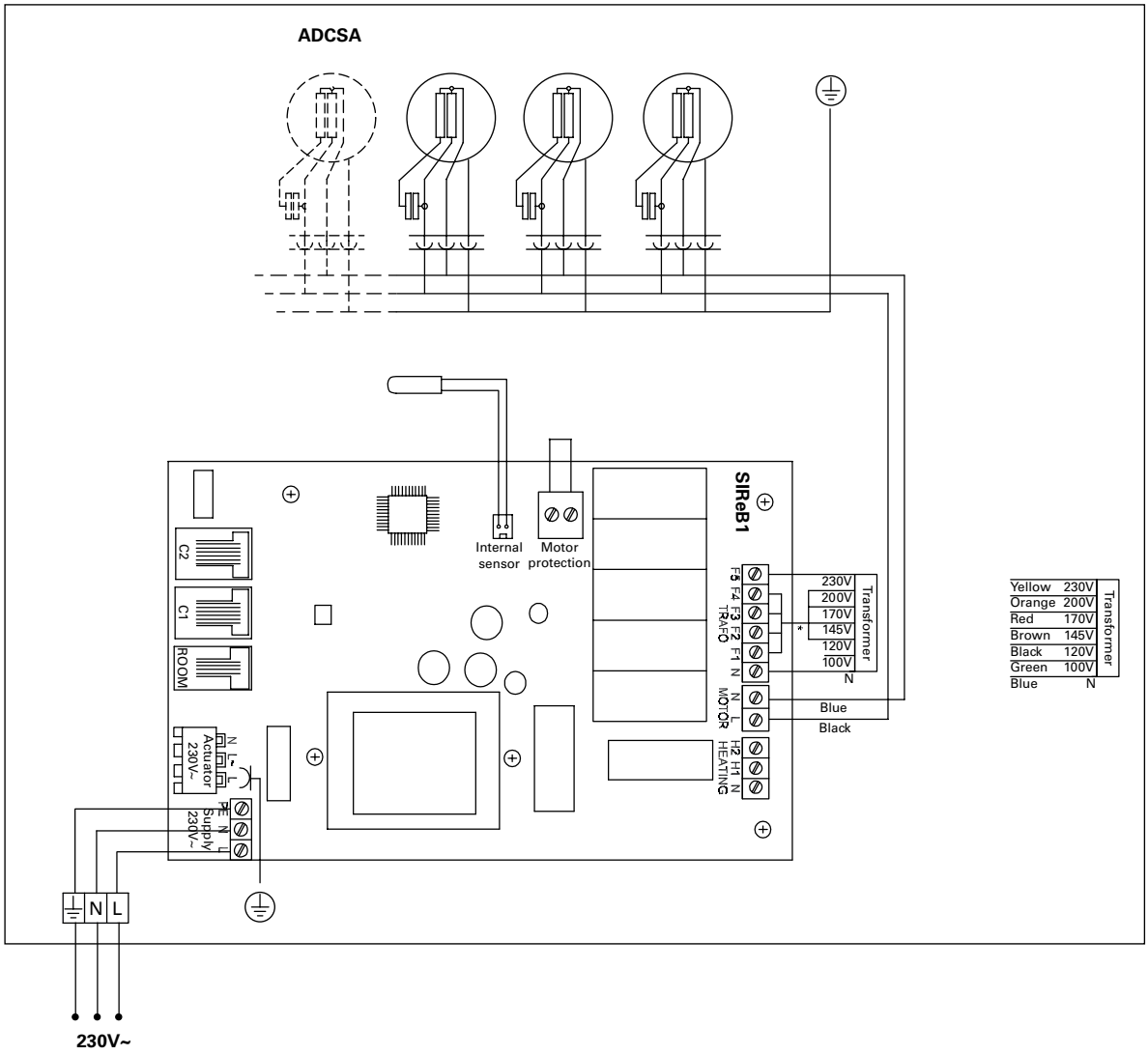

Ø8
Ø12 (2x)
2 alternatives for securing at the top.[1]
A
B
C
Ø8 for securing at the air curtain.[2]
A
B
C

Regulations alternatives

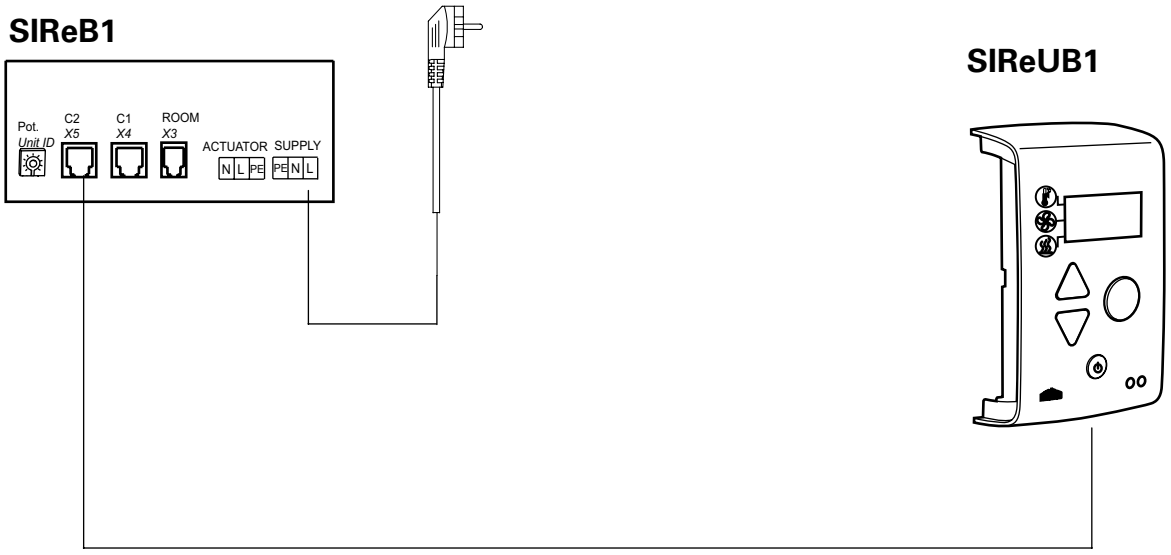
This aircurtain is supplied with an intelligent and well designed low voltage control system SIRe which can be customized for each unique application and environment. The control system is pre-installed in the aircurtain with an integrated control card. SIRe is supplied pre-programmed with quick-release connections and is very easy to use and install. There are three different levels with different functionality to choose from, Basic, Competent or Advanced.

Type	RSK-nr	Description	HxWxD [mm]	L [m]
SIReB		Control system Basic		
SIReAC		Control system Competent		
SIReAA		Control system Advanced		
SIReRTX	673 09 22	External room temperature sensor	70x33x23	
SIReUR*	673 09 21	Kit for recessed installation	114x70x50	
SIReWTA		Clamp-on sensor		
SIReCJ4		Joint piece for two pcs. RJ11 (4p/4c)		
SIReCJ6		Joint piece for two pcs. RJ11 (6p/6c)		
SIReCC603	673 09 23	Modular cable RJ11 (6p/6c)		3
SIReCC605	673 09 24	Modular cable RJ11 (6p/6c)		5
SIReCC610	673 09 25	Modular cable RJ11 (6p/6c)		10
SIReCC615	673 09 26	Modular cable RJ11 (6p/6c)		15
SIReCC403	673 09 27	Modular cable RJ11 (4p/4c)		3
SIReCC405	673 09 28	Modular cable RJ11 (4p/4c)		5
SIReCC410	673 09 29	Modular cable RJ11 (4p/4c)		10
SIReCC415	673 09 30	Modular cable RJ11 (4p/4c)		15

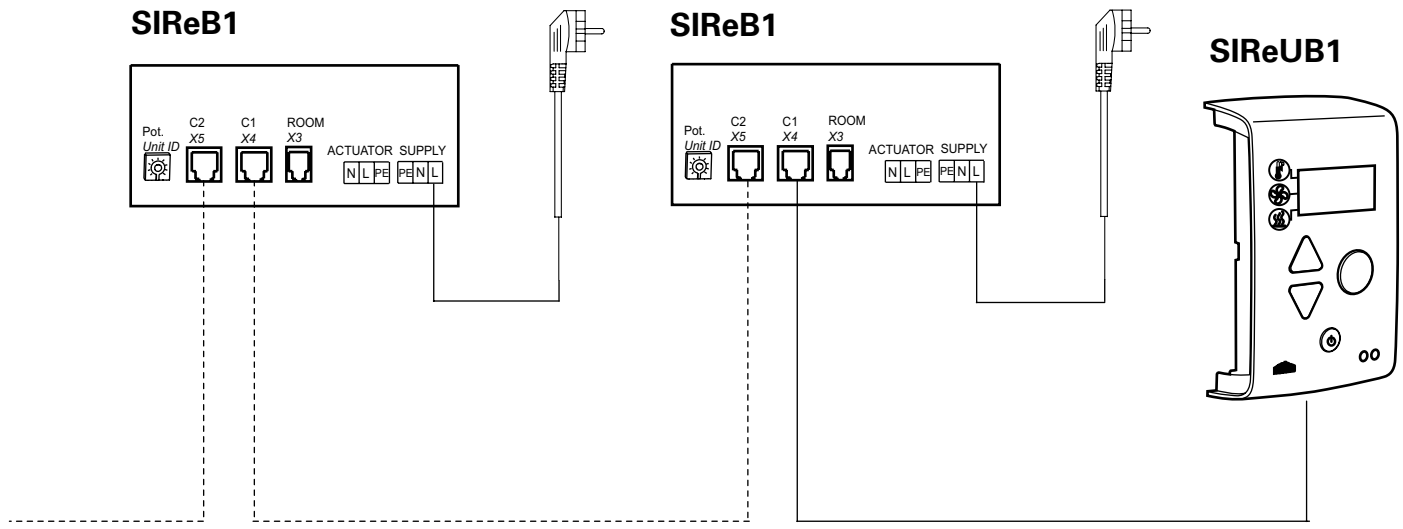
Wiring diagrams
Internal
ADCS A



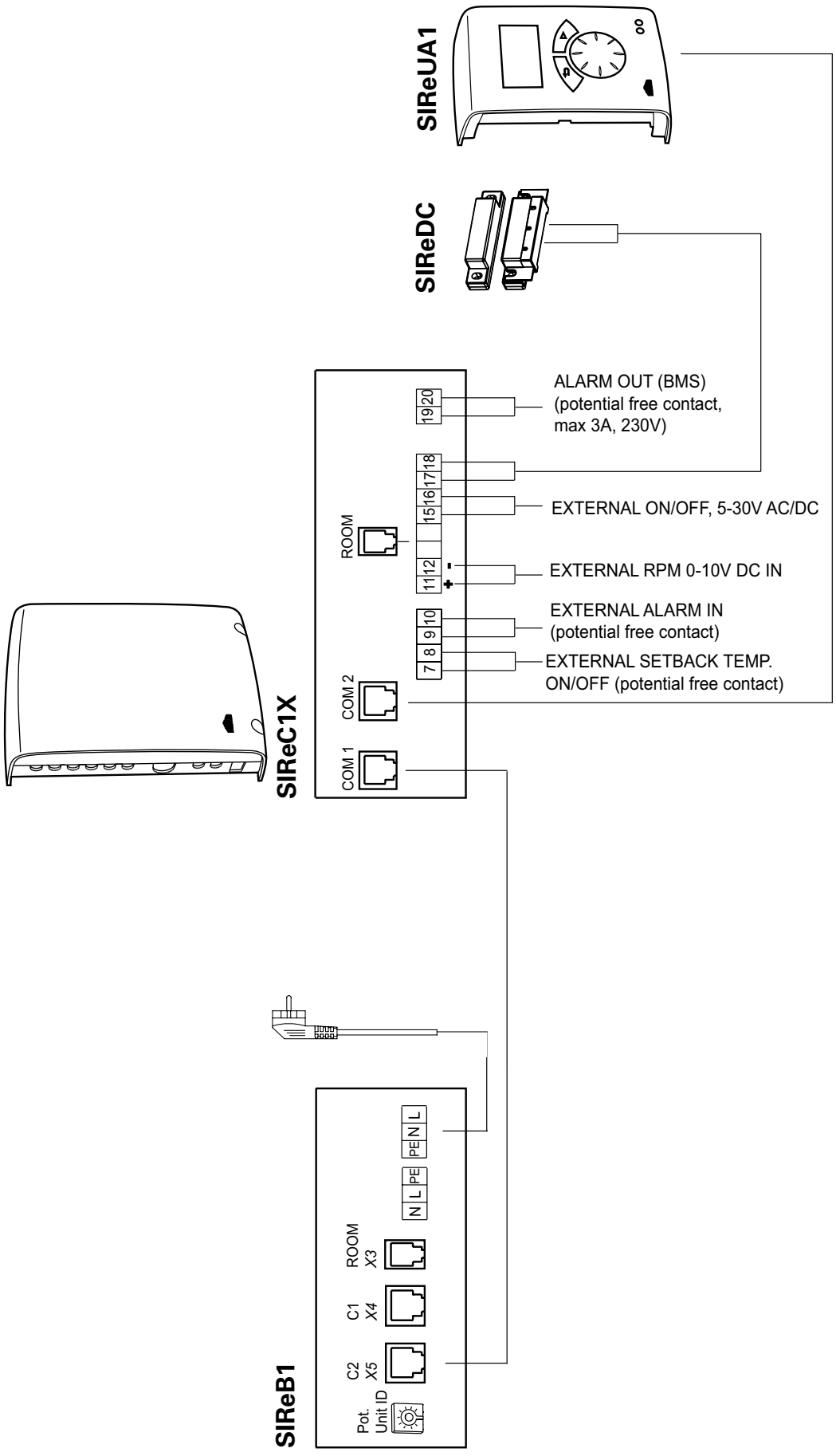
Wiring diagrams AD Corinte A
Ambient control options
SIRe Basic



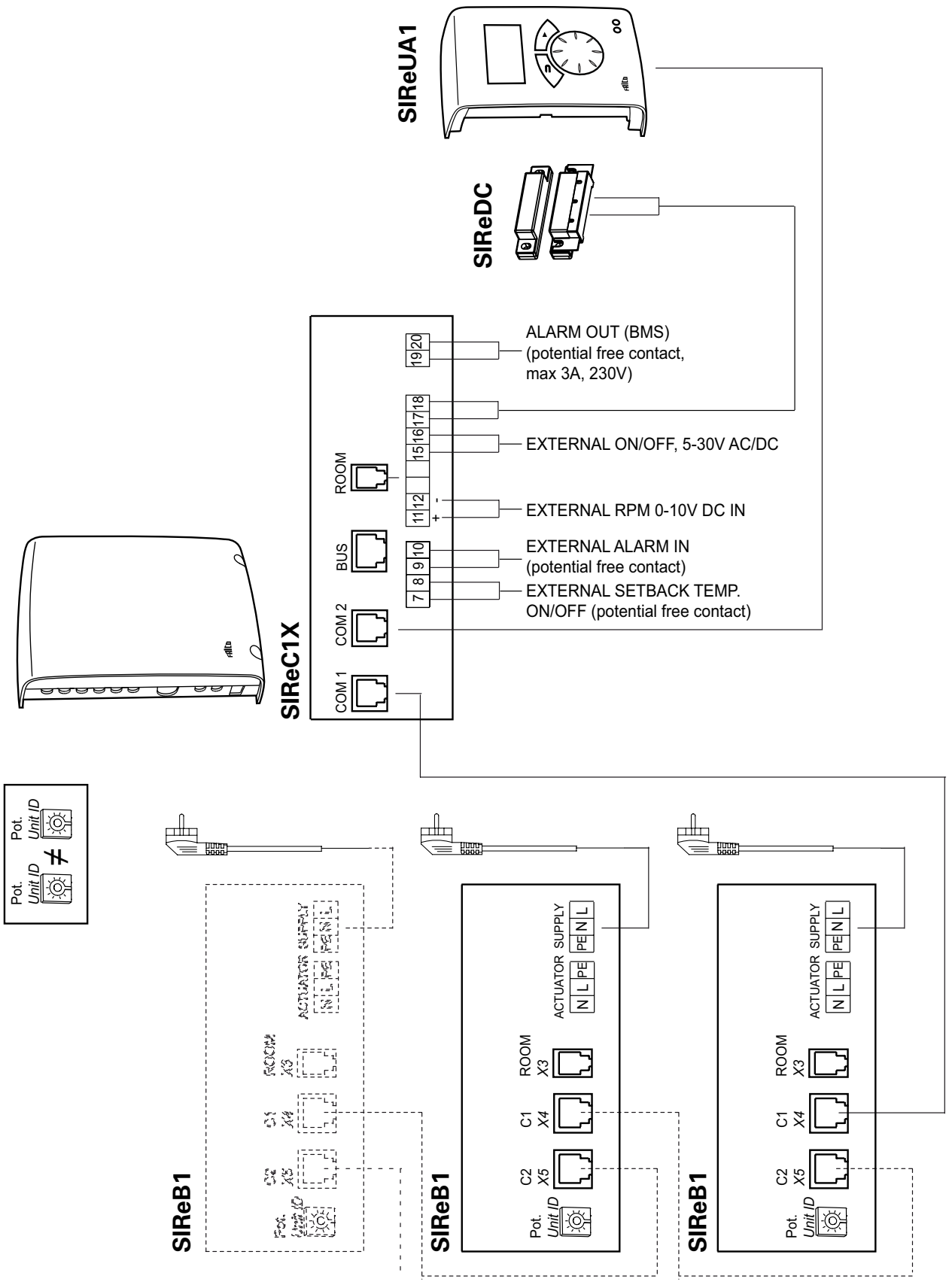
SIRe Basic - Parallel connection



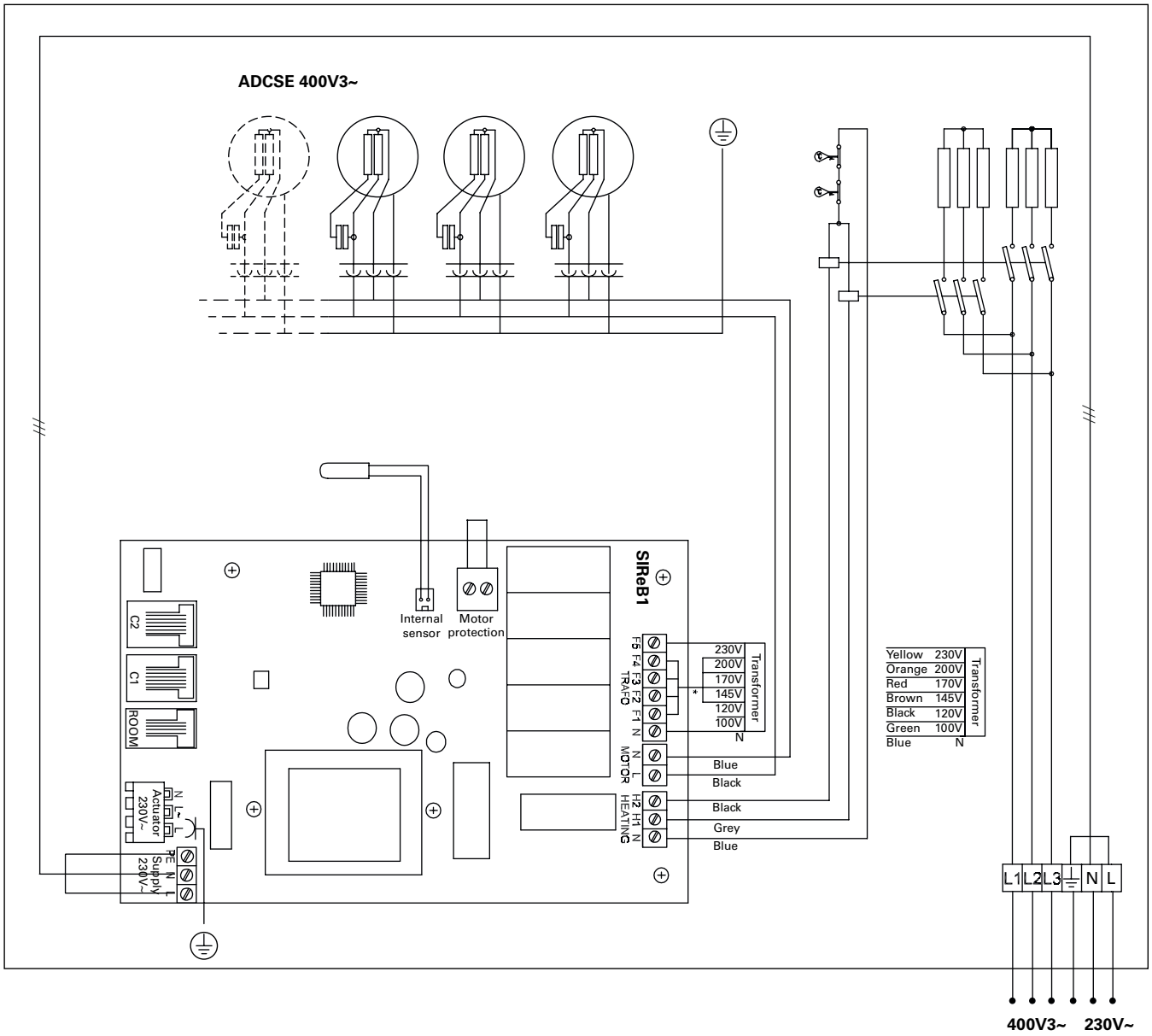
Wiring diagrams AD Corinte A
Ambient control options
SIReAC Competent



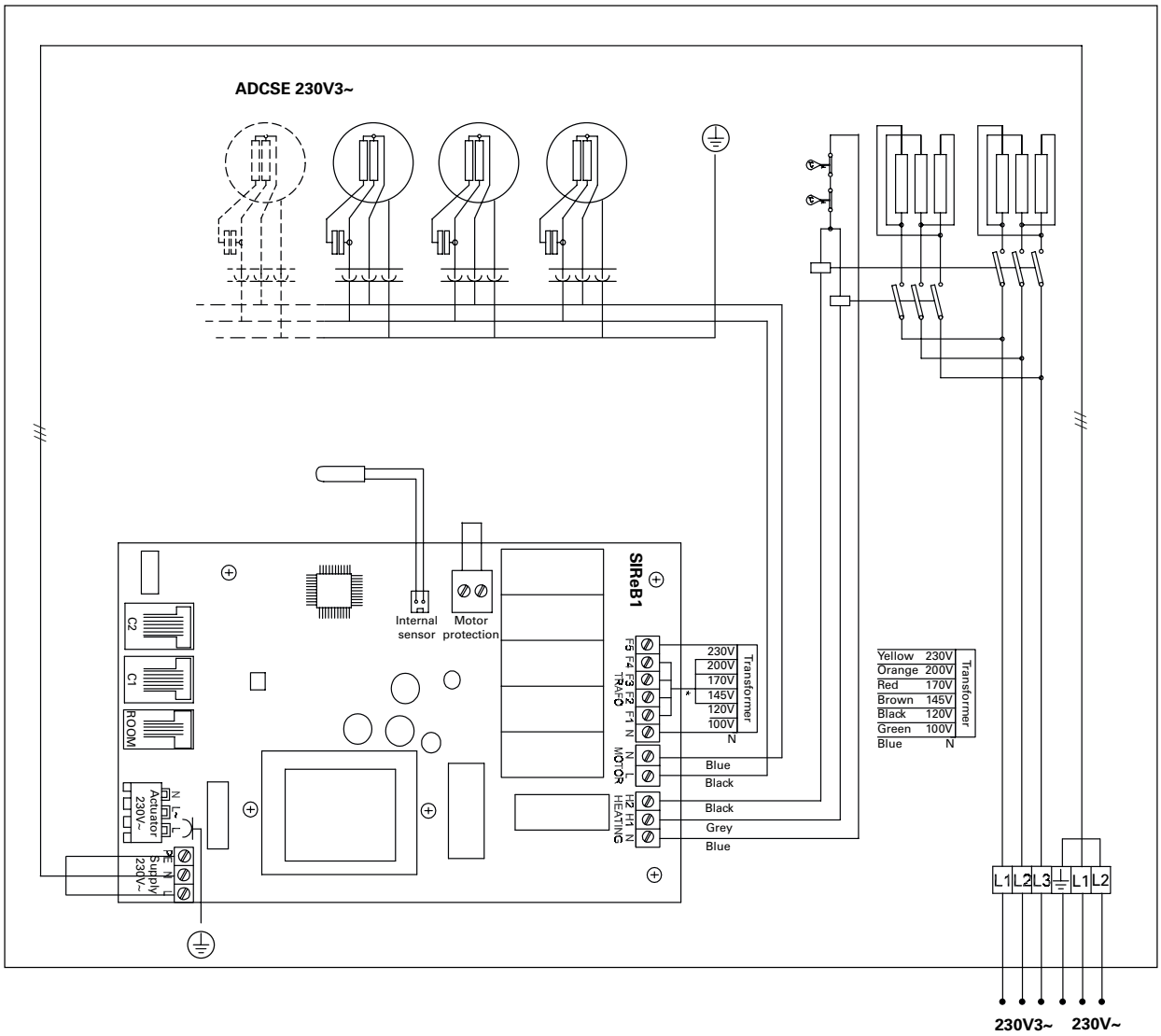
SIReAC Competent - Parallel connection



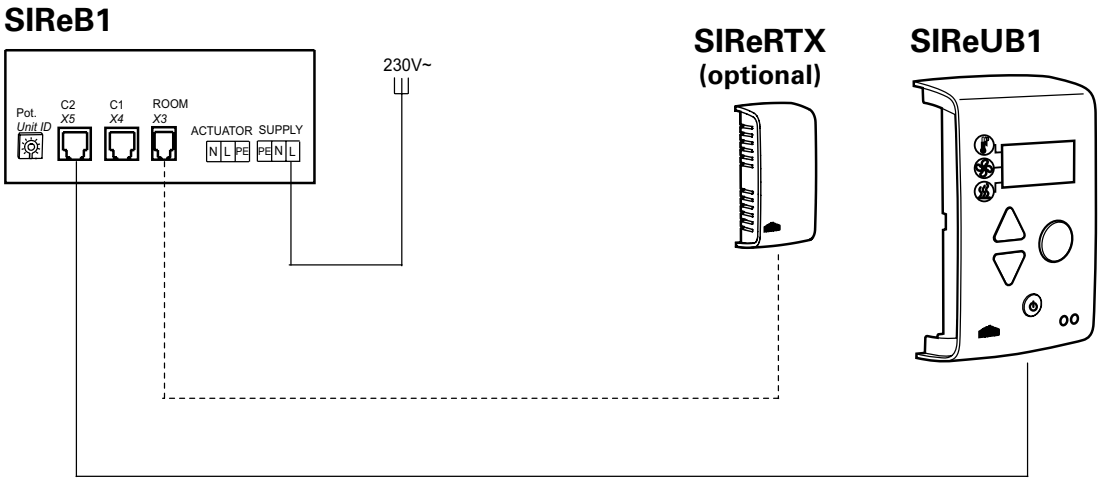
Wiring diagrams
Internal
ADCS E 400 V3~



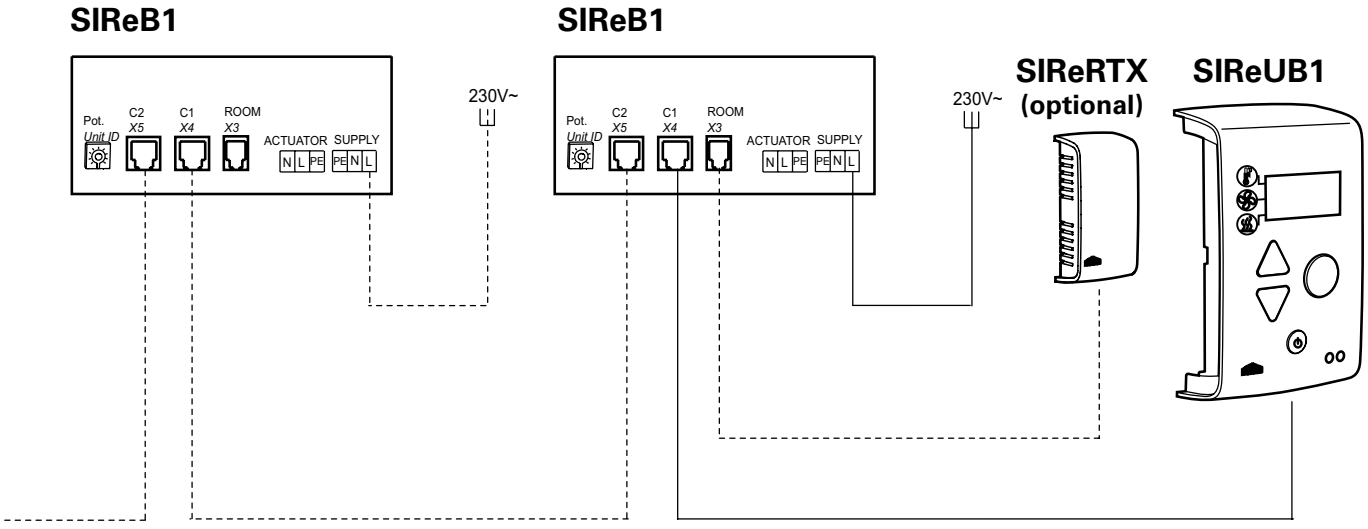
Wiring diagrams
Internal
ADCS E 230 V3~



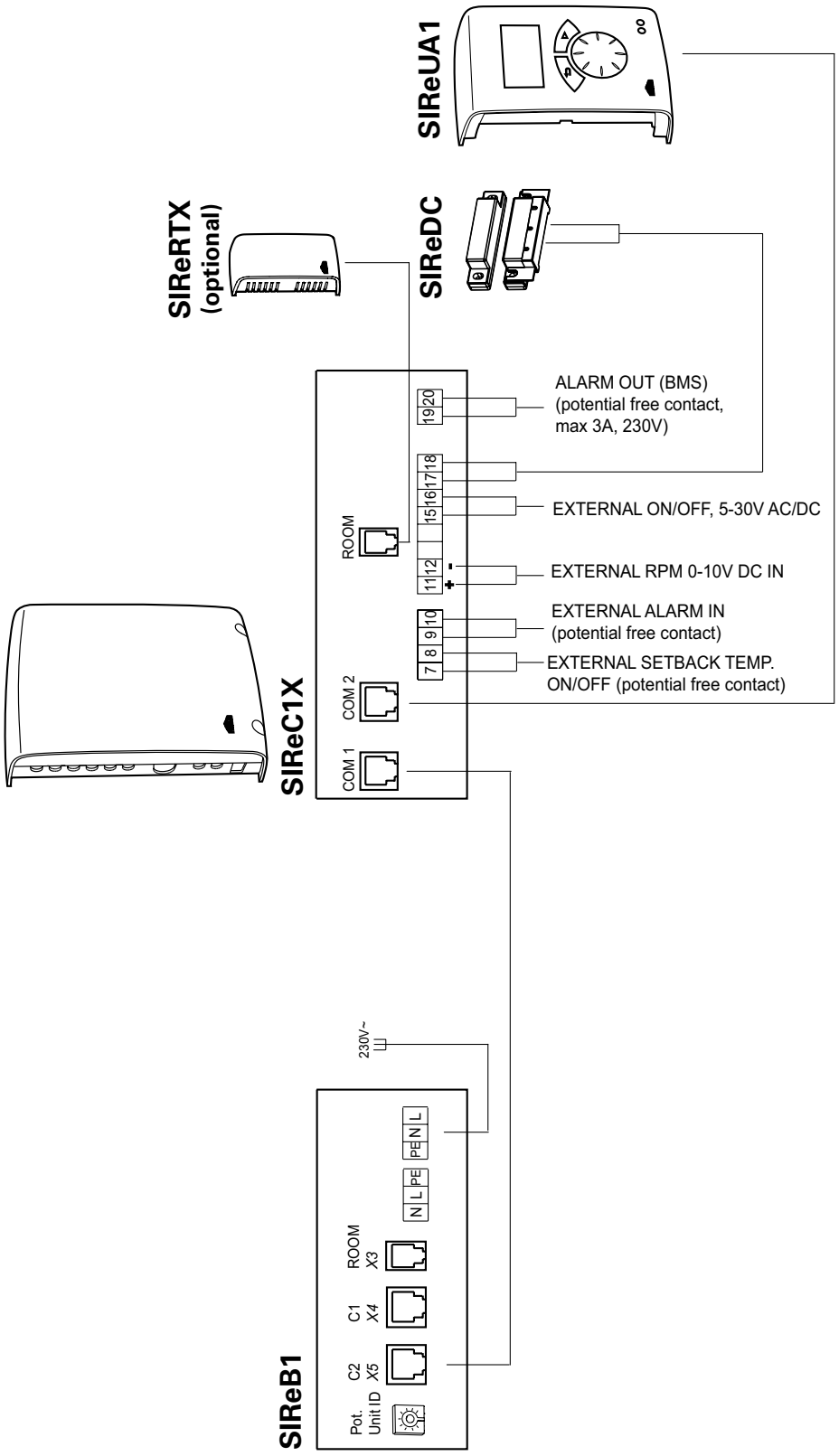
Wiring diagrams AD Corinte E
Electrical control options
SIRe Basic



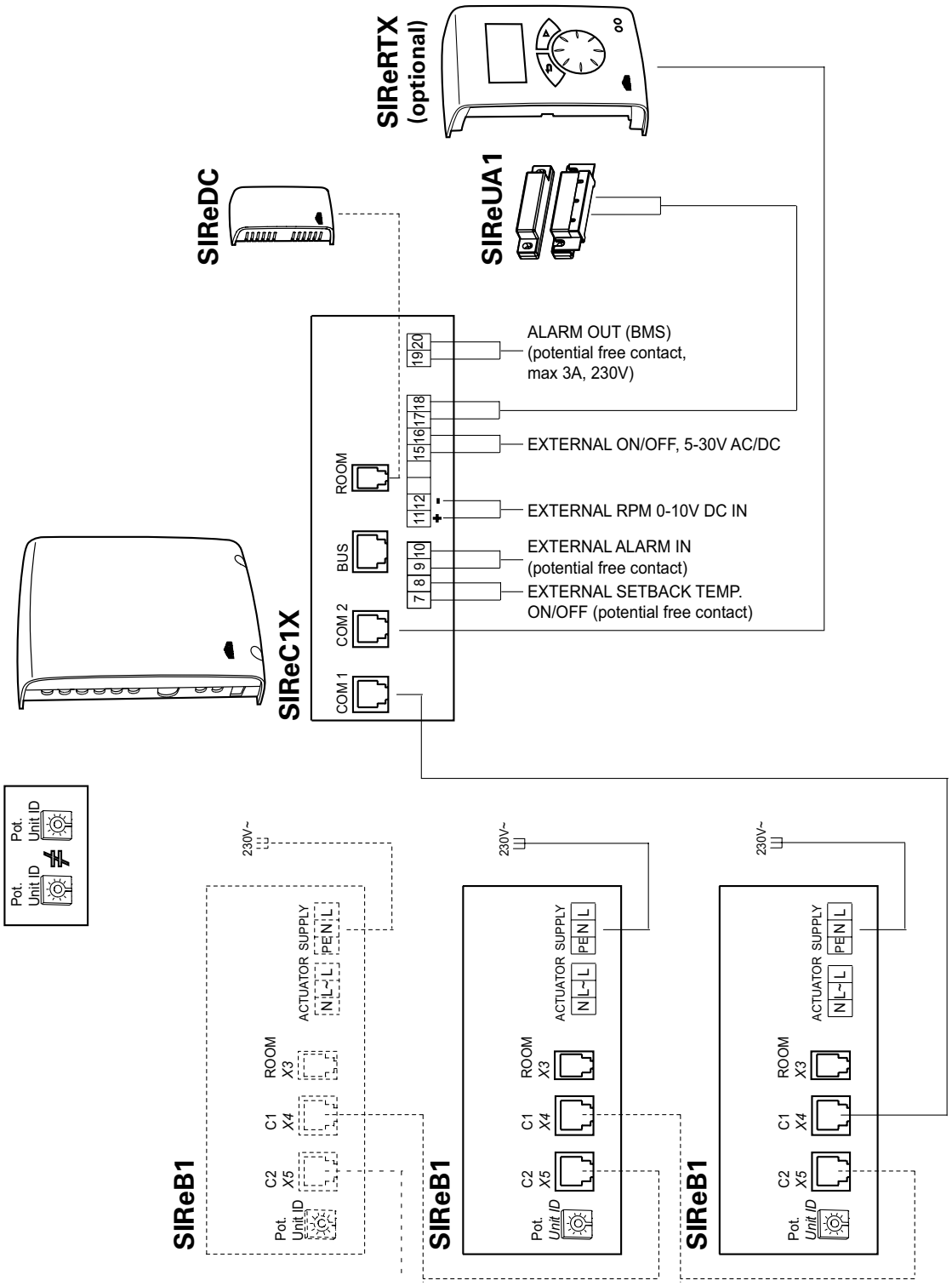
SIRe Basic - Parallel connection



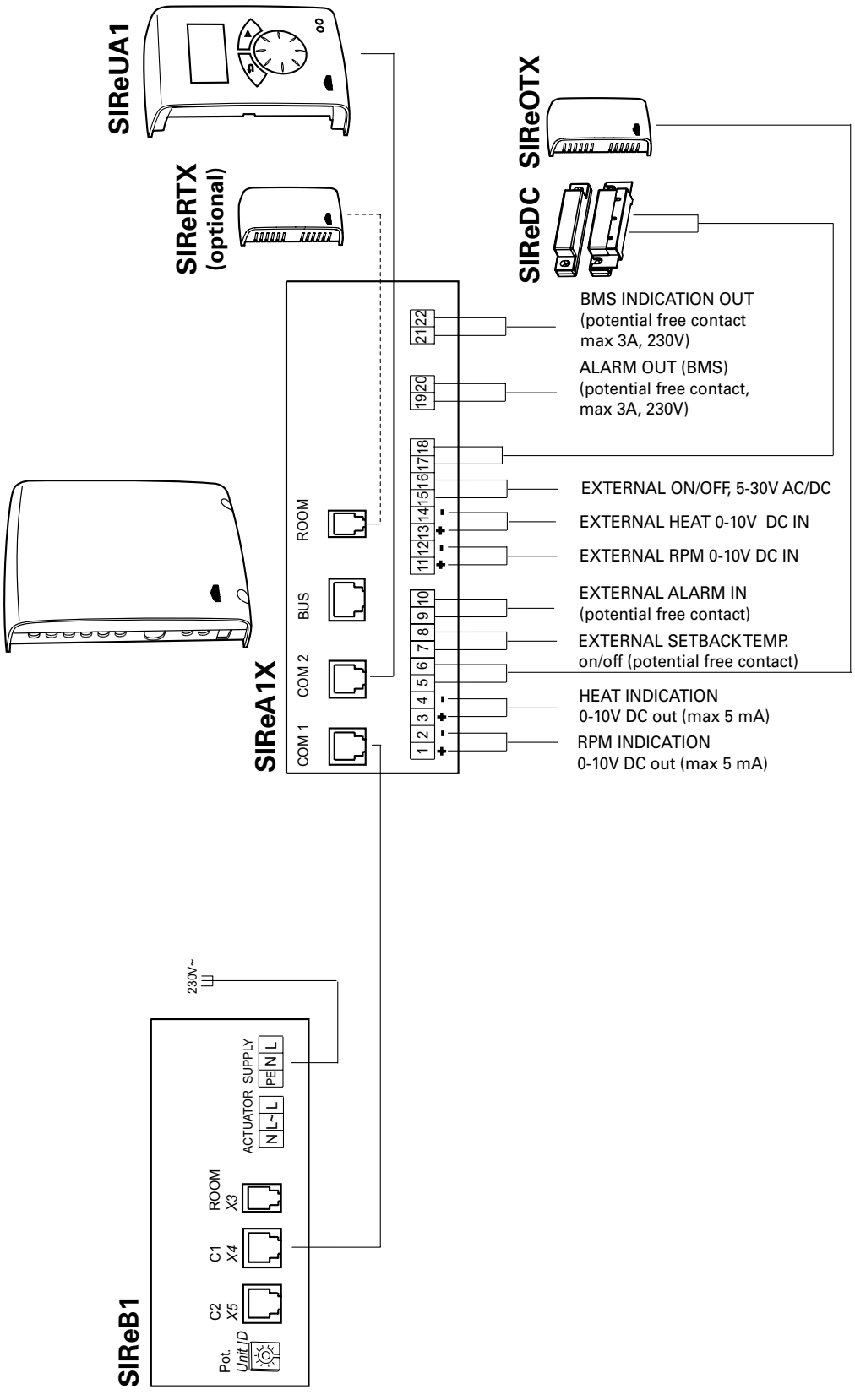
Wiring diagrams AD Corinte E
Electrical control options
SIReAC Competent



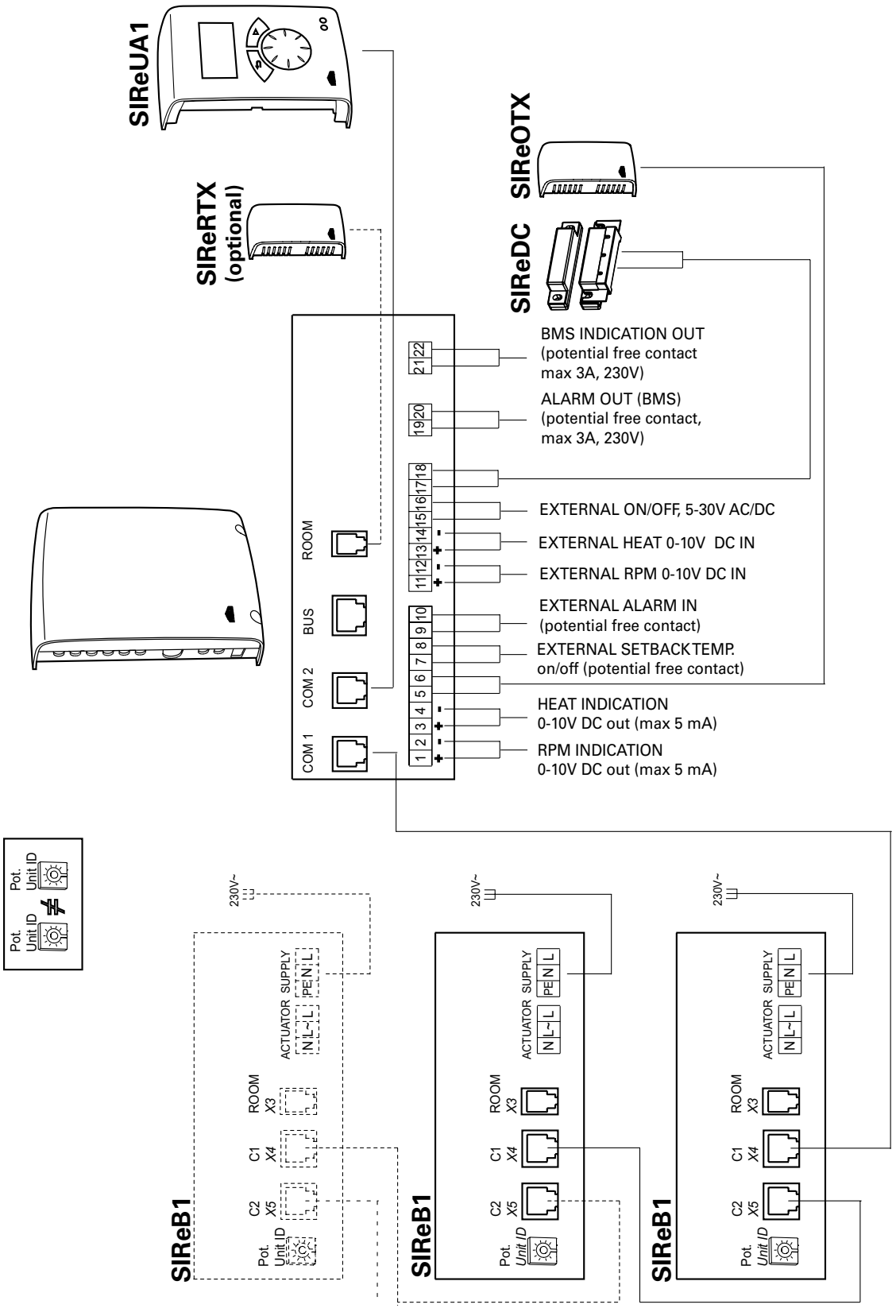
SIReAC Competent - Parallel connection



Wiring diagrams AD Corinte E
Electrical control options
SIReAA Advanced



SIReAA Advanced - Parallel connection



Technical specifications | Thermozone AD Corinte A without heat

Type	Output [kW]	Airflow [m³/h]	Sound level*5 [dB(A)]	Output motor [W]	Voltage motor [V]	Amperage motor [A]	Length [mm]	Weight [kg]
ADCS17A*1	0	1400/3000	40/60	670	230V~	2,9	1700	73
ADCS22A	0	1800/4000	42/61	990	230V~	4,3	2200	95
ADCS25A*2	0	2050/4500	43/63	1150	230V~	5,0	2450	108

Technical specifications | Thermozone AD Corinte E with electrical heat

Type	Output steps [kW]	Airflow [m³/h]	Δt*4 [°C]	Sound level*5 [dB(A)]	Output motor [W]	Voltage motor [V]	Amperage motor [A]	Voltage [V] Amperage [A] heat	Length [mm]	Weight [kg]
ADCS17E*1	0/7,5/15	1400/3000	32/15	40/60	670	230V~	2,9	400V3~/21,7	1700	85
ADCS22E	0/10/20	1800/3600	33/15	42/61	890	230V~	3,6	400V3~/28,9	2200	110
ADCS25E*2	0/11,2/22,5	2050/4100	33/15	43/63	1080	230V~	4,3	400V3~/32,5	2450	125

*1) ADCS17 is available only for horizontal mounting.
*2) ADCS25 is available only for vertical mounting.
*3) Applicable at water temperature 80/60 °C, air temperature in + 15 °C.
*4) Dt= temperature rise of passing air at maximum heat output and lowest/highest airflow.
*5) Conditions: Distance to the unit: 5 metres. Directional factor: 2. Equivalent absorption area: 200 m².

Protection class: IP20.
CE compliant.

Assembly and operating instructions

General instructions

Read these instructions carefully before installation and use. Keep this manual for future reference.
The guarantee is only valid if the Thermozone units are used in the manner intended by the manufacturer and in accordance with the Frico installation and maintenance instructions.

Application area

AD Corinte belongs to a new generation of intelligent air curtains with SIRe integrated controls, together they can provide fully automatic protection for the entrance, adaptable to each area of use.

AD Corinte is intended for exclusive shop entrances and other environments with high demands in respect of design and soundlevel. Mounted with one unit on either side of the opening, thus creating a classic symmetry, the curtain effect and comfort is optimized.

The Thermozone AD Corinte air curtain is supplied with or without an electric heater coil and is intended for permanent installation above or beside entrance doors and other openings up to 3,5 metres in height.
Protection class IP20

Operation

Air is drawn in at the top/rear of the unit and blown out downwards/outwards so that it shields the door opening and minimizes heat loss. To achieve the optimum curtain effect the unit must extend the full height/width of the door opening.

During installation the exhaust grille is normally directed outwards slightly so that the airflow obstructs incoming cold air. (See fig 1).

The fan speed should be controlled using a frequency converter.

The efficiency of the air curtain(s) depends on the air temperature, pressure differences across the doorway and any wind pressure. NOTE! Negative pressure in the building considerably reduces the efficiency of the air curtain. The ventilation should therefore be balanced.

Vertical mounting

The unit is mounted vertically on the floor with the exhaust opening facing outwards.

Before installation, decide whether any electrical connections or water connections are to be made from below.

Leave the protective plastic in place during installation. Take care to avoid damaging the surfaces. For installation see Figure 3.

1. Remove the two screws that secure the intake grille (A) and remove this.
2. Undo the screws holding the front panel (C) on the exhuast side (B).
3. Undo the two screws in the front panel and remove it.
4. Place the edging in level on the floor and secure it through the countersunk holes (see Fig. 7). Place the air curtain on the edging.
5. A flat bar is included for securing the air curtain. Fixate the air curtain through the square-shaped hole. Make sure that the flat bar is not bent when fixing.
6. Secure the top with an angle bracket or similar to prevent the air curtain from toppling over. There is a hole in the centre of the top of the air curtain with an internal M8 thread for securing the bracket.
7. Hook the front panel (C) onto the edge on the intake side (A), close and press it into the slot on the exhaust side (B).
8. Fasten the two screws in the front panel.
9. Secure the front panel on the exhaust side.
10. Replace the intake grille. (A)

To remove dirt and finger prints, polish the panels with a suitable cleanser. Any print that may be on the panels is removed with a suitable solvent.

Horizontal mounting

The unit is mounted with the outlet facing downwards. Do not remove the protective plastic until mounting is completed. Take care not to damage the surfaces.

For optimal performance it is recommended that a minimum gap of 220 mm to the ceiling

is maintained above the air curtain. Closer mounting might cause over heating.

Two brackets are delivered with the unit for mounting on the wall or hanging from the ceiling.

Horizontal mounting on the wall

1. Mount the brackets on the wall according to measurements in Fig. 7 and 8.
2. Lift the unit into place and lock it using a hexagon key and the M8 screws supplied.

Horizontal mounting on the ceiling

1. Mount pendulums or similar (not included in delivery) on the ceiling with c-c distance according to Fig. 7 and 8.
2. Mount the brackets on the unit with a hexagon key and the M8 screws supplied.
3. Lift the unit into place and fix the brackets to the pendulums.

Note! The unit needs to be further secured if suspended from chains.

Electrical installation

The installation, which should be preceded by an omnipolar switch with a contact separation of at least 3 mm, should only be wired by a competent electrician and in accordance with the latest edition of IEE wiring regulations.

The electrical connection may be done from above or below when mounted vertically, and from left or right when mounted horizontally.

The SIRe PC board Base is positioned in the top of vertical units and close to connection side for horizontal units. For vertical electric units, heat and control supply are connected to terminals either in the top or at the bottom. When connecting at the top, the cover plate on the suction side, as shown in Figure 4, is removed during installation. Control supply for vertical ambient units is connected to terminals either in the top or at the bottom. Modular cables to the SIRe PC board Base must be wired inside the unit when connected from below.

Secure the wiring inside the unit with cable ties to prevent it being sucked into the fans or in contact with the heating elements.

The control system is pre-installed in the aircurtain with an integrated control card, (see fig 8).

SIRe is supplied pre-programmed with quick-release connections.

Modular cables are connected to the control board Base, by opening the front plate, as shown in Figure 4 and 5. See manual for SIRe.

Start-up

Note! When using for the first time or when starting up after a long period of disuse, a small amount of smoke and a slight odour may occur temporarily, which is completely normal.

Adjustment of air flow

The direction and speed of the air flow should be adjusted considering the load on the opening. Pressure forces affect the air stream and make it bend inwards into the premises (when the premises are heated and the outdoor air is cold). The air stream should therefore be directed outwards to withstand the load. (Generally speaking, the higher the load, the greater the angle is needed.)

Use a hexagon key to loosen the three screws supporting the outlet grille. Angle the grille outwards so that the air flow obstructs the incoming cold air.

Overheating

The over heat protection maintains the exhaust temperature at +40 °C. If the temperature should exceed anyway there is an over heating alarm. For more information see the manual for SIRe.

Trouble shooting

If the fans are stationary, check the following:

1 The operating power supply to the unit; check fuses, circuit-breaker, time switch/ thermostat (if any) that starts and stops the unit.
2 That the air flow selector is correctly set.
3 That the door contact is working (if installed).
4 That the fans rotate in the direction indicated by the arrows on the fans.

If there is no heat, check the following:

1 Power supply to electric heater coil; check

fuses and circuit-breaker (if any).
2 That the heat demand exists; check thermostat settings and actual temperature.
3 That the output selector (if any) is set correctly.
4 That the overheat protection has not been deployed, see description above.

Maintenance

To ensure performance and reliability of the air curtain inspection should be carried out regularly, at least twice a year, but this can vary depending on local conditions. This is to ensure the performance of the air curtain and heat output of the unit.

The inlet grille works as a filter and should be vacuumed regularly. A too low airflow might cause over heating.

Since fan motors and other components are maintenance free, no maintenance other than cleaning is necessary. Undertake cleaning at least twice a year.

A sample of ”Fingerprint remover” is included on delivery. The product gives a clean and dry surface. To order, please state no 11631, Fingerprint remover (0,5 l).

Residual current circuit breaker (applies to units with electric heater)

When the installation is protected by means of a residual current circuit breaker, which trips when the appliance is connected, this may be due to moisture in the heating element. When an appliance containing a heater element has not been used for a long period or stored in a damp environment, moisture can enter the element.

This should not be seen as a fault, but is simply rectified by connecting the appliance to the mains supply via a socket without a safety cut-out, so that the moisture can be eliminated from the element. The drying time can vary from a few hours to a few days. As a preventive measure, the unit should occasionally be run for a short time when it is not being used for extended periods of time.

Safety

- *For all installations of electrically heated products should a residual current circuit breaker 300 mA for fire protection be used.*
- *Keep the areas around the air intake and exhaust grilles free from possible obstructions!*
- *During operation the surfaces of the unit are hot!*
- *The unit must not be fully or partially covered with clothing, or similar materials, as overheating can result in a fire risk!*
- *This appliance is not intended for use by persons (including children) with reduced physical or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.*

Main office
Frico AB
Box 102
SE-433 22 Partille
Sweden

Tel: +46 31 336 86 00
Fax: +46 31 26 28 25
mailbox@frico.se
www.frico.se

For latest updated information and information about your local contact: www.frico.se

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