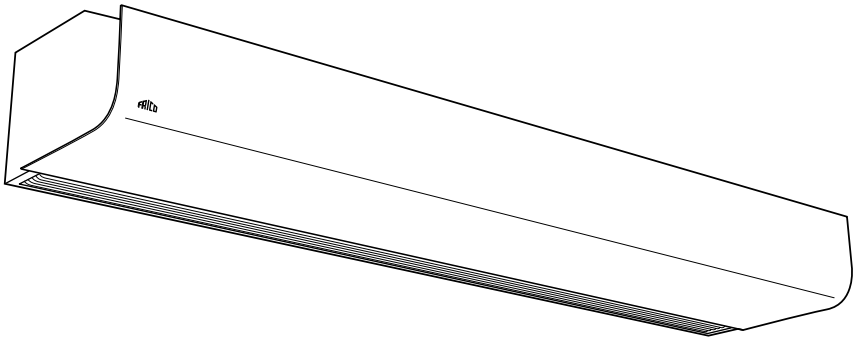
Original instructions

# PA2500



SE **Introduktionssidorna består huvudsakligen av bilder. För översättning av de engelska texter som används, se respektive språksidor.**

GB **The introduction pages consist mainly of pictures. For translation of the English texts used, see the respective language pages.**

NO **Introduksjonssidene består hovedsakelig av bilder. For oversettelse av de engelske tekstene, se de respektive språksidene**

FR **Les pages de présentation contiennent principalement des images. Consulter la page correspondant à la langue souhaitée.**

DE **Die Einleitungsseiten bestehen hauptsächlich aus Bildern. Für die Übersetzung der verwendeten Texte in englischer Sprache, siehe die entsprechenden Sprachseiten.**

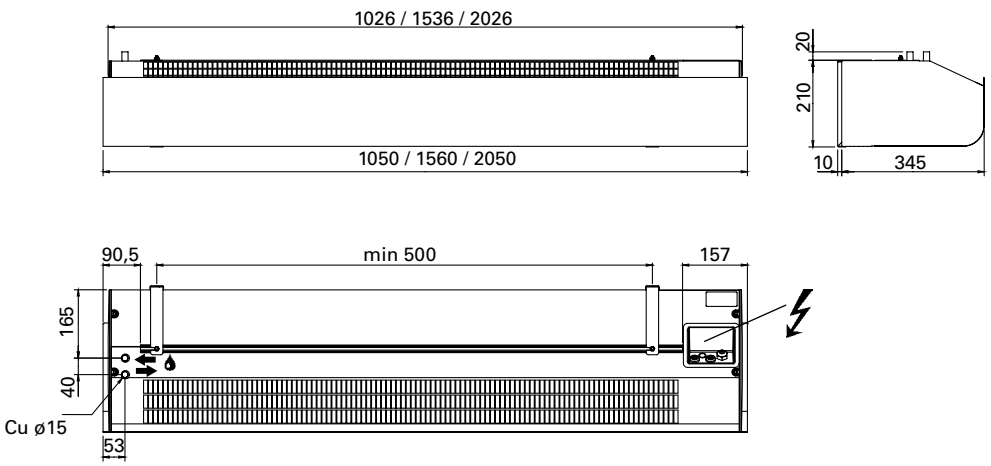
ES **Las páginas introductorias contienen básicamente imágenes. Consulte la traducción de los textos en inglés que las acompañan en las páginas del idioma correspondiente.**

NL **De inleidende pagina's bevatten hoofdzakelijk afbeeldingen. Voor een vertaling van de gebruikte Engelse teksten, zie de pagina's van de resp. taal.**

IT **Le pagine introduttive contengono prevalentemente immagini. Per le traduzioni dei testi scritti in inglese, vedere le pagine nelle diverse lingue.**

PL **Początkowe strony zawierają głównie rysunki. Tłumaczenie wykorzystanych tekstów angielskich znajduje się na odpowiednich stronach językowych.**

## PA2500




**2 m**

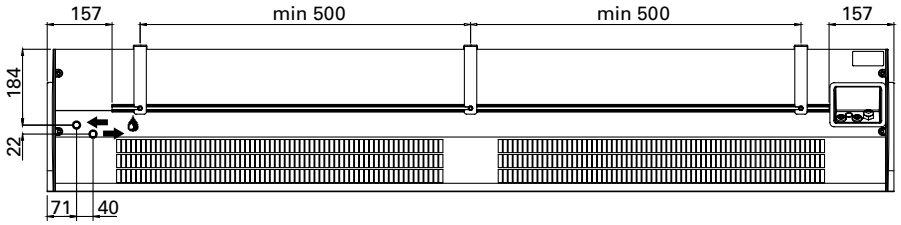



Fig.1

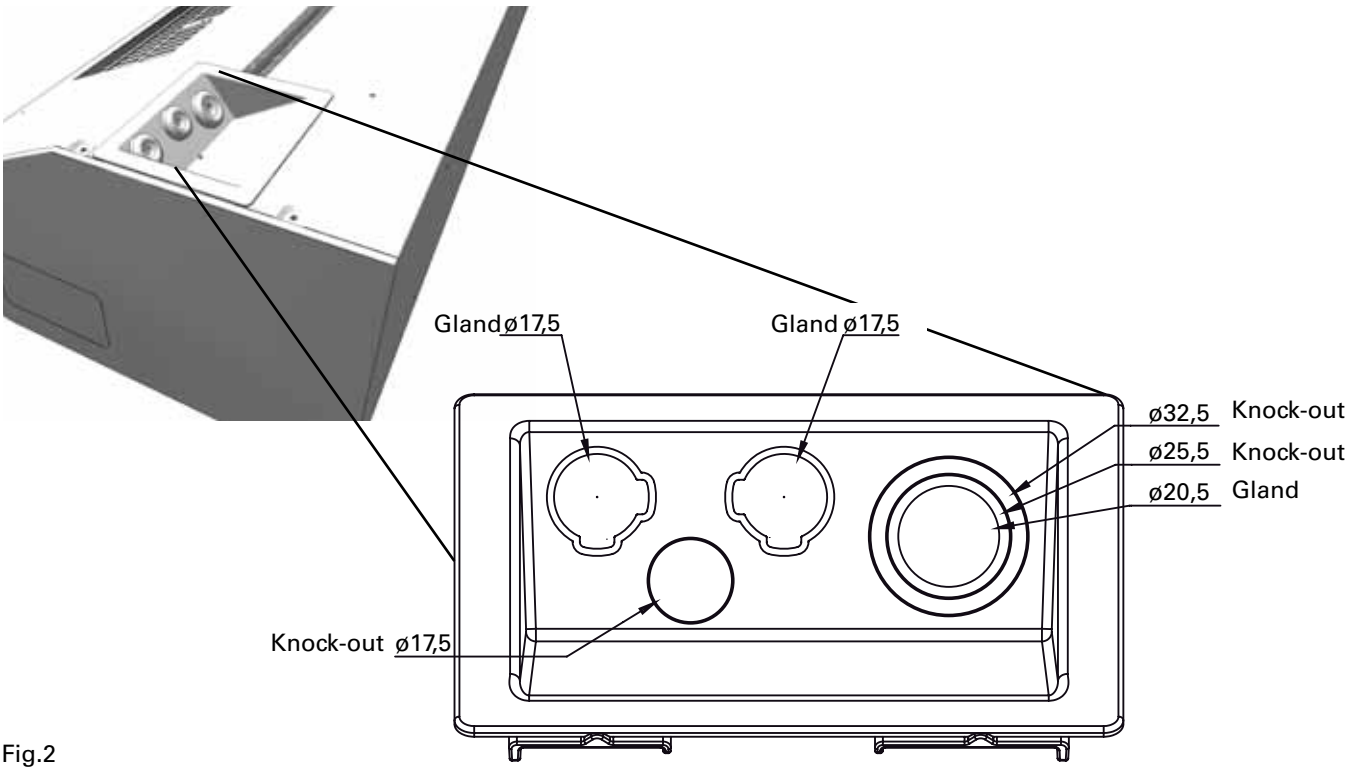



Fig.2

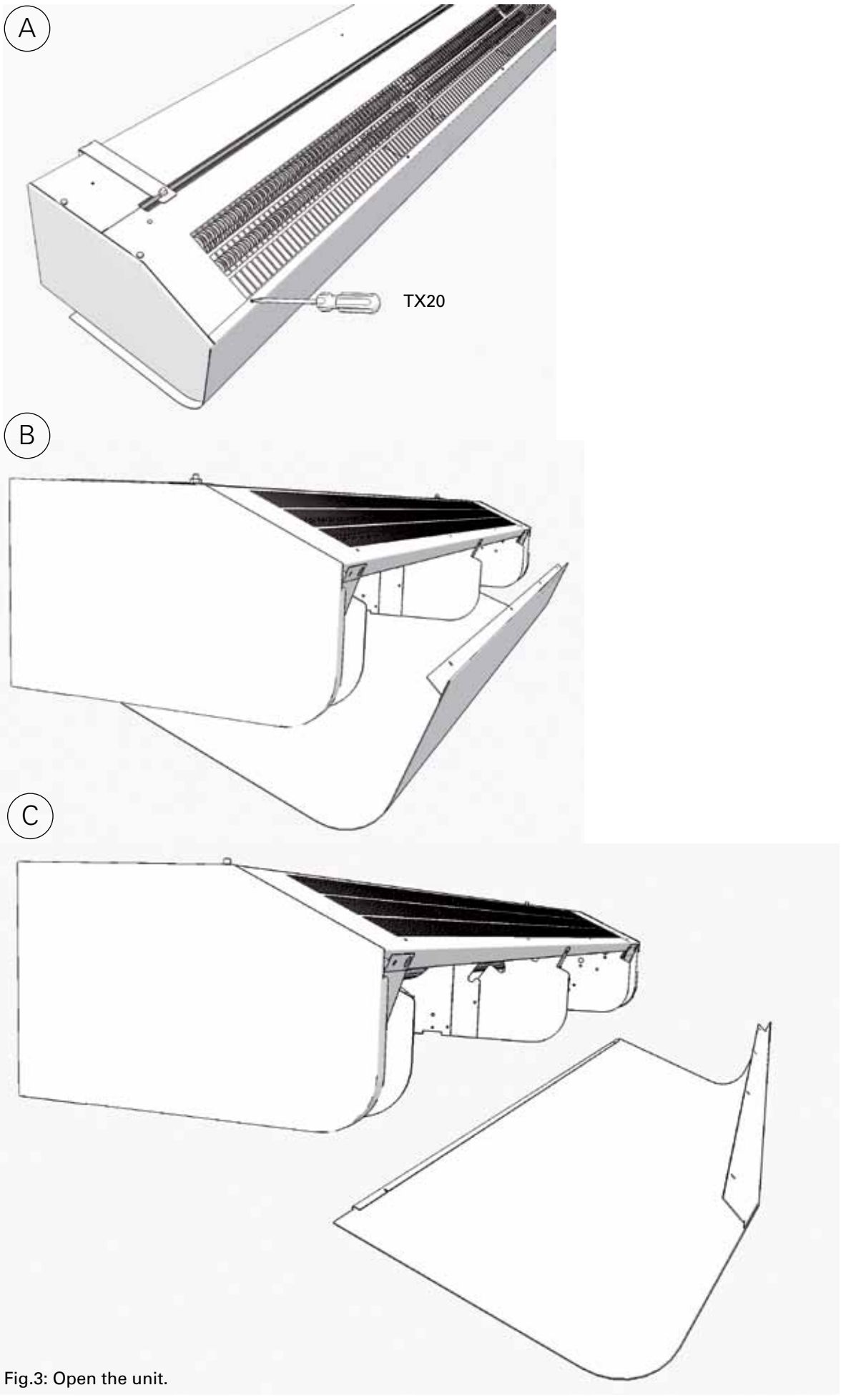



Fig.3: Open the unit.

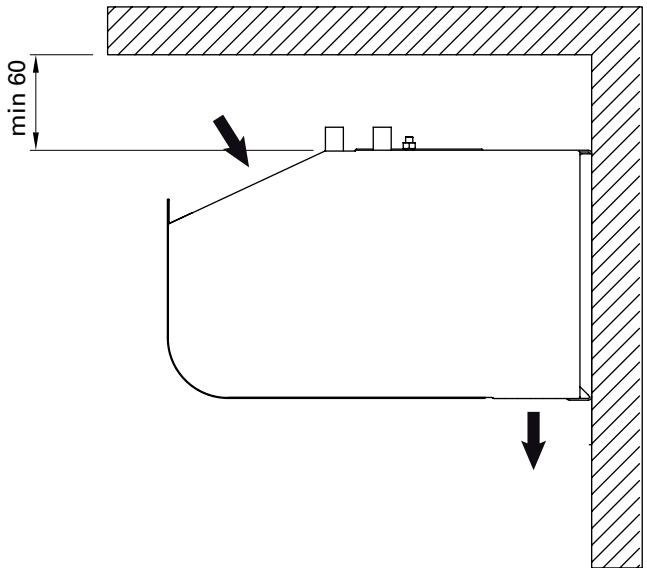
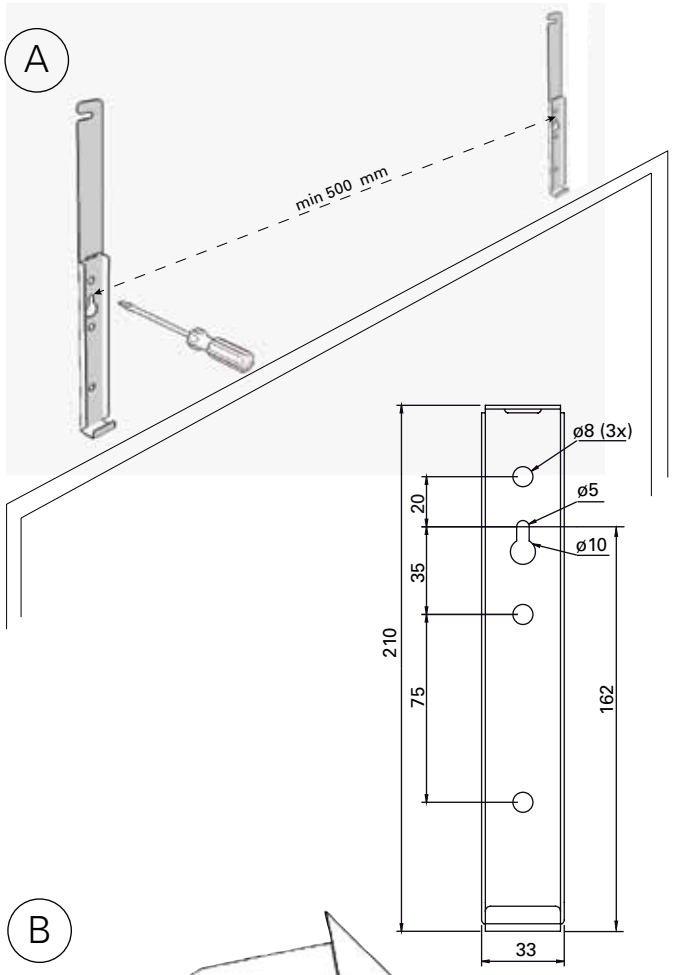
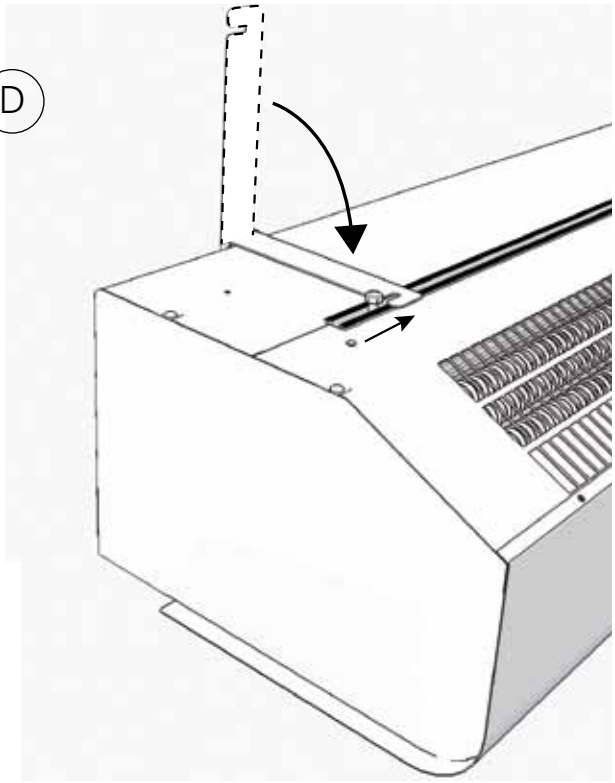
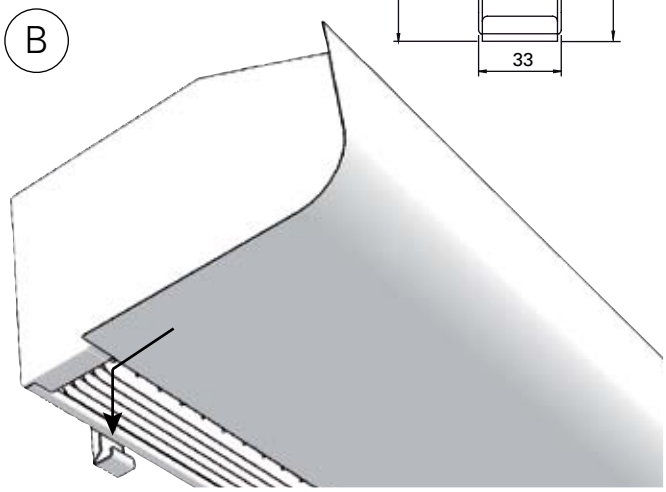


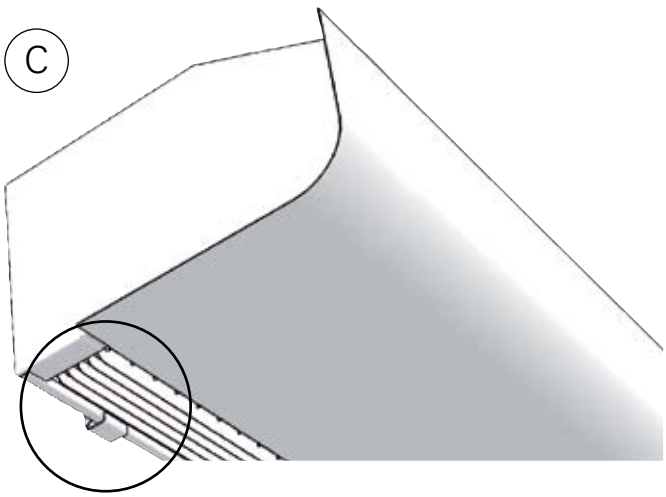

Fig.4: Minimum distance.

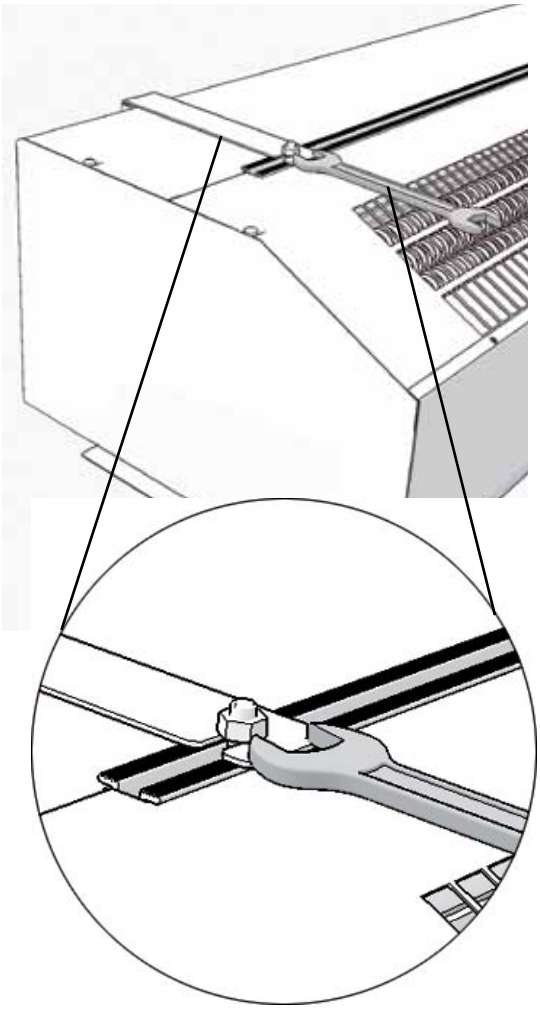
## Mounting with wall brackets



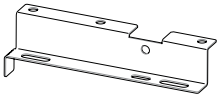

| | |
|---|---|
| **PA2510** | 2 pcs |
| **PA2515** | 2 pcs |
| **PA2520** | 3 pcs |

Fig. 6: Mounting with wall brackets

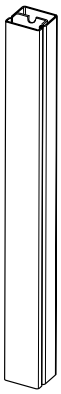
# Accessories

| | |
|---|---|
| **PA34TR15** | PA2510, PA2515, 1 m |
| **PA34TR20** | PA2520, 1 m |
| **PA2P15** | PA2510, PA2515, 1 m |
| **PA2P20** | PA2520, 1 m |
| **PA2PF15** | PA2510, PA2515 |
| **PA2PF20** | PA2520 |

PA34TR



PA2PF

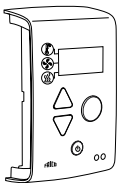


PA2P

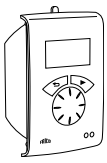
# Accessories

## SIRe

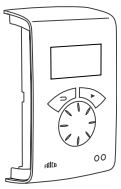
| | | | |
|---|---|---|---|
| **SIReB** | | | |
| **SIReAC** | | | |
| **SIReAA** | | | |
| **SIReRTX** | 673 09 22 | 70x33x23 mm | |
| **SIReUR** | 673 09 21 | 114x70x50 mm | |
| **SIReWTA** | | | |
| **SIReCJ4** | | | |
| **SIReCJ6** | | | |
| **SIReCC603** | 673 09 23 | | 3 m |
| **SIReCC605** | 673 09 24 | | 5 m |
| **SIReCC610** | 673 09 25 | | 10 m |
| **SIReCC615** | 673 09 26 | | 15 m |
| **SIReCC403** | 673 09 27 | | 30 m |
| **SIReCC405** | 673 09 28 | | 50 m |
| **SIReCC410** | 673 09 29 | | 10 m |
| **SIReCC415** | 673 09 30 | | 15 |



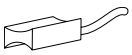
SIReB



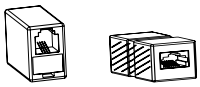
SIReUR



SIReAC/SIReAA



SIReWTA

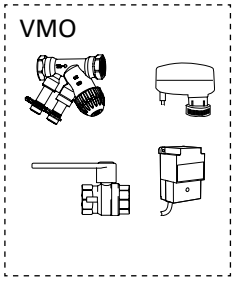


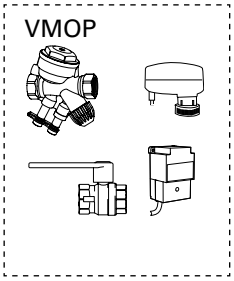
SIReCJ4/SIReCJ6

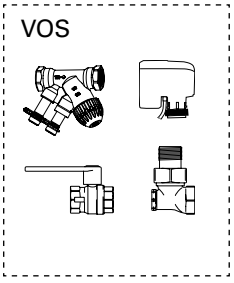
SIReRTX

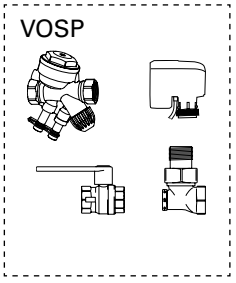
SIReCC

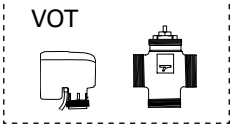
| Type | RSK-nr | Connection |
|---|---|---|
| **VMO15LF** | 673 09 47 | DN15 |
| **VMO15NF** | 673 09 48 | DN15 |
| **VMO20** | 673 09 49 | DN20 |
| **VMO25** | 673 09 50 | DN25 |
| **VMOP15LF** | 673 09 51 | DN15 |
| **VMOP15NF** | 673 09 52 | DN15 |
| **VMOP20** | 673 09 53 | DN20 |
| **VMOP25** | 673 09 54 | DN25 |
| **VOS15LF** | 673 09 35 | DN15 |
| **VOS15NF** | 673 09 36 | DN15 |
| **VOS20** | 673 09 37 | DN20 |
| **VOS25** | 673 09 38 | DN25 |
| **VOSP15 LF** | 673 09 43 | DN15 |
| **VOSP15NF** | 673 09 44 | DN15 |
| **VOSP20** | 673 09 45 | DN20 |
| **VOSP25** | 673 09 46 | DN25 |
| **VOT15** | | DN15 |
| **VOT20** | | DN20 |
| **VOT25** | | DN25 |
| **VMT15** | | DN15 |
| **VMT20** | | DN20 |
| **VMT25** | | DN25 |
| **VAT** | 482 98 30 | |



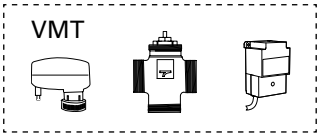



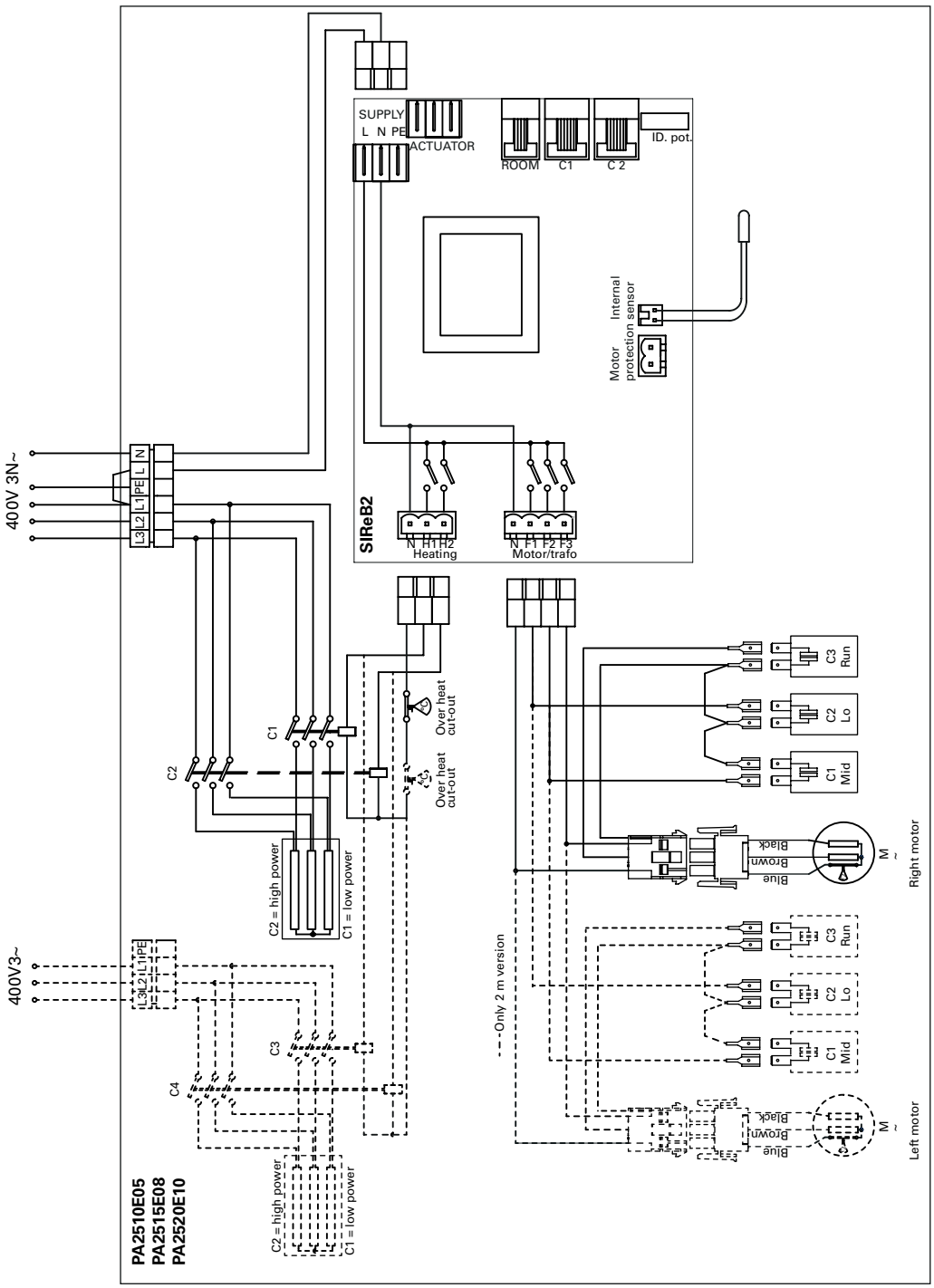



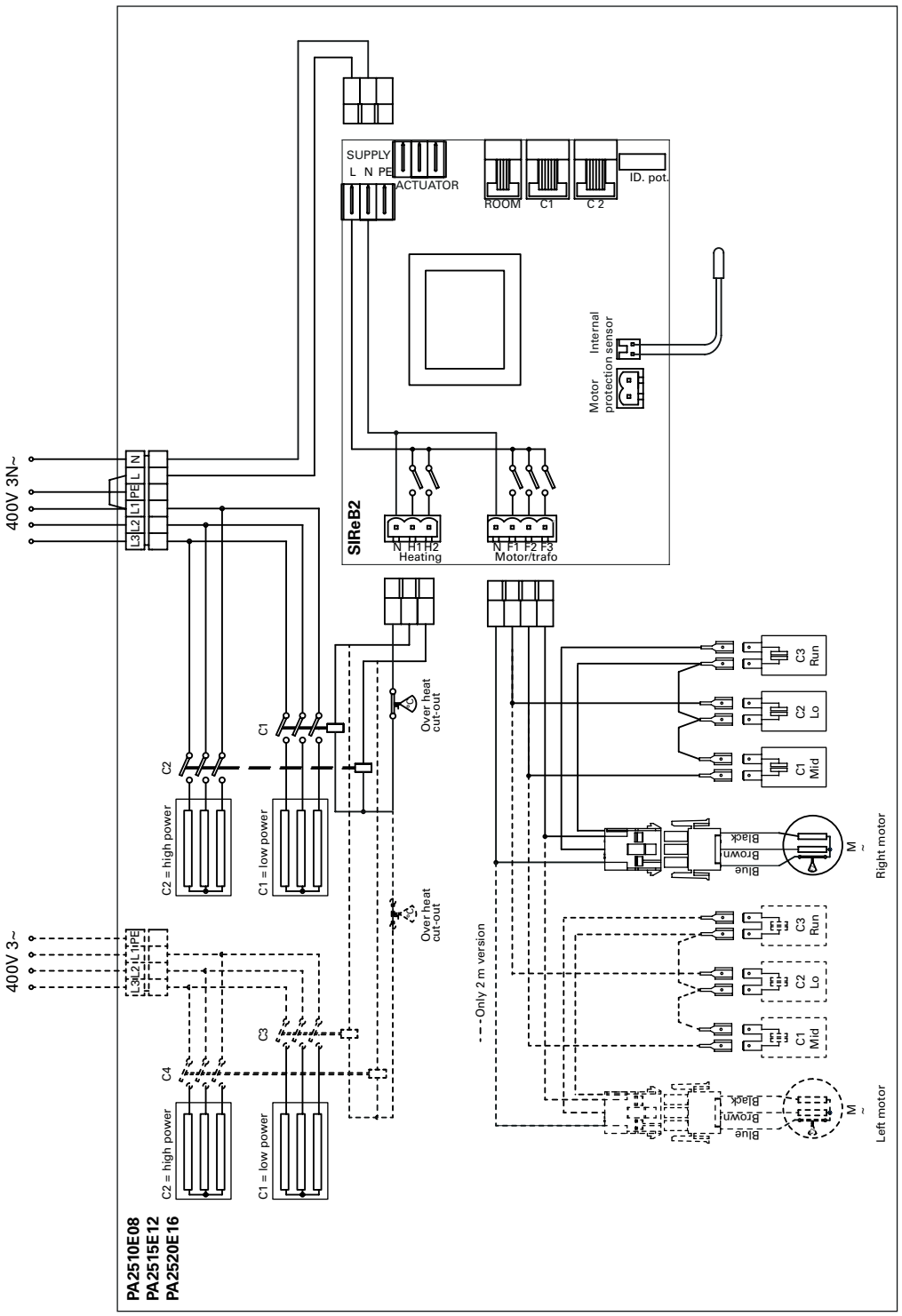




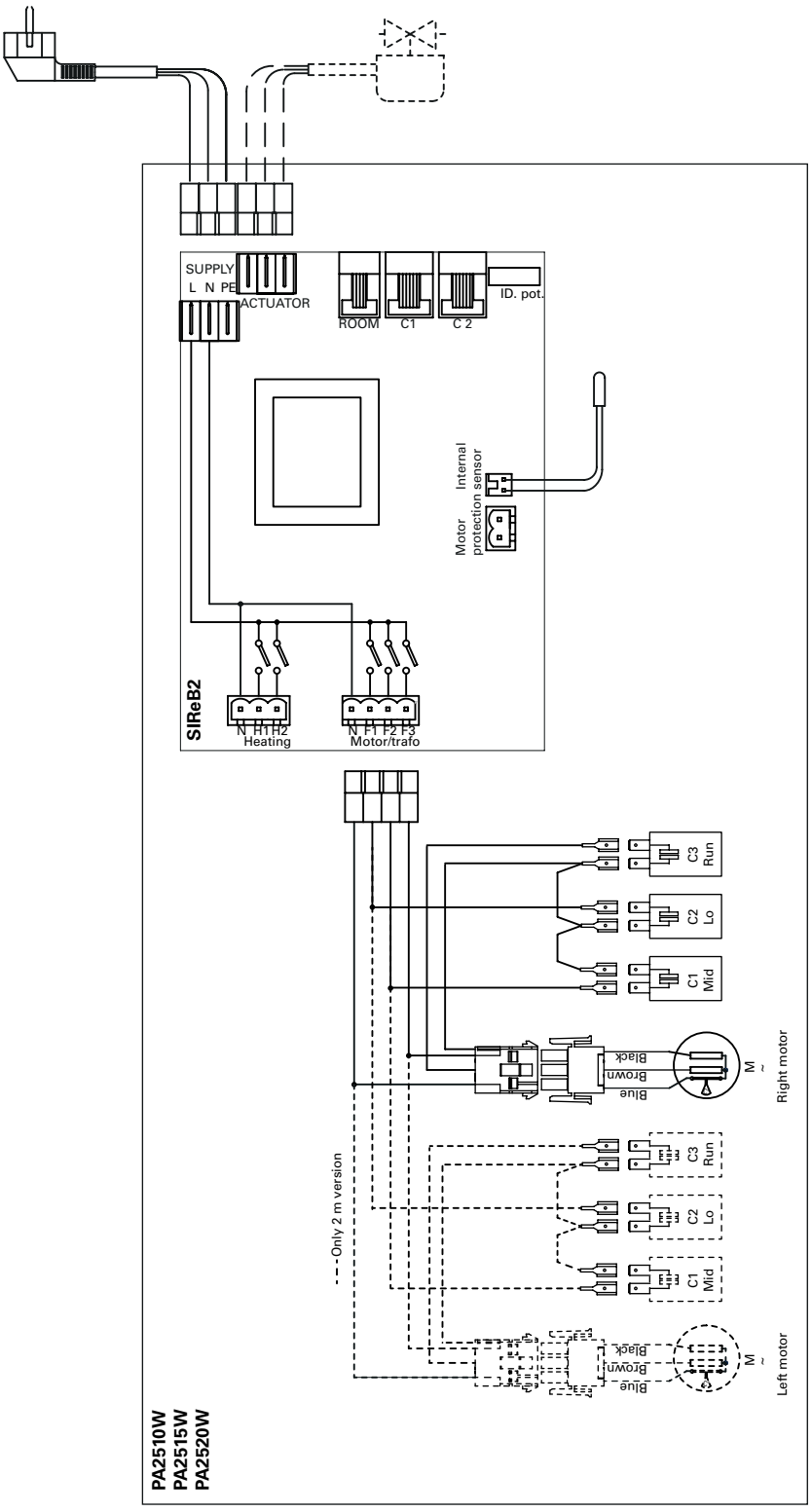
# PA2510E05/ PA2515E08/ PA2520E10



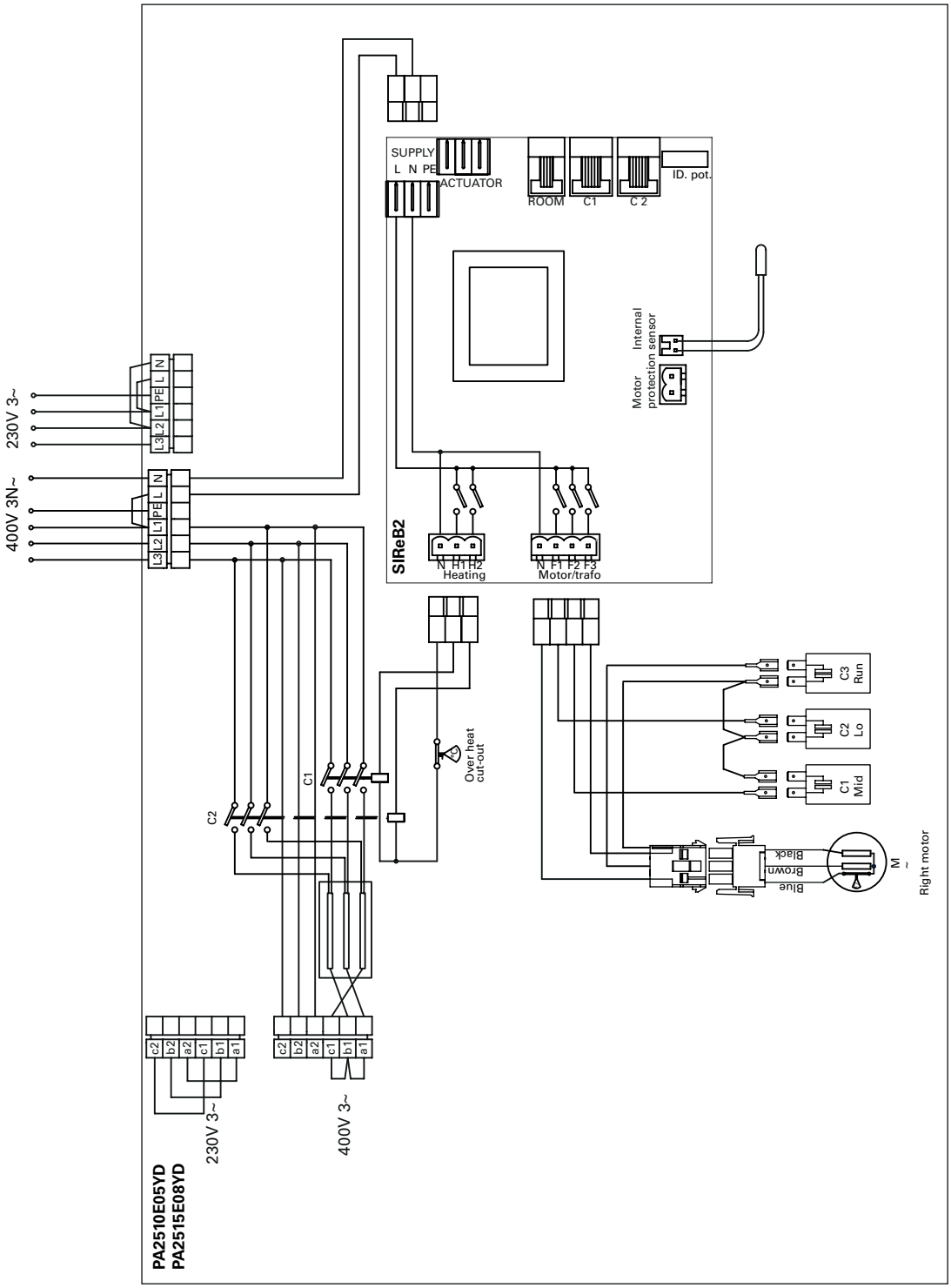
# PA2510E08/ PA2515E12/ PA2520E16



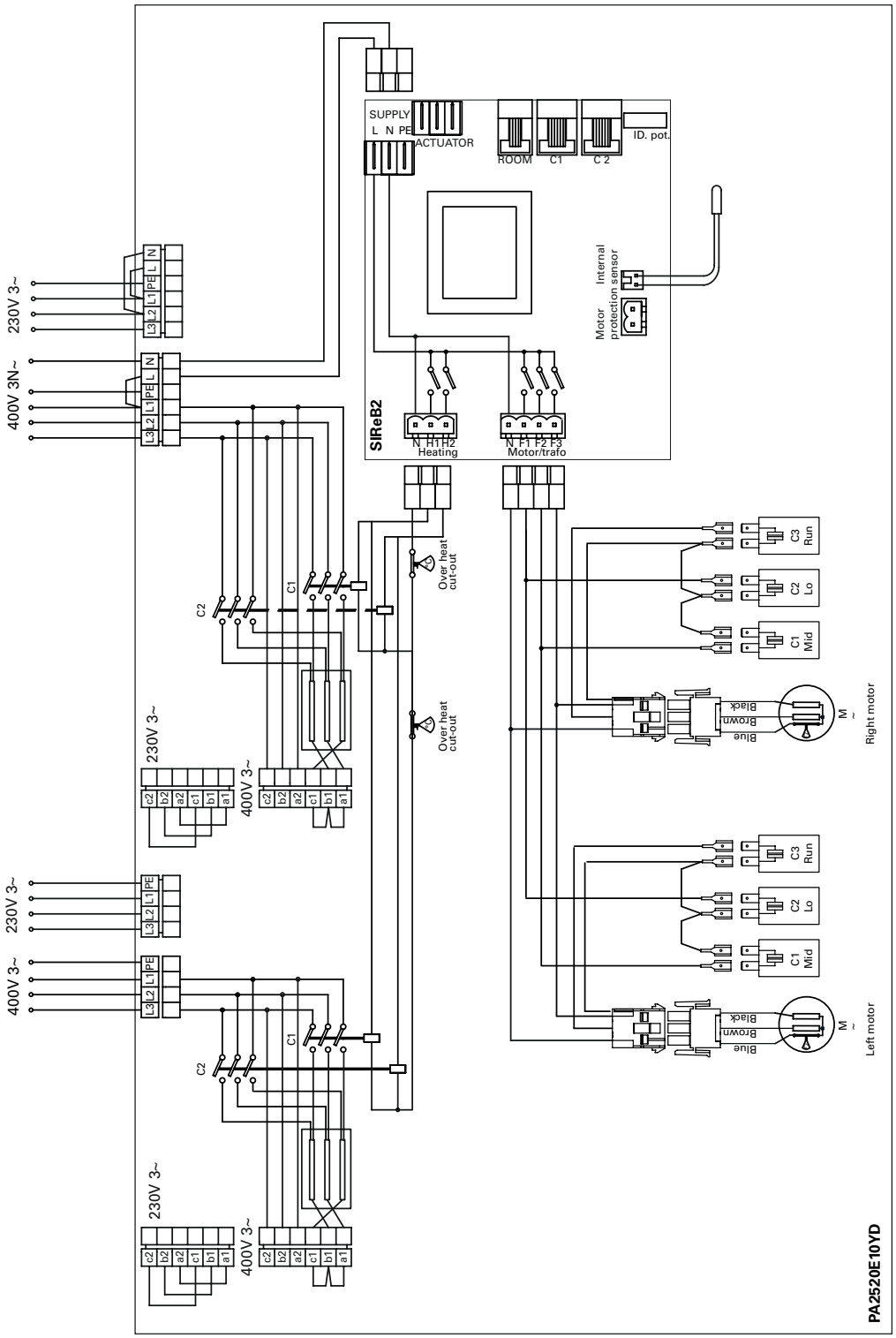
# PA2510W/ PA2515W PA2520W



# PA2510E05YD/ PA2515E08YD



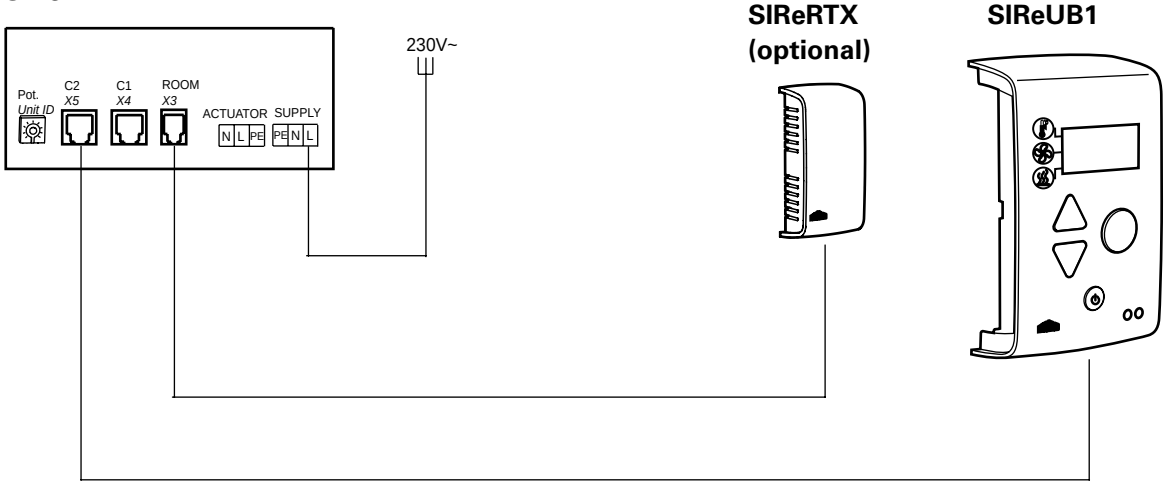
# PA2520E10YD



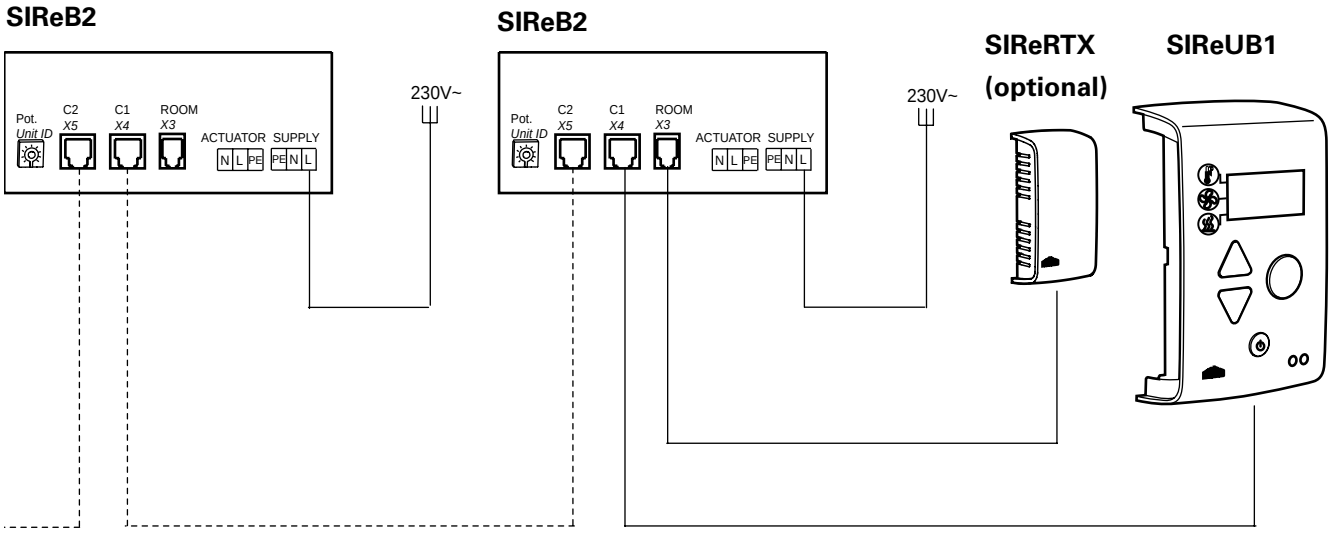
## SIReB Basic

## PA2500 E

**SIReB2**




### SIReB Basic - Parallel connection

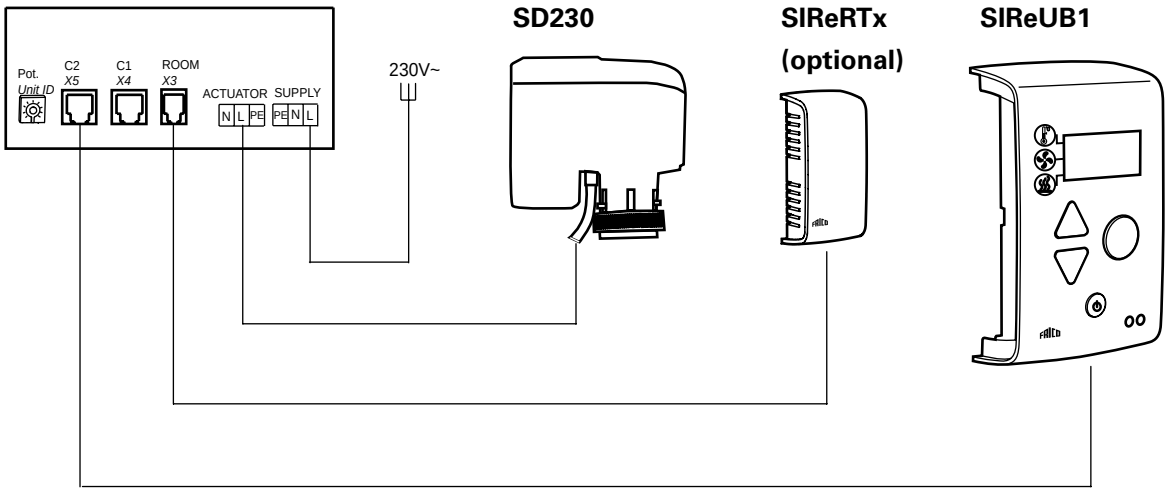



**Wiring diagrams for SIReAC Competent and SIReAA Advanced, see manuals for SIRe.**

## SIReB Basic

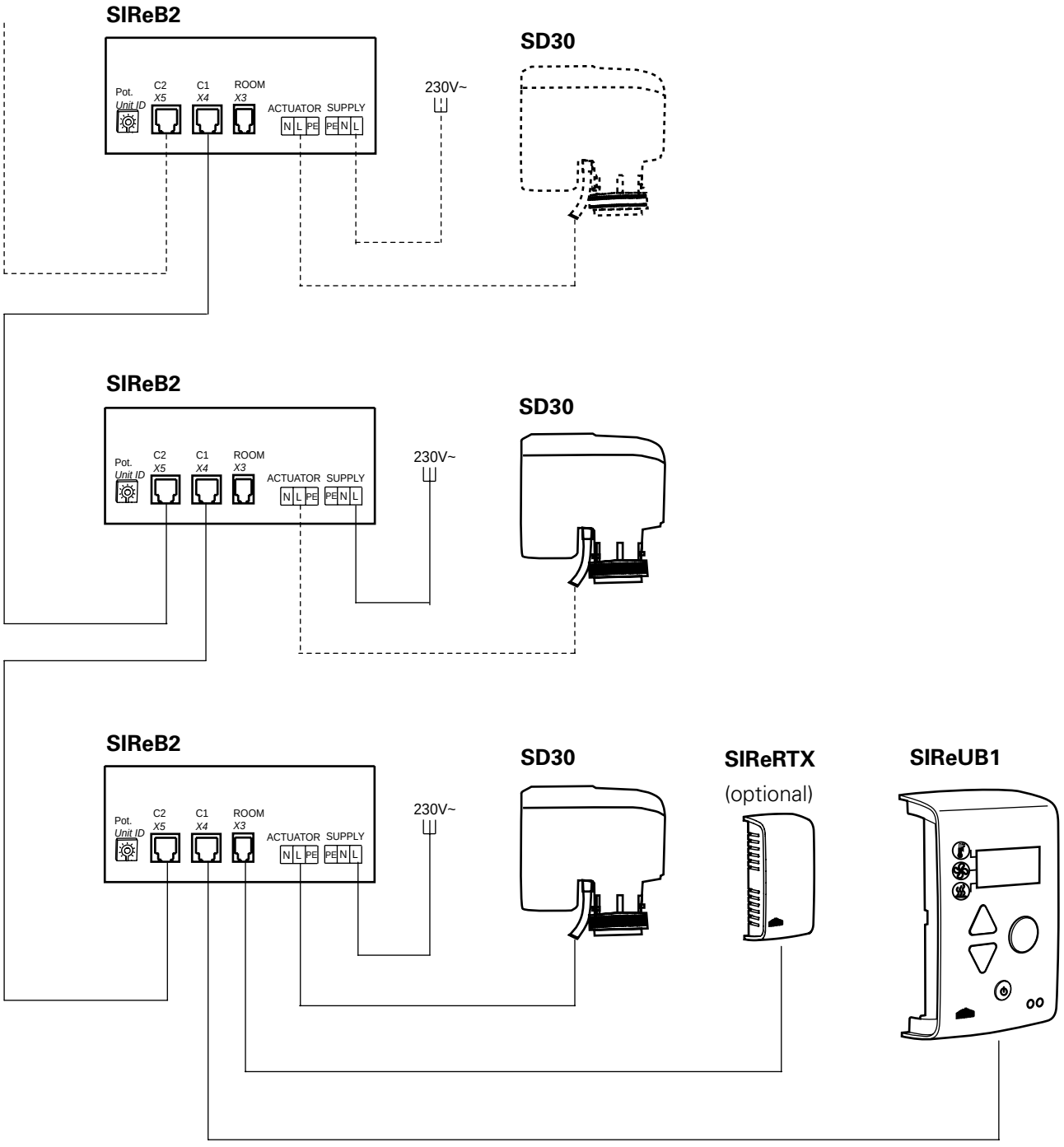
## PA2500 W

**SIReB2**



## SIReB Basic - Parallel connection

## PA2500 W



## Output charts water PA2500

| | | | Supply water temperature:110 °C<br>Room temperature: +18 °C<br>Outlet air temperature: +35 °C*1 | | | | Water temperature: 110/80 °C<br>Room temperature: +18 °C | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type** | **Fan position** | **Airflow** | **Output** | **Return water temp.** | **Water flow** | **Pressure drop** | **Output *2** | **Outlet air temp.** | **Water flow** | **Pressure drop** |
| | | **[m³/h]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** |
| **PA2510W** | Max | 1300 | 7,4 | 47,0 | 0,03 | 0,3 | 13,3 | 48,1 | 0,11 | 3,3 |
| | Min | 900 | 5,3 | 46,0 | 0,02 | 0,2 | 10,6 | 52,8 | 0,09 | 2,2 |
| **PA2515W** | Max | 2100 | 12,5 | 39,0 | 0,04 | 0,9 | 24,4 | 52,2 | 0,20 | 13,3 |
| | Min | 1250 | 7,4 | 34,0 | 0,02 | 0,3 | 17,6 | 59,4 | 0,15 | 7,4 |
| **PA2520W** | Max | 2600 | 15,0 | 36,0 | 0,05 | 1,5 | 30,1 | 52,0 | 0,25 | 23,6 |
| | Min | 1800 | 10,2 | 32,0 | 0,03 | 0,7 | 23,9 | 57,0 | 0,20 | 15,6 |

| | | | Supply water temperature:90 °C<br>Room temperature: +18 °C<br>Outlet air temperature: +35 °C*1 | | | | Water temperature: 90/70 °C<br>Room temperature: +18 °C | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type** | **Fan position** | **Airflow** | **Output** | **Return water temp.** | **Water flow** | **Pressure drop** | **Output *2** | **Outlet air temp.** | **Water flow** | **Pressure drop** |
| | | **[m³/h]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** |
| **PA2510W** | Max | 1300 | 7,4 | 50,0 | 0,04 | 0,7 | 10,8 | 42,5 | 0,13 | 4,8 |
| | Min | 900 | 5,2 | 46,0 | 0,03 | 0,4 | 8,7 | 46,3 | 0,11 | 3,2 |
| **PA2515W** | Max | 2100 | 12,5 | 43,0 | 0,07 | 1,9 | 19,8 | 45,8 | 0,24 | 19,6 |
| | Min | 1250 | 7,2 | 36,0 | 0,03 | 0,6 | 14,3 | 51,5 | 0,18 | 10,8 |
| **PA2520W** | Max | 2600 | 15,1 | 41,0 | 0,08 | 3,1 | 24,4 | 45,6 | 0,30 | 34,6 |
| | Min | 1800 | 10,6 | 36,0 | 0,05 | 1,5 | 19,3 | 49,6 | 0,24 | 22,8 |

| | | | Supply water temperature:80 °C<br>Room temperature: +18 °C<br>Outlet air temperature: +35 °C*1 | | | | Water temperature: 80/60 °C<br>Room temperature: +18 °C | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type** | **Fan position** | **Airflow** | **Output** | **Return water temp.** | **Water flow** | **Pressure drop** | **Output *2** | **Outlet air temp.** | **Water flow** | **Pressure drop** |
| | | **[m³/h]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** |
| **PA2510W** | Max | 1300 | 7,4 | 52,0 | 0,07 | 1,4 | 8,8 | 38,0 | 0,11 | 3,4 |
| | Min | 900 | 5,2 | 47,0 | 0,04 | 0,6 | 7,0 | 41,0 | 0,09 | 2,3 |
| **PA2515W** | Max | 2100 | 12,0 | 44,0 | 0,08 | 3,0 | 16,3 | 40,8 | 0,20 | 14,1 |
| | Min | 1250 | 7,3 | 38,0 | 0,04 | 1,0 | 11,7 | 45,6 | 0,14 | 7,8 |
| **PA2520W** | Max | 2600 | 15,2 | 44,0 | 0,10 | 5,5 | 20,1 | 40,8 | 0,25 | 25,0 |
| | Min | 1800 | 10,4 | 38,0 | 0,06 | 2,2 | 16,0 | 44,1 | 0,20 | 16,5 |

| | | | Supply water temperature:70 °C<br>Room temperature: +18 °C<br>Outlet air temperature: +35 °C*1 | | | | Water temperature: 70/50 °C<br>Room temperature: +18 °C | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type** | **Fan position** | **Airflow** | **Output** | **Return water temp.** | **Water flow** | **Pressure drop** | **Output *2** | **Outlet air temp.** | **Water flow** | **Pressure drop** |
| | | **[m³/h]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** |
| **PA2510W** | Max | 1300 | 7,4 | 54,0 | 0,11 | 3,7 | 6,8 | 33,4 | 0,08 | 2,2 |
| | Min | 900 | 5,3 | 49,0 | 0,06 | 1,3 | 5,4 | 35,7 | 0,07 | 1,5 |
| **PA2515W** | Max | 2100 | 12,0 | 47,0 | 0,13 | 6,7 | 12,8 | 35,9 | 0,16 | 9,3 |
| | Min | 1250 | 7,3 | 41,0 | 0,06 | 1,8 | 9,2 | 39,6 | 0,11 | 5,2 |
| **PA2520W** | Max | 2600 | 15,0 | 47,0 | 0,16 | 12,1 | 15,8 | 35,9 | 0,19 | 16,7 |
| | Min | 1800 | 10,3 | 41,0 | 0,09 | 4,1 | 12,6 | 38,5 | 0,15 | 11,1 |

*1) Recommended outlet air temperature for good comfort and optimized output.

*2) Nominal output at given supply and return water temperature.

## Output charts water PA2500

| | | | Supply water temperature: 60 °C<br>Room temperature: +18 °C<br>Outlet air temperature: +32 °C | | | | Water temperature: 60/40 °C<br>Room temperature: +18 °C | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type** | **Fan position** | **Airflow** | **Output** | **Return water temp.** | **Water flow** | **Pressure drop** | **Output *2** | **Outlet air temp.** | **Water flow** | **Pressure drop** |
| | | **[m³/h]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** |
| **PA2510W** | Max | 1300 | 6,4 | 50,0 | 0,16 | 7,1 | 4,7 | 28,6 | 0,06 | 1,2 |
| | Min | 900 | 4,5 | 45,0 | 0,07 | 1,8 | 3,7 | 30,0 | 0,05 | 0,8 |
| **PA2515W** | Max | 2100 | 10,5 | 45,0 | 0,17 | 11,3 | 9,2 | 30,8 | 0,11 | 5,4 |
| | Min | 1250 | 6,6 | 40,0 | 0,08 | 3,0 | 6,6 | 33,5 | 0,08 | 3,0 |
| **PA2520W** | Max | 2600 | 13,1 | 45,0 | 0,21 | 20,3 | 11,5 | 31,0 | 0,14 | 9,8 |
| | Min | 1800 | 9,1 | 40,0 | 0,11 | 6,5 | 9,1 | 32,9 | 0,11 | 6,5 |

| | | | Supply water temperature: 55°C<br>Room temperature: +18 °C<br>Outlet air temperature: +29 °C | | | | Water temperature: 55/35°C<br>Room temperature: +18 °C | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type** | **Fan position** | **Airflow** | **Output** | **Return water temp.** | **Water flow** | **Pressure drop** | **Output *2** | **Outlet air temp.** | **Water flow** | **Pressure drop** |
| | | **[m³/h]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** | **[kW]** | **[°C]** | **[l/s]** | **[kPa]** |
| **PA2510W** | Max | 1300 | 6,4 | 50,0 | 0,34 | 29,3 | 3,5 | 25,9 | 0,04 | 0,7 |
| | Min | 900 | 4,2 | 44,0 | 0,09 | 2,7 | 2,6 | 26,6 | 0,03 | 0,5 |
| **PA2515W** | Max | 2100 | 10,3 | 46,0 | 0,28 | 27,5 | 7,3 | 28,2 | 0,09 | 3,7 |
| | Min | 1250 | 6,1 | 39,0 | 0,09 | 4,1 | 5,2 | 30,3 | 0,06 | 2,1 |
| **PA2520W** | Max | 2600 | 12,7 | 46,0 | 0,34 | 48,7 | 9,3 | 28,5 | 0,11 | 6,9 |
| | Min | 1800 | 8,5 | 39,0 | 0,13 | 8,8 | 7,4 | 30,0 | 0,09 | 4,6 |

*1) Recommended outlet air temperature for good comfort and optimized output.

*2) Nominal output at given supply and return water temperature.

See www.frico.se for additional calculations.

**Technical specifications** | PA2500 E with electrical heat

| Type | Output steps [kW] | Airflow [m³/h] | Δt*2 [°C] | Sound level*1 [dB(A)] | Voltage motor [V] | Amperage motor [A] | Voltage [V] Amperage [A] (heat) | Length [mm] | Weight [kg] |
|---|---|---|---|---|---|---|---|---|---|
| **PA2510E05** | 1,7/3,3/5 | 900/1450 | 17/10,5 | 42/51 | 230V~ | 0,5 | 400V3~/7,2 | 1050 | 19 |
| **PA2510E08** | 3/5/8 | 900/1450 | 27/16,5 | 42/51 | 230V~ | 0,5 | 400V3~/11,5 | 1050 | 20 |
| **PA2515E08** | 2,7/5,4/8 | 1400/2200 | 17,5/11 | 40/52 | 230V~ | 0,7 | 400V3~/11,5 | 1560 | 30 |
| **PA2515E12** | 3,9/8/12 | 1400/2200 | 26/16,5 | 40/52 | 230V~ | 0,7 | 400V3~/17,3 | 1560 | 32 |
| **PA2520E10** | 3,4/6,7/10 | 1800/2900 | 17/10,5 | 43/53 | 230V~ | 1,0 | 400V3~/14,4 | 2050 | 36 |
| **PA2520E16** | 6/10/16 | 1800/2900 | 27/16,5 | 43/53 | 230V~ | 1,0 | 400V3~/23,1 | 2050 | 40 |

**Technical specifications** | PA2500 W with water heat

| Type | Output*3 [kW] | Airflow [m³/h] | Δt*2,3 [°C] | Water volume [l] | Sound level*1 [dB(A)] | Voltage motor [V] | Amperage motor [A] | Length [mm] | Weight [kg] |
|---|---|---|---|---|---|---|---|---|---|
| **PA2510W** | 4,7 | 900/1300 | 12/11 | 0,71 | 42/53 | 230V~ | 0,45 | 1050 | 17,5 |
| **PA2515W** | 9,2 | 1250/2100 | 16/13 | 1,09 | 41/54 | 230V~ | 0,6 | 1560 | 26 |
| **PA2520W** | 11,5 | 1800/2600 | 15/13 | 1,42 | 43/55 | 230V~ | 0,9 | 2050 | 35 |

**Technical specifications** | PA2500 E with electrical heat

| Type | Output*3 [kW] | Airflow [m³/h] | Δt*2 [°C] | Sound level*1 [dB(A)] | Voltage motor [V] | Amperage motor [A] | Voltage heat [V] | Amperage heat [A] | Length [mm] | Weight [kg] |
|---|---|---|---|---|---|---|---|---|---|---|
| **PA2510E05YD** | 1,7/3,3/5 | 900/1450 | 17/10,5 | 42/51 | 230V~ | 0,5 | 230V3~/400V3 | 12,6/7,2 | 1050 | 19 |
| **PA2515E08YD** | 2,7/5,4/8 | 1400/2200 | 17,5/11 | 40/52 | 230V~ | 0,7 | 230V3~/400V3 | 20,1/11,5 | 1560 | 30 |
| **PA2520E10YD** | 3,4/6,7/10 | 1800/2900 | 17/10,5 | 43/53 | 230V~ | 1,0 | 230V3~/400V3 | 25,1/14,4 | 2050 | 36 |

*1) Conditions: Distance to the unit 5 metres. Directional factor: 2. Equivalent absorption area: 200 m². At lowest/highest airflow.

*2) Δt = temperature rise of passing air at maximum heat output and lowest/highest airflow.

*3) Applicable at water temperature 60/40 °C, air temperature, in +18 °C.

Protection class for units with electrical heating: IP20.
Protection class for units with water heating: IP21.

CE compliant.

| Type | C1 Mid [mF] | C2 Low [mF] | C2 Run [mF] |
|---|---|---|---|
| **PA2510E05** | 10 | 6 | 4 |
| **PA2510E08** | 10 | 6 | 4 |
| **PA2515E08** | 12 | 8 | 4 |
| **PA2515E12** | 12 | 8 | 4 |
| **PA2520E10** | 10 | 6 | 4 |
| **PA2520E16** | 10 | 6 | 4 |
| **PA2510W** | 10 | 6 | 4 |
| **PA2515W** | 12 | 8 | 4 |
| **PA2520W** | 10 | 6 | 4 |
| **PA2510E05YD** | 10 | 6 | 4 |
| **PA2515E08YD** | 12 | 8 | 4 |
| **PA2520E10YD** | 10 | 6 | 4 |

# Assembly and operating instructions

## General Instructions

Read these instructions carefully before installation and use. Keep this manual for future reference.
*The product may only be used as set out in the assembly and operating instructions. The guarantee is only valid if the product is used in the manner intended and in accordance with the instructions.*

## Application area

The PA2500 air curtain unit is supplied with electrical heating or hot water heating. PA2500 is intended for installation heights up to 2.5 metres.
Protection class for units with electrical heating: IP20.
Protection class for units with water heating: IP21.

## Operation

Air is drawn in at the top of the unit and blown out downwards so that it shields the door opening and minimizes heat loss. To achieve the optimum curtain effect the unit must extend the full width of the door opening.
The grille for directing exhaust air is adjustable and is normally angled outwards to achieve the best protection against incoming cold air.

The efficiency of the air curtain 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.*

## Mounting

The air curtain unit is installed horizontally with the supply air grille facing downwards as close to the door as possible. Minimum distance from outlet to floor for electrically heated units is 1800 mm. For other minimum distances, see fig. 4.

*Mounting with wall brackets (fig. 6)*

1. Mount the brackets on the wall, see fig.6A and dimension drawing fig.1. If the wall is uneven the brackets must be compensated for this.
2. Hook on the unit at the lower edge of the brackets. (Fig.6B-C)
3. Bend the top of the console over the the unit and slide the units screws along the rail into the slots on the consoles. (Fig.6D) When the bracket is bent once, it must be replaced if bent back more than 45 °.
4. Lock the nuts against the brackets. (Fig.6E)

*Horizontal mounting on the ceiling*

Threaded rods, hanging brackets and ceiling mounting brackets for ceiling mounting are available as accessories, see accessories pages and separate manuals.

## 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 control system is pre-installed in the air curtain with an integrated control card.
SIRe is supplied pre-programmed with quick-fit connections.
Modular cables are connected to the control board. See manual for SIRe.

*Unit with water heating*
Connected via the built-in control board SIRe with 1,5 m cord and plug.

*Unit with electrical heating*
The electrical installation is made on the top of the unit, fig.2. Control supply (230V~) and power supply for heating (400V3~) are connected to terminal block in the internal connection boxes. 2-metre units require dual power supplies.

The largest cable diameter for the terminal block is 16 mm². The cable glands used must meet the protection class requirements. In the distribution board it is to be indicated that "the air curtains can be supplied from more than one connection".

See wiring diagrams.

## Start-up (E)

When the unit is used for the first time or after a long period of disuse, smoke or odour may result from dust or dirt that has collected on the element. This is completely normal and disappears after a short time.

| Type | Output [kW] | Voltage [V] | Minimum area*1 [mm²] |
|---|---|---|---|
| **Control** | 0 | 230V~ | 1,5 |
| **PA2510E05** | 5 | 400V3~ | 1,5 |
| **PA2510E08** | 8 | 400V3~ | 2,5 |
| **PA2515E08** | 8 | 400V3~ | 2,5 |
| **PA2515E12** | 12 | 400V3~ | 4 |
| **PA2520E10** | 10 | 400V3~ | 2,5 |
| **PA2520E16** | 16 | 400V3~ | 6 |

## Connecting the water coil (W)

The installation must be carried out by an authorised installer.

The water coil has copper tubes with aluminium louvres and is suitable for connection to a closed water heating system. The heating coil must not be connected to a mains pressure water system or an open water system.

Note that the unit shall be preceded by a regulating valve, see Frico valve kit.

The water coil is connected on the upper side of the unit with ø15 mm smooth copper pipe with a suitable coupling or soldering. The connections to the heating coil must be equipped with shut off valves (not included) to allow problem free removal. Water coil is equipped with a drain valve.

A vent valve should be connected at a high point in the pipe system. Air valves are not included.

NOTE: Care must be taken when connecting the pipes. Use a wrench or similar to hold the air curtain connections to prevent straining of the pipes and subsequent water leakage during connection to water supply pipe-work.

## Adjustment of the air curtain and 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 that is needed.

## Basic setting fan speed

The fan speed when the door is open is set using the control. Note that the air flow direction and fan speed may need fine adjustment depending on the loading of the door.

## Filter (W)

The water coil is protected against dirt and blockage by an internal air filter which covers the coil face.

## Service, repairs and maintenance

For all service, repair and maintenance first carry out the following
1. Disconnect the power supply.
2. The front hatch is removed by removing the screws on the top of the unit and then detach the bent edge at the bottom. (Fig.3)
3. After the service, repair and maintenance reattach the front hatch. Place the hatch at the lower edge with the bent edge and fasten on top with screws.

## Maintenance

*Unit with water heating*
The appliance filter should be cleaned regularly to ensure the air curtain effect and the heat emission from the device. How often depends on local circumstances. A clogged filter is not a risk, but the appliance function can fail.

1. Disconnect the power supply.
2. The front hatch is removed by removing the screws on the top of the unit and then detach the bent edge at the bottom. (Fig.3)
3. Remove the filter and vacuum clean or wash it. If the filter is clogged or damaged, it may need to be changed.

*All units:*
Since fan motors and other components are maintenance free, no maintenance other than cleaning is necessary. The level of cleaning can vary depending on local conditions. Undertake cleaning at least twice a year. Inlet and exhaust grilles, impeller and elements can be vacuum cleaned or wiped using a damp cloth. Use a brush when vacuuming to prevent damaging sensitive parts. Avoid the use of strong alkaline or acidic cleaning agents.

## Overheating

The air curtain unit with electric heater is equipped with an overheat protector. If it is deployed due to overheating, reset as follows:
1. Disconnect the electricity with the fully isolated switch.
2. Determine the cause of overheating and rectify the fault.
3. Remove the front hatch.
4. Press the red button located inside the air curtain unit, at the inner gable of the connection box.
5. Reattach the front hatch and connect the unit again.

All motors are equipped with an integral thermal safety cut-out. This will operate, stopping the air curtain should the motor temperature rise too high. The cut-out will automatically reset when the motor temperature has returned to within the motor's operating limits.

## Temperature control

Temperature control of SIRe maintains the exhaust temperature to approx. +40 °C. If the temperature should exceed anyway there is an overheating alarm. For more information see the manual for SIRe.

## Replacing the electrical coil (E)

1. Mark and disconnect the cables to the electric coil.
2. Remove the mounting screws securing the electric coil in the unit and lift the electric coil out.
3. Replace faulty electrical coil.
4. Install the new electric coil in reverse order to the above.

## Replacing the water coil (W)

1. Shut off the water supply to the unit.
2. Disconnect the connections to the water coil.
3. Remove the mounting screws securing the coil in the unit and lift the coil out.
4. Install the new coil in reverse order to the above.

## Draining the water coil (W)

The drain valves is on the underside of the coil on the connector side. It can be accessed via the front hatch.

## Trouble shooting

*If the fans are not working or do not blow properly, check the following:*

- That the intake grille/filter is not dirty.
- Functions and settings of the SIRe control system , see manual for SIRe.

*If there is no heat, check the following:*

- Functions and settings of the SIRe control system, see manual for SIRe.

*For units with electrical heating, check also the following:*

- Power supply to electric heater coil; check fuses and circuit-breaker (if any).
- That the overheat protection for the motors has not been deployed.

*For units with water coil, check also the following:*

- That the water coil is air free.
- That there is enough water flow.
- That incoming water is heated enough.

If the fault cannot be rectified, please contact a qualified service technician.

## Residual current circuit breaker (E)

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 can be hot!*
- *The unit must not be fully or partially covered with clothing, or similar materials, as overheating can result in a fire risk! (E)*
- *This appliance is not intended for use by persons (including children) with reduced physical, sensory 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.*

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Art.no 208874, 20130411, HH/ LE