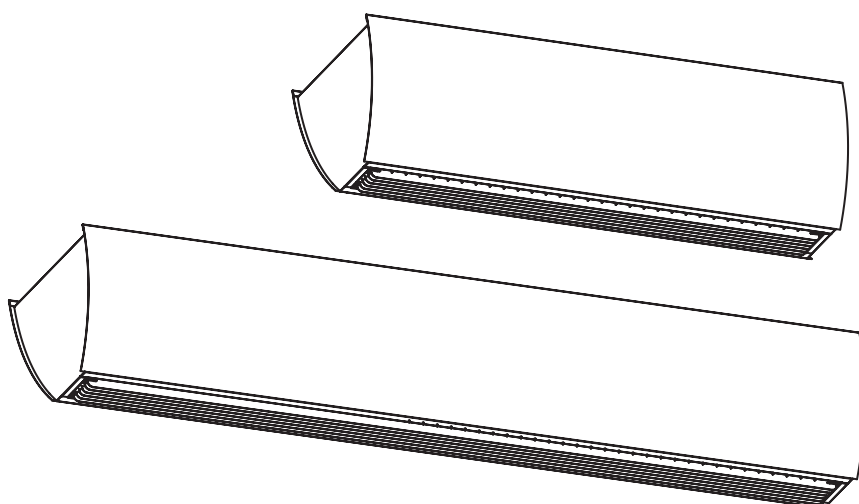


## Portier



SE ... 10

GB ... 13

FR ... 16

RU ... 19

# Portier

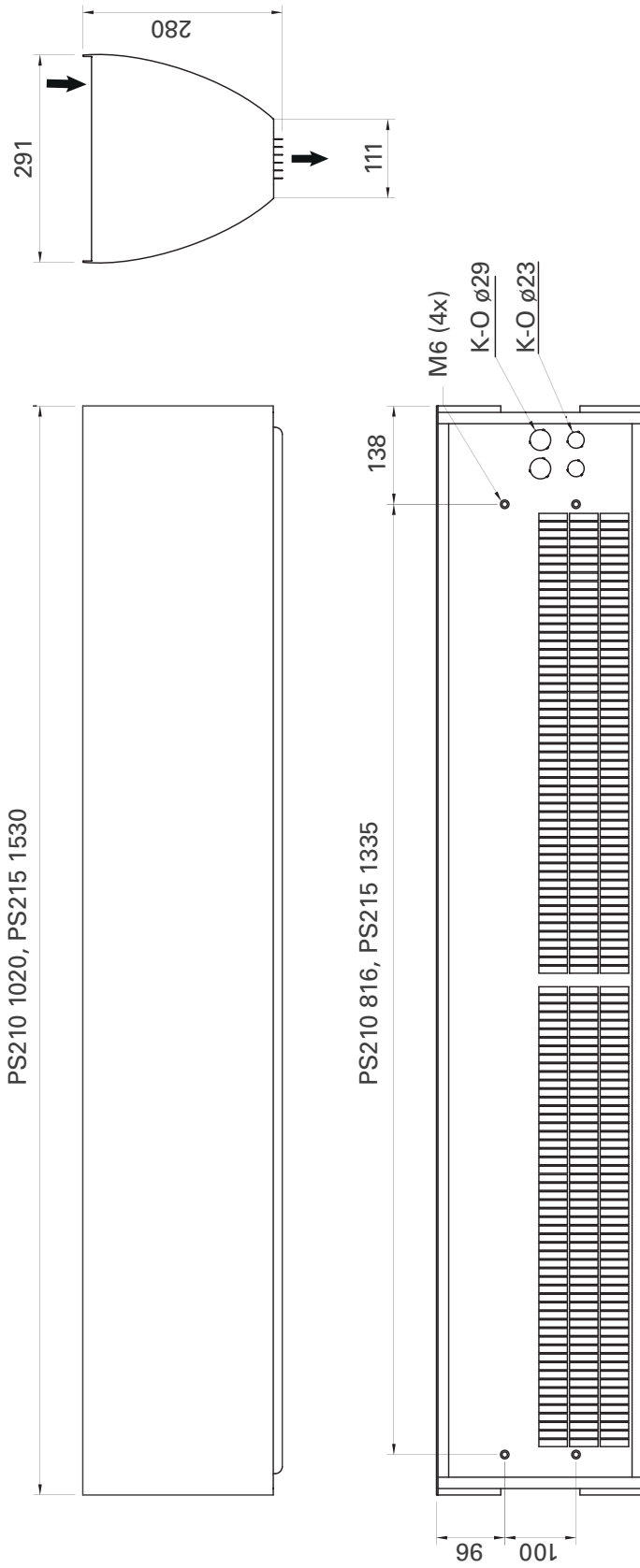


Fig. A

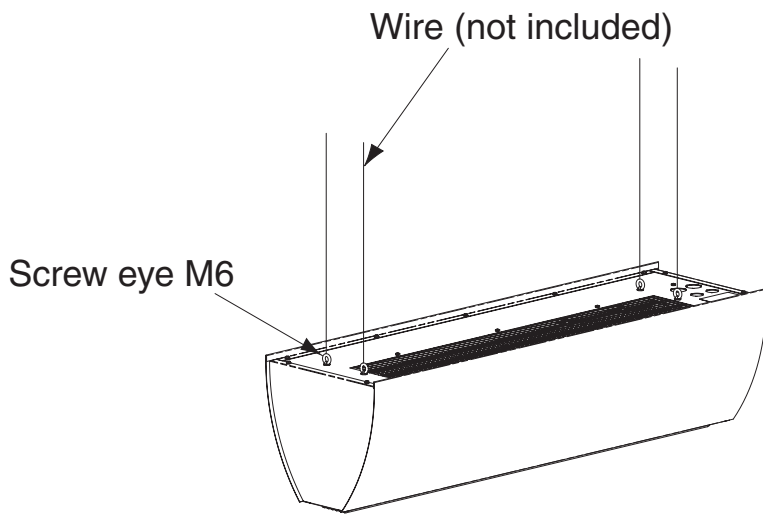


Fig. B

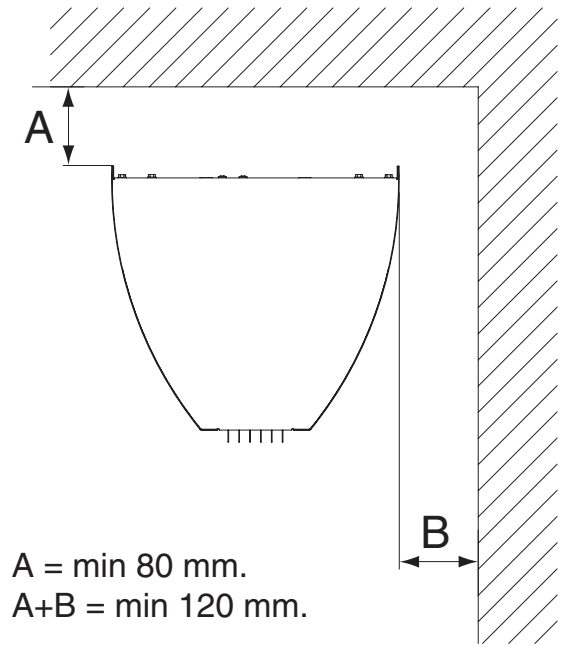


Fig. C

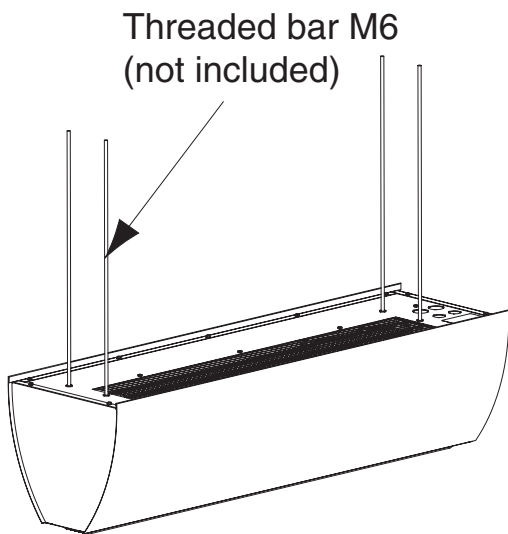


Fig. D

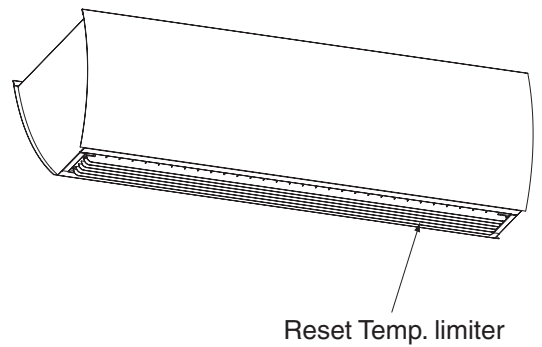
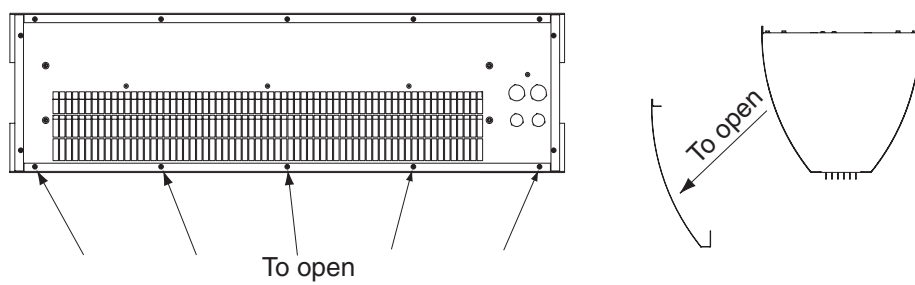
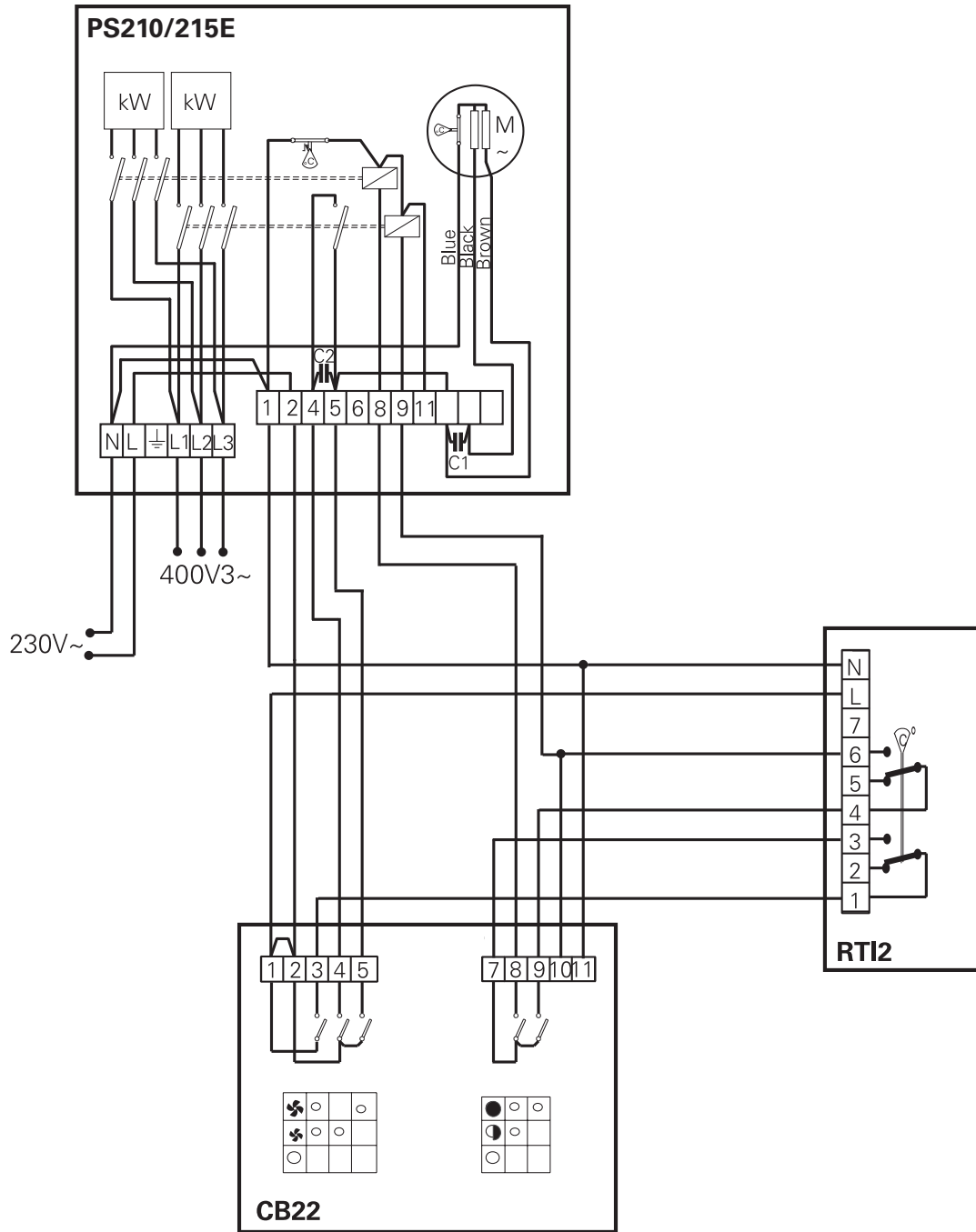


Fig. E



# Portier

Fig. F



# Portier

Fig. G

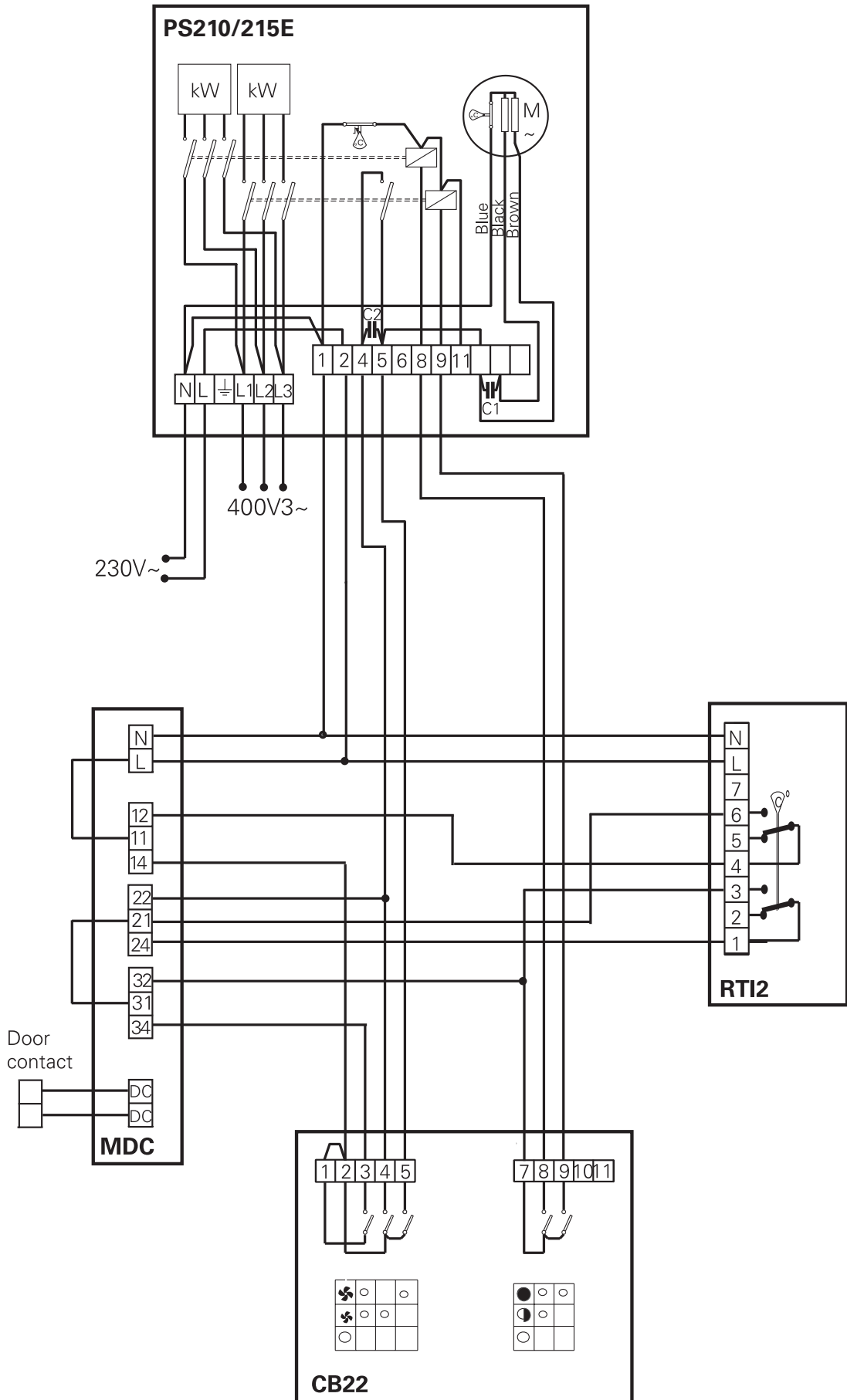
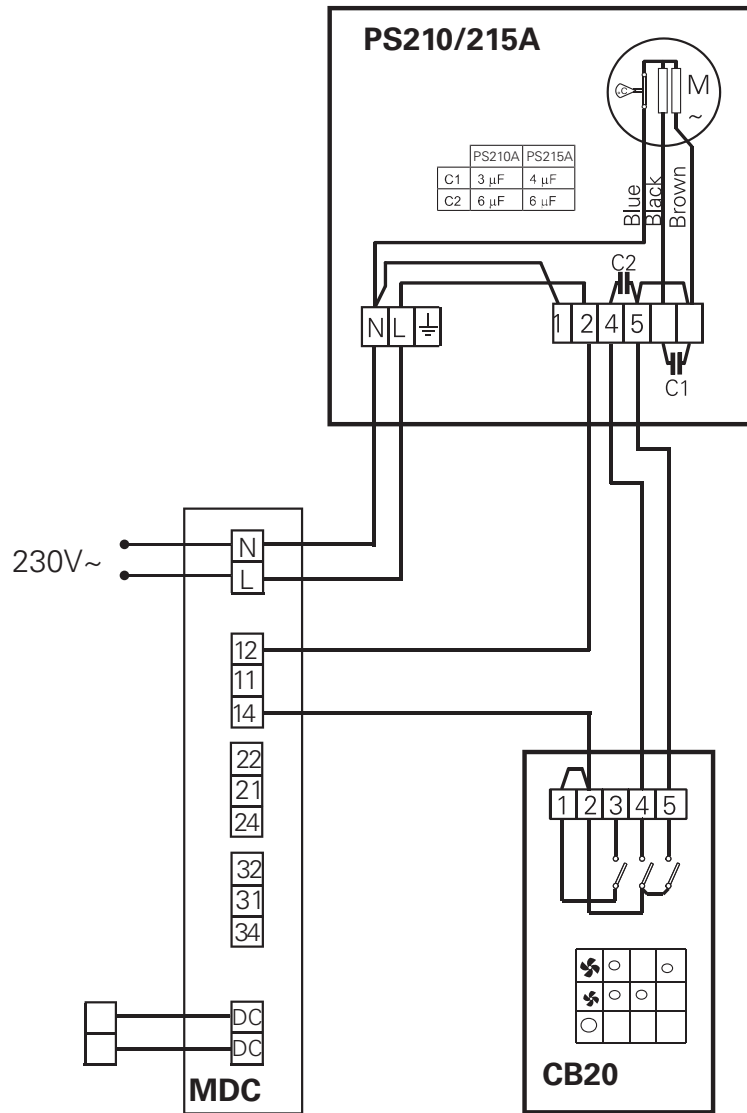


Fig. H



# Portier

Fig. I

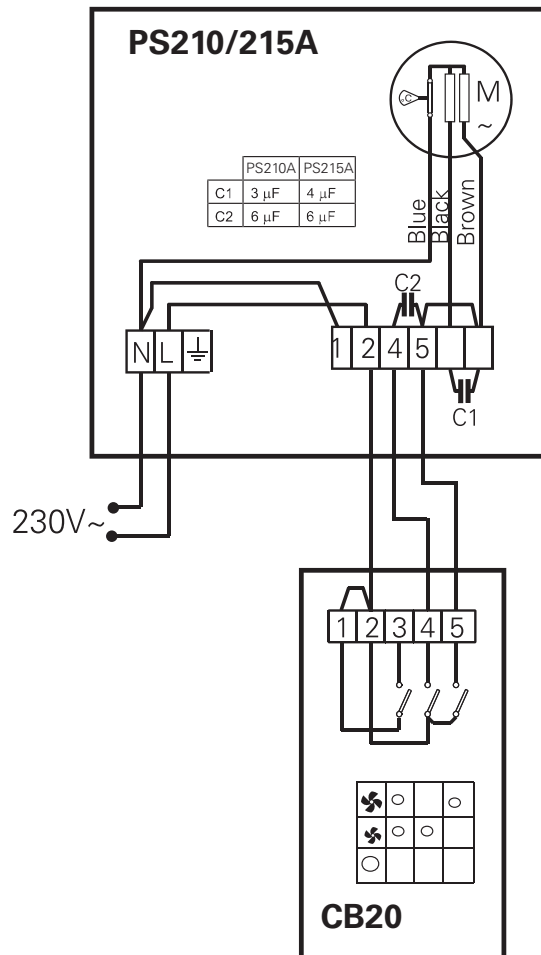
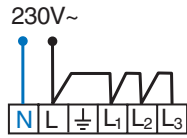
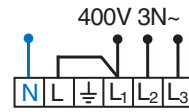


Fig. J



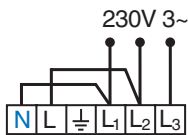
PS210E03 230V~ 2.5 mm<sup>2</sup>

Fig. K



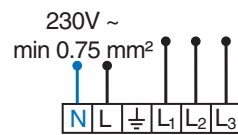
PS210E03 400V 3N~ 1.5 mm<sup>2</sup>  
 PS210E06 400V 3N~ 1.5 mm<sup>2</sup>

Fig. L



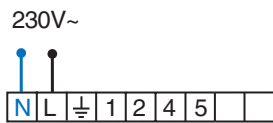
PS210E6 230V 3~ 2.5 mm<sup>2</sup>

Fig. M



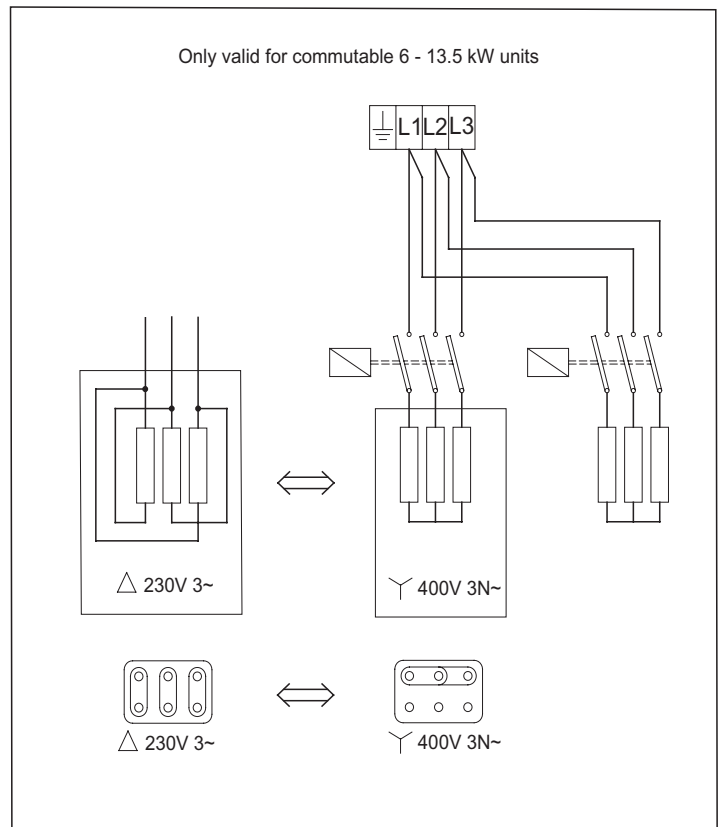
PS210E09 400V 3N~ 2.5 mm<sup>2</sup>  
 PS210E09 230V 3~ 6 mm<sup>2</sup>  
 PS215E09 400V 3N~ 2.5 mm<sup>2</sup>  
 PS215E09 230V 3~ 6 mm<sup>2</sup>  
 PS215E14 400V 3N~ 6 mm<sup>2</sup>  
 PS215E14 230V 3~ 10 mm<sup>2</sup>

Fig. N



PS210A 230V~ 0.75 mm<sup>2</sup>  
 PS215A 230V~ 0.75 mm<sup>2</sup>

Fig. O





**Technical specifications** | Ambient, no heat - Portier A ✨

Type	Output [kW]	Airflow [m <sup>3</sup> /h]	Sound power* <sup>1</sup> [dB(A)]	Sound pressure* <sup>2</sup> [dB(A)]	Voltage [V]	Amperage [A]	Length [mm]	Weight [kg]
PS210A	0	1000/1300	70	44/54	230V~	0,45	1020	14
PS215A	0	1300/2000	72	46/56	230V~	0,55	1530	20

**Technical specifications** | Electrical heat - Portier E ⚡

Type	Output steps [kW]	Airflow [m <sup>3</sup> /h]	Δt* <sup>3</sup> [°C]	Sound power* <sup>1</sup> [dB(A)]	Sound pressure* <sup>2</sup> [dB(A)]	Voltage [V]	Amp. [A]	Length [mm]	Weight [kg]
PS210E03	1,5/3	950/1200	10/8	66	44/50	230V~/400V3N~* <sup>4</sup>	13,4/4,8	1020	17
PS210E06	3/6	950/1200	19/15	66	44/50	400V3N~* <sup>4</sup>	9,2	1020	17
PS210E09	4,5/9	950/1200	28/23	66	44/50	400V3N~* <sup>4</sup>	13,5	1020	17
PS215E09	4,5/9	1200/1900	23/14	66	39/50	400V3N~* <sup>4</sup>	13,5	1530	24
PS215E14	6,7/13,5	1200/1900	34/21	66	39/50	400V3~ + 230V~	20,0	1530	24

\*<sup>1</sup>) Sound power ( $L_{WA}$ ) measurements according to ISO 27327-2: 2014, Installation type E.

\*<sup>2</sup>) Sound pressure ( $L_{pA}$ ). Conditions: Distance to the unit 5 metres. Directional factor: 2. Equivalent absorption area: 200 m<sup>2</sup>. At lowest/highest airflow.

\*<sup>3</sup>) Δt = temperature rise of passing air at maximum heat output and highest airflow.

\*<sup>4</sup>) Alternative 400 V3~ + 230 V~ (operating supply) if the current is greater than 16 A. Applies when connecting several units.

Protection class: IP21.

CE compliant.

Accessory	Type
Control panel	CB22
Control panel	CB20
2-step Thermostat	RTI2
Door contact	MDC

## 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

Portier air curtains are intended for stationary/permanent installation above entrances and smaller doors with a height up to 2.5 meter. Protection class: IP21

### Operation

The air is drawn in at the top of the unit and blown out at high velocity across the doorway, providing a protective air shield. The air shield minimises cold draughts and reduces heat loss through open doorways. For best efficiency, the air curtain(s) should cover the whole width of the opening.

### Mounting

The units may only be installed horizontally over a doorway with the air-stream directed downwards. For the protection of wider doorways, several units can be mounted next to each other. For optimal performance it is recommended that a minimum gap of 80 mm is maintained above the air-curtain.

The total distance between PS and the wall, and to the ceiling must be at least 120 mm. See fig. B.

The PS is mounted using the four pcs of threaded M6 holes on top of the unit.

The PS can be suspended using wires/chains connected to the lifting loops included. See fig. A.

It's also possible to use threaded bars (M6) connected directly to the threaded holes on top of the unit. See fig C.

### Electrical installation

The air curtain(s) should only be wired by a competent electrician, and in accordance with the latest edition of IEE wiring regulations.

Different combinations of fan speed and heat output are available. See wiring diagrams fig. F - I.

To open the PS unit, loosen the 5 screws positioned closest to the inlet grille and remove the front by lifting it straight out/downwards. See fig E.

On top of the unit there are knockouts (2xØ23mm, 2xØ29mm) for routing of electrical supply and remote switching cables.

The cable-glands used must guarantee the protection class requirements!

Typ	Output kW	Voltage V	Min. cable area mm <sup>2</sup>
All control		230V~	0.75
PS210E03**	3	230V~ / 400V 3N~	2.5 / 1.5
PS210E06*	6	230V 3~ / 400V 3N~	2.5 / 1.5
PS210E09*	9	230V 3~ / 400V 3N~	6 / 2.5
PS215E09*	9	230V 3~ / 400V 3N~	6 / 2.5
PS215E14*	13.5	230V 3~ / 400V 3N~	10 / 4
PS210A	0	230V~	0.75
PS215A	0	230V~	0.75

\*Commutable units can be used for 3x230V or 3x400V.

\*\*Commutable units can be used for 230V or 3x400V.

To convert the elements for PS210E06-9 and PS215E09-14 see wiring diagram fig. O.

No conversion has to be done for PS210E03. The convert sockets are located behind the left end cap and are easily accessible after taking off the front panel

The power and voltage could be supplied in different connection areas (see wiring diagram fig. J - N). In the distribution board it is to be indicated that "the air curtains can be supplied from more than one connection".

### Adjusting the unit and the airflow

Direction and speed of the airflow should be adjusted according to the load on the door. Outside pressure forces the air stream to bend towards the interior of the room (when the room is heated and the outside is cold). To reduce this effect, the airflow should be directed outwards. The air director/grille is adjustable and should be angled outwards (5°-10°) to achieve the best protection of the door. The more load caused by negative pressure differential, temperature differences and wind, the more should the airflow be directed outwards. The airflow can be adjusted by use of the control box (CB22 or CB20). The efficiency of the air curtain(s) depends on the air temperature and pressure differences across the doorway and any wind forces.

*NOTE! Negative pressure differential in buildings considerably reduces the efficiency of the air curtain, ventilation should therefore be balanced.*

The airflow is set with the airflow selector so that the air velocity is 3-4 m/s 1 m above the floor. NOTE! When PS210E09 or PS215E14 is set on high heat output, the fan speed is automatically set to high. A baffle on each side of the doorway will improve the efficiency of the air curtains.

### Trouble shooting

If the fans stop, check the following:

- a) Power supply; check fuses, safety cut-out and time switch (if any) that starts and stops the unit.
  - b) That the airflow selector is correctly set.
- If the error cannot be fixed, please contact qualified service technician.

If there is no heat, check the following:

- a) Power supply to electric heater; check fuses and safety cut-out (if any).
- b) Thermostat settings and actual temperature.
- c) That the output selector (if any) is set correctly.
- d) That the overheat protection has not been released. If so, please check description below.

### Overheating

Portier is equipped with an overheat protector.

If it is released due to overheating, reset as follows:

- a) Disconnect the electric supply.
- b) Investigate the problem and repair the fault.
- c) Reset is performed as follows: Locate the red button which is located inside the air curtain at the inner gable to which the fan and the motor are attached. It can be seen through the outlet grille see fig. D. Press the button with a screw driver until a click is heard.
- d) Connect the air curtain again.

If the error cannot be fixed, please contact qualified service technician.

### Maintenance

NOTE! Always disconnect the electricity prior to cleaning or inspection (units with electric heat can be supplied from more than one connection). The fan motors and the other components require no maintenance other than cleaning, once a year is recommended. Grille, impeller and elements are vacuum cleaned or cleaned with a damp cloth. Open the front panel to reach elements and impellers.

### **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.

### **Packaging**

Packaging materials are chosen with consideration to the environment and are therefore recyclable.

### **Handling of product at end of working life**

This product may contain substances necessary for the functionality of the product but potentially dangerous for the environment. The product should not be disposed of mixed with general household waste but delivered to a designated collection point for environmental recycling. Please contact the local authority for further details of your nearest designated collection point.

### **Safety**

- *For all installations of electrically heated products a residual current circuit breaker 300 mA for fire protection should be used.*
- *Keep the areas around the air intake and exhaust grilles free from possible obstructions!*
- *The unit must not be fully or partially covered as overheating can result in a fire risk!*
- *Lifting equipment must be used to lift the unit.*
- *This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.*
- *Children of less than 3 years should be kept away unless continuously supervised.*
- *Children aged from 3 years and less than 8 years shall only switch on/off the appliance provided that it has been placed or installed in its intended normal operating position and they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.*
- *Children aged from 3 years and less than 8 years shall not plug in, regulate and clean the appliance or perform user maintenance.*

**CAUTION** — Some parts of this product can become very hot and cause burns. Particular attention has to be given where children and vulnerable people are present.



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about your local contact: [www.frico.se](http://www.frico.se)**