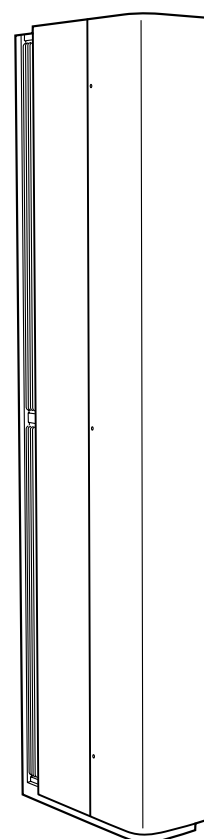
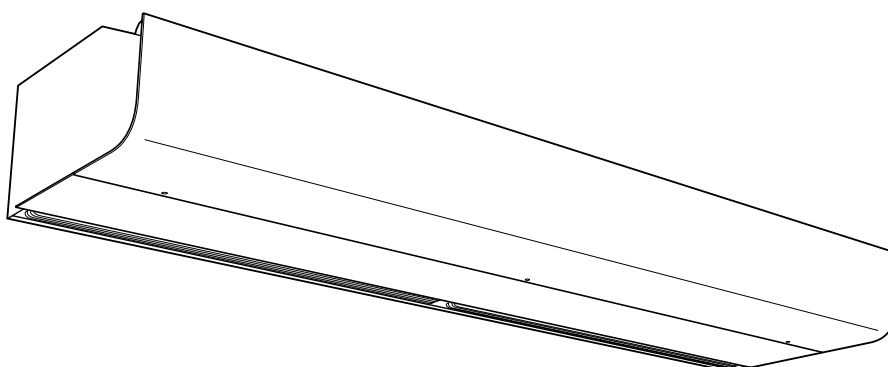


Original instructions
PAEC4000



EN ... 21

FR ... 26



Frico AB certifies that PAEC4000W, PAEC4000E and PAEC4000A shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only.

Metric chart

☼ Ambient, no heat - PAEC4000A (IP21)

Type	Output [kW]	Airflow* ¹ [m ³ /h]	Sound power* ² [dB(A)]	Motor power [W]	Voltage motor [V]	Amperage motor [A]	Weight [kg]
PAEC4010A-NA	0	2330	80	500	208V1~	3.0	46
PAEC4015A-NA	0	3270	81	673	208V1~	4.5	59
PAEC4020A-NA	0	4650	82	1000	208V1~	6.0	79

⚡ Electrical heat - PAEC4000E (IP20)

Type	Output steps [kW]	Airflow* ¹ [m ³ /h]	Sound power* ² [dB(A)]	FLA (full load amperage)* ³ [A]	Motor power [W]	Amperage motor [A]	Voltage [V] Amperage [A] (heat)	Weight [kg]
PAEC4010E-208-NA	4/10	2330	80	31	500	3.0	208V3~/27	53
PAEC4015E-208-NA	5/15	3270	81	45	673	4.5	208V3~/40	74
PAEC4020E-208-NA	7/20	4650	82	60	1000	6.0	208V3~/54	98
PAEC4010E-480-NA	4/12	2330	80	18	500	3.0	480V3~/15	59
PAEC4015E-480-NA	6/18	3270	81	27	673	4.5	480V3~/22	79
PAEC4020E-480-NA	8/24	4650	82	35	1000	6.0	480V3~/29	105
PAEC4010E-600-NA	4/12	2330	80	15	500	3.0	600V3~/12	59
PAEC4015E-600-NA	6/18	3270	81	23	673	4.5	600V3~/18	79
PAEC4020E-600-NA	8/24	4650	82	30	1000	6.0	600V3~/24	105

💧 Water heat - PAEC4000W (IP21)

Type	Output* ⁴ [kW]	Airflow* ¹ [m ³ /h]	Sound power* ² [dB(A)]	Motor power [W]	Voltage motor [V]	Amperage motor [A]	Water volume [l]	Weight [kg]
PAEC4010W-NA	14	2130	79	501	208V1~	3.0	1.9	53
PAEC4015W-NA	21	3100	79	666	208V1~	4.0	3.0	70
PAEC4020W-NA	30	4250	81	1002	208V1~	6.0	4.1	94

*¹) Highest airflow of totally 3 fan steps.

*²) Values shown are for total sound power levels for Installation Type A: free inlet, free outlet. The Sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA Standard 301.

*³) FLA: total amperage for motor and heat.

*⁴) Applicable at water temperature 80/60 °C, air temperature, in +18 °C.

Above table is valid for 208V/1ph/60Hz. Also approved for 230V/1ph/60Hz. Product performance for 230V/1ph/60Hz will differ from stated data.

Protection class for units with electrical heating: IP20.

Protection class for units without heating and units with water heating: IP21.

CE compliant.

Type	Nozzle deep x width [mm]	Max Velocity at nozzle [m/s]	Outlet Velocity [m/s]	Outlet Velocity Uniformity [%]
PAEC4010A/E-208/E-480/E-600	960x70	15.92	13.9	89
PAEC4015A/E-208/E-480/E-600	1470x70	15.51	13.54	87
PAEC4020A/E-208/E-480/E-600	1960x70	15.92	13.9	89
PAEC4010W-NA	960x70	12.86	11.5	85
PAEC4015W-NA	1470x70	15.21	12.71	87
PAEC4020W-NA	1960x70	12.86	11.5	85



Frico AB certifies that PAEC4000W, PAEC4000E and PAEC4000A shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only.

Imperial chart

☼ Ambient, no heat - PAEC4000A (IP21)

Type	Output [MBH]	Airflow*1 [cfm]	Sound power*2 [dB(A)]	Motor power [W]	Voltage motor [V]	Amperage motor [A]	Weight [lb]
PAEC4010A-NA	0	1400	80	500	208V1~	3.0	101
PAEC4015A-NA	0	1950	81	673	208V1~	4.5	130
PAEC4020A-NA	0	2800	82	1000	208V1~	6.0	174

⚡ Electrical heat - PAEC4000E (IP20)

Type	Output steps [MBH]	Airflow*1 [cfm]	Sound power*2 [dB(A)]	FLA (full load amperage)*3 [A]	Motor power [W]	Amperage motor [A]	Voltage [V] Amperage [A] (heat)	Weight [lb]
PAEC4010E-208-NA	14/34	1400	80	31	500	3.0	208V3~/27	117
PAEC4015E-208-NA	17/51	1950	81	45	673	4.5	208V3~/40	163
PAEC4020E-208-NA	24/68	2800	82	60	1000	6.0	208V3~/54	216
PAEC4010E-480-NA	14/41	1400	80	18	500	3.0	480V3~/15	130
PAEC4015E-480-NA	20/61	1950	81	27	673	4.5	480V3~/22	174
PAEC4020E-480-NA	27/82	2800	82	35	1000	6.0	480V3~/29	231
PAEC4010E-600-NA	14/41	1400	80	15	500	3.0	600V3~/12	130
PAEC4015E-600-NA	20/61	1950	81	23	673	4.5	600V3~/18	174
PAEC4020E-600-NA	27/82	2800	82	30	1000	6.0	600V3~/24	231

💧 Water heat - PAEC4000W (IP21)

Type	Output*4 [MBH]	Airflow*1 [cfm]	Sound power*2 [dB(A)]	Motor power [W]	Voltage motor [V]	Amperage motor [A]	Water volume [US gal]	Weight [lb]
PAEC4010W-NA	48	1300	79	501	208V1~	3.0	0.49	117
PAEC4015W-NA	72	1900	79	666	208V1~	4.0	0.78	154
PAEC4020W-NA	102	2600	81	1002	208V1~	6.0	1.09	207

*1) Highest airflow of totally 3 fan steps.

*2) Values shown are for total sound power levels for Installation Type A: free inlet, free outlet. The Sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA Standard 301.

*3) FLA: total amperage for motor and heat.

*4) Applicable at water temperature 176/140F, air temperature, in +64F.

Above table is valid for 208V/1ph/60Hz. Also approved for 230V/1ph/60Hz. Product performance for 230V/1ph/60Hz will differ from stated data.

Protection class for units with electrical heating: IP20.

Protection class for units without heating and units with water heating: IP21.

CE compliant.

Type	Nozzle deep x width [in]	Max Velocity at nozzle [fpm]	Outlet Velocity [fpm]	Outlet Velocity Uniformity [%]
PAEC4010A/E-208/E-480/E-600	37.8x2.8	3133	2736	89
PAEC4015A/E-208/E-480/E-600	57.9x2.8	3053	2665	87
PAEC4020A/E-208/E-480/E-600	77.2x2.8	3133	2736	89
PAEC4010W-NA	37.8x2.8	2531	2263	85
PAEC4015W-NA	57.9x2.8	2994	2501	87
PAEC4020W-NA	77.2x2.8	2531	2263	85



Frico AB certifies that PAEC4000W, PAEC4000E and PAEC4000A shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only.

Output charts water PAEC4000

Metric chart

			Supply water temperature: 80 °C Room temperature: +18 °C Outlet air temperature: +35 °C*1				Water temperature: 80/60 °C Room temperature: +18 °C			
Type	Fan position	Airflow [m³/h]	Output [kW]	Return water temp. [°C]	Water flow [l/s]	Pressure drop [kPa]	Output*2 [kW]	Outlet air temp. [°C]	Water flow [l/s]	Pressure drop [kPa]
PAEC4010W-NA	max	2130	14.9	31	0.07	2.7	28.4	50	0.35	40.5
PAEC4015W-NA	max	3100	19.3	29	0.09	1.6	40.2	53	0.49	30.6
PAEC4020W-NA	max	4250	28.3	30	0.14	1.6	56.6	53	0.69	26.9

			Supply water temperature: 60 °C Room temperature: +18 °C Outlet air temperature: +35 °C*1				Water temperature: 60/40 °C Room temperature: +18 °C			
Type	Fan position	Airflow [m³/h]	Output [kW]	Return water temp. [°C]	Water flow [l/s]	Pressure drop [kPa]	Output*2 [kW]	Outlet air temp. [°C]	Water flow [l/s]	Pressure drop [kPa]
PAEC4010W-NA	max	2130	15.4	37	0.17	11.5	16.5	37	0.20	16.2
PAEC4015W-NA	max	3100	20.1	35	0.19	6.2	23.4	38	0.28	12.2
PAEC4020W-NA	max	4250	28.3	35	0.27	5.5	32.9	38	0.40	10.7

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

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

Imperial chart

			Supply water temperature: 176 °F Room temperature: +64 °F Outlet air temperature: +95 °F*1				Water temperature: 176/140 °F Room temperature: +64 °F			
Type	Fan position	Airflow [cfm]	Output [MBH]	Return water temp. [°F]	Water flow [US gal/h]	Pressure drop [kPa]	Output*2 [MBH]	Outlet air temp. [°F]	Water flow [US gal/h]	Pressure drop [kPa]
PAEC4010W-NA	max	1300	50.9	88	69.4	2.7	96.9	122	330.0	40.5
PAEC4015W-NA	max	1900	65.9	84	86.6	1.6	137.2	127	466.1	30.6
PAEC4020W-NA	max	2600	96.6	86	130.3	1.6	193.2	127	657.2	26.9

			Supply water temperature: 140 °F Room temperature: +64 °F Outlet air temperature: +95 °F*1				Water temperature: 140/104 °F Room temperature: +64 °F			
Type	Fan position	Airflow [cfm]	Output [MBH]	Return water temp. [°F]	Water flow [US gal/h]	Pressure drop [kPa]	Output*2 [MBH]	Outlet air temp. [°F]	Water flow [US gal/h]	Pressure drop [kPa]
PAEC4010W-NA	max	1300	52.6	99	156.9	11.5	56.3	99	190.2	16.2
PAEC4015W-NA	max	1900	68.6	95	183.6	6.2	79.9	100	269.2	12.2
PAEC4020W-NA	max	2600	96.6	95	257.8	5.5	112.3	100	379.5	10.7

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

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



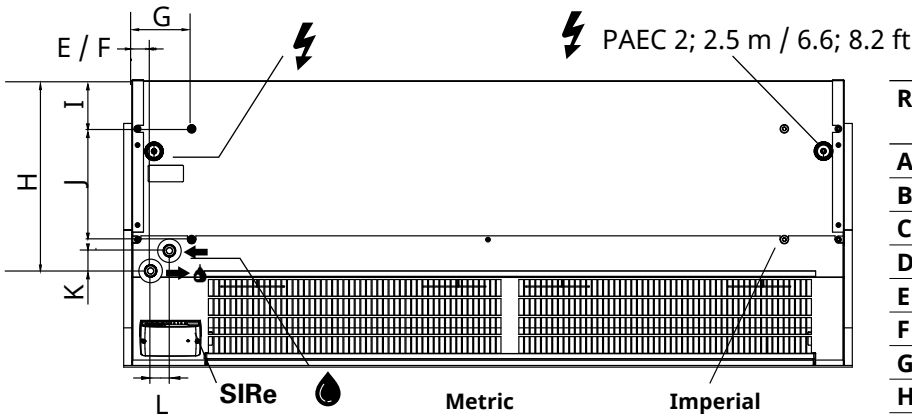
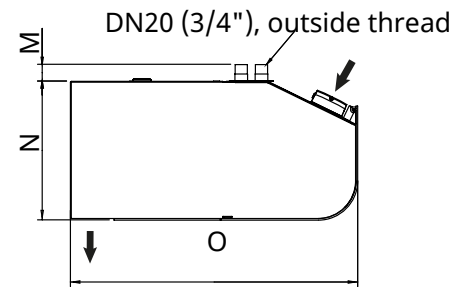
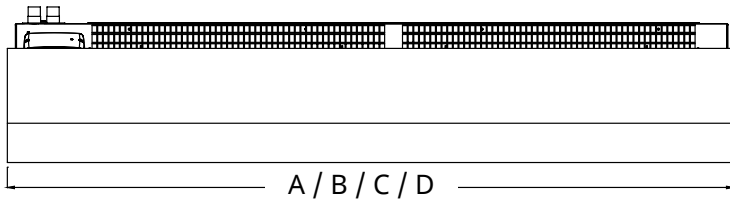
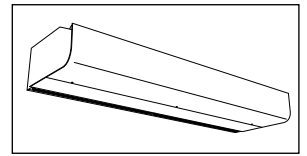
The introduction pages consist mainly of pictures. For translation of the English texts used, see the respective language pages.



Les pages de présentation contiennent principalement des images. Pour la traduction des textes en anglais, consultez la page correspondante à la langue souhaitée.

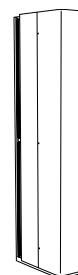
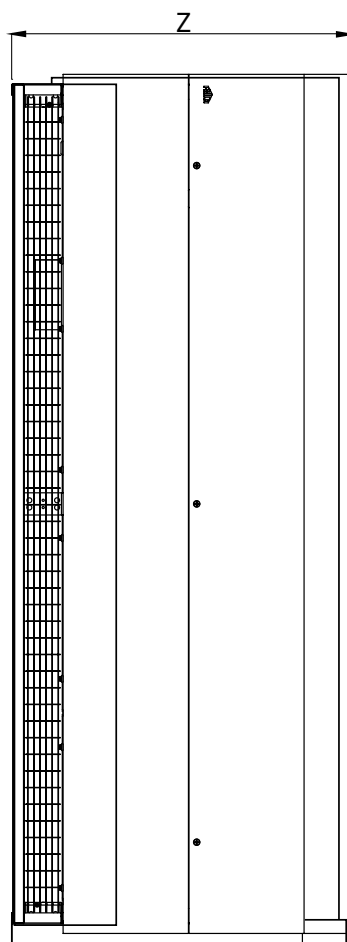
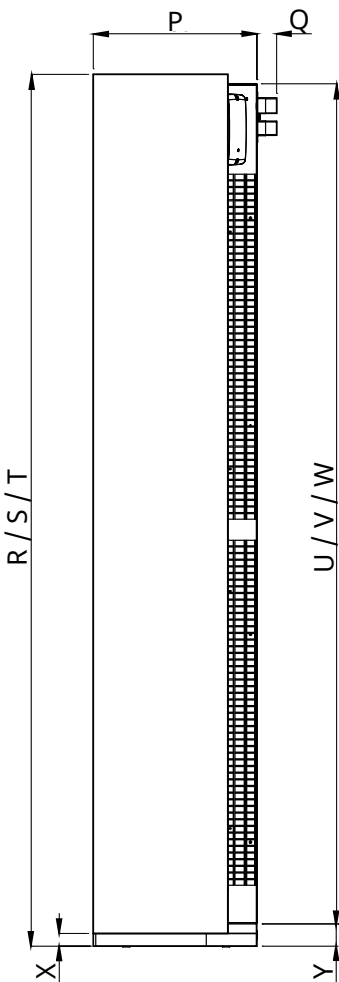
PAEC4000

PAEC4000



	Metric	Imperial
1 m:	4 x M8	3.3 ft: 4 x M8
1.5 m:	4 x M8	4.9 ft: 4 x M8
2 m:	6 x M8	6.6 ft: 6 x M8
2.5 m:	6-8 x M8	8.2 ft: 6-8 x M8

Ref	Metric [mm]	Imperial [in]	Product type
A	1039	41.56	PAEC4010x
B	1549	61.96	PAEC4015x
C	2039	81.56	PAEC4020x
D	2549	101.96	PAEC4025x
E	40	1.60	PAEC4010/15/20x
F	39	1.56	PAEC4025x
G	127	5.08	
H	404	16.16	
I	102	4.08	
J	235	9.40	
K	43	1.72	
L	40	1.60	
M	36	1.44	
N	295	11.80	
O	611	24.44	
P	295	11.80	
Q	36	1.44	
R	1572	62.88	PAEC4015x
S	2062	82.48	PAEC4020x
T	2572	102.88	PAEC4025x
U	1515	60.60	PAEC4015x
V	2004	80.16	PAEC4020x
W	2515	100.60	PAEC4025x
X	23	0.92	
Y	40	1.60	
Z	611	24.44	



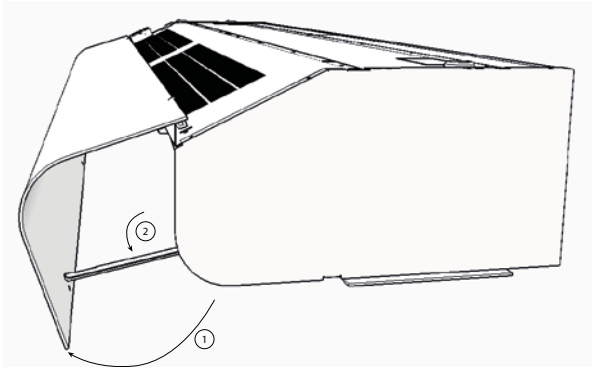


Fig. 1A: Open the unit by raising the front panel. The front is blocked in open position with the front hatch hook.

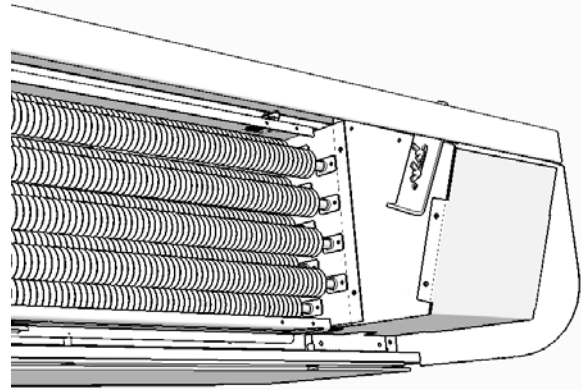


Fig. 1B: When the front has been removed it is important to be sure it is firmly seated in the front locks again.

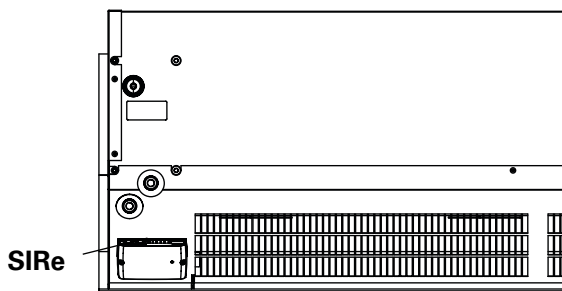


Fig. 2: Control card SIRe is integrated in the air curtain at delivery.

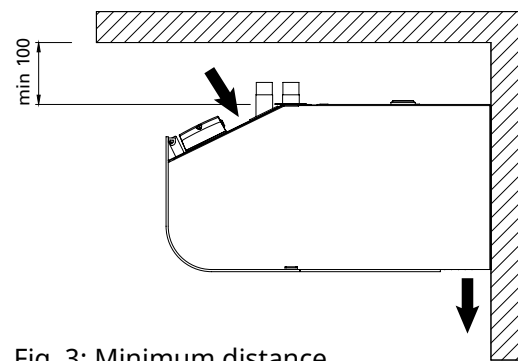


Fig. 3: Minimum distance.

Filling the water coil

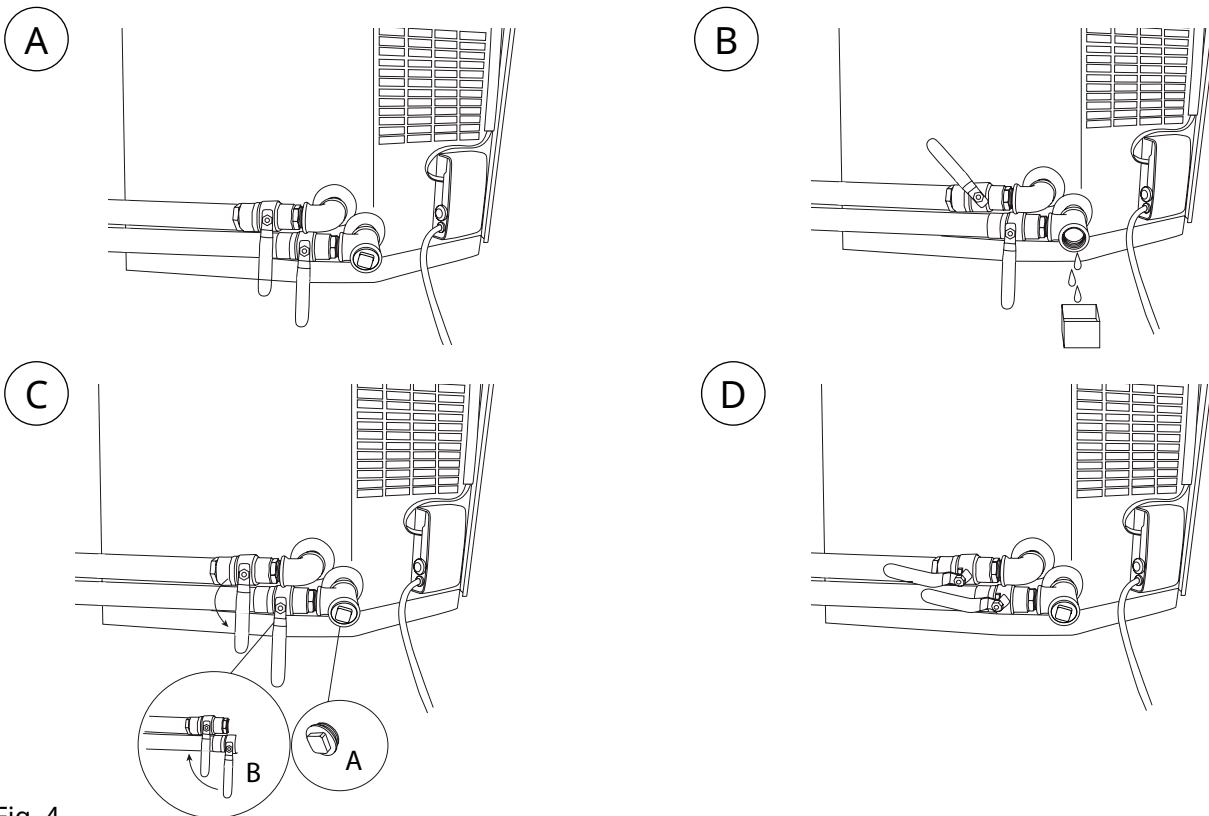
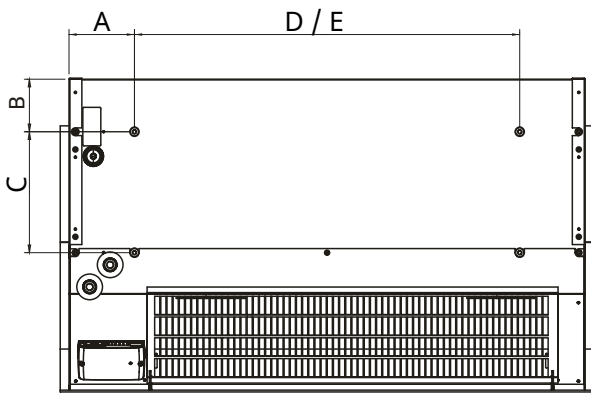


Fig. 4

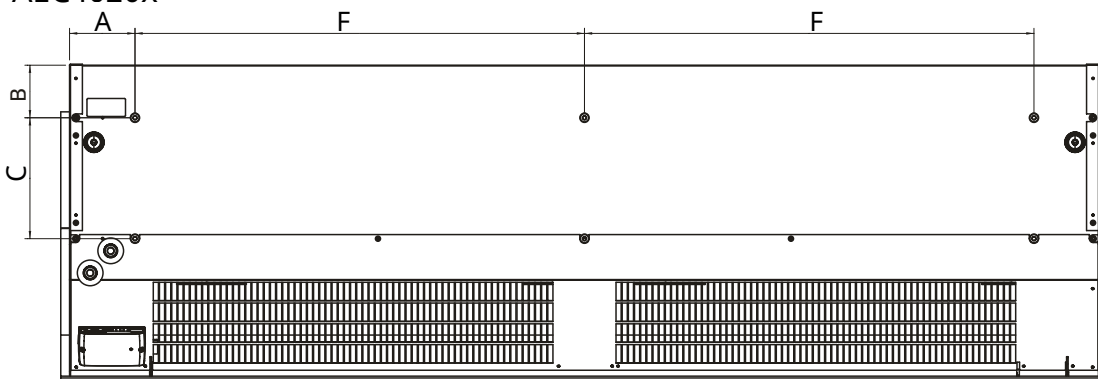
PAEC4000

PAEC4010x/PAEC4015x



Ref	Metric [mm]	Imperial [in]	Product type
A	127	5.08	PAEC4010/15/20/25x
B	102	4.08	PAEC4010/15/20/25x
C	235	9.40	PAEC4010/15/20/25x
D	750	30.00	PAEC4010x
E	1260	50.40	PAEC4015x
F	875	35.00	PAEC4020x
G	745	29.80	PAEC4025x
H	770	30.80	PAEC4025x

PAEC4020x



PAEC4025x

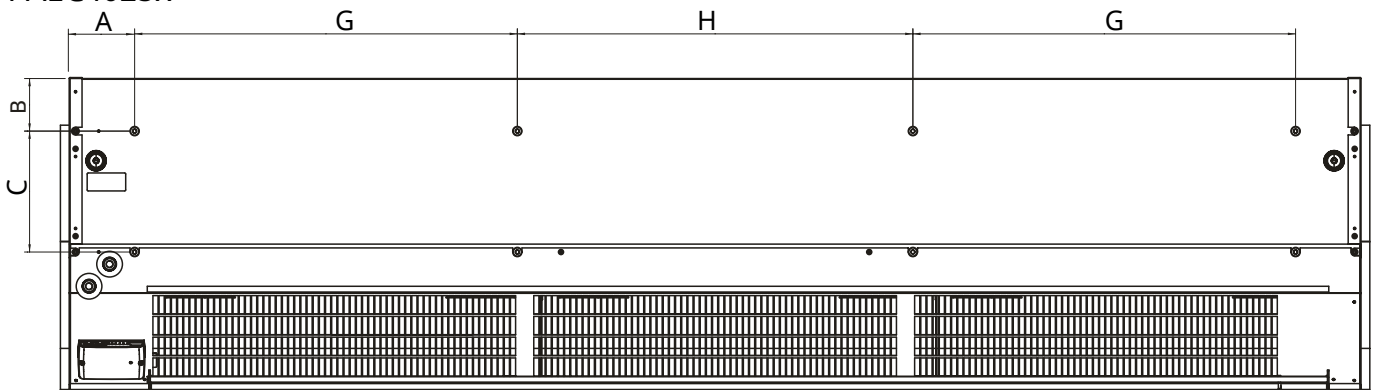
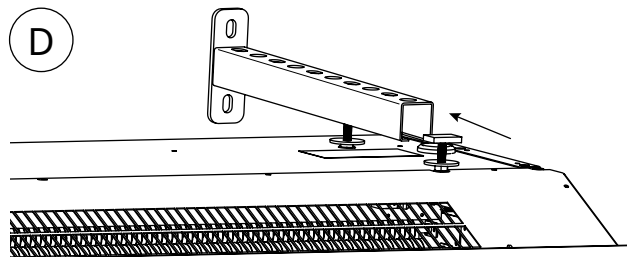
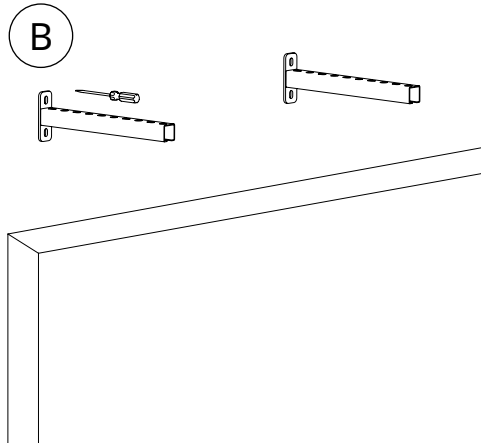
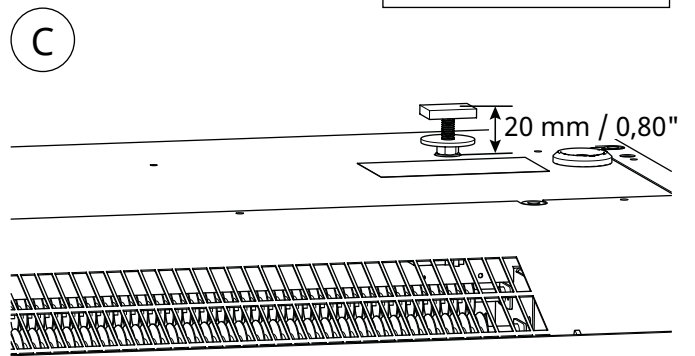
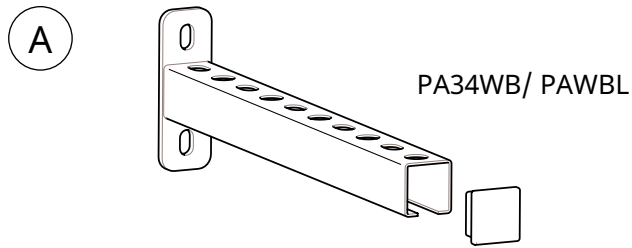
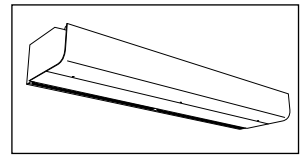


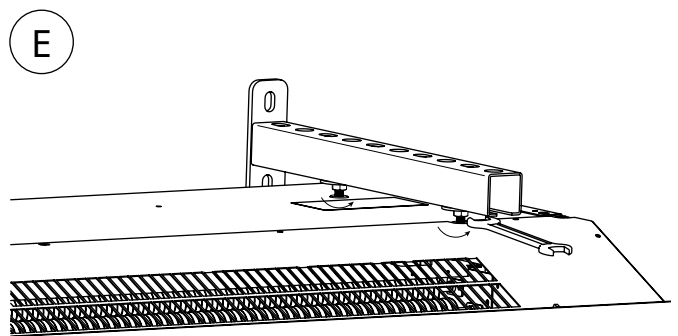
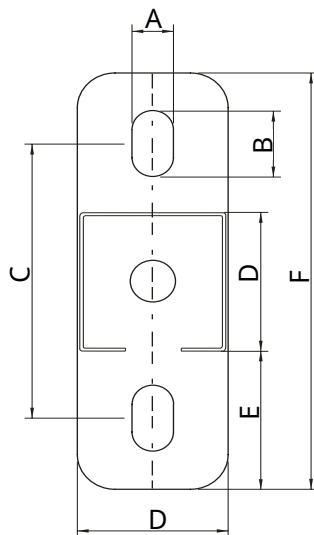
Fig. 5: M8-holes for mounting.

PAEC4000 + PA34WB/PAWBL



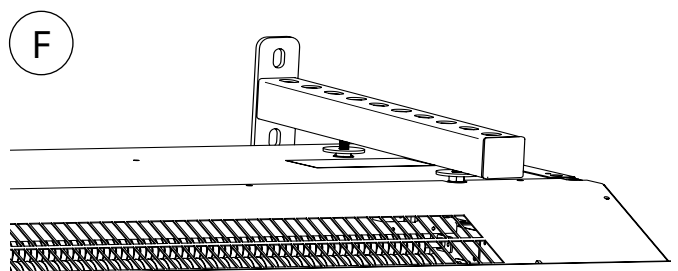
PA34WB

Ref	Metric [mm]	Imperial [in]
A	11	0.43
B	19	0.75
C	80	3.15
D	40	1.58
E	40	1.58
F	120	4.72



PAWBL

Ref	Metric [mm]	Imperial [in]
A	11	0.43
B	19	0.75
C	120	4.72
D	60	2.36
E	52.5	2.07
F	165	6.50



Type	Product type	Quantity included	Length Metric [mm]	Length Imperial [in]	Fig.
PA34WB15	PAEC4015x	2 pcs	400	15.75	Fig. 6
PA34WB20	PAEC4020x	3 pcs	400	15.75	Fig. 6
PA34WB30	PAEC4025x	4 pcs	400	15.75	Fig. 6
PAWBL15	PAEC4015x	2 pcs	560	22.05	Fig. 6
PAWBL20	PAEC4020x	3 pcs	560	22.05	Fig. 6
PAWBL30	PAEC4025x	4 pcs	560	22.05	Fig. 6

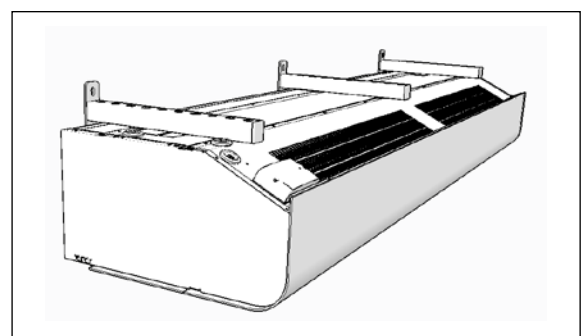


Fig. 6: See separate manual for PA34WB/PAWBL.

PAEC4000

Accessories

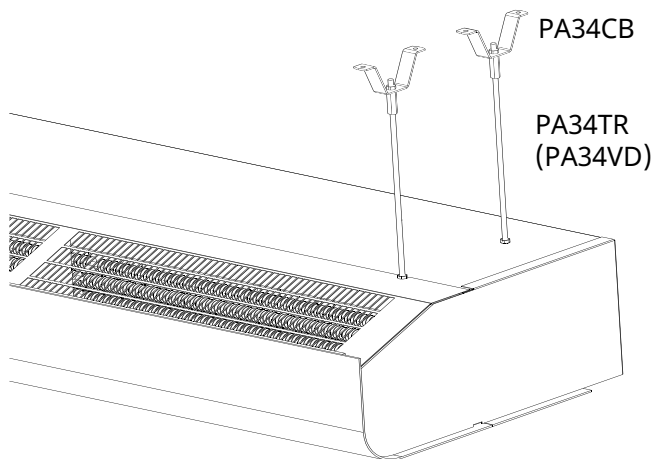


Fig. 7: PA34TR + PA34CB + PA34VD.
See separate manual for PA34TR.

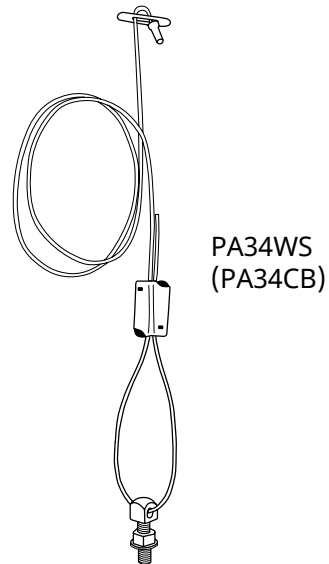
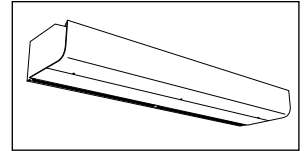


Fig.8: PA34WS + PA34CB
See separate manual for PA34WS.



Type	Product type	Quantity included	Length Metric	Length Imperial
PA34CB15	PAEC4010/15x	4 pcs		
PA34CB20	PAEC4020x	6 pcs		
PA34CB30	PAEC4025x	8 pcs		
PA34WS15	PAEC4010/15x	4 pcs	3 m	9.8 ft
PA34WS20	PAEC4020x	6 pcs	3 m	9.8 ft
PA34WS30	PAEC4025x	8 pcs	3 m	9.8 ft
PA34TR15	PAEC4010/15x	4 pcs	1 m	3.3 ft
PA34TR20	PAEC4020x	6 pcs	1 m	3.3 ft
PA34TR30	PAEC4025x	8 pcs	1 m	3.3 ft
PA34VD15	PAEC4010/15x	4 pcs		
PA34VD20	PAEC4020x	6 pcs		
PA34VD30	PAEC4025x	8 pcs		

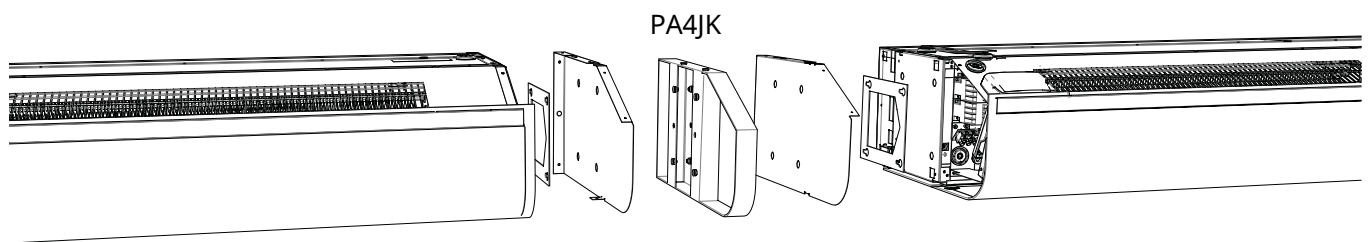


Fig. 9: See separate manual for PA4JK.

Type	Product type
PA4JK	PAEC4000

Accessories

Type	Product type	Length Metric [mm]	Length Imperial [in]
PA4XT10	PAEC4010x	130-200	5.20-8.00
PA4XT15	PAEC4015x	130-200	5.20-8.00
PA4XT20	PAEC4020x	130-200	5.20-8.00
PA4XT25	PAEC4025x	130-200	5.20-8.00

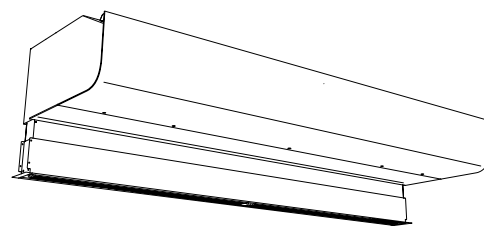
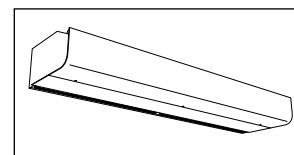
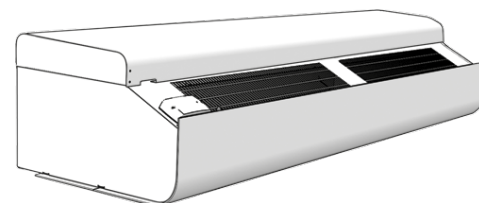


Fig. 10: See separate manual for PA4XT.

Type	Product type	Dimensions Metric [mm]	Dimensions Imperial [in]
PA4DW10	PAEC4010x	87x424x1006	3.48x16.96x40.24
PA4DW15	PAEC4015x	87x424x1516	3.48x16.96x60.64
PA4DW20	PAEC4020x	87x424x2006	3.48x16.96x80.24
PA4DW25	PAEC4025x	87x424x2516	3.48x16.96x100.64

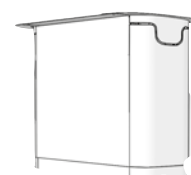


PA4DW

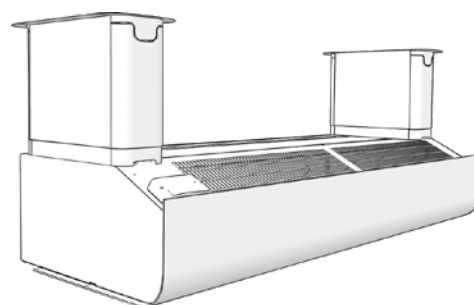


See separate manual for PA4DW.

Type	Product type	Length Metric [mm]	Length Imperial [in]
PA4DCS	PAEC4000	200-300	8.00-12.00
PA4DCM	PAEC4000	300-500	12.00-20.00
PA4DCL	PAEC4000	500-900	20.00-36.00
PA4DXT	PAEC4000	420	16.80



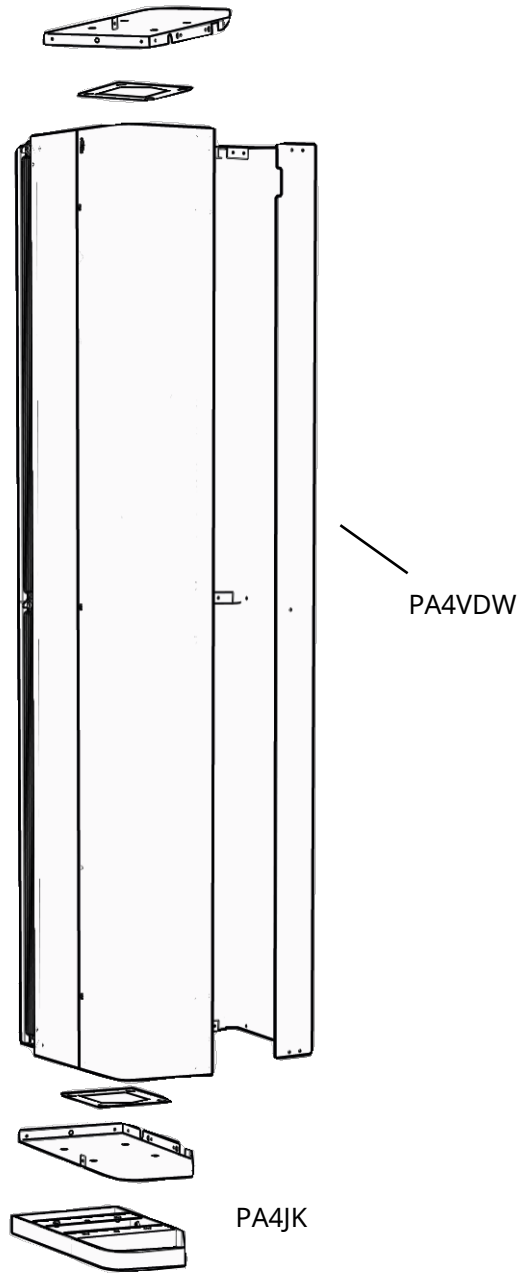
PA4DC



See separate manual for PA4DC.

PAEC4010x: 2 pcs
 PAEC4015x: 2 pcs
 PAEC4020x: 3 pcs
 PAEC4025x: 4 pcs

Accessories



Note! The air curtain must be secured in the wall or ceiling.

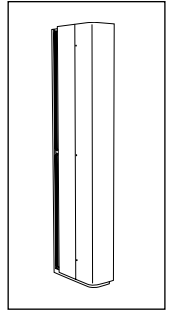
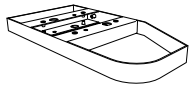


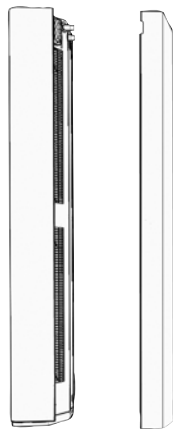
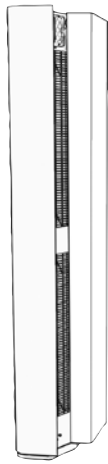
Fig. 11: See separate manual for PA4JK.

PAEC4000

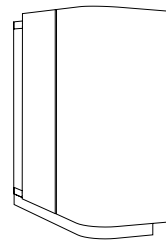
Accessories



PA4JK



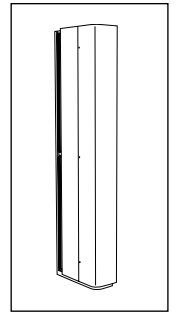
PA4VDW



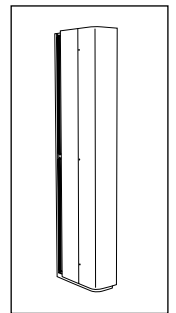
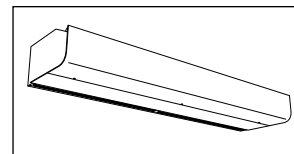
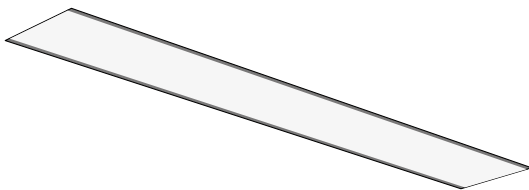
PA4HE(VDW)



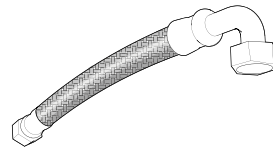
AXP300



Type	Product type
PA4JK	PAEC4000
PA4VDW15	PAEC4015x
PA4VDW20	PAEC4020x
PA4VDW25	PAEC4025x
PA4HE	PAEC4000
PA4HEVDW	PAEC4000
AXP300	PAEC4000



DTV200S

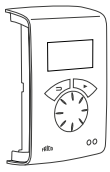


See separate manual for FHDN20.

See separate manual for PA34EF.

Type	Product type	Length Metric	Length Imperial
PA34EF10	PAEC4010W		
PA34EF15	PAEC4025W		
PA34EF20	PAEC4020W		
PA34EF25	PAEC4025W		
DTV200S	PAEC4000W		
FHDN20	PAEC4000W	350 mm	13.8 in
FHDN2010	PAEC4000W	1 m	3.3 ft

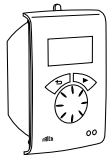
Accessories



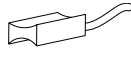
SIREACY
SIREAAY



SIRERTX



SIREUR



SIREWTA



SIRECJ4/SIRECJ6



SIRECC

Type	Dimensions Metric	Length Metric	Dimensions Imperial	Length Imperial
SIREACY				
SIREAAY				
SIRERTX	70x33x23 mm		2.80x1.32x0.92 in	
SIREUR	114x70x50 mm		4.56x2.80x2.00 in	
SIREWTA				
SIRECJ4				
SIRECJ6				
SIRECC603		3 m		9.8 ft
SIRECC605		5 m		16.4 ft
SIRECC610		10 m		32.8 ft
SIRECC615		15 m		49.2 ft
SIRECC640		40 m		131.2 ft
SIRECC403		3 m		9.8 ft
SIRECC405		5 m		16.4 ft
SIRECC410		10 m		32.8 ft
SIRECC415		15 m		49.2 ft



VLSP15NF-NA	DN15 (1/2")
VLSP20NF-NA	DN20 (3/4")
VLP15-NA	DN15 (1/2")
VLP20-NA	DN20 (3/4")

VLSP-NA

VKF

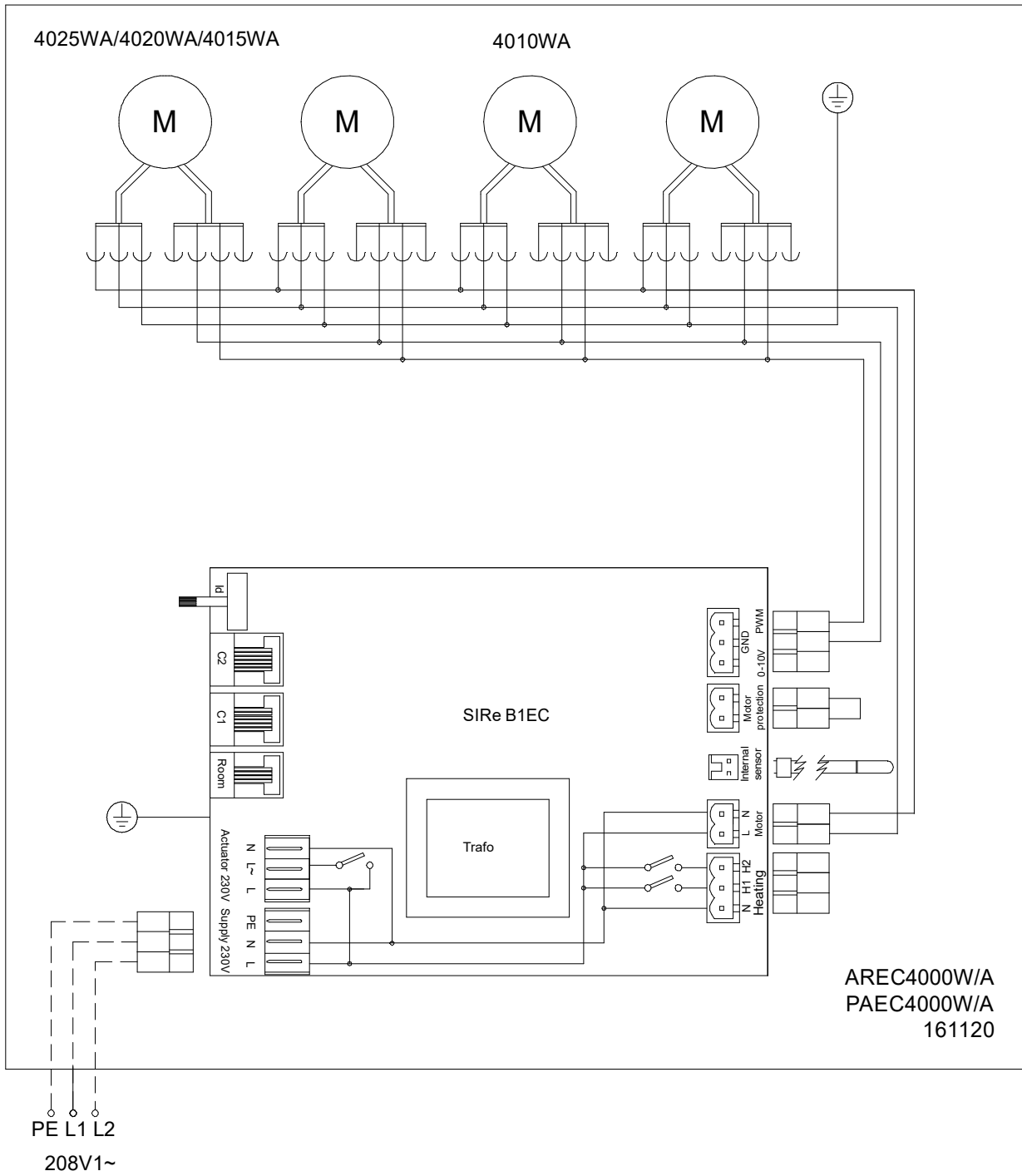
Nipple G-NPT SD230 BPV10

VLP-NA

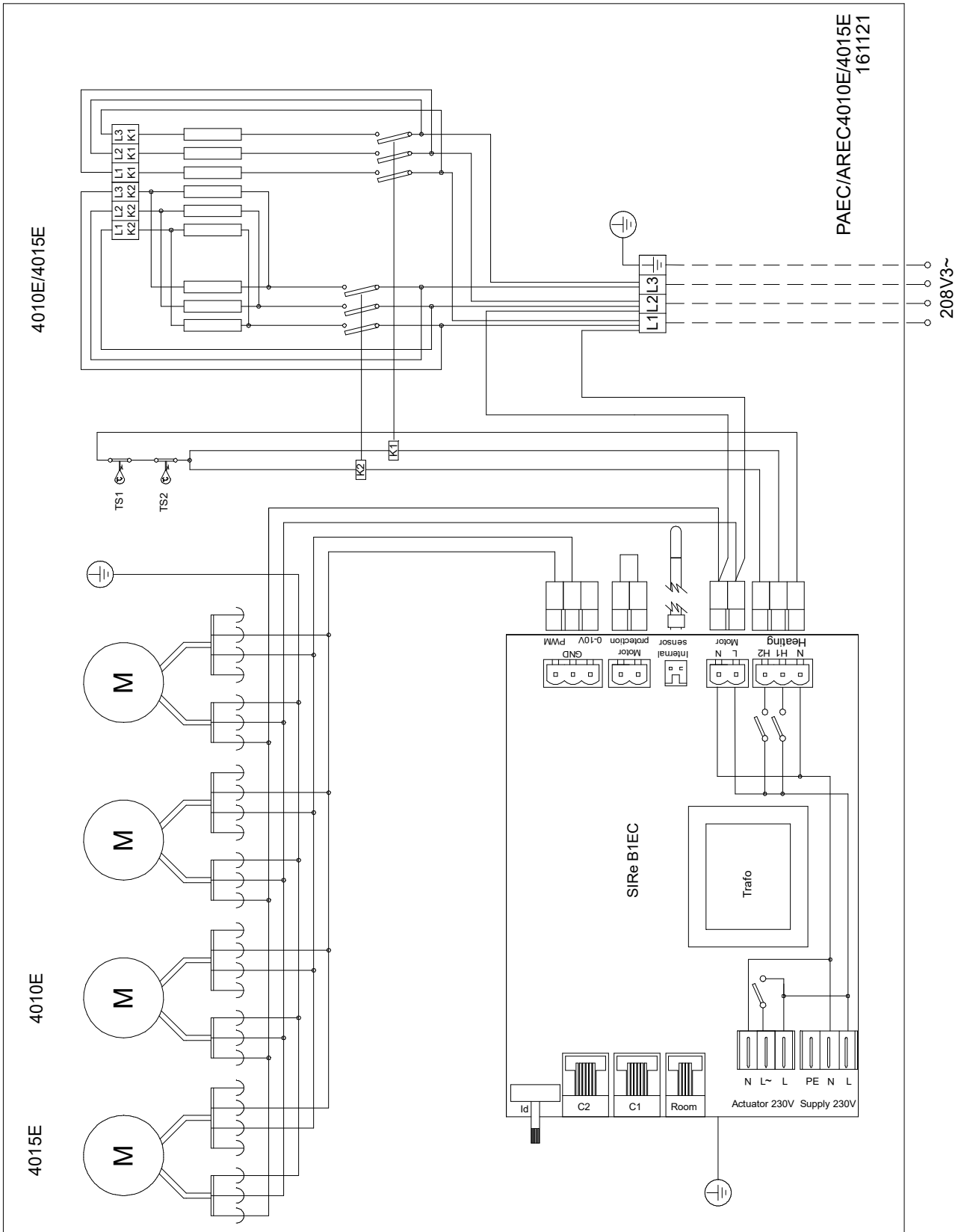
VKF

Nipple G-NPT SDM24 ST23024

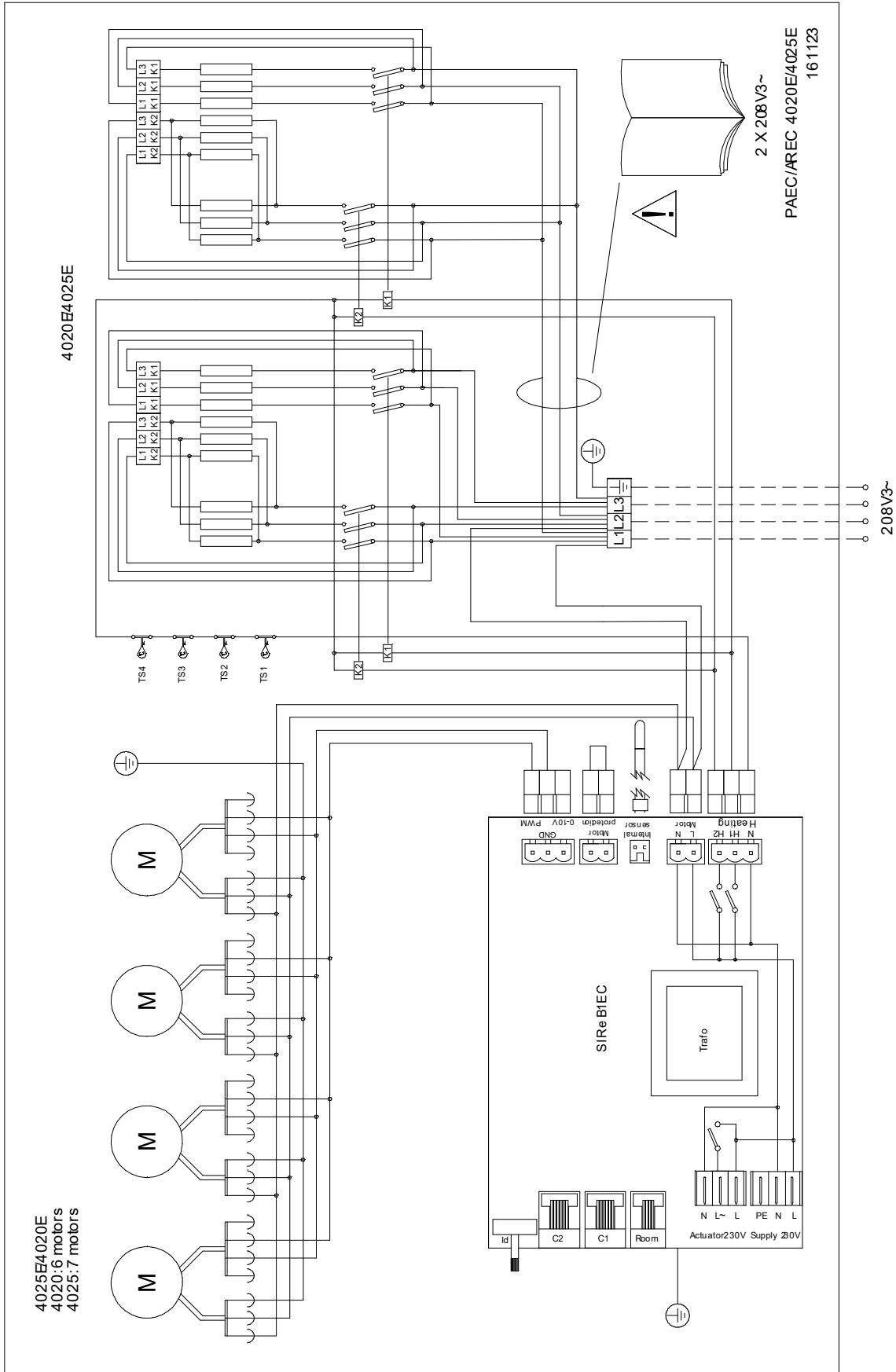
PAEC4000A/W



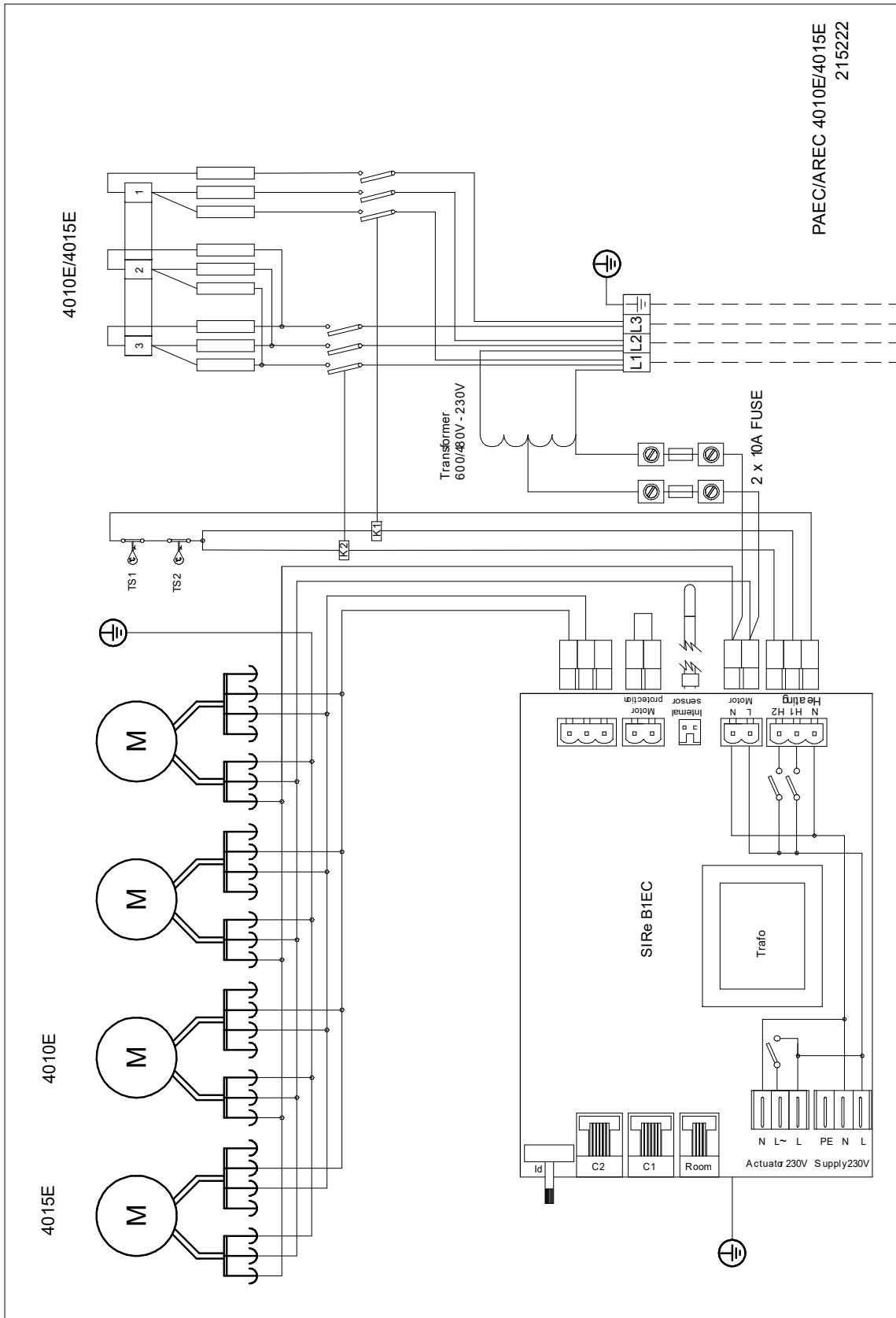
PAEC4010/15E-208V



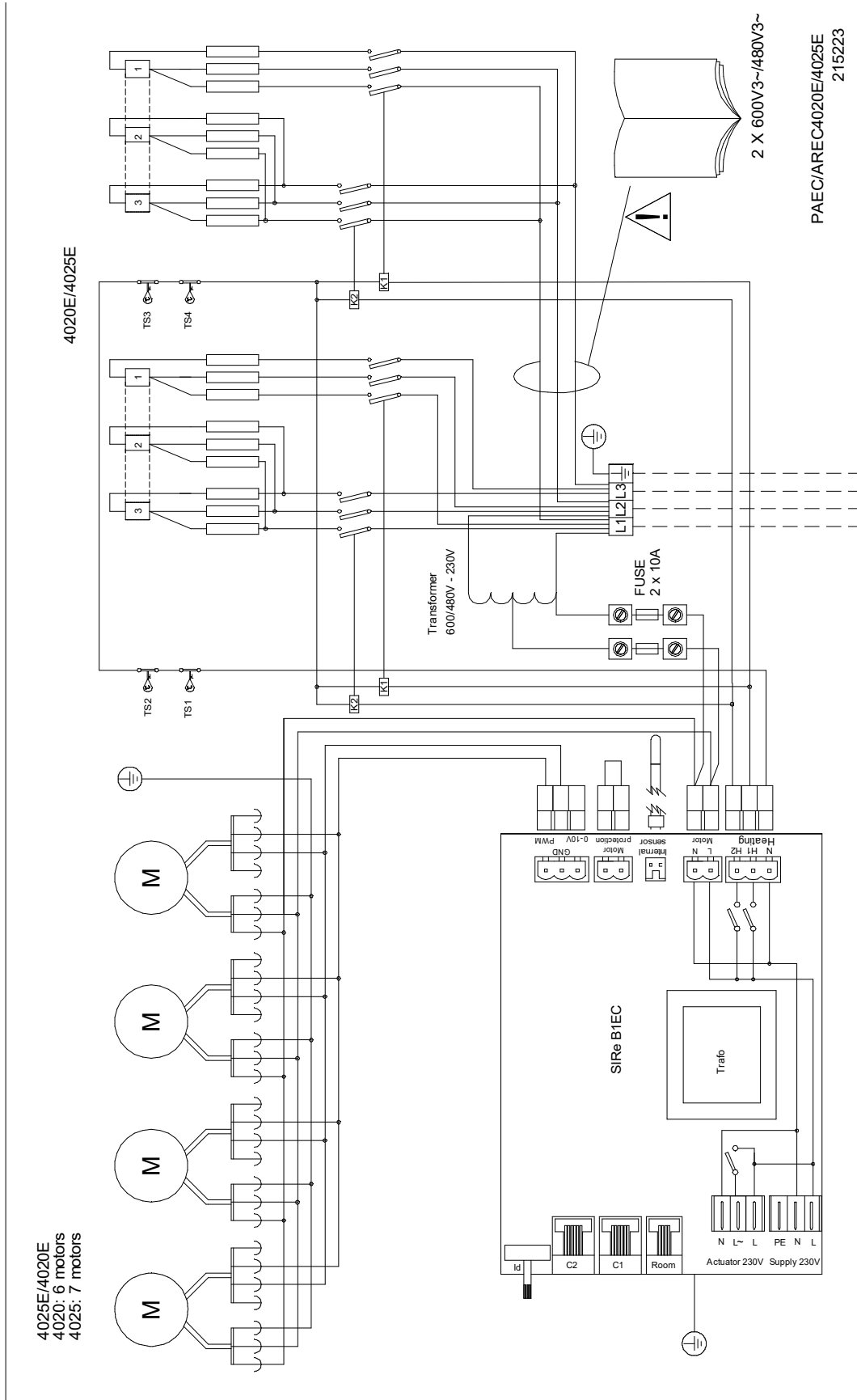
PAEC4020/25E-208V



PAEC4010/15E-480V/600V



PAEC4020/25E-480V/600V



EN

- Read the safety instructions before performing installation and/or maintenance activities on the unit.
- Installation and/or maintenance activities on the unit may only be performed by qualified technical staff.
- The unit shall not be installed and used outdoors or in environments that are aggressive, or potentially explosive. At installation site make sure surrounding environment does not require higher IP classification of the equipment than what is stated on the data label of the unit.
- The unit must be connected in accordance with the applicable local requirements. Make sure that the unit's power supply voltage matches the local mains voltage. The unit's power supply voltage and maximum ratings are displayed on the data label placed on the unit.
- The unit shall be fused according to the table below.
- See also "Safety" on the English pages.

FR

- Veuillez lire les consignes de sécurité avant d'installer l'unité ou d'en effectuer l'entretien.
- L'installation ou l'entretien de l'unité doivent être effectués par un technicien qualifié seulement.
- L'unité ne doit pas être installée et utilisée à l'extérieur ou dans un environnement hostile ou potentiellement explosif. Au site d'installation, veuillez vous assurer que le milieu environnant n'exige pas une classification IP de l'équipement supérieure à ce qui est indiqué sur l'étiquette de données de l'unité.
- L'unité doit être branchée conformément aux exigences locales applicables. Veuillez vous assurer que la tension d'alimentation de l'unité correspond à la tension de secteur locale. La tension d'alimentation de l'unité et les calibres maximums sont indiqués sur l'étiquette de données placée sur l'unité.
- L'unité doit être protégée par un fusible conformément au tableau ci-dessous.
- Voir également la section « Sécurité » dans les pages en français.

EN: Maximum Amperage on L1, L2 or L3 [A]	EN: Maximum fuse value [A]
FR: Intensité de courant électrique maximale pour L1, L2 ou L3 [A]	FR: Calibre maximum du fusible [A]
≤ 10A	16A
≤ 15A	20A
≤ 20A	25A
≤ 25A	35A
≤ 35A	50A
≤ 50A	63A
≤ 65A	80A
≤ 80A	100A
≤ 102A	125A

Installation and operating instructions

General Instructions

Read these instructions carefully prior to 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 should the product be used in the manner intended and in accordance with the instructions.

Application area

PAEC4000 is developed to fit all entrances. Recommended installation height up to 4 meters/13.1 feet. The air curtain is available without heat, with electrical heating and with water heating.

Protection class for units with electrical heating: IP20.

Protection class for units without heating and units with water heating: IP21.

Operation

Air is drawn in at the top/rear of the unit and blown downwards/outwards shielding the door opening and minimizing heat loss. To achieve the optimum air curtain effect the unit must extend the full height/width of the door opening.

The grille for directing the outlet air is adjustable and is normally angled outwards to achieve the best protection against incoming air.

The efficiency of the air curtain depends on the air temperature, the pressure differential across the doorway and any wind load.

NOTE! Negative pressure in the building considerably reduces the efficiency of the air curtain. The ventilation should therefore be balanced.

Mounting

The air curtain range can be adapted for vertical or horizontal installation. The units can also be installed by recessing into suspended ceilings.

Horizontal 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/70.9 in. For other minimum distances, see fig. 3.

For the protection of wider openings, several units can be mounted next to each other using a joining kit (fig. 9).

A design kit for a neat installation that conceals cables, pipes and mountings is available for both wall and ceiling installations, see accessories pages.

Mounting with wall brackets

1. Remove the plastic covers on the wall brackets. (Fig. 6A)
2. Mount the brackets on the wall according to measures in fig. 6B.
3. Fasten the hammer head screws on the unit in the holes M8. (Fig. 5 and 6C)
4. Lock the nuts so that the hammer head screws are at 20 mm/0.79 in height. Note the direction of the screw heads. (Fig. 6C)
5. Slide the unit on the consoles. (Fig. 6D)
6. Lock the nuts against the bracket and put the plastic covers on again. (Fig. 6E)

Horizontal mounting on the ceiling

Threaded rods, wire suspension kits and ceiling brackets for ceiling mounting are available as accessories, see fig. 7 and 8 and separate manuals.

Horizontal recessed mounting in false ceilings

Outlet extension used for recessed installation is available as an accessory, see fig. 10 and separate manual.

Vertical mounting PA4JK

Units from 1.5 metres/4.9 feet and longer may be used vertically. For vertical mounting, all units must be supplemented with a vertical kit containing everything needed for a practical installation of floor standing units.

The unit can be reversed and placed on either side of the door. Connections and PC Board SIRE are positioned near floor level when the air curtain is placed to the left of the door and at the top when it is placed to the right (seen from the inside).

The accompanying floor edging is attached to the floor with fasteners appropriate to the surface.

Two units can be mounted directly on top of each other, the floor edging is then used as a joining bracket.

The air curtain must be secured to wall or ceiling.

A design kit which gives a neater installation that conceals cables and pipes is available as accessory, see accessories pages. See fig. 11 and separate manual.

Electrical installation

The installation, which should be preceded by an isolator switch with a contact separation of at least 3 mm/0.12 in, 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, (see fig. 2).

SIRE is supplied pre-programmed with quick-fit connections.

Modular cables are connected to the control board. See manual for SIRE.

Unit without heating or with water heating

Connected via the built-in SIRE control board with 2 m/6.6 ft cord and plug.

Unit with electrical heating

The electrical connection is made on the top of the unit. See Fig.2. 208V3~/480V3~/600V3~ power supply for heat and control (*1 *2) should be connected to a terminal block in the primary terminal box.



Note! If you want to divide the output between two connection points, the series cabling must first be removed (PAEC4020/25E, 2x480V3~/600V3~).

*1 480V3~/ 600V3~ Control supply is transformed via internal transformer to 230V~ and routed through 2x 10A fuses in the primary terminal box.

*2 208V3~ Control supply is connected internally through 2x 10A fuses in the primary terminal box.

The largest cable diameter for the terminal block is 16 mm²/0.025 in². 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 non-use, smoke or an odour may result from dust or dirt which has collected on the element. This is completely normal and disappears after a short time.

Connecting the water coil (W)

The installation must be carried out by an authorised installer.

The water coil has copper tubes with aluminium fins and is suitable for connection to a closed water heating system. Steel connection pipe. 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 top of the unit (horizontal mounting) or on the reverse (vertical mounting) via connections DN20 (3/4"), external thread. Flexible hoses are available as an accessory, see accessories pages.

The connections to the heating coil must be equipped with shut off valves (included in Frico valve kits) to allow problem free removal.

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

For vertical installation and bottom water connection it is not possible to bleed the coil in the unit. Ensure that the water coil is filled with water and that no air remains, prior to commissioning. See fig. 4.

Our recommended solution is to use a T-connection and shut off valves. Small air bubbles may remain, but will disappear with normal operation. NOTE: Care must be taken when connecting the pipes. Use a pipe wrench or a similar tool to grip the air curtain connections to prevent straining of the pipes and subsequent water leakage during connection to the water supply pipe-work.

Adjustment of the air curtain and airflow

The direction and speed of the airflow should be adjusted considering the load on the opening. Pressure forces affect the airstream and force it inwards towards the premises (when the premises are heated and the outdoor air is cold).

The airstream should, therefore, be directed outwards to withstand the load. Generally speaking, the higher the load, the greater the angle required.

Basic setting fan speed

The fan speed when the door is open is set using the control. Note that the airflow direction and the 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 air filter which covers the coil face. In environments where the filter needs cleaning often, it is advisable to use an external intake filter (see accessories pages), which provides an easier maintenance, since the unit does not need to be opened.

Service, repairs and maintenance

For all service, repair and maintenance first carry out the following:

1. Disconnect the power supply.
2. The front is locked in the open position with the front hatch hook, see fig 1A or removed completely, see fig. 1B. The service hatch is removed by loosening the screws.
3. After service, repairs and maintenance fasten the service hatch and the front.

Maintenance

Unit with water heating

The appliance filter should be cleaned regularly to ensure the air curtain effect and 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. Remove the screws and raise the front panel. The front is locked in open position with the front hatch hook. See Fig. 1A.
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 electrical heating is equipped with an overheat protection. If it is deployed due to overheating, reset as follows:

1. Disconnect the electricity supply with the fully isolated switch.
2. Allow the electrical coil to cool.
3. Determine the cause of overheating and rectify the fault.
4. Reconnect the air curtain.

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. If the temperature should exceed the preset value anyway the overheating alarm goes off. For more information see the manual for SIRE.

Fan replacement

1. Determine which of the fans is not functioning.
2. Disconnect the cables from the relevant fan.
3. Remove the screws securing the fan and lift the fan out.
4. Install the new fan as above in reverse order.

Replacing heating elements (E)

1. Mark and disconnect the cables to the electric coil package.
2. Remove the mounting screws securing the electric coil package in the unit and lift it out.
3. Replace faulty electric coil.
4. Install the electric coil package 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.

Troubleshooting

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, also check the following:

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

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

- That the water coil is air free.
- That there is sufficient water flow and pressure.
- That incoming water is heated adequately.

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 main 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.net.**