

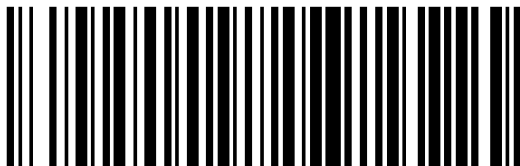
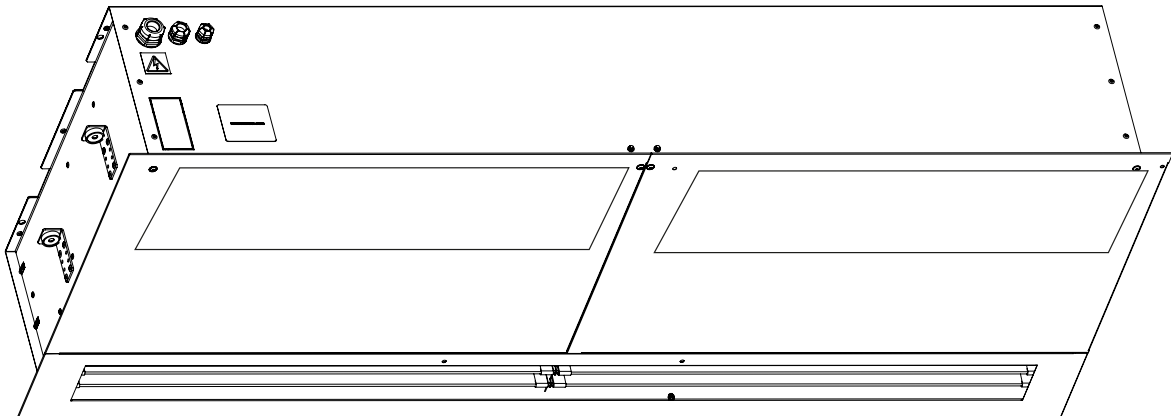


PARTNER
IN VENTILATION
2VV.CZ

EN

FINESSE

INSTALLATION



4-118-0255

EAC

CE

● ● 1. BEFORE YOU BEGIN

Meaning of symbols in the manual:

SYMBOL		MEANING
	ATTENTION!	Warning/caution
	DO NOT OVERLOOK!	Important instructions
	YOU WILL NEED NOTE	Practical tips and information
	TECHNICAL INFORMATION	More detailed technical information
	LINK	Refer to other parts/sections of the manual



Before installation, thoroughly read the section “Safe use of air curtains”. It contains all instructions on the safe and correct use of the product.

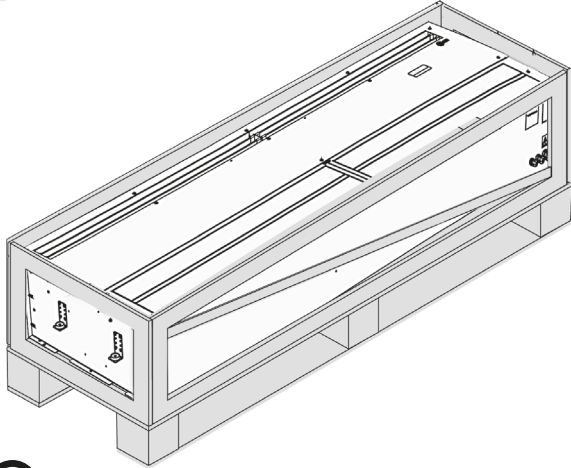
This manual contains important instructions to ensure correct installation of the air curtain. Before installation, read all of the following instructions thoroughly and then adhere to them! The manufacturer reserves the right to make changes, including to technical documentation without prior notice. Save this user manual for further use. The instructions in this manual are a part of the product.

Statement of compliance

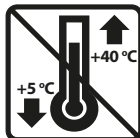
You will find the details at the www.2vv.cz website

● ● 2. UNPACKING

2.1 CHECK THE SHIPMENT



- After delivery, immediately check to see if the packaged product is damaged. If the packaging is damaged contact the delivery service. If the complaint is not filed in time, your claim may not be valid later.
- Check to see if it is the same product you ordered. If there are any discrepancies, do not unpack the curtain, and immediately report the defect to the supplier.
- After unpacking, check to see if the curtain and other parts are in order. If you have any doubts, contact the supplier.
- Never install a damaged air curtain!
- If you do not unpack the curtain immediately after delivery, it must be stored in a dry indoor environment with an ambient temperature between **+5 °C and +40 °C**

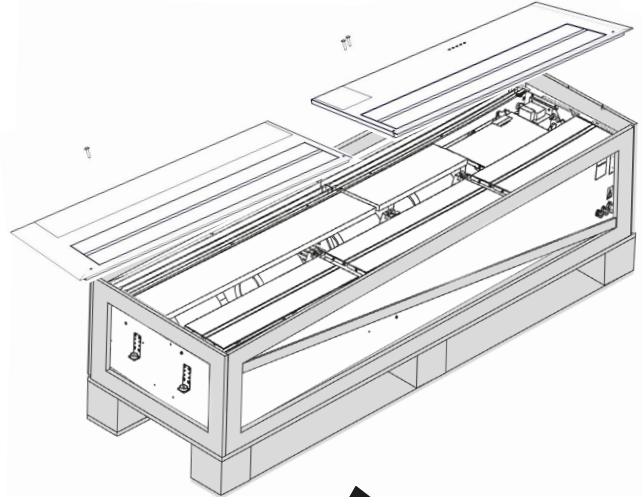


2.2 UNPACK THE AIR CURTAIN

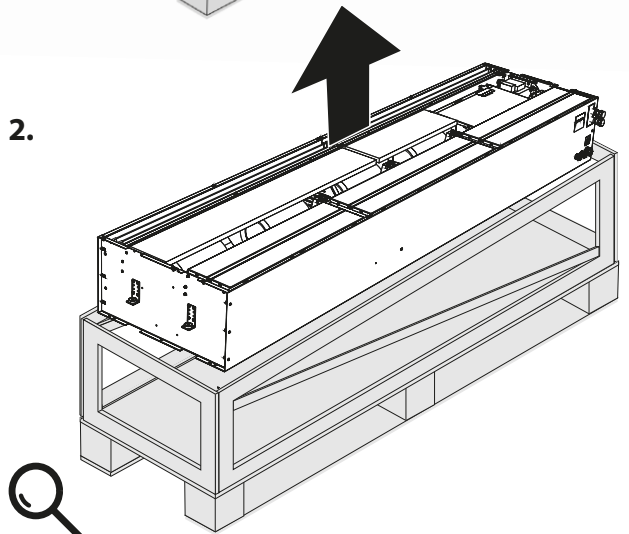


- Caution! Before removing the curtain from the board, remove the cover.

1.



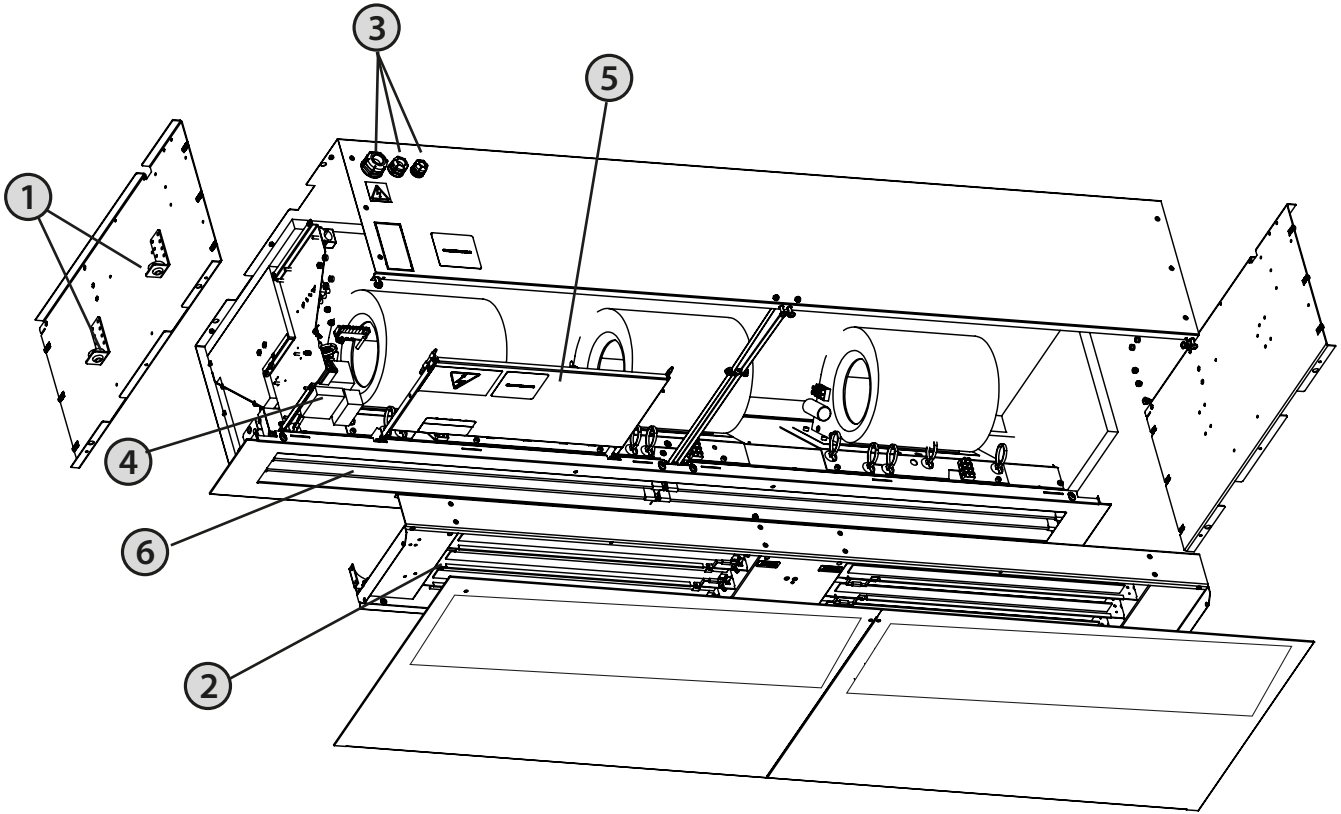
2.



- If the curtain has been transported at temperatures below 0° C, it will be necessary to let it sit for at least 2 hours under normal operating conditions after unpacking, without turning it on. This will allow the air curtain's interior temperature to stabilise.

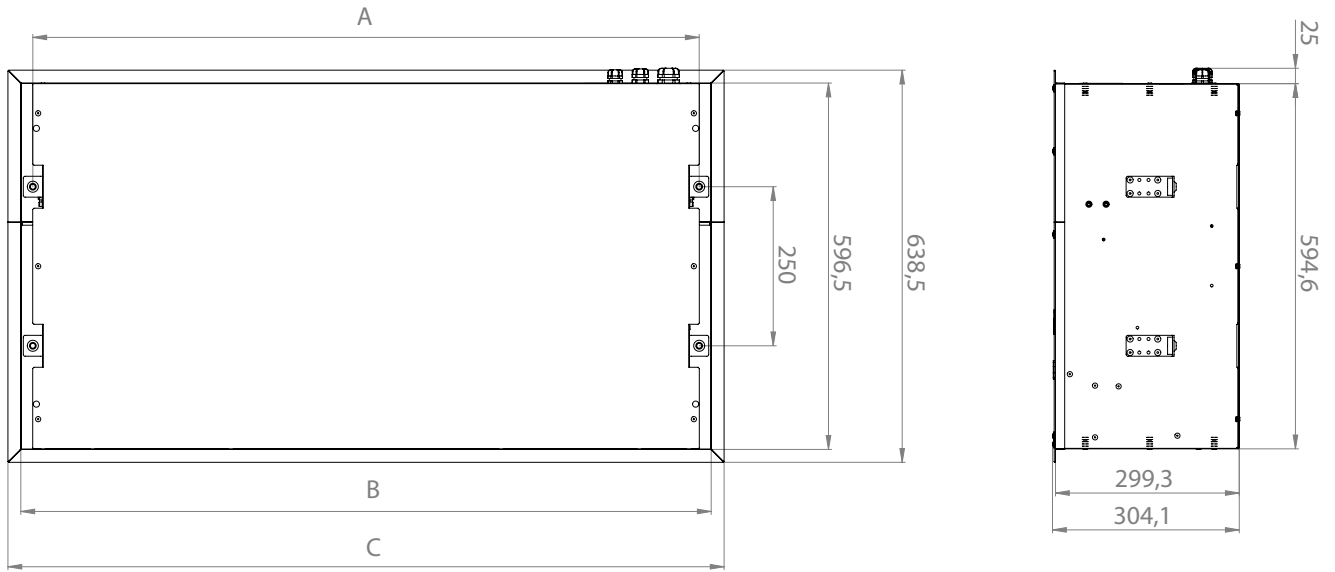
	<p>All used packaging materials are environmentally friendly and may be reused or recycled.</p> <p>Take an active part in environmental protection and see that packaging materials are correctly disposed of or repurposed.</p>	
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● ● **3. MAIN PARTS**



- ① Suspension holders
- ② Electric heater/water/without
- ③ Power supply cable plug
- ④ Power supply connectors and fusse location
- ⑤ Control modul socket
- ⑥ Outlet grid

● ● 4. DIMENSIONS



Type	Spacing of installation holes A [mm]	Length B [mm]	Length of cover C (mm)
VCF-x-100-x-...	1085	1124,1	1166,1
VCF-x-150-x-...	1585	1624,1	1666,1
VCF-x-200-x-...	2085	2124,1	2166,1
VCF-x-250-x-...	2465	2504,1	2546,1

● ● 5. TECHNICAL PARAMETERS

Type	Max. height doors [m]	Air output [m ³ /h]	Noise* [dB(A)]	Heater output [kW]	Heater power supply [V/A]	Fan power supply [V/A]	Weight [kg]	
VCF-B-100-E-...AC	4	2250	57,9	9,1	400/15,5	230/2,2	39,5	
VCF-B-150-E-...AC		3230	60,2	14,7	400/25,2	230/3,3	54,5	
VCF-B-200-E-...AC		4360	61,2	19,1	400/31,3	230/4,4	71	
VCF-B-250-E-...AC		5300	62,8	24,5	400/41,1	230/5,4	85	
VCF-B-100-V-...AC		2140	57,5	24,77**	-	230/2,2	41	
VCF-B-150-V-...AC		3100	59,6	38,77**	-	230/3,3	56	
VCF-B-200-V-...AC		4280	61	52,61**	-	230/4,3	73	
VCF-B-250-V-...AC		5140	62,5	62,29**	-	230/5,4	87	
VCF-B-100-S-... AC		2270	58,3	-	-	230/2,2	37,5	
VCF-B-150-S-... AC		3280	60,2	-	-	230/3,4	51	
VCF-B-200-S-... AC		4400	61,5	-	-	230/4,2	66	
VCF-B-250-S-... AC		5460	62,7	-	-	230/5,4	80	
VCF-C-100-E-... AC		5	2960	61,2	9,6	400/17,9	230/4,0	44
VCF-C-150-E-... AC			4080	62,7	14,7	400/27,2	230/5,2	60
VCF-C-200-E-... AC	5180		64	19	400/34,3	230/6,8	75,5	
VCF-C-250-E-... AC	6020		65,8	23,6	400/42,8	230/7,9	90	
VCF-C-100-V-... AC	2800		61,2	29,13**	-	230/3,8	45,5	
VCF-C-150-V-... AC	3900		62,5	44,57**	-	230/5,2	61	
VCF-C-200-V-... AC	5070		63,7	56,99**	-	230/6,5	77	
VCF-C-250-V-... AC	5860		65,6	67,3**	-	230/7,6	91,5	
VCF-C-100-W-... AC	2530		61,6	13,47***	-	230/3,6	51,5	
VCF-C-150-W-... AC	3500		62,6	19,03***	-	230/4,8	70,5	
VCF-C-200-W-... AC	4670		63,7	25,71***	-	230/6,0	89	
VCF-C-250-W-... AC	5260		65,2	29,81***	-	230/7,1	106	
VCF-C-100-S-... AC	3020		61,9	-	-	230/3,9	42	
VCF-C-150-S-... AC	4160		63	-	-	230/5,2	56,5	
VCF-C-200-S-... AC	5270		64,2	-	-	230/6,7	71	
VCF-C-250-S-... AC	6100		65,7	-	-	230/7,9	84	

The distance at which the average velocity of the air current flow drops to 3m/s. For optimal conditions and maximum performance of the equipment.

* Acoustic pressure at a distance of 3 m from the curtain.

** With water temperature gradient of 90°/70° C and temperature of suctioned air at +18°C

*** With water temperature gradient of 40°/30° C and temperature of suctioned air at +18°C

● ● 5. TECHNICAL PARAMETERS

All curtains with electric heater

Type	Air flow [m ³ /h]	Heater output [kW]	Output temperature Δt [°C]
VCF-B-100-E-...	2250	9,1	12,1
VCF-B-150-E-...	3230	14,7	13,5
VCF-B-200-E-...	4360	19,1	13,1
VCF-B-250-E-...	5300	24,5	13,8
VCF-C-100-E-...	2960	9,6	9,7
VCF-C-150-E-...	4080	14,7	10,7
VCF-C-200-E-...	5180	19	10,9
VCF-C-250-E-...	6020	23,6	11,7

● ● 5. TECHNICAL PARAMETERS

Air curtains with a water coil for a water temperature gradient of 90°/70° C and at an intake air temperature of +18° C

Type	Air flow [m ³ /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-B-100-V-...AC	2140	24,77	52,7	0,29	12
VCF-B-150-V-...AC	3100	38,77	55,5	0,46	29,1
VCF-B-200-V-...AC	4280	52,61	54,9	0,62	24,1
VCF-B-250-V-...AC	5140	62,29	54,4	0,74	17,8
VCF-C-100-V-...AC	2800	29,13	49,2	0,35	14,5
VCF-C-150-V-...AC	3900	44,57	52,3	0,53	35,1
VCF-C-200-V-...AC	5070	56,99	51,7	0,68	27
VCF-C-250-V-...AC	5860	62,29	54,4	0,74	17,8

Air curtains with a water coil for a water temperature gradient of 80°/60° C and at an intake air temperature of +18° C

Type	Air flow [m ³ /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-B-100-V-...AC	2140	20,28	46,4	0,24	8,8
VCF-B-150-V-...AC	3100	31,78	48,8	0,38	20,8
VCF-B-200-V-...AC	4280	43,15	48,3	0,51	17,7
VCF-B-250-V-...AC	5140	51,07	47,8	0,61	13,4
VCF-C-100-V-...AC	2800	23,88	43,6	0,28	10,9
VCF-C-150-V-...AC	3900	36,57	46,1	0,43	25,3
VCF-C-200-V-...AC	5070	46,72	45,6	0,55	19,8
VCF-C-250-V-...AC	5860	51,07	47,8	0,61	13,4

Air curtains with a water coil for a water temperature gradient of 70°/50° C and at an intake air temperature of +18° C

Type	Air flow [m ³ /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-B-100-V-...AC	2140	15,98	40,4	0,19	6,2
VCF-B-150-V-...AC	3100	25,07	42,3	0,3	14,2
VCF-B-200-V-...AC	4280	34,05	41,9	0,4	12,4
VCF-B-250-V-...AC	5140	40,28	41,5	0,48	9,7
VCF-C-100-V-...AC	2800	18,82	38,2	0,22	7,9
VCF-C-150-V-...AC	3900	28,87	40,2	0,34	17,2
VCF-C-200-V-...AC	5070	36,88	39,8	0,44	13,8
VCF-C-250-V-...AC	5860	40,28	41,5	0,48	9,7

● ● 5. TECHNICAL PARAMETERS

Air curtains with a water coil for a water temperature gradient of 60°/40° C and at an intake air temperature of +18° C

Type	Air flow [m ³ /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-B-100-V-...AC	2140	11,83	34,6	0,14	4,1
VCF-B-150-V-...AC	3100	18,59	36	0,22	8,8
VCF-B-200-V-...AC	4280	25,25	35,7	0,3	8,1
VCF-B-250-V-...AC	5140	29,85	35,4	0,35	6,6
VCF-C-100-V-...AC	2800	13,93	32,9	0,17	5,4
VCF-C-150-V-...AC	3900	21,41	34,5	0,25	10,8
VCF-C-200-V-...AC	5070	27,28	34,1	0,32	8,9
VCF-C-250-V-...AC	5860	29,85	35,4	0,35	6,6

Air curtains with a water coil for a water temperature gradient of 40/30° C and at an intake air temperature of +18° C

Type	Air flow [m ³ /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-C-100-W-...	2530	13,47	34	0,2	13,2
VCF-C-150-W-...	3500	19,03	34,3	0,4	14,1
VCF-C-200-W-...	4670	25,71	34,5	0,5	13,3
VCF-C-250-W-...	5260	29,81	35	0,6	16,3

Air curtains with a water coil for a water temperature gradient of 35/25° C and at an intake air temperature of +18° C

Type	Air flow [m ³ /h]	Heat output [kW]	Outlet temperature [°C]	Water flow [l/s]	Pressure loss [kPa]
VCF-C-100-W-...	2530	9,4	29,2	0,2	8,6
VCF-C-150-W-...	3500	13,3	29,4	0,3	8,2
VCF-C-200-W-...	4670	18	29,6	0,3	8,4
VCF-C-250-W-...	5260	21	30	0,4	9,4

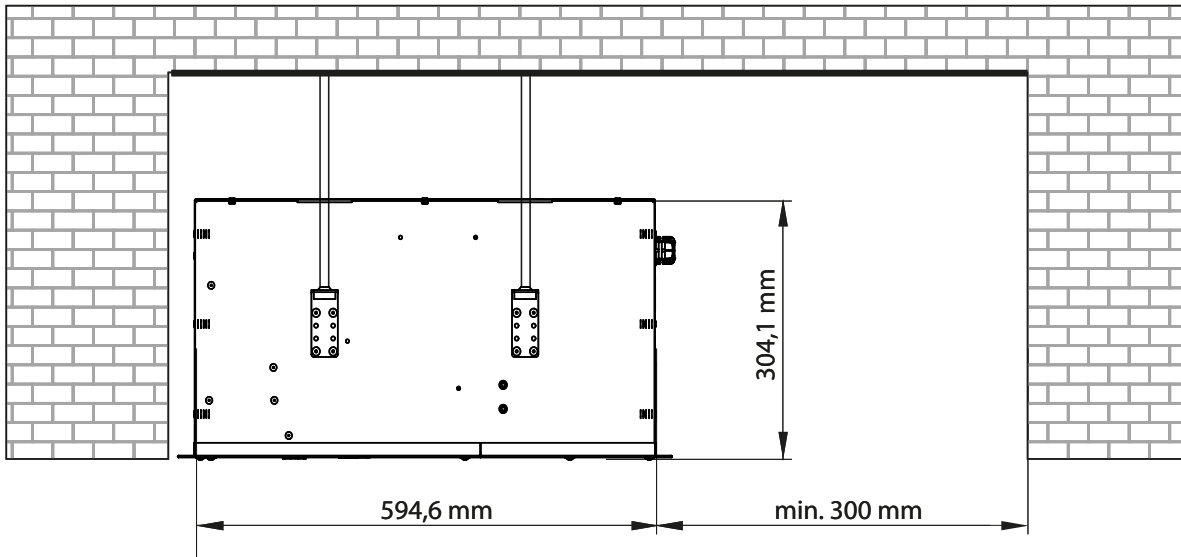


The warm-water temperature coil, made of copper-aluminium alloy, is designed for a maximum operational water temperature of +100° C and a maximum operating pressure of 1.6 MPa.

●● 6. INSTALLATION

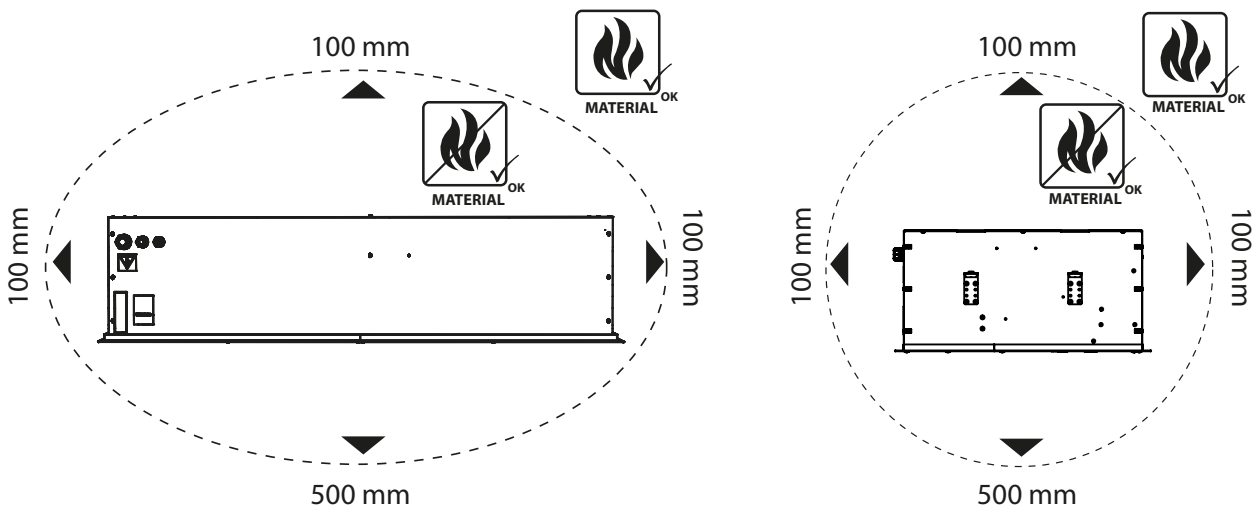
6.1 CHOOSE THE INSTALLATION SITE AND INSTALL THE AIR CURTAIN

6.1-1 Built up dimensions



- The air curtain must be installed only in a horizontal position!
- The curtain can be installed over the door opening. All separation distances for flammable materials and safe use of air curtain has to be kept.
- The installed position of the air curtain can be chosen to accommodate the service hood.
- It must be operated in dry, covered indoor spaces with an ambient temperature between +5° C and +40° C and relative humidity up to 80%
- The air curtain is not intended for moving air that contains combustible or explosive mixtures, chemical fumes, coarse dust, soot, grease, poisons, infectious germs, etc.

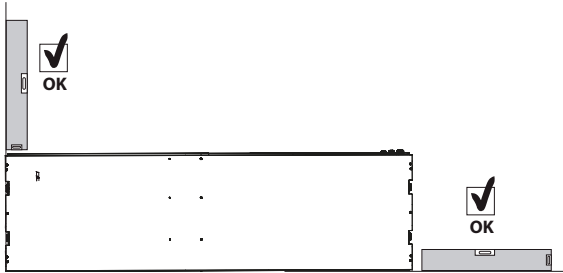
6.1.-2 Clearance distance



●● 6. INSTALLATION

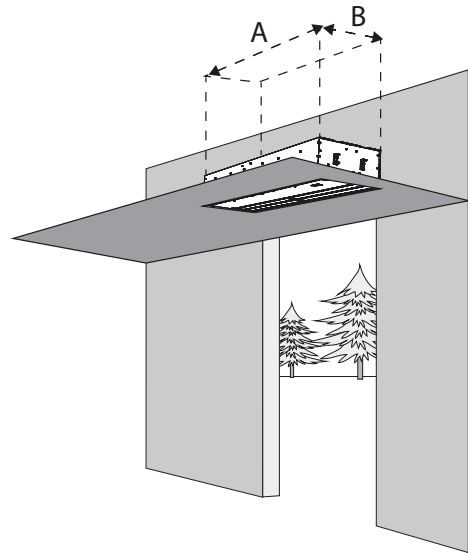
6.1-3 Measure the installation site

- Only nonflammable materials (those that do not burn, smoulder or carbonise) or fire-resistant materials (those that do not burn, but mainly smoulder, e.g., plaster board) can be kept within 100 mm in any direction of the air curtain. However, these materials should not block the intake or outlet openings.
- For air curtains with an electric heater, safe distances from building structural surfaces and flammable objects are as follows:
- The safe distance for flammable materials in the direction of the main air flow (i.e., behind the outlet) is 500 mm,
- The safe distance for flammable materials above the air curtain is 500 mm,
- The safe distance for flammable materials in other directions is 100 mm.



Recommended size of ceiling aperture for inserting the curtain:

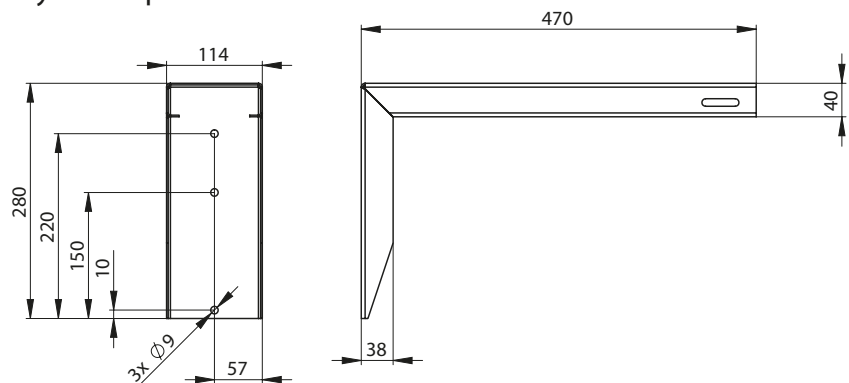
Type	A [mm]	B [mm]
VCF-X-100-X...	1140	620
VCF-X-150-X...	1640	620
VCF-X-200-X...	2140	620
VCF-X-250-X...	2520	620



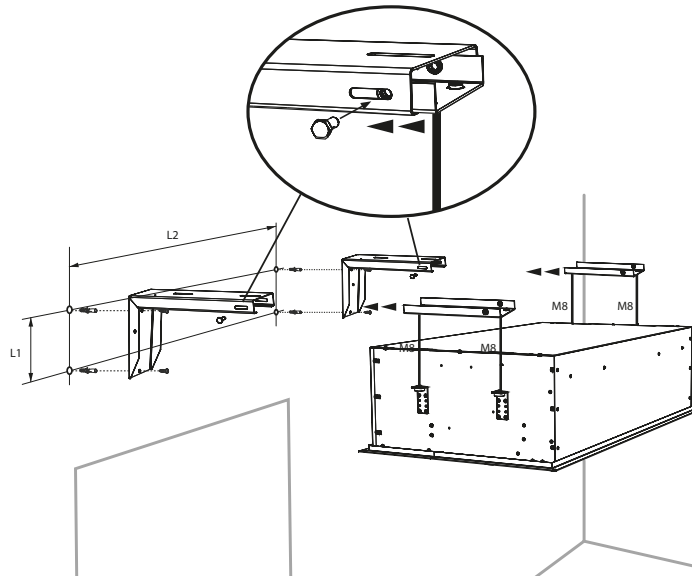
- Air curtain is fixed to the ceiling by 4 threaded rods, which are not included delivery.
- It is necessary to ensure proper in the supply at the site according to the exact type of use of the air curtain and based on its electric parameters.
- When using water heated air curtain, please ensure connection of the flow and return pipes.
- It is necessary to cut or otherwise make a hole according to the hereunder mentioned dimensions
- Drill four holes into the ceiling construction according to the dimensions scheme (see "Dimensions") for hanging of the air curtain to 4 anchoring points.
- Screw the air curtain directly to the ceiling without any space between its casing and ceiling, or use four threaded bars to reach the required distance from the ceiling, according to the situation on the site (see "Conditions for safety and proper function of the air curtain").



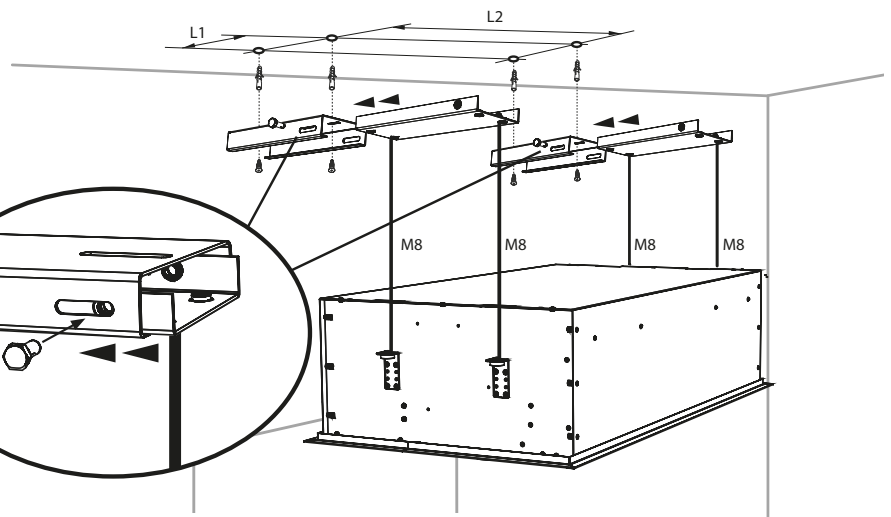
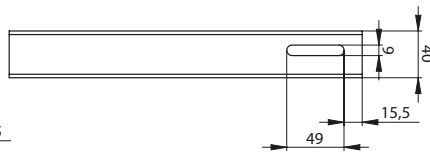
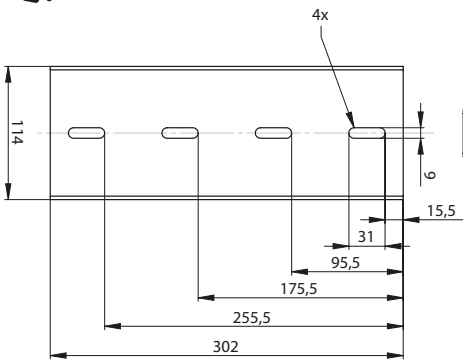
For wall installation use „Wall mounted bracket set“: VCS4-KONZ-STE. „Wall mounted bracket SET“ has to be ordered separately as an optional accessorie.



● ● 6. INSTALLATION



For ceiling installation use „Ceiling holder SET“: VCS4-KONZ-STR. „Ceiling holder SET“ has to be ordered separately as an optional accessory.



Type	L1 [mm]	L2 [mm]
VCF-X-100-X...	250	1085
VCF-X-150-X...	250	1585
VCF-X-200-X...	250	2085
VCF-X-250-X...	250	2465

6.1-4 Suspend the air curtain on the threaded bars and ensure that the suspension will not come loose



- In consideration of the air curtain weight into account, it is necessary to use either a suitable lifting device (forklift, etc.) or use two additional individuals to support it, as long as it is not securely fastened.



- Suspension has to carry the weight of the air curtain!

● ● 6. INSTALLATION

6.2 CONNECT THE WATER INTAKE AND OUTLET HOSES

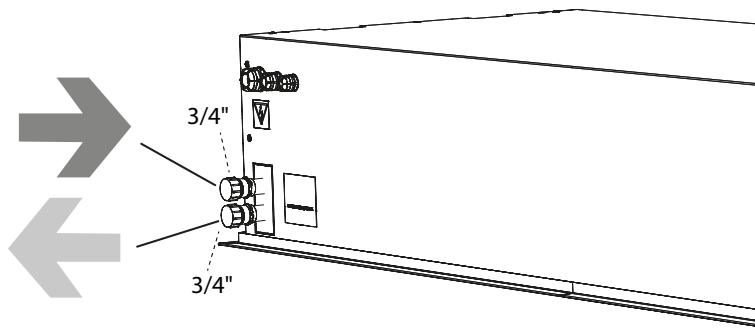
VCF-x-xxx-V(W)-...



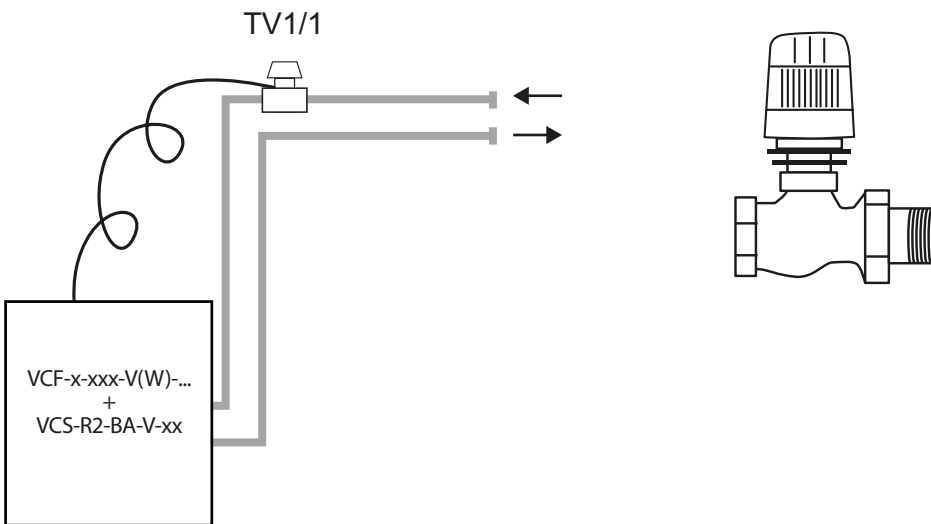
- A flexible hoses with a G3/4" connection



- Connection and pressure testing of the heater must be carried out by a person with professional plumbing knowledge, who must observe current standards and regulations of the given country.
- The maximum water temperature is +100° C. The maximum pressure is 1.6 MPa. We recommend installing a stop valve on the intake and outlet of the heater to allow the water supply to be shut off.



6.2-1 Regulating the water coil with a thermostatic valve TV1/1 (Air curtains with water coil and BASIC control module: VCS-R2-BA-V-xx)



Thermostatic valve TV1/1 is an required accessorie for control module VCS-R2-BA-V-xx



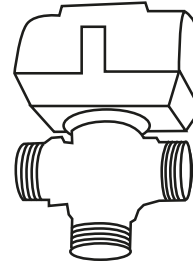
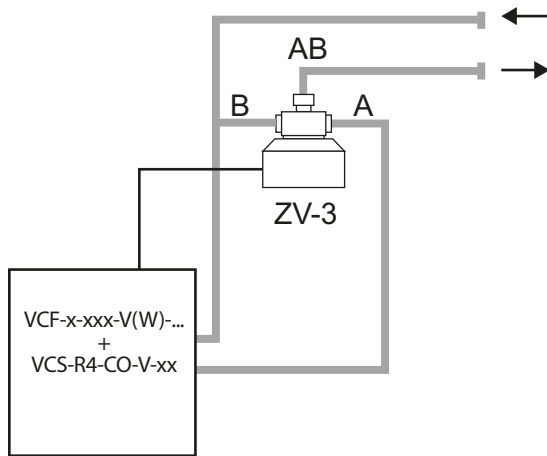
Detailed description of water coil regulation by thermostatic valve (TV1/1), including it's connection, refer the instruction manual for thermostatic valve TV1/1.

● ● 6. INSTALLATION

6.2-2 Regulating the water coil with a ZV-3 or RT zone valve (Air curtains with water coil and COMFORT control module: VCS-R4-CO-V-xx)



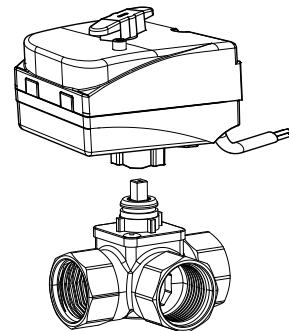
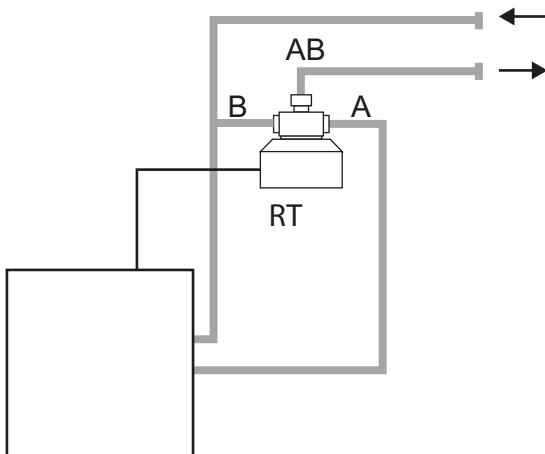
Zone valve ZV-3 is an required accessorie for control module VCS-R4-CO-V-xx



- Detailed description of water coil regulation by zone valve (ZV-3), including it's connection, refer the instruction manual for zone valve ZV-3.



Zone valve RT is an required accessorie for control module VCS-R4-CO-V-xx



- Detailed description of water coil regulation by zone valve (RT), including it's connection, refer the instruction manual for zone valve RT.

● ● **6. INSTALLATION**

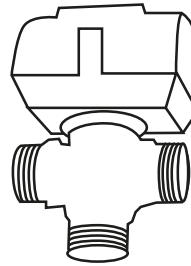
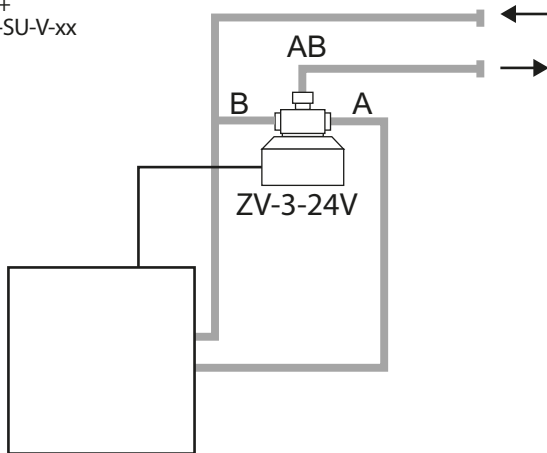


6.2-3 Regulating the water coil with an zone valve ZV-3-24V (Air curtains with water coil and SUPERIOR control module: VCS-R4-SU-V-xx)



Zone valve ZV-3-24V is an required accessorie for control module VCS-R4-SU-V-xx
Supply 24 V/ 50/60 Hz, control tension 0-10V

VCF-x-xxx-V(W)-...
+
VCS-R4-SU-V-xx



- Detailed description of water coil regulation by zone valve (ZV-3-24V), including it's connection, refer the instruction manual for zone valve ZV-3-24V.

● ● 6. INSTALLATION

6.4 ELECTRO INSTALLATION



- The air curtain's electrical connection must be based on a professional design by a qualified electrical systems engineer.
- Installation must be carried out by a professionally trained electrical worker. All applicable national regulations and directives must be observed.
- The electrical schematics on the product take priority over those presented in this manual!
- Prior to installation, check to see if the terminal markings correspond to the markings on the electrical connections diagram. When in doubt, contact your supplier and do not connect the air curtain under any circumstances.
- Never reach inside the air curtain unless the main electrical supply has been turned off!
- If the product is connected to any control system other than the original one, the regulation and measurement components must be connected by the company that supplied the system.
- The electrical contractor defines the minimum size of the feed cable according to the standards applicable at the place of installation, the location for installing the cable, the surrounding conditions, and the curtain's technical parameters.



- **Special attention should be paid to the capacity of the distribution network of the air curtain with electric heater in terms of the supply of the appropriate phase current values for limiting the voltage fluctuations and flickering in the network.**

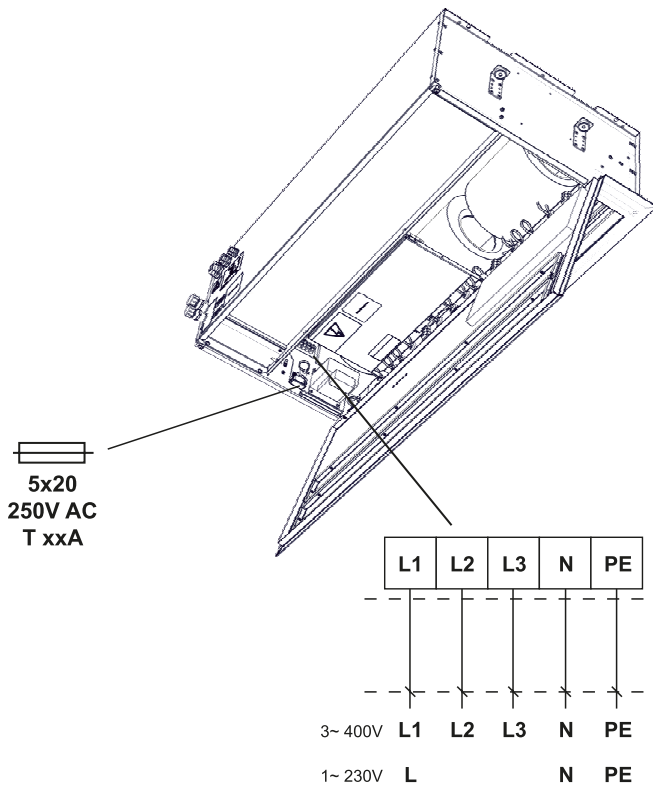
Minimal cable dimensions:

Type	Cable dimension
VCF-x-xxx-S...	3Cx1,5
VCF-x-xxx-V...	3Cx1,5
VCF-x-xxx-W...	3Cx1,5
VCF-x-100-E...	5Cx2,5
VCF-x-150-E...	5Cx4
VCF-x-200-E...	5Cx6
VCF-x-250-E...	5Cx10

Fuse specification:

VCF-x-xxx...		x	
		B	C
xxx	100	3,15A	5A
	150	4A	6,3A
	200	6,3A	8A
	250	8A	12A

●● 6. INSTALLATION



- The electrical parameters are shown on the manufacturer's label, which is located under the air curtain's service cover.

Air curtain Type	
U = Voltage	I = Net current
f = Frequency	P = Output
n = Speed	m = Weight
ph = Phase	IP = IP rating
av = Air output	ver =
Serial number	

- The air curtain must be pRotected by an appropriate circuit breaker, in accordance with its electrical parameters. For safety reasons, over-designed protection is not recommended.
- The air curtain must be connected using the TN-S system, which means that the neutral conductor must always be connected.
- A main cut-off switch must be placed in the electrical supply network, disconnecting all poles of the network.
- The electrical enclosure of the air curtain is IP 20.



FINESSE air curtains are equipped with a fuse (with T characteristic – slow-blow). This safety fuse pRotects the electronic panel and fans. It is located under the service cover next to the main power supply connectors.

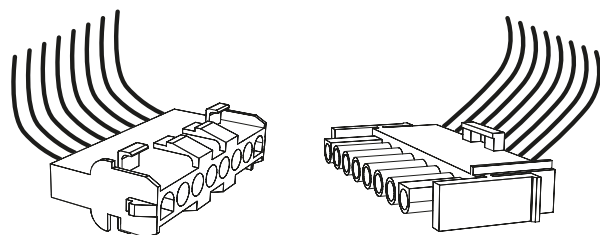
6.5 CONTROL MODULES

Air curtains FINESSE are produced with universal connection interface.

Air curtains FINESSE can be controlled by one of following control modules: BASIC, COMFORT, SUPERIOR.

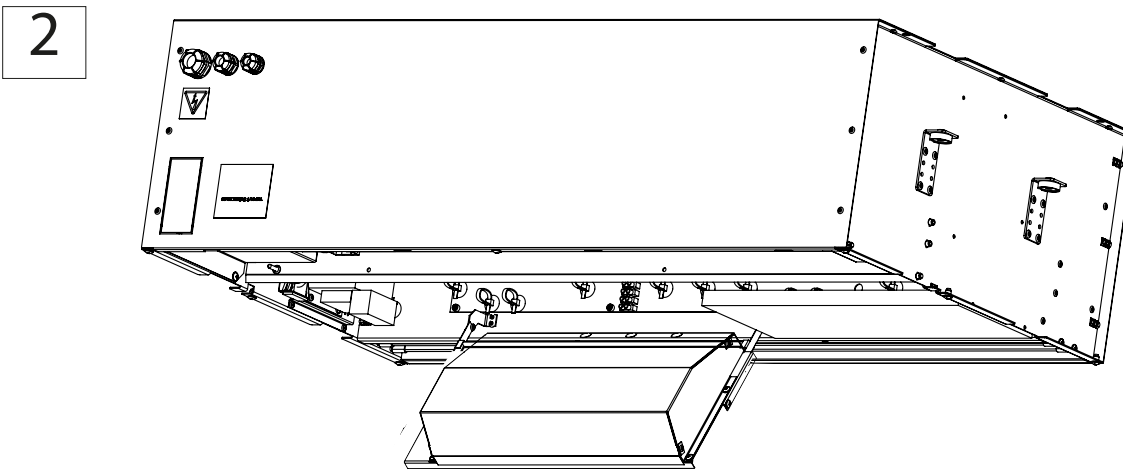
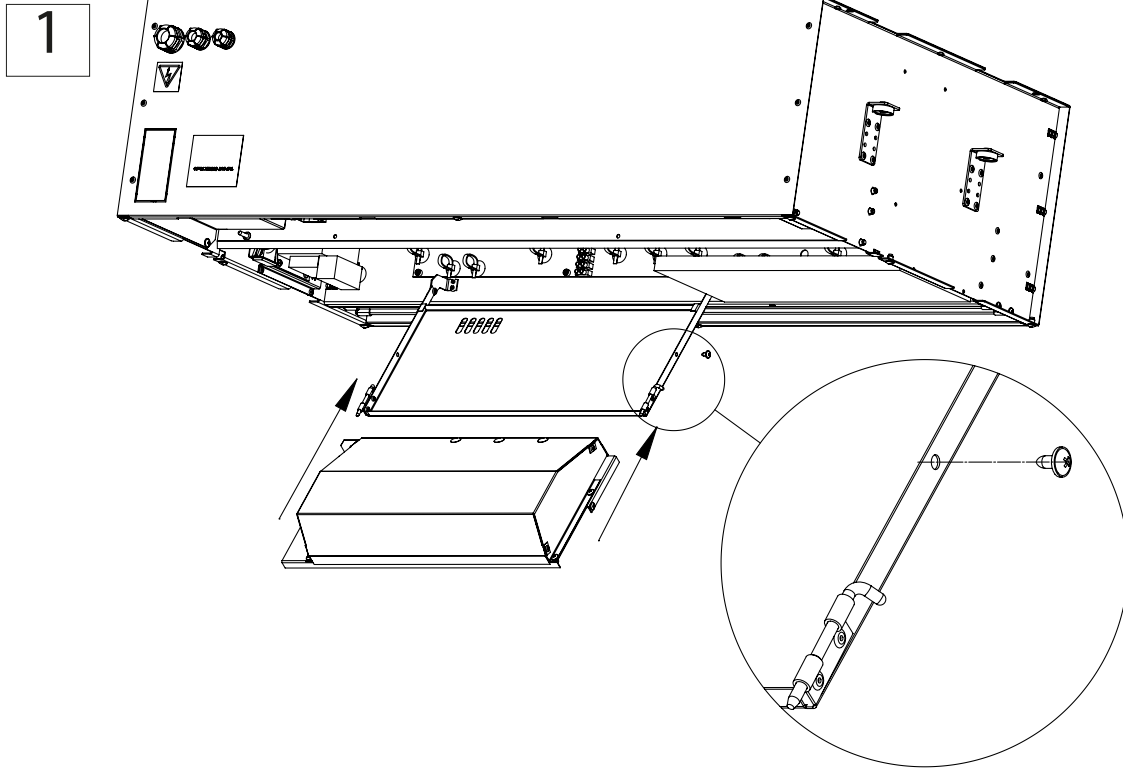
Control modules are required accessories and has to be orderot separately.

Air curtain is connected with control module by „Quick connection sockets“



● ● 6. INSTALLATION

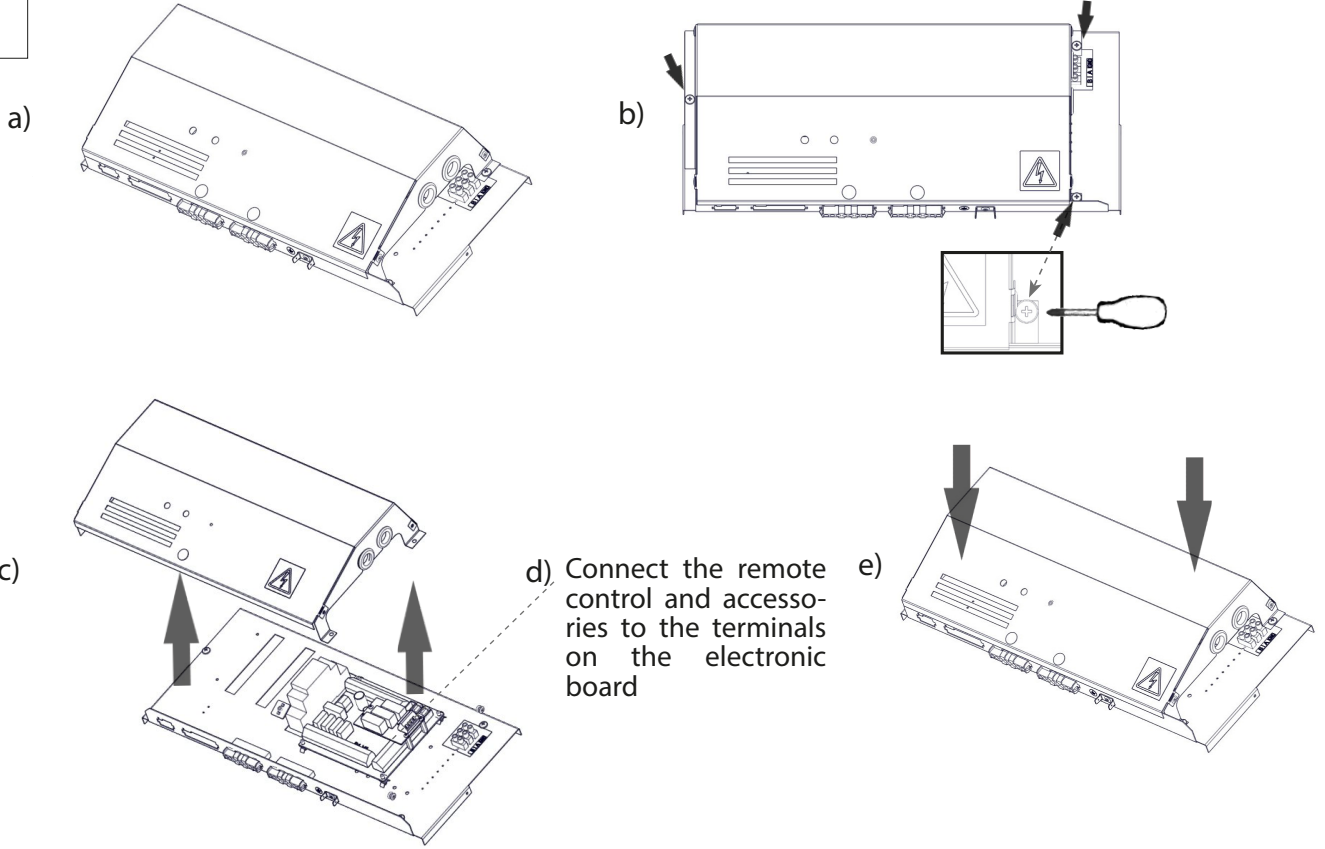
6.6 INSERT CONTROL MODULE TO THE AIR CURTAIN



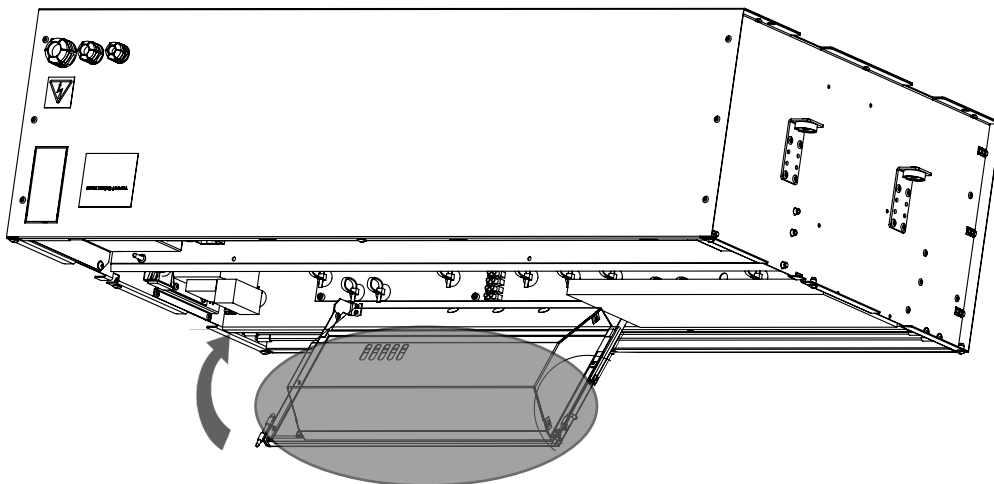
● ● 6. INSTALLATION

Connection to the regulation control panel and accessories

3



4



6. INSTALLATION

6.7 EXIT SIGN

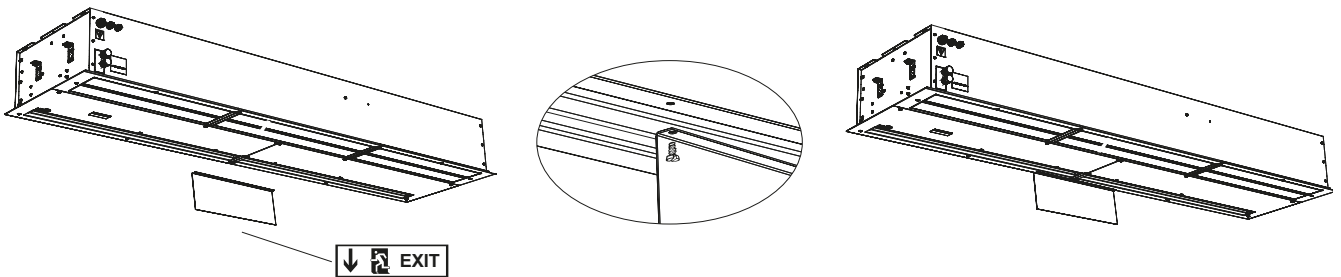


- Exit sign marking of emergency exit

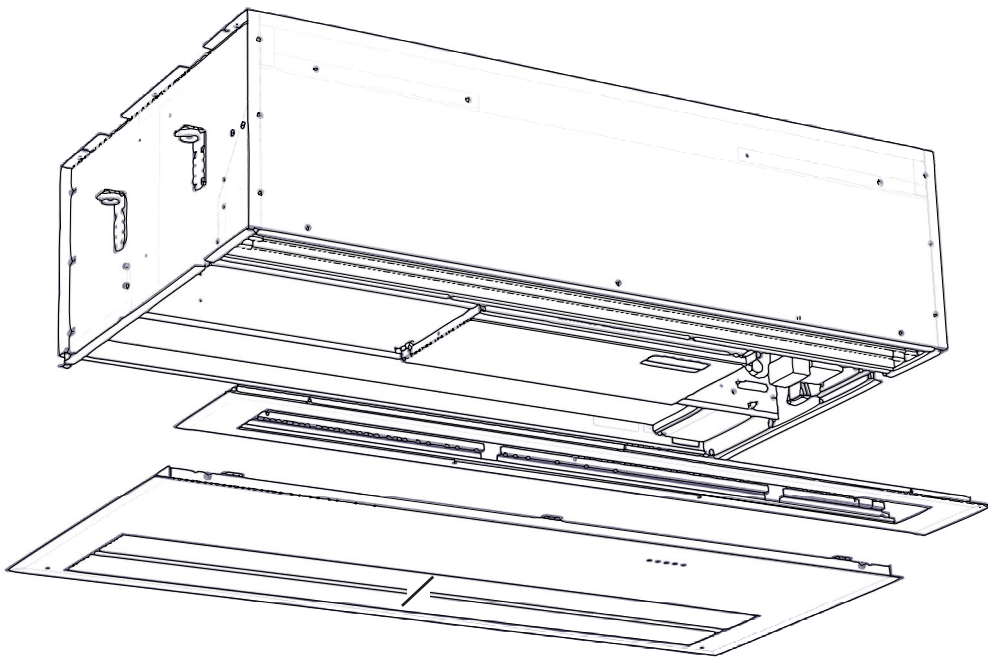
For all types of VCS4x- air curtains!



Not included in delivery.



6.8 COVERING THE AIR CURTAIN



7. INITIAL START-UP

⚠ CAUTION!

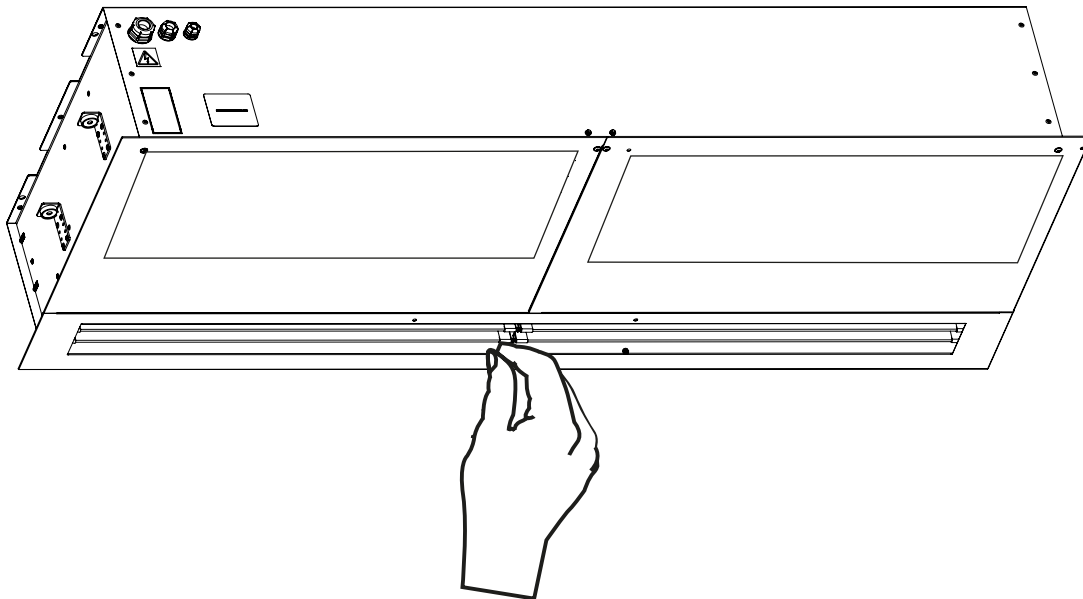
Before starting up the unit check that:

- No tools or other objects that may damage the unit have been left inside.
- The power and heating water supply are well connected.
- The unit is properly covered.
- The control panel is properly connected

During the commissioning, check the proper function of the unit (fans, heating). Check the other possible settings and functions according to the user manual of each regulator

7.1 SET AIR FLOW DIRECTION

This is set by tilting the air curtain's fan louvers in the desired direction.



● ● 8.

8.1 CLEANING**⚠ ATTENTION!**

The main electrical supply must be switched off before any interference to the inside of the air curtain. The air curtain must be allowed to cool down!

Cleaning is forbidden to use compressed air, aggressive chemicals, solvents or water.

Clean with a damp cloth, a soft cloth, or a vacuum cleaner.

Clean the surface of the air curtain, including the suction part.

Perform cleaning as needed, recommended at least every 3 months.

Observe safety and use protective equipment.

9. SERVIS**9.1 WHEN YOU AREN'T ABLE TO REMOVE DEFECT BY YOURSELF**

If you are unable to resolve the problem, contact the supplier.

For the fast removal of defects please provide the following information:

- product reference number
- serial number
- running time
- used accessories
- installation location
- installation condition (including electrical)
- detailed description of the problem and the steps that you have taken for its removal

Warranty and post-warranty service is performed by the manufacturer, supplier or authorized service organization. When ordering service intervention it is necessary to describe the defect, product type designation indicated on its label, and the location of installation.

9.2 PUTTING THE PRODUCT OUT OF OPERATION - DISPOSAL

Before disposing of the product, make the product unusable. Even old products contain raw materials that can be reused. Take them to a collection point of secondary raw materials.

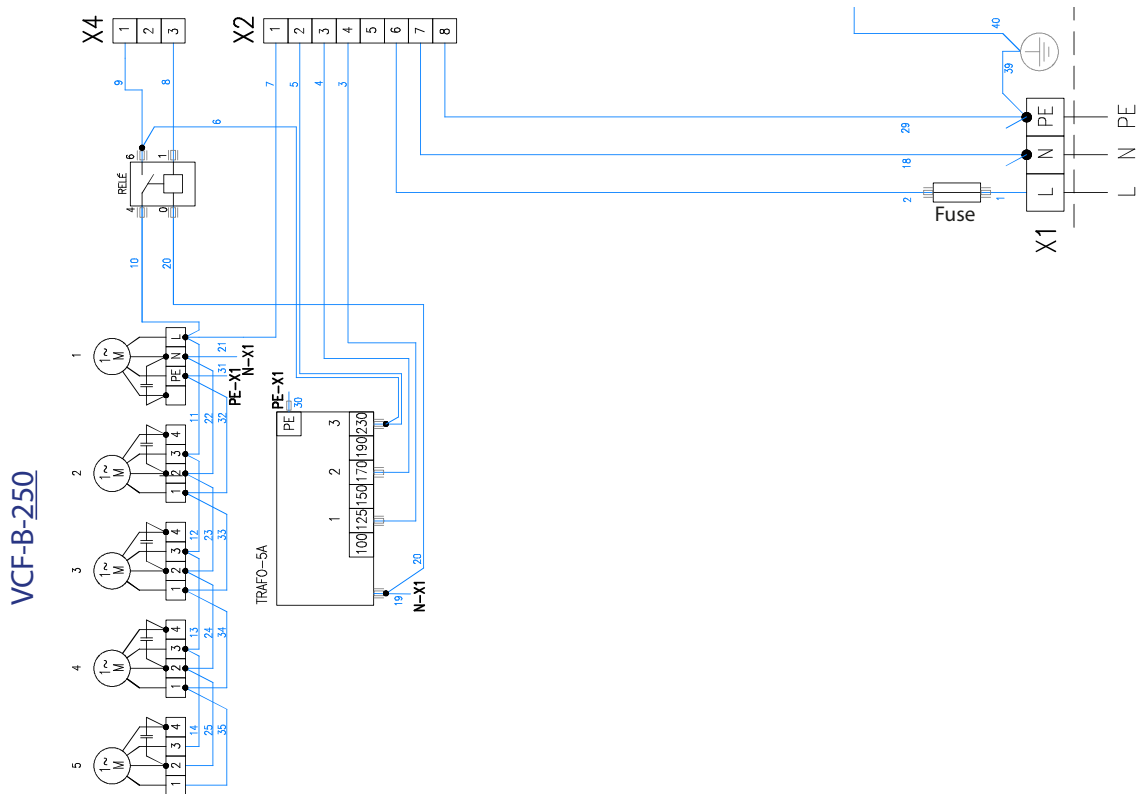
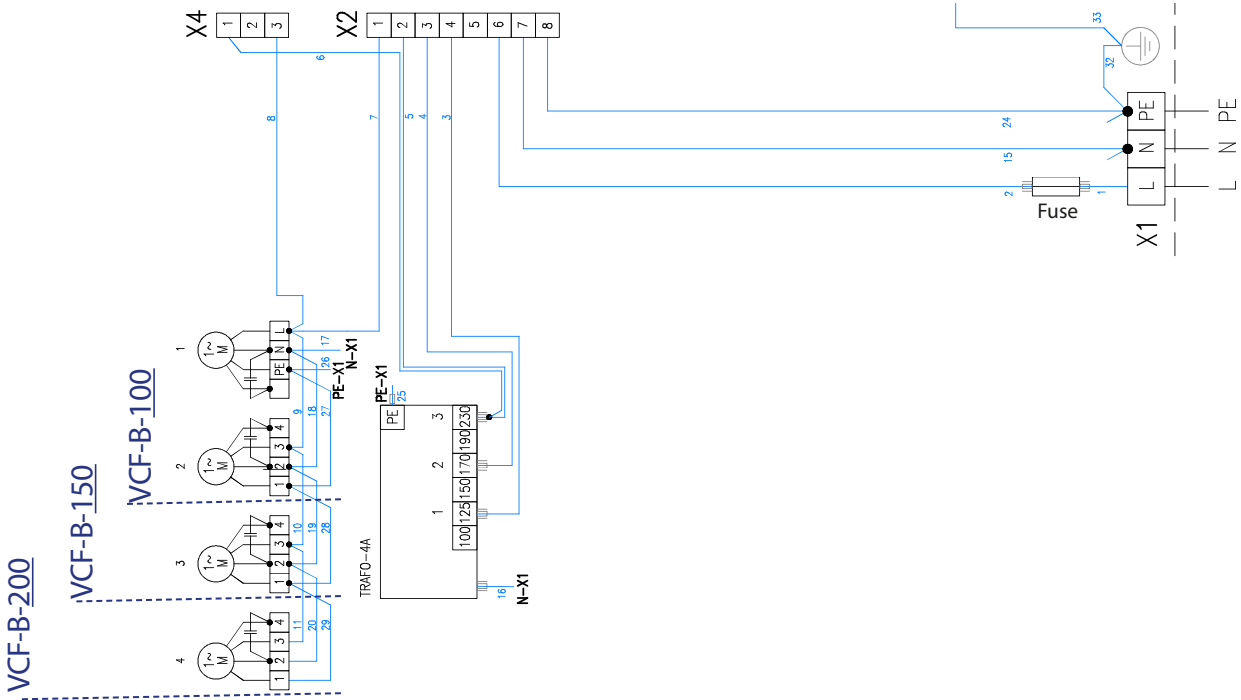
The product is good to dispose at the place, which is specialized for it, and thus it will be possible to recycle materials. Store unusable parts of the product at a controlled dump.



When disposing of materials, it is necessary to observe the relevant national regulations on waste disposal.

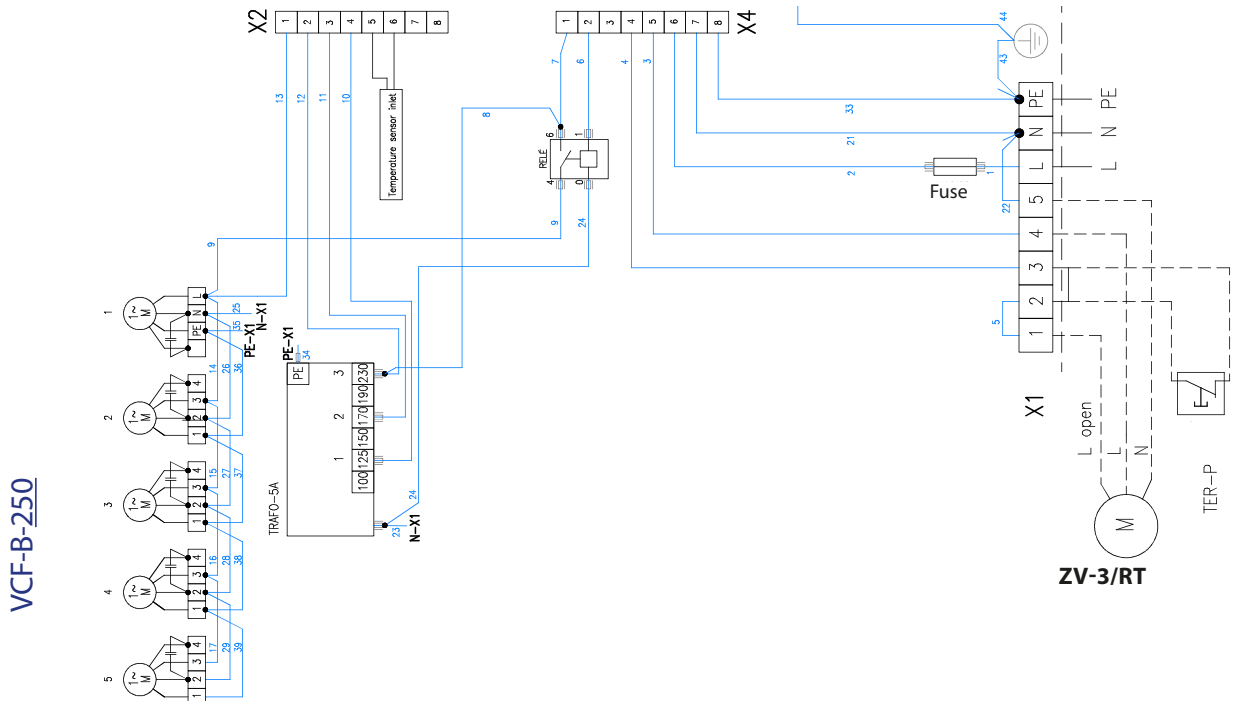
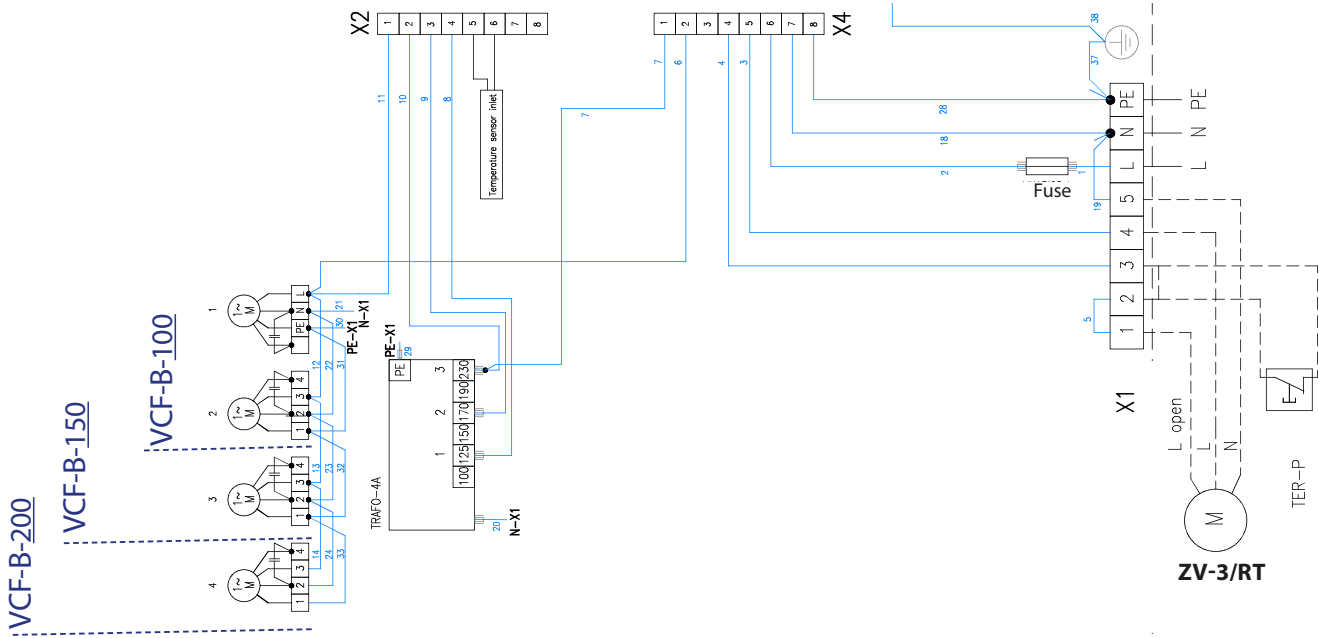
10. ELECTRICAL SCHEMES

Types without heating - VCF-B-xxx-S-...



10. ELECTRICAL SCHEMES

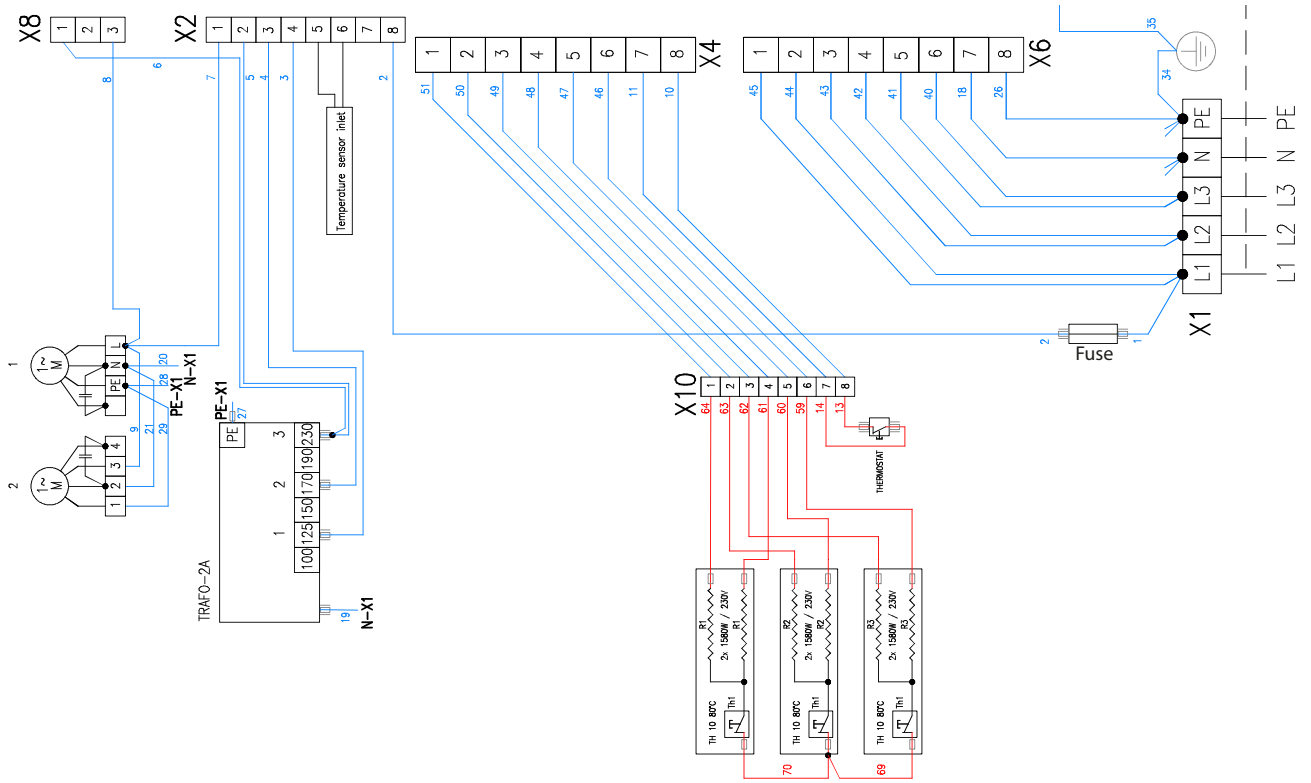
Types with water coil VCF-B-xxx-V(W)-...



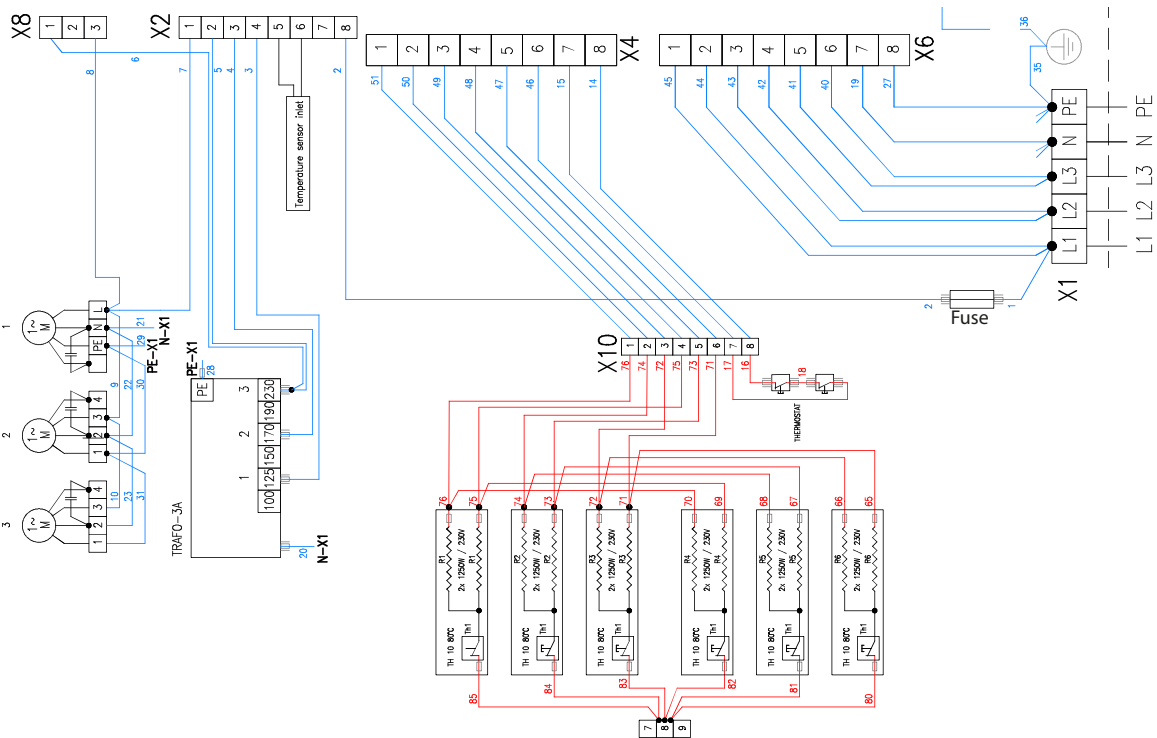
10. ELECTRICAL SCHEMES

Types with electric heater VCF-B-xxx-E...

VCF-B-100-E...

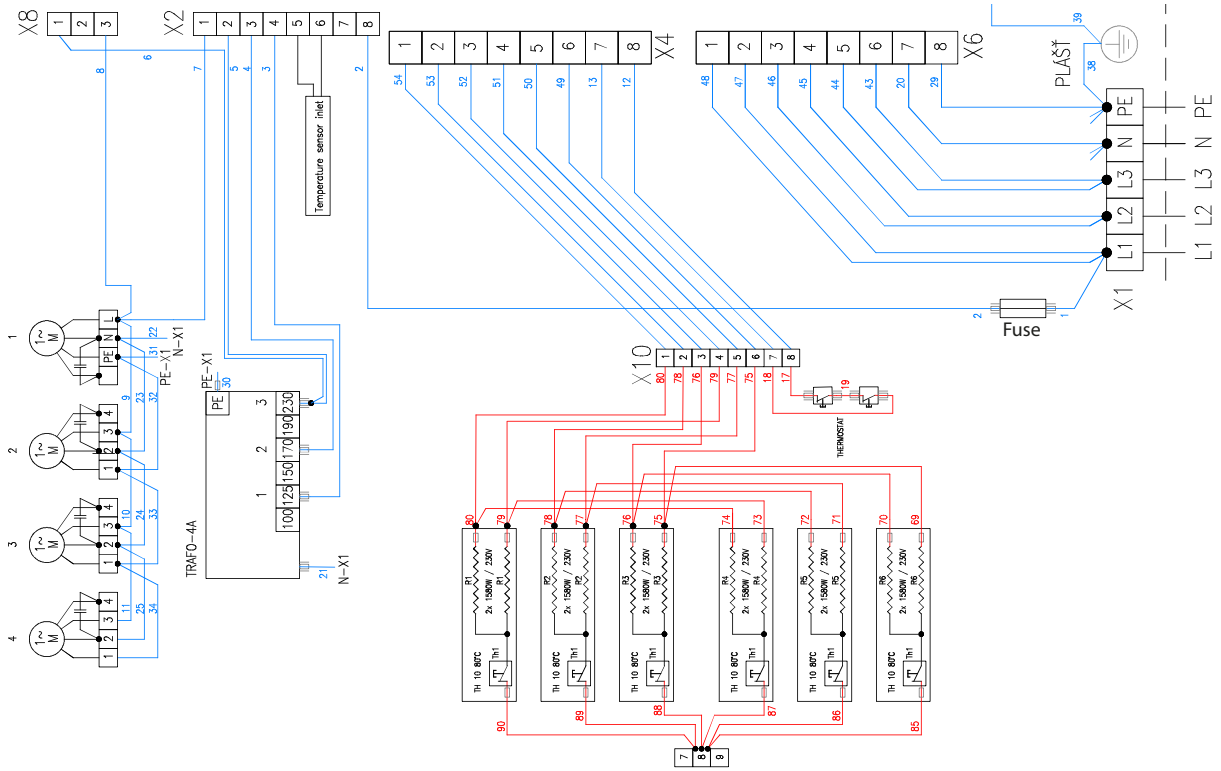


VCF-B-150-E...

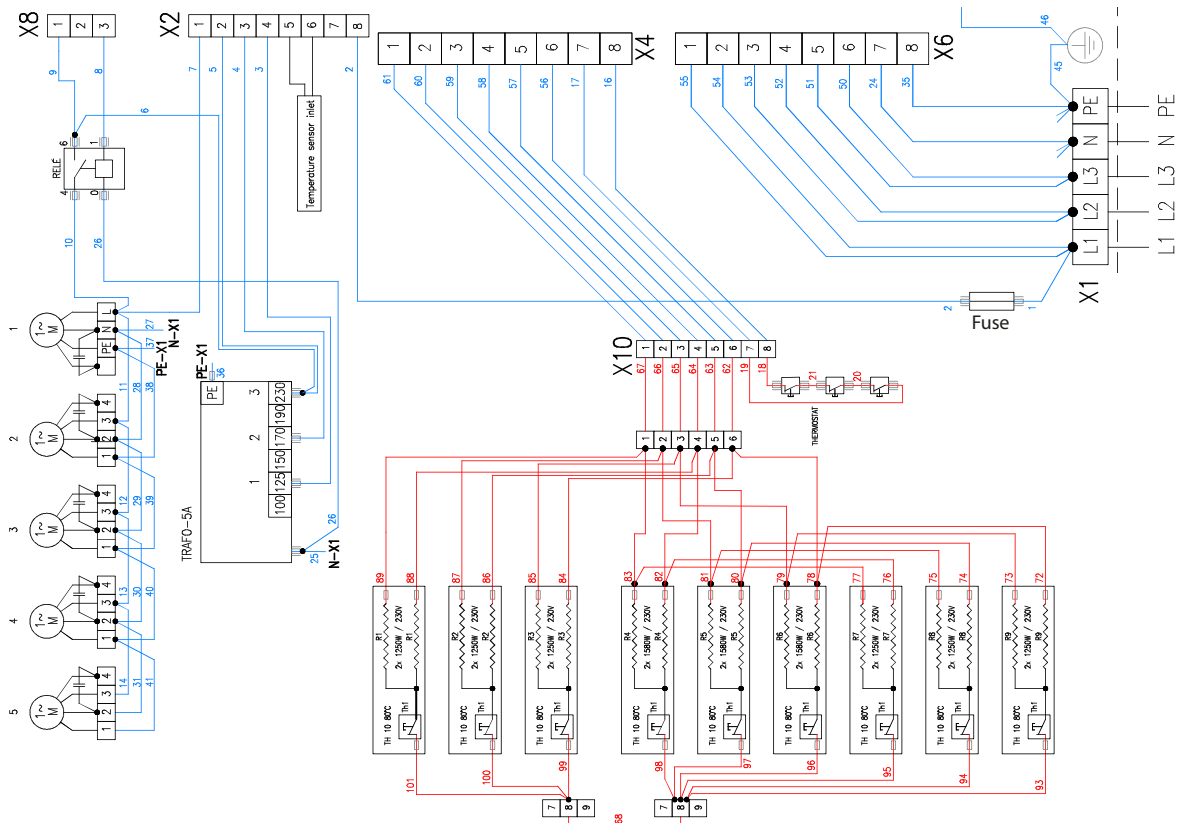


10. ELECTRICAL SCHEMES

VCF-B-200-E...

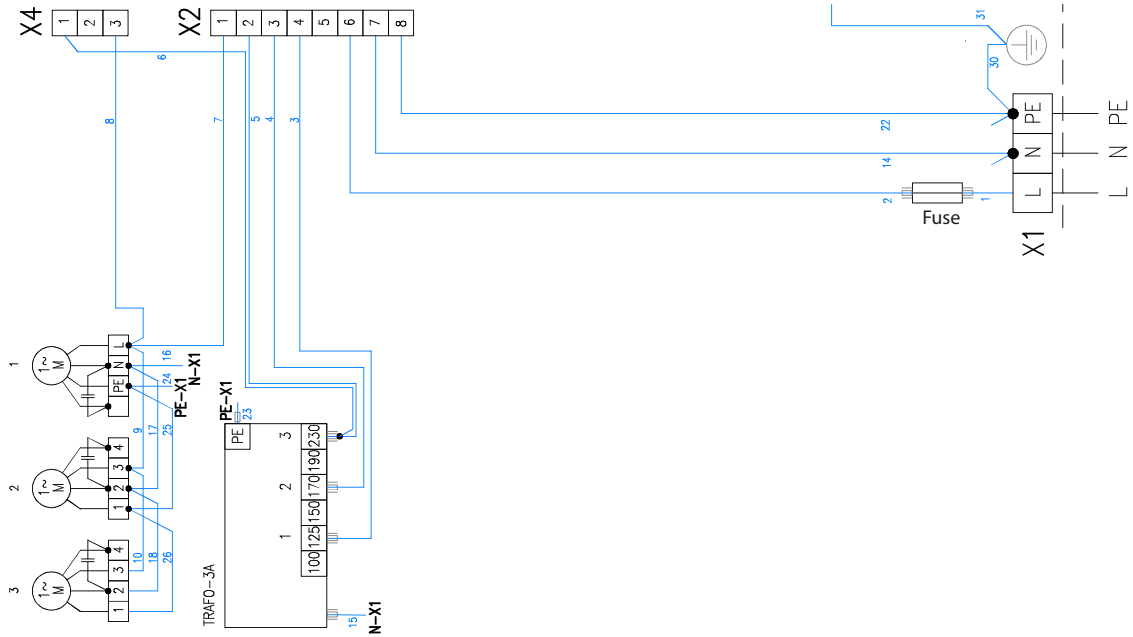


VCF-B-250-E...

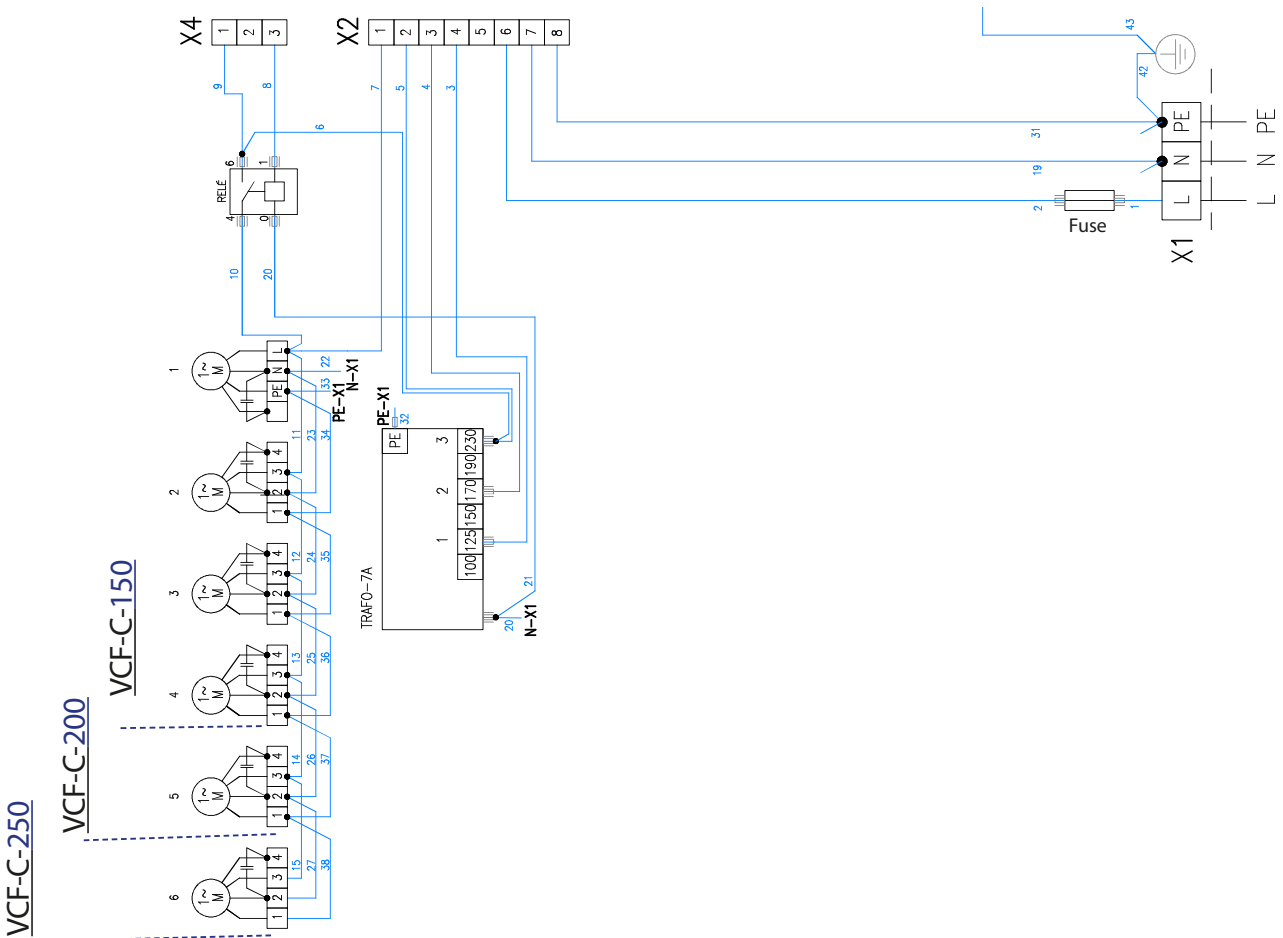


10. ELECTRICAL SCHEMES

Types without heating - VCF-C-...-S-...
VCF-C-100-S-...



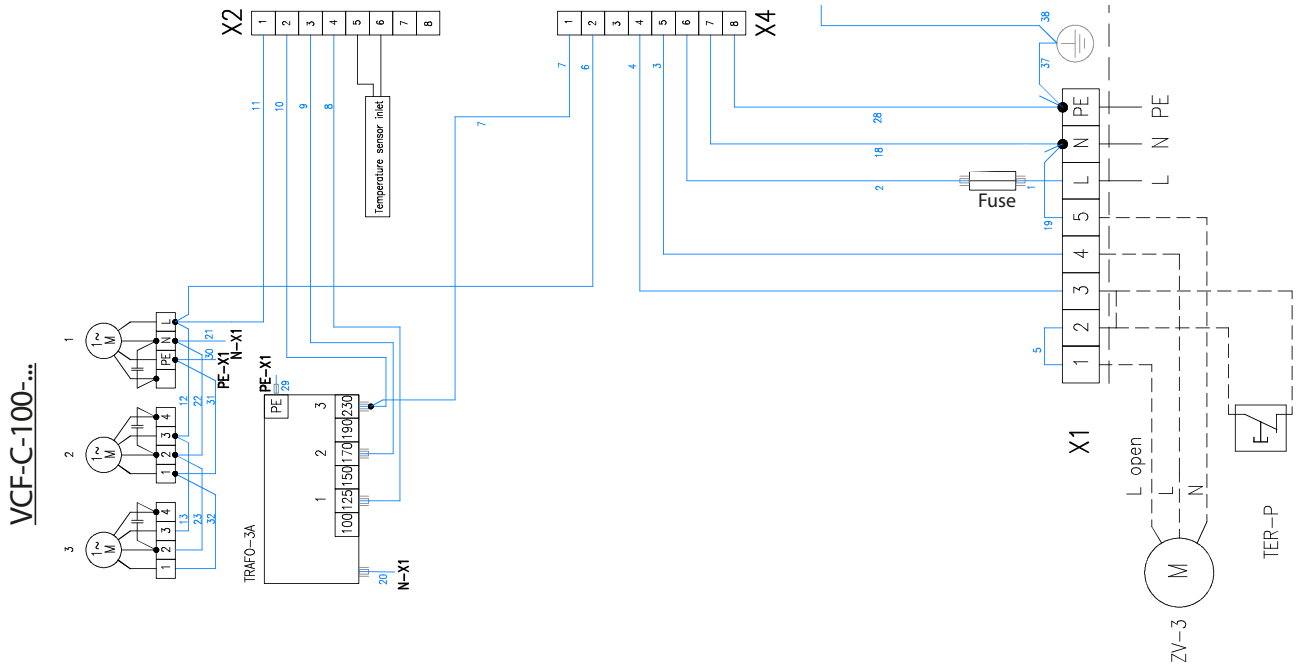
VCF-C-...-S-...



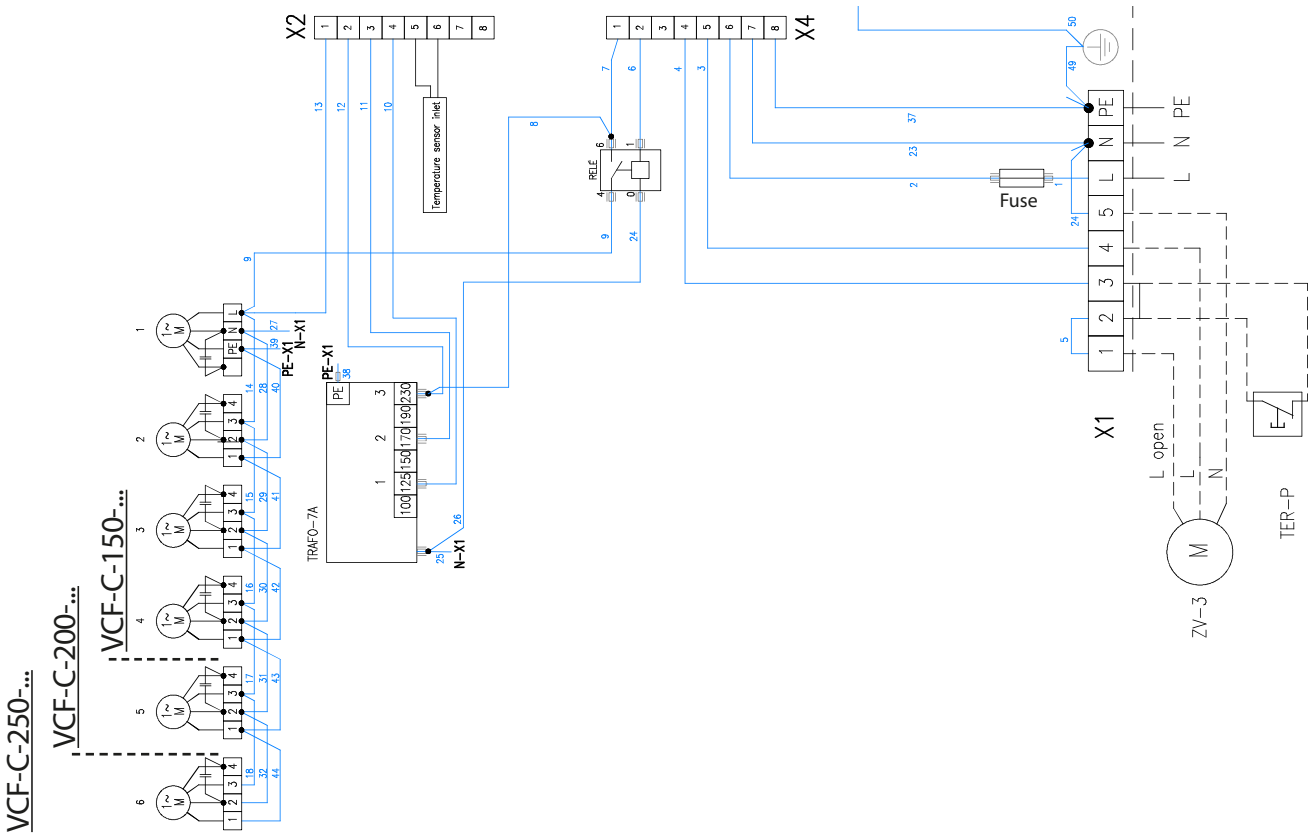
10. ELECTRICAL SCHEMES

Types with water coil VCF-C-xxx-V(W)-...

VCF-C-100-V(W)-...



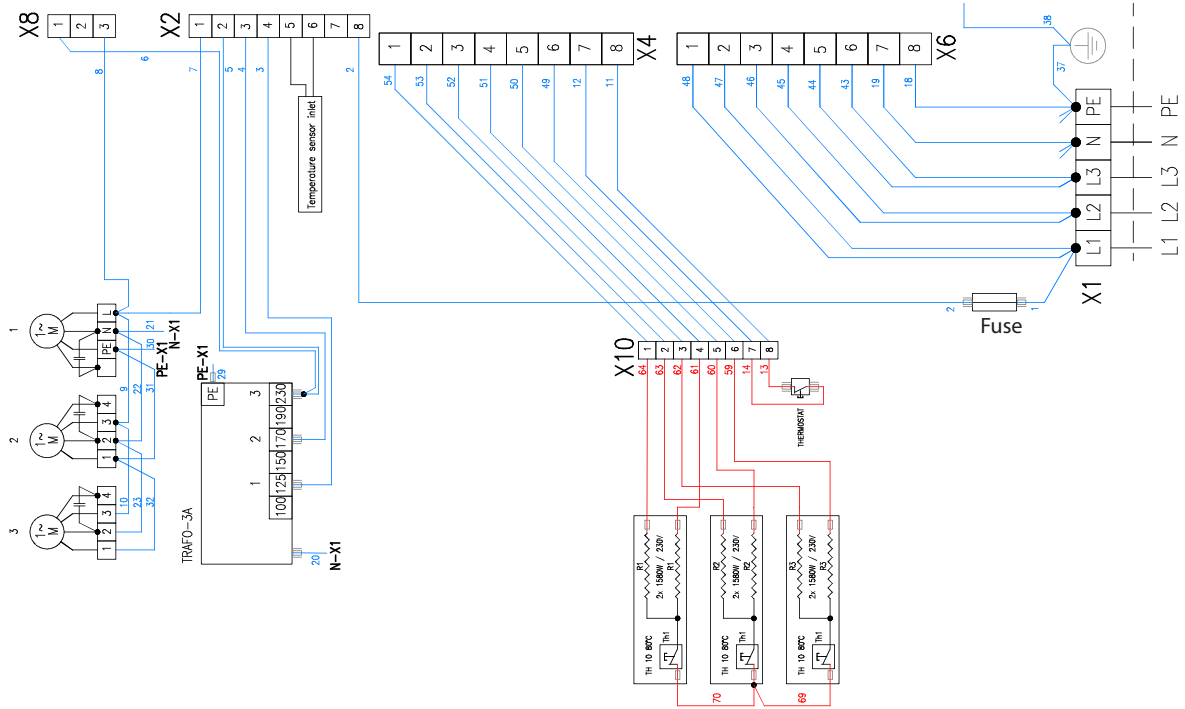
VCF-C-...-V(W)-...



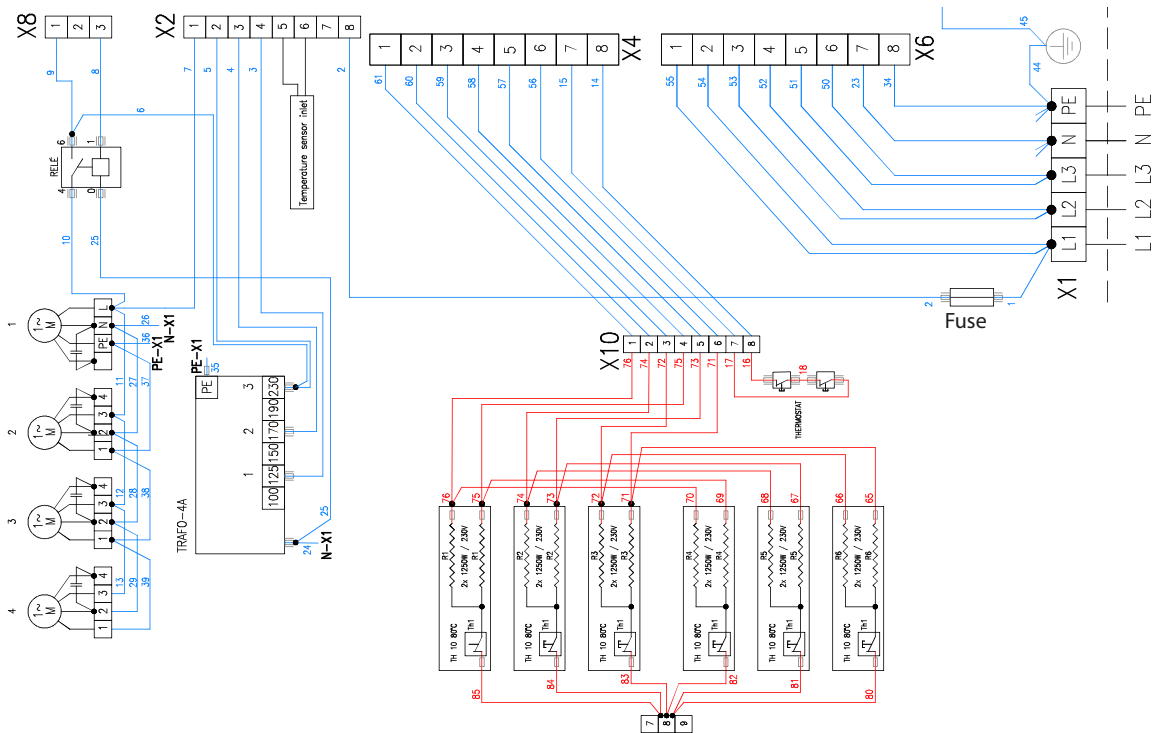
10. ELECTRICAL SCHEMES

Types with electric heater VCF-C-xxx-E...

VCF-C-100-E...



VCF-C-150-E...



● ● 11. CONCLUSION

After installing the air curtain, read carefully the **Manual for the appropriate regulator**. In case of any doubt or query, do not hesitate to contact our sales or technical support departments.

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