AERMEC air conditioning

TECHNICAL MANUAL

FAN COIL WITH INVERTER

Indipendent unit that can be integrated in the Variable Multi Flow system

INVERTER TECHNOLOGY

FCXI

Variable Multi Flow

VMF





FCXI 20 AS	FCXI 20 U	FCXI 20 P
FCXI 30 AS	FCXI 30 U	FCXI 30 P
FCXI 40 AS	FCXI 40 U	FCXI 40 P
FCXI 50 AS	FCXI 50 U	FCXI 50 P
FCXI 80 AS	FCXI 80 U	FCXI 80 P

CE

AERMEC
COMPANY QUALITY SYSTEM
ICIM
ISO 9001:2000 - Cert. n° 0128/5
CISQ IQNet
AERMEC S.P.A.

EUROVENT CERTIFIED PERFORMANCE

5732010_01

IFCXITY 1010 - 5732010_01

Made with materials of superior quality in strict compliance with safety regulations, "FCXI" is easy to use and will have a long life.

Thanks to Aermec's FCXI range of Inverter fan coils, brushless technology can now make inroads in the field of chilled water air conditioning, bringing notable energy savings along with the precise control of both air temperature and humidity in the air-conditioned rooms.

The range of FCXI Inverter fan coils are designed for integration in the VMF system.

The VMF (Variable Multi Flow) system is able to intelligently manage a complete hydronic system, made up of chiller/heat pump, a boiler, a network of fan coils (multi-speed or continuous modulation of the speed) divided into zones (up to 64), circulation pumps (up to 12) and heat recovery units with air quality sensor (up to 3), optimising conditioning and heating performance to ensure comfort and energy savings.

CONTENTS

REMARKS

Keep the manuals in a dry place - to maintain their good condition - for at least 10 years, for any future reference needs. **Carefully and thoroughly read all the information referred to in this manual. Pay particular attention to the instructions for use accompanied by the words "DANGER" or "WARNING" because, if they are not complied with, the machine/property can damaged and/or people can be injured.**
For any irregularities not foreseen by this manual, promptly contact your local After Sales Service.
The device must be installed in such a way that maintenance and/or repair operations are possible.
The device warranty does not in any case cover costs resulting from the use of automatic ladders, scaffolding or any other lifting system necessary for carrying out repairs under warranty.
AERMEC S.p.A. declines all liability for any damage due to improper use of the machine, or the partial or superficial reading of the information contained in this manual.
This manual contains the following number of pages: 52.

VENTILCONVETTORE CON INVERTER
FAN COIL WITH INVERTER
VENTILO-CONVECTEUR AVEC INVERTER
GEBLÄSEKONVEKTOR MIT INVERTER
FAN COIL CON INVERTER

FCXI AS
FCXI U
FCXI P

AERMEC S.p.A.
I-37040 Bevilacqua (Verona) Italy – Via Roma, 996
Tel. (+39) 0442 633111
Telefax (+39) 0442 93730 - (+39) 0442 93566
www .aermec. com - info @aermec. com

DICHIARAZIONE DI CONFORMITÀ CE

Noi, firmatari della presente, dichiariamo sotto la nostra esclusiva responsabilità, che il prodotto:
VENTILCONVETTORE con INVERTER
serie FCXI_AS / FCXI_U / FCXI_P
al quale questa dichiarazione si riferisce è conforme alle seguenti norme armonizzate:
- CEI EN 60335-2-40
- CEI EN 55014-1
- CEI EN 55014-2
- CEI EN 61000-6-1
- CEI EN 61000-6-3

soddisfando così i requisiti essenziali delle seguenti direttive:
- Direttiva LVD 2006/95/CE
- Direttiva compatibilità elettromagnetica 2004/108/CE
- Direttiva Macchine 2006_42_CE

FCXI_AS / FCXI_U / FCXI_P CON ACCESSORI
E' fatto divieto di mettere in servizio il prodotto dotato di accessori non di fornitura Aermec.

CERTIFICAT DE CONFORMITÉ CE

Nous soussignés déclarons sous notre exclusive responsabilité que le produit:
VENTILO-CONVECTEURS INVERTER
série FCXI_AS / FCXI_U / FCXI_P
auquel cette déclaration fait référence, est conforme aux normes harmonisées suivantes:
- EN 60335-2-40
- EN 55014-1
- EN 55014-2
- EN 61000-6-1
- EN 61000-6-3

satisfaisant ainsi aux conditions essentielles des directives suivantes:
- Directive LVD 2006/95/CE
- Directive compatibilité électromagnétique 2004/108/CE
- Directive Machines 2006_42_CE

FCXI_AS / FCXI_U / FCXI_P PLUS ACCESSOIRES
Il est interdit de faire fonctionner l'appareil avec des accessoires qui ne sont pas fournis de Aermec.

DECLARACIÓN DE CONFORMIDAD CE

Los que suscriben la presente declaran bajo la propia y exclusiva responsabilidad que el conjunto en objeto, definido como sigue:
FAN COIL INVERTER
FCXI_AS / FCXI_U / FCXI_P series
al que esta declaración se refiere, está en conformidad a las siguientes normas armonizadas:
- EN 60335-2-40
- EN 55014-1
- EN 55014-2
- EN 61000-6-1
- EN 61000-6-3

al que esta declaración se refiere, está en conformidad a las siguientes normas armonizadas:
- Directiva LVD 2006/95/CE
- Directiva compatibilidad electromagnétic 2004/108/CE
- Directiva máquinas 2006_42_CE

FCXI_AS / FCXI_U / FCXI_P CON ACCESORIOS
Está prohibido poner en marcha el producto con accesorios no suministrados por Aermec.

CE CONFORMITY DECLARATION

We the undersigned declare, under our own exclusive responsibility, that the product:
INVERTER FAN COIL
FCXI_AS / FCXI_U / FCXI_P series
to which this declaration refers, complies with the following standardised regulations:
- EN 60335-2-40
- EN 55014-1
- EN 55014-2
- EN 61000-6-1
- EN 61000-6-3

thus meeting the essential requisites of the following directives:
- LVD Directive 2006/95/EC
- EMC Electromagnetic Compatibility Directive 2004/108/EC
- Machine Directive 2006_42_CE

FCXI_AS / FCXI_U / FCXI_P WITH ACCESSORIES
The use of the unit with accessories not supplied by Aermec is not allowed.

CE KONFORMITÄTSERKLÄRUNG

Wir, die hier Unterzeichnenden, erklären auf unsere ausschließlich Verantwortung, dass das Produkt:
GEBLÄSEKONVEKTOR INVERTER
der Serie FCXI_AS / FCXI_U / FCXI_P
auf das sich diese Erklärung bezieht, den folgenden harmonisierten Normen entspricht:
- EN 60335-2-40
- EN 55014-1
- EN 55014-2
- EN 61000-6-1
- EN 61000-6-3

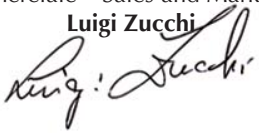
womit die grundlegenden Anforderungen folgender Richtlinien erfüllt werden:
- Richtlinie LVD 2006/95/CE
- Richtlinie zur elektromagnetischen Verträglichkeit 2004/108/CE
- Maschinenrichtlinie 2006_42_CE

FCXI_AS / FCXI_U / FCXI_P + ZUBEHÖR
Falls das Gerät mit Zubehörteilen ausgerüstet wird, die nicht von Aermec geliefert werden, ist dessen Inbetriebnahme solange untersagt.

La persona autorizzata a costituire il fascicolo tecnico è: / The person authorized to compile the technical file is: / La personne autorisée à constituer le dossier technique est: / Die Person berechtigt, die technischen Unterlagen zusammenzustellen: **Pierpaolo Cavallo**
I-37040 Bevilacqua (Verona) Italy – Via Roma, 996

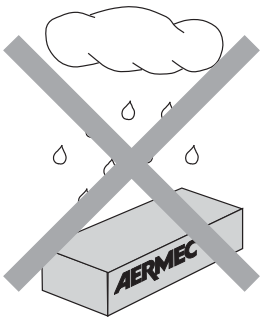
Bevilacqua, 01/01/2010

La Direzione Commerciale – Sales and Marketing Director
Luigi Zucchi

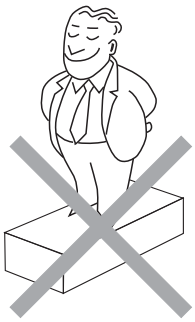


TRASPORTO • CARRIAGE • TRANSPORT • TRANSPORT • TRANSPORTE

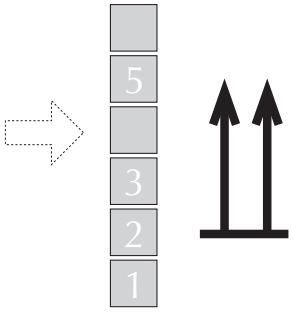
NON bagnare • Do NOT wet
CRAINT l'humidité • Vor Nässe schützen
NO mojar

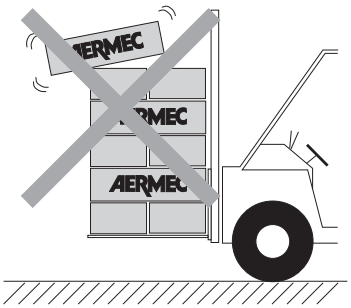


NON calpestare • Do NOT trample
NE PAS marcher sur cet emballage • Nicht betreten
NO pisar



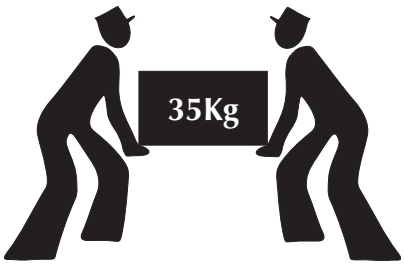
Sovrapponibilità: controllare sull'imballo la posizione della freccia per conoscere il numero di macchine impilabili.
Stacking: control the packing for the arrow position to know the number of machines that can be stacked.
Empilement: vérifier sur l'emballage la position de la flèche pour connaître le nombre d'appareils pouvant être empilés.
Stapelung: Anhand der Position des Pfeiles an der Verpackung kontrollieren, wieviele Geräte stapelbar sind.
Apilamiento: observe en el embalaje la posición de la flecha para saber cuántos equipos pueden apilarse.





NON lasciare gli imballi sciolti durante il trasporto.
Do NOT leave loose packages during transport.
ATTACHER les emballages pendant le transport.
Die Verpackungen nicht ungesichert transportieren.
NO lleve las cajas sueltas durante el transporte.

NON trasportare la macchina da soli se il suo peso supera i 35 Kg.
DO NOT handle the machine alone if its weight is over 35 Kg.
NE PAS transporter tout seul l'appareil si son poids dépasse 35 Kg.
Das Gerät NICHT alleine tragen, wenn sein Gewicht 35 Kg überschreitet.
NO maneje los equipos en solitario si pesan más de 35 kg.



SIMBOLI DI SICUREZZA • SAFETY SYMBOL • SIMBOLES DE SECURITE SICHERHEITSSYMBOLE • SÍMBOLOS DE SEGURIDAD

Pericolo:
Tensione
Danger:
Power supply
Danger:
Tension
Gefahr !
Spannung
Peligro:
Tensión

Pericolo:
Organi in movimento
Danger:
Movings parts
Danger :
Organes en mouvement
Gefahr !
Rotierende Teile
Peligro:
Elementos en movimiento

Pericolo!!!
Danger!!!
Danger!!!
Gefahr!!!
¡¡¡Peligro!!!

IMPORTANT INFORMATION AND MAINTENANCE

WARNING: the fan coil is connected to power supply and water circuit. Operations performed by persons without the required technical skills can lead to personal injury to the operator or damage to the unit and surrounding objects.

POWER THE FAN COIL ONLY WITH 230V, SINGLE-PHASE VOLTAGE

Any other type of power supply could permanently damage the fan coil.

DO NOT USE THE FAN COIL IMPROPERLY

Do not use the fan coil for animal husbandry applications (e.g. incubation).

AIR THE ROOM

Periodically air the room in which the fan coil has been installed. This is particularly important if the room is occupied by many people, or if gas appliances or sources of odours are present.

ADJUST TEMPERATURE ADEQUATELY

The room temperature should be adjusted in order to provide maximum comfort to the people in the room, especially if they are elderly, children or sick people; avoid differences over 7°C between the outdoor temperature and the temperature inside the room in summer.

In summer, a temperature that is too low causes higher electrical consumption.

CORRECTLY ADJUST THE AIR JET

Air coming out from the fan coil must not reach people directly; in fact, even if the air is warmer than the room temperature, it could cause a cold sensation and result in discomfort.

DO NOT USE EXCESSIVELY HOT WATER

To clean the fan coil use soft cloths or sponges dipped in water with a maximum temperature of 40°C. Do not use chemical products or solvents for any part of the fan coil. Do not spray water on the outer or inner surfaces of the fan coil (this might cause short circuits).

CLEAN THE FILTER PERIODICALLY

Cleaning the filter frequently guarantees enhanced operating efficiency.

Check whether the filter is very dirty: in this case, clean it more often.

Clean frequently; remove the accumulated dust with a vacuum cleaner.

Once the filter is clean, refit it on the fan coil following the removal instructions but in reverse order.

SUPPLEMENTARY CLEANING

The fact that the blades of examinable shrouds can be removed (operation done only by adequately skilled technicians) ensures a thorough cleaning of the internal components, which is particularly important when installing the unit in crowded areas or venues requiring high hygiene standards.

DURING OPERATION

Always leave the filter fitted on the fan coil during operation (otherwise dust in the air could soil the coil surface area).

WHAT IS NORMAL

In cooling mode, water vapour may be present in the air delivery of the fan coil.

In the heating operation, a slight hiss might be heard close to the fan coil. Sometimes the fan coil might give off unpleasant smells due to the accumulation of substances present in the air of the room (clean the filter more often, especially if the room is not ventilated regularly).

While the unit is functioning, there could be noises and creaks inside the device due to the various thermal expansions of the elements (plastic and metal), but this does not indicate any malfunction and does not damage the unit unless the maximum input water temperature is exceeded.

MALFUNCTIONING

In case of malfunction, cut off power to the unit, then energise it again and restart the device.

WARNING! Do not attempt to repair the unit alone, this is extremely dangerous!.

If the problem occurs again, call the local Aftersales Service immediately.

This section is reserved for the After Sales service only. There are 2 LEDs on the Inverter card (Alarm / Power) that indicate the unit's operating status. The table for the decoding of messages is found in Chapter Installation.

DO NOT TUG THE ELECTRIC CABLE

It is very dangerous to pull, tread on or crush the electric power cable, or fix it with nails or drawing pins.

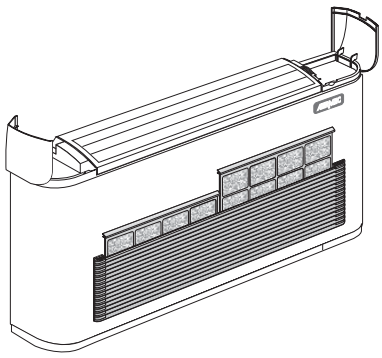
A damaged power cable can cause short circuits and injure people.

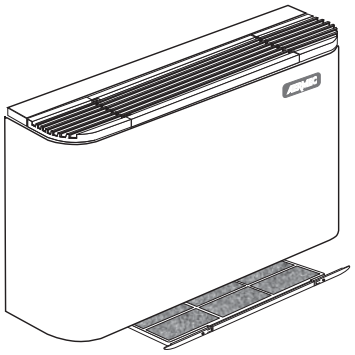
DO NOT OBSTRUCT THE AIR OUTLETS BY PLACING OBJECTS INTO THEM

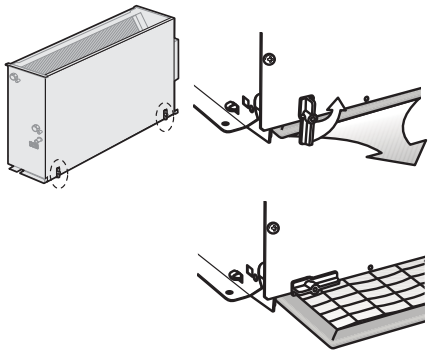
Do not put anything in the air outlet slots. This could injure people and damage the fan.

WARNING

Avoid that the device is used by children or incompetent persons without appropriate supervision; also note that the unit should not be used by children as a game.







PACKAGE

The fan coils are shipped in standard package which consists of expanded polystyrene foam and cardboard shells.

USE

Consult control panel manual for installation and use instructions.

DESCRIPTION OF THE UNIT

PURPOSE OF THE MODULATING FAN COIL FCXI

The fan coil is a room air treatment terminal unit for both winter and summer operation.
The FCXI modulating fan coil series with brushless inverter motor, are different from traditional fan coils because they offer better climatic and noise comfort, and energy savings.

ADVANTAGES

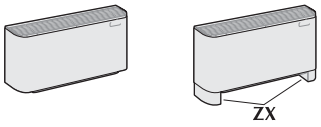
- The temperature is maintained with the utmost precision, the continuous modulation fan speed prevents surges due to changes in speed or the succession of on-off cycles.
- The noise comfort is significant, since there are no abrupt changes between the different speeds, the noise changes from one speed to another or the change between off and on cannot be heard. The type of motor and control system used also allows a minimum rotation speed much less than that of traditional models (even less than half) and therefore, not only is the noise well below average, but above all so is the sensation of effective sound (e.g. if in a bedroom the traditional fan coil alternates minimum speed cycles and fan off cycles, we don't perceive the average noise, but the noise when running at minimum speed remains imprinted).
- Energy savings through the use of the brushless motor that allows for greater efficiency, even under normal conditions. For comparison we have made an exhibitor that we will use during fairs and events where we have installed two of our fan coils of the same size, one with a brushless motor and the other with a traditional motor. With both motors at the same speed (and thus equal airflow) the reduction in power consumption by the fan coil with brushless motor exceeds 50%. The inverter is a system that automatically reduces the rotational speed and power consumption allowing the fan coil to work reduced, with considerable savings on annual operating costs. The more efficient distribution system helps to improve the energy class of the building. The electronic speed control ensures and controls the starting phase, avoiding the absorption peaks typical of this phase that occur with asynchronous motors. Obviously, these benefits assume increasing advantages in the installation as the number of FCXI fan coils increases.

The FCXI_AS fan coils are available in:

5 sizes
with 3-row coil
FCXI 20 AS
FCXI 30 AS
FCXI 40 AS
FCXI 50 AS
FCXI 80 AS

FCXI_AS

Without control panel and with Inverter motor, 3-row heat exchanger, high cabinet for vertical installation, varnished with anti-corrosion polyester powder (colour RAL 9002). The delivery grille and the feet for floor-standing solutions (ZX accessory) are made of plastic of the colour RAL 7044.
Requires external control panel (accessory).

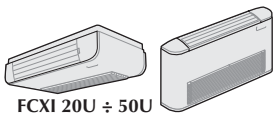


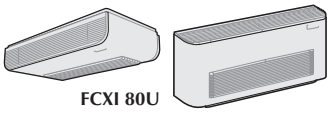
The FCXI_U fan coils are available in:

5 sizes
with 3-row coil
FCXI 20 U
FCXI 30 U
FCXI 40 U
FCXI 50 U
FCXI 80 U

FCXI_U

Without control panel and with Inverter motor, 3-row heat exchanger, universal cabinet for vertical floor-standing installation or wall-mounting, varnished with anti-corrosion polyester powder, colour RAL 9002. The air delivery and suction grilles are made using plastic material in colour RAL 7044.
Requires external control panel (accessory).



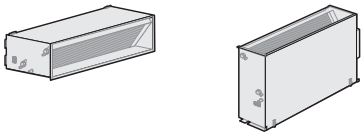


The FCXI_P fan coils are available in:

5 sizes
with 3-row coil
FCXI 20 P
FCXI 30 P
FCXI 40 P
FCXI 50 P
FCXI 80 P

Version FCXI_P

Both vertical (wall) or horizontal (suspended ceiling) installation. Wide range of accessories to connect the fan coil to each type of air ducting.



Requires external control panel (accessory).

DUCTING VERSIONS

Delivery and suction couplings

The FCXI_P fan coils are compatible with all the accessories already available for the fan coils of the FCX_P range.

Head

To help adapt the head provided by the fan to the pressure drops of the duct, the maximum speed of the FCXI_P series fan coil can be increased by changing the settings of the dip switches on the motor.

VERSIONS WITH COVERING CABINET

Casing in RAL9002

The casing is made of galvanised steel, varnished with polyester powders to guarantee high resistance to rust and corrosion.

Grey colour RAL7044

FCXI_AS

The delivery grilles are made of plastic with fins that allow the air flow to be directed.

Intake from below with removable filters.

The feet (accessory) are in plastic, colour RAL7044.

FCXI_U

FCXI80U, is fitted with the delivery grille use on the FCXI_AS version.

FCXI in sizes from 20 to 50, have delivery grilles in plastic with fins that allow to direct the airflow in two directions and completely close the cabinet. In the closed position the microswitch stops the ventilation operation, stopping any further heat exchange with the environment.

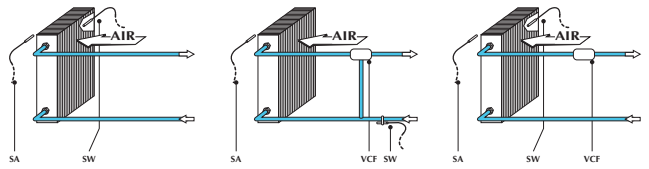
All FCXI_U fan coils have the intake grille on the front with removable filter and RAL7044 plastic lower closure.

SYSTEM EXAMPLE

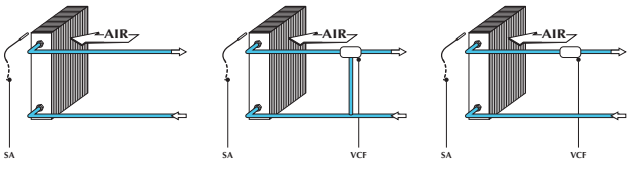
Key:

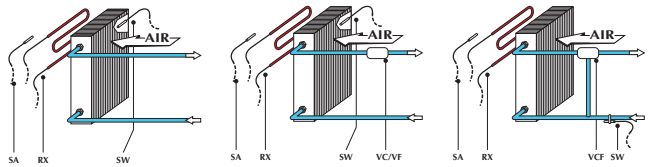
SW	Water temperature sensor	SA	Room temperature sensor
VCF	Solenoid valve (Heating / Cooling)	V3,V2,V1	Maximum, Medium or Minimum fan speed
VC	Solenoid valve (Heating),	RX	Heating element
VF	Solenoid valve (Cooling)	PC	Plasmacluster

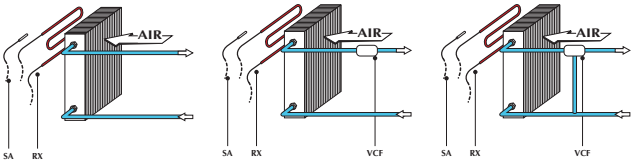
System with 2 pipes, with water sensor



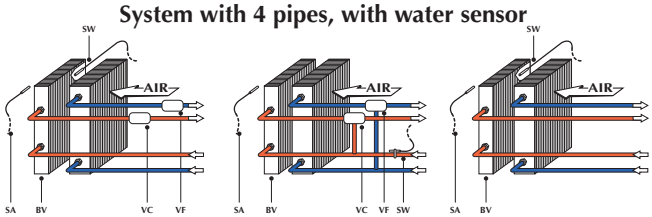
System with 2 pipes, without water sensor



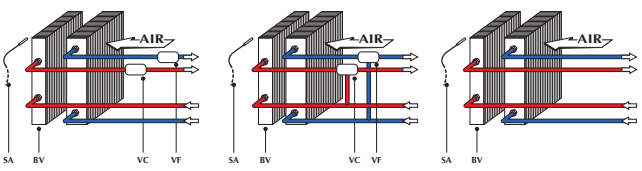




System with 4 pipes, with water sensor



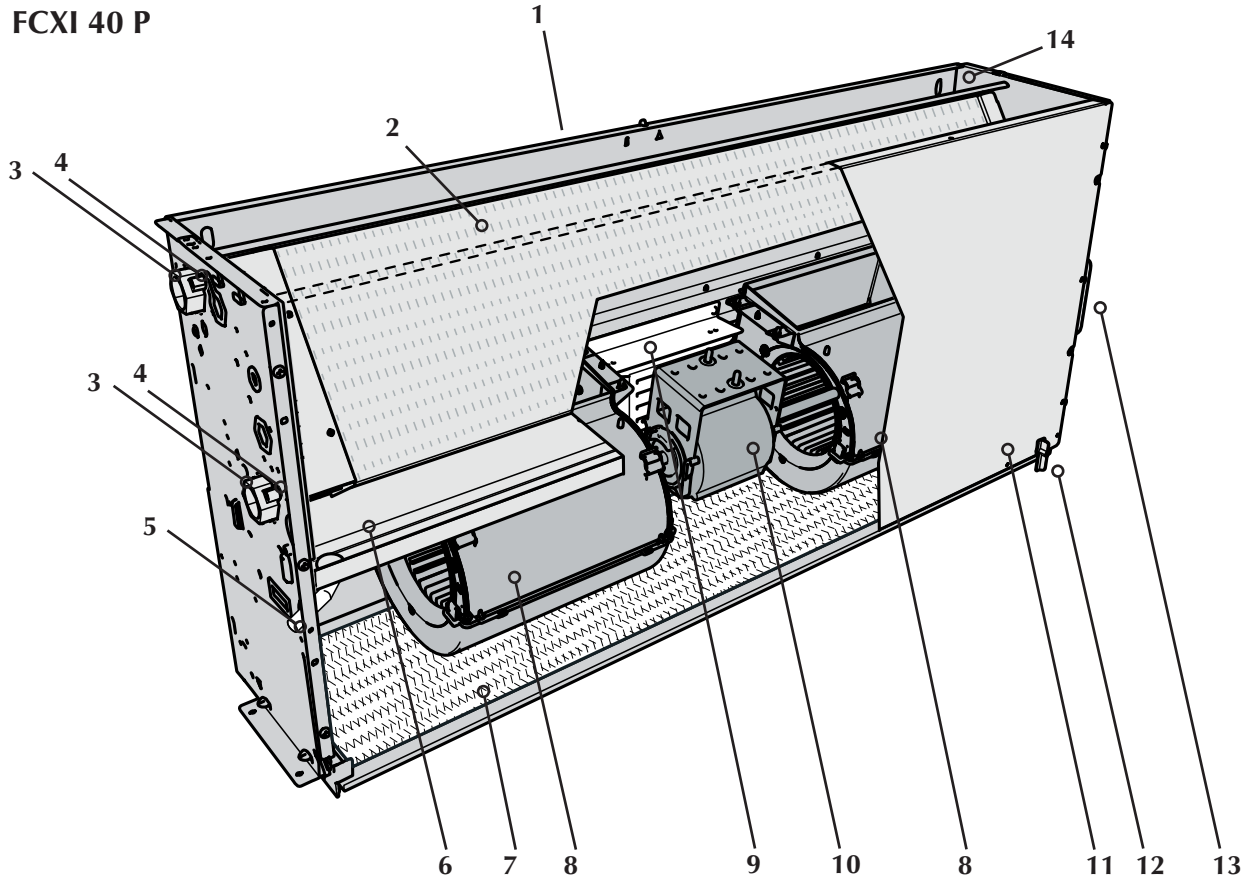
System with 4 pipes, without water sensor



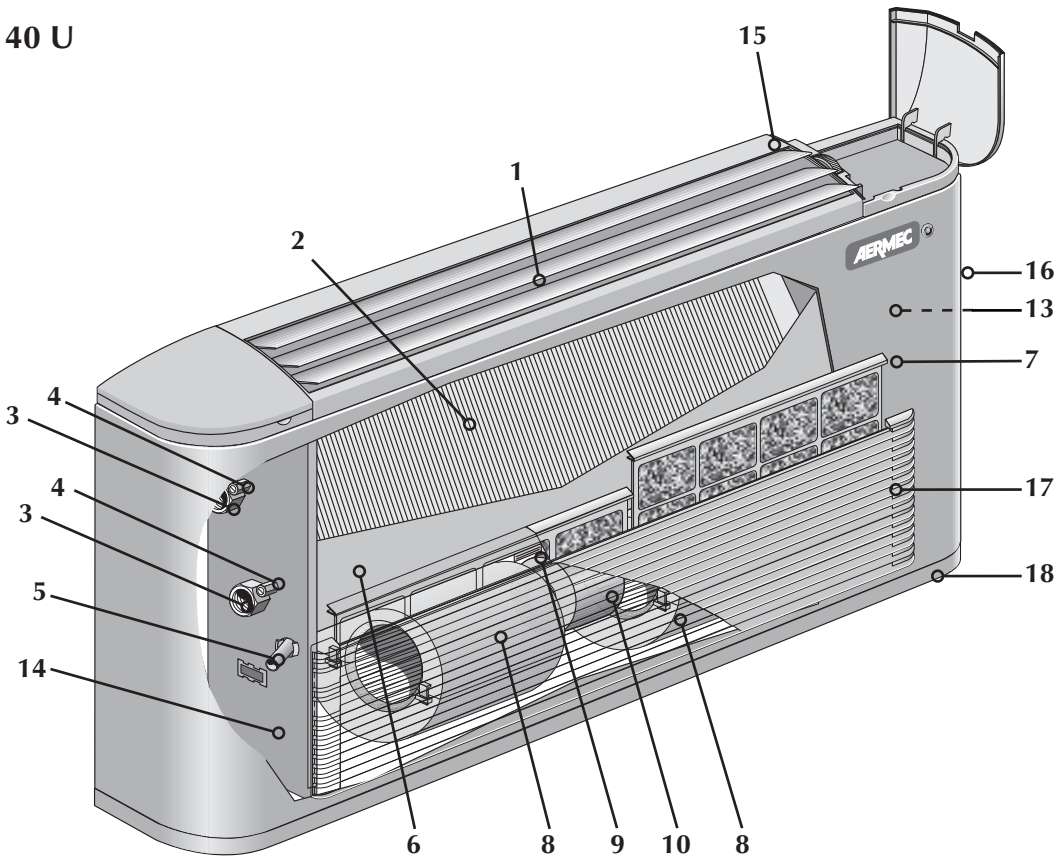
MAIN COMPONENTS

1 Air delivery
2 Heat exchange coil
3 Plumbing connections
4 Air vents on the coil
5 Condensate discharge
6 Tray
7 Air filter (suction)
8 Fan
9 Control Inverter device
10 Electric motor
11 Front closure panel
12 Filter clip
13 Electrical wiring
14 Load-bearing structure
15 Head with adjustable fins (RAL7044)
16 Covering cabinet (RAL9002)
17 Intake grille (RAL7044)
18 Lower closure (RAL7044)

FCXI 40 P



FCXI 40 U



System types

The fan coils are designed for systems with 2 and 4 pipes, in the versions:
- 3R: without valve;
- 3R: with water valve (VCF);
- 3R: with 1-row hot water coil (BV) and 2 valves (VCF).

HEAT EXCHANGE COIL

Coil with copper pipe and aluminium fins blocked by means of the mechanical expansion of the pipes. The collectors are fitted with female connections and air vents in the upper part of the coil.

FILTERING SECTION

Filter in filtering class G2, self-extinguishing B1 (DIN 4102).

Easily removable and made from regenerable materials. May be cleaned by washing with water.

FANS

This consists of double suction centrifugal fans with lengthways blades to obtain a high air flow with a low number of revs. The fans are connected directly to the "brushless" electric motor cushioned with elastic supports.

BRUSHLESS ELECTRIC MOTOR WITH INVERTER CONTROL

The "brushless electric motor with Hall sensors" and the control system used in the AERMEC FCXI fan coils is a combination of sophisticated technologies in the field of mechanics and electronics entirely developed within the industrial group.

This is a permanent magnet motor with low starting current and easy speed adjustment.

Not affected by electromagnetic interference.

The fact that it is brushless allows lower friction and less wear.

With the special inverter device, it is possible to control the speed and torque of the rotor continuously, just by means of the stator currents.

The electric motor is cushioned with elastic supports and the steel shaft is mounted on bushings and resistance to salt fog is tested in accordance with ASTM B117/64.

The "brushless electric motor with Hall sensors" used in AERMEC FCXI modulating fan coils has huge advantages over conventional AC motors and hybrid inverter motors (without Hall sensor) normally used on other modulating fan coils:
- Reduced wear and tear
- The possibility to regulate the rotation speed in a precise, continuous manner (0-100%)
- Higher energy yields
- Longer life and greater reliability
- Low magnetic noise
- Continuous monitoring of the rotor position implies greater efficiency, and guaranteed and controlled starting
- Guaranteed minimum speed 90 rpm (for thermodynamic reasons, this limit was raised to 200 rpm).

LOAD-BEARING STRUCTURE

Made of galvanised sheet iron of a suitable thickness. There are holes on the back for fixing the device to the wall. The fan unit is closed at the front with a metal panel. Every device is equipped with condensate collection trays (for both vertical and horizontal installation).

CONDENSATE DISCHARGE

Every device is equipped with condensate collection trays, with a connection for draining the condensate produced by the unit in cooling mode.

WATER CONNECTIONS

The connections, located on the left hand side, are female. The coil may also be rotated.

CONTROL PANEL (Accessory)

Use a control panel with thermostat and ventilation speed control, with 0-10V outputs.

Refer to the manual of the accessory for installation.

SELECTION CRITERIA

The version with high cabinet FCXI_AS has intake from the base and is suitable for vertical installations on walls or on the floor using the appropriate feet (ZX accessory).

The version with universal cabinet FCXI_U is instead equipped with front intake and can be installed both vertically on walls or on ceilings in a horizontal position.

The FCXI_P wall/ceiling mounted version, without protective cabinet and with intake at the bottom, can be installed either vertically or horizontally.

In case of ducted installations where pressure drops in the ducts are considerable, the FCXI_P version allows to achieve the head necessary to guarantee a correct air flow rate by altering the dip-switch setting on the motor.

All versions have to be combined with a control panel (accessory); consult the characteristics and compatibility of the control panels supplied as accessories.

There is a wide range of accessories for FCXI fan coils, sometimes some of them cannot be used at the same time; check that the accessories are compatible with the fan coil chosen. The manual shows the description of each accessory plus a drawing and its compatibility.

The installation information is included in the manuals supplied together with each fan coil or its accessory. This manual is limited to provide general information in order to obtain a correct installation; it also contains drawings with fan coil dimensions and the wiring diagrams with the connections to control panels.

The "brushless electric motor with inverter control" covers all speeds from the maximum up to the superlow self-limited to 200 rpm for thermodynamic reasons. To help with the reading of the tables, intermediate speeds known as the average and minimum speed plus the superlow speed have been set. The performances at the average and minimum speed are obtained by multiplying the table values by the corrective factors indicated.

The main technical data of the FCXI range are summarised in the tables.

The sensible and total cooling capacities at maximum speed depending on the incoming water temperature, of its thermal head and the dry bulb and wet bulb temperature of the air respectively for sensible and total yield are shown in the table and refer to the maximum speed.

The pressure drop on the water side respectively for the 3 and 1 row coils are indicated in the diagrams.

The correction factors when the unit operates with glycol water for cooling and heating function modes are shown in the graphs in percentages of glycol of 10%, 20% and 35%.

The heating output from the 3-row and 1-row coils (BV accessory) based on the water flow rate and temperature difference between the inlet water and inlet air is shown in a graphical form and refers to the maximum speed; the performances at average and minimum speeds are obtained by multiplying the values obtained from the chart at maximum speed by the corrective factors indicated.

The pressure and sound power level of the fan coils at the various speeds is indicated in separate tables for 3-row versions and 3+1 row versions.

FCXI-P ducted suspended versions

For the ducted suspended versions (FCXI_P), the performances mentioned above must be considered in relation to the air flow corresponding to the models in the other versions (AS-U) at maximum speed (nominal flow), furthermore, the motor Dip Switches of the FCXI_P versions can be altered to modify the head.

The head for the suspended versions, according to the air flow rate and the fan speed, are shown as a table; the curves are shown for each reference speed.

For scaling the ducted wall/ceiling-mounting models, it is advisable to proceed as follows: choose the size that given a normal flow rate has a power immediately above that required; afterwards, mark out the curve of the duct pressure drops on the rate-pressure diagram related to the machine in question in order to individualise the points of machine operation at the different speeds. Based on the output values of these points, you will obtain the correction factors that help calculate the output given the actual conditions of air flow rate. The above procedure allows to choose whether to change the settings of the motor's dip switches.

For the ducted wall/ceiling versions, the sound power level is expressed according to the air flow rate and pressure, and represented as graphs.

OPERATING LIMITS

FCXI		20	30	40	50	80
Maximum water inlet temperature	°C	80°				
Maximum recommended water inlet temperature	°C	65°				
Maximum operating pressure	bar	8				
Minimum water flow rate	l/h	100	100	150	150	300
Maximum water flow rate	l/h	750	750	1100	1150	2200
Room temperature limits (Ta)	°C	0° < Ta < 40°				
Relative humidity limits in the room (R.H.)		R.H. < 85%				
Power supply		230 V (±10%) ~ 50 Hz				

Performance values refer to the following conditions:
- at the maximum motor speed;
- the total input power is determined by adding the input power for the unit and the input power for the accessories connected and declared in the corresponding manuals.

Water temperature

In order to prevent air stratification in the room, and therefore to achieve improved mixing, it is advisable not to supply the fan coil with water at a temperature over 65°C.

The use of water at high temperatures could cause squeaking due to the different thermal expansions of the elements (plastic and metal), this does not however cause damage to the unit if the maximum operating temperature is not exceeded.

Minimum average water temperature

If the fan coil is working in continuous cooling mode in an environment where the relative humidity is high, condensate might form on the air delivery and on the outside of the device. This condensate might be deposited on any objects underneath and on the floor.

To avoid condensate on the external structure of the device while the fan is functioning, the average temperature of the water must not be lower than the limits shown in the table below, that depend on the thermo-hygrometric conditions of the air in the room.

The limits mentioned above refer to operation while the fan is set to its minimum speed level.

In the event of prolonged fan inactivity and with cold water passing through the coil, condensate may form on the external case of the unit. **As a result, we recommend including the 3-way valve accessory.**

MINIMUM AVERAGE WATER TEMPERATURE [°C]		Dry bulb ambient air temperature					
		21	23	25	27	29	31
Wet bulb ambient air temperature	15	3	3	3	3	3	3
	17	3	3	3	3	3	3
	19	3	3	3	3	3	3
	21	6	5	4	3	3	3
	23	-	8	7	6	5	5

TECHNICAL DATA

FCXI 2-pipe versions		FCXI	20	30	40	50	80
Heating							
(Ph) Heating output 70°C	Max. speed	W	3400	4975	7400	8620	15140
	Ave. speed	W	2700	4085	6415	7530	13350
	Min. speed	W	1915	3380	5115	5420	10770
	S.min speed	W	1080	1410	1700	1830	2740
(Ph) Heating output 50°C	Max. speed	W	2100	3160	4240	4900	7990
	S.min speed	W	670	900	980	1040	1450
Water flow rate		l/h	292	427	636	741	1300
(Dp) Pressure drop 70°C		kPa	6.3	14.2	14.1	14.2	19.8
Cooling							
Cooling output	Max. speed	W	1500	2210	3400	4190	7420
	Ave. speed	W	1330	2055	2800	3640	5500
	Min. speed	W	1055	1570	2310	2840	4710
	S.min speed	W	520	690	760	800	1170
(Pc) Sensible cooling output	Max. speed	W	1240	1750	2760	3000	5680
	Ave. speed	W	1055	1540	2115	2750	4250
	Min. speed	W	755	1100	1635	2040	3450
	S.min speed	W	370	500	550	536	830
Water flow rate		l/h	258	380	585	721	1276
(Dp) Pressure drop		kPa	5.8	16.6	14.3	19.3	22
Common data							
Air flow rate	Max. speed	cu.m/h	290	450	600	720	1140
	Ave. speed	cu.m/h	220	350	460	600	930
	Min. speed	cu.m/h	140	260	330	400	700
	S.min speed	cu.m/h	70	115	140	140	190
Fans		no.	1	2	2	2	3
(Lwi) Sound power	Max. speed	dB(A)	50	48	51	56	62
	Ave. speed	dB(A)	43	41	44	51	57
	Min. speed	dB(A)	31	34	37	42	50
	S.min speed	dB(A)	30	28	30	30	32
♪ Sound pressure	Max. speed	dB(A)	41.5	39.5	42.5	47.5	53.5
	Ave. speed	dB(A)	34.5	32.5	35.5	42.5	48.5
	Min. speed	dB(A)	22.5	25.5	28.5	33.5	41.5
	S.min speed	dB(A)	21.5	18.5	21.5	21.5	23.5
(Pf) Input power	Max. speed	W	12	12	16	37	75
Input current	Max. speed	A	0.11	0.11	0.14	0.30	0.57
(Pf) Input power (Maximum head) **	Max. speed	W	36	45	57	62	102
Input current (Maximum head) **	Max. speed	A	0.33	0.41	0.50	0.51	0.78
Current leakage to earth		mA	0.61	0.61	0.61	0.61	0.61
Power supply			230V~50Hz				
Maximum protection level			IP20				
Heat exchanger water content		l	0.79	1.11	1.48	1.48	2.52
Water connections	3R	diam.	1/2"	1/2"	3/4"	3/4"	3/4"
	1R	diam.	1/2"	1/2"	1/2"	1/2"	1/2"

= Performance certified EUROVENT 6/3 - Acoustic tests certified EUROVENT 8/2 (ISO 3741/2001)

Performance values refer to the following conditions:
♪ Sound pressure measured in semi-reverberating chamber, 85m^3, and with reverberation time Tr = 0.5s.

** FCXI_P version with internal dip-switch setting to obtain the maximum head at nominal delivery.

Cooling:
- Ambient air temperature 27°C D.B. ; 19°C W.B.
- Water inlet temperature 7°C ; Dt water 5°C
- Constant water flow rate

Heating:
- Ambient air temperature 20°C
- Water inlet temperature: 70°C; Dt water 10°C
- Water flow rate as for cooling

* **Heating:**
- Ambient air temperature 20°C
- Water inlet temperature: 50°C; Maximum speed
- Water flow rate as for cooling

The leakage current to earth of several devices placed under the same circuit breaker is summed, so attention should be paid to the calibration of the circuit breaker and possibly consider the division of the installation into several circuits each of which protected by its own circuit breaker.

Pc - COOLING OUTPUT

FCXI 20		Pc [W]						Ps [W]					
		Ta W.B. [°C]						Ts D.B. [°C]					
Tw [°C]	Δt	15	17	19	21	23		21	23	25	27	29	31
5	3	1238	1731	2254	–	–		1065	1253	1434	1590	1743	1891
	4	1110	1579	2090	2613	3163		973	1162	1350	1512	1669	1823
	5	948	1372	1893	2440	3003		864	1048	1236	1430	1594	1751
	6	866	1167	1677	2250	2826		814	955	1124	1322	1511	1673
	7	–	1049	1436	2028	2631		768	907	1033	1207	1407	1591
6	3	1085	1555	2086	2613	–		980	1164	1352	1511	1667	1814
	4	963	1387	1917	2440	2994		875	1068	1252	1432	1591	1745
	5	837	1198	1701	2258	2826		786	955	1143	1334	1514	1672
	6	779	1015	1478	2063	2640		742	882	1038	1229	1422	1594
	7	–	946	1247	1811	2436		698	840	969	1119	1314	1510
7	3	948	1372	1893	2440	–		885	1066	1262	1432	1589	1736
	4	841	1207	1719	2258	2817		783	977	1165	1350	1513	1666
	5	750	1033	**1500**	2072	2640		719	869	1056	**1240**	1432	1595
	6	707	908	1280	1841	2445		673	814	953	1139	1326	1513
	7	–	847	1107	1597	2232		627	766	905	1036	1223	1419
8	3	837	1198	1701	2258	–		794	983	1164	1349	1508	1662
	4	748	1046	1512	2072	2631		701	891	1073	1260	1430	1590
	5	683	901	1311	1862	2449		649	786	971	1149	1340	1514
	6	–	817	1119	1625	2245		603	742	882	1049	1235	1430
	7	–	–	994	1390	1997		558	696	839	967	1129	1327
9	3	750	1033	1527	2072	–		714	890	1079	1261	1429	1582
	4	671	907	1314	1878	2440		625	793	984	1166	1350	1511
	5	616	783	1137	1640	2250		580	717	878	1061	1250	1434
	6	–	738	966	1420	2019		534	673	813	966	1147	1337
	7	–	–	889	1198	1762		487	627	766	904	1047	1230
10	3	683	901	1311	1862	2449		633	799	986	1163	1347	1505
	4	593	796	1134	1652	2241		554	711	897	1073	1260	1431
	5	–	713	977	1433	2037		510	648	790	979	1159	1345
	6	–	–	858	1222	1780		464	603	741	884	1062	1245
	7	–	–	–	1052	1542		415	558	696	840	968	1143
11	3	–	782	1137	1640	2250		551	719	893	1078	1257	1424
	4	–	716	978	1433	2032		486	629	801	986	1167	1349
	5	–	646	854	1238	1795		441	579	717	888	1067	1252
	6	–	–	767	1061	1555		393	534	673	812	975	1151
	7	–	–	–	933	1329		342	487	627	764	904	1058
12	3	–	713	977	1433	2037		467	638	804	988	1162	1343
	4	–	637	854	1247	1801		416	554	720	901	1075	1259
	5	–	–	753	1073	1564		370	510	648	799	985	1161
	6	–	–	701	918	1350		322	464	603	741	889	1070
	7	–	–	–	840	1143		266	415	558	696	836	974
13	3	–	646	854	1238	1795		392	556	723	896	1078	1253
	4	–	–	762	1058	1561		346	485	638	809	989	1165
	5	–	–	678	921	1350		299	440	578	720	896	1070
	6	–	–	–	806	1155		246	393	534	671	812	983
	7	–	–	–	–	988		181	342	487	627	764	902

Tw [°C] = Inlet water temperature
Ta W.B. [°C] = Inlet air temperature with wet bulb
Ta D.B.[°C] = Inlet air temperature with dry bulb
Pc [w] = Total cooling output
Ps [w] = Sensible cooling output
Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.
If sensible output values are above the total output, this means that cooling is carried out without dehumidification.
If this occurs, take into consideration only the sensible output values.

COOLING OUTPUT CORRECTION FACTORS

The cooling outputs of the table are at maximum speed (maximum air flow). To simplify the selection, the intermediate speeds have been established corresponding to certain air flows and water flows as the maximum speed.
To determine the cooling output based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

FCXI 20	Qv [m³/h]	k (Pc)	k (Ps)
Speed (maximum)	290	1	1
Speed (average)	220	0.81	0.81
Speed (minimum)	140	0.56	0.54
Speed (super-minimum)	70	0.35	0.35

Pc - COOLING OUTPUT

FCXI 30		Pc [W]						Ps [W]					
		Ta W.B. [°C]						Ts D.B. [°C]					
Tw [°C]	Δt	15	17	19	21	23		21	23	25	27	29	31
5	3	1303	1866	2512	3148	–		1134	1368	1612	1817	2004	2184
	4	1618	2281	2921	–	–		1351	1604	1851	2055	2253	2438
	5	1415	2026	2728	3419	–		1231	1485	1750	1973	2176	2371
	6	1231	1793	2502	3228	3968		1088	1360	1623	1881	2090	2292
	7	1064	1556	2246	3010	3770		997	1222	1493	1753	2001	2210
6	3	1587	2241	–	–	–		1347	1593	1831	2029	2220	2409
	4	1407	2013	2693	–	–		1230	1477	1733	1954	2153	2340
	5	1236	1780	2491	3189	3924		1103	1366	1623	1867	2076	2272
	6	1056	1552	2219	2984	3732		974	1236	1494	1755	1989	2193
	7	960	1332	1964	2759	3528		906	1104	1368	1630	1895	2106
7	3	1363	1989	–	–	–		1219	1479	1726	1928	2120	2313
	4	1205	1758	2456	3138	–		1095	1355	1604	1849	2054	2246
	5	1069	1552	**2210**	2947	3681		987	1240	1488	**1750**	1973	2174
	6	939	1341	1956	2733	3489		878	1114	1377	1630	1884	2090
	7	871	1152	1705	2456	3272		817	997	1248	1501	1759	2004
8	3	1174	1723	2403	–	–		1084	1349	1593	1827	2022	2212
	4	1056	1523	2193	2895	–		990	1233	1476	1744	1950	2149
	5	942	1337	1938	2693	3438		878	1114	1372	1625	1868	2072
	6	841	1161	1710	2448	3228		785	990	1255	1501	1755	1989
	7	–	1012	1490	2170	2997		727	906	1120	1382	1636	1896
9	3	1042	1475	2162	–	–		981	1221	1477	1722	1921	2115
	4	952	1320	1912	2649	–		881	1114	1357	1616	1848	2046
	5	843	1152	1688	2413	3182		764	1001	1248	1492	1752	1970
	6	–	1009	1472	2158	2959		695	881	1128	1386	1632	1882
	7	–	911	1275	1881	2693		635	817	1003	1263	1261	1771
10	3	942	1264	1872	–	–		875	1089	1348	1591	1819	2013
	4	847	1131	1653	2386	3112		774	997	1240	1491	1743	1948
	5	–	1014	1447	2113	2914		663	891	1134	1376	1624	1864
	6	–	900	1271	1864	2680		622	785	1008	1266	1513	1755
	7	–	–	1104	1623	2378		542	727	906	1145	1389	1638
11	3	839	1095	1600	2320	–		769	983	1224	1474	1716	1914
	4	–	1007	1420	2078	2851		661	891	1109	1359	1615	1844
	5	–	909	1258	1832	2636		574	778	1010	1254	1503	1749
	6	–	–	1102	1618	2355		512	695	895	1148	1392	1634
	7	–	–	963	1398	2078		448	635	817	1015	1274	1524
12	3	–	992	1363	2035	–		661	880	1091	1349	1587	1813
	4	–	904	1212	1793	2579		546	783	1003	1242	1491	1737
	5	–	–	1087	1583	2316		483	667	902	1141	1379	1622
	6	–	–	971	1390	2030		419	605	788	1021	1274	1517
	7	–	–	–	1209	1789		347	542	727	911	1159	1405
13	3	–	891	1172	1739	–		552	774	987	1210	1472	1709
	4	–	–	1063	1534	2267		452	672	898	1114	1359	1610
	5	–	–	971	1352	1995		391	574	792	1019	1260	1503
	6	–	–	–	1198	1754		321	512	695	911	1158	1394
	7	–	–	–	1042	1534		238	448	635	817	1033	1291

Tw [°C] = Inlet water temperature
Ta W.B. [°C] = Inlet air temperature with wet bulb
Ta D.B.[°C] = Inlet air temperature with dry bulb
Pc [w] = Total cooling output
Ps [w] = Sensible cooling output
Qv [m^3/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.
If sensible output values are above the total output, this means that cooling is carried out without dehumidification.
If this occurs, take into consideration only the sensible output values.

COOLING OUTPUT CORRECTION FACTORS

The cooling outputs of the table are at maximum speed (maximum air flow). To simplify the selection, intermediate speeds corresponding to certain air flows have been established.
To determine the cooling output based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

FCXI 30	Qv [m^3/h]	k (Pc)	k (Ps)
Speed (maximum)	450	1	1
Speed (average)	350	0.83	0.82
Speed (minimum)	260	0.65	0.63
Speed (super-minimum)	115	0.31	0.29

Pc - COOLING OUTPUT

FCXI 40		Pc [W]						Ps [W]					
		Ta W.B. [°C]						Ts D.B. [°C]					
Tw [°C]	Δt	15	17	19	21	23		21	23	25	27	29	31
5	3	2871	–	–	–	–		2336	2730	3088	3401	3715	–
	4	2491	3516	4551	–	–		2149	2550	2942	3279	3602	3907
	5	2156	3110	4241	5329	–		1920	2332	2752	3134	3468	3791
	6	1808	2717	3825	5010	6191		1648	2113	2530	2955	3320	3653
	7	1602	2278	3368	4635	5854		1544	1850	2298	2737	3155	3507
6	3	2491	3497	–	–	–		2131	2542	2918	3240	3552	–
	4	2166	3103	4194	–	–		1939	2349	2755	3112	3437	3749
	5	1879	2730	3832	4963	6126		1706	2143	2554	2962	3303	3628
	6	1563	2343	3426	4626	5816		1496	1908	2337	2754	3150	3489
	7	1457	1924	2962	4204	5460		1402	1685	2094	2528	2951	3339
7	3	2146	3071	–	–	–		1929	2336	2730	3076	3393	3702
	4	1882	2742	3825	4898	–		1740	2160	2553	2941	3275	3592
	5	1621	2375	**3400**	4579	5751		1523	1944	2343	**2760**	3133	3465
	6	1415	2014	2987	4223	5423		1355	1679	2138	2558	2960	3322
	7	1321	1689	2556	3471	5048		1260	1544	1878	2338	2754	3163
8	3	1850	2704	3761	–	–		1740	2136	2539	2909	3228	3540
	4	1647	2382	3381	4523	–		1564	1948	2357	2754	3108	3429
	5	1482	2040	3013	4185	5357		1334	1751	2160	2561	2958	3298
	6	1279	1737	2601	3748	5010		1216	1507	1940	2353	2761	3151
	7	–	1518	2195	3297	4616		1118	1402	1695	2140	2559	2975
9	3	1644	2324	3342	–	–		1571	1934	2334	2739	3064	3379
	4	1482	2033	2987	4128	–		1388	1753	2166	2554	2936	3267
	5	1266	1782	2588	3741	4954		1169	1557	1962	2369	2758	3131
	6	–	1515	2233	3297	4588		1074	1355	1733	2172	2565	2964
	7	–	1386	1859	2846	4109		976	1260	1540	1932	2362	2760
10	3	1482	1995	2936	–	–		1398	1746	2135	2536	2899	3215
	4	1312	1769	2581	3683	4869		1203	1581	1961	2357	2750	3100
	5	–	1563	2246	3284	4532		1027	1368	1772	2169	2560	2956
	6	–	1350	1924	2846	4109		932	1214	1534	1977	2380	2762
	7	–	–	1615	2446	3619		831	1118	1402	1718	2169	2573
11	3	1320	1727	2517	3625	–		1224	1577	1938	2333	2732	3052
	4	–	1579	2195	3245	4448		1010	1405	1767	2168	2547	2929
	5	–	1392	1927	2852	4083		885	1179	1584	1990	2373	2757
	6	–	–	1647	2465	3613		788	1074	1361	1770	2186	2570
	7	–	–	1450	2098	3155		684	976	1260	1547	1966	2373
12	3	–	1566	2149	3149	–		1047	1407	1753	2136	2529	2883
	4	–	1412	1901	2800	4012		841	1226	1598	1984	2356	2741
	5	–	–	1669	2433	3580		744	1027	1402	1794	2177	2561
	6	–	–	1466	2117	3142		642	932	1213	1574	1999	2385
	7	–	–	–	1789	2710		529	831	1118	1402	1768	2189
13	3	–	1405	1850	2730	–		863	1233	1584	1945	2329	2717
	4	–	–	1669	2375	3535		698	1037	1422	1780	2172	2545
	5	–	–	1502	2104	3103		600	885	1206	1604	2003	2374
	6	–	–	–	1824	2691		491	788	1072	1382	1808	2195
	7	–	–	–	1544	2317		359	684	976	1260	1564	2004

Tw [°C] = Inlet water temperature
Ta W.B. [°C] = Inlet air temperature with wet bulb
Ta D.B. [°C] = Inlet air temperature with dry bulb
Pc [w] = Total cooling output
Ps [w] = Sensible cooling output
Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.
If sensible output values are above the total output, this means that cooling is carried out without dehumidification.
If this occurs, take into consideration only the sensible output values.

COOLING OUTPUT CORRECTION FACTORS

The cooling outputs of the table are at maximum speed (maximum air flow). To simplify the selection, intermediate speeds corresponding to certain air flows have been established.
To determine the cooling output based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

FCXI 40	Qv [m³/h]	k (Pc)	k (Ps)
Speed (maximum)	600	1	1
Speed (average)	460	0.82	0.81
Speed (minimum)	330	0.61	0.60
Speed (super-minimum)	140	0.22	0.20

Pc - COOLING OUTPUT

FCXI 50		Pc [W]						Ps [W]					
		Ta W.B. [°C]						Ts D.B. [°C]					
Tw [°C]	Δt	15	17	19	21	23		21	23	25	27	29	31
5	3	3542	–	–	–	–		2624	2952	3296	3632	–	–
	4	3227	4260	5468	–	–		2461	2810	3145	3500	3836	4164
	5	2912	3892	5083	6406	–		2284	2643	2999	3343	3704	4039
	6	2588	3516	4663	6011	7451		2064	2467	2831	3185	3545	3896
	7	2246	3130	4234	5565	7043		1755	2251	2646	3015	3369	3740
6	3	3170	–	–	–	–		2448	2788	3113	3458	3791	–
	4	2885	3848	5031	–	–		2290	2642	2980	3326	3663	3989
	5	2605	3498	4628	5960	–		2096	2470	2829	3168	3523	3861
	6	2307	3139	4225	5539	6979		1848	2290	2656	3013	3356	3720
	7	1983	2789	3813	5083	6546		1537	2053	2471	2841	3194	3556
7	3	2833	3778	–	–	–		2278	2623	2941	3280	3619	–
	4	2579	3454	4575	–	–		2105	2472	2809	3139	3486	3819
	5	2329	3130	**4190**	5486	–		1892	2301	2657	**3000**	3343	3690
	6	2062	2806	3796	5039	6495		1618	2104	2483	2838	3182	3541
	7	1721	2474	3402	4593	6037		1355	1827	2292	2670	3020	3370
8	3	2535	3376	–	–	–		2090	2448	2786	3096	3443	3772
	4	2325	3078	4129	5390	–		1900	2298	2642	2975	3307	3647
	5	2075	2789	3791	4996	6406		1675	2119	2483	2829	3165	3516
	6	1817	2496	3393	4558	5986		1367	1892	2308	2666	3006	3357
	7	–	2189	3034	4137	5503		–	1581	2102	2496	2854	3195
9	3	2299	3008	4024	–	–		1884	2282	2612	2931	3262	3598
	4	2097	2745	3700	4908	–		1690	2122	2478	2808	3129	3468
	5	1861	2491	3358	4505	5909		1448	1917	2318	2659	2994	3329
	6	–	2229	3017	4094	5468		1147	1666	2127	2502	2845	3172
	7	–	1940	2693	3700	4987		–	1367	1884	2320	2683	3024
10	3	2075	2675	3603	–	–		1678	2093	2449	2775	3079	3421
	4	1874	2456	3279	4435	–		1476	1917	2308	2644	2967	3291
	5	–	2237	2982	4032	5398		1210	1702	2138	2492	2828	3141
	6	–	1992	2684	3665	4926		–	1428	1929	2331	2675	3005
	7	–	–	2386	3279	4479		–	–	1650	2137	2515	2853
11	3	1852	2412	3192	–	–		1469	1892	2288	2606	2916	3240
	4	–	2224	2920	3962	5267		1255	1706	2134	2478	2803	3111
	5	–	2010	2653	3603	4847		951	1481	1941	2332	2662	2979
	6	–	–	2395	3253	4418		–	1174	1706	2154	2513	2836
	7	–	–	2123	2912	3997		–	v	1400	1932	2342	2693
12	3	–	2193	2833	3831	–		1258	1687	2102	2448	2762	3061
	4	–	2001	2605	3507	4733		1025	1493	1929	2316	2641	2955
	5	–	–	2377	3192	4339		–	1251	1727	2157	2500	2823
	6	–	–	2150	2885	3927		–	–	1476	1957	2344	2679
	7	–	–	–	2579	3551		–	–	–	1706	2170	2527
13	6	–	1970	2531	3398	–		1045	1481	1896	2288	2612	2897
	4	–	–	2351	3113	4243		765	1275	1718	2146	2480	2797
	5	–	–	2150	2833	3848		–	992	1509	1957	2343	2660
	6	–	–	–	2561	3489		–	–	1222	1739	2175	2516
	7	–	–	–	2299	3139		–	–	–	1457	1972	2365

Tw [°C] = Inlet water temperature
Ta W.B. [°C] = Inlet air temperature with wet bulb
Ta D.B. [°C] = Inlet air temperature with dry bulb
Pc [w] = Total cooling output
Ps [w] = Sensible cooling output
Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.
If sensible output values are above the total output, this means that cooling is carried out without dehumidification.
If this occurs, take into consideration only the sensible output values.

COOLING OUTPUT CORRECTION FACTORS

The cooling outputs of the table are at maximum speed (maximum air flow). To simplify the selection, intermediate speeds corresponding to certain air flows have been established.
To determine the cooling output based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

FCXI 50	Qv [m³/h]	k (Pc)	k (Ps)
Speed (maximum)	720	1	1
Speed (average)	600	0.84	0.85
Speed (minimum)	400	0.60	0.60
Speed (super-minimum)	140	0.19	0.18

Pc - COOLING OUTPUT

FCXI 80		Pc [W]						Ps [W]					
		Ta W.B. [°C]						Ts D.B. [°C]					
Tw [°C]	Δt	15	17	19	21	23		21	23	25	27	29	31
5	3	5591	7373	–	–	–		4995	5671	6366	7036	7680	8303
	4	4979	6701	8676	10810	0		4612	5326	6023	6722	7409	8055
	5	4320	5975	7952	10144	12453		4127	4927	5664	6367	7082	7760
	6	3553	5167	7131	9381	11749		3569	4400	5232	5983	6715	7440
	7	3291	4225	6243	8503	10985		3346	3939	4689	5556	6331	7069
6	3	4979	6688	–	–	–		4656	5338	6008	6699	7344	7987
	4	4427	6014	7965	10106	–		4262	4990	5672	6373	7073	7735
	5	3815	5315	7212	9401	11729		3710	4576	5313	6019	6732	7428
	6	3217	4549	6405	8597	10985		3248	3978	4879	5643	6357	7085
	7	3008	3782	5517	7696	10164		3032	3658	4291	5193	5969	6718
7	3	4427	6002	7925	–	–		4318	4996	5669	6354	7018	7657
	4	3930	5369	7218	9361	–		3890	4652	5337	6011	6723	7401
	5	3392	4710	**7420**	8638	10966		3256	4211	4972	**5680**	6381	7084
	6	2927	3984	5705	7803	10203		2934	3591	4504	5290	6015	6742
	7	2725	3432	4817	6902	9342		2718	3346	3953	4818	5619	6367
8	3	3949	5342	7185	–	–		3950	4670	5337	5999	6679	7324
	4	3526	4763	6486	8611	10887		3480	4310	5009	5681	6364	7056
	5	3210	4159	5773	7830	10183		2852	3815	4624	5337	6022	6740
	6	2645	3473	5033	6997	9381		2621	3248	4115	4938	5668	6380
	7	–	3143	4172	6136	8477		2405	3032	3651	4427	5263	6006
9	3	3566	4724	6432	–	–		3555	4340	5002	5654	6329	6978
	4	3156	4219	5786	7803	10106		3054	3942	4671	5347	6008	6711
	5	2585	3687	5113	7024	9361		2532	3375	4275	4996	5688	6375
	6	–	3096	4414	6230	8503		2308	2934	3674	4588	5320	6032
	7	–	2861	3648	5382	7589		2083	2718	3346	4008	4898	5660
10	3	3210	4192	5719	7723	–		3151	3971	4678	5336	5978	6644
	4	2773	3762	5113	6997	9283		2599	3539	4340	5017	5686	6356
	5	–	3291	4508	6270	8503		2219	2905	3898	4668	5357	6034
	6	–	2780	3875	5503	7642		1995	2621	3271	4219	4984	5694
	7	–	–	3284	4697	6754		1770	2405	3032	3666	4538	5315
11	3	2847	3755	5046	6916	–		2741	3576	4355	4997	5647	6300
	4	–	3392	4522	6230	8450		2136	3114	3986	4692	5357	6000
	5	–	2894	3984	5530	7628		1905	2532	3472	4329	5026	5694
	6	–	–	3405	4831	6808		1679	2308	2934	3808	4650	5351
	7	–	–	2995	4077	5948		1442	2088	2718	3346	4132	4968
12	3	–	3405	4448	6136	–		2323	3181	3994	4679	5326	5953
	4	–	3015	4003	5503	7562		1811	2681	3584	4370	5026	5671
	5	–	–	3553	4871	6781		1589	2219	3017	3971	4704	5369
	6	–	–	2988	4239	6002		1358	1995	2621	3346	4297	5026
	7	–	–	–	3539	5194		1103	1770	2405	3032	3718	4617
13	3	–	3049	3957	5402	7440		1868	2774	3599	4365	4995	5622
	4	–	–	3600	4831	6727		1495	2196	3166	4024	4713	5348
	5	–	–	3176	4293	5988		1270	1905	2554	3547	4372	5038
	6	–	–	–	3728	5275		1025	1679	2308	2949	3915	4691
	7	–	–	–	3156	4535		732	1444	2088	2718	3346	4254

Tw [°C] = Inlet water temperature
Ta W.B. [°C] = Inlet air temperature with wet bulb
Ta D.B.[°C] = Inlet air temperature with dry bulb
Pc [w] = Total cooling output
Ps [w] = Sensible cooling output
Qv [m^3/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.
If sensible output values are above the total output, this means that cooling is carried out without dehumidification.
If this occurs, take into consideration only the sensible output values.

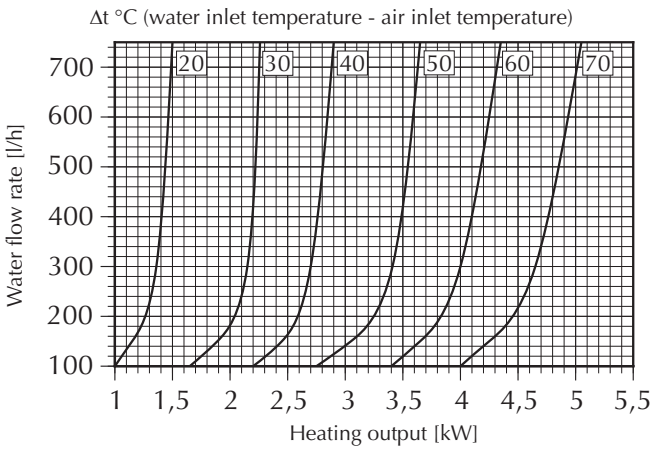
COOLING OUTPUT CORRECTION FACTORS

The cooling outputs of the table are at maximum speed (maximum air flow). To simplify the selection, intermediate speeds corresponding to certain air flows have been established.
To determine the cooling output based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

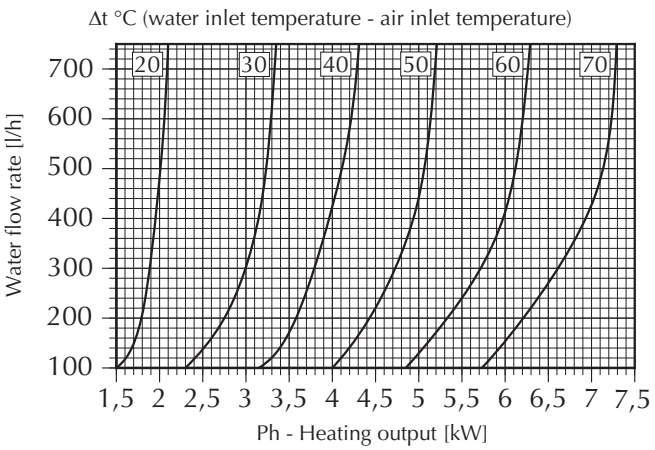
FCXI 80	Qv [m^3/h]	k (Pc)	k (Ps)
Speed (maximum)	1140	1	1
Speed (average)	930	0.72	0.76
Speed (minimum)	700	0.58	0.59
Speed (super-minimum)	190	0.16	0.15

Ph - HEATING OUTPUT WITH 3-ROW COIL

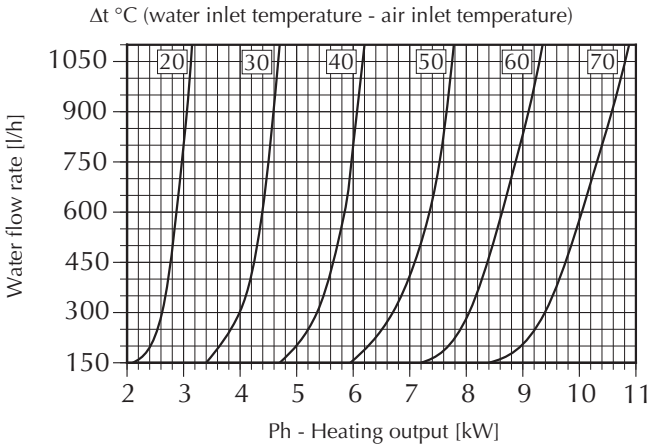
FCXI 20



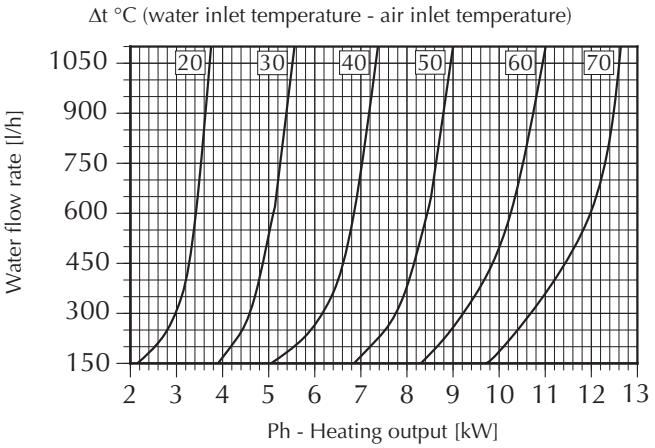
FCXI 30



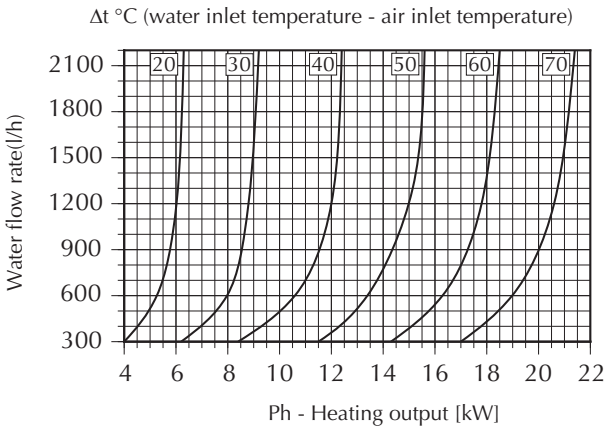
FCXI 40



FCXI 50



FCXI 80



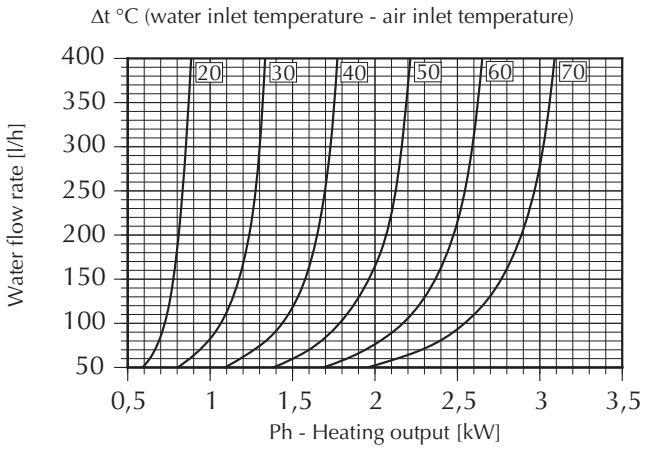
HEATING OUTPUT CORRECTION FACTORS

The heating capacities are at maximum speed (maximum air flow). To simplify the selection, intermediate speeds corresponding to certain air flows have been established.
To determine the cooling output based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

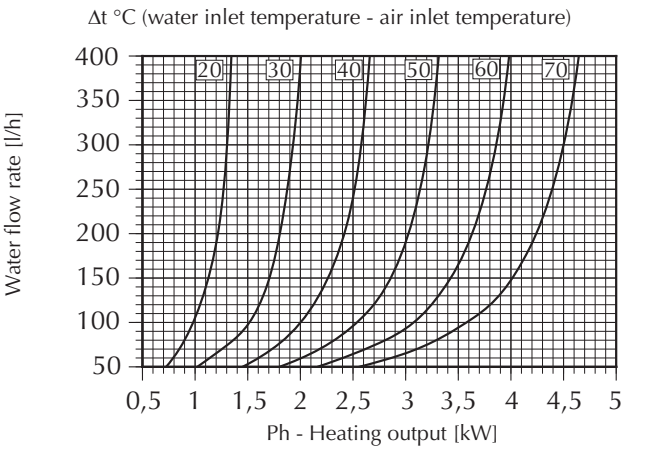
FCXI	20		30		40		50		80	
	Qv [m^3/h]	k (Ph)	Qv [m^3/h]	k (Ph)	Qv [m^3/h]	k (Ph)	Qv [m^3/h]	k (Ph)	Qv [m^3/h]	k (Ph)
Speed (maximum)	290	1	450	1	600	1	720	1	1140	1
Speed (average)	220	0.80	350	0.81	460	0.83	600	0.87	930	0.84
Speed (minimum)	140	0.55	260	0.65	330	0.61	400	0.61	700	0.65
Speed (super-minimum)	70	0.32	115	0.28	140	0.38	140	0.47	190	0.18

Ph - HEATING OUTPUT WITH 1-ROW COIL (BV accessory)

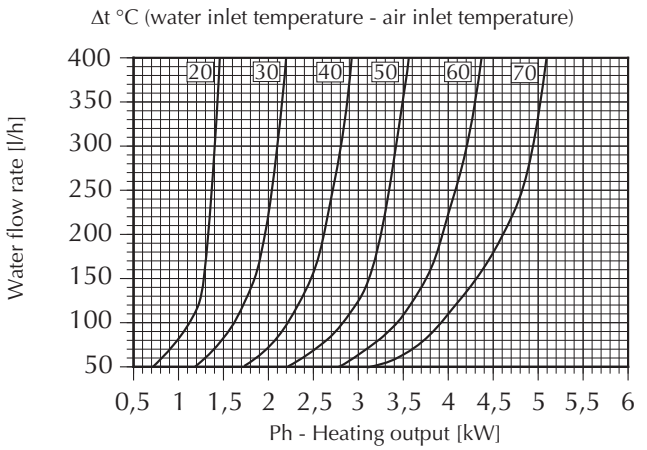
FCXI 20 (BV122)



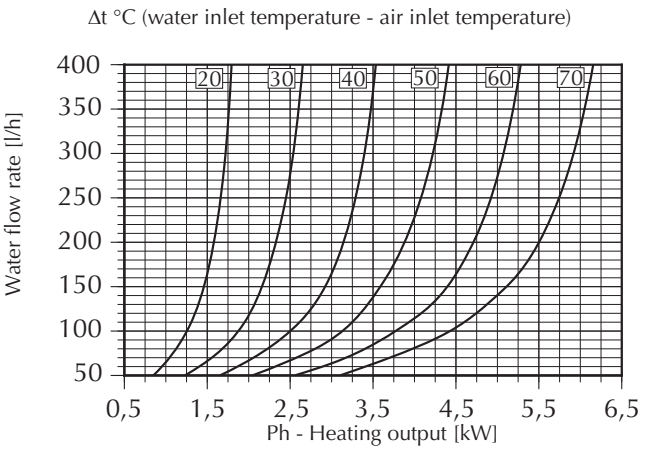
FCXI 30 (BV132)



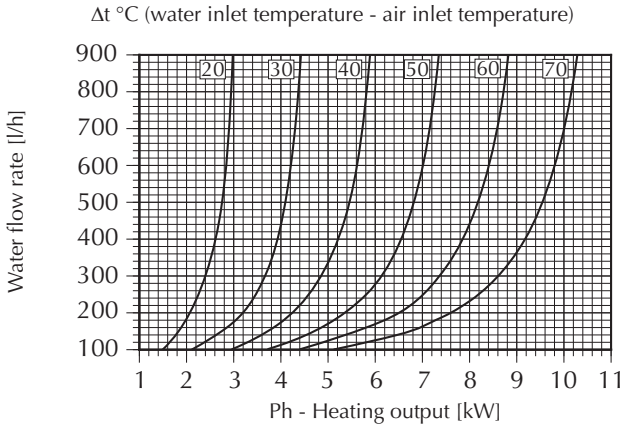
FCXI 40 (BV142)



FCXI 50 (BV142)



FCXI 80 (BV162)



The heating output of the 3-row coil in the fan coil with BV accessory coil (configuration 3R +1R), are deduced from the graphs of the standard 3-row coils using the coefficients below.

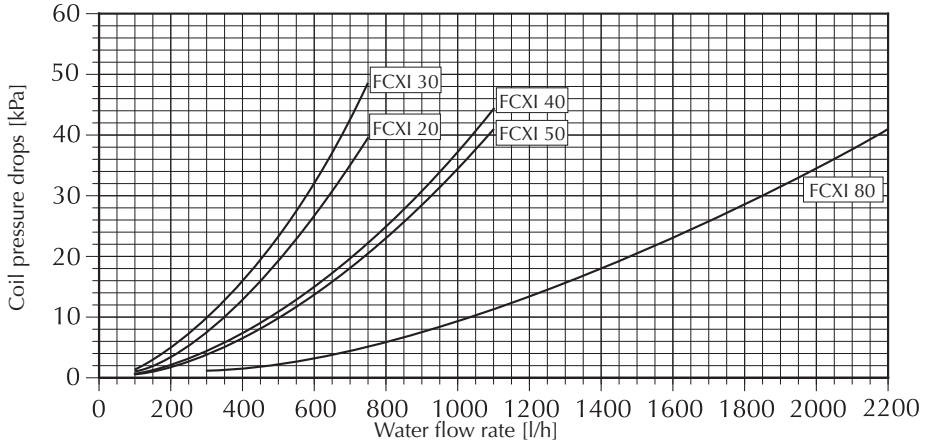
Total cooling output	= 0.99
Sensible cooling output	= 0.98
Heating	= 0.99

HEATING OUTPUT CORRECTION FACTOR (Ph)

The heating capacities are at maximum speed (maximum air flow).
To simplify the selection, intermediate speeds corresponding to certain air flows have been established.
To determine the cooling output based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

FCXI	20		30		40		50		80	
	Qv [m^3/h]	k (Ph)	Qv [m^3/h]	k (Ph)	Qv [m^3/h]	k (Ph)	Qv [m^3/h]	k (Ph)	Qv [m^3/h]	k (Ph)
Speed (maximum)	290	1	450	1	600	1	720	1	1140	1
Speed (average)	220	0,85	350	0,89	460	0,87	600	0,93	930	0,93
Speed (minimum)	140	0,64	260	0,75	330	0,70	400	0,74	700	0,80
Speed (super-minimum)	70	0,41	115	0,42	140	0,37	140	0,35	190	0,32

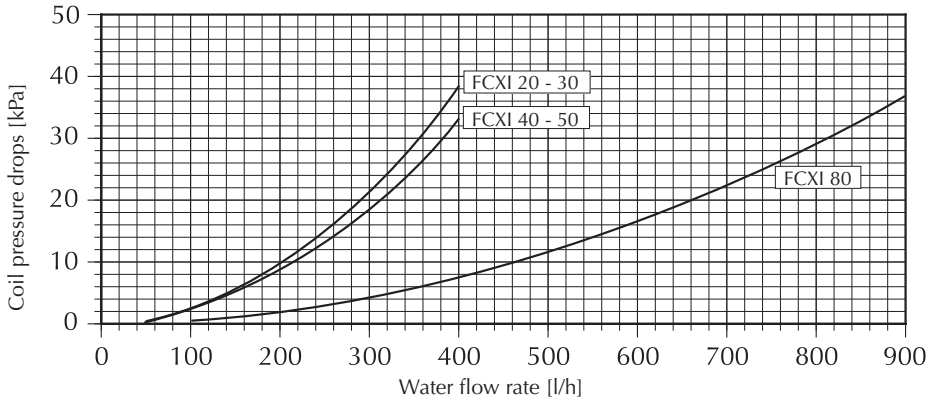
Dp - 3R COIL PRESSURE DROP



The pressure drops in the previous diagram refer to a medium water temperature of 10 °C.
The following table shows the correction to apply to the pressure drop when the medium water temperature varies.

Average water temperature	°C	5	10	15	20	50	60	70
Multiplicational coefficient	k	1.03	1	0.96	0.91	0.78	0.75	0.72

Dp - 1R COIL PRESSURE DROP (BV accessory)



The pressure drops in the previous diagram refer to a medium water temperature of 65 °C.
The following table shows the correction to apply to the pressure drop when the medium water temperature varies.

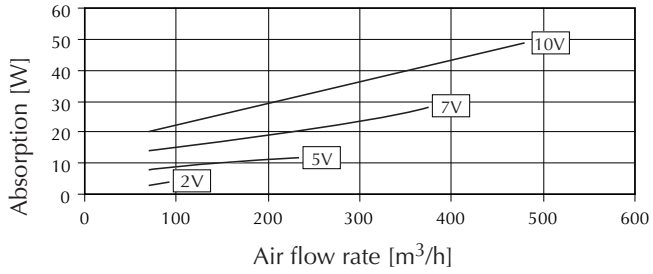
Average water temperature	°C	5	10	15	20	50	60	70
Multiplicational coefficient	k	1.4	1.36	1.31	1.24	1.06	1.02	0.98

HEAD_ ABSORPTION (FCXI_P only)

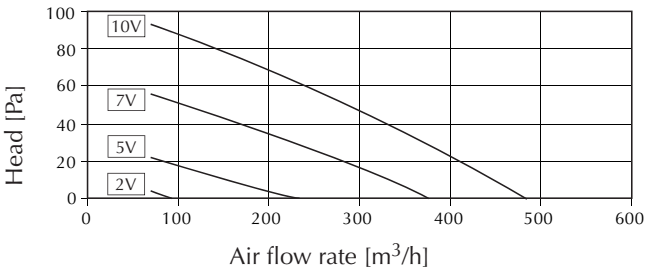
The tables express the useful head at the outlet and the input power of the FCXI_P series fan coils depending on air flow and fan speed, the speeds are related to 4 power supply voltages. The motor is set via the dip switches to operate with increased speed.

To help adapt the head provided by the fan to the pressure drops of the duct, the maximum speed of the FCXI_P series fan coil can be increased by changing the settings of the dip switches on the motor (see chapter "Installation Information").

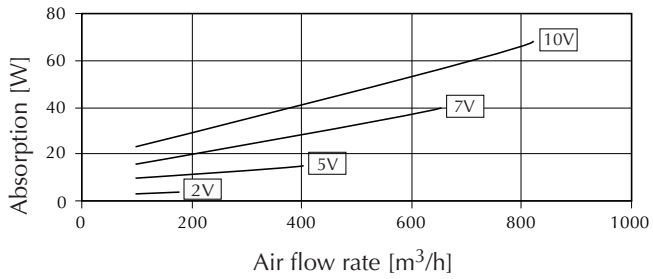
FCXI 20 P



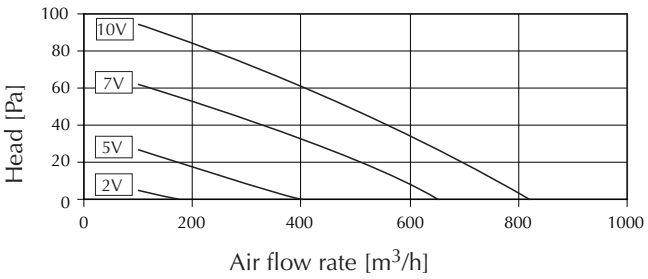
FCXI 20 P



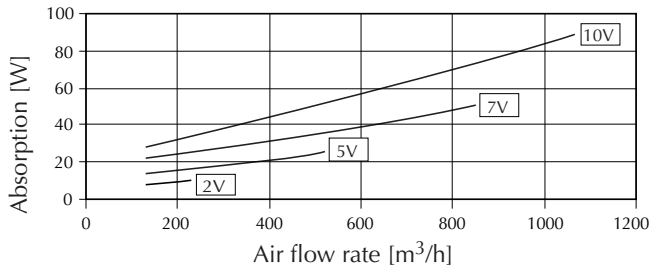
FCXI 30 P



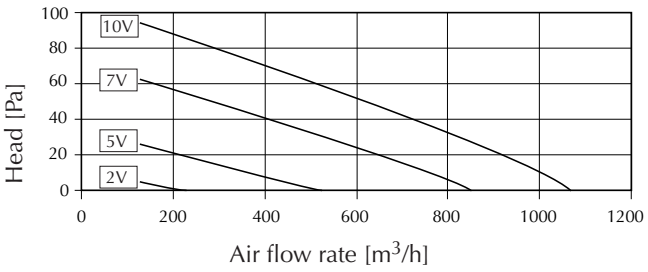
FCXI 30 P



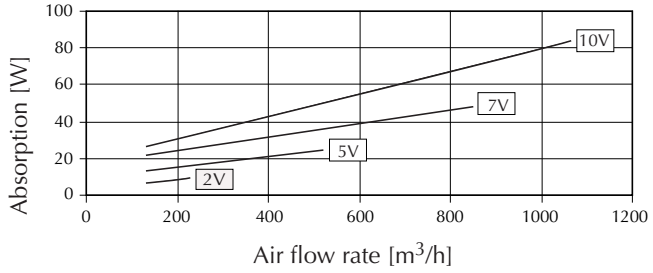
FCXI 40 P



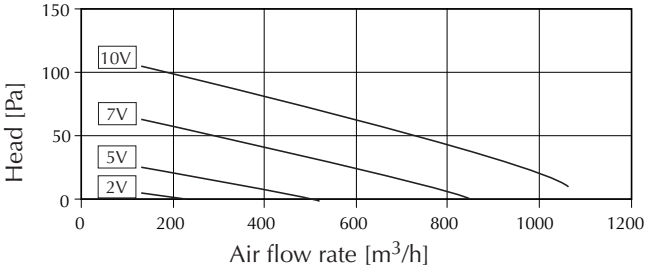
FCXI 40 P



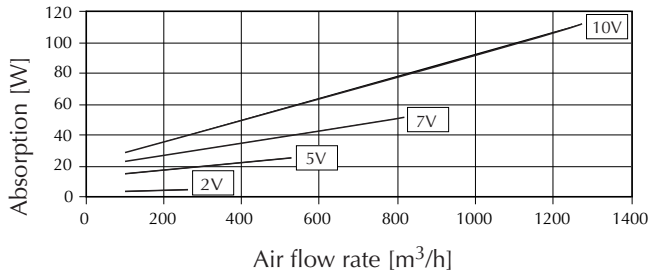
FCXI 50 P



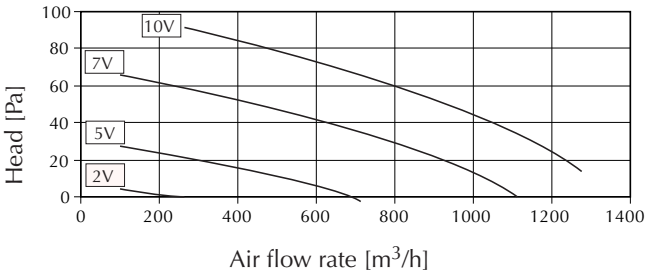
FCXI 50 P



FCXI 80 P



FCXI 80 P



CORRECTION FACTORS WHEN OPERATING USING GLYCOL WATER

Key:

Pressure drops

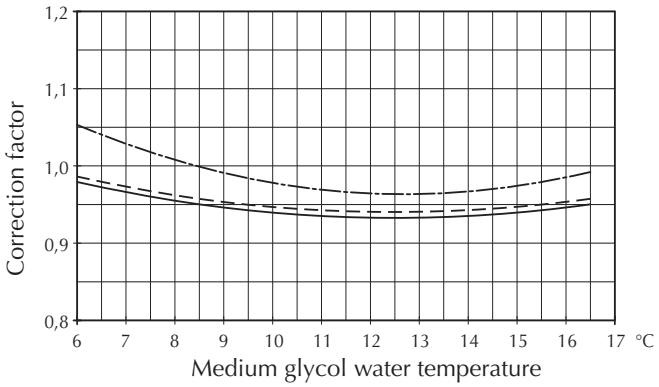
Air flow rate

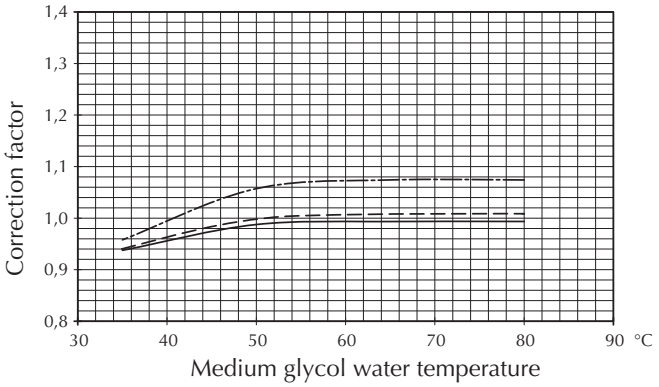
Output

COOLING FUNCTION MODE

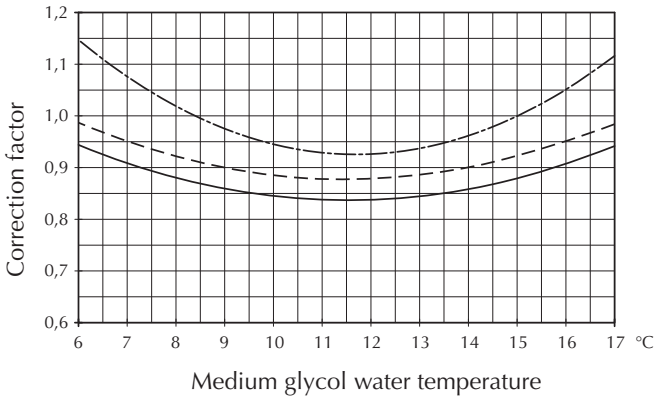
HEATING FUNCTION MODE

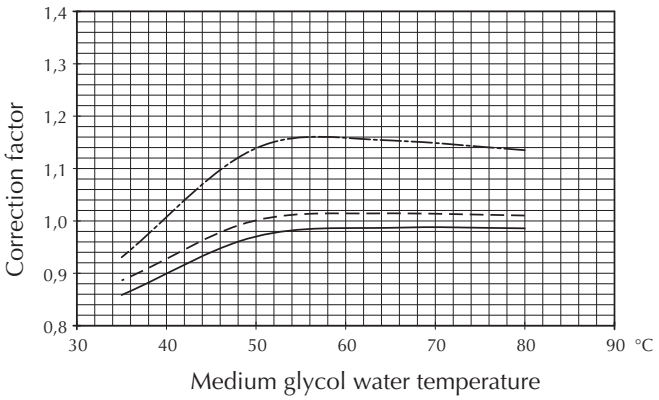
GLYCOL WATER AT 10%



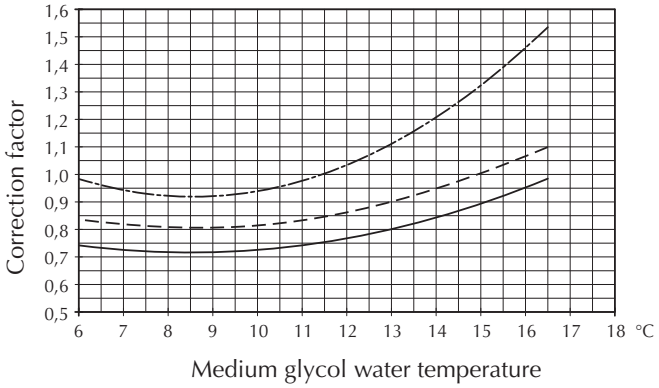


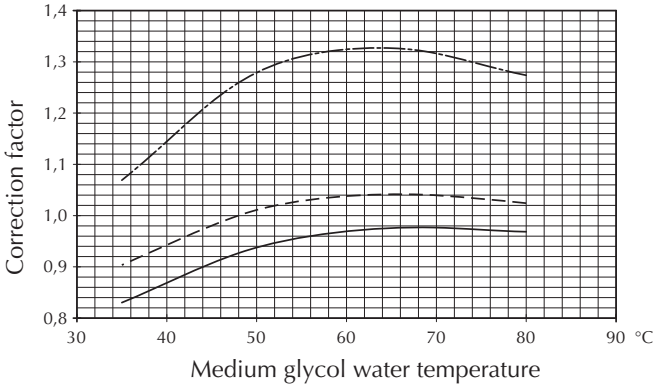
GLYCOL WATER AT 20%





GLYCOL WATER AT 35%





Lw - SOUND POWER LEVEL expressed in dB

Model	Speed	Central frequency band [Hz]							Over-all	
		125	250	500	1000	2000	4000	8000	dB	dB (A)
FCXI20	Maximum	45.6	50.6	48.4	44.7	41.3	33.3	19.7	54.2	50 **(E)**
	Average	39.2	44.9	41.7	37.6	31.9	25.8	7.5	47.9	43 **(E)**
	Minimum	25.8	33.0	29.1	26.2	19.9	16.2	2.6	35.7	31 **(E)**
FCXI30	Maximum	43.6	48.8	46.4	42.7	39.0	31.3	17.7	52.3	48 **(E)**
	Average	37.0	43.0	39.7	35.7	29.9	24.0	5.4	45.9	41 **(E)**
	Minimum	28.9	36.1	32.2	29.0	22.9	19.2	3.1	38.8	34 **(E)**
FCXI40	Maximum	46.6	51.8	49.4	45.7	42.0	34.3	20.7	55.3	51 **(E)**
	Average	39.6	44.8	42.4	38.7	35.0	27.3	13.7	48.3	44 **(E)**
	Minimum	31.9	39.1	35.2	32.0	25.9	22.2	6.1	41.8	37 **(E)**
FCXI50	Maximum	51.6	56.8	54.4	50.7	47.0	39.3	25.7	60.3	56 **(E)**
	Average	46.6	51.8	49.4	45.7	42.0	34.3	20.7	55.3	51 **(E)**
	Minimum	37.6	42.8	40.4	36.7	33.0	25.3	11.7	46.3	42 **(E)**
FCXI80	Maximum	57.6	62.8	60.5	56.7	53.2	45.0	31.8	66.3	62 **(E)**
	Average	52.4	57.8	55.5	51.7	48.2	40.1	26.7	61.3	57 **(E)**
	Minimum	45.6	51.0	48.4	44.6	41.1	33.2	19.8	54.4	50 **(E)**

(E) = Eurovent certified performances.

SOUND PRESSURE LEVEL expressed in dB (A)

Speed	FCXI 20	FCXI 30	FCXI 40	FCXI 50	FCXI 80
Maximum	41.5	39.5	42.5	47.5	53.5
Average	34.5	32.5	35.5	42.5	48.5
Minimum	22.5	25.5	28.5	33.5	41.5

Level of sound pressure (A-weighted) measured in the room with volume V = 85 m ^{3}; reverberation time t = 0.5 s; direction factor Q = 2; distance r = 2.5 m.

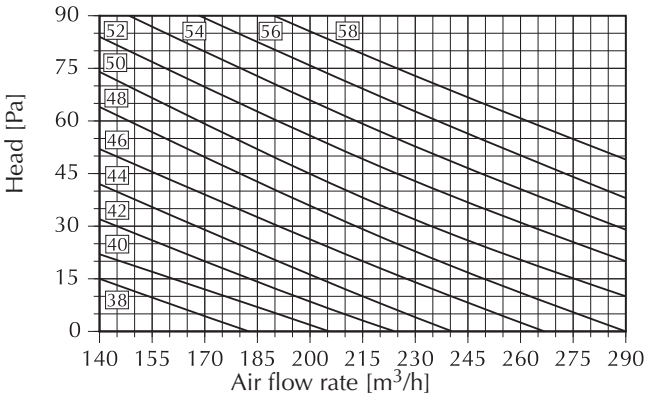
SOUND POWER LEVEL FOR DUCTED WALL/CEILING-MOUNTING FCXI_P MODELS expressed in dB

The level of the sound power emitted by the fan coils installed in ducts depends not only on the fan speed, but also the functioning point that is determined compatibly with the duct pressure drop.

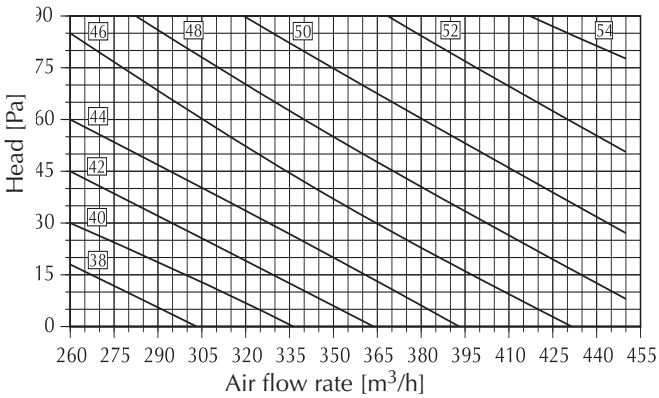
The following diagrams make it possible to determine the level of the sound power (A-weighted), expressed in dB (A) and shown at the relative curve on the basis of the flow rate and head values.

The overall levels of the sound power, expressed in dB (A), are shown at each curve

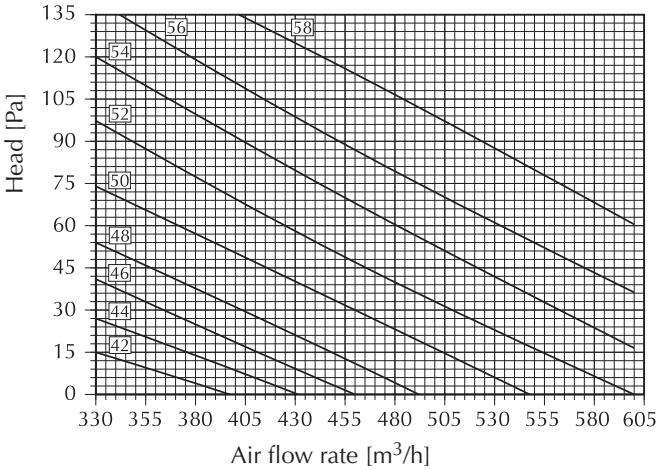
FCXI 20 P



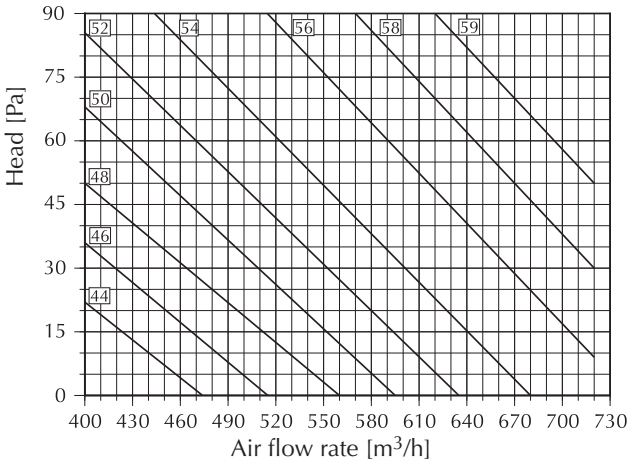
FCXI 30 P



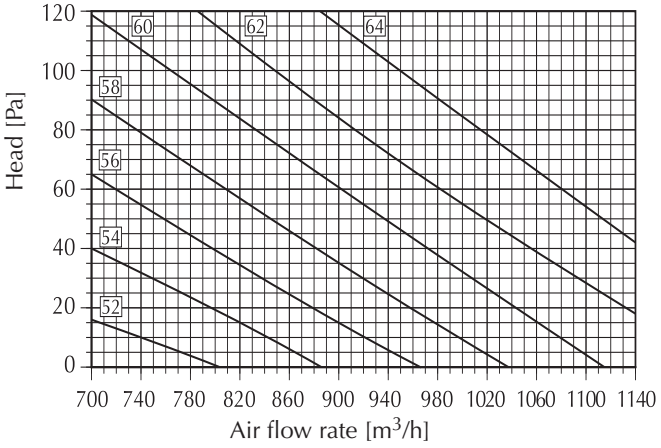
FCXI 40 P



FCXI 50 P



FCXI 80 P



ACCESSORIES

Consult the compatibility table to make your choice.

Accessory		FCXI fan coil					
		20	30	40	50	80	
AMP (*)		✔	✔	✔	✔	✔	P-U
AMP	**20**	✔	✔	✔	✔	✔	P-U
BC (**)	**4**	✔	✔	✔	✔	✔	AS-P-U
	5	✔	✔	✔	✔		P-U
	6					✔	P-U
	8	✔	✔	✔	✔		P
	9					✔	P
BV (****)	**122**	✔					AS-P-U
	132		✔				AS-P-U
	142			✔	✔		AS-P-U
	162					✔	AS-P-U
CHF	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
DSC (*)	**4**	✔	✔	✔	✔	✔	AS-P-U
GA	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
GAF	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
GM	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
MA (**)	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
MU (**)	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
PA	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
PA F	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
PC	**22**	✔					AS
	23	✔					U
	32		✔				AS
	33		✔				U
	42			✔	✔		AS
	43			✔	✔		U
	62					✔	A-U
PCR	**1**	✔	✔	✔	✔		P
	2					✔	P
PM	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P

(*) The accessory DSC4 is not compatible with the installation brackets AMP.
The accessory DSC4 is not compatible with the installation brackets AMP20.

Accessory		FCXI fan coil					
		20	30	40	50	80	
RD	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
RDA	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
RP	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
RPA	**22**	✔					P
	32		✔				P
	42			✔	✔		P
	62					✔	P
SE (***)	**20X**	✔					AS-P
	30X		✔				AS-P
	40X			✔	✔		AS-P
	80X					✔	AS-P
SWI		✔	✔	✔	✔	✔	AS-P-U
VCF (**)	**41**	✔	✔				AS-P-U
	42			✔	✔		AS-P-U
	43					✔	AS-P-U
	44	✔(****)	✔(****)	✔(****)	✔(****)		AS-P-U
	45					✔(****)	AS-P-U
	4124 (24V)	✔	✔				AS-P-U
	4224 (24V)			✔	✔		AS-P-U
	4324 (24V)					✔	AS-P-U
	4424 (24V)	✔(***)	✔(***)	✔(***)	✔(***)	✔(***)	AS-P-U
VCFD	**1**	✔	✔				AS-P-U
	2			✔	✔		AS-P-U
	3					✔	AS-P-U
	4	✔(****)	✔(****)	✔(****)	✔(****)	✔(****)	AS-P-U
	124 (24V)	✔	✔				AS-P-U
	224 (24V)			✔	✔		AS-P-U
	324 (24V)					✔	AS-P-U
	424 (24V)	✔(***)	✔(***)	✔(***)	✔(***)	✔(***)	AS-P-U
ZX (***)	**5**	✔	✔	✔	✔		AS
	6					✔	AS
	7	✔	✔	✔	✔		P
	8					✔	P
WMT	**20**	✔	✔	✔	✔	✔	AS-P-U
VMF (*****)	**18**	✔	✔	✔	✔	✔	AS-P-U
	E2	✔	✔	✔	✔	✔	AS-U
	E4	✔	✔	✔	✔	✔	AS-P-U

(**) **BC4** The VCF valve and the BC4 tray cannot be installed at the same time on the same fan coil.

BC8 and **BC9** cannot be applied to fan coils with a protective cabinet.

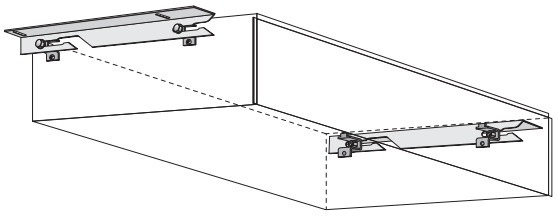
(**) The SE accessories have to be installed in combination with ZX feet.

(****) For BV coil accessories only.

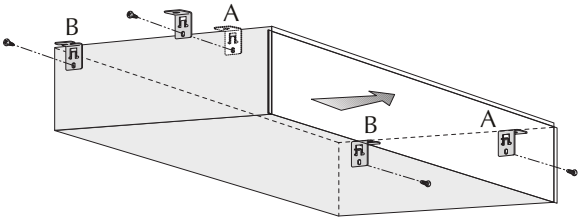
(*****) The thermostat card VMF-18 requires a VMF-E2 (on board) or VMF-E4 (wall) control panel interface.VMF system, the units combined with VMF-E18 can control a network of fan coils or can be included in a group with higher-level control, see the documentation of the VMF system to select the components of a VMF network.

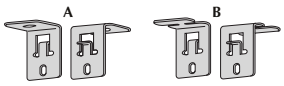
ACCESSORIES

AMP INSTALLATION SUPPORTS



AMP Installation kit with ceiling fixing brackets.

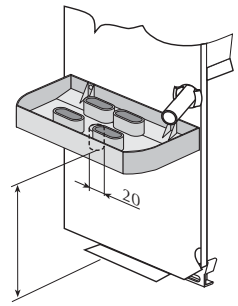




AMP20 is designed in order to facilitate fastening the fan coil to the wall, especially for ceiling installations, but can also be applied for installation on vertical walls.

CONDENSATE COLLECTION TRAY

BC4



DIMENSIONS [mm]

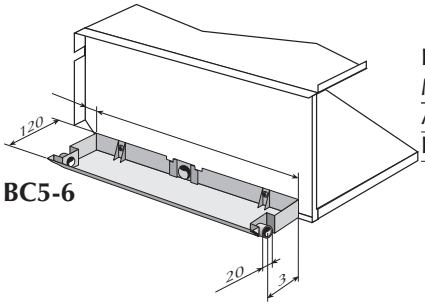
Mod.	FCXI 20÷50	FCXI 80
A [mm]	109	126

the VCF valve and the BC4 tray cannot be installed at the same time on the same fan coil.

Made of thermoplastic material, collects and removes condensation that forms during summer operation near the water connections that are not insulated. In particular, the basin **BC4** is used on all the sizes with vertical installation of the device.

WARNING: the VCF valve and the BC4 tray cannot be installed at the same time on the same fan coil.

BC5-6



DIMENSIONS [mm]

Models	BC 5	BC 6
A [mm]	375	476
B [mm]	69	72

WARNING: BC8 and BC9 cannot be applied to fan coils with a covering cabinet.

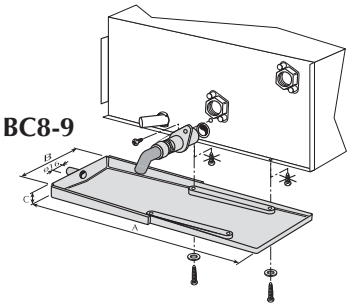
The tray **BC5** is installed on the sizes FCXI 20, 30, 40, 50 with horizontal installation.

The tray **BC6** is installed on size FCXI 80 with horizontal installation.

The tray **BC8** is installed on the sizes FCXI 20P, 30P, 40P, 50P with horizontal installation.

The tray **BC9** is installed on size FCXI 80 P with horizontal installation.

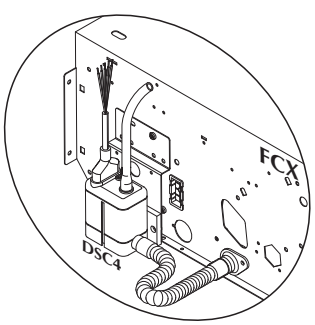
BC8-9

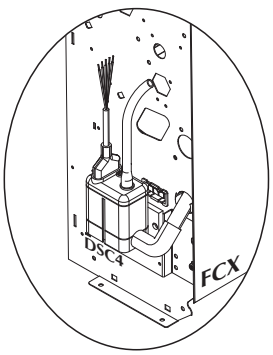


DIMENSIONS [mm]

Models	BC 8	BC 9
A [mm]	420	524
B [mm]	146	146
C [mm]	25	25

DSC CONDENSATE DISCHARGE DEVICE

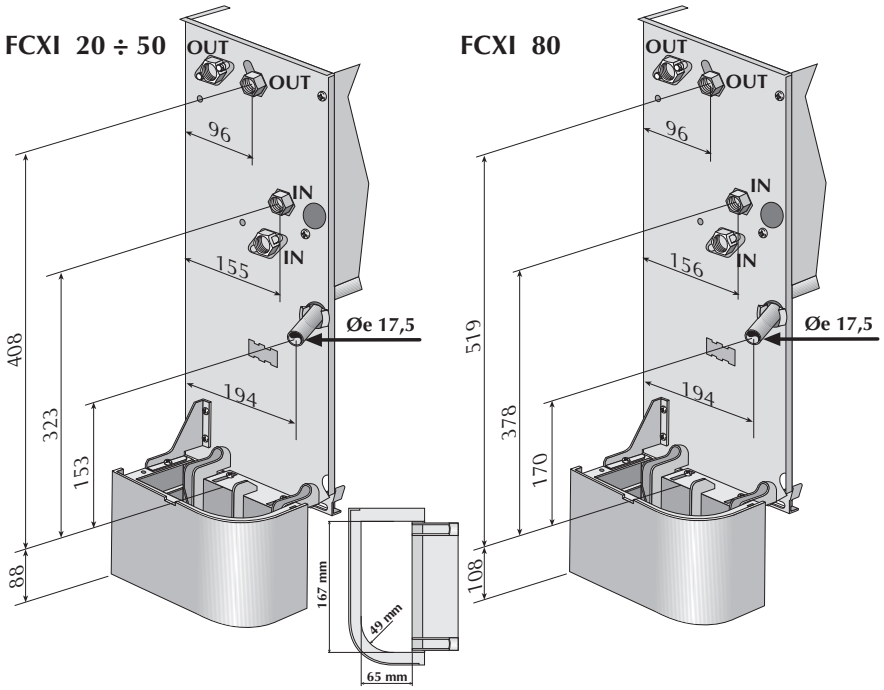




Allows, by means of a pump, to dispose of the condensate when differences in height need to be overcome. Externally mounted to the equipment.

ACCESSORIES

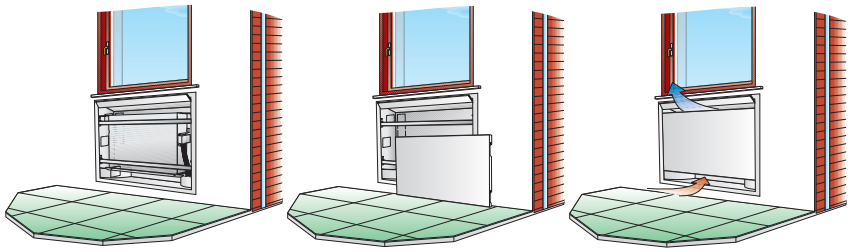
BV 1-ROW HEATING COIL



The 1-row hot water heat coil can be installed in fan coils of four pipe units, located above the standard coil. The adjustment of the coil can be made via a control panel capable of controlling the double valve.

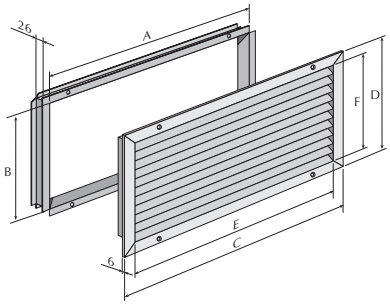
Do not consider the feet for the FCXI_U versions - For all 1/2" water connection models (female)

CHF VENTILCASSAFORMA



Template is galvanised metal that allows to create a space directly in the wall to house the fan coil (FCXI_P). The template facilitates masonry work during the construction of the niche where the fan coil will be installed. When the work is finished, the fan coil will be completely hidden from sight.

GA INTAKE LOUVER

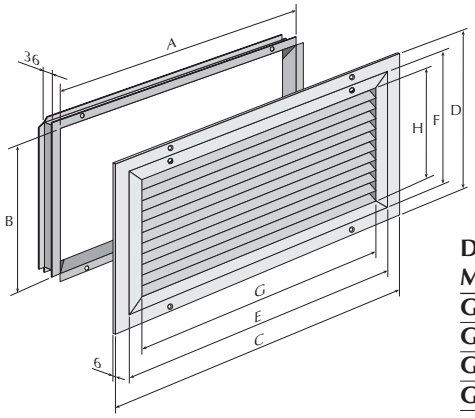


Sheet metal fixed fins coated with polyurethane powder. The subframe is also supplied.

DIMENSIONS [mm]

Models	A	B	C	D	E	F
GA 22	506	214	550	258	500	208
GA 32	737	214	781	258	731	208
GA 42	957	214	1001	258	951	208
GA 62	1078	244	1122	288	1072	238

GAF INTAKE LOUVER WITH FRAME AND FILTER



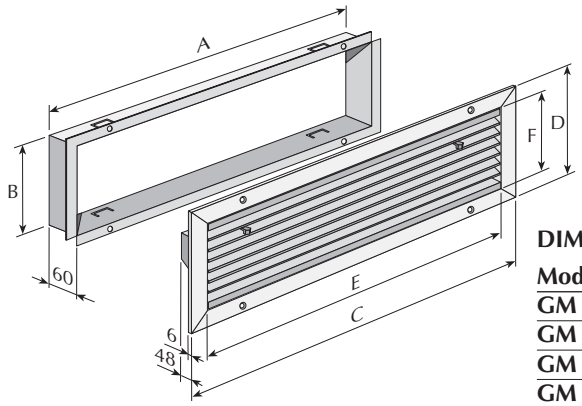
Sheet metal fixed fins coated with polyurethane powder, with frame for filter introduction. The subframe and filter are supplied.

DIMENSIONS [mm]

Models	A	B	C	D	E	F	G	H
GAF 22	561	270	605	314	554	262	500	208
GAF 32	792	270	836	314	785	262	731	208
GAF 42	1012	270	1056	314	1005	262	951	208
GAF 62	1133	300	1177	344	1126	292	1072	238

ACCESSORIES

GM DELIVERY LOUVER

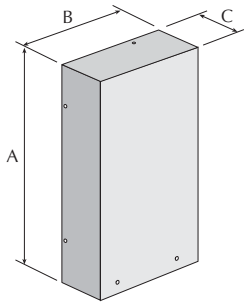


Sheet metal painted with high resistance enamel; complete with adjustable thermoplastic grilles for air distribution. The subframe is also supplied.

DIMENSIONS [mm]

Models	A	B	C	D	E	F
GM 22	457	134	502	178	452	128
GM 32	688	134	733	178	683	128
GM 42	908	134	953	178	903	128
GM 62	1029	134	1074	178	1024	128

PCR HEATING ELEMENT COVER PANEL

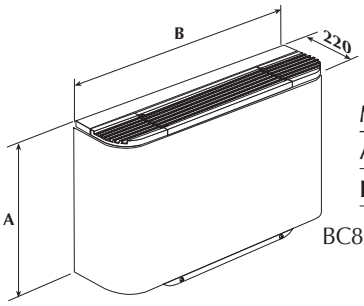


Galvanized sheet metal, used to protect the controls and electrical control board in wall/ceiling mounted versions with electric heating element.

DIMENSIONS [mm]

Mod.	PCR 1	PC42
A [mm]	340	445
B [mm]	170	170
C [mm]	93	93

MA UPPER COVERING CABINET



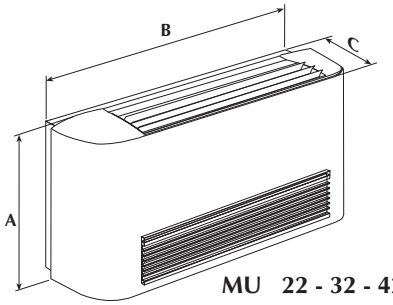
Mod.	MA 22	MA 32	MA 42	MA 62
A [mm]	458	458	458	563
B [mm]	750	980	1200	1320

BC8 and BC9 are not compatible with the MA accessories

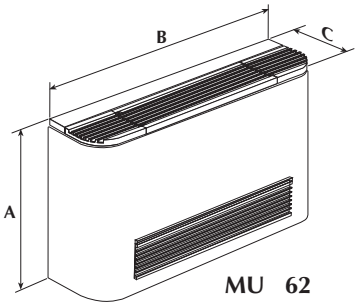
Comprising the covering cabinet, fixed grille and air filters for floor mounted vertical fan coil versions. The wall/ceiling mounted FCXI with MA cabinet assume the characteristics of the FCXI_AS and can only be equipped with accessories for this model.

BC8 and **BC9** cannot be applied to fan coils with a protective cabinet.

MU UNIVERSAL PROTECTIVE CABINET



MU 22 - 32 - 42



MU 62

Mod.	MU 22	MU 32	MU 42	MU 62
A [mm]	520	520	520	590
B [mm]	750	980	1200	1320

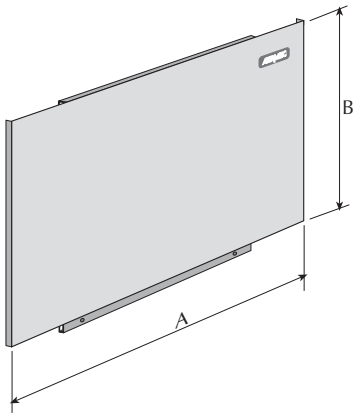
BC8 and BC9 are not compatible with the MU accessories

Comprising a universal protective cabinet, with adjustable grille and air filter (in sizes 22, 32, 42) or with fixed grille (in size 62). The wall/ceiling mounted FCXI with MU cabinet have the same characteristics as the FCXI_U and can only be equipped with accessories for this model.

BC8 and **BC9** cannot be applied to fan coils with a protective cabinet.

ACCESSORIES

PC REAR CLOSING PANEL

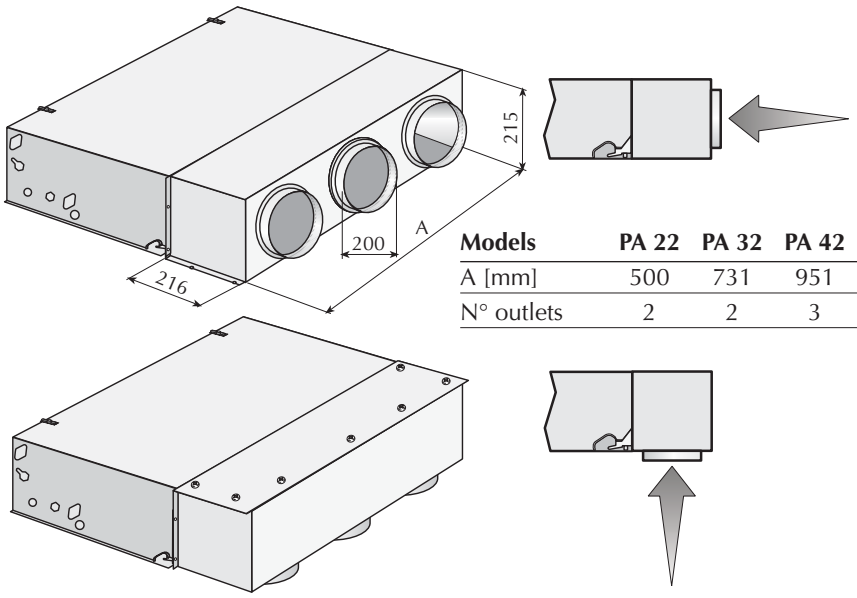


Allow the rear of the fan coil to be closed if it is in view. Its application is necessary for installation at a distance from the wall, to prevent access to the control board (in compliance with the current regulations).

DIMENSIONS [mm]

Models	**PC 22**	**PC 32**	**PC42**	**PC62**
A [mm]	740	971	1191	1312
B [mm]	437	437	437	542

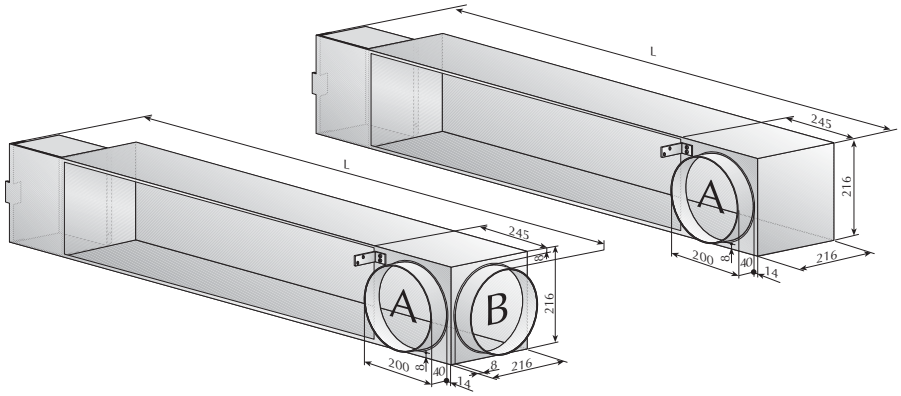
PA INTAKE PLENUM



In galvanised sheet metal, complete with couplings for 200 mm diameter circular-section ducts.
The plenum allows for two mounting positions to have the intake aligned with the fan coil or the intake at 90°.

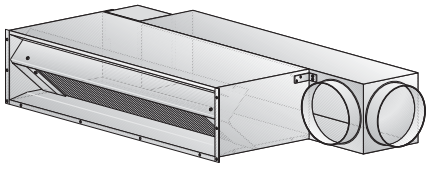
Models	**PA 22**	**PA 32**	**PA 42**	**PA 62**
A [mm]	500	731	951	1072
N° outlets	2	2	3	4

PA-F FRONT INTAKE PLENUM



In galvanised sheet metal, complete with couplings for 200 mm diameter circular-section ducts.
The plenum allows for a front intake connection parallel to the fan coil delivery and also with side intake in sizes PA 32F - 42F - 62F.

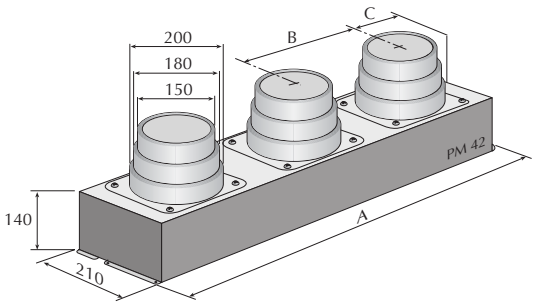
B* = Closed inlet vent, to use it remove the push-out closing component.
In the PA 42F plenum combined with the FCXI 50 P models, it is mandatory to remove the push-out and use the two intake vents.



Models	**PA 22 F**	**PA 32 F**	**PA 42 F**	**PA 62 F**
L [mm]	768	1039	1259	1381
N° vents	1 (A)	2 (A+B*)	2 (A+B*)	2 (A+B)

ACCESSORIES

PM DELIVERY PLENUM

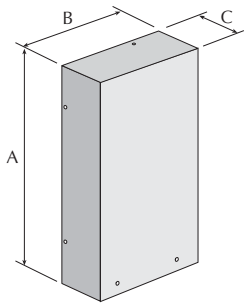


In galvanised sheet metal, externally insulated, complete with delivery couplings in plastic for circular section ducts.

DIMENSIONS [mm]

Models	PM 22	PM 32	PM 42	PM 62
A [mm]	522	753	973	1094
B [mm]	250	370	320	270
C [mm]	136	191	166	142
N° vents	2	2	3	4

PCR HEATING ELEMENT COVER PANEL

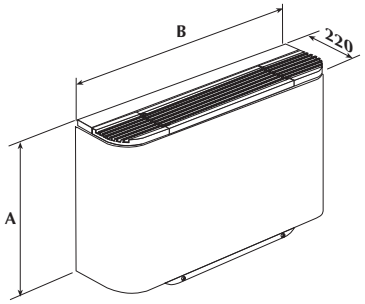


Galvanized sheet metal, used to protect the controls and electrical control board in wall/ceiling mounted versions with electric heating element.

DIMENSIONS [mm]

Mod.	PCR 1	PC42
A [mm]	340	445
B [mm]	170	170
C [mm]	93	93

MA UPPER COVERING CABINET

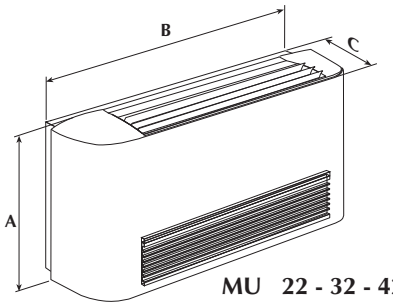


Comprising the covering cabinet, fixed grille and air filters for floor mounted vertical fan coil versions. The wall/ceiling mounted FCXI with MA cabinet assume the characteristics of the FCXI_AS and can only be equipped with accessories for this model.

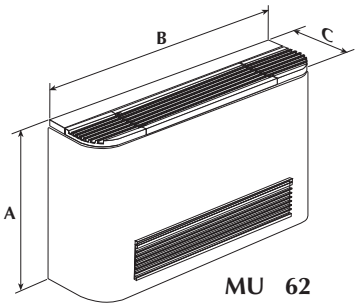
BC8 and **BC9** cannot be applied to fan coils with a protective cabinet.

Mod.	MA 22	MA 32	MA 42	MA 62
A [mm]	458	458	458	563
B [mm]	750	980	1200	1320

MU UNIVERSAL PROTECTIVE CABINET



MU 22 - 32 - 42



MU 62

Comprising a universal protective cabinet, with adjustable grille and air filter (in sizes 22, 32, 42) or with fixed grille (in size 62).

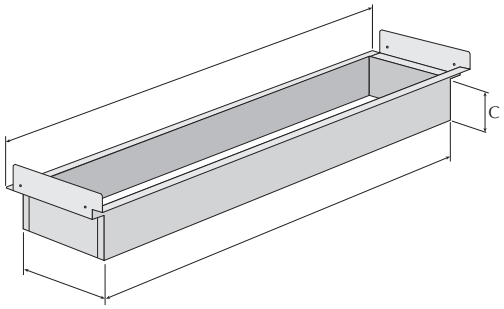
The wall/ceiling mounted FCXI with MU cabinet have the same characteristics as the FCXI_U and can only be equipped with accessories for this model.

BC8 and **BC9** cannot be applied to fan coils with a protective cabinet.

Mod.	MU 22	MU 32	MU 42	MU 62
A [mm]	520	520	520	590
B [mm]	750	980	1200	1320

ACCESSORIES

RDA STRAIGHT INTAKE COUPLING

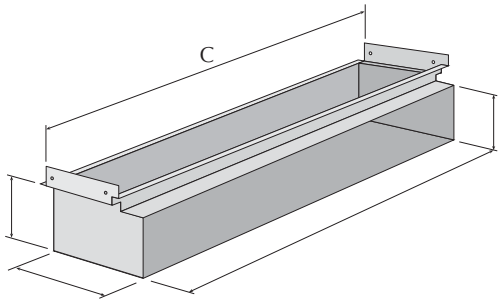


RDA STRAIGHT COUPLING FOR AIR INTAKE
Made of galvanised sheet metal, it is used to channel the intake air when the unit is vertically or horizontally flush-mounted.

DIMENSIONS [mm]

Models	A	B	C	D
RDA 22	455	180	60	499
RDA 32	686	180	60	730
RDA 42	906	180	60	950
RDA 62	1027	180	60	1071

RPA INTAKE COUPLING - 90°

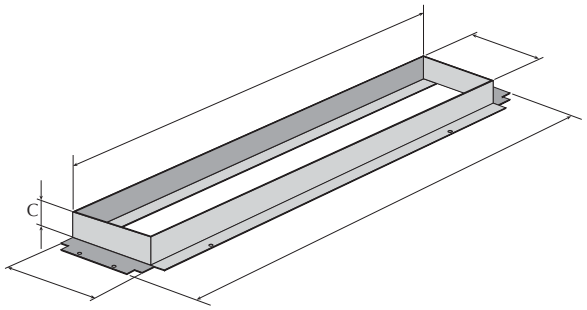


Made of galvanised sheet metal, it is used to channel the intake air when the unit is vertically or horizontally flush-mounted.

DIMENSIONS [mm]

Models	A	B	C	D	E
RPA 22	455	150	499	132	226
RPA 32	686	150	730	132	226
RPA 42	906	150	950	132	226
RPA 62	1027	150	1071	132	226

RD STRAIGHT DELIVERY COUPLING

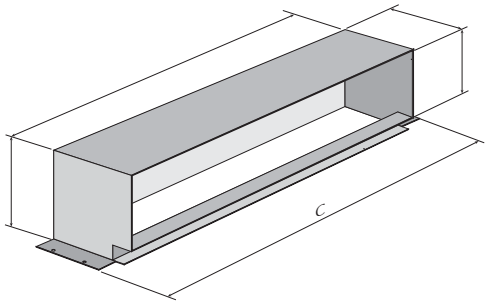


In galvanized sheet metal, used to convey the air for installation of the vertical or horizontal built-in fan coil.

DIMENSIONS [mm]

Models	A	B	C	D	E
RD 22	455	132	60	522	149
RD 32	686	132	60	753	149
RD 42	906	132	60	973	149
RD 62	1027	132	60	1094	149

RP DELIVERY COUPLING - 90°

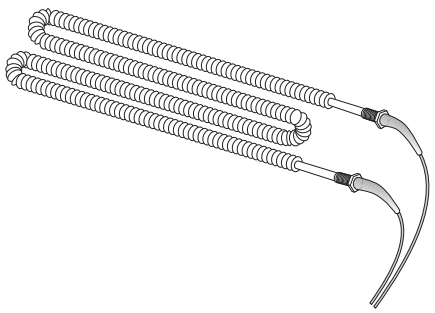


Made of galvanised sheet metal, it is used to channel the intake air when the unit is vertically or horizontally flush-mounted.

DIMENSIONS [mm]

Models	A	B	C	D	E
RP 22	455	156	522	132	161
RP 32	686	156	753	132	161
RP 42	906	156	973	132	161
RP 62	1027	156	1094	132	161

RX ELECTRIC HEATING ELEMENT



Armoured type electric heating element including safety thermostat. Available as an accessory for all versions.

Ph - Heating element capacity [W]

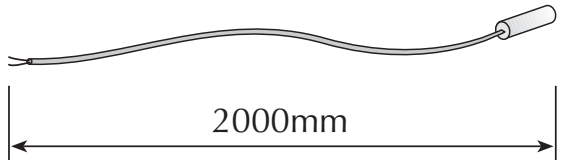
RX 22	RX 32	RX 42	RX 50	RX 62
950	1300	1650	1950	2200

Input current of the electric heating element [A]

RX 22	RX 32	RX 42	RX 50	RX 62
4.13	5.65	7.17	8.48	9.57

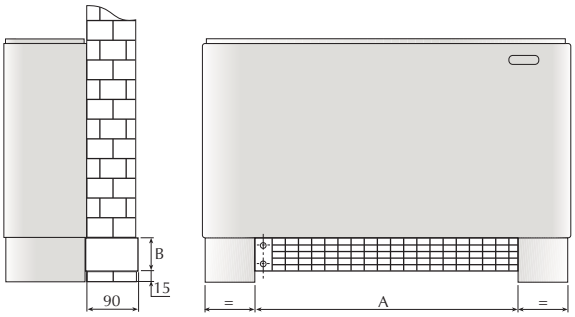
ACCESSORIES

SWI MINIMUM WATER TEMPERATURE SENSOR



Water temperature probe for WMT20 control panels.
Cable length L = 2m.

SE EXTERNAL AIR DAMPER



Foreseen for versions with upper cabinet (type A) with feet and for wall/ceiling mounted versions (FCXI_P) with feet. Permits the ambient air to be changed. Mounted behind the fan coil, between the feet. The manual command is placed on the right foot.

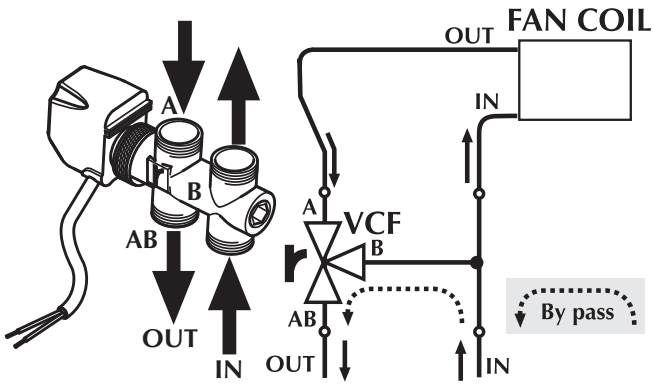
DIMENSIONS [mm]

Models SE 20 X	SE 30 X	SE 40 X	SE 80 X
A	546	777	997	1118
B	65	65	65	85

TREATED EXTERNAL AIR

Mod.			FCXI 20	FCXI 30	FCX 40	FCX 50	FCX 80
	max	[m^3/h]	60	80	100	140	220
Air flow rate	ave.	[m^3/h]	50	70	80	115	190
	min.	[m^3/h]	40	50	65	90	150

VCF 3-WAY VALVE KIT

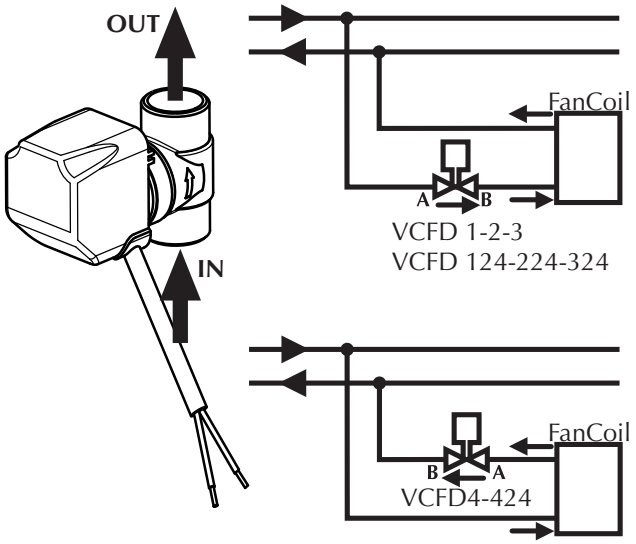


VCF: kit consisting of powered 3-way valve, copper couplings and pipes. For 3/4-row and 1-row coils (BV).
Versions with 230V and 24V~50Hz power supply.
Available for fan coils with coils 1 / 3 / 4:
Match also the water temperature sensor.
The pipes and fittings must be insulated.

*** Warning: the VCF valve and the BC4 tray cannot be installed at the same time on the same fan coil.**

	230V~50Hz			24V~50Hz		
Rows	3		1(BV)	3		1(BV)
VCF	41			4124		
	42		44	4224		4424
	43		45	4324		4524

VCFD 2-WAY VALVE KIT

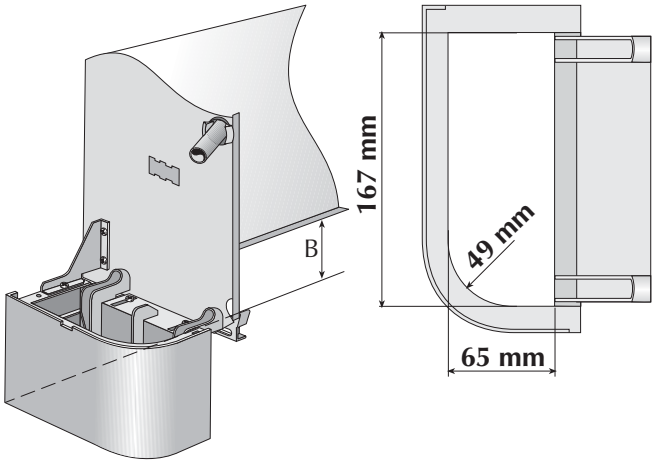


VCFD: Kit consisting of powered 2-way valve, copper couplings and pipes. For 3/4-row and 1-row coils (BV).
Versions with 230V or 24V~50Hz power supply.
Available for fan coils with coils 1 / 3 / 4:
The pipes and fittings must be insulated.

	230V~50Hz			24V~50Hz		
Rows	3		1(BV)	3		1(BV)
VCFD	1			124		
	2		4	224		424
	3		5	324		524

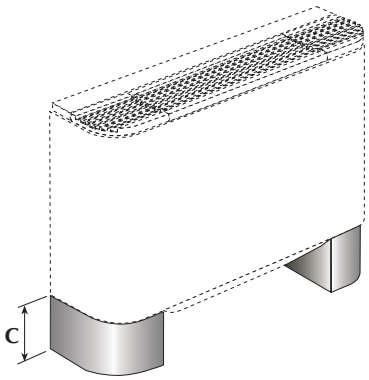
ACCESSORIES

ZX 5-6 FEET FOR TALL CABINET

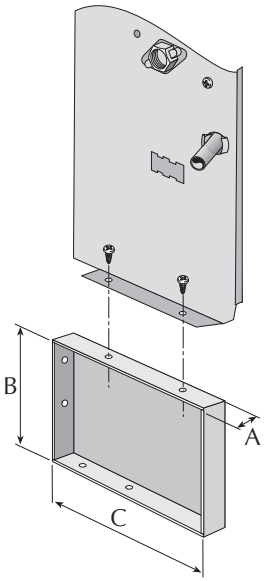


Made of plastic and mounted at the base of the upper cabinet when the equipment is positioned on the floor.

[mm]	B	C
ZX 5	88	105
ZX 6	108	125



ZX 7-8 FEET FOR WALL/CEILING-MOUNTING MODEL



In galvanized sheet metal, and mounted at the base of fan coil when positioned on the floor and mounted flush on the wall.

[mm]	A	B	C
ZX 7	20	88	199
ZX 8	20	108	199

WMT20 WALL MOUNTED THERMOSTAT CONTROL PANEL

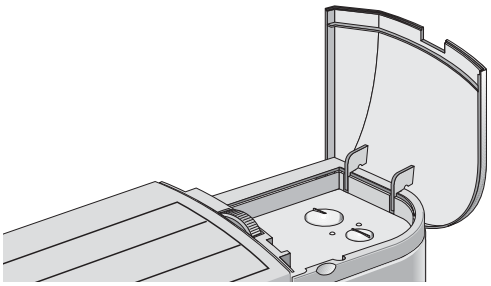
WMT20

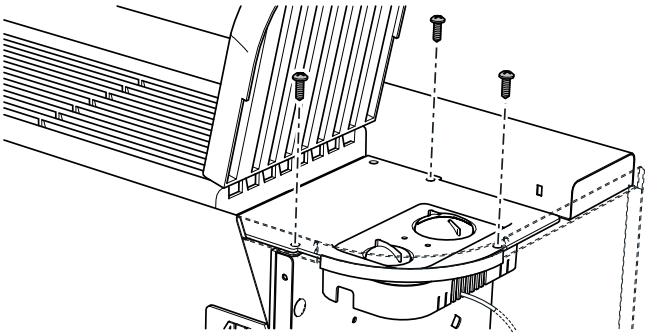
Wired control panel with thermostat and digital display, ventilation speed control with 0-10V output; wall mounting.

- Reconfigurable to meet the needs of different types of system
- P or P+I adjustment of the fan with 0..10V proportional output
- Adjustment with ON-OFF actuators control
- Range of setpoint knob different for heating and cooling
- Special functions, economy, dirty filter warning, window contact
- Input for centralised* summer/winter selection
- Selectable power supply 230V~ or 24V~

ACCESSORIES

VMF-E2 VMF SERIES THERMOSTAT CONTROL PANEL, ON BOARD INSTALLATION



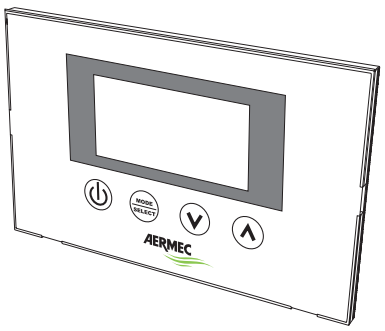


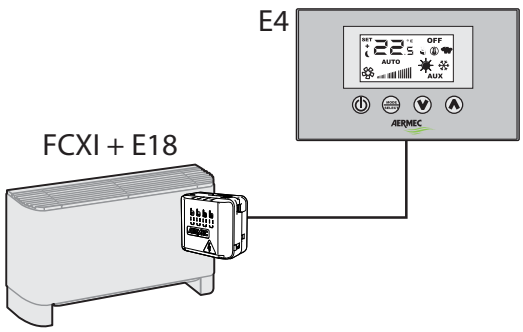
Electronic control panel for on board mounting of the fan coils, user interface for VMF series thermostats.
The Inverter unit must be connected to the VMF-18 thermostat.
The control panel allows to select:
- switching on and off,
- ventilation speed,
- room temperature.

See the accessories manual for complete information on its features.

VMF-E4 VMF SERIES THERMOSTAT CONTROL PANEL, WALL MOUNTING

VMF-E4

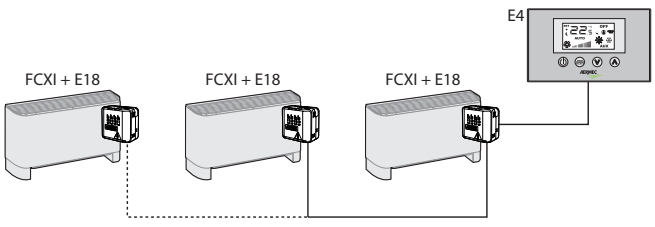


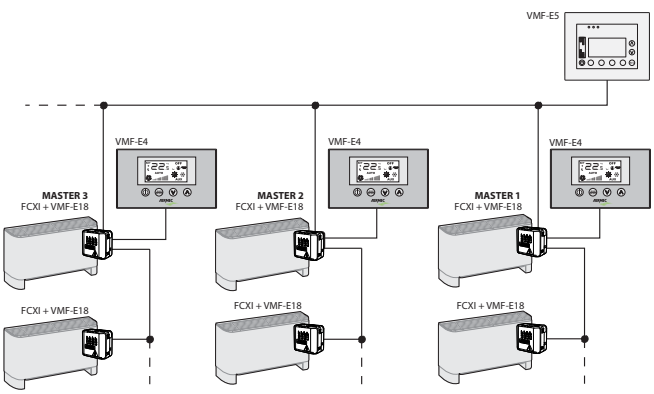


Wall mounted electronic control panel, advanced interface for VMF series thermostats.
The Inverter unit must be connected to the VMF-18 thermostat.
Digital display, "Touch" keyboard, only 11mm thick and mounted on the wall in Type 503 recessed electrical boxes and compatible with the Type 502 boxes, M20 (see installation manual).
The control panel allows to select:
- automatic or manual ventilation speed with 20 positions displayed by graduated bar,
- the room temperature,
- the operating mode.

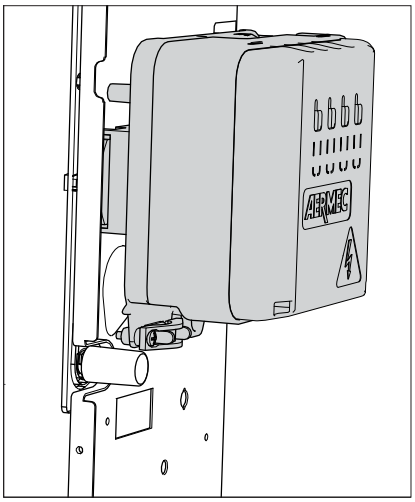
The digital display also shows:
- the room temperature,
- the set temperature,
- the room temperature,
- possible alarms.

See the accessories manual for complete information on its features.





VMF-E18 ELECTRONIC THERMOSTAT FOR INVERTER FAN COILS



Electronic thermostat card for inverter fan coils requires a VMF-E2 or VMF-E4 user interface.

The VMF-E18 thermostat must be applied to the side of the fan coil.

VMF-E18 The VMF-E1 accessory is an advanced electronic thermostat kit to be applied to the fan coils; it requires an interface inside the fan coil (VMF-E2; VMF-E2H), or on the wall (VMF-E4).

The VMF-E18 kit consists of:

- An E18-type thermostat board inserted in a protective box and easily applied to the side of the fan coil.
- System with connection cables to the Inverter Command Module. The cables are wired with connectors for quick connection.

The E18-type thermostat board has a protective fuse, a dip-switch for configuration, and connectors for connection with:

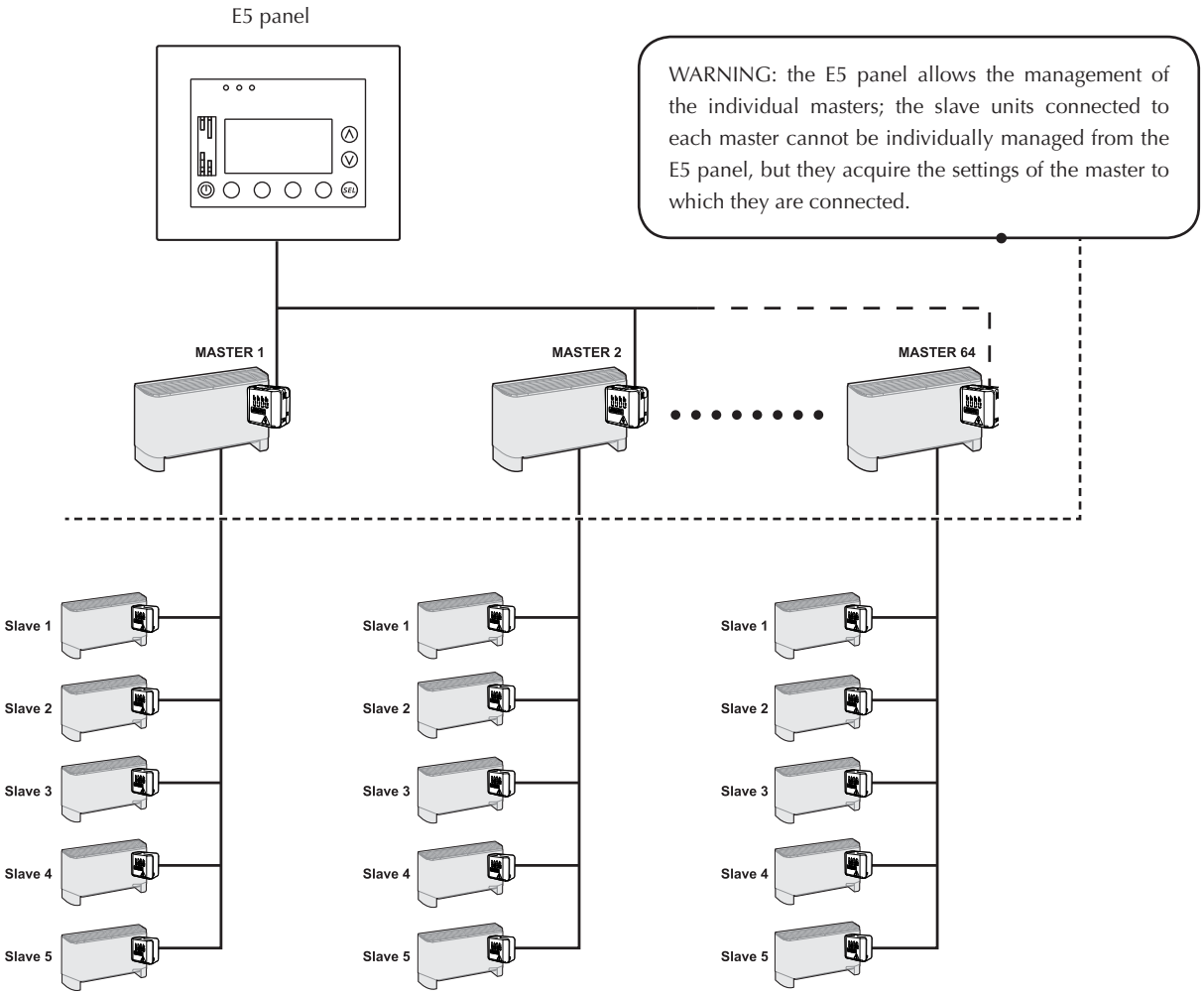
- the power supply,
- the earthing,
- the valve control,
- the Inverter command module power supply,
- ambient air temperature sensor,
- water temperature sensor,
- auxiliary water temperature sensor,
- the control panel (user interface),
- presence sensor,
- the external contact,
- microswitch contact connected to the fan coil fin,
- the central supervisor system serial (VMF-E5),
- the fan coil network serial (TTL).

With the VMF-E18, you can manage:

- Three fan coil speeds in manual mode.
- Continuous ventilation and thermostat control, by controlling the valves.
- Automatic fan mode with BRUSHLESS motor depending on the load.
- Season visualisation.
- Visualisation of alarms and ventilation request.
- Up to two ON/OFF 2- or 3-way valves.
- The switch-on of an electric heating element.
- A germicidal lamp.
- Plasmacluster filter.
- An air temperature sensor.
- A water temperature probe, with minimum and maximum temperature and changeover functions.
- An additional water probe for controlling the second coil (4-pipe systems).
- Season change according to the water or air temperature (4-pipe systems).
- Input for "external contact". This is a digital input with the following logic:
  - When open, the thermostat works normally;
  - When closed, the fan coil is switched off.
- Microswitch for fin contact.
- Anti-freeze function.
- Presence sensor to enable the "SLEEP" function from an external contact (reduction of ambient set-point by 2 or 5 degrees, depending on the settings, if a room is unoccupied).
- Input for local serial. The E18 thermostat is designed to communicate with other E0 and/or E1 and/or E18 type thermostats via a dedicated serial based on the TTL logic standards. This serial communication is essential for the exchange of information within small fan coil networks (up to 6 thermostats with a maximum length of 30 metres). It was designed, in fact, for small areas where the fan coils (more than one) need to be controlled from a single control point. More specifically, this network always contains a Master (to which a user interface VMF-E2, VMF-E4 is connected) which controls the operation of the Slaves connected to it, according to the settings made on its user interface.
- Input for supervision serial. In networks made up of several fan coils subdivided into independent temperature areas, the VMF-E18 area regulator allows communication with a central system supervisor (VMF-E5)

See the accessories manual for complete information on its features.

VMF-E5B / E5N SYSTEM'S MAIN SUPERVISION INTERFACE



- Maximum number of MASTER fancoils = 64
- Maximum number of SLAVE fancoils that can be connected to each MASTER = 5

Built-in panel available in two colours, VMF-E5B white and VMF-E5N black with graphic LCD backlit display and capacitive keyboard, allows the centralised control/command of a complete hydronic system consisting of:

- Fan coils: up to 64 fan coil zones comprising 1 master + maximum 5 slaves.
- Chiller/heat pump equipped with controls Modu_Control, GR3 and pCO2 / PCO ^{3} (required accessory RS 485 interface respectively MODU-485A, AER485, AER485P2 / AER485P1)
- Circulators: maximum of 12 configurable zone circulators.
- Boiler: boiler consensus management for hot water production.
- Heat recovery units: consents up to 3 per programmable recovery units based on the timing and/or by measuring the air quality obtained with the VMF-VOC accessory.
- Domestic hot water module: complete management of the domestic hot water production through the control of:

- Diverting valve/circulator
- Supplementary heating element
- Accumulation temperature sensor
- Anti-legionella circuit

The main feature is the possibility of managing the plant through dedicated algorithms to achieve a comfortable environment with energy saving in mind.

See the accessories manual for complete information on its features.

See the accessories manual for complete information on its features.

INSTALLATION INFORMATION

WARNING: check that the power supply is disconnected before carrying out any procedures on the unit.

WARNING:before carrying out any work, put the proper individual protection equipment on.

WARNING: the device must be installed in compliance with the national plant engineering rules.

WARNING: electrical wirings, installation of the fan coils and relevant accessories should be performed by a technician who has the necessary technical and professional expertise to install, modify, extend and maintain systems, and who is able to check the systems for the purposes of safety and correct operation.

WARNING: install a device, main switch, or electric plug so you can fully disconnect the device from the power supply.

WARNING: Consult all documentation before starting the installation.

The essential indications to install the device correctly are given here.

The completion of all the operations in accordance with the specific requirements is however left to the experience of the installation engineer.

The water, condensate discharge and electrical circuit ducts must be provided for.

The fan coil must be installed in such a position that the air can be distributed throughout the room and so that there are no obstacles (curtains or objects) to the passage of the air from the suction louvers.

The fan coil should be installed in such a way as to facilitate routine (filter cleaning) and special maintenance operations, as well as access to the air drain valve on the side of the unit frame (connections side).

Do not install units in rooms where there are inflammable gases or acid or alkaline substances that could irretrievably damage the aluminium-copper heat exchanger or the internal plastic parts.

Do not install the unit in workshops or kitchens where the oil vapours mixed with the treated air can be deposited on the exchange coils, reducing their performance, or on the parts inside the unit, damaging the plastic parts.

The FCXI_P unit is prepared for connection with air ducting. The maximum speed on FCXI_P fan coils can be increased by changing the settings of the motor dip switches.

If a three-way valve is installed, the minimum water temperature sensor can be installed in two locations:

- in its housing in the coil, MANDATORY if the thermostat is connected to a system with centralised control or monitoring device (example: VMF-E5);
- on the delivery pipe up stream of the valve.

Check the thermostat manual before choosing the location of the minimum water temperature sensor, according to the preferred control logic. The thermostat may need the settings of the dip-switches changed.

WARNING: After completing the installation check the operation of the condensate discharge system, the seal of the hydraulic fittings, insulation of ducts and pipes. Then perform a functional test.

In the event of malfunction consult the Alarm Codes Table to interpret the alarms indicated by the 2 LEDs (Alarm / Power) that indicate the status of the unit.

The inverter card is located inside the unit and requires dismantling.

DANGER! Only qualified service personnel can access it.

ALARM CODES

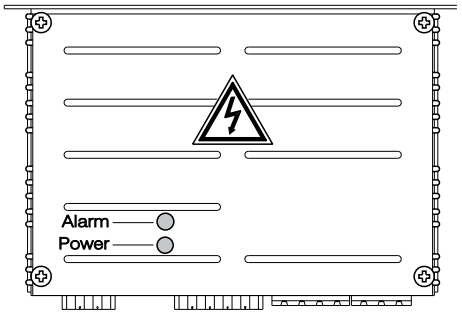
This section is reserved for the After Sales service only.

The card is located inside the unit and requires dismantling.

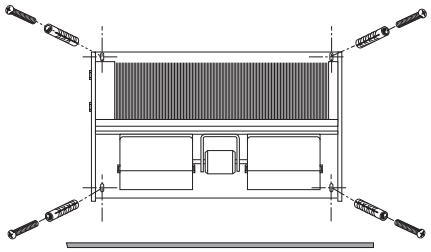
DANGER! Only qualified service personnel can access it.

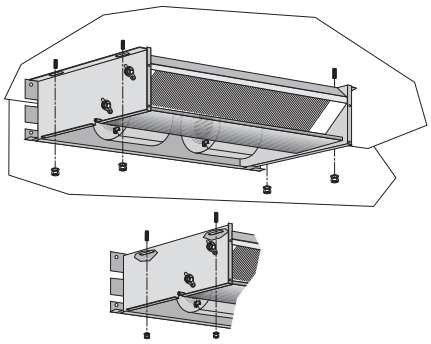
There are 2 LEDs on the Inverter card (Alarm / Power) that indicate the unit's operating status.

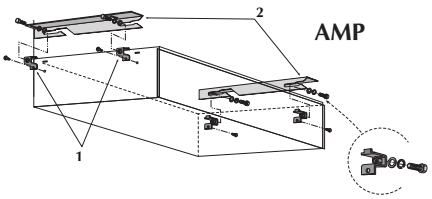
The table below shows how to decode the messages.



ALARM TYPE	INDICATIONS	IRREGULARITY	Notes
High temperature	ALARM LED flashes 3sec ON 0.5sec OFF The LED if permanently ON after 1.5min	Motor off	Auto-Restart Alarm. If the conditions persist after 1.5min, the alarm becomes permanent, the Alarm LED stays on, the system turns off.
Overvoltage			
Undervoltage			
Overcurrent			
Overload	ALARM LED flashes 0.5sec ON 0.5sec OFF	Speed reduction	Power limitation
Safety control			Temperature limitation
STOP	Alarm LED permanently on	Motor off	For alarms reset: Set 0V ON INPUT (turn the power off and then on again)







CAUTION: Keep separate electrical connections from water connections.
Water connections and drain should be on the side opposite of the electrical connections.

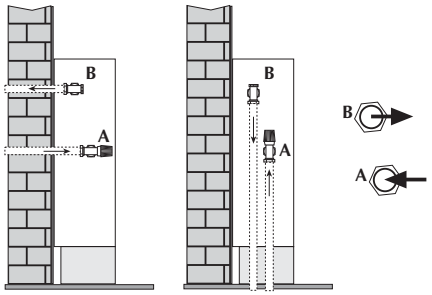
WATER CONNECTIONS

- Make the water connections.
- In the event of disassembly and reinstallation, use new gaskets.

Refer to the size data for the position, type and diameter of the water connections.

You are advised to adequately insulate water lines and/or fit the auxiliary condensate drain tray (available as an accessory), to prevent dripping during the cooling function.

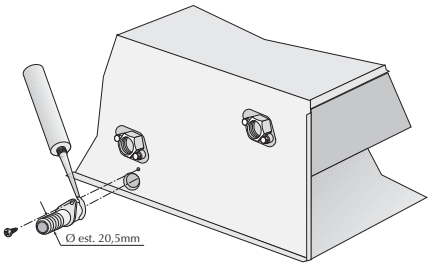
After installing, check the seal on the connections.



CONDENSATE DISCHARGE

In the event of horizontal installation, assemble the condensate discharge connection supplied. Make sure you seal the connection between the drip tray and the fitting with silicone. The condensate drain network must be properly scaled and the piping situated in such a way as to keep an adequate slope along the route (min. 1%). If condensate is discharged into the sewage system, install a siphon to prevent the return of unpleasant odours into the room.

Carry out a functioning and seal test of the condensate drain system by pouring water into the tray.



ELECTRICAL WIRINGS

The unit must be connected directly to an electrical outlet or to an independent circuit.

WARNING: it is compulsory to connect the power cables Phase (L) and Neutral (N) to the respective terminals, do not to reverse the connections, and observe the wiring diagram.

install a device, main switch, or electric plug so you can fully disconnect the device from the power supply.

To protect the unit against short circuits, fit an omnipolar thermal-magnetic trip 2A 250V (IG) to the power line with a minimum contact opening distance of 3mm.

The use of B-type circuit breakers is recommended.

For installations with three-phase power supply, the following precautions should be considered:

1. In the presence of breakers or thermomagnetic switches 3P + N, the triggering current must be at least 170% of the total load absorbed by the fan coils for each phase.
2. The section of the neutral wire must be of a dimension taking into consideration the operating current equal to 170% of the total load absorbed by the fan coils for each phase.

CHARACTERISTICS OF THE CONNECTION CABLES

Use H05V-K or N07V-K type cables with 300/500V with insulation, piped or ducted.

All the cables must be piped or ducted until they are inside the fan coil.

The cables leaving the pipe or raceway must be so positioned that they are not pulled or twisted and are anyway protected from outside agents.

Stranded cables can only be used with crimping terminals. Check the wire strands are well inserted.

The wiring diagrams are subject to continuous updates, so it is essential to use those on the machine as your reference.

The control panel may not be fitted on a metal wall unless this is permanently connected to an earthed outlet.

When using remote control panels, the relative wiring diagram must be respected. Before installing the control panel, read the instructions carefully and configure the panel if necessary.

Connect the valve and sensor to the control board, in the positions indicated in the wiring diagram.

Connection with VMF-E18 thermostats

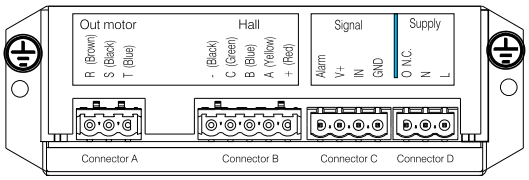
- The VMF-E18 Kit includes the system with connection cables to the Inverter Control Module. The cables are wired with connectors for quick connection.

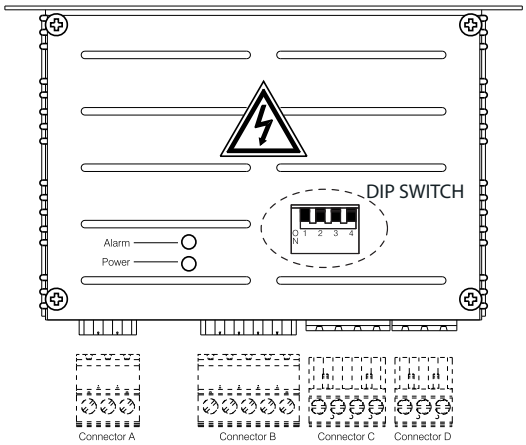
The installation of the VMF-E18 kit requires that standard control board and connection cables to the Inverter Control Module (Signal and Supply) are removed from the fan coil.

- Mount the thermostat housing to the side of the fan coil units, on the connections that were of the control board.
- Remove the cover of the thermostat housing.
- Connect the inverter control module VMF-E18 to the thermostat using the system with connection cables supplied with the VMF-E18 kit. Check the connection with the wiring diagram.
- Complete the connections as indicated in the VMF-E18 thermostat manual.

DIP SWITCH SETTING (for the P series only)

To help adapt the head provided by the fan to the pressure drops of the duct, the maximum speed of the FCXI_P series fan coil can be increased by changing the settings of the dip switches on the motor.



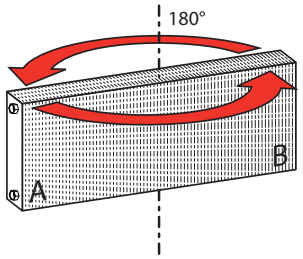


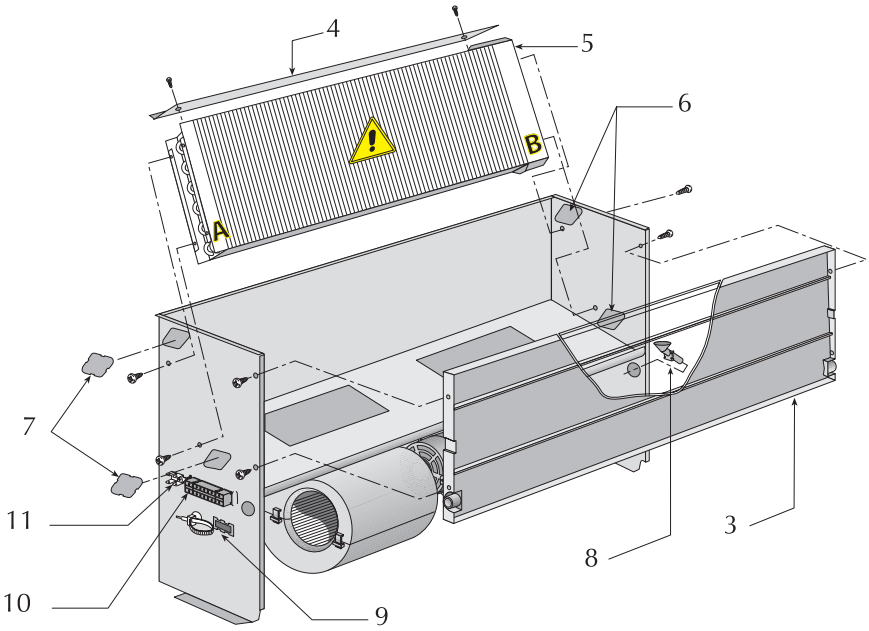
FCXI 20 P	ON 1 2 3 4	STANDARD 850 g/min
	ON 1 2 3 4	MAX 1150 g/min
FCXI 30 P	ON 1 2 3 4	STANDARD 750 g/min
	ON 1 2 3 4	MAX 1150 g/min
FCXI 40 P	ON 1 2 3 4	STANDARD 850 g/min
	ON 1 2 3 4	MAX 1150 g/min
FCXI 50 P	ON 1 2 3 4	STANDARD 1050 g/min
	ON 1 2 3 4	MAX 1250 g/min
FCXI 80 P	ON 1 2 3 4	STANDARD 1150 g/min
	ON 1 2 3 4	MAX 1350 g/min

ROTATING THE COIL

If the hydraulic connections require the rotation of the coil, remove the front closure panel and proceed as follows:

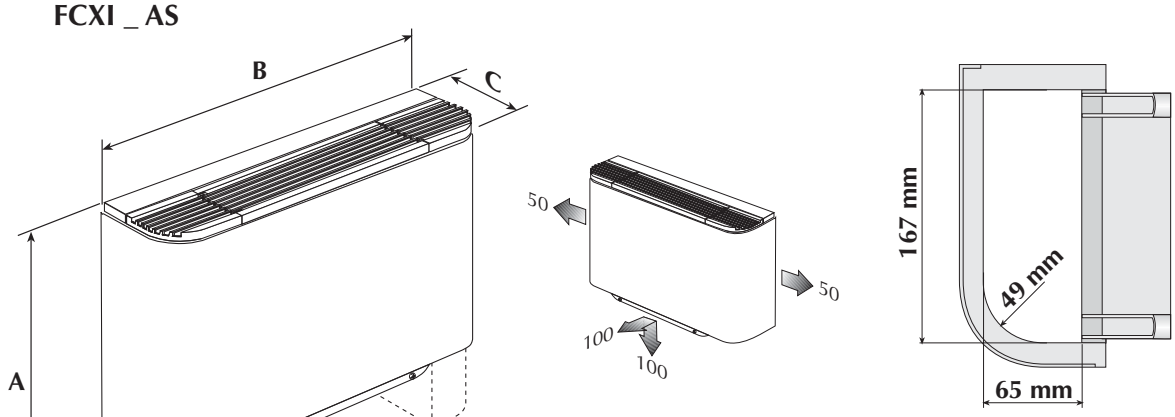
- Remove the condensate drip tray;
- Undo the screws and remove the coil cover;
- Remove the screws securing the coil, then remove the coil;
- Remove the push-outs on the right-hand side;
- Rotate the coil and secure it with the previously removed screws;
- Reassemble the cover and fix it with the screws;
- Reassemble the plastic plugs (supplied) in the holes left free by the water connections;
- All the trays can be used to collect condensate on both sides. In case of vertical installation, to discharge condensate on the right side, position the drain connection to the right;
- Slide out the electrical wirings from the right-hand side, remove the push-out and move the cable grommet from the right to the left side;
- Transfer the electrical wirings to the left side through the cable grommet;
- Move the control board, the earthing u-bolt and any electric devices to the left-hand side.





DIMENSIONS [mm]

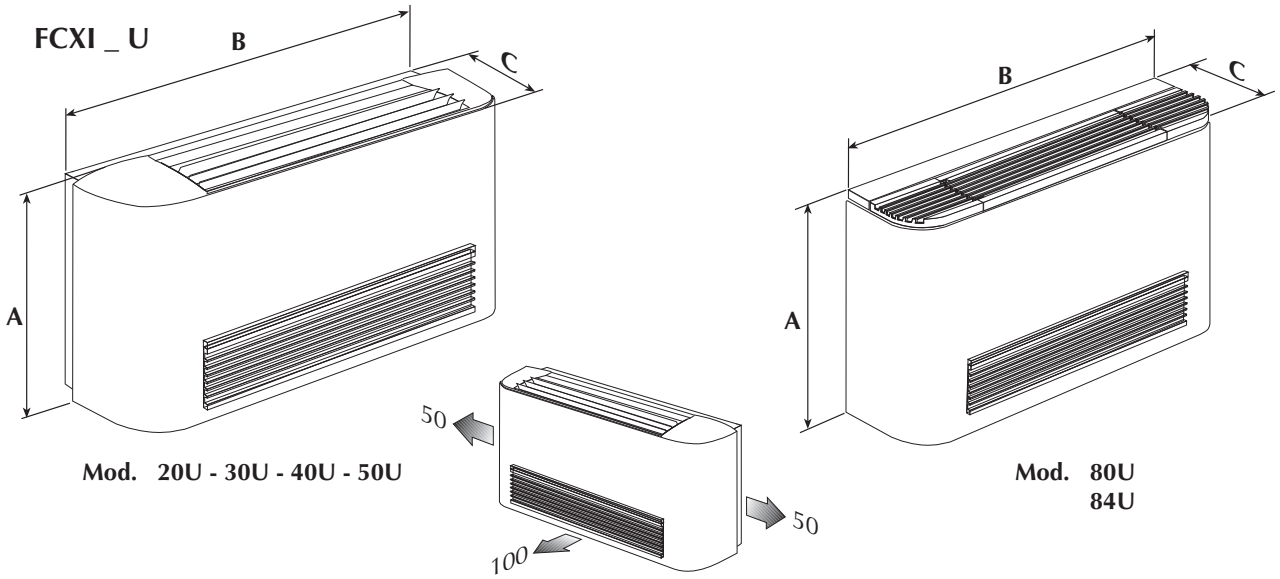
FCXI _ AS



FCXI	20 AS	30 AS	40 AS	50 AS	80 AS
A	563	563	563	563	688
B	750	980	1200	1200	1320
C	220	220	220	220	220
D	105	105	105	105	125
[kg] *	15	20	24	24	34

* Fan coil weight without feet •

FCXI _ U



Mod. 20U - 30U - 40U - 50U

Mod. 80U
84U

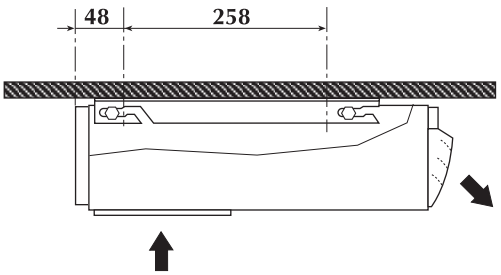
FCXI	20 U	30 U	40 U	50 U	80 U
A	520	520	520	520	590
B	750	980	1200	1200	1320
C	220	220	220	220	220
[kg]	15	20	24	24	34

Coil connections (female)

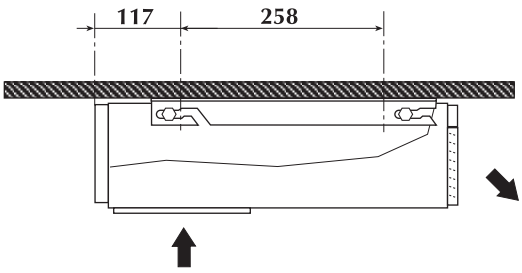
FCXI	20 AS/U	30 AS/U	40 AS/U	50 AS/U	80 AS/U
3 R	1/2″	1/2″	3/4″	3/4″	3/4″
1 R	1/2″	1/2″	1/2″	1/2″	1/2″

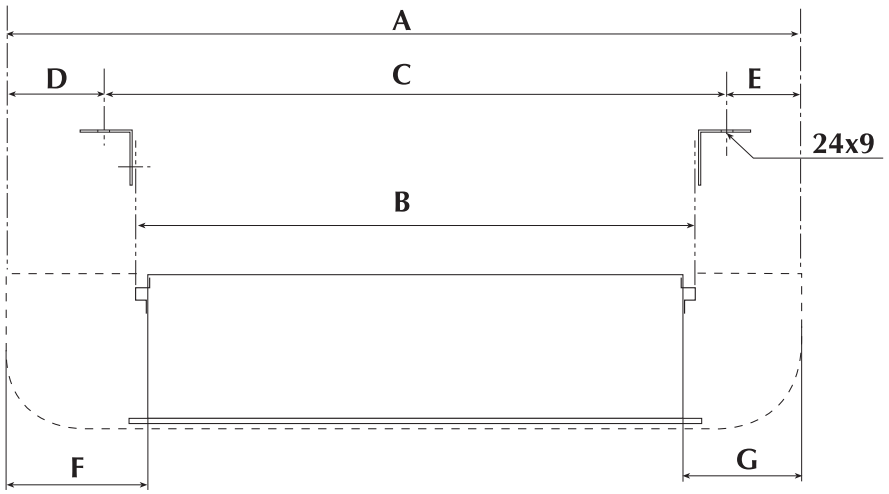
Installation with AMP supports (accessory)

FCXI 20 - 30 - 40 - 50 U



FCXI 80 U



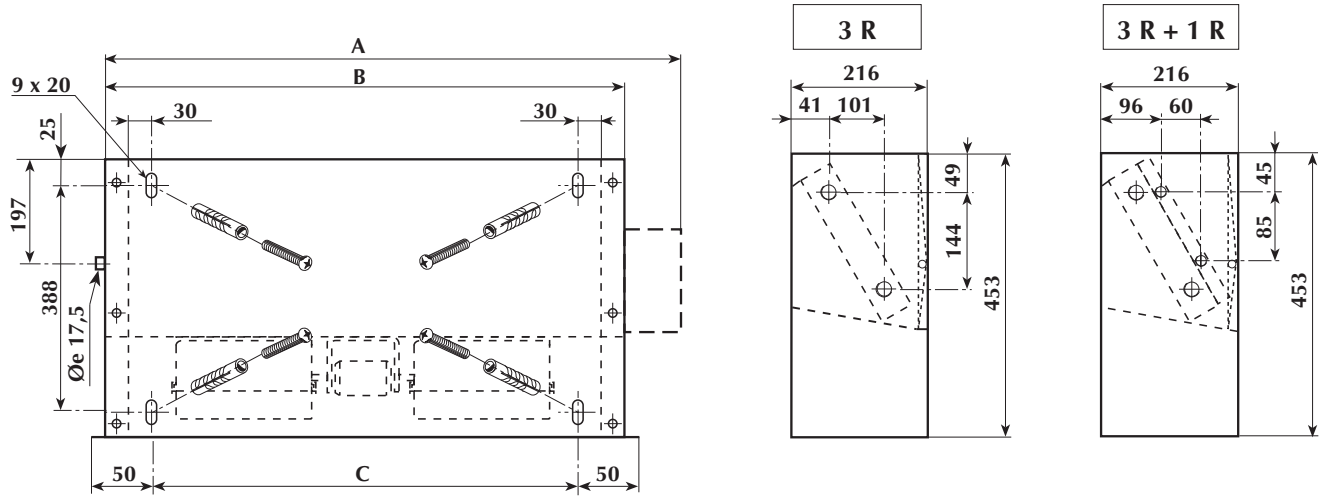


FCXI	20 U	30 U	40 U	50 U	84 U
A	750	981	1201	1201	1322
B	555	786	1006	1006	1127
C	600	831	1051	1051	1172
D	95.5	95.5	95.5	95.5	95.5
E	54.5	54.5	54.5	54.5	54.5
F	144.5	144.5	144.5	144.5	144.5
G	103.5	103.5	103.5	103.5	103.5

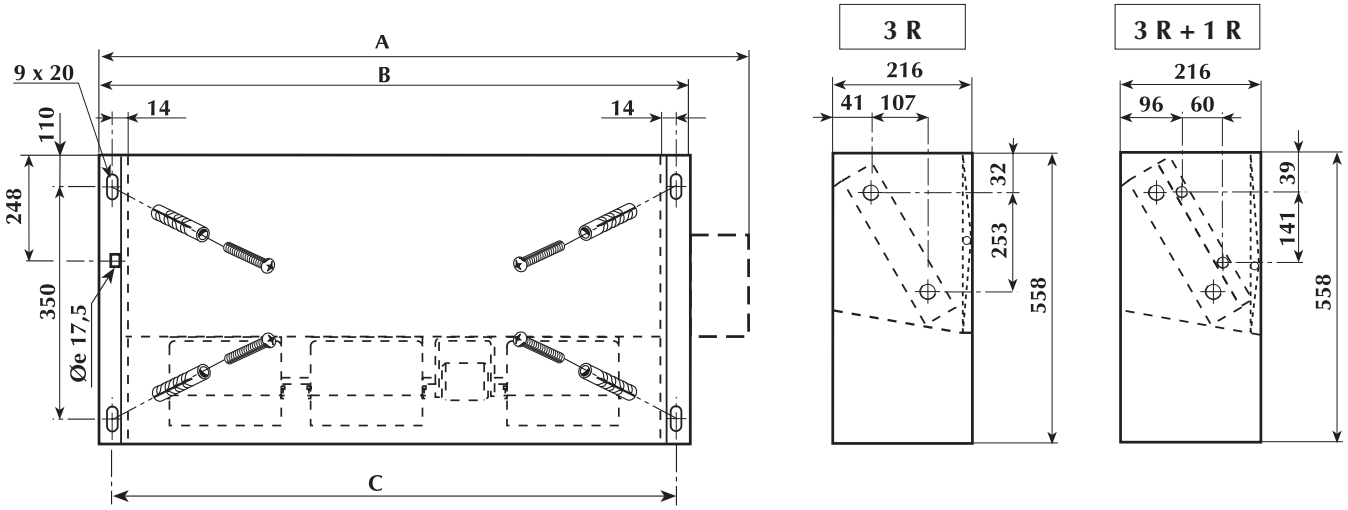
If the water connections are inverted, swap the following positions: D with E, F with G.

DIMENSIONS [mm]

FCXI 20 P - 30 P - 40 P - 50 P



FCX 80 P



FCXI	20 P	30 P	40 P	50 P	80 P
A	562	793	1013	1013	1147
B	522	753	973	973	1122
C	440	671	891	891	1102
[kg] *	13	18	22	22	33

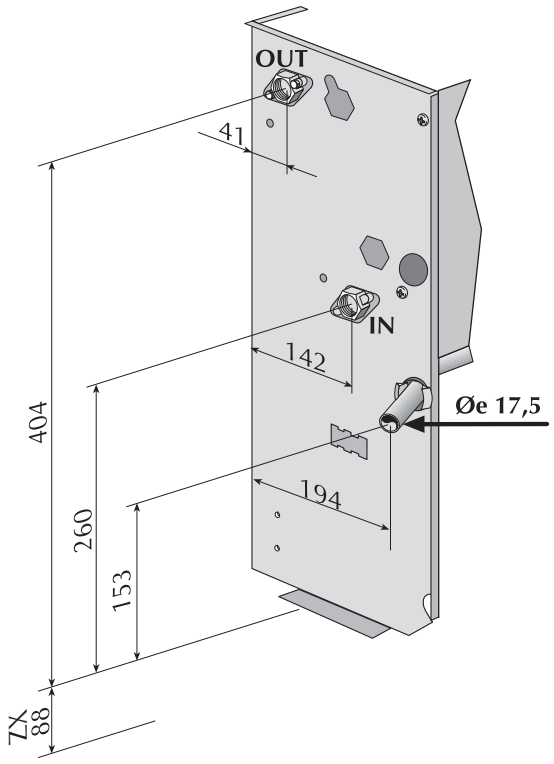
* Fan coil weight without feet

Coil connections (female)

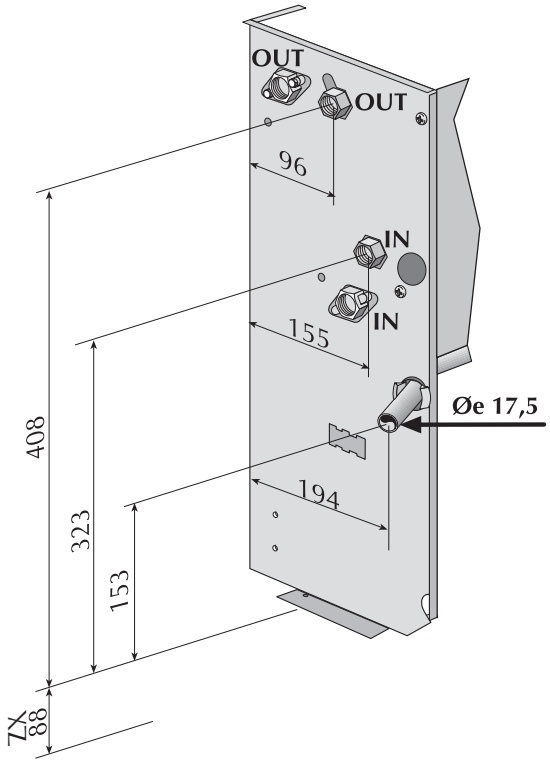
FCXI	20 P	30 P	40 P	50 P	80 P
3 R	1/2″	1/2″	3/4″	3/4″	3/4″
1 R	1/2″	1/2″	1/2″	1/2″	1/2″

DIMENSIONS [mm]

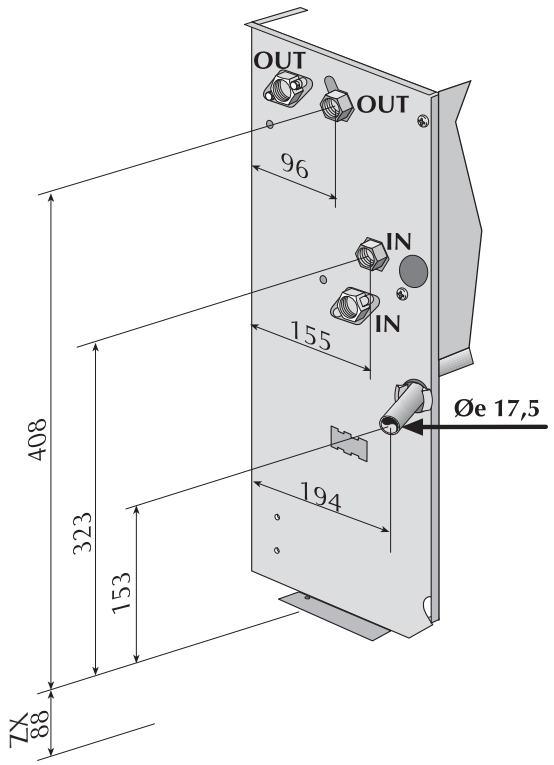
FCXI 20 ÷ 50 (3R)



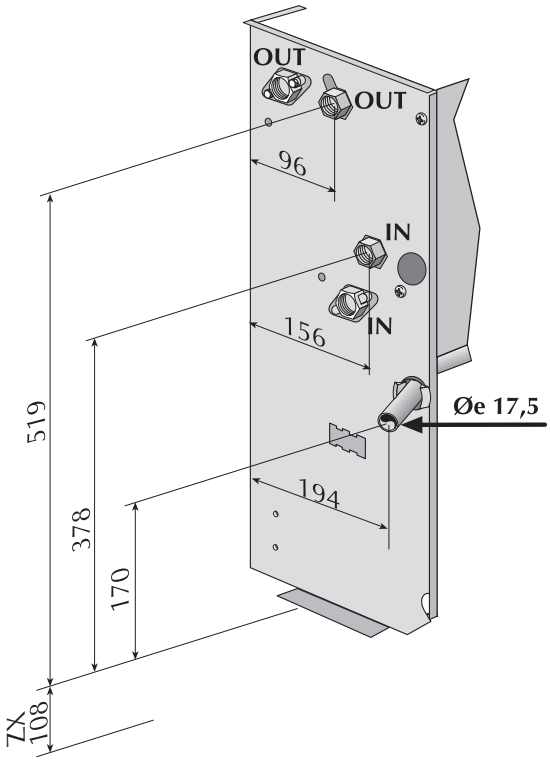
FCXI 80 (3R)



FCXI 20 ÷ 50 (3R)
BV 122 ÷ 142 (1R)



FCXI 80 (3R)
BV 162 (1R)



WIRING DIAGRAMS

KEY

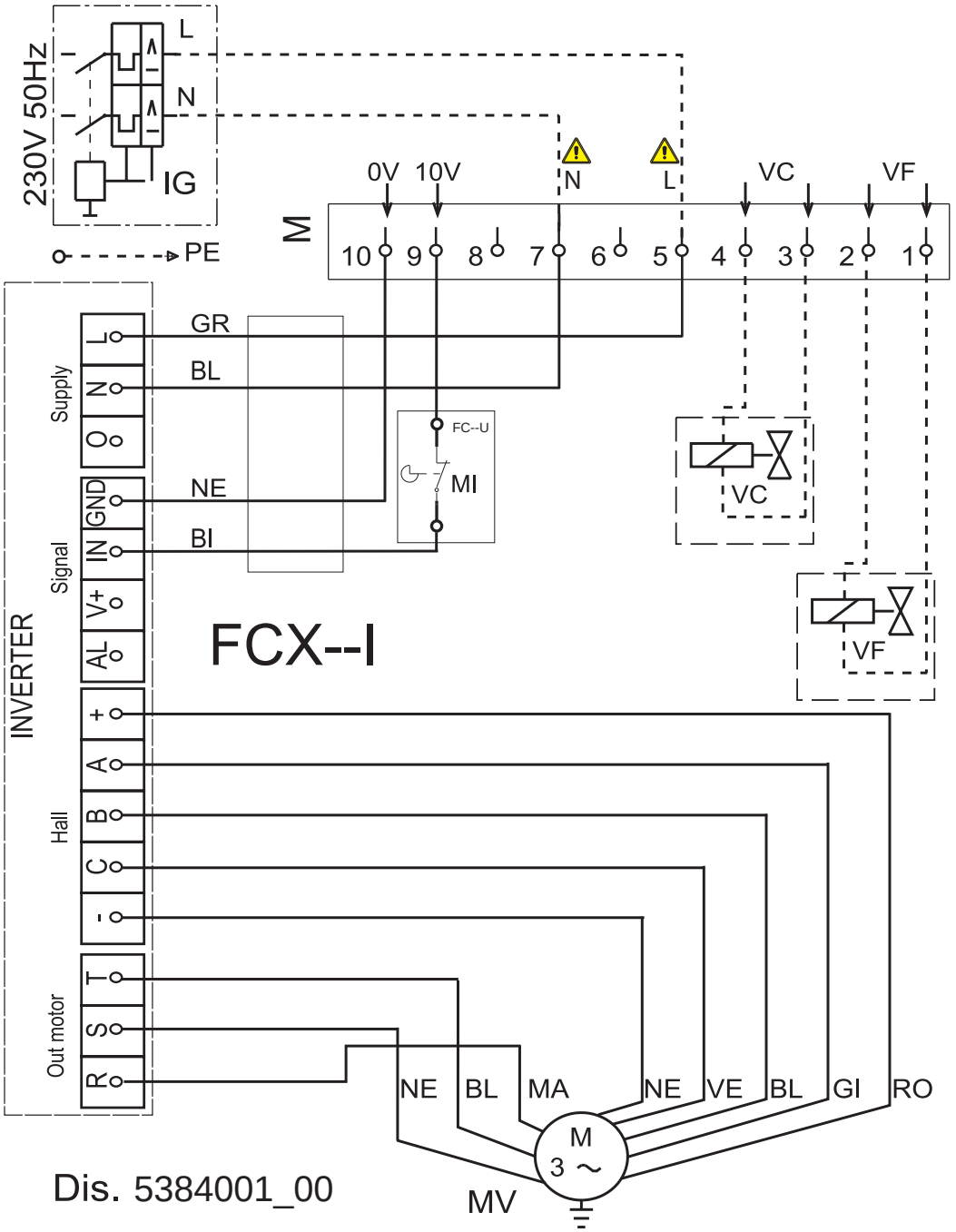
F = Fuse
IG = Main switch
M = Control board
MI = Grid microswitch
(Only for the appropriate models)
MV = Fan motor
PE = Earth connection
VC = Heating solenoid valve
VF = Cooling solenoid valve

= Components not supplied

= Components supplied as optional extras

= Connections to be made on site

AR = Orange
BI = White
BL = Blue
GI = Yellow
GR = Grey
MA = Brown
NE = Black
RO = Red
VE = Green
VI = Violet



AR	ARANCIO
BI	BIANCO
BL	BLU
GR	GRIGIO
MA	MARRONE
NE	NERO
RO	ROSSO
VI	VIOLA
GI	GIALLO
VE	VERDE

AR	ORANGE
BI	WHITE
BL	BLUE
GR	GREY
MA	BROWN
NE	BLAK
RO	RED
VI	VIOLET
GI	YELLOW
VE	GREEN

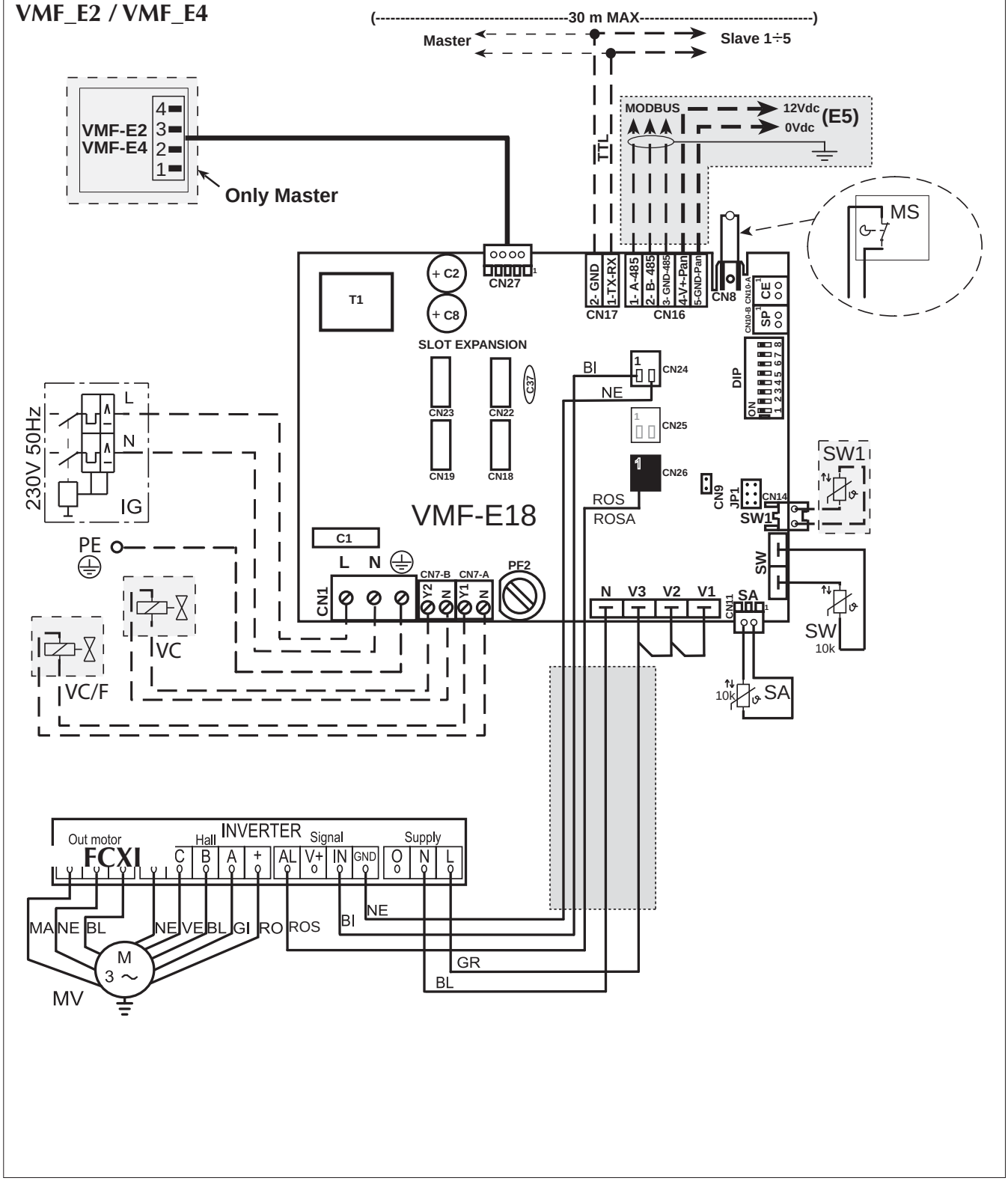
AR	ORANGE
BI	BLANC
BL	BLEU
GR	GRIS
MA	MARRON
NE	NOIR
RO	ROUGE
VI	VIOLET
GI	JAUNE
VE	VERT

AR	ORANGE
BI	WEISS
BL	BLAU
GR	GRAY
MA	BRAUN
NE	SCHWARZ
RO	ROT
VI	VIOLETT
GI	GELV
VE	GRÜN

AR	ANARANCJADO
BI	BLANCO
BL	AZUL
GR	GRIS
MA	MARRÓN
NE	NEGRO
RO	ROJO
VI	VIOLETA
GI	AMARILLO
VE	VERDE

Wiring diagrams are constantly updated. It is therefore compulsory to refer to the ones supplied with the unit.

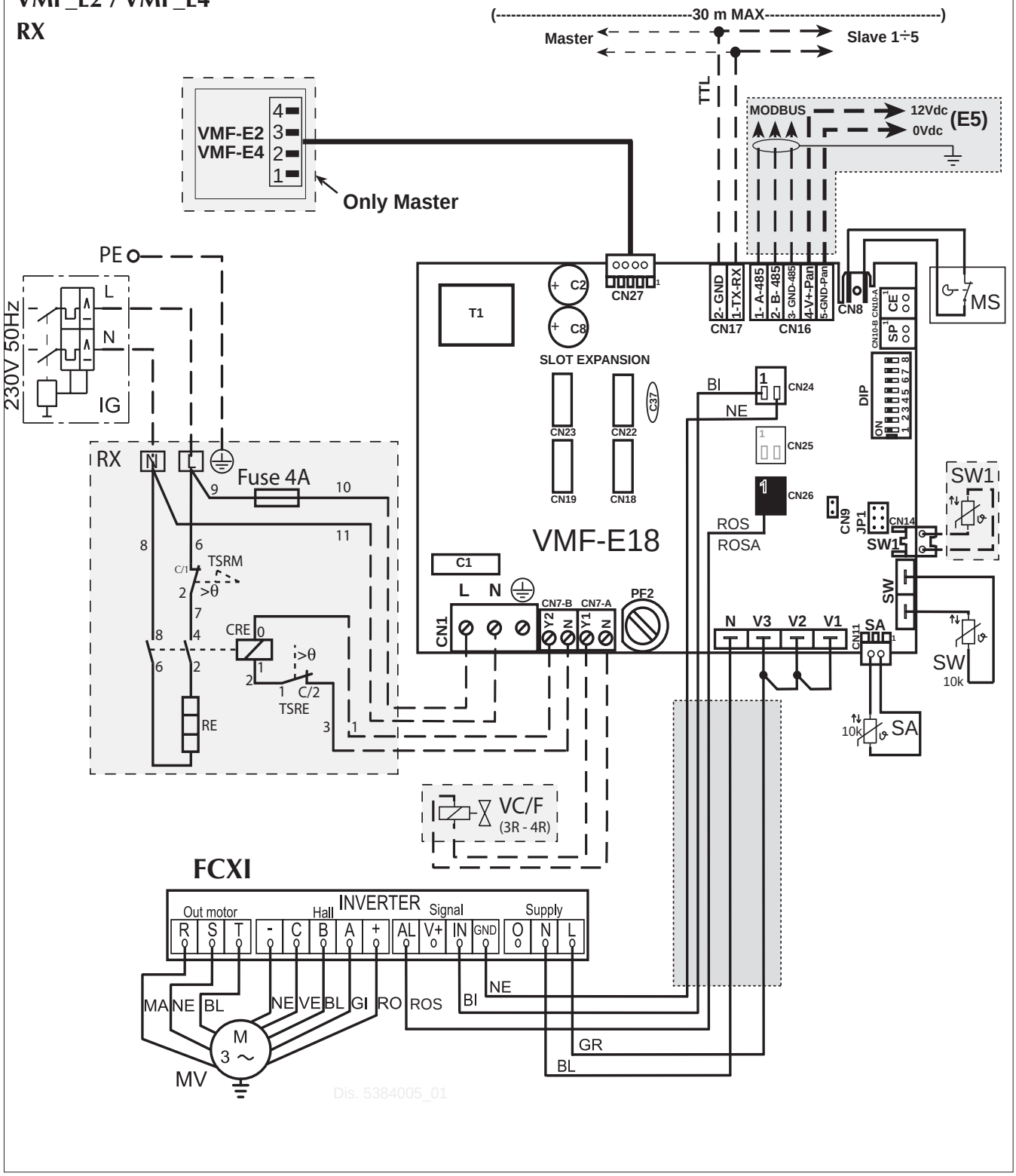
FCXI
VMF_E18
VMF_E2 / VMF_E4



The WMF-E18 accessory includes the electrical system kit with cables for connection to the inverter card.

Wiring diagrams are constantly updated. It is therefore compulsory to refer to the ones supplied with the unit.

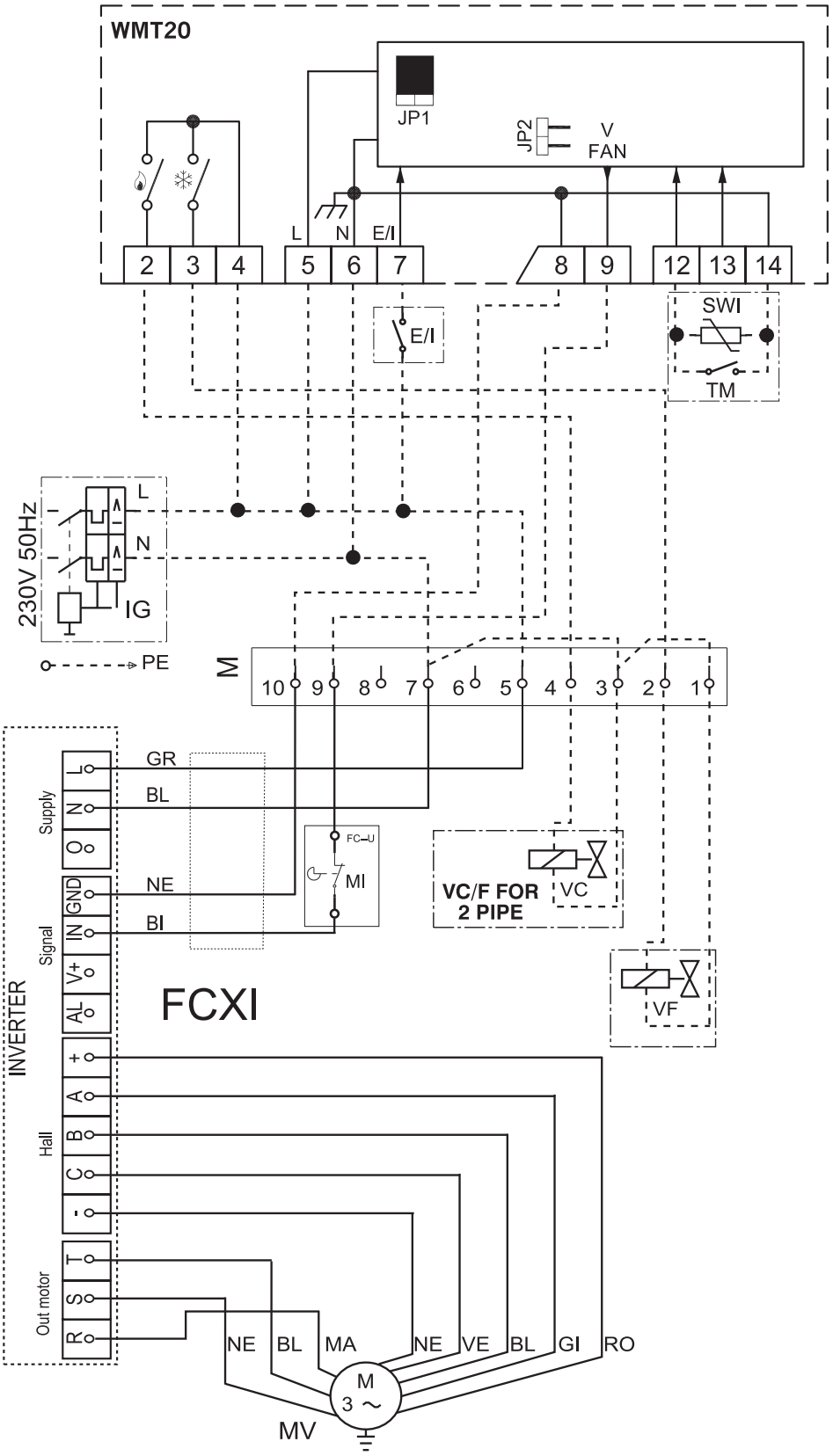
FCXI
VMF_E18
VMF_E2 / VMF_E4
RX



The WMF-E18 accessory includes the electrical system kit with cables for connection to the inverter card.

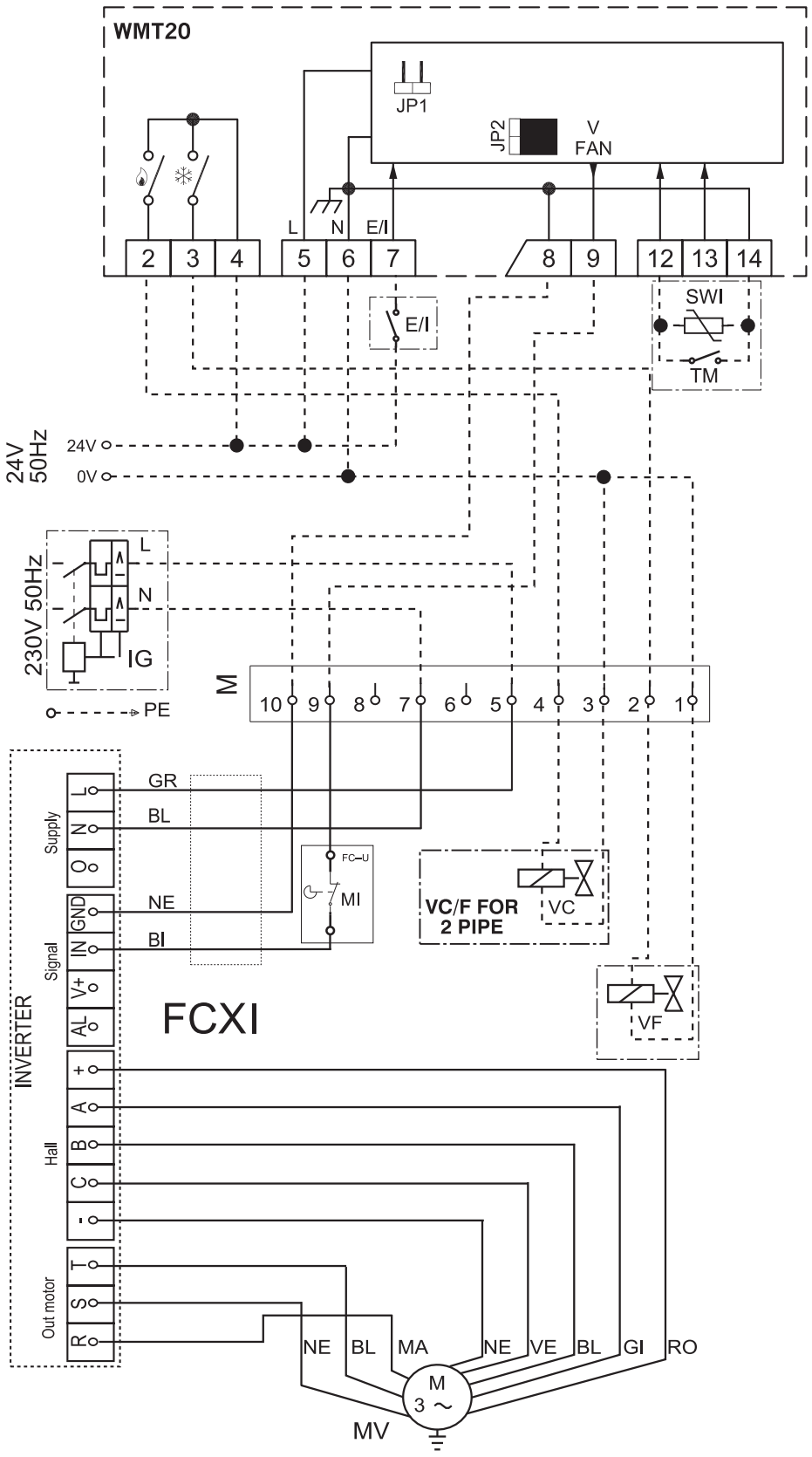
Wiring diagrams are constantly updated. It is therefore compulsory to refer to the ones supplied with the unit.

FCXI
WMT20



Wiring diagrams are constantly updated. It is therefore compulsory to refer to the ones supplied with the unit.

FCXI
WMT20
VCF 24V



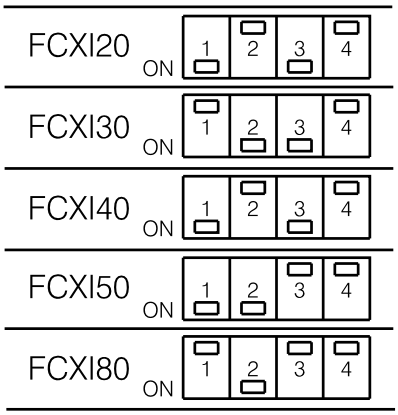
Wiring diagrams are constantly updated. It is therefore compulsory to refer to the ones supplied with the unit.

TROUBLESHOOTING

PROBLEMA • PROBLEM PROBLEME • PROBLEM PROBLEMA	PROBABILE CAUSA • PROBABLE CAUSE CAUSE PROBABLE • MÖGLICHE URSACHE CAUSA PROBABLE	SOLUZIONE • REMEDY SOLUTION • ABHILFE SOLUCIÓN
Poca aria in uscita. Feeble air discharge. Il y a peu d'air en sortie. Schwacher Luftstrom am Austritt. Poco aire en salida.	Errata impostazione della velocità sul pannello comandi. Wrong speed setting on the control panel. Mauvaise préselection de la vitesse sur le panneau de commandes. Falsche Geschwindigkeitseinstellung am Bedienpaneel. Programación errada de la velocidad en el tablero de mandos.	Scegliere la velocità corretta sul pannello comandi. Select the speed on the control panel. Choisir la vitesse sur la panneau de commandes. Die Geschwindigkeit am Bedienpaneel wählen. Elegir la velocidad correcta en el tablero de mandos.
	Filtro intasato. Blocked filter. Filtre encrassé. Filter verstopft. Filtro atascado.	Pulire il filtro. Clean the filter. Nettoyer le filtre. Filter reinigen. Limpiar el filtro.
Non fa caldo. It does not heat. Pas de chaleur. Keine Heizung. No hace calor.	Ostruzione del flusso d'aria (entrata e/o uscita). Obstruction of the air flow (inlet and/or outlet). Obstruction du flux d'air (entrée/sortie). Luftstrom behindert (Eintritt bzw. Austritt). Obstrucción del chorro del aire (entrada y/o salida).	Rimuovere l'ostruzione. Remove the obstruction. Enlever l'objet faisant obstruction. Verstopfung beseitigen. Quitar la obstrucción.
	Mancanza di acqua calda. Poor hot water supply. Il n'y a pas d'eau chaude. Kein Warmwasser. Falta de agua caliente.	Controllare la caldaia. Control the boiler. Verifier la chaudière. Kaltwasserseitigen Wärmeaustauscher kontrollieren. Comprobar el calentador.
Non fa freddo. It does not cool. Pas de froid. Keine Kühlung. No hace frío.	Impostazione errata del pannello comandi. Wrong setting on control panel. Mauvaise présélection sur le panneau de commandes. Falsche Einstellung am Bedienpaneel. Programación errada del tablero de mandos.	Impostare il pannello comandi. See control panel settings. Présélectionner au panneau de commandes. Richtige Einstellung am Bedienpaneel vornehmen. Programar el tablero de mandos.
	Mancanza di acqua fredda. Poor chilled water supply. Il n'y a pas d'eau froide. Kein Kaltwasser. Falta de agua fría.	Controllare il refrigeratore. Control the chiller. Vérifier le réfrigerateur. Kaltwasserseitigen Wärmeaustauscher kontrollieren. Comprobar el refrigerador.
Il ventilatore non gira. The fan does not turn. Le ventilateur ne tourne pas. Ventilator Arbeitet nicht. El ventilador no gira.	Impostazione errata del pannello comandi. Wrong setting on control panel. Mauvaise présélection sur le panneau de commandes. Falsche Einstellung am Bedienpaneel. Programación errada del tablero de mandos.	Impostare il pannello comandi. See control panel settings. Présélectionner au panneau de commandes. Richtige Einstellung am Bedienpaneel vornehmen. Programar el tablero de mandos.
	Mancanza di corrente. No current. l n'y a pas de courant. Kein Strom. Falta de corriente.	Controllare la presenza di tensione elettrica. Control the power supply. Contrôler l'alimentation électrique. Kontrollieren, ob Spannung anliegt. Comprobar la presencia de tensión eléctrica.
	L'acqua non ha raggiunto la temperatura d'esercizio. The water has not reached operating temperature. L'eau n'a pas atteint la température de service. Das Wasser hat die Betriebstemperatur nicht erreicht. El agua no ha alcanzado la temperatura de ejercicio.	Controllare la caldaia o il refrigeratore. Controllare il settaggio del termostato. Please check up the boiler or the chiller. Check up the thermostat settings. Contrôler la chaudière ou le refroidisseur. Contrôler le réglage du thermostat. Das Heiz- oder Kühlaggregat überprüfen. Die Einstellungen des Temperaturreglers überprüfen. Comprobar el calentador o el refrigerador. Comprobar la programación del termostato.
Fenomeni di condensazione sulla struttura esterna dell'apparecchio. Condensation on the unit cabinet. Phénomènes de condensation sur la structure exterieure de l'appareil. Kondenswasserbildung am Gerät. Fenómenos de condensación en la estructura externa del aparato.	Sono state raggiunte le condizioni limite di temperatura e umidità descritte in "MINIMA TEMPERATURA MEDIA DELL'ACQUA". The limit conditions of temperature and humidity indicated in "MINIMUM AVERAGE WATER TEMPERATURE" have been reached. On a atteint les conditions limite de température et d'humidité indiquées dans "TEMPERATURE MINIMALE MOYENNE DE L'EAU". Erreichen der maximalen Temperatur- und Feuchtigkeitswerte (siehe Abschnitt "DURCHSCHNITTLICHE MINDEST - WASSERTEMPERATUR"). Se han alcanzado las condiciones límites de temperatura y humedad descritas en "MÍNIMA TEMPERATURA MEDIA DEL AGUA".	Innalzare la temperatura dell'acqua oltre i limiti minimi descritti in "MINIMA TEMPERATURA MEDIA DELL'ACQUA". Increase the water temperature beyond the minimum limits indicated in "MINIMUM AVERAGE WATER TEMPERATURE". Elever la température de l'eau audelà des limites minimales indiquées dans "TEMPERATURE MINIMALE MOYENNE DE L'EAU". Wassertemperatur über die um Abschnitt "DURCHSCHNITTLICHE MINDEST - WASSERTEMPERATUR" angegebenen min. Werte erhöhen. Aumentar la temperatura del agua por encima de los límites descritos en "Mínima temperatura media del agua".

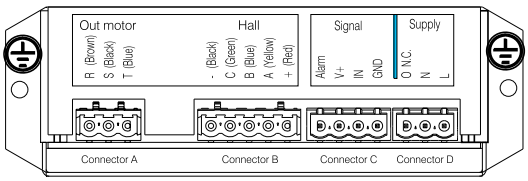
Per anomalie non contemplate, interpellare tempestivamente il Servizio Assistenza.
For anomalies don't hesitate, contact the aftersales service immediately.
Pour toute anomalie non répertoriée, consulter le service après-vente.
Sich bei hier nicht aufgeführten Störungen umgehend an den Kundendienst wenden.
En el caso de anomalías no contempladas, ponerse en contacto de inmediato con el Servicio de Asistencia.

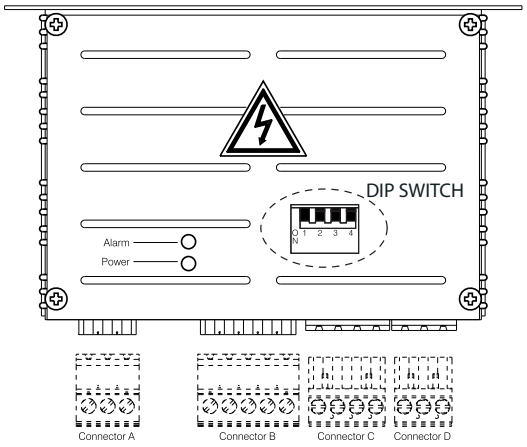
INVERTER CARD FACTORY SETTINGS



WARNING: Do not modify the unit's settings.
Any change to the inverter card dip switch settings may cause damage to the unit. For this reason the diagram of the factory settings are indicated.

Only the settings of the FCXI-P series units can be modified, strictly following to the diagram in this manual.





Aermec partecipa al Programma di Certificazione EUROVENT. I prodotti interessati figurano nella Guida EUROVENT dei Prodotti Certificati.

Aermec is partecipating in the EUROVENT Certification Programme. Products are as listed in the EUROVENT Directory of Certified Products.

Aermec partecipe au Programme de Certification EUROVENT. Les produits figurent dans l'Annuaire EUROVENT des Produits Certifiés.

Aermec ist am Zertifikations - Programm EUROVENT beteiligt. Die entsprechend gekennzeichneten Produkte sind im EUROVENT - Jahrbuch aufgefürt.

AERMEC S.p.A. participa en el programa de certificación EUROVENT. Sus equipos aparecen en el directorio de productos certificados EUROVENT.

AERMEC S.p.A.
I-37040 Bevilacqua (VR) - Italy
Via Roma, 996 - Tel. (+39) 0442 633111
Telefax (+39) 0442 93730 - (+39) 0442 93566
www .aermec. com