AERMEC

la prima per il clima

MANUALE D'USO E INSTALLAZIONE
USE AND INSTALLATION MANUAL
MANUEL D'UTILISATION ET D'INSTALLATION
BEDIENUNGS- UND INSTALLATIONSANLEITUNG
MANUAL DE INSTRUCCIONES E INSTALACIÓN

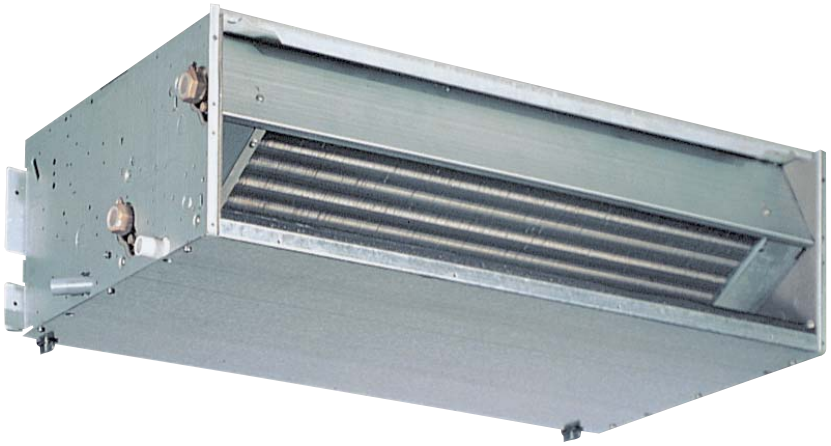
VENTILCONVETTORE CON INVERTER
FAN COIL WITH INVERTER
VENTILO-CONVECTEUR AVEC INVERTER
GEBLÄSEKONVEKTOR MIT INVERTER
FAN COIL CON INVERTER

INVERTER TECHNOLOGY

FCXI P

Variable Multi Flow

VMF



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

5383900_03

IFCXIPLJ 1010 - 5383900_03

Sostituisce il • Replace • Remplace le n° • Ersetzt • Sustituye a: 5383900_02 / 1003

OSSERVAZIONI

Conservare i manuali in luogo asciutto, per evitare il deterioramento, per almeno 10 anni per eventuali riferimenti futuri.
Leggere attentamente e completamente tutte le informazioni contenute in questo manuale. Prestare particolarmente attenzione alle norme d'uso accompagnate dalle scritte "PERICOLO" o "ATTENZIONE" in quanto, se non osservate, possono causare danno alla macchina e/o a persone e cose.
Per anomalie non contemplate da questo manuale, interpellare tempestivamente il Servizio Assistenza di zona.
L'apparecchio deve essere installato in maniera tale da rendere possibili operazioni di manutenzione e/o riparazione.
La garanzia dell'apparecchio non copre in ogni caso i costi dovuti ad autoscale, ponteggi o altri sistemi di elevazione che si rendesero necessari per effettuare gli interventi in garanzia.
AERMEC S.p.A. declina ogni responsabilità per qualsiasi danno dovuto ad un uso improprio della macchina, ad una lettura parziale o superficiale delle informazioni contenute in questo manuale.
Il numero di pagine di questo manuale è: 56.

REMARKS

Store the manuals in a dry location to avoid deterioration, as they must be kept for at least 10 years for any future reference.
All the information in this manual must be carefully read and understood. Pay particular attention to the operating standards with "DANGER" or "WARNING" signals as failure to comply with them can cause damage to the machine and/or persons or objects.
If any malfunctions are not included in this manual, contact the local After-sales Service immediately.
The apparatus must be installed in such a way that maintenance and/or repair operations are possible.
The apparatus's warranty does not in any case cover costs due to automatic ladders, scaffolding or other lifting systems necessary for carrying out repairs under guarantee.
AERMEC S.p.A. declines all responsibility for any damage whatsoever caused by improper use of the machine, and a partial or superficial acquaintance with the information contained in this manual.
The number of pages in this manual is : 56.

REMARQUES

Conserver les manuels dans un endroit sec, afin d'éviter leur détérioration, pendant au moins 10 ans, pour toutes éventuelles consultations futures.
Lire attentivement et entièrement toutes les informations contenues dans ce manuel. Prêter une attention particulière aux normes d'utilisation signalées par les inscriptions "DANGER" ou "ATTENTION", car leur non observance pourrait causer un dommage à l'appareil et/ou aux personnes et objets.
Pour toute anomalie non mentionnée dans ce manuel, contacter aussitôt le service après-vente de votre secteur.
Lors de l'installation de l'appareil, il faut prévoir l'espace nécessaire pour les opérations d'entretien et/ou de réparation.
La garantie de l'appareil ne couvre pas les coûts dérivant de l'utilisation de voitures avec échelle mécanique, d'échafaudages ou d'autres systèmes de levée employés pour effectuer des interventions en garantie.
AERMEC S.p.A. décline toute responsabilité pour tout dommage dû à une utilisation impropre de l'appareil et à une lecture partielle ou superficielle des informations contenues dans ce manuel.
Ce manuel se compose de pages: 56.

HINWEISE

Bewahren Sie die Gebrauchsanleitungen mindestens 10 Jahre für eventuelles zukünftiges Nachschlagen an einem trockenen Ort auf.
Alle in diesem Handbuch enthaltenen Informationen aufmerksam und vollständig lesen. Insbesondere auf die Benutzungsanweisungen mit den Hinweisen "VORSICHT" oder "ACHTUNG" achten, da deren Nichtbeachtung Schäden am Gerät bzw. Sach- und Personenschäden zur Folge haben kann.
Bei Betriebsstörungen, die in dieser Gebrauchsanweisung nicht aufgeführt sind, wenden Sie sich umgehend an die zuständige Kundendienststelle.
Das Gerät so aufstellen, dass Instandhaltungs- und/oder Reparaturarbeiten durchgeführt werden können.
Die Garantie des Gerätes deckt in keinem Fall Kosten für Feuerwehrleitern, Gerüste oder andere Hebesysteme ab, die sich für die Garantiearbeiten als erforderlich erweisen sollten.
Die AERMEC S.p.A. übernimmt keine Haftung für Schäden aus dem unsachgemäßen Gebrauch des Gerätes und der teilweisen oder oberflächlichen Lektüre der in diesem Handbuch enthaltenen Informationen.
Die Seitenanzahl diese Handbuches ist: Nr. 56 Seiten

OBSERVACIONES

Guarde los manuales en un lugar seco para evitar su deterioro, al menos durante 10 años, por si fuera posible consultarlos en el futuro.
Leer atenta y completamente todas las informaciones contenidas en este manual. Preste particular atención a las normas de uso acompañadas de las indicaciones "PELIGRO" o "ATENCIÓN" puesto que, si no se cumplen, pueden causar el deterioro de la máquina y/o daños personales y materiales.
En caso de anomalías no contempladas en este manual, contacte inmediatamente con el Servicio de Asistencia de su zona.
El aparato debe ser instalado de manera que haga posibles las operaciones de mantenimiento y/o reparación.
En cualquier caso, la garantía del aparato no cubre los costes derivados del uso de escaleras automáticas, andamios u otros sistemas de elevación necesarios para efectuar las intervenciones en garantía.
AERMEC S.p.A. declina cualquier responsabilidad por cualquier daño debido a un uso impropio de la máquina, o bien a una lectura parcial o superficial de las informaciones contenidas en este manual.
Número de páginas de este manual: 56.

INDICE

FCXI P

AERMEC S.p.A.
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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_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_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_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_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
serie FCXI_P
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_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_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:
- Directive LVD 2006/95/CE
- EMC Electromagnetic Compatibility Directive 2004/108/CE
- Machine Directive 2006_42_CE

FCXI_P WITH ACCESSORIES
It is not allowed to use the unit equipped with accessories not supplied by Aermec.

CE KONFORMITÄTSERKLÄRUNG

Wir, die hier Unterzeichnenden, erklären auf unsere ausschließlich Verantwortung, dass das Produkt:
GEBLÄSEKONVEKTOR INVERTER
der Serie 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_P + ZUBEHÖR
Falls das Gerät mit Zubehörteilen ausgerüstet wird, die nicht von Aermec geliefert werden, ist dessen Inbetriebnahme solange untersagt.

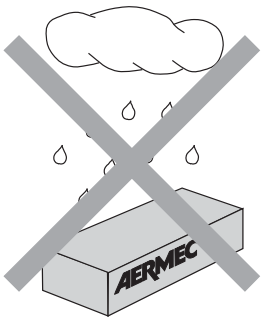
La persona autorizzata a costituire il fascicolo tecnico è: / The person authorized to compile the technical file is: / La personne autorisée à constituer le dossier technique est: / Die Person berechtigt, die technischen Unterlagen zusammenzustellen: **Pierpaolo Cavallo**
I-37040 Bevilacqua (VR) Italia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

Bevilacqua, 01/01/2010

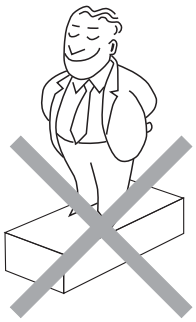
La Direzione Commerciale – Sales and Marketing Director
Luigi Zucchi

TRASPORTO • CARRIAGE • TRANSPORT • TRANSPORT • TRANSPORTE

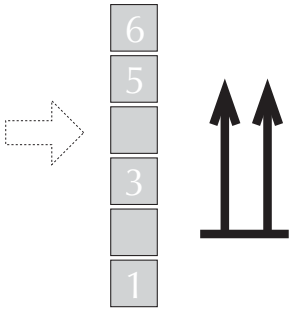
NON bagnare • Do NOT wet
CRAINT l'humidité • Vor Nässe schützen
NO mojar

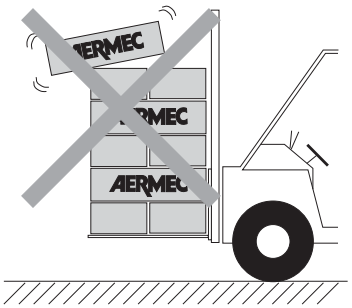


NON calpestare • Do NOT trample
NE PAS marcher sur cet emballage • Nicht betreten
NO pisar



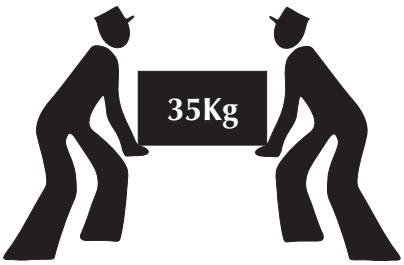
Sovrapponibilità: controllare sull'imballo la posizione della freccia per conoscere il numero di macchine impilabili.
Stacking: control the packing for the arrow position to know the number of machines that can be stacked.
Empilement: vérifier sur l'emballage la position de la flèche pour connaître le 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.



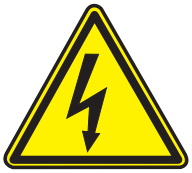


NON lasciare gli imballi sciolti durante il trasporto.
Do NOT leave loose packages during transport.
ATTACHER les emballages pendant le transport.
Die Verpackungen nicht ungesichert transportieren.
NO lleve las cajas sueltas durante el transporte.

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!!!

INDEX

IMPORTANT INFORMATION AND MAINTENANCE

WARNING: the fan coil is connected to the power supply and a water circuit. Intervention 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.

CORRECT AIR JET AIMING ADJUSTMENT

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

Clean the fan coil with a soft cloth or sponge soaked in water not over 40°C. Do not use chemical products or solvents to clean any part of the fan coil. Do not spray water on the outer or inner surfaces of the fan coil (it might cause short circuits).

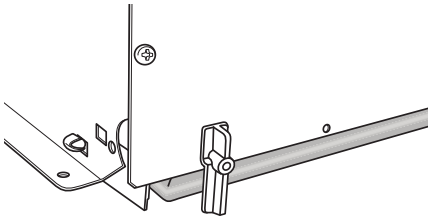
CLEAN THE FILTER FREQUENTLY

Cleaning the filter frequently guarantees enhanced operating efficiency.

Check whether the filter is very dirty: if it is, clean it more often.

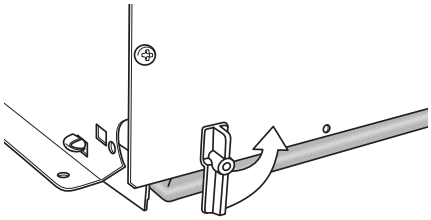
Clean frequently; remove the accumulated dust with a vacuum cleaner.

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



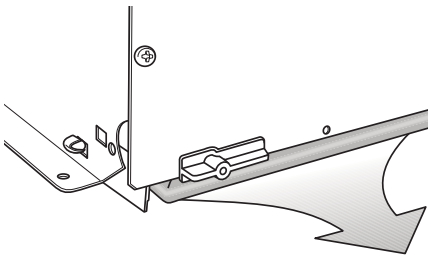
SUPPLEMENTARY CLEANING

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

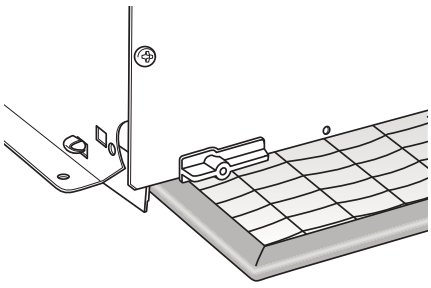
Always leave the filter fitted on the fan coil during operation (otherwise dust in the air could soil the coil surface area).



WHAT IS NORMAL

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

In the heating function, 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.

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.

PACKAGING

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

MACHINE PURPOSE

The fan coil is a room air treatment terminal unit for both winter and summer operation.

AVAILABLE SIZES

The FCXI_P fan coils are available in:

5 sizes with a 3-row coil

FCXI 20 P
FCXI 30 P
FCXI 40 P
FCXI 50 P
FCXI 80 P

Version FCXI_P

Inverter fan coil for vertical (wall) or horizontal (suspended ceiling) installation.

TECHNICAL DATA AND 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.

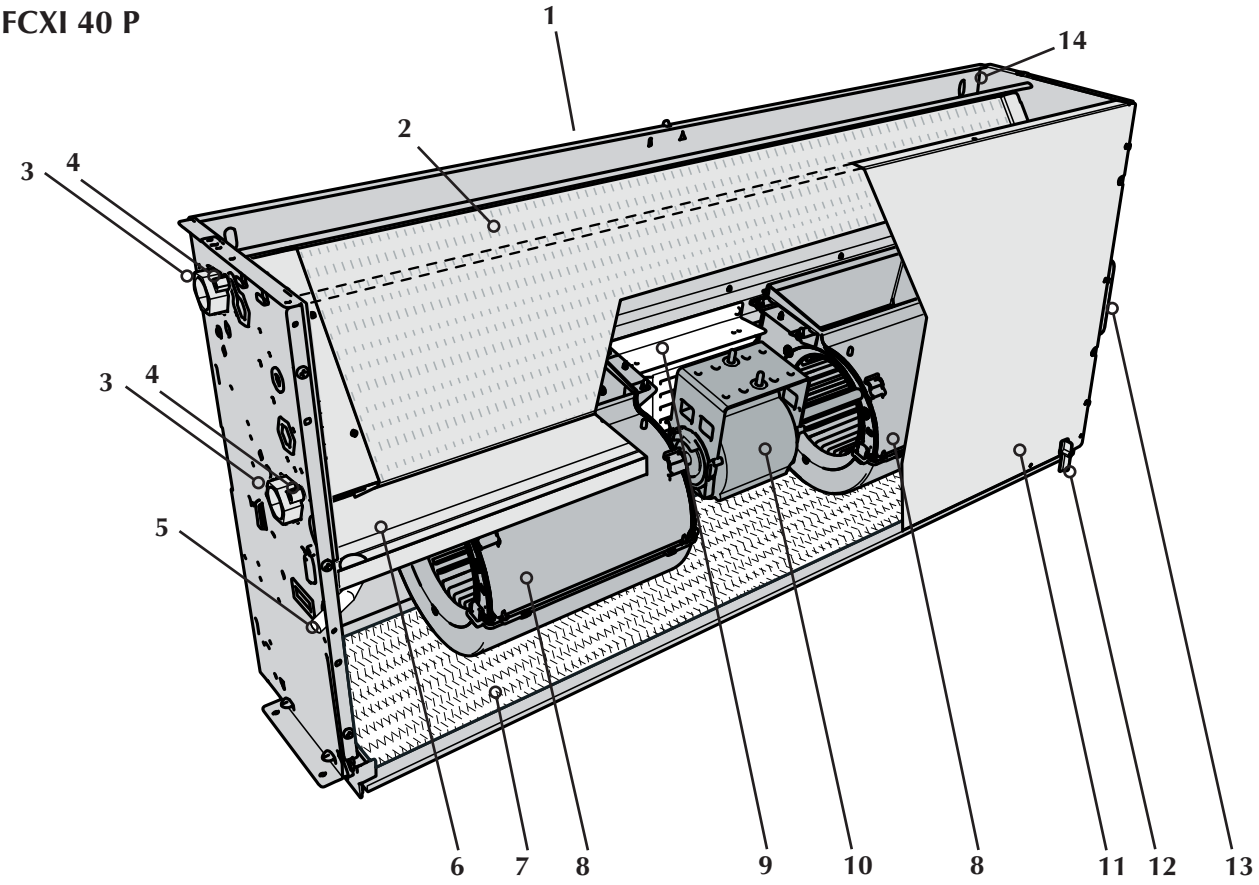
In the event of prolonged fan inactivity and with cold water passing through the coil, condensate may form on the external case of the unit. **As a result, we recommend including the 3-way valve accessory.**

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

MAIN COMPONENTS

1 Air delivery
2 Heat exchange coil
3 Water connections
4 Air vents on the coil
5 Condensate drain
6 Tray
7 Air filter (suction)
8 Fan
9 Inverter device
10 Electric motor
11 Front closure panel
12 Filter clip
13 Electrical wiring
14 Load-bearing structure

FCXI 40 P



DESCRIPTION

System types

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

Ventilation

Variable speed ventilation can be commanded either manually or automatically from the control panel.

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 of G2 filtering class.
Easily removable and made from regenerable materials. May be cleaned by washing.

ELECTRIC FAN UNIT

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 directly coupled with the shaft of the electric motor.
The brushless electric motor is powered by a dedicated inverter device that allows the ventilation speed to be continuously varied.
The electric motor is cushioned with elastic supports and the steel shaft is mounted on bearings and resists salty fog in accordance with ASTM B117/84.

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 DRAIN

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.

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.

CONTROL PANEL

Use a control panel with thermostat and ventilation speed control, with 0-10V outputs. Refer to the manual of the accessory for installation.

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

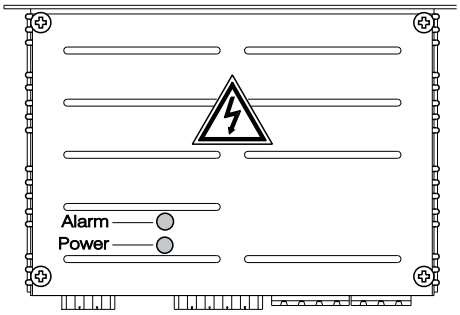
This section is reserved for the After Sales service only.

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)

INSTALLING THE UNIT

To install the unit, proceed as follows:
- remove the air filter;
- Remove the front closure panel;
- For wall mounting, maintain a minimum distance of 80mm from the floor;
- For floor mounting (using feet), refer to the instructions supplied with the accessory;
- For wall or ceiling mounting, use wall plugs (not supplied).

When using the Support accessory (AMP accessory), proceed as follows:
- assemble the 4 supports at the sides of the device, inserting the hole in the special slit and fixing the lower part to the component by means of the screws supplied;
- Fix the flanges to the ceiling, using wall plugs (not supplied); for the relative positions between the flanges and the component, refer to the size data.

Make the water connections as described in the relative chapter.

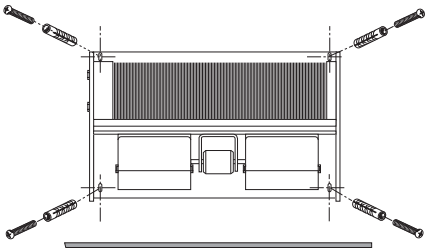
Make the condensate discharge connection as described in the relative chapter. The fan coils that work in heat mode only do not require condensate discharge.

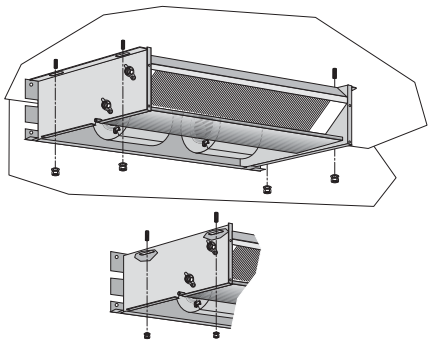
Make the electrical wiring as shown in the relative chapter and in the wiring diagrams.

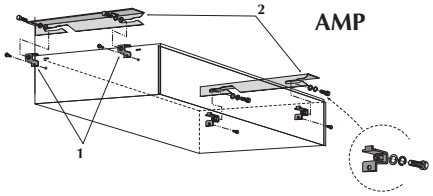
Install and connect any accessories.

Complete the installation by reassembling the front panel and air filter.

Start up the fan coil and check all the components and functions are operating correctly.







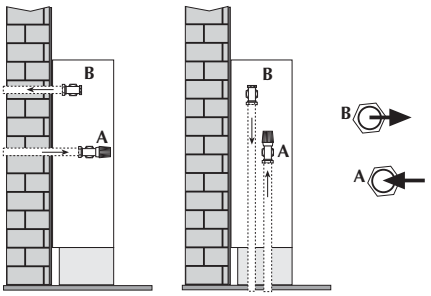
WATER CONNECTIONS

- 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.

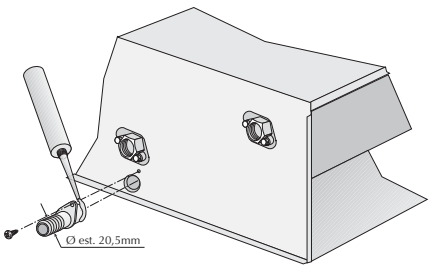
After installing, check the seal on the connections.



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

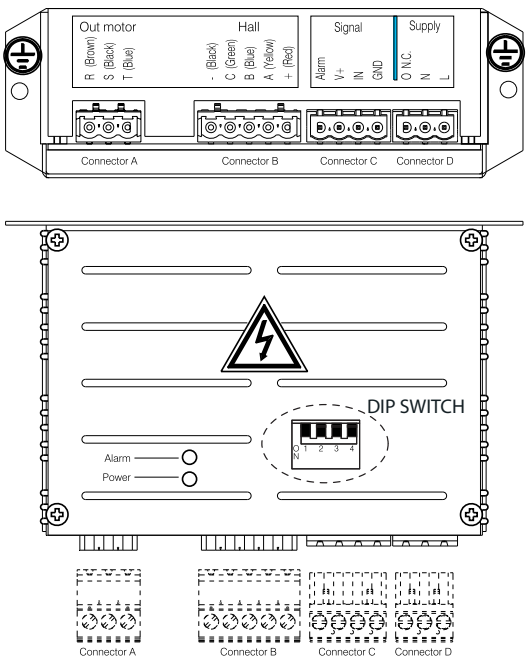
- The VMF-E18 Kit includes the system with connection cables to the Inverter Control Module. The cables are wired with connectors for quick connection.

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.

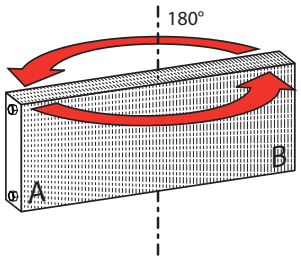


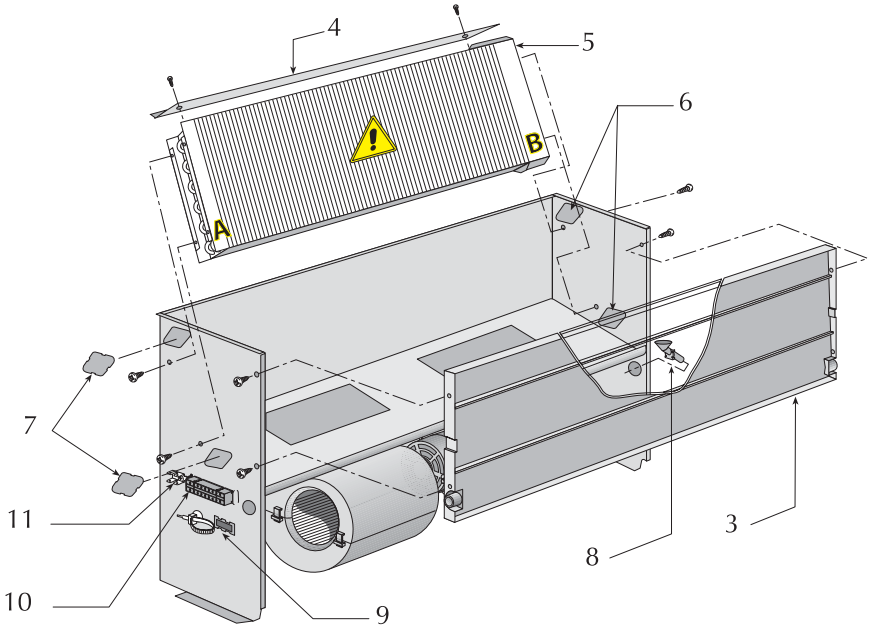
FCXI 20 P	ON 1 2 3 4	STANDARD 850 g/min
	ON 1 2 3 4	MAX 1150 g/min
FCXI 30 P	ON 1 2 3 4	STANDARD 750 g/min
	ON 1 2 3 4	MAX 1150 g/min
FCXI 40 P	ON 1 2 3 4	STANDARD 850 g/min
	ON 1 2 3 4	MAX 1150 g/min
FCXI 50 P	ON 1 2 3 4	STANDARD 1050 g/min
	ON 1 2 3 4	MAX 1250 g/min
FCXI 80 P	ON 1 2 3 4	STANDARD 1150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

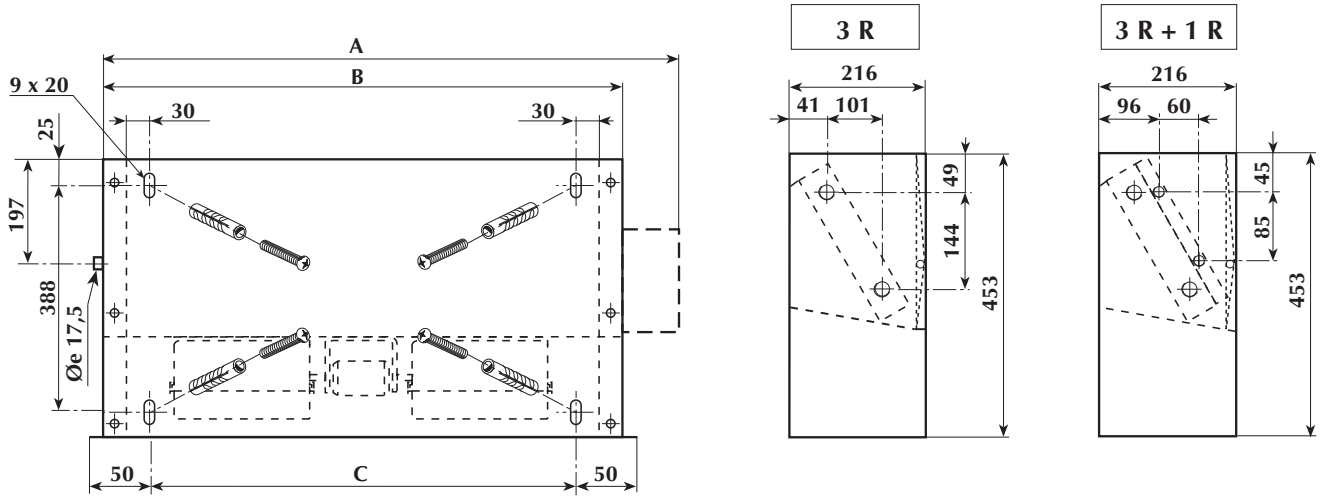
- Remove the condensate drip tray;
- Undo the screws and remove the coil cover;
- Remove the screws securing the coil, then remove the coil;
- Remove the push-outs on the right-hand side;
- Rotate the coil and secure it with the previously removed screws;
- Reassemble the cover and fix it with the screws;
- 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.



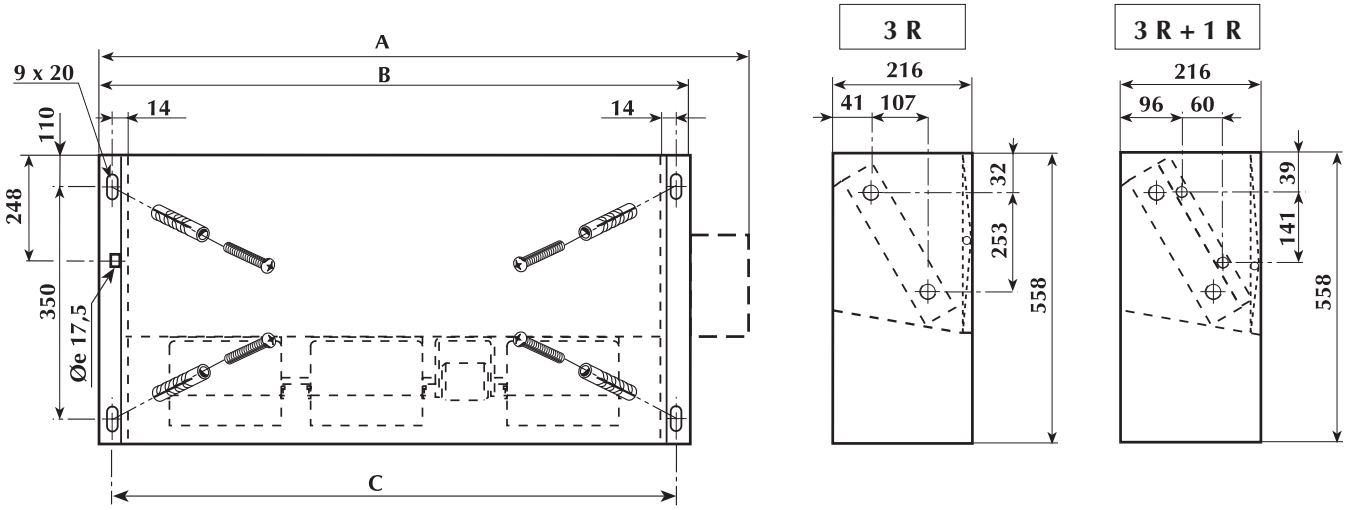


DATI DIMENSIONALI • DIMENSIONS • DIMENSIONS • ABMESSUNGEN • DIMENSIONES [mm]

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



FCX 80 P

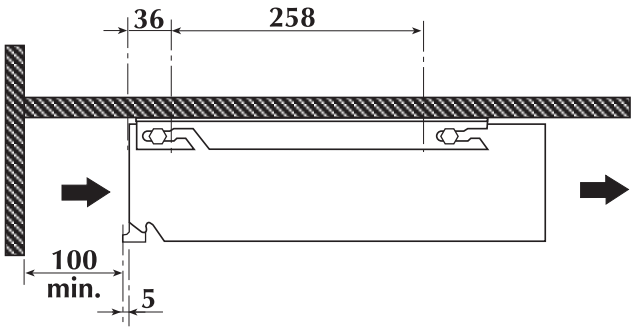


Mod.		FCXI 20 P	FCXI 30 P	FCXI 40 P	FCXI 50 P	FCXI 80 P
A		562	793	1013	1013	1147
B		522	753	973	973	1122
C		440	671	891	891	1102
Peso Weight Poids Gewicht Peso	kg	13	18	22	22	33

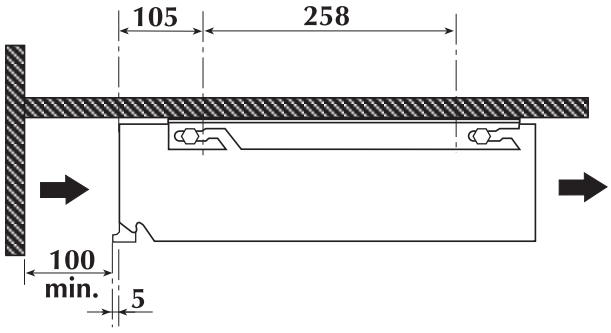
Attacchi batteria (femmina) • Coil connection (female)
Raccords batterie (femelle) • Anschlüsse des Warmetäuschers (Innengewinde)
Conexiones de la batería (hembra)

Mod.	FCXI 20 P	FCXI 30 P	FCXI 40 P	FCXI 50 P	FCXI 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″

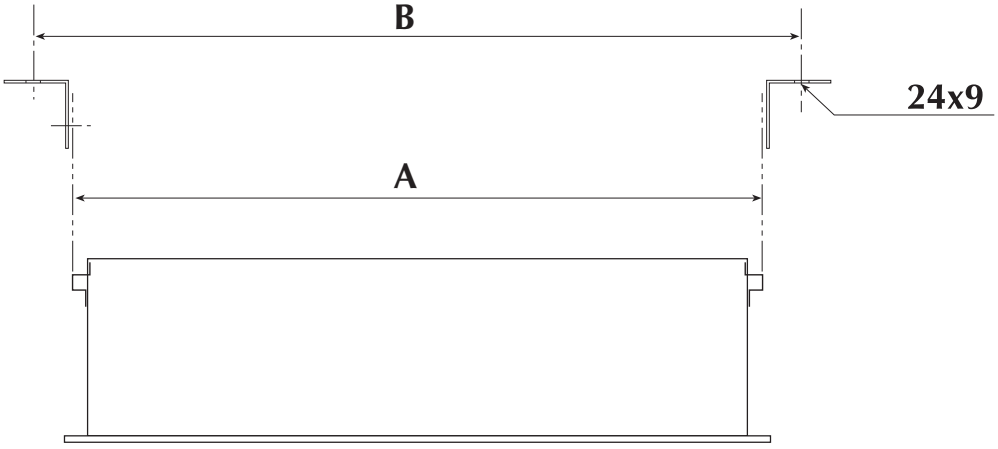
Installazione con supporti AMP (accessori) • Installation with AMP brackets (accessories)
Installation avec supports AMP (accessories) • Installation mit AMP halterung (zubehöre)
Instalación con soportes AMP (accesorios)



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

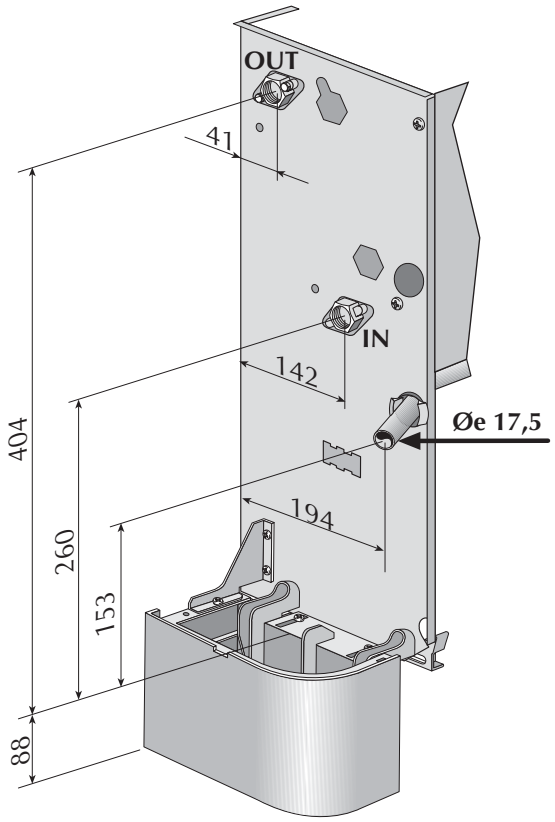


FCXI 80 P

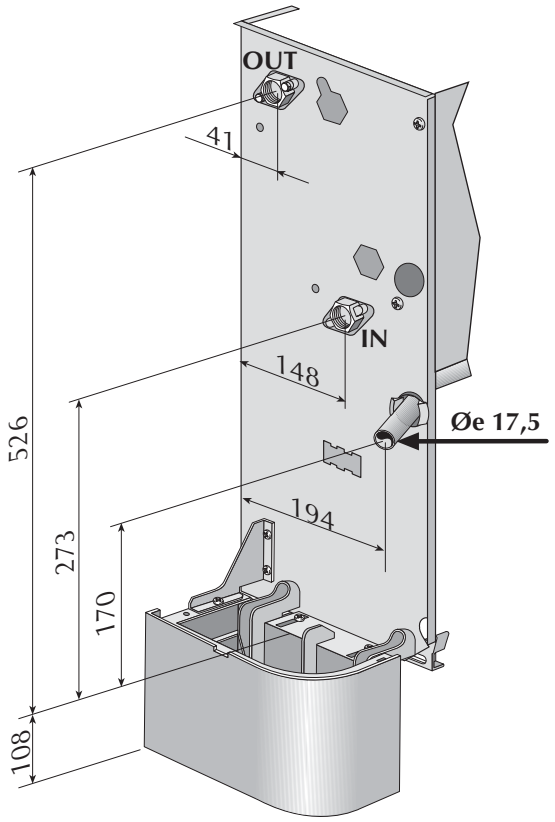


Mod. FCXI	20 P	30 P	40 P	50 P	80 P
A	800	831	1051	1051	1172
B	555	786	1006	1006	1127

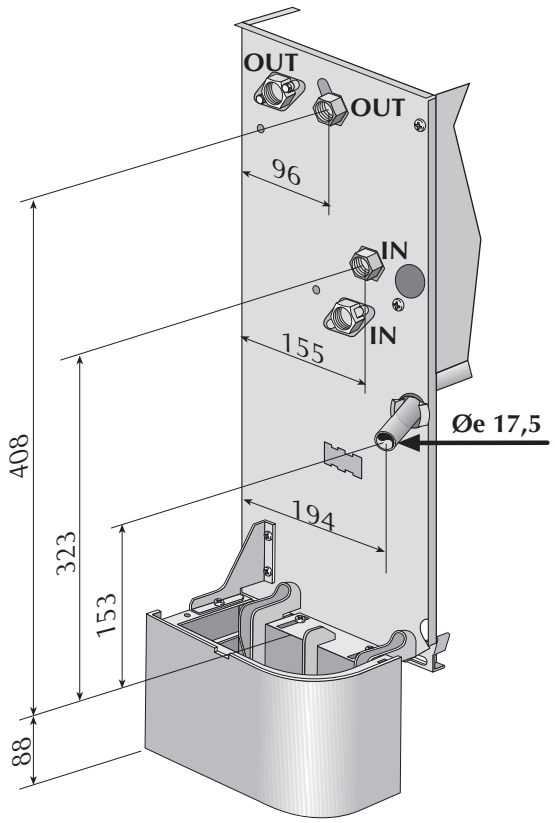
FCXI 20 ÷ 50 3R



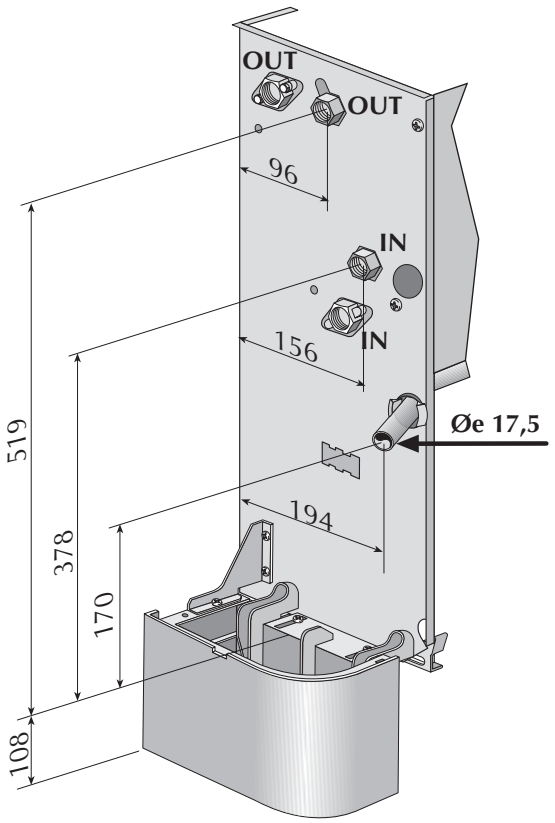
FCXI 80 3R



FCXI 20 ÷ 50 1R



FCXI 80 1R



SCHEMI ELETTRICI • WIRING DIAGRAMS • SCHEMAS ELECTRIQUES • SCHALTPLÄNE • ESQUEMAS ELÉCTRICOS

LEGENDA • READING KEY • LEGENDE • LEGENDE • LEYENDA

F = Fusibile • Fuse • Fusible
Sicherung • Fusible

IG = Interruttore generale • Main switch
Interupteur général • Hauptschalter
Interruptor general

M = Morsettiera • Terminal board
Boitier • Klemmleiste
Placa de bornes

MI = Microinterruttore griglia
(Solo per i modelli che ne sono provvisti)
Louvre microswitch
(Only for the appropriate models)
Micro-interrupteur grille
(Uniquement pour les modèles qui en sont fournis)
Mikroschalter Gitter
(Nur bei Modellen, die damit ausgestattet sind)
Microinterruptor de la rejilla de impulsión
(Sólo para los modelos que lo incluyen)

MV = Motore ventilatore • Fan motor
Moteur ventilateur • Ventilatormotor
Motor del ventilador

PE = Collegamento a terra • Earth connection
Mise à terre • Erdanschluss
Toma de tierra

VC = Valvola solenoide caldo
Solenoid valve hot
Vanne magnétique chaud
Magnetventil Heizbetrieb
Válvula solenoide para calor

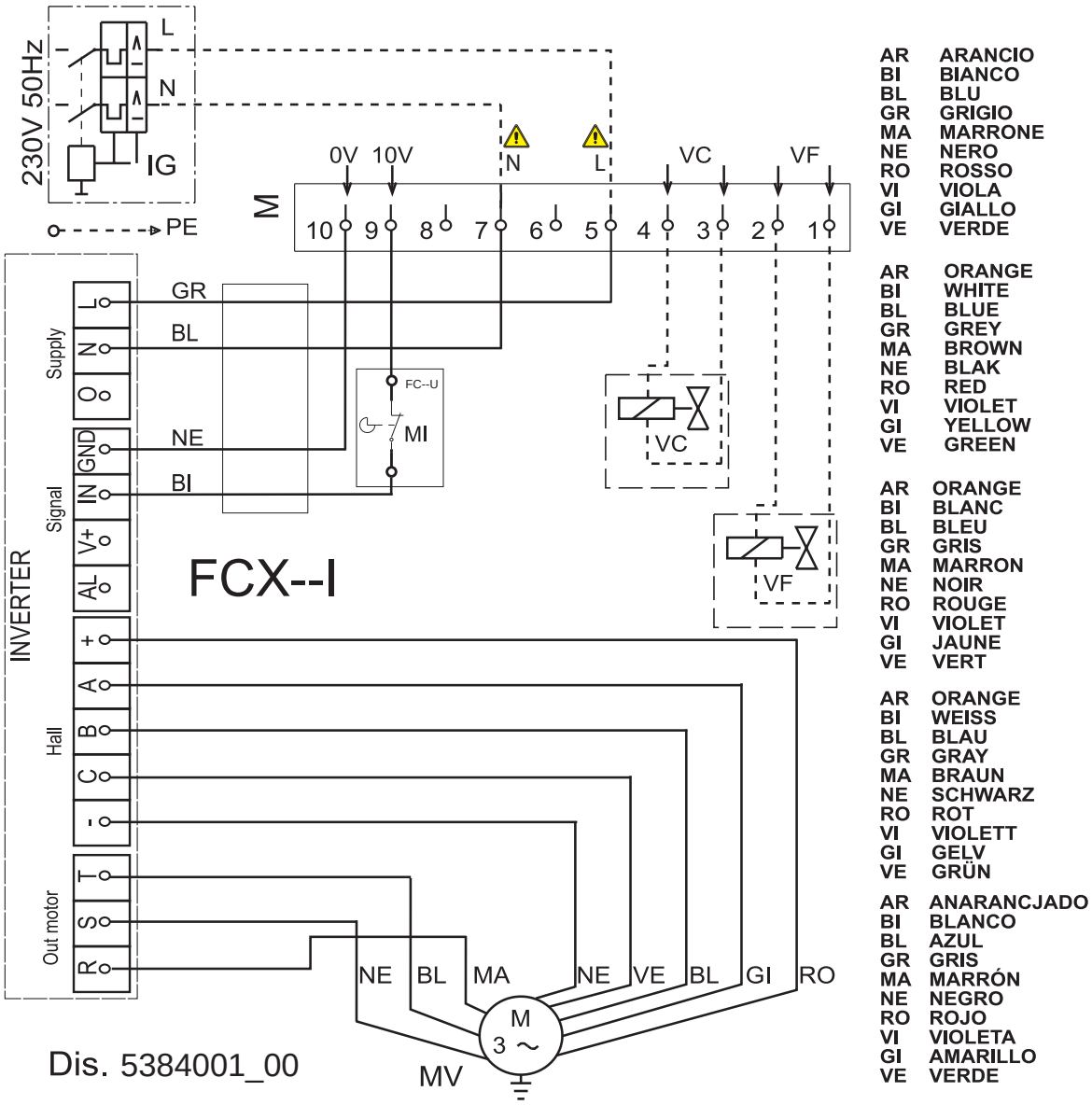
VF = Valvola solenoide freddo
Solenoid valve cold
Vanne magnétique froid
Magnetventil Kühlbetrieb
Válvula solenoide para frío

= Componenti non forniti
Components not supplied
Composants non fournis
Nicht lieferbare Teile
Componentes no suministrados

= Componenti forniti optional
Optional components
Composants en option
Optionsteile
Componentes opcionales

= Collegamenti da eseguire in loco
On-site wiring
Raccordements à effectuer in situ
Vor Ort auszuführende Anschlüsse
Cableado in situ

AR = Arancio • Orange • Orange • Orange • Naranja
BI = Bianco • White • Blanc • Weiss • Blanco
BL = Blu • Blue • Bleu • Blau • Azul
GI = Giallo • Yellow • Jaune • Gelv • Amarillo
GR = Grigio • Grey • Gris • Gray • Gris
MA = Marrone • Brown • Marron • Braun • Marrón
NE = Nero • Black • Noir • Schwarz • Negro
RO = Rosso • Red • Rouge • Rot • Rojo
VE = Verde • Green • Vert • Grün • Verde
VI = Viola • Violet • Violet • Violet • Violeta



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

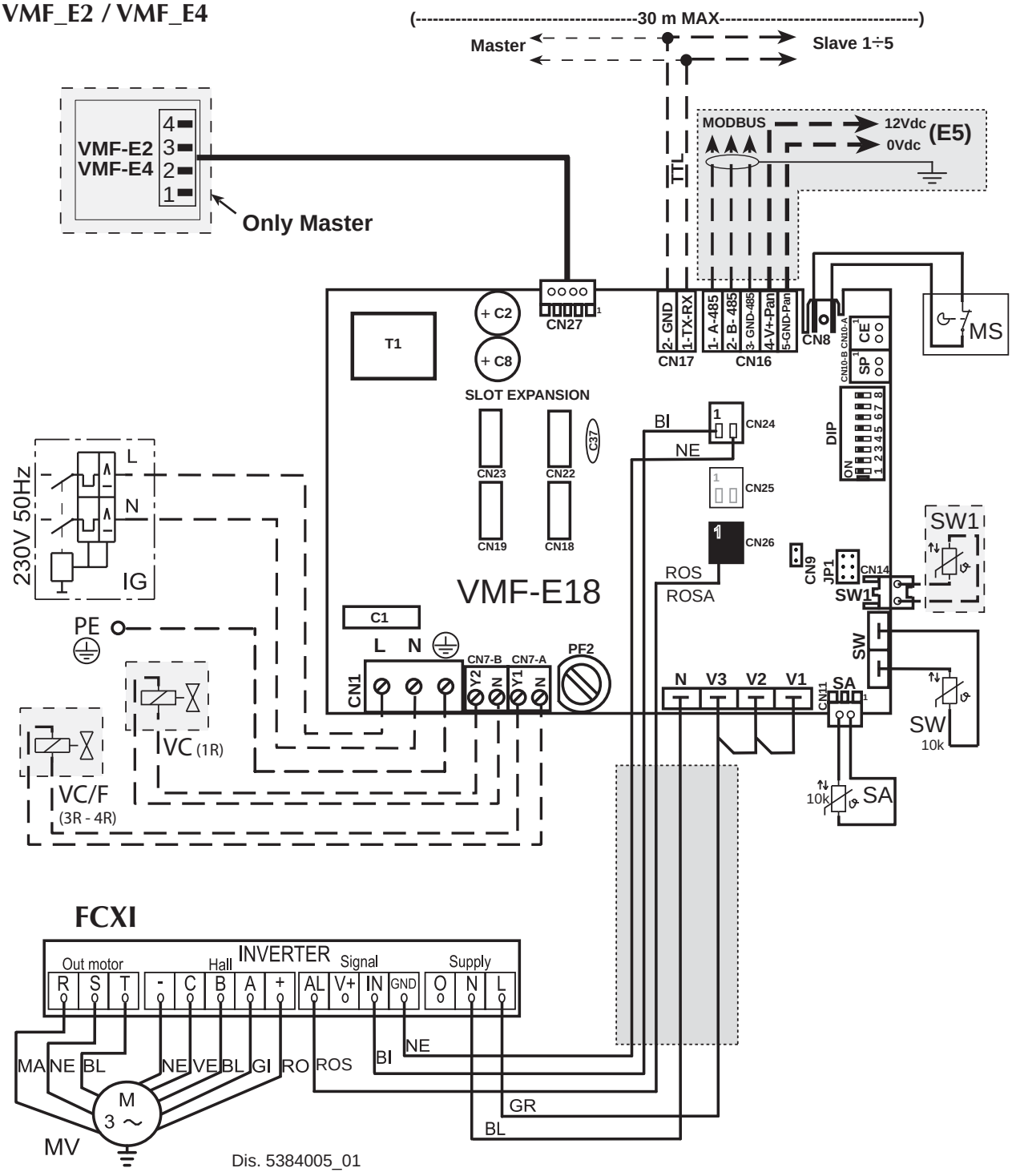
AR ORANGE
BI BLANC
BL BLEU
GR GRIS
MA MARRON
NE NOIR
RO ROUGE
VI VIOLET
GI JAUNE
VE VERT

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

Gli schemi elettrici sono soggetti ad un continuo aggiornamento, è obbligatorio quindi fare riferimento a quelli a bordo macchina. All wiring diagrams are constantly updated. Please refer to the ones supplied with the unit. Nos schémas électriques étant constamment mis à jour, il faut absolument se référer à ceux fournis à bord de nos appareils. Die Schaltpläne werden ständig aktualisiert, deswegen muss man sich stets auf das mit dem Gerät gelieferte Schaltschema beziehen. El cableado de las máquinas es sometido a actualizaciones constantes. Por favor, para cada unidad hagan referencia a los esquemas suministrados con la misma.

FCXI
VMF_E18
VMF_E2 / VMF_E4



Dis. 5384005_01

Il kit VMF-E18 comprende l'impianto con cavi di collegamento al Modulo Comando Inverter. I cavi sono cablati con connettori per un rapido collegamento.

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

Le kit VMF-E18 comprend l'installation avec des câbles de connexion au Module Commande Inverter. Les câbles sont câblés avec des connecteurs pour une connexion rapide.

Der Kit VMF-E18 umfasst die Anlage mit Anschlusskabeln zum Inverter-Steuermodul. Die Kabeln sind mit Verbindern für einen Schnellanschluss versehen.

El kit VMF-E18 incluye la instalación con cables de conexión al Módulo Mando Inverter. Los cables están cableados con conectores para una conexión rápida.

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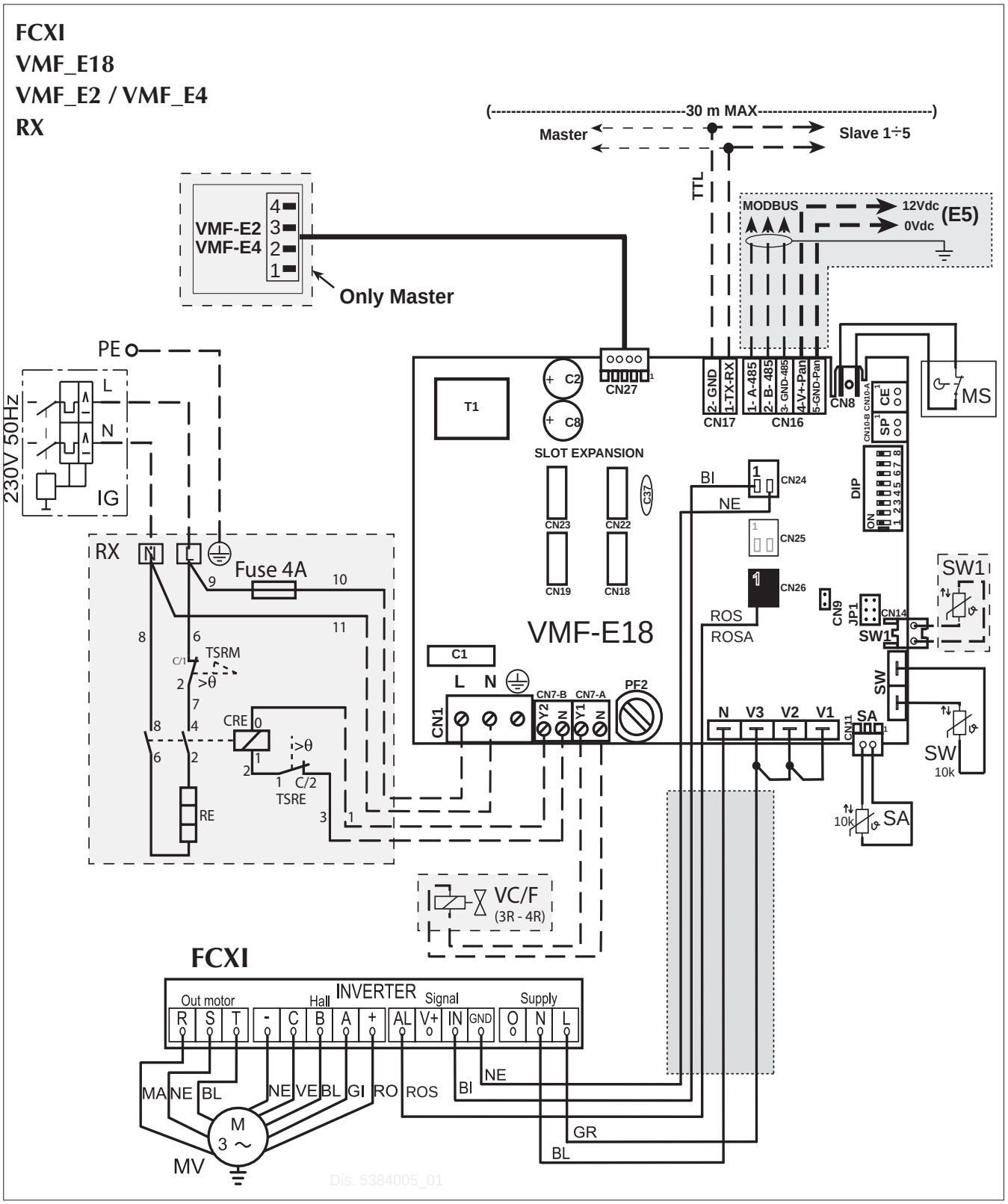
FCXI
VMF_E18
VMF_E2 / VMF_E4
RX



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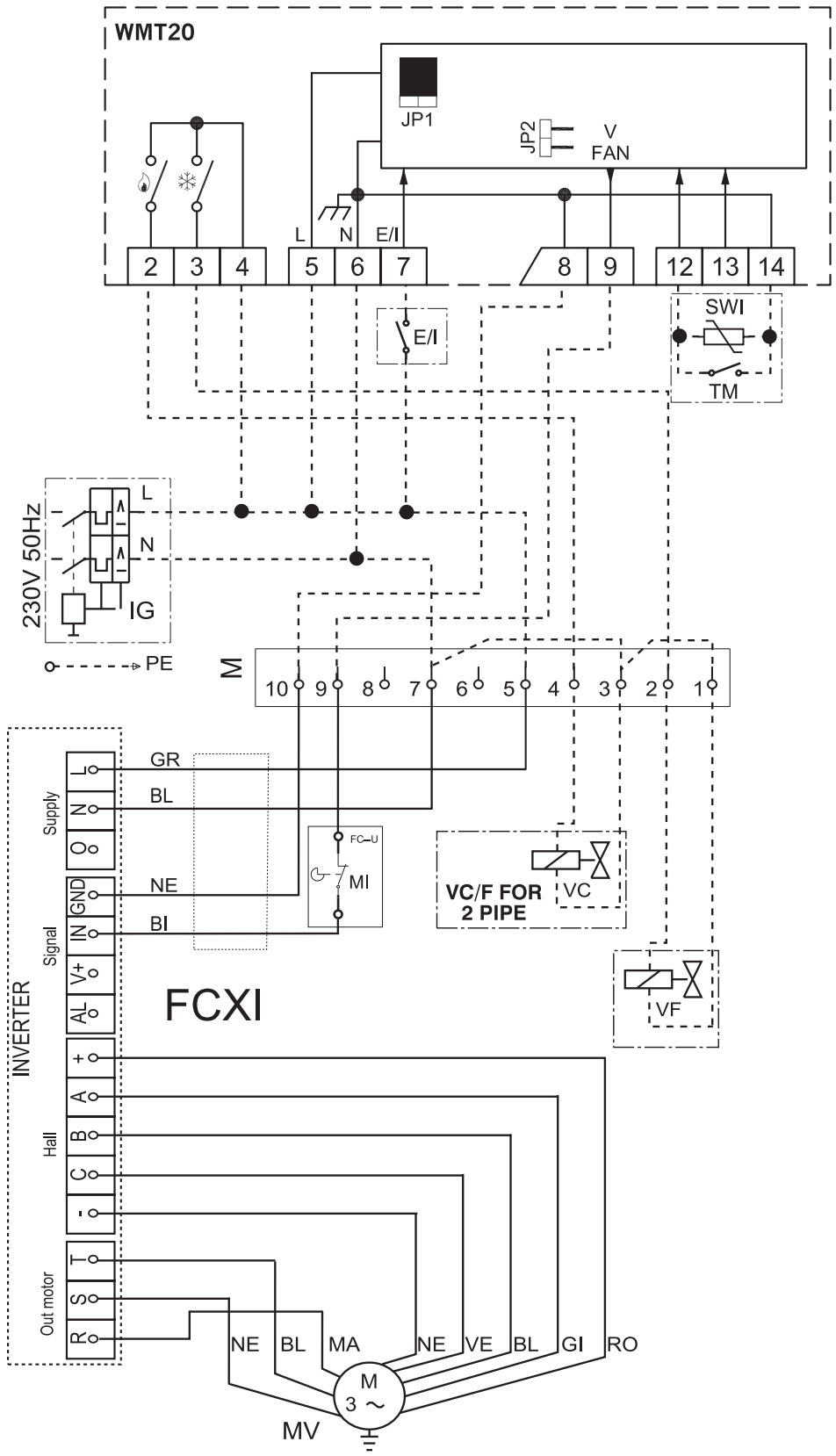
FCXI
WMT20



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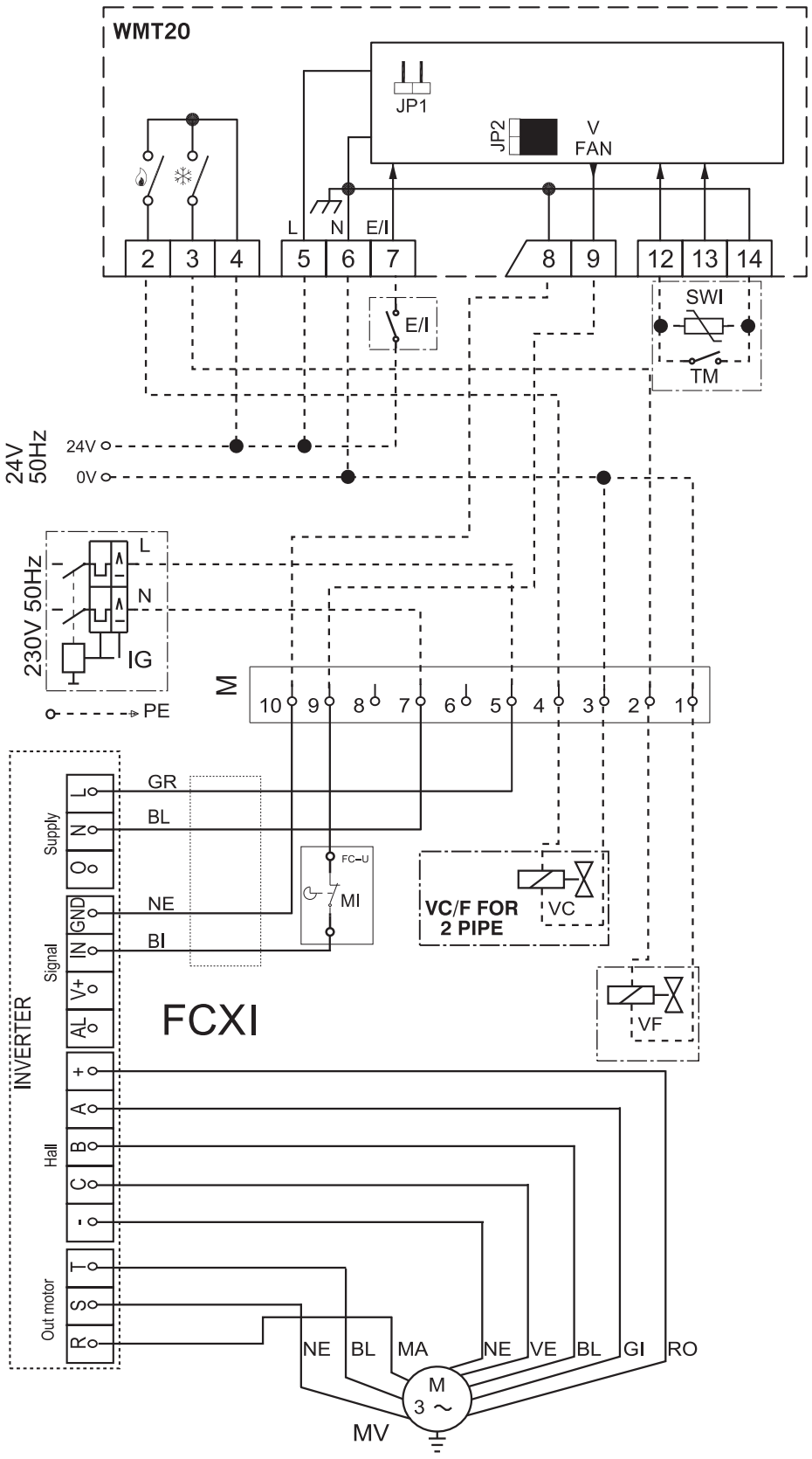
FCXI
WMT20
VCF 24V



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Die Schaltpläne werden ständig aktualisiert, deswegen muss man sich stets auf das mit dem Gerät gelieferte Schaltschema beziehen.
El cableado de las máquinas es sometido a actualizaciones constantes. Por favor, para cada unidad hagan referencia a los esquemas suministrados con la misma.

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. I 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.

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

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