

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



# FCXI AS FCXI U



FCXI 20 AS  
FCXI 30 AS  
FCXI 40 AS  
FCXI 50 AS  
FCXI 80 AS

FCXI 20 U  
FCXI 30 U  
FCXI 40 U  
FCXI 50 U  
FCXI 80 U



5383600\_01

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## 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 particolare 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**

**re 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 rendessero 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: 44.

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## 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 maintainan-**

**ce 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 : 44.

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## 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 improprie de l'appareil et à une lecture partielle ou superficielle des informations contenues dans ce manuel. Ce manuel se compose de pages: 44.

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## 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 Garantiarbeiten 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. 44 Seiten

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## 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: 44.

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## INDICE

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### 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

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 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

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 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\_AS / FCXI\_U

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 electromagnética 2004/108/CE
- Directiva máquinas 2006\_42\_CE

#### FCXI\_AS / FCXI\_U CON ACCESORIOS

Está prohibido poner en marcha el producto con accesorios no suministrados por Aermec.

Bevilacqua, 01/01/2010

# FCXI AS

# FCXI U

### CE CONFORMITY DECLARATION

We the undersigned declare, under our own exclusive responsibility, that the product:

#### INVERTER FAN COIL

FCXI\_AS / FCXI\_U 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\_AS / FCXI\_U 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 ausschließliche Verantwortung, dass das Produkt:

#### GEBLÄSEKONVEKTOR INVERTER

der Serie FCXI\_AS / FCXI\_U

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:

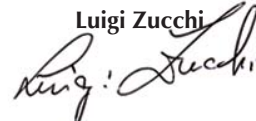
- Richtlinie LVD 2006/95/CE
- Richtlinie zur elektromagnetischen Verträglichkeit 2004/108/CE
- Maschinenrichtlinie 2006\_42\_CE

#### FCXI\_AS / FCXI\_U + ZUBEHÖR

Falls das Gerät mit Zubehörteilen ausgerüstet wird, die nicht von Aermec geliefert werden, ist dessen Inbetriebnahme solange untersagt.

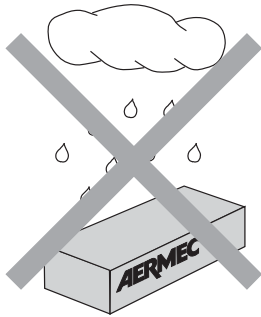
La Direzione Commerciale – Sales and Marketing Director

Luigi Zucchi

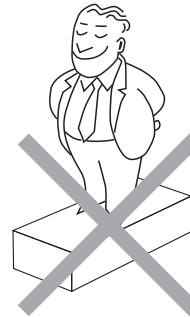


**TRASPORTO • CARRIAGE • TRANSPORT • TRANSPORT • TRANSPORTE**

**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**



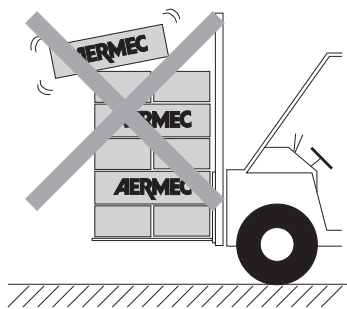
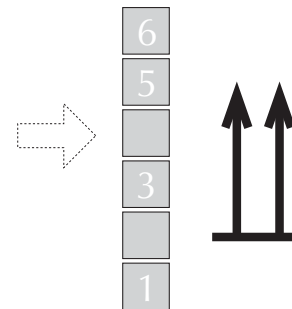
**Sovrapponibilità: controllare sull'imballo la posizione della freccia per conoscere il numero di macchine impilabili.**

**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.**

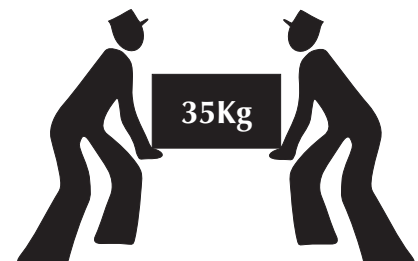
**NON trasportare la macchina da soli se il suo peso supera i 35 Kg.**

**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**  
**SICHERHEITSSYMBOL • 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!!!**

Congratulations on your purchase of this Aermec FCXI fan coil.

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.

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## IMPORTANT INFORMATION AND MAINTENANCE

**WARNING:** the fan coil is connected to the power supply and a water circuit. Any operation by persons who do not possess 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

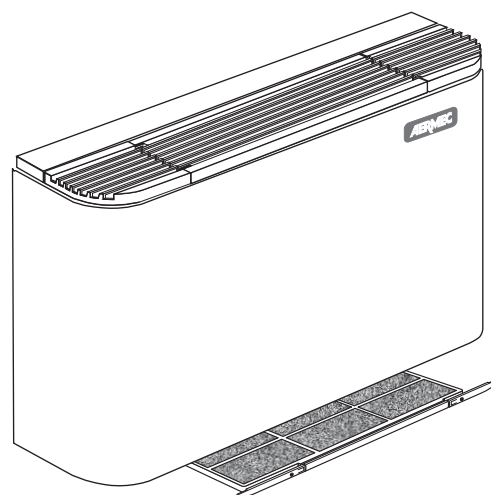
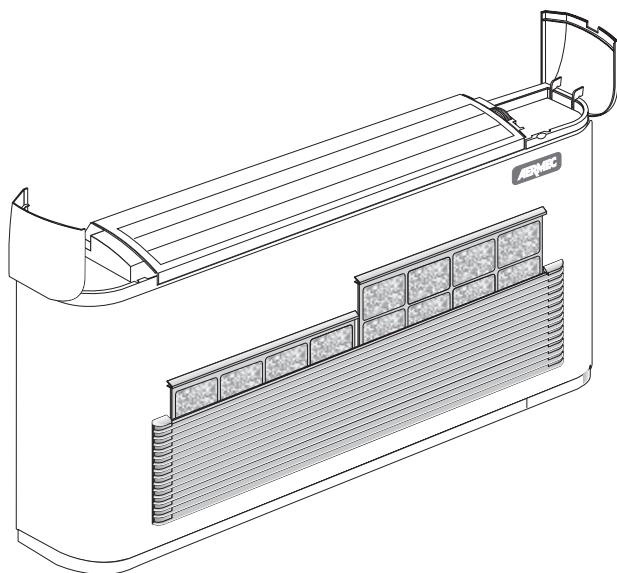
Always leave the filter fitted on the fan coil during operation (otherwise dust in the air could soil the coil surface area).

### WHAT IS NORMAL

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

In the heating mode, 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.



## 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

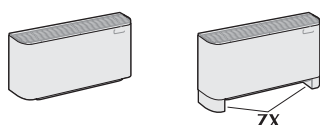
The fan coil is a room air treatment terminal unit for both winter and summer operation.

### AVAILABLE SIZES

The FCXI\_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

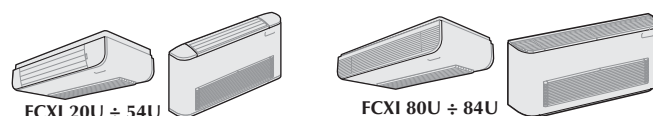
**FCXI\_AS:** without control panel and with Inverter motor, 3-row heat exchanger, high cabinet for vertical installation, varnished with anti-corrosion polyester powder (colour RAL 9002). The delivery grille and the feet for floor-standing solutions (ZX accessory) are made of plastic of the colour RAL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



## TECHNICAL DATA AND OPERATING LIMITS

	20	30	40	50	80
Maximum water inlet temperature			80°C		
Maximum operating pressure		8 bar			
Room temperature limits Ta		0°C < Ta < 40°C			
Relative humidity limits in the room R.H.		R.H. < 85%			
Minimum flow rate	[l/h] 100	100	150	150	300
Maximum flow rate	[l/h] 750	750	1100	1150	2200
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 to the input power for the accessories con-

nected 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

	Temperature of the air in the room with dry bulb °C					
	21	23	25	27	29	31
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

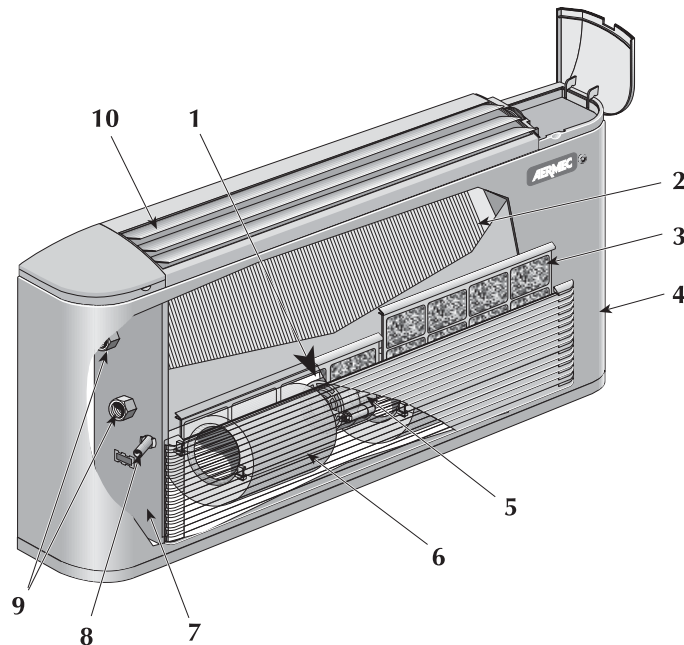


## MAIN COMPONENTS

- |                                |  |
|--------------------------------|--|
| 1 Inverter device              | 6 Fan                                  |
| 2 Heat exchange coil           | 7 Load-bearing structure               |
| 3 Air filter (suction)         | 8 Condensate drain                     |
| 4 Protective cabinet (RAL9002) | 9 Plumbing connections                 |
| 5 Electric motor               | 10 Head with adjustable fins (RAL7044) |

### FCXI 40 U

English



## DESCRIPTION

### 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).

### 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 in filtering class G2, self-extinguishing B1 (DIN 4102). 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 "brushless" electric motor.

The "brushless" electric motor is cushioned with elastic supports.

The "brushless" electric motor is the result of combining the most sophisticated technologies from the fields of mechanics and electronics.

The "brushless" electric motor has no sliding contacts between the rotor and the stator. 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.

Compared with the traditional alternate current motors, the "brushless" electric motor offers huge advantages:

- 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

### 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.

### CABINET

#### Casing in RAL9002

#### Grey colour RAL7044

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

The feet (accessory for FCXI\_AS) are in plastic, colour RAL7044.

### CONTROL PANEL

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

## INSTALLATION

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

**WARNING:** the appliance must be fitted according to the national regulations on process plant engineering.

**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.

### INSTALLING THE UNIT

To install the unit, proceed as follows:

- Remove the air filter
- Remove the covering cabinet
- With wall-mounted units, keep a minimum clearance of 80mm from the floor. With floor-standing units on feet, refer to the instructions supplied with the accessory
- Use wall plugs (not supplied) for wall-mounted installations

When using the support accessory (AMP accessory), proceed as follows:

Assemble the 4 supports at the sides of the device, inserting the upper tang in the hole 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

- Apply any accessories.

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

Make the water connections as described in the relative chapter.

Make the condensate discharge connection as described in the relative chapter.

**WARNING:** install a device, main switch or plug which allows to completely cut off the power supply from the unit.

Instructions which are essential for the proper installation of the equipment 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 fan coil must be installed in such a position that the air can be distributed throughout the room and so that there

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.

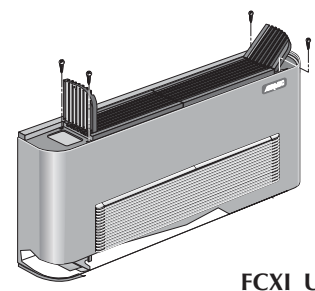
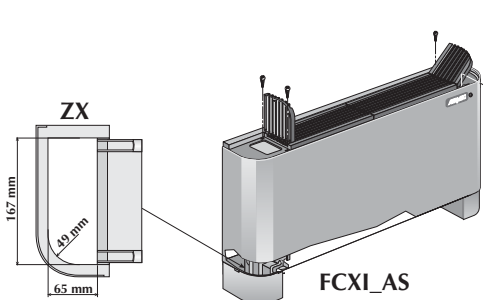
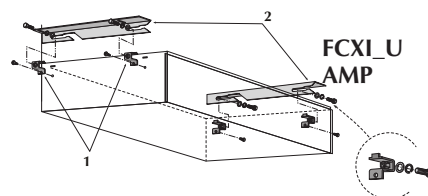
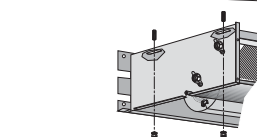
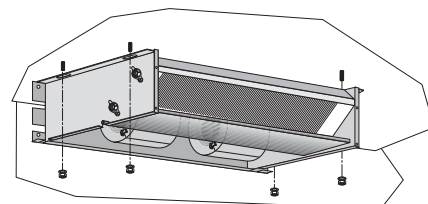
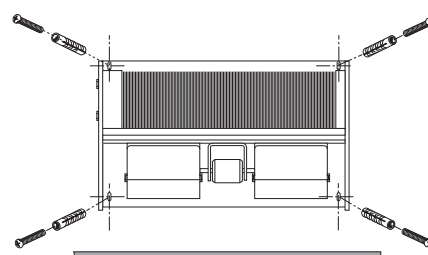
Install and connect any accessories.

Complete the installation by reassembling the casing and air filter.

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

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).



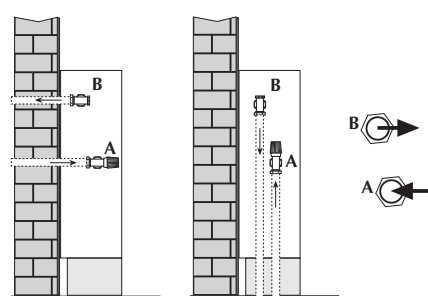
### WATER CONNECTIONS

- 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.

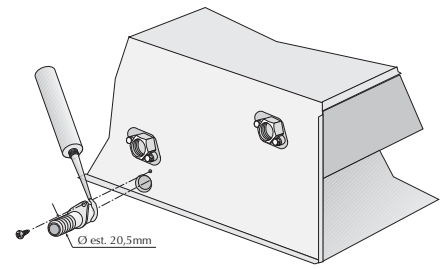


## CONDENSATE DRAIN

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

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

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

**install a device, main switch or plug which allows to completely cut off the power supply from the unit.**

**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.**

### CHARACTERISTICS OF THE CONNECTION CABLES

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

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

The cables coming out of the pipe or duct must not be subject to stretching or twisting. They must be protected from external agents.

**Stranded cables can only be used with crimping terminals. Make sure that the strands of the wires are inserted properly. Wiring diagrams are constantly updated. It is therefore compulsory to refer to the ones supplied with the unit.**

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.

In installations with a three-way valve, the minimum water temperature sensor must be relocated from its standard

mounting in the coil assembly to the delivery hose upstream of the valve. Connect the valve and sensor to the control board, in the positions indicated in the wiring diagram.

**WARNING: check whether the installation has been carried out correctly. Follow the checking procedures indicated in the control panel manuals.**

## 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;

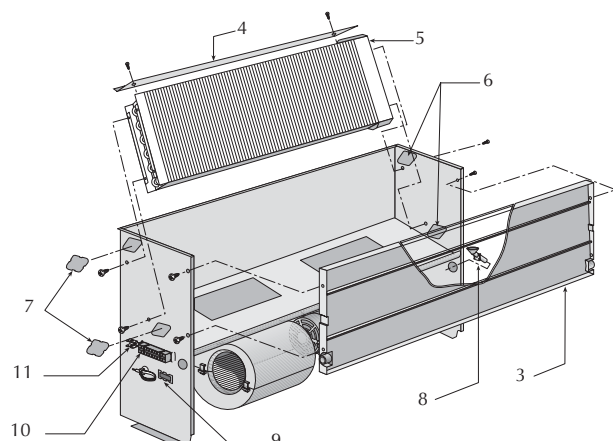
- Reassemble the plastic plugs (supplied) in the holes left free by the water connections;

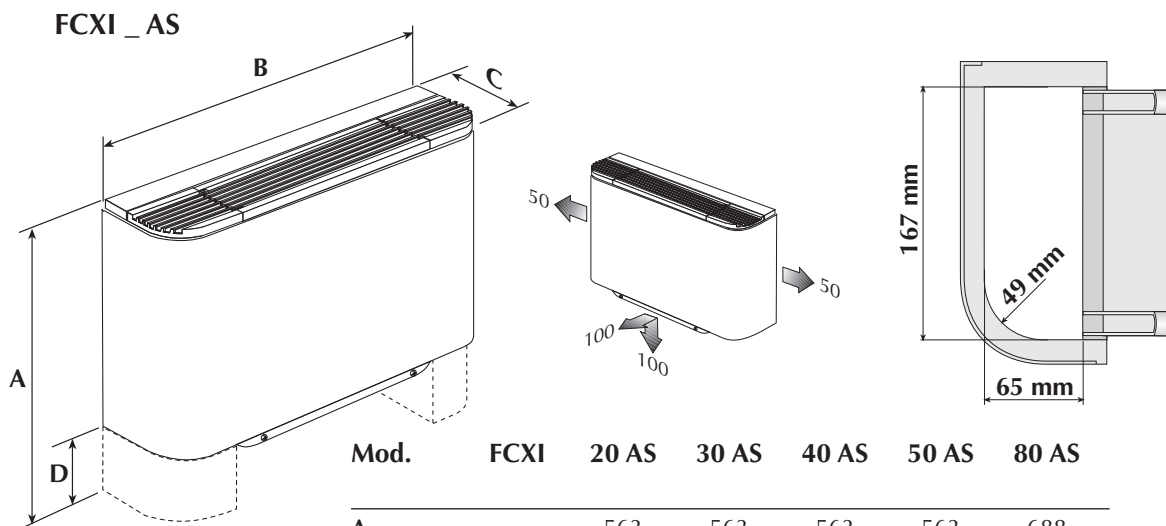
- All the trays can be used to collect condensate on both sides. In case of vertical installation, to discharge condensate on the right side, position the drain connection to the right.

- 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;

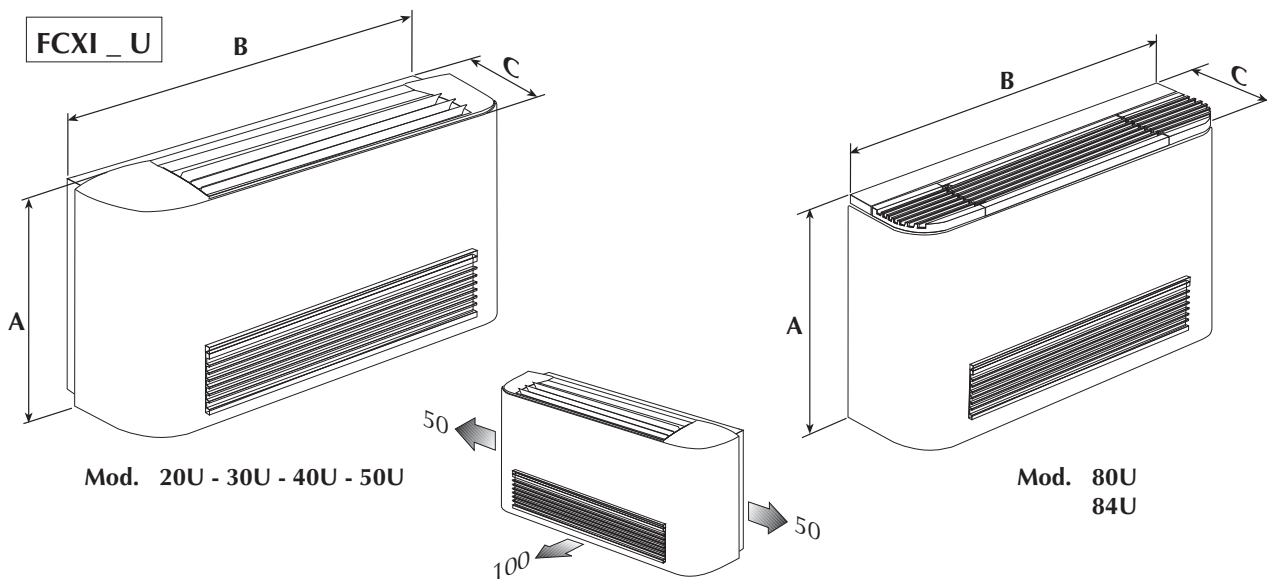
- Move the control board, the earthing u-bolt and any electric devices to the left-hand side.





Mod.	FCXI	20 AS	30 AS	40 AS	50 AS	80 AS
<b>A</b>		563	563	563	563	688
<b>B</b>		750	980	1200	1200	1320
<b>C</b>		220	220	220	220	220
<b>D</b>		105	105	105	105	125
<b>Peso *</b>	<b>[kg]</b>	15	20	24	24	34

\* Peso ventilconvettore senza zoccoli • \*Weight of fan coil without feet  
 \*Poids ventilo-convecteur sans pieds • \*Gewicht Gebläsekonvektor ohne Sockel • \*Peso del fan coil sin zócalos



Mod.	FCXI	20 U	30 U	40 U	50 U	80 U
<b>A</b>		520	520	520	520	590
<b>B</b>		750	980	1200	1200	1320
<b>C</b>		220	220	220	220	220
<b>Peso • Weight • Poids • Gewicht</b>	<b>[kg]</b>	15	20	24	24	34

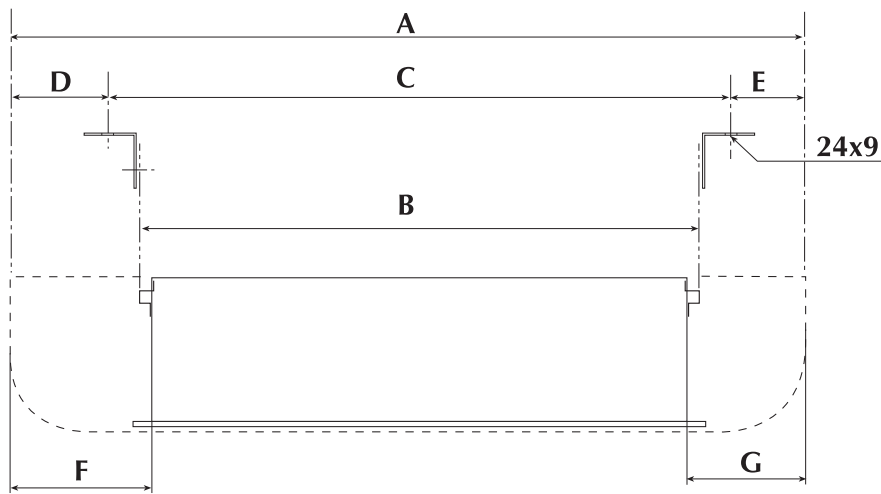
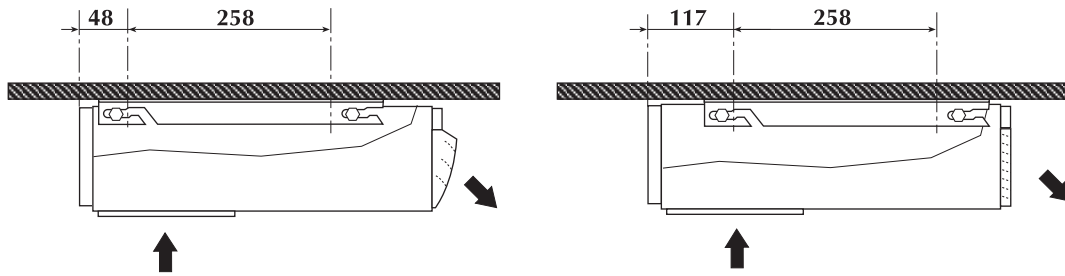
Attacchi batteria (femmina) • Coil connection (female) • Raccordi batterie (femelle)  
 Anschlüsse des Wärmetauschers (Innengewinde) • Conexiones de la batería (hembra)

Mod.	FCXI	20 AS/U	30 AS/U	40 AS/U	50 AS/U	80 AS/U
<b>3 R</b>		1/2"	1/2"	3/4"	3/4"	3/4"
<b>1 R</b>		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 - 30 - 40 - 50 U

FCXI 80 U



Mod.	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

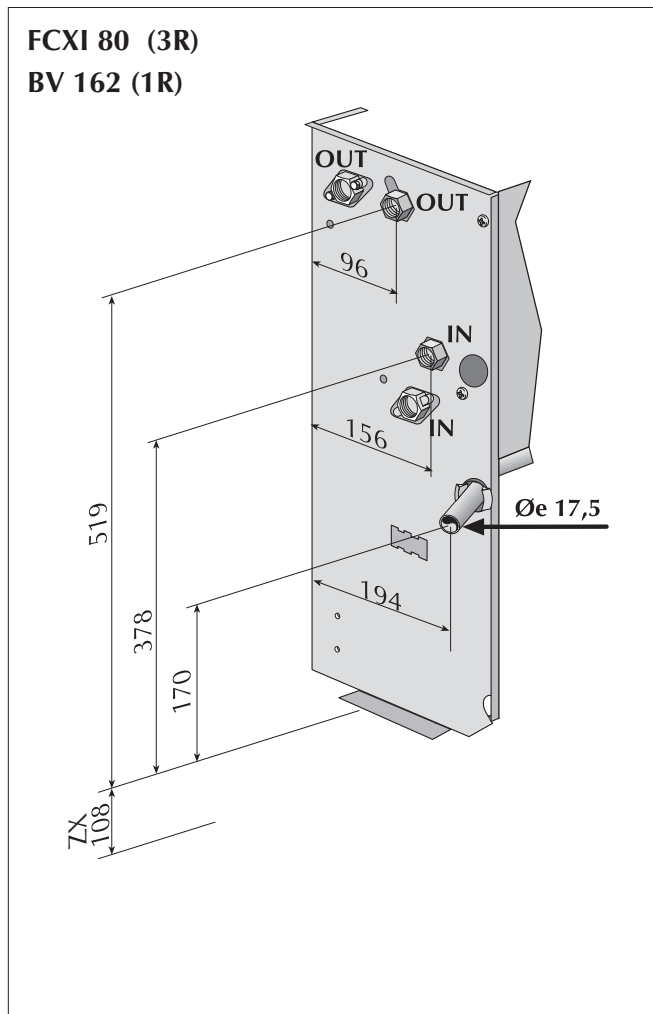
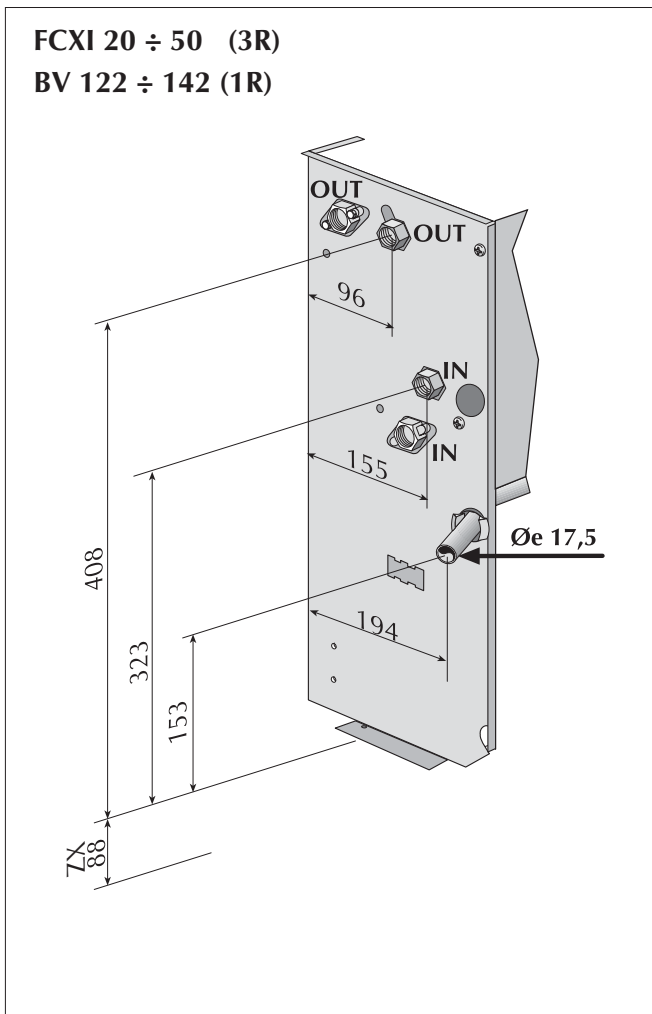
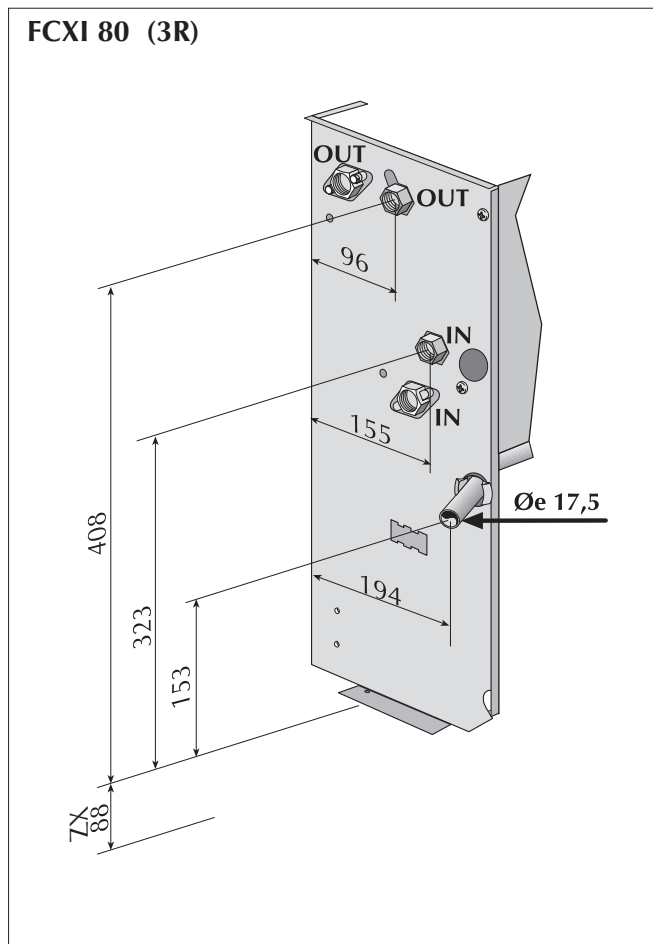
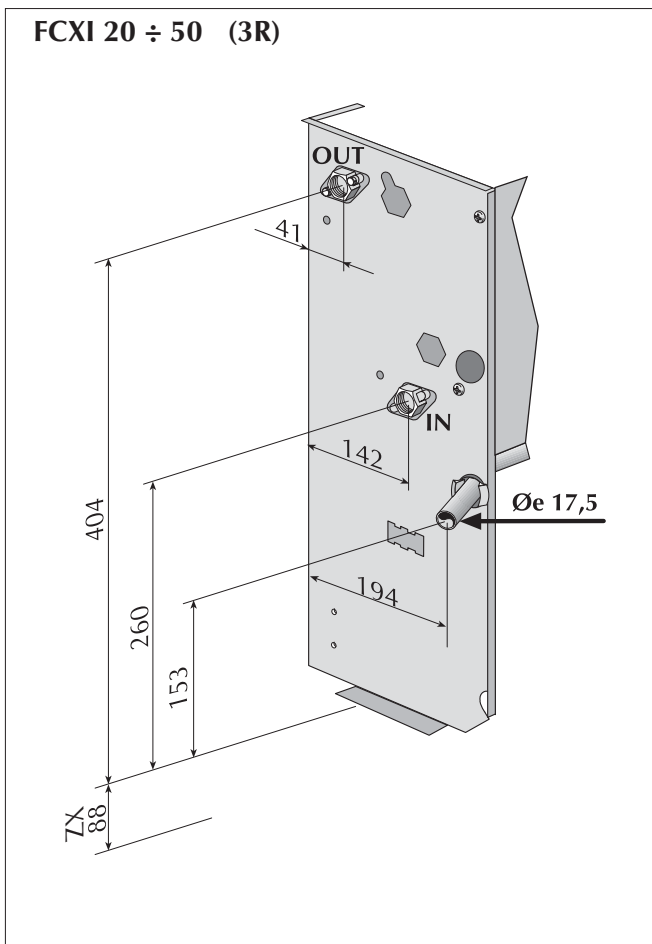
In caso di inversione degli attacchi idraulici, scambiare tra loro le seguenti quote: D con E, F con G.

In case of inversion hydraulic connections, invert D with E, F with G.

En cas d'inversion des raccords hydrauliques, inverser les cotes D avec E, F avec G.

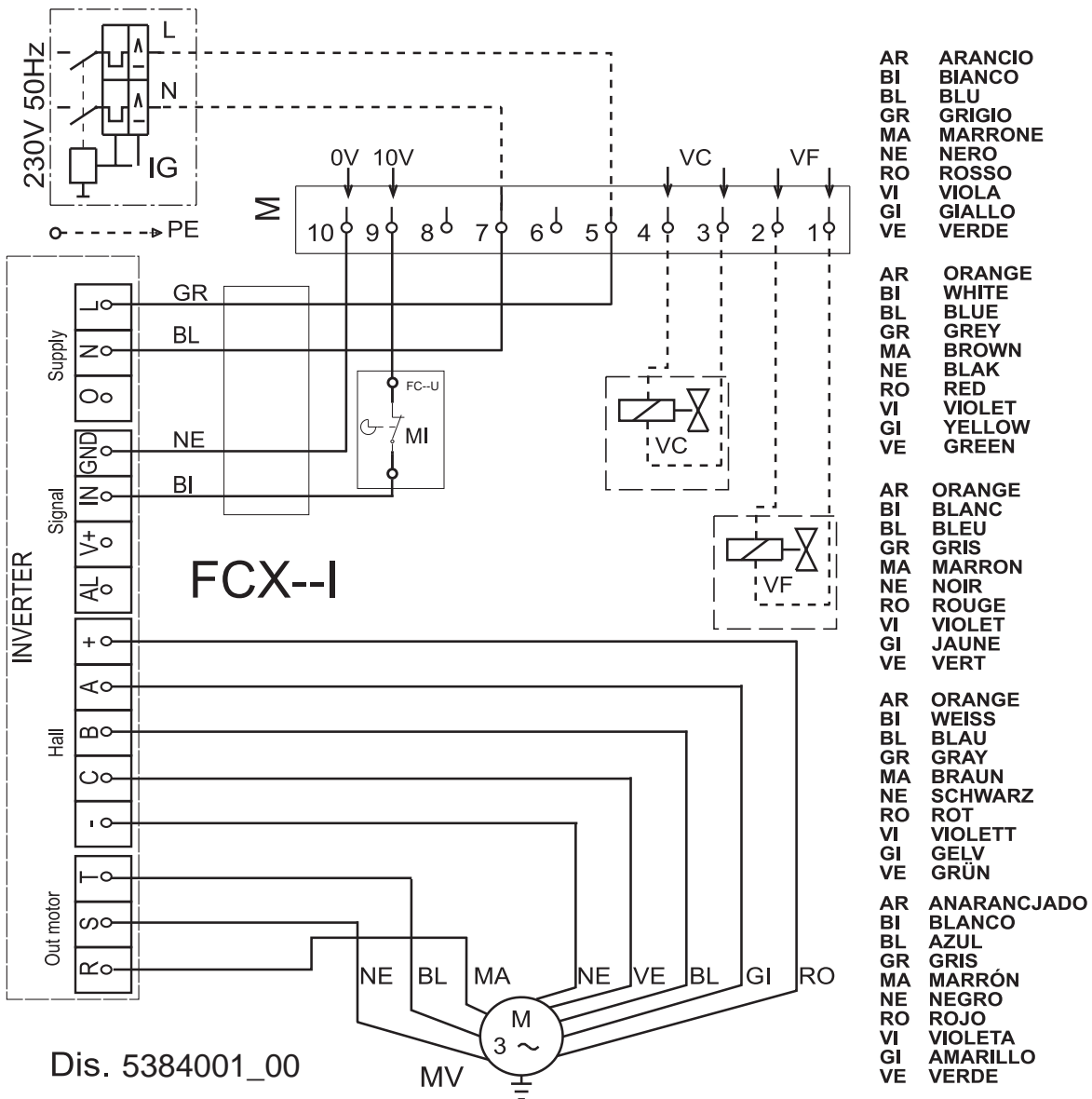
Bei der Anschlußenumstellung, die Quoten D und E, F und G, miteinander auswechseln.

Si desea invertir el lado de las conexiones hidráulicas, intercambie D por E y F por G.



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 • Ventilatoromotor  
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
  - 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
- = 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



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.

<b>PROBLEMA • PROBLEM PROBLÈME • PROBLEM PROBLEMA</b>	<b>PROBABILE CAUSA • PROBABLE CAUSE CAUSE PROBABLE • MÖGLICHE URSACHE CAUSA PROBABLE</b>	<b>SOLUZIONE • REMEDY SOLUTION • ABHILFE SOLUCIÓN</b>
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 présélection de la vitesse sur le panneau de commandes. Falsche Geschwindigkeitseinstellung am Bedienpaneel. Programación errada de la velocidad en el tablero de mandos.  Filtro intasato. Blocked filter. Filtre encrassé. Filter verstopft. Filtro atascado.	Scegliere la velocità corretta sul pannello comandi. Select the speed on the control panel. Choisir la vitesse sur le panneau de commandes. Die Geschwindigkeit am Bedienpaneel wählen. Elegir la velocidad correcta en el tablero de mandos.  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). Mancanza di acqua calda. Poor hot water supply. Il n'y a pas d'eau chaude. Kein Warmwasser. Falta de agua caliente.	Rimuovere l'ostruzione. Remove the obstruction. Enlever l'objet faisant obstruction. Verstopfung beseitigen. Quitar la obstrucción. Controllare la caldaia. Control the boiler. Vérifier 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. Mancanza di acqua fredda. Poor chilled water supply. Il n'y a pas d'eau froide. Kein Kaltwasser. Falta de agua fría.	Impostare il pannello comandi. See control panel settings. Présélectionner au panneau de commandes. Richtige Einstellung am Bedienpaneel vornehmen. Programar el tablero de mandos. Controllare il refrigeratore. Control the chiller. Vérifier le réfrigérateur. 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. Mancanza di corrente. No current. Il n'y a pas de courant. Kein Strom. Falta de corriente.  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.	Impostare il pannello comandi. See control panel settings. Présélectionner au panneau de commandes. Richtige Einstellung am Bedienpaneel vornehmen. Programar el tablero de mandos. Controllare la presenza di tensione elettrica. Control the power supply. Contrôler l'alimentation électrique. Kontrollieren, ob Spannung anliegt. Comprobar la presencia de tensión eléctrica. 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 extérieure 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 "DURCHSCHNITTLLICHE 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 au-delà des limites minimales indiquées dans "TEMPERATURE MINIMALE MOYENNE DE L'EAU". Wassertemperatur über die um Abschnitt "DURCHSCHNITTLLICHE 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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