AERMEC

la prima per il clima

MANUALE INSTALLAZIONE
INSTALLATION MANUAL
MANUEL D'INSTALLATION
INSTALLATIONSHANDBUCH
MANUAL INSTALACIÓN

VENTILCONVETTORE CASSETTE CON INVERTER
CASSETTE-TYPE FAN COIL WITH INVERTER
VENTILO-CONVECTEUR À CASSETTE AVEC INVERTER
KASSETTEN-GEBLÄSEKONVEKTOR MIT INVERTER
FAN COIL TIPO CASSETTE CON INVERTER

INVERTER TECHNOLOGY

FCLI

FCLI 32 (600x600)
FCLI 34 (600x600)
FCLI 42 (600x600)
FCLI 44 (600x600)
FCLI 62 (600x600)
FCLI 64 (600x600)
FCLI 82 (840x840)
FCLI 122 (840x840)
FCLI 124 (840x840)

CE

AERMEC
COMPANY QUALITY SYSTEM
ICIM
ISO 9001:2008 - Cert. n° 0128
CISQ IQNet
AERMEC S.P.A.

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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 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:

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 :

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:

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. 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:

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FCLI

DICHIARAZIONE DI CONFORMITÀ CE

Noi, firmatari della presente, dichiariamo sotto la nostra esclusiva responsabilità, che il prodotto:
VENTILCONVETTORE
serie FCLI
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 61000-6-2
- CEI EN 61000-6-3
- CEI EN 61000-6-4

soddisfando così i requisiti essenziali delle seguenti direttive:
- Direttiva Bassa Tensione: LVD 2006/95/CE
- Direttiva Compatibilità Elettromagnetica: EMC 2004/108/CE
- Direttiva Macchine: 2006/42/CE

FCLI 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
série FCLI
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 61000-6-2
- EN 61000-6-3
- EN 61000-6-4

satisfaisant ainsi aux conditions essentielles des directives suivantes:
- Directive Basse Tension: LVD 2006/95/CE
- Directive compatibilité électromagnétique: EMC 2004/108/CE
- Directive Machines: 2006/42/CE

FCLI 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
serie FCLI
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 61000-6-2
- EN 61000-6-3
- EN 61000-6-4

al que esta declaración se refiere, está en conformidad a las siguientes normas armonizadas:
- Directiva de Baja de Tensión: LVD 2006/95/CE
- Directiva Compatibilidad Clectromagnétic: EMC 2004/108/CE
- Directiva Máquinas: 2006/42/CE

FCLI 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:
FAN COIL
FCLI 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 61000-6-2
- EN 61000-6-3
- EN 61000-6-4

thus meeting the essential requisites of the following directives:
- Low Voltage Directive: LVD 2006/95/EC
- Electromagnetic Compatibility Directive: EMC 2004/108/EC
- Machinery Directive: 2006/42/EC

FCLI 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
der Serie FCLI

- EN 60335-2-40
- EN 55014-1
- EN 55014-2
- EN 61000-6-1
- EN 61000-6-2
- EN 61000-6-3
- EN 61000-6-4

auf das sich diese Erklärung bezieht, den folgenden harmonisierten Normen entspricht:
womit die grundlegenden Anforderungen folgender Richtlinien erfüllt werden:
- Niederspannungsrichtlinie: LVD 2006/95/EG
- Richtlinie zur elektromagnetischen Verträglichkeit: EMC 2004/108/EG
- Maschinenrichtlinie: 2006/42/EG

FCLI + 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 facicolo è. /the person authorized to compile the fileis/La personne autorisèe à costituer le dossier est:/ Die Person barechtigt, die Unterlagen zusammenzustellen:
Pierpaolo Cavallo
I-37040 Bevilacqua (VR) Italia_Via Roma, 996

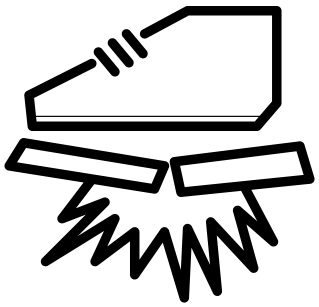
Bevilacqua, 02/12/2010

La Direzione Commerciale – Sales and Marketing Director
Luigi Zucchi

TRASPORTO • CARRIAGE • TRANSPORT • TRANSPORT • TRANSPORTE

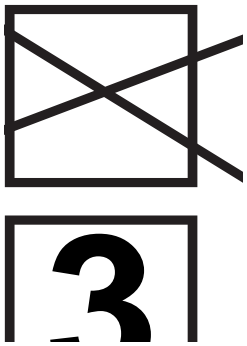
NON bagnare • Do NOT wet
CRAINT l'humidité • Vor Nässe schützen
NO mojar

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

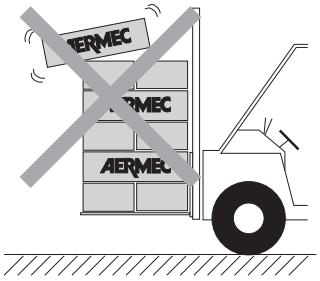


FCLI (600x600)

FCLI (840x840)



Sovrapponibilità: controllare sull'imballo la sovrapponibilità 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.
Superposabilité: contrôler sur l'emballage la superposabilité pour connaître le nombre de machines empilables.
Stapelbarkeit: Auf der Verpackung kontrollieren, wie viele Maschinen gestapelt werden können.
Posibilidad de superposición: controlar en el embalaje la posibilidad de superposición para saber cuántas máquinas se pueden apilar.



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 25 Kg.
DO NOT handle the machine alone if its weight is over 25 Kg.
NE PAS transporter tout seul l'appareil si son poids dépasse 25 Kg.
Das Gerät NICHT alleine tragen, wenn sein Gewicht 25 Kg überschreitet.
NO maneje los equipos en solitario si pesan más de 25 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

Obbligo
Compulsory
Obligatoire
Vorschrift.
overosa

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

IMPORTANT INFORMATION AND MAINTENANCE

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

ONLY SUPPLY THE FAN COIL WITH SINGLE-PHASE 230 VOLT ELECTRICITY

Use of other power supplies could cause permanent damage to the fan coil.

DO NOT USE THE FAN COIL IMPROPERLY

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

DO NOT TUG THE ELECTRICAL CABLE

It is very dangerous to pull, tread on or crush the electrical power cable or fix it with nails or drawing pins.
A damaged power cable can cause short circuits and personal injury.

DO NOT PUT ANYTHING IN THE AIR OUTLETS

Do not put anything at all in the air outlet slots.
This could cause injury to people and damage to the fan.

WARNING

Avoid any use of the device by children or incompetent persons without appropriate supervision; also note that the unit should not be used by children as a toy.

AIRING 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.

CORRECTLY REGULATING THE TEMPERATURE

The room temperature should be adjusted in order to provide maximum comfort to the people in the room, especially if they are elderly, children or sick people; avoid differences over 7°C between the outdoor temperature and the temperature inside the room in summer.
In summer, a temperature that is too low causes higher electrical consumption.

CORRECTLY ADJUSTING THE AIR JET

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

DURING OPERATIONS

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

WHAT IS NORMAL

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

PACKAGING

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

OPERATION

The operating instructions can be found in the manual supplied with the control panel

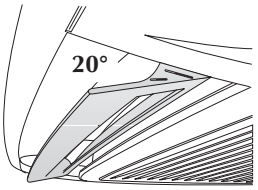
Fin position (GLLI10)

In heating operation, a fin opening of 20° is recommended; this is indicated by a raised line on the fins themselves (see figures).

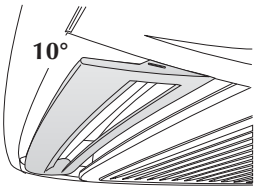
In cooling operation, a fin opening of 10° is recommended; this is indicated by a raised line on the fins themselves (see figures).

When the fins are closed ventilation is permitted.

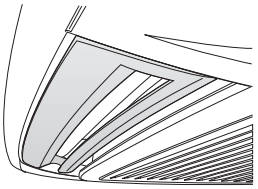
Position of the fins in heating operation opening 20°



Position of the fins in cooling operation opening 10°



When the fins are closed, ventilation is permitted.



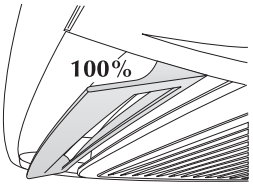
Fin position (GLLI20)

In heating operation, the full opening of the fins is recommended (see figures).

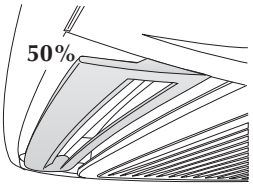
In cooling operation, a 50% fin opening is recommended (see figures).

When the fins are closed ventilation is permitted.

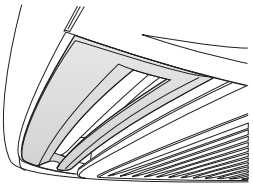
Position of the fins in heating operation completely open



Position of the fins in cooling operation half open



When the fins are closed, ventilation is permitted.



DESCRIPTION OF THE UNIT

MACHINE PURPOSE

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

FCLI version

Cassette-type fan coil with Inverter for installation in suspended ceilings; can be integrated in standard 600x600 and 840x840 panelling.

AVAILABLE SIZES

The cassette-type fan coils of the FCLI range are available in:

for 2-pipe systems
FCLI 32 (600x600)
FCLI 42 (600x600)
FCLI 62 (600x600)
FCLI 82 (840x840)
FCLI 122 (840x840)

For 4-pipe systems
FCLI 34 (600x600)
FCLI 44 (600x600)
FCLI 64 (600x600)
FCLI 124 (840x840)

GRILLE UNIT (OBLIGATORY ACCESSORY)

GLLI 10 (600x600) GLLI 20 (840x840): Grille unit with suction and delivery filter, with manually adjustable fins; requires an external control panel with thermostat and ventilation speed control, with 0-10V output.

TECHNICAL DATA AND OPERATING LIMITS

	FCLI	32	34	42	44	62	64	82	122	124
Maximum recommended temperature	65°C									
Maximum water inlet temperature	80°C									
Maximum operating pressure	8 bar									
Room temperature limit R.T.	0°C<Ta<40 °C									
Room temperature limit R.H.	R.H.< 85%									
Minimum delivery (heating)	°C	100	50	100	50	150	50	250	350	50
Maximum delivery (heating)	°C	750	400	750	400	1050	400	1750	2450	400
Minimum delivery (cooling)	°C	100	100	100	100	150	150	250	350	250
Maximum delivery (cooling)	°C	750	750	750	750	1050	1050	1750	2450	1750
Maximum input current	A	0.22	0.22	0.33	0.33	0.37	0.37	0.7	0.75	0.75
Power supply	V / Hz	230V (±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 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 (plastics and metals), 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 apparatus with the fan in operation, the average temperature of the water must not be lower than the limits shown in the table below, that depend on the thermo-hygrometric condition of the air in the environment.

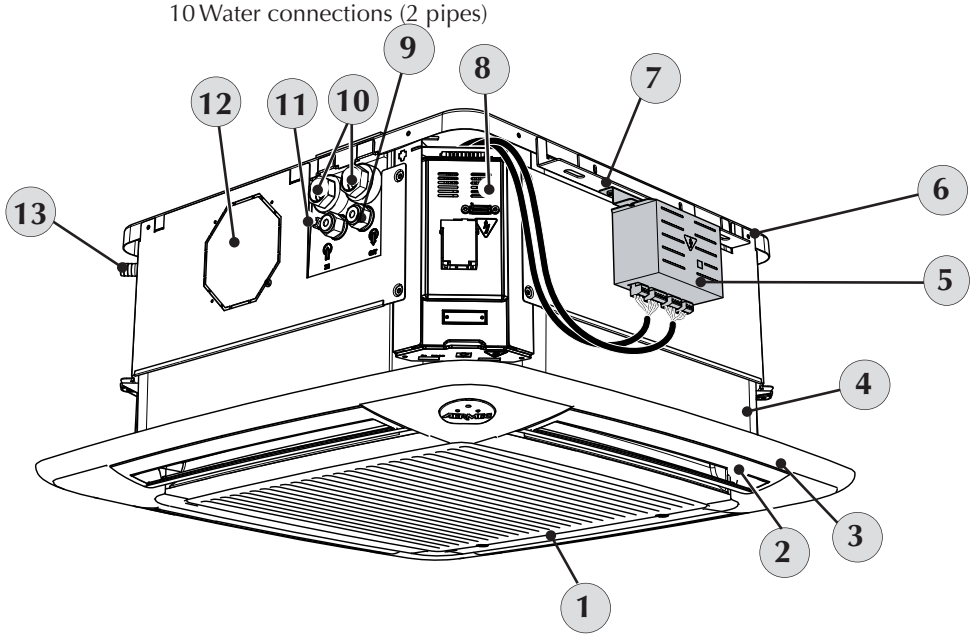
The limits mentioned above refer to operation while the fan is set to its minimum speed level.

MINIMUM AVERAGE WATER TEMPERATURE [°C]		Ambient air temperature with dry bulb					
		21	23	25	27	29	31
Ambient air temperature with wet bulb	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

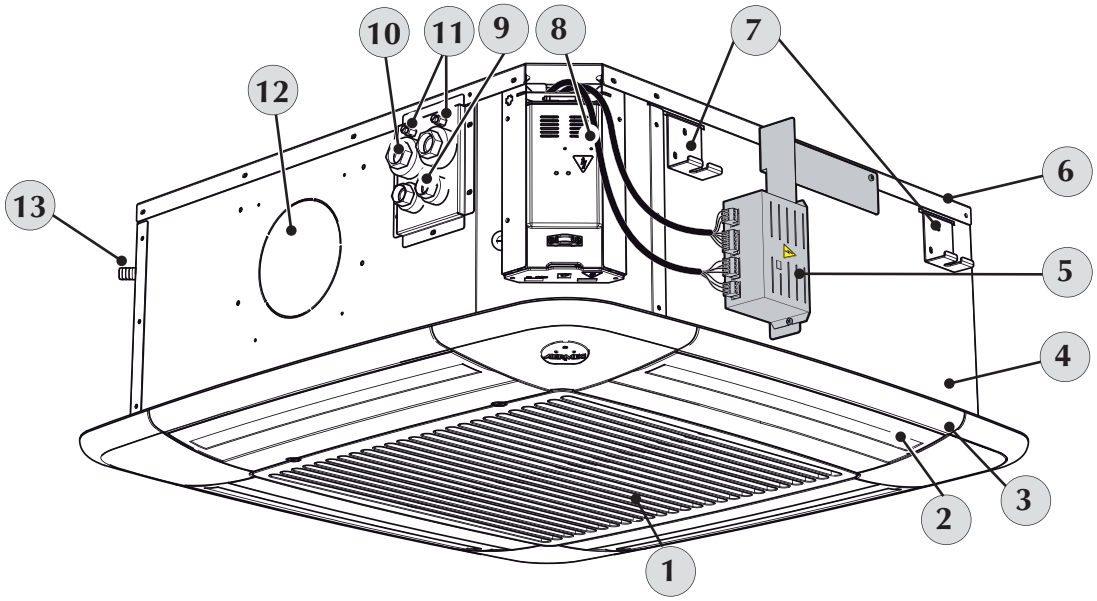
MAIN COMPONENTS

1 Grille with air filter (GLLI)
2 Air delivery deflector (GLLI)
3 Grille frame (GLLI)
4 Tray
5 Inverter device
6 Base unit
7 Fastening brackets
8 Electrical box
9 Water connections (only for 4 pipes)
10 Water connections (2 pipes)
11 Air drain valve
12 Push-out, coupling for air delivery in an adjacent room
13 Condensate drain

FCLI (module 600)
GLLI 10



FCLI (Module 840)
GLLI 20



DESCRIPTION

The FCLI cassette-type fan coil is a room air treating unit. The FCLI concentrates high technological and functional characteristics that make it the ideal climate control unit for all types of room. The supply of climate-controlled air is distributed throughout the room. FCLI generates heat if included in a heating system with boiler or heat pump, but may also be used in the summer as an air conditioner if the heating system has a water chiller.

The fan coils are designed for 2- and 4-pipe systems.

The unit is installed in a suspended ceiling with the possibility to send conditioned air to adjacent rooms and introduce external air regardless of unit ventilation. Thanks to its dimensions, the FCLI with "module 600" can be perfectly integrated in standard 600x600 suspended ceiling panelling.

BASE

The unit has an integrated metal structure. The load-bearing base is in galvanised sheet steel and is varnished with polyester powders. The following are fixed to the base: fixing brackets, coils, motor and fan, condensate discharge pump, attachment plate, control board unit and condensate drip tray. By means of the flanges, it allows the channels (for renewing environmental air and/or delivery to an adjacent room) to be joined to the sides.

FASTENING BRACKETS

Galvanised steel clamps for attaching the unit to the ceiling.

TRAY

Tray closing off the unit. Made of injection co-moulded polystyrene to avoid thermal dispersion and the formation of condensate, it conveys conditioned air towards the fins and from the condensate drip tray.

The air suction conveyor is equipped with a protective grille that impedes access to the moving fan.

THERMAL EXCHANGE COIL

The coils used have copper pipes and corrugated or turbulent aluminium fins. They are designed to offer the maximum heat exchange surface. All

batteries are provided with air bleed pipes and water drain valves, located respectively on the highest and lowest point of the battery circulation.

THREE-WAY VALVE

Internal 3-way valve, of the all-or-nothing type, with fast connection actuator and visual signalling of the position, assembled as standard on the heating/cooling coil, powered with a voltage of 230V ~ 50Hz.

FAN UNIT

The fan unit, with the latest axial-centrifugal fan designed to obtain low-sound emissions, is dynamically and statically balanced.

The three-phase 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 B117/64.

The fan unit can be easily accessed for cleaning and maintenance.

CONDENSATE DISCHARGE DEVICE

The condensate discharge device disposes of the condensate that is produced by the unit and deposited in the polystyrene basin. The device consists of a control board, a non-return valve, a 3-level float, and a pump with a maximum head of 800mm. The unit can be easily connected to the condensate discharge system by means of a plastic connector with an external Ø of 16mm.

ALARM: when the level of condensate in the tray reaches the prefixed limit, the alarm will stop the flow of water to the battery, allowing only the fan to function.

WATER CONNECTIONS

The attachment plate groups together the water connections and the vent of the coil's primary circuit for 2-pipe and 4-pipe systems. The plates contain raised symbols that identify the input (IN) and output (OUT) water connections for the water.

GLLI (Accessory)

Suction and delivery grille unit

The grille is part of the GLLI10 and GLLI20 range grille unit (obligatory accessory).

The form and opening of the intake slats were developed in order to have the best possible distribution of the air, both when functioning in winter as well as in summer.

Suction occurs through the central grille, and delivery through the manually adjustable, perimetric slots. In plastic, colour RAL 9010, it contains the air filter that can be easily removed for cleaning. GLLI10 and GLLI20 need to be interfaced with an external control panel (not included) with thermostat and ventilation speed control, with a 0-10V output.

FILTERING SECTION

Mechanical air filter with ABS frame, colour RAL9010.

Filter in filtering class G1, self-extinguishing class V0 (UL94).

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

CONTROL PANEL

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

INSTALLATION

WARNING: before carrying out any work, make sure the power supply is disconnected.

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

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

WARNING: the electrical connections, the 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 (in this manual they will be indicated with the general term "persons with specific technical skills").

In the specific case of electrical wirings, the following must be checked:

- measurement of the electrical system insulation strength

- continuity test of the protection wires

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

The essential indications to carry out a proper installation are given below.

The final touches to all the operations are, however, left to the experience of the installation engineer in accordance with the specific needs.

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

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 irreparably damage the aluminium-copper heat exchanger or internal plastic parts.

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

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 grilles.

Choose a position at the centre of the room whenever possible; adjusting the air output allows air to be distributed optimally within the room. Generally the best position of the fins is that which allows the launch of the air adhering to the ceiling for the coined effect, during cold functioning.

On the side of the deflectors there is an indication of the opening positions for correct operation:

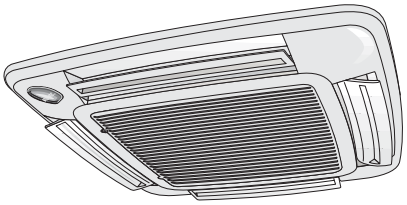
- Module 600 hot opening 20°
- Module 600 cold opening 10°
- Module 840 hot opening 25°; 100%
- Module 840 cold opening 50°

Depending on the user's needs, the fins can be adjusted to the intermediate positions, or completely closed.

Thanks to the special shapes of the fins, the machine can also function with the deflectors completely closed.

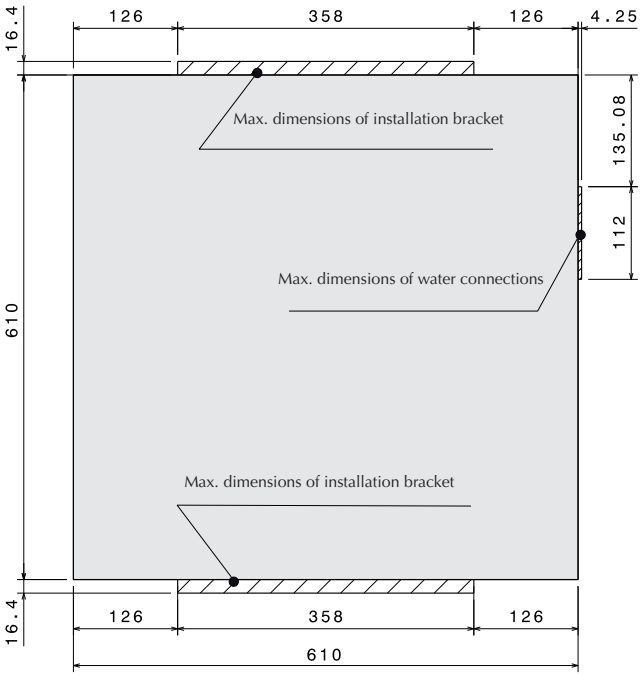
Do not install at a height above three metres.

The FCLI unit is prepared for connections with channelling for the fresh air and for the delivery of treated air to an adjacent room.

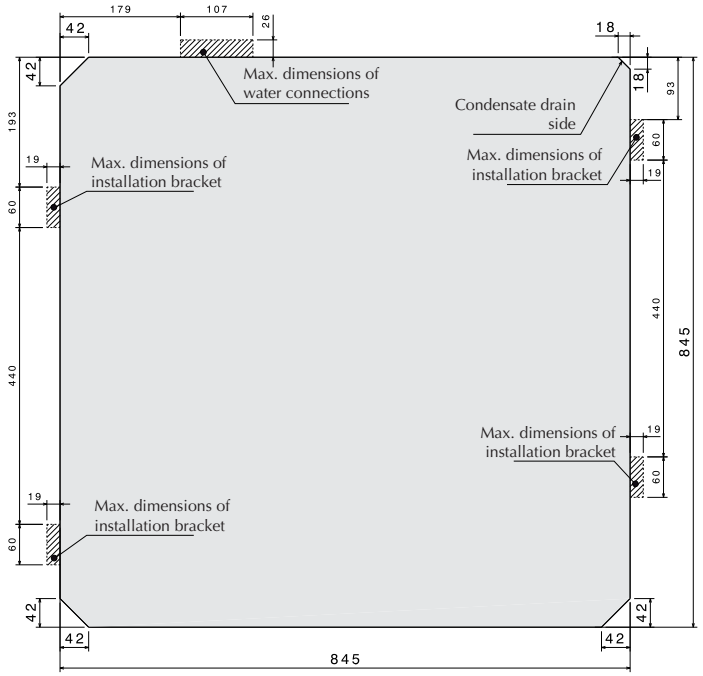


RECOMMENDED INSTALLATION TEMPLATE

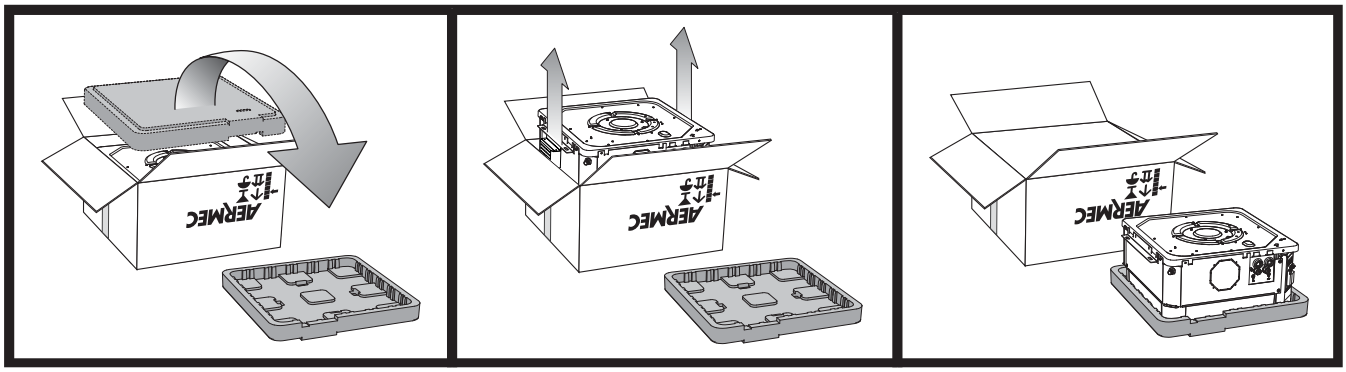
Module "600"



Module "840"



INSTALLING THE "MODULE 600" UNIT



- Choose the place for unit installation according to the layout of the room, the number of units to be installed, and any limitations imposed by the architecture. Check the chosen place is suitable for installation and maintenance work on the unit.
- Install four M8 threaded rods into the ceiling to hold the frame.

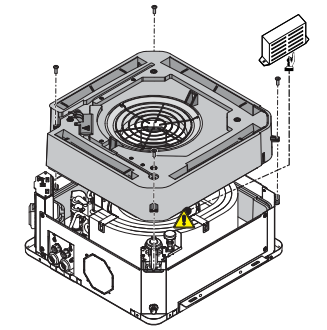
To install the FCLI unit, proceed as follows:

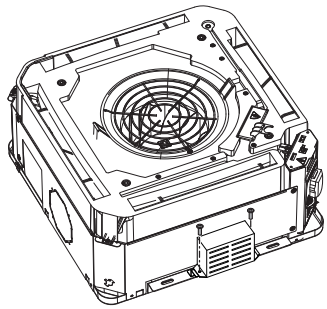
- upturn the box of the FCLI cassette-type fan coil
- open the cardboard box
- remove the box; you are advised to make cuts on the corners of the box and remove the cardboard in separate pieces
- remove the upper part of the packaging frame (that protects the unit during transportation)
- remove the fan grille and take out the Inverter
- reassemble the fan grille
- assemble the Inverter on the bracket
- If it is necessary to fit any accessories (fresh air kit or delivery to an adjacent room, hot water valve), carry out these operations before installing the machine on the ceiling.

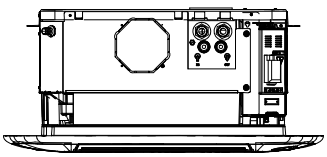
⚠ **WARNING**: consult the relevant manuals of the accessories

Do not handle the unit using the water connections; use the specific brackets for this purpose.

- lift the unit carefully by means of the brackets and, keeping it slightly inclined, attach it to the 4 threaded bars using 8 nuts (4 of which are self-locking). Use the nuts to adjust the height of the unit; finally, check that the unit is installed in a horizontal position
- feed the hydraulic pipes through the suspended ceiling to the attachment plate on the unit
- make the plumbing connections as described in the relative chapter
- Take the condensate discharge piping to the relative fitting on the attachment plate
- bleed the system (the drain valve for the 2-pipe circuit is on the outside of the attachment plate). The drain valve for the heat circuit of 4-pipe systems is inside (to access it, remove the polystyrene tray)
- make the condensate drainage



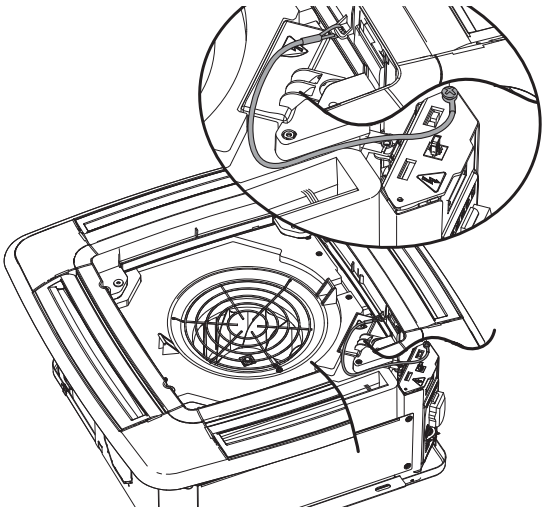


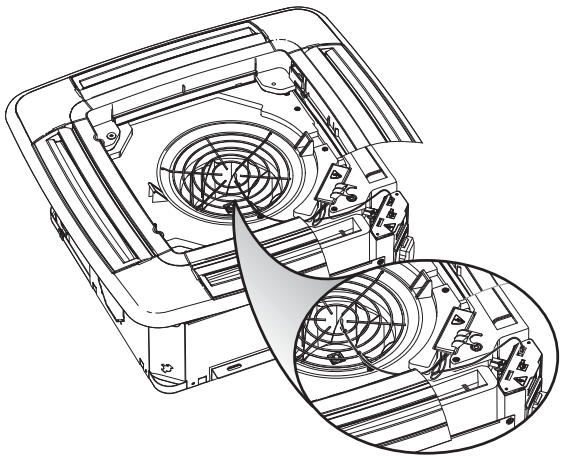


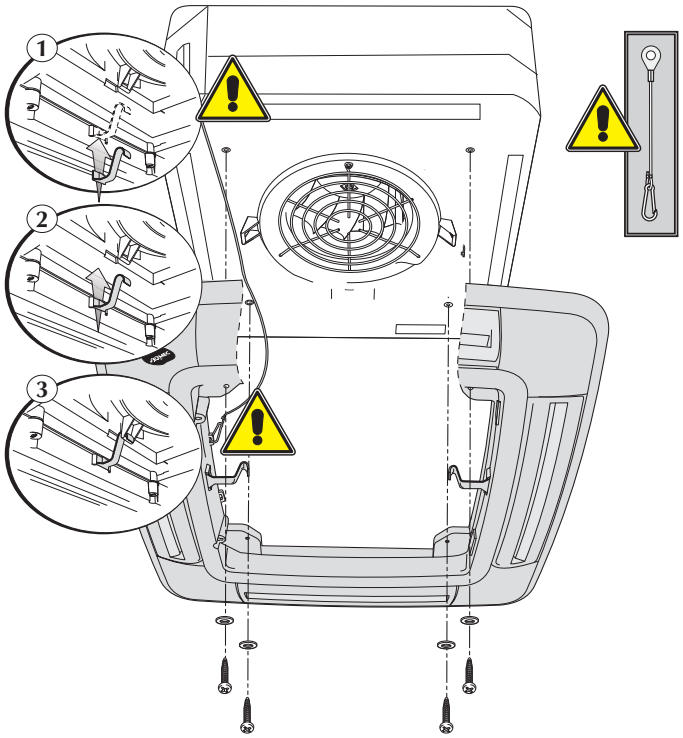
connection as described in the relative chapter
- the electric box is supplied with the grille accessory (GLLI10)
- bring the power supply and command cables close to the electric box; ensure the cables are long enough to follow the movement of the electric box on the guides during the assembly and disassembly phases
- connect the Inverter to the electric box, using the cables supplied
- consult the manuals of the grille accessories; the instructions for assembling and connecting the electric box can be found in the manual supplied with the grille accessory
- After completing the connections and inserting the electric box in its seat in the FCLI unit, fix it with the two screws. **WARNING: fix the safety cable to the fixing screw of the electric box (to the side of the water connections). The snap-hook of the safety cable must then be connected to the grille frame.**
- **The grille frame must be positioned so that the glass with the AERMEC logo is in line with the corner of the electric box**.
- Fix the grille to the safety cable.
- Fix the grille with the 4 screws. **WARNING!! Tighten the screws with a maximum tightening torque of 0.45 Nm. You are advised to use a screwdriver. Do not use non-calibrated electric screwdrivers. The tray will be irreparably damaged if tightened too far.**
- Remove the suction grille by means of the two ¼ turn bolts.
- Assemble the air filter.
- Reassemble the suction grille by means of the two ¼ turn bolts.
- adjust the position of the unit from the support bracket by means of the nuts so that the unit is level and the frame rests slightly on the suspended ceiling
- Start the fan coil unit and carry out a function test, the functions are described in the user manual.

• **Installing near a wall**

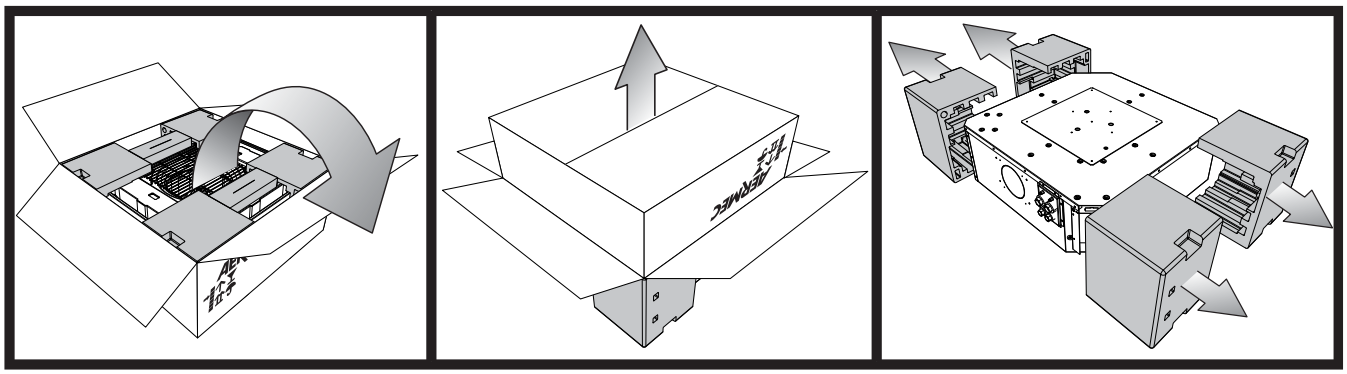
If the unit is to be installed near a wall, the corresponding delivery outlet can be closed using the gasket supplied.







INSTALLING THE "MODULE 840" UNIT

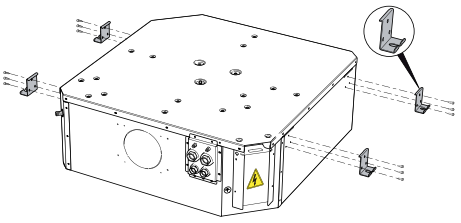


- Choose the place for unit installation according to the layout of the room, the number of units to be installed, and any limitations imposed by the architecture. Check the chosen place is suitable for installation and maintenance work on the unit.
- Install four M8 threaded rods into the ceiling to hold the frame.

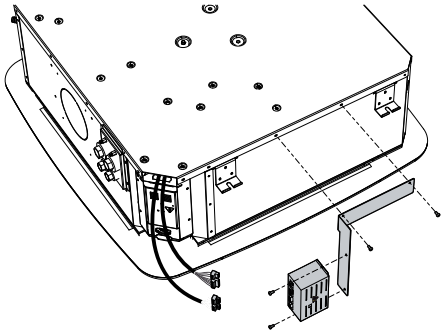
To install the FCLI unit, proceed as follows:
- open the cardboard box
- upturn the box of the FCLI cassette-type fan coil
- remove the box
- remove the packaging shells used to protect the unit during transport
- fix the 4 installation brackets to the unit (see the figure)
- if it is necessary to fit any accessories (electric heaters, kit for fresh air or delivery to an adjacent room, hot water valve), carry out these operations before installing the machine on the ceiling

⚠ **WARNING:** consult the relevant manuals of the accessories

- **Do not handle the unit using the water connections; use the specific brackets for this purpose.**
- lift the unit carefully by means of the brackets and, keeping it slightly inclined, attach it to the 4 threaded bars using 8 nuts (4 of which are self-locking). Use the nuts to adjust the height of the unit; finally, check that the unit is installed in a horizontal position
- feed the hydraulic pipes through the suspended ceiling to the attachment plate on the unit
- make the plumbing connections as described in the relative chapter
- Take the condensate discharge piping to the relative fitting on the attachment plate
- make the condensate drainage connection as described in the relative chapter
- drain the system; the drain valves are on the outside, on the attachment plate
- bring the power supply and command cables close to the electric box; ensure the cables are long enough to follow the movement of the electric box on the guides during the assembly and disassembly phases
- The electric box is supplied with the grille accessories (GLL20)
- consult the manuals of the grille accessories; the instructions for assembling and connecting the electric box can be found in the manual supplied with the accessory
- After completing the connections and inserting the electric box in its seat in the FCLI unit, fix it with the two screws.

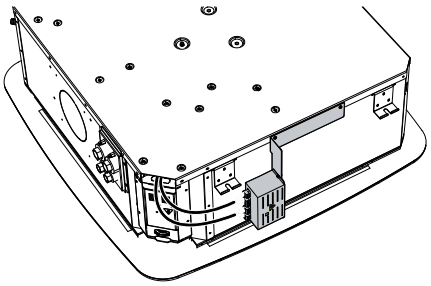


-
- **The grille frame must be positioned so that the glass with the AERMEC logo is in line with the corner of the electric box**.



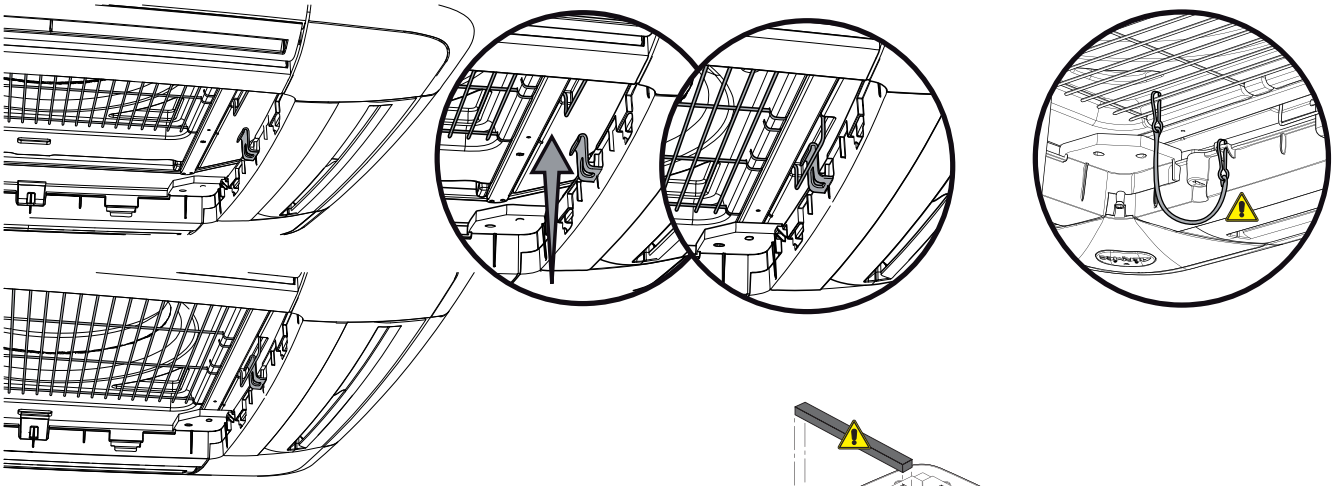
- Fix the grille with the 4 screws.
  WARNING!! Tighten the screws with a maximum tightening torque of 0.45 Nm. You are advised to use a screwdriver. Do not use non-calibrated electric screwdrivers. The tray will be irreparably damaged if tightened too far.

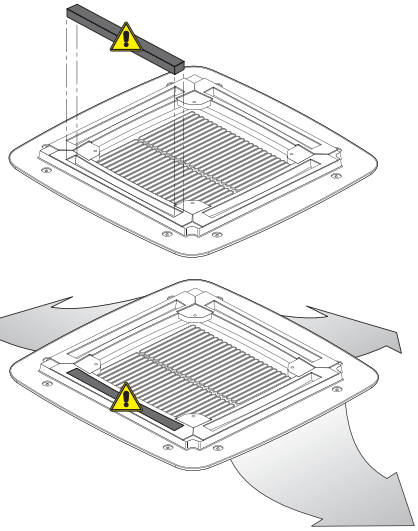
WARNING: fix one snap-hook of the safety wire to the grille frame, and the other to the fan protection grille.



⚡ **Fasten the suction grille to the safety wire.**

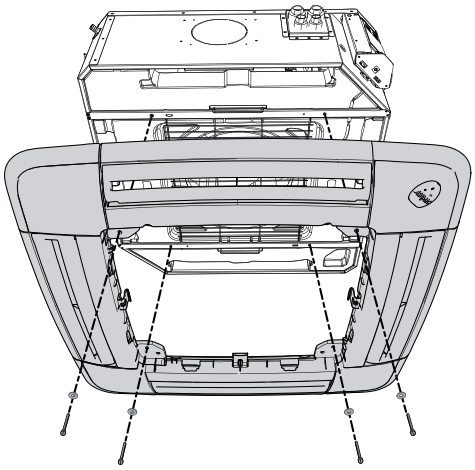
- adjust the position of the unit from the support bracket - by means of the nuts - so the unit is level and the frame rests slightly on the suspended ceiling
- Start the fan coil unit and carry out a function test, the functions are described in the user manual.

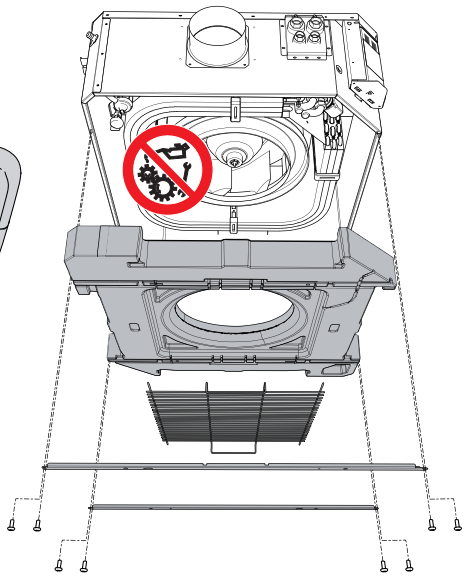




- **Installing near a wall**

If the unit is to be installed near a wall, the corresponding delivery outlet can be closed using the gasket supplied.





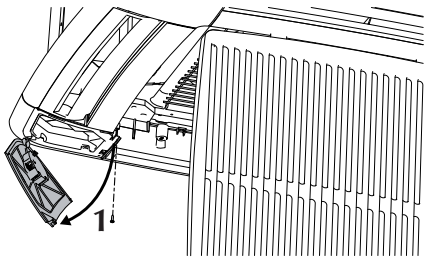
- **Disassembling for maintenance purposes**

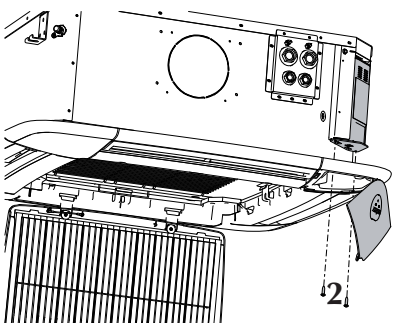
- Before carrying out any operations on the unit, it is essential to disconnect it from the power supply.
- To access the inside of the unit, remove the two crossbars that are screwed to the frame. It will then be possible to remove the fan protection grille and the polystyrene tray (see the figure)
- **DANGER!!** Before re-powering the unit, check you have correctly reassembled all the components (especially the protection grille).

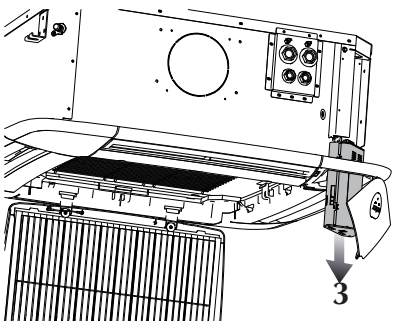
- **Maintenance of the electric box**

If you need to access the electric box for maintenance purposes, observe the following indications:

- open the filter grille (make a ¼ turn of the two bolts)
- remove the screw that blocks the corner hatch (with the Aermec logo)
- remove the 2 screws that block the electric box
- pull the electric box downwards
- carry out the maintenance work
- reassemble everything, following the above instructions in the reverse order



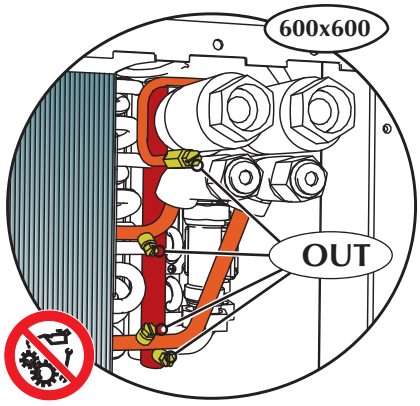




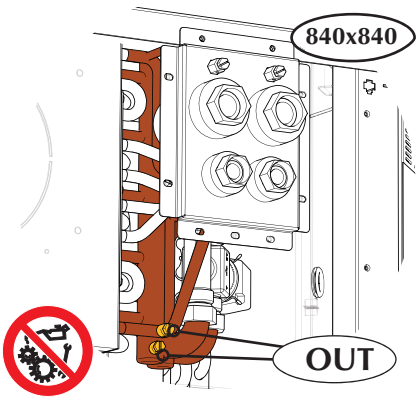
CONNECTIONS

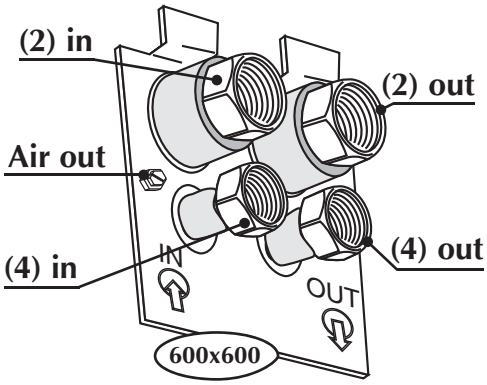
The water, condensate discharge and electrical circuit ducts must be provided for.

WATER CONNECTIONS



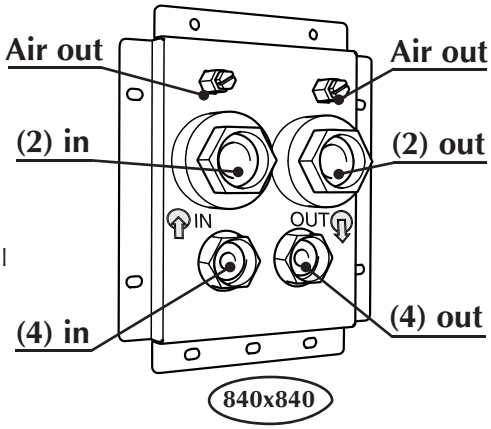
The water connections are made with flat fittings complete with seal gaskets (supplied).
In the **4-pipe** version of the unit, it is **essential** to install the valve accessory for the hot water coil; use the supplied gaskets. The accessory comes complete with gaskets for connection to the system.
Information for the correct installation of the valve is contained in the accessory instruction booklet.
The delivery and return pips must be equal, suitably scaled and insulated to avoid heat dispersion and dripping during cold functioning.





CONNECTIONS

(2) = Standard coil connections
Air = Air vent of the standard coil
(4) = Hot water coil connections

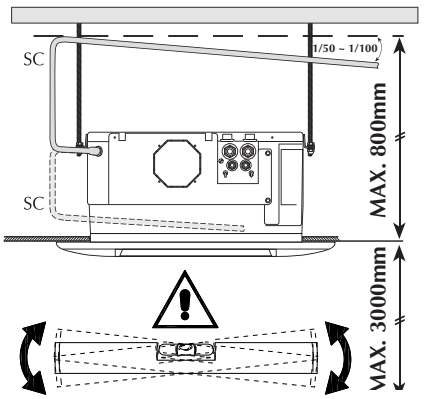


Mod. FCLI		32	34	42	44	62	64	82	122	124
Standard coil connections (2)	ø	3/4"F	3/4"F	3/4"F	3/4"F	3/4"F	3/4"F	3/4"F	3/4"F	3/4"F
Additional coil connections (4)	ø	3/4"F	1/2"F	3/4"F	1/2"F	3/4"F	1/2"F	3/4"F	3/4"F	1/2"F

CONDENSATE DISCHARGE CONNECTION

During cooling operation the indoor unit removes humidity from the air. The condensate water must be eliminated by connecting the appropriate discharge coupling to the piping of the condensate discharge system.
In units with "Module 600", the polystyrene tray has a hole that allows for the complete draining of the condensate (useful in the case of disassembly). **The drainage hole must always be closed again with the rubber plug provided.**
The units are fitted as standard with a pump/float device for raising the condensate from the tray to the drainage point; it consists of an electronic card, an electric pump with non-return valve, and a float with a 3-level sensor (ON, OFF and Alarm).
The power supply for the floating pump device must never be interrupted.
In the event of an alarm, the float device interrupts the flow of water in the coil.
The basin is fitted with an overflow hole to ensure that the condensate water runs off if the floating pump device is not working. In this case dripping can be seen from the grille.
The pump allows a maximum head of 80cm from the level of the suspended ceiling; if this is not high enough you will have to use an auxiliary device.
You are advised to use rigid piping that is heat-insulated, to avoid condensation on the outer surfaces.

SC = Condensate discharge (male Ø 16mm)



CONNECTIONS FOR THE SUCTION OF FRESH EXTERNAL AIR

The unit can be connected to a fresh air suction conduit via the circular flange accessory applied to the vent. The application of the flange requires a hole to be opened up on the side. The connection with the outside is direct, regardless of unit ventilation.
The accessory also includes a deflector, to be assembled inside the unit.

CONNECTIONS FOR THE DELIVERY OF TREATED AIR TO AN ADJACENT ROOM

The unit can be connected to a conduit for delivering treated air to an adjacent room via the circular flange accessory. The application of the flange requires a hole to be opened up on the side.

ELECTRICAL WIRINGS

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

The FCLI cassette-type fan coils must be powered with a current of 230V ~50Hz with an earth connection; the line voltage must however remain within the tolerance of ±10% compared with the nominal value.

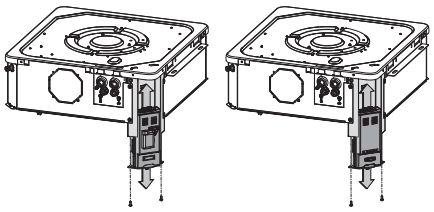
To protect the unit against short circuits, fit an omnipolar thermomagnetic cut out max. 2A 250V (IG)V on the power line with a minimum opening distance between the contacts of 3mm.

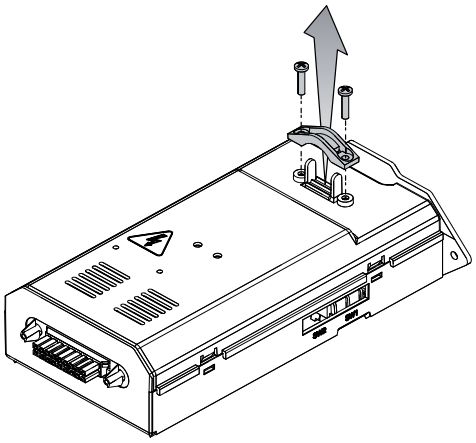
The electrical power cable must be of the H07 V-K or N07 V-K type with 450/750V insulation if inside a tube or raceway. Use cables with double H5vv-F type insulation for visible cable installation.

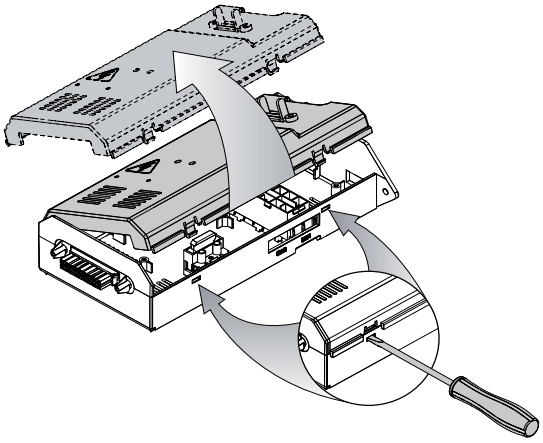
When making the connections, follow the wiring diagrams supplied with the equipment and shown in this document.

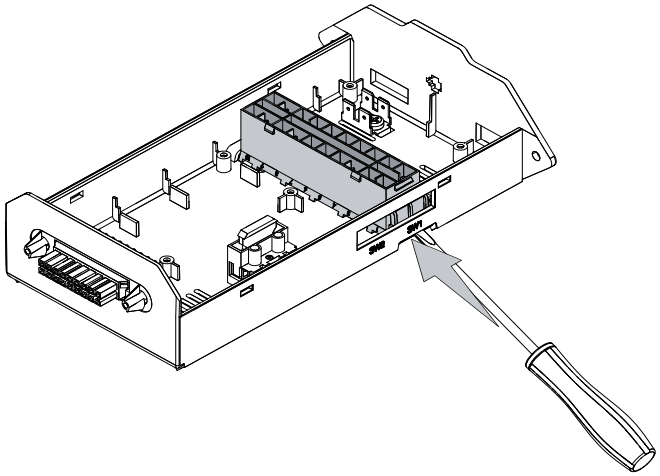
Connect the Inverter to the electric box, using the cables supplied.

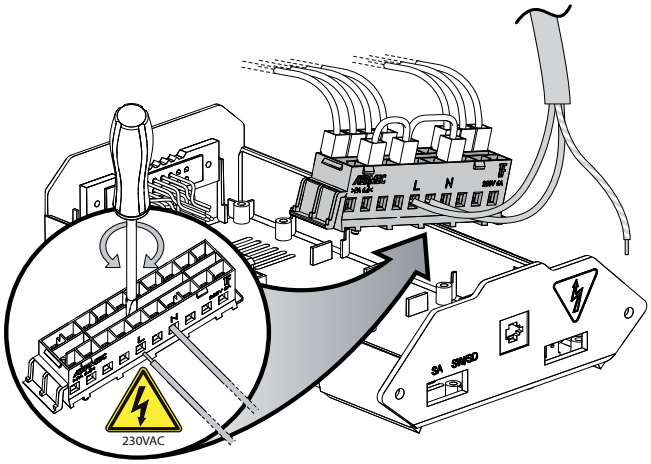
Connect a control panel with thermostat and ventilation speed control, with 0-10V output. For the connections, refer to the wiring diagrams of the fan coil and control panel.

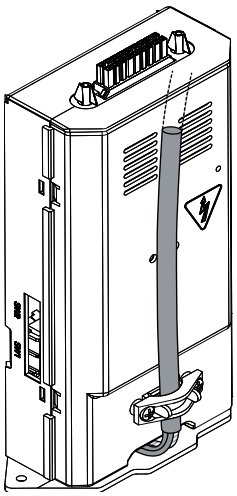


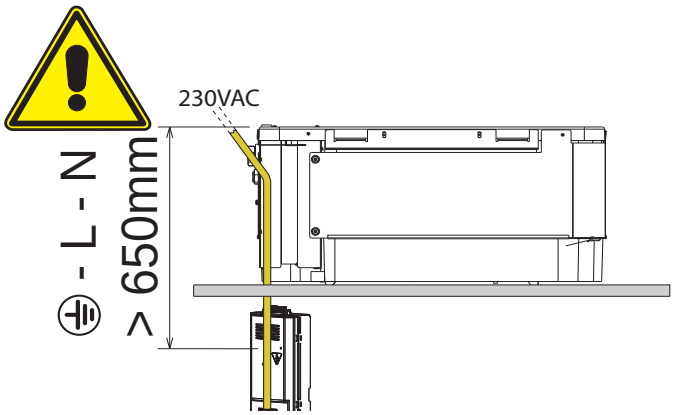






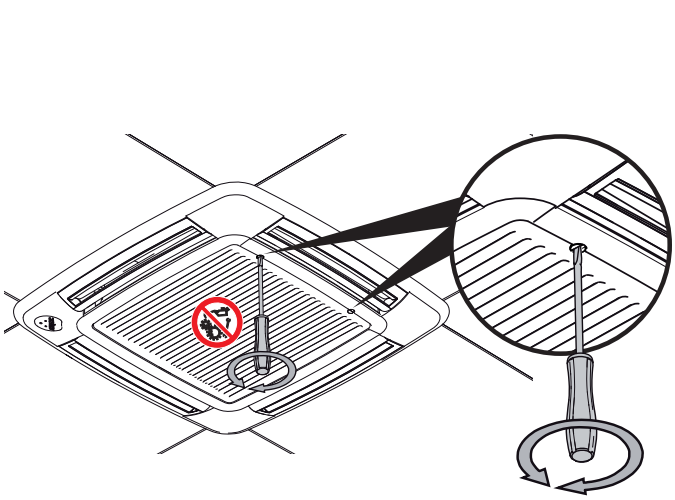


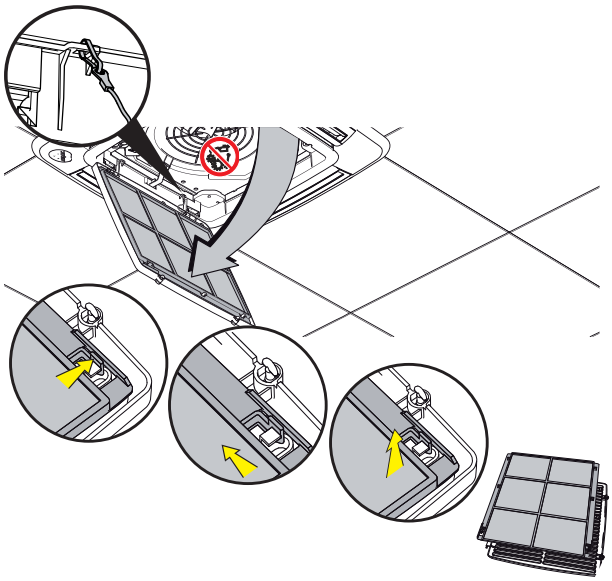




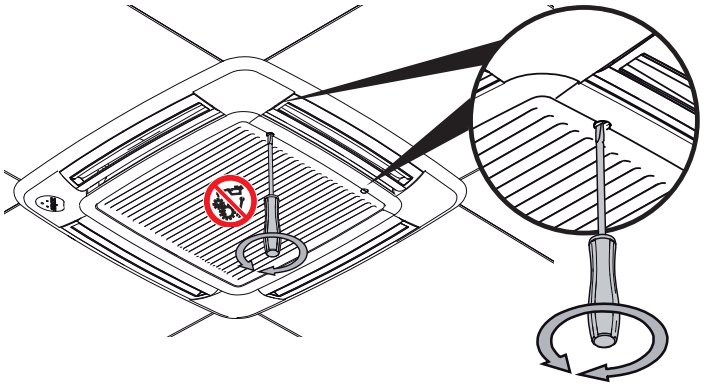
⚠ **WARNING: Do not modify the settings of the Inverter device. Any modification to the parameters could cause the device to malfunction. The factory settings are shown on the label attached to the unit.**

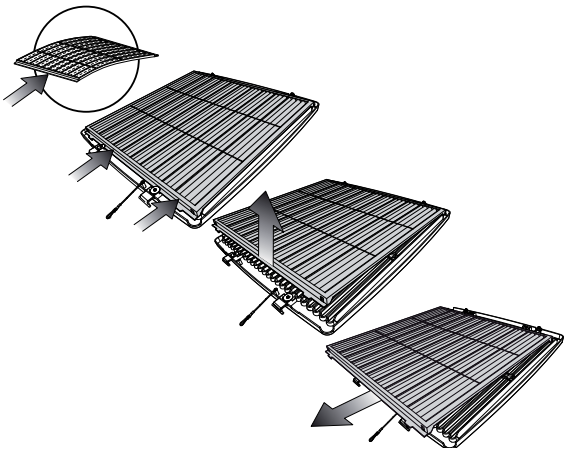
INSTALLAZIONE E SOSTITUZIONE DEL FILTRO "Modulo 600"
INSTALLATION AND REPLACEMENT OF THE "Module 600" FILTER
INSTALLATION ET REMPLACEMENT DU FILTRE "Module 600"
INSTALLATION UND AUSTAUSCH DES FILTERS "Modul 600"
INSTALACIÓN Y SUSTITUCIÓN DEL FILTRO "Módul 600"





INSTALLAZIONE E SOSTITUZIONE DEL FILTRO "Modulo 840"
INSTALLATION AND REPLACEMENT OF THE "Module 840" FILTER
INSTALLATION ET REMPLACEMENT DU FILTRE "Module 840"
INSTALLATION UND AUSTAUSCH DES FILTERS "Modul 840"
INSTALACIÓN Y SUSTITUCIÓN DEL FILTRO "Módul 840"

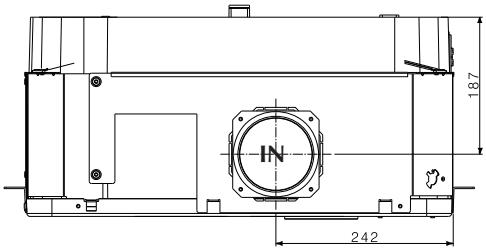




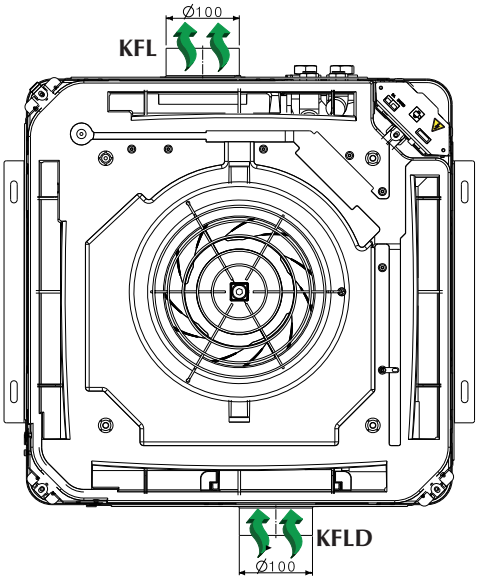
PERICOLO: Togliere tensione prima d'iniziare le operazioni di pulizia del filtro e/o dell'unità.
DANGER: Switch off power supply before cleaning filter and/or unit.
DANGER: Couper la tension avant de commencer les opérations de nettoyage du filtre et/ou de l'unité.
GEFAHR: Vor der Reinigung des Filters und/oder des Gerätes die Stromversorgung abschalten.
PELIGRO: Quitar la tensión antes de iniciar las operaciones de limpieza del filtro o de la unidad.

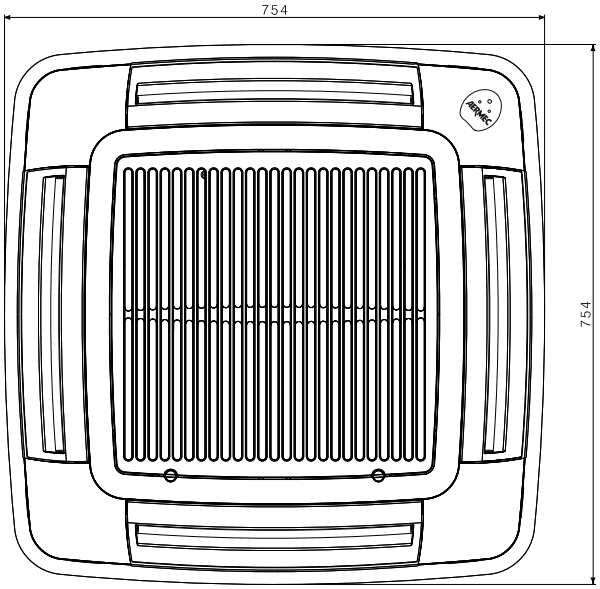
DATI DIMENSIONALI • DIMENSIONS • DONNÉES DES LES DIMENSIONS • ABMESSUNGEN • DATOS DIMENSIONALES [mm]

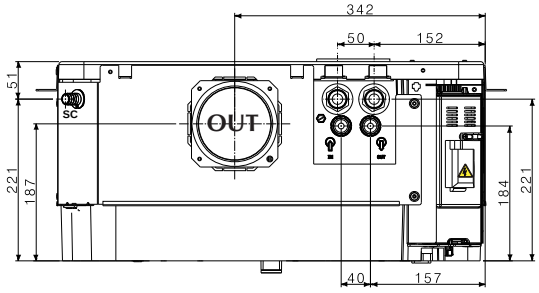
FCLI 32
FCLI 34
FCLI 36
FCLI 42
FCLI 44
FCLI 62
FCLI 64

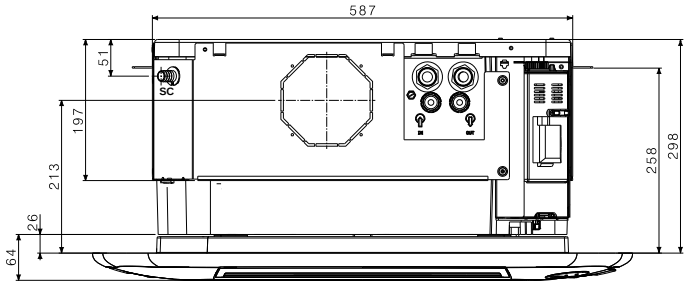


GLLI 10

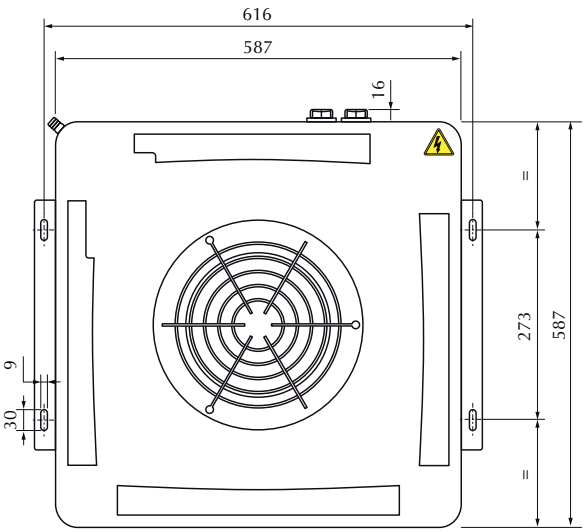




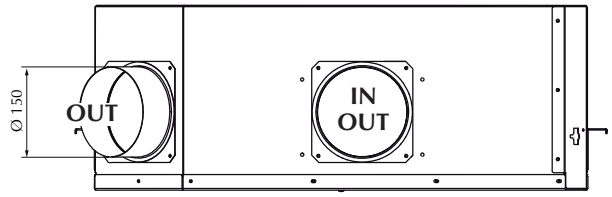




	FCLI	32	34	42	44	62	64
FCLI	kg	20,5	21,0	20,5	21,0	22	22,5

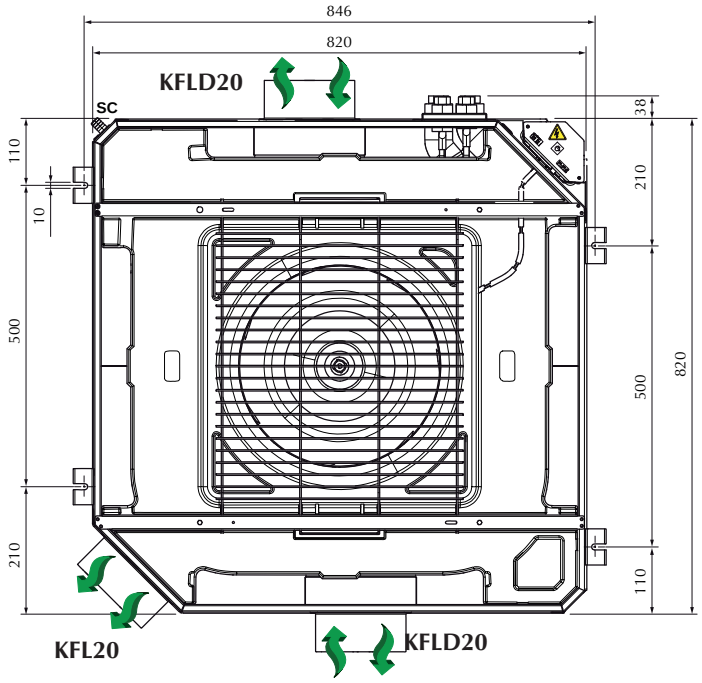


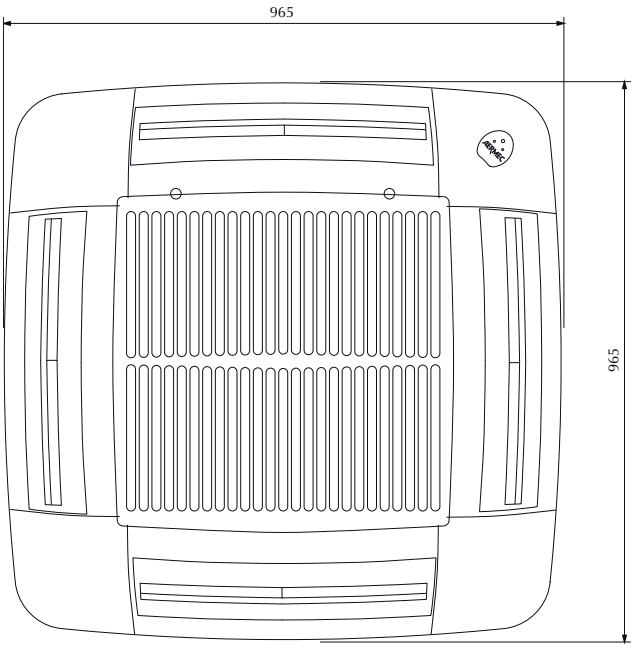
DATI DIMENSIONALI • DIMENSIONS • DONNÉES DES LES DIMENSIONS • ABMESSUNGEN • DATOS DIMENSIONALES [mm]

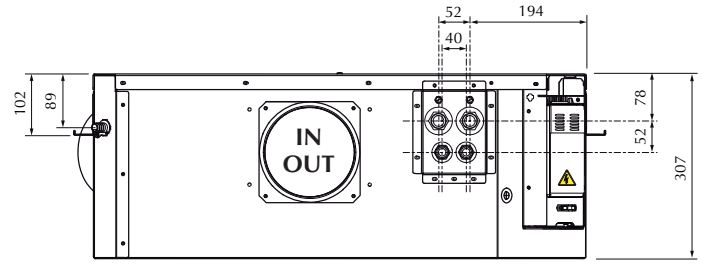


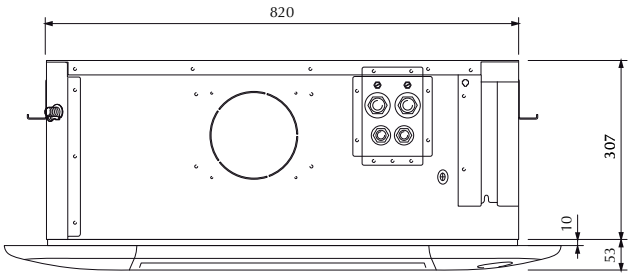
FCLI 82
FCLI 122
FCLI 124

GLLI 20

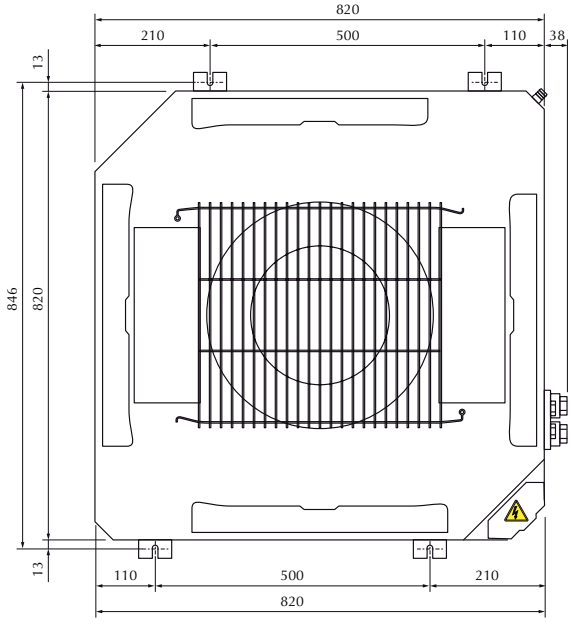








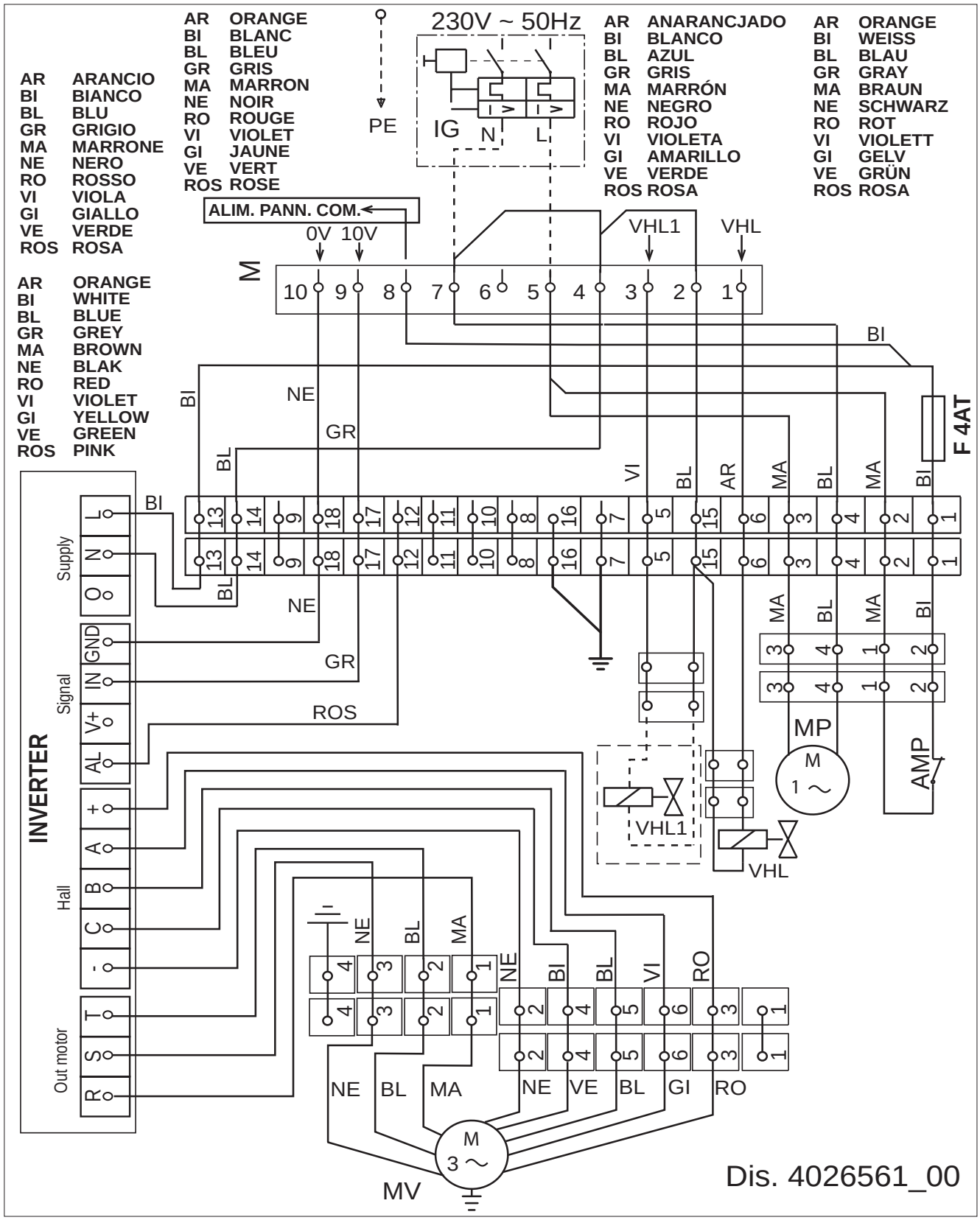
	FCLI	82	122	124
FCLI_	[kg]	36	36	36



PROBLEMI E SOLUZIONI

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. 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 la 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. Verifier la chaudière. Kaltwasserseitigen Wärmeaustauscher kontrollieren. Comprobar el calentador.
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. l 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. l 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 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.



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.

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