

CASSETTE-TYPE FAN COIL

FCL

Variable Multi Flow

VMF



FCL 32 (600x600)
 FCL 36 (600x600)
 FCL 42 (600x600)
 FCL 62 (600x600)
 FCL 72 (600x600)
 FCL 34 (600x600)
 FCL 38 (600x600)
 FCL 44 (600x600)
 FCL 64 (600x600)

FCL 82 (840x840)
 FCL 102 (840x840)
 FCL 122 (840x840)
 FCL 84 (840x840)
 FCL 104 (840x840)
 FCL 124 (840x840)



IFCLTY 1112 - 4528511_04

Replace 1012 - 4528511_03

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REMARKS

Keep the manuals in a dry place - to maintain their good condition - for at least 10 years, for any future reference needs. **Carefully and thoroughly read all the information referred to in this manual. Pay particular attention to the instructions for use accompanied by the words "DANGER" or "WARNING" because, if they are not complied with, the machine/property can be damaged and/or people can be injured.**

If any kind of malfunction is not included in this manual, contact the local After Sales Service immediately.

The device must be installed in such a way that maintenance and/or repair operations are possible.

The device warranty does not in any case cover costs resulting from the use of automatic ladders, scaffolding or any other lifting system necessary for carrying out repairs under warranty.

AERMEC S.p.A. declines all liability for any damage due to improper use of the machine, or the partial or superficial reading of the information contained in this manual.

Certain illustrations may show parts supplied as payable accessories.

This manual contains the following number of pages:76

AERMEC S.p.A.

I-37040 Bevilacqua (VR) Italia – Via Roma, 996
 Tel. (+39) 0442 633111
 Telefax (+39) 0442 93730 – (+39) 0442 93566
 www.aermec.com - info@aermec.com

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Noi, firmatari della presente, dichiariamo sotto la nostra esclusiva responsabilità, che il prodotto:

VENTILCONVETTORE
serie FCL

al quale questa dichiarazione si riferisce è conforme alle seguenti norme armonizzate:

- | | |
|---------------------|--------------------|
| - CEI EN 60335-2-40 | - CEI EN 61000-6-1 |
| - CEI EN 55014-1 | - CEI EN 61000-6-2 |
| - CEI EN 55014-2 | - 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

FCL CON ACCESSORI

E' fatto divieto di mettere in servizio il prodotto dotato di accessori non di fornitura Aermec.

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Nous soussignés déclarons sous notre exclusive responsabilité que le produit:

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| - EN 55014-1 | - EN 61000-6-2 |
| - EN 55014-2 | - 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

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Il est interdit de faire fonctionner l'appareil avec des accessoires qui ne sont pas fournis de Aermec.

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FAN COIL

serie FCL

al que esta declaración se refiere, está en conformidad a las siguientes normas armonizadas:

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| - EN 55014-1 | - EN 61000-6-2 |
| - EN 55014-2 | - 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 Electromagnética: EMC 2004/108/CE
- Directiva Máquinas: 2006/42/CE

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**La persona autorizzata a costituire il fascicolo è. /the person authorized to compile the fileis/La personne autorisée à constituer le dossier est:/
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CE CONFORMITY DECLARATION

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

FAN COIL

FCL series

to which this declaration refers, complies with the following standardised regulations:

- | | |
|-----------------|----------------|
| - EN 60335-2-40 | - EN 61000-6-1 |
| - EN 55014-1 | - EN 61000-6-2 |
| - EN 55014-2 | - 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

FCL 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

der Serie FCL

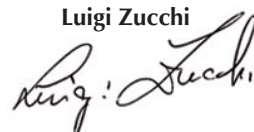
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|-----------------|----------------|
| - EN 60335-2-40 | - EN 61000-6-1 |
| - EN 55014-1 | - EN 61000-6-2 |
| - EN 55014-2 | - EN 61000-6-3 |
| | - EN 61000-6-4 |

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

FCL + ZUBEHÖR

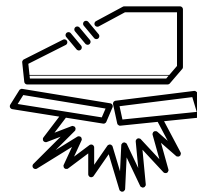
Falls das Gerät mit Zubehörteilen ausgerüstet wird, die nicht von Aermec geliefert werden, ist dessen Inbetriebnahme solange untersagt:

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 La Direzione Commerciale – Sales and Marketing Director
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TRASPORTO • CARRIAGE • TRANSPORT • TRANSPORT • TRANSPORTE



NON bagnare. Tenere al riparo dalla pioggia
Do NOT wet
CRAINT l'humidité
Vor Nässe schützen
NO mojar



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

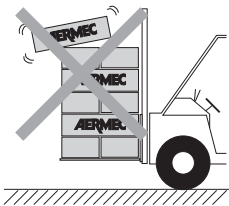
FCL (600x600)



FCL (840x840)



Sovrapponibilità: controllare sull'imballo per conoscere il numero di macchine impilabili
Stacking: control the packing to know the number of machines that can be stacked
Empilement: vérifier sur l'emballage pour connaître le nombre d'appareils pouvant être empilés
Stapelung: Die Anzahl der stapelbaren Geräte, wird durch die Symbole auf den Verpackungen ermittelt
Apilamiento: observe en el embalaje para saber cuántos equipos pueden apilarse



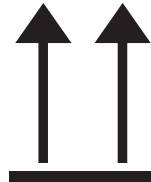
NON lasciare gli imballi sciolti durante il trasporto - Non rovesciare
Do NOT leave loose packages during transport
ATTACHER les emballages pendant le transport
Die Verpackungen nicht ungesichert transportieren
NO lleve las cajas sueltas durante el transporte



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



Fragile, maneggiare con cura
Fragile, handle with care
Fragile, manipuler avec soin
Zerbrechlich, mit Sorgfalt behandeln
Frágil, manejar con cuidado



Freccia: alto
Arrow: high
flèche: haut
Pfeil: hoch
Flecha: alto

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!!!

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.

CORRECTLY ADJUST THE AIR JET

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

DO NOT USE EXCESSIVELY HOT WATER

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 PERIODICALLY

Cleaning the filter frequently guarantees enhanced operating efficiency.

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

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

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

SUPPLEMENTARY CLEANING

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

DURING OPERATION

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

WHAT IS NORMAL

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

In the heating 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.

MALFUNCTION

In the event of a malfunction, cut off power supply to the unit, then restore the power and start the unit again. If the problem occurs again, call the local After-Sales Service immediately.

DO NOT TUG THE ELECTRIC CABLE

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

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

DO NOT OBSTRUCT THE AIR OUTLETS BY PLACING OBJECTS INTO THEM

Do not put anything in the air outlet slots.

This could injure people and damage the fan.

PACKAGE

The fan coils are shipped in standard package which consists of expand-

ed polystyrene foam and cardboard shells.

DESCRIPTION OF THE UNIT

AIM OF THE UNIT

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

FCL version

Cassette-type fan coil for installation in suspended ceilings.

AVAILABLE SIZES

The Cassette fan coils of the FCL range are available in two basic sizes, called "Modules"

For 2-pipe systems

7 sizes

FCL 32	(Module 600)
FCL 36	(Module 600)
FCL 42	(Module 600)
FCL 62	(Module 600)
FCL 72	(Module 600)
FCL 82	(Module 840)
FCL 102	(Module 840)
FCL 122	(Module 840)

For 4-pipe systems

7 sizes

FCL 34	(Module 600)
FCL 38	(Module 600)
FCL 44	(Module 600)
FCL 64	(Module 600)
FCL 84	(Module 840)
FCL 104	(Module 840)
FCL 124	(Module 840)

VERSIONS

The cassette fan coils are available in three versions, to satisfy all system requirements.

The sizes, performance levels and outer dimensions are the same as those for the

- Standard **FCL** version, with standard internal 3-way valve fitted with fast connection actuator and visual position signalling.

standard **FCL** version.

In this manual, versions **FCL_VL** and **FCL_V2** will only be referred to when there are differences compared with the standard **FCL** version; otherwise

- **FCL_V2** version, with standard internal 2-way valve fitted with fast connection actuator and visual position signalling, suitable for systems with a variable water flow rate.

they will simply be called **FCL**. Versions **FCL_VL** and **FCL_V2** are available upon request.

- **FCL_VL** version, without an internal valve.

The same FCL unit can be combined with several grille accessories to allow different operation modes.

Detailed information is given in the manuals supplied with the accessories; here we merely wish to highlight the differences between the various delivery and suction grille units.

- **GLL10 / GLL20**

If you intend to connect an electronic control panel, check the settings of the dip switches inside the panel correspond to the system requirements; if necessary, modify the settings as indicated in the control panel instructions.

In units with 4-speed motors, select the 3 fan speeds most suitable for the system.

- **GLL10M / GLL10R / GLL20R**

Check the settings of the dip switches inside the electric box correspond to the system requirements; if necessary, modify the settings.

In units with 4-speed motors, select the 3 fan speeds most suitable for the system.

Description of the functions of fan coils fitted with GLL-M and GLL-R grille units

- **Cooling operation:** the remote control can be used to set the cooling mode and the room temperature required (setting). If the fan speed is set in automatic mode, the control board selects the fan speed and decides the water valve opening on the basis of the difference between the room temperature set by the user (setting) and the temperature measured by the ambient probe. In the case of 4-pipe systems, in cooling mode the control board will pilot the cooling solenoid valve while the heating solenoid valve is closed.
- **Heating operation:** the remote control can be used to set the heating mode and the room temperature required (setting). If the fan speed is set in automatic mode, the control board selects the fan speed and decides the water valve opening on the basis of the difference between the room temperature set by the user (setting) and the temperature measured by the ambient probe. In the case of 2-pipe systems, in heating mode the control board will pilot the standard solenoid valve. In the case of 4-pipe systems, in heating mode the control board will pilot the hot water solenoid valve (accessory) while the cooling solenoid valve is closed.
- **AUTO (Automatic) operation:** by activating "AUTO" mode on the remote control, the room temperature is decided by the control board, which will also select the fan speed (operating in Automatic mode). The thermostat reads the SA ambient probe (continuously, even in heating operation, despite the thermostat being enabled) and decide whether to operate in heating, cooling or dehumidification mode. It is possible to correct the fixed operation setting by $\pm 5^{\circ}\text{C}$, using the remote control. In automatic mode, the unit re-selects the function after each start from standby.
- **Heating operation with electric heater:** if the unit is fitted with an electric heater for heating operation, then the only fan speeds allowed are maximum (V3) and average (V2); minimum speed (V1) will only be automatically activated in the post-heating phase. The dip switches are used to determine - during installation - whether the electric heater is a supplementary or replacement one.
 - Heating operation with **supplementary electric heater:** the heater is activated at the same time as the heating water valve, to increase the efficiency of the unit. Alternatively, if the water temperature is insufficient, the heater is activated to make up for the low output provided by the water coil. Ventilation only begins after heater start-up (pre-heating).
 - Heating operation with **replacement electric heater:** the heater is only activated if the water temperature is insufficient. Ventilation only begins after heater start-up (pre-heating).
- **Water probe upstream of the valve:** the probe measures the temperature of the water in the system.
- **Continuous ventilation (in cooling and heating modes):** ventilation is always active - the thermostat only controls the water valves and the electric heater.
- **Thermostat-controlled ventilation (heating):** ventilation is delayed following the thermostat call, to allow the hot water to flow through the coil (pre-heating).
- **Dehumidification operation:** requires the circulation of cold water in the system. The ventilation speed is always at minimum, but the operation setting fixed by the control board can be corrected by $\pm 5^{\circ}\text{C}$, using the remote control.
- **Operation with timer:** used to programme a delay in the switching off and on of the unit, from 0.5 to 12 hours. A power failure brings the timer settings back to zero.
- **Full Power operation:** ventilation is forced at maximum speed, while the temperature settings are 32°C in heating mode and 18°C in cooling mode.
- **Pause for voltage failure:** after a pause due to voltage failure, the unit restarts with the settings in use before the pause. Only the timer will be zero-set.
- **Delayed start-up:** the unit can delay the start of ventilation compared with ignition. This delay is usually up to 2'40", but in particular conditions it may be extended.
- **SW4 probe:** as an option, a probe can be installed to measure the temperature of the water in the system.
- **Emergency command:** If necessary there is an "AUX" key on the grille receiver, that activates the "Auto-Emergency" mode. In this mode, the unit functions automatically on the basis of the room temperature @ read in the moment when the AUX key is pressed. If "Auto-Emergency" mode is selected, timer operation is excluded. The pressing of the AUX key is indicated by an acoustic signal. Turning off is also via the same "AUX" key.

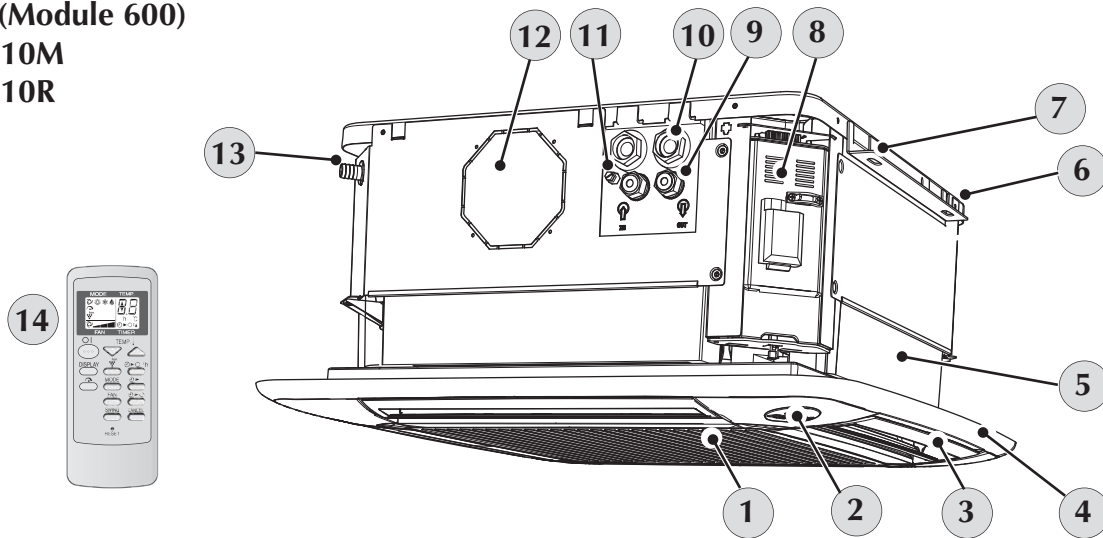
MAIN COMPONENTS

- | | | |
|---------------------------|--|--|
| 1 Grille with air filter | 6 Base unit | 11 Air drain valve |
| 2 Receiver (GLL_M; GLL_R) | 7 Fastening brackets | 12 Push-out, coupling for air delivery in an adjacent room |
| 3 Air delivery deflector | 8 Electrical box | 13 Condensate drain |
| 4 Grille frame | 9 Water connections (only for 4 pipes) | 14 Remote control (GLL_M; GLL_R) |
| 5 Tray | 10 Water connections (2 pipes) | |

FCL (Module 600)

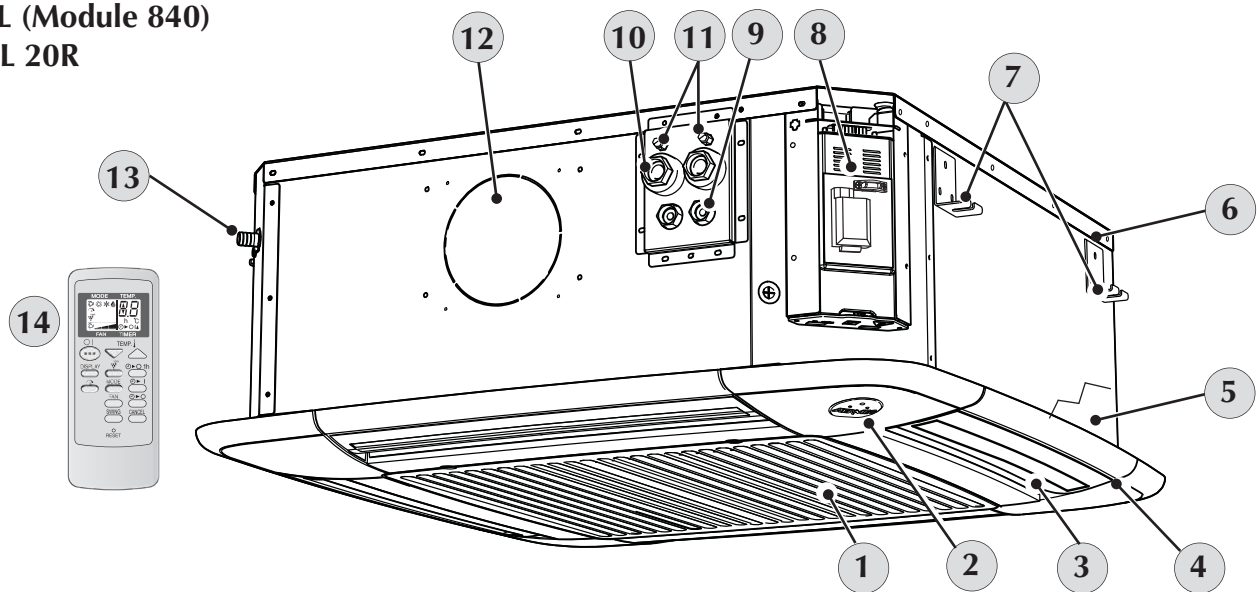
GLL 10M

GLL 10R



FCL (Module 840)

GLL 20R



DESCRIPTION

The FCL cassette-type fan coil is an air treatment unit. The FCL combines advanced technological and functional characteristics, making it the ideal climate control unit for every type of room. The supply of climate-controlled air is distributed throughout the room. FCL 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 (in the versions with hot water coil).

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.

The FCL units are available in two basic sizes, called:

"Module 600" for units integrable in standard 600x600mm suspended ceiling panelling

"Module 840" for the more powerful versions (to be housed in a compartment measuring 840x840mm).

BASE

The load-bearing base is made of galvanised sheet steel. 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 (accessories), it allows the channels (for renewing ambient air and/or delivery to an adjacent room) to be joined to the sides.

The units with "Module 600" consist of a reinforced load-bearing structure with a side band in galvanised sheet steel and thermal insulation provided by injection-moulded polystyrene foam elements that reduce noise and convey air. The units with "Module 840" consist of a structure made entirely of galvanised

sheet steel, thermally insulated with closed cell polyethylene foam and covered with anti-condensate felt.

FASTENING BRACKETS

Galvanised steel brackets 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 louvres 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 louvres. 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.

WATER VALVE

The standard version of the unit includes an internal 3-way all-or-nothing valve with fast connection actuator and visual position signalling, assembled as standard on the heat/cool coil and powered with a current of 230V ~ 50Hz.

The units are available - upon request - in two other versions, one with a 2-way valve and the other without a valve.

The units with dual coil (for 4-pipe systems) can be connected to a second valve, available as an accessory in the 3-way versions (for fixed output systems), or the 2-way versions (for variable output systems).

FAN UNIT

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

The electric motor offers 3 speeds for smaller sizes (FCL 32-34-36-38) and 4 speeds for larger sizes (to be able to select the 3 speeds that best meet the specific power and noise requirements). The FCL can be set with continuous fan operation to prevent the layering of air in the room.

The electric motor is cushioned with elastic supports and the steel shaft is assembled on bearings.

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

CONDENSATE DISCHARGE DEVICE

The condensate drain device is needed to dispose of the condensate that is produced by the unit and deposited in the polystyrene tray. The device consists of a control card, a non-return valve, a three-level floating sensor and a pump with a maximum head of

800mm. The unit can easily be connected to the condensate discharge system by means of a plastic coupling (ext. Ø 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.

FILTERING SECTION

The air filter is inserted in the suction grille.

Mechanical air filter with ABS frame.

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

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

SUCTION AND DELIVERY GRILLE UNIT

(GLL range accessories)

The FCL cassette-type fan coil is only complete when used with a grille of the GLL range - an obligatory accessory for the operation of the fan coil. The grille accessory of the GLL range not only offers suction with a filter and air delivery fins, but also a special electric box with bayonet coupling to the connector that is bound to the unit's load-bearing structure.

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

Intake occurs through the central grille, and delivery through the adjustable, outer slots. In plastic, colour RAL 9010, it contains the air filter that can be easily removed for cleaning.

The same standard FCL unit can be configured in a number of versions by simply combining it with different grille units of the GLL range (obligatory accessories) to determine its working modes:

- **GLL 10 M** (for Module 600 only)

With remote control, fins adjustable from the remote control, IR receiver integrated in the grille. GLL-M has an electronic thermostat able to manage all the configurations (heating coil with valve, cooling coil with valve, supplementary or replacement electric heater) as well as all the functions (heating, cooling, continuous or thermostat-operated ventilation, dehumidification, timed switch-on or switch-off operations). When working with the electric heater, the ventilation is only active at maxi-

mum and medium speeds.

- **GLL 10 R** (for Module 600 only)

GLL 20 R (for Module 840 only)

With remote control, manually adjusted fins, IR receiver integrated in the grille. GLL-R has an electronic thermostat able to manage all the configurations (heating coil with valve, cooling coil with valve, supplementary or replacement electric heater) as well as all the functions (heating, cooling, continuous or thermostat-operated ventilation, dehumidification, timed switch-on or switch-off operations). When working with the electric heater, the ventilation is only active at maximum and medium speeds.

- **GLL 10** (for Module 600 only)

GLL 20 (for Module 840 only)

Version with manually adjusted fins, must be interfaced with a single or centralised external control panel (not included). The working modes are managed from the control panel. It is necessary to choose a control panel that can manage all the functions and any accessories that may be installed. The accessories of the SIT range allow several FCL units - complete with GLL to be connected in a single network and commanded from a single control panel (for the selection, consult the characteristics and compatibility of the accessories).

CONTROL PANEL (Accessory)

The units with a GLL10 or GLL20 grille unit must be used with an external control panel (see the compatibility and functions of the control panels).

SELECTION CRITERIA

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

The tables show the sensible and total refrigerating yield at maximum speed, in relation to the temperature of the inlet water, its temperature change and the air temperature with dry bulb and wet bulb (for the sensitive output and the total output respectively). The performance levels at average and minimum speed are obtained by multiplying the tabular values by the relative correction factors.

The water side pressure drops are shown in the charts.

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

The heating capacity in relation to the water flow rate, and to the temperature difference between the incoming water and the incoming air, is shown in a chart. It refers to maximum speed; the performance levels at average and minimum speed are obtained by multiplying the values obtained from the graph (at maximum speed) by the relative correction factors.

The sound pressure and power levels of the fan coils at the various speeds are shown in the tables.

There is a wide range of accessories for the FCL fan coils, but in certain cases some of them cannot be used simultaneously: check the accessories are compatible with the fan coil chosen. The manual contains a

description of each accessory, plus a drawing and its compatibility.

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

OPERATING LIMITS

FCL		32	34	36	38	42	44	62	64	72	82	84	102	104	122	124
Maximum water inlet temperature	[°C]	80														
Maximum operating pressure	[bar]	8														
Minimum water flow rate (heating)	[l/h]	100	50	100	50	100	50	150	50	150	250	150	350	150	350	150
Maximum water flow rate (heating)	[l/h]	750	400	750	400	750	400	1050	400	1050	1750	1200	2450	1200	2450	1200
Minimum water flow rate (cooling)	[l/h]	100	100	100	100	100	100	150	150	150	250	250	350	250	350	250
Maximum water flow rate (cooling)	[l/h]	750	750	750	750	750	750	1050	1050	1050	1750	1750	2450	1750	2450	1750
Room temperature limits (Ta)	[°C]	0 < Ta < 40														
Relative humidity limits in the room	R.H.	U.R. < 85%														
Power supply		230V (±10%) ~ 50Hz														

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

(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.

These limits refer to unit operating with fan at minimum speed.

AVERAGE MINIMUM TEMPERATURE OF THE WATER [°C]		Dry bulb temperature of the room temperature [°C]					
		21	23	25	27	29	31
Wet bulb temperature of the room air [°C]	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

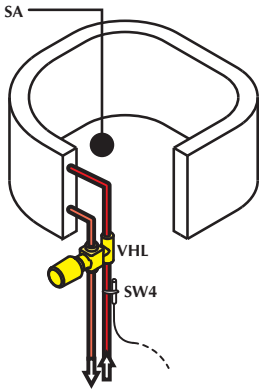
SYSTEM EXAMPLES

Key:

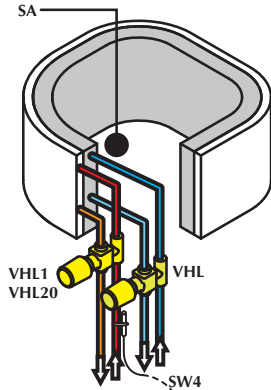
SA	Ambient probe;
SW	Water probe
RXLE	Heater
VHL	Solenoid valve (Hot/Cold),
VHL1/2/20/22	Hot valve

FCL (Standard)

2-pipe system

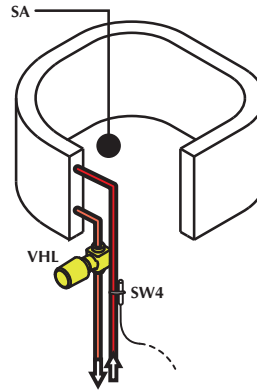


4-pipe system

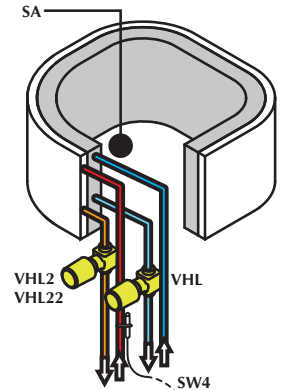


FCL (V2)

2-pipe system

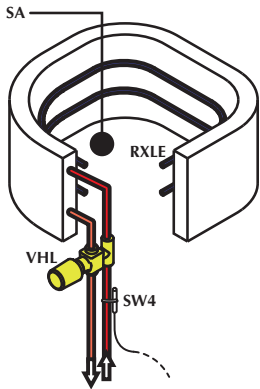


4-pipe system

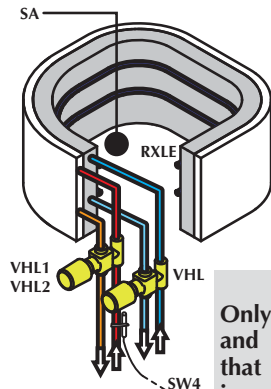


FCL (Standard) with electric heater

2-pipe system

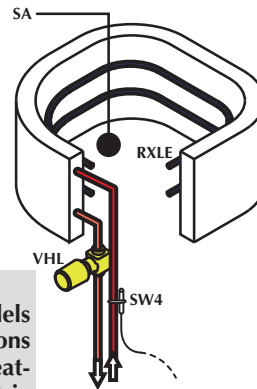


4-pipe system

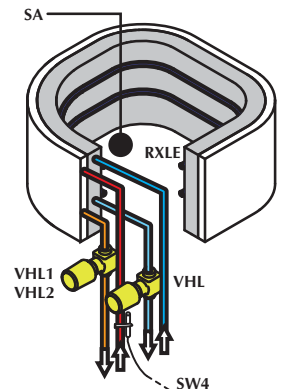


FCL (V2) with electric heater

2-pipe system



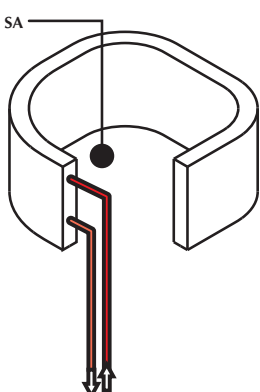
4-pipe system



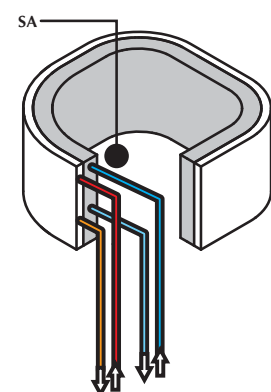
RXLE
Only for models and configurations that envisage heating with an electric heater

FCL (VL) without valves










2-pipe system



4-pipe system



TECHNICAL DATA

FCL 2-pipe versions		FCL	32	36	42	62	72	82	102	122
Heating										
Heating capacity 50°C 	Speed 4	W	-	-	4950	6250	6750	7100	10600	13000
	Speed 3	W	2380	3750	3940	4780	5230	5700	8300	10500
	Speed 2	W	1760	2690	3030	3830	4490	4850	7000	8800
	Speed 1	W	1330	2050	2250	3050	3650	3500	4950	6300
Water flow rate	Speed 4	l/h	-	-	679	857	939	1032	1548	1892
	Speed 3	l/h	327	516	559	678	705	824	1206	1539
	Speed 2	l/h	253	387	437	552	576	697	1015	1290
	Speed 1	l/h	200	308	337	458	481	482	697	922
Pressure drop (VL) 	Speed 4	kPa	-	-	23	32	38	23	25	34
	Speed 3	kPa	9	14	16	21	23	15	16	24
	Speed 2	kPa	6	8	10	15	16	11	12	17
	Speed 1	kPa	4	5	6	10	11	6	6	9
Cooling										
Cooling capacity 	Speed 4	W	-	-	3950	4980	5460	6000	9000	11000
	Speed 3	W	1900	3000	3250	3940	4100	4790	7010	8950
	Speed 2	W	1470	2250	2540	3210	3350	4050	5900	7500
	Speed 1	W	1160	1790	1960	2660	2800	2800	4050	5360
Sensible Cooling capacity 	Speed 4	W	-	-	3160	3810	4100	4200	6660	8470
	Speed 3	W	1520	2400	2360	2810	3000	3300	5140	6870
	Speed 2	W	1250	1780	1820	2270	2350	2770	4300	5730
	Speed 1	W	990	1390	1380	1860	1890	1900	2940	4040
Water flow rate 	Speed 4	l/h	-	-	679	857	939	1032	1548	1892
	Speed 3	l/h	327	516	559	678	705	824	1206	1539
	Speed 2	l/h	253	387	437	552	576	697	1015	1290
	Speed 1	l/h	200	308	337	458	481	482	697	922
Pressure drop (VL) 	Speed 4	kPa	-	-	25	36	43	25	28	38
	Speed 3	kPa	10	15	18	24	26	17	18	26
	Speed 2	kPa	7	9	11	16	18	12	13	19
	Speed 1	kPa	4	6	7	12	13	6	7	10
Common data										
Fans		no.	1	1	1	1	1	1	1	1
Air flow rate 	Speed 4	m3/h	-	-	700	880	900	1100	1350	1750
	Speed 3	m3/h	600	600	530	660	680	830	1010	1350
	Speed 2	m3/h	410	410	360	500	520	680	830	1100
	Speed 1	m3/h	300	300	260	380	400	460	560	750
Sound power 	Speed 4	dB(A)	-	-	53	61	63	50	54	60
	Speed 3	dB(A)	46	46	46	54	56	45	48	54
	Speed 2	dB(A)	38	38	38	47	49	43	45	50
	Speed 1	dB(A)	35	35	35	41	43	39	40	44
♪ Sound pressure	Speed 4	dB(A)	-	-	44	52	54	41	45	51
	Speed 3	dB(A)	37	37	37	45	47	36	39	45
	Speed 2	dB(A)	29	29	29	38	40	34	36	41
	Speed 1	dB(A)	26	26	26	32	34	30	31	35
Input power 	Speed 4	W	-	-	75	83	93	150	155	175
	Speed 3	W	45	45	47	53	62	105	110	125
	Speed 2	W	31	31	32	37	49	80	80	105
	Speed 1	W	21	21	22	26	40	45	50	55
Input current (max speed)		A	0.22	0.22	0.33	0.37	0.40	0.70	0.69	0.75
Peak current		A	0.66	0.66	0.99	1.11	1,20	2.10	2.07	2.25
Power supply	V / Hz		230 ~ 50Hz							
Maximum protection level		IP	20	20	20	20	20	20	20	20
Heat exchanger water content		L	1.2	1.5	1.5	2.1	2,1	3	4.5	4.5
Plumbing connections		Ø gas	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Kvs (3-way valve, standard version)			2.5	2.5	2.5	2.5	2,5	4	4	4
Kvs (2-way valve, V2 version)			2.5	2.5	2.5	2.5	2,5	2.5	2.5	2.5

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

Performance values refer to the following conditions:
 ♪ Sound pressure measured in semi-reverberating chamber, 100m³,
 and with reverberation time Tr = 0.5s










Cooling:


- room air temperature 27°C D.B. ; 19°C W.B.
- inlet water temperature 7°C ; maximum speed
- Δt water 5°C


Heating:

- room air temperature 20°C
- water inlet temperature: 70°C ; Δt water 10°C
- water inlet temperature: 50°C ; maximum speed
- water flow rate as for cooling

TECHNICAL DATA

FCL 4-pipe versions		FCL	34	38	44	64	84	104	124
Heating									
Heating capacity 70°C 	Speed 4	W	-	-	3070	3800	8500	10000	12500
	Speed 3	W	2600	2600	2730	3380	7150	8250	10400
	Speed 2	W	2190	2190	2290	2990	6400	7300	9300
	Speed 1	W	1950	1950	1960	2640	5300	5900	7050
Water flow rate	Speed 4	l/h	-	-	264	327	731	860	1075
	Speed 3	l/h	224	224	235	291	615	710	894
	Speed 2	l/h	188	188	197	257	550	628	800
	Speed 1	l/h	168	168	169	227	456	507	606
Pressure drop (VL) 	Speed 4	kPa	-	-	14	21	14	19	29
	Speed 3	kPa	11	11	12	17	10	14	21
	Speed 2	kPa	8	8	8	14	9	11	17
	Speed 1	kPa	6	6	6	11	6	7	10
Cooling									
Cooling capacity 	Speed 4	W	-	-	3650	4610	6000	7200	8800
	Speed 3	W	1900	2770	3000	3640	4790	5760	7270
	Speed 2	W	1470	2080	2340	2970	4050	4915	6220
	Speed 1	W	1160	1650	1810	2460	2800	3500	4570
Sensible Cooling capacity 	Speed 4	W	-	-	2920	3530	4200	5300	6770
	Speed 3	W	1520	2240	2180	2600	3300	4180	5520
	Speed 2	W	1250	1660	1680	2100	2770	3530	4670
	Speed 1	W	990	1300	1270	1720	1900	2480	3370
Water flow rate	Speed 4	l/h	-	-	628	793	1032	1238	1514
	Speed 3	l/h	327	476	516	626	824	991	1250
	Speed 2	l/h	253	358	402	511	697	845	1070
	Speed 1	l/h	200	284	311	423	482	602	786
Pressure drop (VL) 	Speed 4	kPa	-	-	22	31	25	26	38
	Speed 3	kPa	10	13	15	21	17	18	27
	Speed 2	kPa	7	8	10	14	12	13	20
	Speed 1	kPa	4	5	6	10	6	7	12
Common data									
Fans		no.	1	1	1	1	1	1	1
Air flow rate 	Speed 4	cu.m/h	-	-	700	880	1100	1350	1750
	Speed 3	cu.m/h	600	600	530	660	830	1010	1350
	Speed 2	cu.m/h	410	410	360	500	680	830	1100
	Speed 1	cu.m/h	300	300	260	380	460	560	750
Sound power 	Speed 4	dB(A)	-	-	53	61	50	54	60
	Speed 3	dB(A)	46	46	46	54	45	48	54
	Speed 2	dB(A)	38	38	38	47	43	45	50
	Speed 1	dB(A)	35	35	35	41	39	40	44
Sound pressure 	Speed 4	dB(A)	-	-	44	52	41	45	51
	Speed 3	dB(A)	37	37	37	45	36	39	45
	Speed 2	dB(A)	29	29	29	38	34	36	41
	Speed 1	dB(A)	26	26	26	32	30	31	35
Input power 	Speed 4	W	-	-	75	83	150	155	175
	Speed 3	W	45	45	47	53	105	110	125
	Speed 2	W	31	31	32	37	80	80	105
	Speed 1	W	21	21	22	26	45	50	55
Input current (max speed)		A	0.22	0.22	0.33	0.37	0,70	0,69	0,75
Peak current		A	0.66	0.66	0.99	1.11	2,10	2,07	2,25
Power supply	V / Hz		230 ~ 50Hz						
Maximum protection level	IP		20	20	20	20	20	20	20
Heat exchanger water content	L		1.2	1.5	1.5	2.1	3	4.5	4.5
Water connections (cold circuit)	Ø gas		3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Water connections (hot circuit)	Ø gas		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Kvs (3-way valve, standard version)			2.5	2.5	2.5	2.5	4	4	4
Kvs (2-way valve, V2 version)			2.5	2.5	2.5	2.5	2.5	2.5	2.5

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

Performance values refer to the following conditions:
 Sound pressure measured in semi-reverberating chamber, 100m³, and with reverberation time Tr = 0.5s

Cooling:

- room air temperature 27°C D.B. ; 19°C W.B.
- inlet water temperature 7°C ; maximum speed
- Δt water 5°C

Heating:

- room air temperature 20°C
- water inlet temperature: 70°C ; Δt water 10°C
- water inlet temperature: 50°C ; maximum speed
- water flow rate as for cooling

COOLING CAPACITY - FCL32

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	1526	1281	1519	1457	1526	1526	1574	1574	1722	1722	1797	1797	
		17	1969	1274	1965	1454	1961	1631	1957	1808	1951	1951	1953	1953	
		19	2448	1264	2442	1444	2436	1623	2430	1800	2424	1975	2420	2062	
		21			2955	1430	2947	1609	2939	1786	2931	1963	2929	2052	
		23					3497	1591	3493	1773	3481	1948	3477	2037	
	5	5	15	1317	1164	1347	1347	1404	1404	1502	1502	1653	1653	1728	1728
			17	1785	1174	1781	1353	1775	1530	1783	1711	1803	1803	1823	1823
			19	2270	1169	2266	1349	2262	1528	2258	1707	2254	1882	2246	1968
			21			2784	1340	2777	1519	2773	1698	2767	1875	2765	1963
			23					3335	1506	3327	1684	3319	1862	3315	1951
	7	7	15	1056	1014	1154	1154	1261	1261	1407	1407	1564	1564	1643	1643
			17	1518	1035	1515	1213	1540	1400	1589	1589	1654	1654	1698	1698
			19	2056	1059	2052	1239	2048	1417	2040	1592	2044	1771	2048	1861
			21			2587	1239	2579	1417	2575	1595	2571	1773	2567	1860
			23					3145	1410	3141	1590	3133	1767	3129	1855
7	3	15	1185	1093	1201	1201	1266	1266	1417	1417	1567	1567	1641	1641	
		17	1631	1093	1627	1271	1621	1448	1620	1620	1649	1649	1670	1670	
		19	2108	1085	2104	1265	2100	1444	2092	1618	2090	1794	2084	1880	
		21			2614	1254	2606	1432	2092	1618	2595	1785	2593	1873	
		23					3156	1417	3153	1597	3145	1774	3141	1862	
	5	5	15	978	974	1064	1064	1188	1188	1344	1344	1498	1498	1573	1573
			17	1417	984	1412	1161	1431	1345	1472	1472	1534	1534	1586	1586
			19	1912	987	1908	1166	1906	1345	1900	1520	1898	1696	1902	1787
			21			2428	1161	2424	1341	2420	1518	2412	1693	2411	1781
			23					2978	1329	2974	1508	2967	1685	2963	1773
	7	7	15	762	762	917	917	1083	1083	1247	1247	1407	1407	1485	1485
			17	1069	812	1132	1014	1213	1213	1307	1307	1417	1417	1488	1488
			19	1643	857	1643	1037	1638	1213	1654	1397	1692	1587	1714	1682
			21			2203	1053	2199	1231	2195	1408	2191	1584	2191	1672
			23					2769	1229	2765	1408	2757	1583	2757	1673
9	3	15	862	862	956	956	1109	1109	1261	1261	1411	1411	1485	1485	
		17	1268	910	1262	1085	1275	1266	1314	1314	1415	1415	1488	1488	
		19	1748	907	1744	1086	1740	1263	1734	1437	1730	1612	1733	1701	
		21			2252	1077	2246	1254	2242	1431	2238	1608	2234	1693	
		23					2796	1243	2790	1421	2784	1597	2781	1685	
	5	5	15	709	709	865	865	1027	1027	1186	1186	1341	1341	1417	1417
			17	996	778	1039	970	1110	1110	1207	1207	1344	1344	1420	1420
			19	1521	800	1518	978	1515	1155	1524	1335	1553	1519	1575	1575
			21			2044	980	2040	1157	2037	1333	2033	1509	2031	1595
			23					2598	1151	2595	1329	2587	1504	2587	1593
	7	7	15	536	536	739	739	917	917	1086	1086	1249	1249	1328	1328
			17	645	599	800	800	944	944	1088	1088	1251	1251	1330	1330
			19	1159	637	1167	817	1213	1010	1284	1211	1368	1368	1415	1415
			21			1775	859	1771	1035	1771	1212	1775	1390	1787	1482
			23					2361	1045	2357	1222	2353	1398	2349	1485

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL32	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V3	600	1	1
Speed V2	410	0,77	0,82
Speed V1 (Minimum)	300	0,61	0,65

COOLING CAPACITY - FCL32

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	640	640	799	799	954	954	1105	1105	1256	1256	1330	1330
		17	873	719	905	905	973	973	1107	1107	1258	1258	1333	1333
		19	1358	726	1355	902	1352	1077	1353	1255	1382	1382	1398	1398
		21			1866	899	1862	1076	1858	1251	1854	1426	1853	1512
		23					2411	1068	2405	1244	2401	1420	2397	1506
	5	15	522	522	700	700	866	866	1027	1027	1183	1183	1261	1261
		17	601	580	729	729	868	868	1028	1028	1186	1186	1264	1264
		19	1072	599	1075	776	1107	963	1168	1158	1249	1249	1294	1294
		21			1627	794	1624	970	1624	1146	1624	1322	1632	1413
		23					2187	970	2187	1148	2179	1322	2179	1410
	7	15	306	306	550	550	745	745	921	921	1088	1088	1170	1170
		17	306	306	552	552	747	747	924	924	1091	1091	1171	1171
		19	506	357	699	603	845	827	979	979	1111	1111	1179	1179
		21			1265	642	1268	819	1306	1007	1366	1203	1401	1301
		23					1910	854	1908	1030	1906	1205	1902	1291
13	3	15	476	476	639	639	796	796	949	949	1100	1100	1175	1175
		17	514	514	641	641	798	798	951	951	1103	1103	1178	1178
		19	936	540	933	714	956	896	1012	1012	1106	1106	1181	1181
		21			1453	720	1450	896	1447	1069	1445	1242	1451	1332
		23					1997	891	1995	1067	1989	1240	1987	1327
	5	15	324	324	528	528	702	702	866	866	1026	1026	1105	1105
		17	325	325	528	528	703	703	868	868	1028	1028	1107	1107
		19	509	359	638	577	762	762	886	886	1030	1030	1109	1109
		21			1159	599	1159	774	1183	956	1235	1147	1265	1242
		23					1744	787	1740	961	1736	1134	1736	1222
	7	15	154	154	308	308	562	562	751	751	925	925	1008	1008
		17	154	154	308	308	562	562	754	754	926	926	1009	1009
		19	159	159	310	310	569	569	755	755	928	928	1012	1012
		21			588	374	754	603	892	821	1020	1020	1080	1080
		23					1377	644	1377	818	1404	1002	1426	1096
15	3	15	304	304	477	477	638	638	794	794	945	945	1022	1022
		17	305	305	477	477	639	639	796	796	948	948	1023	1023
		19	445	334	538	533	650	650	797	797	949	949	1026	1026
		21			1001	536	998	708	1015	887	1060	1060	1091	1091
		23					1555	713	1553	887	1548	1058	1547	1144
	5	15	124	124	335	335	531	531	703	703	866	866	947	947
		17	124	124	335	335	532	532	705	705	868	868	948	948
		19	125	125	337	337	533	533	706	706	871	871	949	949
		21			558	363	677	574	794	781	911	911	971	971
		23					1246	595	1246	768	1261	946	1280	1039
	7	15	25	25	154	154	321	321	570	570	756	756	843	843
		17	25	25	154	154	321	321	571	571	758	758	845	845
		19	25	25	154	154	322	322	573	573	759	759	846	846
		21			160	160	332	332	589	589	766	766	849	849
		23					661	383	813	603	944	815	1007	920

Tw [°C] = Inlet water temperature
 Ta W.B. [°C] = Inlet air temperature with wet bulb
 Ta D.B.[°C] = Inlet air temperature with dry bulb
 Pc [w] = Total Cooling capacity
 Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL32	Qv [m³/h]	k (Pc)	k (Ps)
Speed V3	600	1	1
Speed V2	410	0,77	0,82
Speed V1 (Minimum)	300	0,61	0,65

COOLING CAPACITY - FCL36

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	2410	2022	2399	2300	2410	2410	2485	2485	2719	2719	2838	2838	
		17	3109	2011	3103	2296	3097	2575	3091	2854	3081	3081	3084	3084	
		19	3865	1995	3856	2280	3847	2562	3837	2842	3828	3118	3822	3256	
		21			4665	2258	4653	2541	4640	2821	4628	3100	4625	3240	
		23					5521	2513	5515	2799	5496	3076	5490	3216	
	5	5	15	2079	1838	2126	2126	2217	2217	2371	2371	2610	2610	2728	2728
			17	2819	1854	2813	2137	2803	2415	2816	2701	2847	2847	2878	2878
			19	3584	1845	3578	2131	3572	2413	3565	2695	3559	2972	3547	3107
			21			4397	2116	4384	2398	4378	2681	4368	2961	4365	3100
			23					5265	2378	5253	2660	5240	2940	5234	3080
	7	7	15	1667	1601	1821	1821	1991	1991	2221	2221	2470	2470	2595	2595
			17	2397	1634	2393	1916	2431	2211	2509	2509	2612	2612	2681	2681
			19	3247	1672	3241	1956	3234	2237	3222	2514	3228	2796	3234	2939
			21			4084	1957	4072	2237	4065	2519	4059	2799	4053	2936
			23					4965	2226	4959	2510	4946	2790	4940	2929
7	3	15	1871	1727	1897	1897	2000	2000	2238	2238	2474	2474	2590	2590	
		17	2575	1726	2569	2008	2560	2286	2558	2558	2603	2603	2638	2638	
		19	3328	1714	3322	1998	3316	2280	3303	2555	3300	2833	3291	2968	
		21			4128	1980	4115	2261	4103	2555	4097	2819	4094	2958	
		23					4984	2238	4978	2521	4965	2801	4959	2940	
	5	5	15	1544	1538	1680	1680	1875	1875	2122	2122	2365	2365	2483	2483
			17	2238	1554	2229	1833	2260	2123	2324	2324	2423	2423	2504	2504
			19	3019	1558	3012	1842	3009	2123	3000	2400	2997	2678	3003	2821
			21			3834	1834	3828	2117	3822	2397	3809	2673	3806	2812
			23					4703	2099	4697	2381	4684	2660	4678	2799
	7	7	15	1203	1203	1448	1448	1710	1710	1970	1970	2221	2221	2345	2345
			17	1688	1283	1787	1602	1916	1916	2064	2064	2238	2238	2350	2350
			19	2595	1354	2595	1638	2586	1915	2612	2206	2672	2506	2706	2656
			21			3478	1663	3472	1944	3466	2223	3459	2501	3459	2641
			23					4372	1941	4365	2223	4353	2500	4353	2641
9	3	15	1362	1362	1510	1510	1752	1752	1991	1991	2227	2227	2345	2345	
		17	2002	1436	1993	1714	2013	1998	2075	2075	2234	2234	2350	2350	
		19	2759	1433	2753	1715	2747	1994	2739	2269	2732	2545	2736	2686	
		21			3556	1700	3547	1981	3541	2260	3534	2538	3528	2674	
		23					4415	1963	4406	2243	4397	2522	4390	2660	
	5	5	15	1119	1119	1366	1366	1622	1622	1873	1873	2118	2118	2238	2238
			17	1572	1228	1641	1531	1753	1753	1905	1905	2122	2122	2242	2242
			19	2401	1264	2397	1544	2393	1823	2406	2107	2453	2399	2487	2487
			21			3228	1547	3222	1828	3216	2105	3209	2382	3206	2519
			23					4103	1818	4097	2098	4084	2375	4084	2516
	7	7	15	846	846	1166	1166	1448	1448	1714	1714	1972	1972	2096	2096
			17	1018	945	1263	1263	1491	1491	1718	1718	1976	1976	2101	2101
			19	1830	1006	1843	1290	1916	1595	2028	1913	2161	2161	2234	2234
			21			2803	1356	2797	1634	2797	1913	2803	2194	2822	2341
			23					3728	1651	3722	1930	3715	2208	3709	2344

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL36	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V3	600	1	1
Speed V2	410	0,75	0,74
Speed V1 (Minimum)	300	0,60	0,58

COOLING CAPACITY - FCL36

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	1010	1010	1262	1262	1506	1506	1744	1744	1982	1982	2101	2101
		17	1379	1136	1428	1428	1536	1536	1748	1748	1987	1987	2105	2105
		19	2144	1146	2139	1425	2135	1701	2137	1981	2182	2182	2208	2208
		21			2947	1420	2941	1699	2934	1975	2928	2251	2925	2387
		23					3806	1686	3797	1964	3790	2242	3784	2379
	5	15	825	825	1105	1105	1368	1368	1622	1622	1869	1869	1991	1991
		17	949	915	1151	1151	1370	1370	1624	1624	1873	1873	1995	1995
		19	1692	946	1697	1226	1748	1521	1845	1828	1972	1972	2043	2043
		21			2569	1254	2565	1532	2565	1810	2565	2087	2577	2230
		23					3453	1532	3453	1813	3441	2087	3441	2226
	7	15	483	483	868	868	1177	1177	1454	1454	1718	1718	1847	1847
		17	484	484	872	872	1179	1179	1458	1458	1723	1723	1849	1849
		19	799	564	1104	952	1334	1306	1546	1546	1755	1755	1862	1862
		21			1997	1014	2002	1293	2062	1591	2156	1900	2212	2054
		23					3016	1349	3012	1627	3009	1903	3003	2038
13	3	15	752	752	1009	1009	1258	1258	1499	1499	1738	1738	1856	1856
		17	812	812	1012	1012	1261	1261	1501	1501	1742	1742	1860	1860
		19	1478	853	1473	1128	1510	1415	1598	1598	1746	1746	1864	1864
		21			2294	1137	2290	1414	2285	1687	2281	1961	2292	2103
		23					3153	1406	3150	1684	3141	1958	3137	2095
	5	15	511	511	833	833	1108	1108	1368	1368	1619	1619	1744	1744
		17	513	513	834	834	1110	1110	1370	1370	1624	1624	1748	1748
		19	803	568	1007	912	1203	1203	1398	1398	1626	1626	1750	1750
		21			1830	946	1830	1222	1869	1509	1950	1811	1997	1961
		23					2753	1243	2747	1518	2741	1791	2741	1929
	7	15	244	244	487	487	887	887	1186	1186	1460	1460	1592	1592
		17	244	244	487	487	887	887	1190	1190	1463	1463	1594	1594
		19	251	251	489	489	898	898	1192	1192	1465	1465	1598	1598
		21			928	590	1190	953	1409	1297	1611	1611	1705	1705
		23					2174	1017	2174	1292	2217	1582	2251	1731
15	3	15	481	481	753	753	1007	1007	1253	1253	1493	1493	1613	1613
		17	482	482	754	754	1009	1009	1256	1256	1497	1497	1615	1615
		19	702	527	849	842	1027	1027	1259	1259	1499	1499	1619	1619
		21			1581	846	1576	1117	1602	1400	1673	1673	1723	1723
		23					2455	1126	2453	1400	2444	1671	2442	1807
	5	15	195	195	528	528	839	839	1110	1110	1368	1368	1495	1495
		17	196	196	528	528	840	840	1113	1113	1370	1370	1497	1497
		19	197	197	533	533	842	842	1115	1115	1375	1375	1499	1499
		21			881	573	1070	906	1254	1234	1439	1439	1534	1534
		23					1967	940	1967	1212	1991	1494	2021	1640
	7	15	39	39	244	244	507	507	900	900	1194	1194	1332	1332
		17	39	39	244	244	507	507	902	902	1196	1196	1334	1334
		19	39	39	244	244	509	509	904	904	1198	1198	1336	1336
		21			253	253	524	524	930	930	1209	1209	1340	1340
		23					1044	604	1284	952	1491	1287	1589	1452

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B.[°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

FCL36	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V3	600	1	1
Speed V2	410	0,75	0,74
Speed V1 (Minimum)	300	0,60	0,58

COOLING CAPACITY - FCL42

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	3173	2662	3159	3029	3173	3173	3272	3272	3580	3580	3736	3736	
		17	4094	2648	4086	3022	4078	3391	4069	3758	4057	4057	4061	4061	
		19	5089	2627	5077	3002	5065	3373	5052	3742	5040	4105	5032	4287	
		21			6143	2973	6126	3346	6110	3714	6093	4082	6089	4265	
		23					7270	3308	7262	3685	7237	4051	7229	4235	
	5	5	15	2737	2420	2800	2800	2918	2918	3122	3122	3436	3436	3592	3592
			17	3711	2441	3703	2813	3691	3180	3707	3556	3748	3748	3790	3790
			19	4719	2430	4711	2805	4703	3177	4695	3548	4686	3913	4670	4091
			21			5789	2786	5772	3158	5764	3530	5752	3898	5748	4082
			23					6932	3131	6916	3502	6900	3871	6891	4055
	7	7	15	2194	2108	2398	2398	2622	2622	2924	2924	3252	3252	3416	3416
			17	3156	2152	3150	2523	3201	2911	3303	3303	3439	3439	3529	3529
			19	4275	2201	4267	2575	4259	2946	4242	3310	4250	3681	4259	3870
			21			5377	2576	5361	2946	5353	3316	5345	3686	5336	3866
			23					6538	2931	6529	3305	6513	3674	6505	3857
7	3	15	2463	2273	2497	2497	2633	2633	2947	2947	3258	3258	3411	3411	
		17	3391	2273	3382	2643	3371	3010	3368	3368	3428	3428	3473	3473	
		19	4382	2256	4374	2631	4365	3002	4349	3365	4345	3731	4333	3908	
		21			5435	2607	5419	2977	4349	3365	5394	3712	5390	3895	
		23					6562	2946	6554	3320	6538	3688	6529	3871	
	5	5	15	2033	2025	2211	2211	2469	2469	2794	2794	3114	3114	3269	3269
			17	2947	2046	2935	2413	2975	2795	3060	3060	3190	3190	3297	3297
			19	3975	2052	3966	2425	3962	2796	3950	3160	3946	3526	3954	3714
			21			5048	2414	5040	2787	5032	3156	5015	3520	5011	3702
			23					6192	2763	6184	3135	6167	3503	6159	3685
	7	7	15	1584	1584	1906	1906	2251	2251	2593	2593	2924	2924	3088	3088
			17	2223	1689	2353	2109	2523	2523	2718	2718	2947	2947	3094	3094
			19	3416	1782	3416	2157	3405	2521	3439	2905	3518	3299	3563	3497
			21			4579	2189	4571	2560	4563	2927	4555	3293	4555	3477
			23					5756	2556	5748	2927	5731	3292	5731	3478
9	3	15	1793	1793	1988	1988	2306	2306	2622	2622	2933	2933	3088	3088	
		17	2636	1891	2624	2256	2650	2631	2732	2732	2941	2941	3094	3094	
		19	3633	1886	3625	2258	3617	2625	3606	2988	3597	3351	3603	3537	
		21			4682	2239	4670	2608	4662	2975	4653	3342	4645	3520	
		23					5813	2585	5801	2954	5789	3321	5781	3503	
	5	5	15	1473	1473	1799	1799	2135	2135	2466	2466	2788	2788	2947	2947
			17	2070	1617	2161	2016	2308	2308	2508	2508	2794	2794	2952	2952
			19	3162	1664	3156	2033	3150	2401	3167	2775	3230	3159	3275	3275
			21			4250	2037	4242	2406	4234	2772	4226	3137	4222	3317
			23					5402	2394	5394	2763	5377	3127	5377	3313
	7	7	15	1114	1114	1536	1536	1906	1906	2257	2257	2596	2596	2760	2760
			17	1340	1244	1663	1663	1963	1963	2262	2262	2602	2602	2766	2766
			19	2409	1325	2426	1699	2523	2101	2670	2519	2845	2845	2941	2941
			21			3691	1785	3683	2152	3683	2519	3691	2889	3716	3082
			23					4908	2173	4900	2541	4892	2907	4884	3087

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL42	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V4	700	1	1
Speed V3	530	0,82	0,75
Speed V2	360	0,64	0,58
Speed V1 (Minimum)	260	0,50	0,44

COOLING CAPACITY - FCL42

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	1330	1330	1661	1661	1982	1982	2296	2296	2610	2610	2766	2766
		17	1815	1495	1881	1881	2022	2022	2302	2302	2616	2616	2771	2771
		19	2822	1508	2817	1876	2811	2240	2814	2608	2873	2873	2907	2907
		21			3880	1870	3872	2237	3864	2601	3855	2964	3851	3143
		23					5011	2219	4999	2585	4991	2952	4983	3132
	5	15	1086	1086	1455	1455	1801	1801	2135	2135	2460	2460	2622	2622
		17	1250	1205	1516	1516	1804	1804	2138	2138	2466	2466	2627	2627
		19	2228	1245	2234	1614	2302	2002	2429	2407	2596	2596	2689	2689
		21			3382	1651	3377	2017	3377	2383	3377	2748	3394	2937
		23					4546	2017	4546	2387	4530	2747	4530	2931
	7	15	636	636	1142	1142	1550	1550	1915	1915	2262	2262	2432	2432
		17	637	637	1148	1148	1552	1552	1920	1920	2268	2268	2435	2435
		19	1052	743	1454	1253	1756	1720	2036	2036	2310	2310	2452	2452
		21			2630	1335	2636	1703	2715	2094	2839	2501	2913	2704
		23					3971	1776	3966	2142	3962	2506	3954	2684
13	3	15	990	990	1329	1329	1656	1656	1974	1974	2288	2288	2443	2443
		17	1069	1069	1332	1332	1660	1660	1977	1977	2293	2293	2449	2449
		19	1946	1123	1940	1485	1988	1864	2104	2104	2299	2299	2455	2455
		21			3020	1497	3015	1862	3009	2222	3003	2582	3017	2768
		23					4152	1852	4147	2218	4135	2578	4131	2758
	5	15	673	673	1097	1097	1459	1459	1801	1801	2132	2132	2296	2296
		17	676	676	1099	1099	1462	1462	1804	1804	2138	2138	2302	2302
		19	1058	747	1326	1200	1584	1584	1841	1841	2141	2141	2305	2305
		21			2409	1245	2409	1610	2460	1987	2568	2384	2630	2582
		23					3625	1637	3617	1999	3609	2358	3609	2540
	7	15	321	321	641	641	1168	1168	1561	1561	1923	1923	2096	2096
		17	321	321	641	641	1168	1168	1567	1567	1926	1926	2098	2098
		19	331	331	644	644	1182	1182	1569	1569	1929	1929	2104	2104
		21			1222	777	1567	1254	1855	1708	2121	2121	2245	2245
		23					2862	1339	2862	1701	2918	2083	2964	2279
15	3	15	633	633	991	991	1326	1326	1650	1650	1965	1965	2124	2124
		17	634	634	993	993	1329	1329	1654	1654	1971	1971	2127	2127
		19	925	693	1118	1109	1352	1352	1657	1657	1974	1974	2132	2132
		21			2081	1114	2076	1471	2110	1844	2203	2203	2268	2268
		23					3232	1482	3230	1844	3218	2200	3215	2379
	5	15	257	257	695	695	1104	1104	1462	1462	1801	1801	1968	1968
		17	258	258	695	695	1106	1106	1465	1465	1804	1804	1971	1971
		19	259	259	701	701	1108	1108	1468	1468	1810	1810	1974	1974
		21			1159	754	1408	1193	1651	1624	1895	1895	2019	2019
		23					2590	1237	2590	1596	2622	1967	2661	2160
	7	15	51	51	321	321	667	667	1185	1185	1572	1572	1753	1753
		17	51	51	321	321	667	667	1188	1188	1575	1575	1756	1756
		19	51	51	321	321	670	670	1190	1190	1578	1578	1759	1759
		21			333	333	690	690	1224	1224	1592	1592	1765	1765
		23					1374	795	1691	1253	1963	1695	2093	1912

Tw [°C] = Inlet water temperature
 Ta W.B. [°C] = Inlet air temperature with wet bulb
 Ta D.B. [°C] = Inlet air temperature with dry bulb
 Pc [w] = Total Cooling capacity
 Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL42	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	700	1	1
Speed V3	530	0,82	0,75
Speed V2	360	0,64	0,58
Speed V1 (Minimum)	260	0,50	0,44

COOLING CAPACITY - FCL62

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	4000	3210	3983	3652	4000	4000	4125	4125	4514	4514	4710	4710	
		17	5162	3193	5151	3644	5141	4089	5130	4531	5115	4970	5120	5120	
		19	6417	3167	6401	3619	6386	4067	6370	4512	6354	4950	6344	5169	
		21			7744	3585	7724	4034	7703	4478	7682	4921	7677	5143	
		23					9165	3989	9155	4443	9124	4884	9114	5106	
	5	5	15	3451	2917	3530	3392	3680	3680	3936	3936	4332	4332	4528	4528
			17	4679	2943	4669	3392	4653	3834	4674	4288	4726	4726	4778	4778
			19	5950	2929	5939	3382	5929	3831	5919	4278	5908	4717	5888	4932
			21			7298	3359	7278	3807	7267	4256	7252	4700	7246	4921
			23					8740	3775	8719	4222	8699	4668	8688	4889
	7	7	15	2767	2541	3023	3023	3305	3305	3687	3687	4100	4100	4307	4307
			17	3979	2595	3972	3042	4036	3510	4164	3998	4336	4336	4450	4450
			19	5390	2654	5379	3105	5369	3552	5348	3991	5359	4439	5369	4665
			21			6780	3106	6759	3552	6749	3998	6738	4444	6728	4661
			23					8242	3534	8232	3985	8211	4429	8201	4650
7	3	15	3105	2741	3148	3148	3319	3319	3715	3715	4107	4107	4300	4300	
		17	4275	2740	4264	3187	4250	3629	4246	4070	4321	4321	4378	4378	
		19	5525	2721	5514	3172	5504	3619	5483	4057	5478	4498	5462	4712	
		21			6852	3143	6832	3589	6823	4057	6800	4475	6795	4696	
		23					8273	3552	8263	4003	8242	4447	8232	4667	
	5	5	15	2563	2442	2788	2788	3113	3113	3523	3523	3926	3926	4122	4122
			17	3715	2467	3701	2909	3751	3370	3858	3845	4022	4022	4157	4157
			19	5011	2474	5001	2923	4996	3371	4980	3810	4975	4251	4985	4478
			21			6365	2911	6354	3361	6344	3806	6323	4244	6318	4464
			23					7807	3332	7796	3780	7775	4223	7765	4443
	7	7	15	1997	1997	2403	2403	2838	2838	3269	3269	3687	3687	3893	3893
			17	2802	2036	2966	2543	3180	3057	3426	3426	3715	3715	3901	3901
			19	4307	2149	4307	2601	4293	3040	4336	3502	4435	3978	4492	4217
			21			5774	2639	5763	3087	5753	3529	5742	3970	5742	4192
			23					7257	3081	7246	3529	7226	3969	7226	4193
9	3	15	2260	2260	2506	2506	2908	2908	3305	3305	3697	3697	3893	3893	
		17	3323	2280	3309	2720	3341	3173	3444	3444	3708	3708	3901	3901	
		19	4581	2275	4570	2722	4560	3165	4546	3602	4535	4040	4542	4264	
		21			5903	2699	5888	3144	5877	3587	5867	4030	5856	4244	
		23					7329	3116	7314	3561	7298	4004	7288	4223	
	5	5	15	1857	1857	2268	2268	2692	2692	3109	3109	3516	3516	3715	3715
			17	2610	1949	2724	2430	2909	2909	3163	3163	3523	3523	3722	3722
			19	3986	2006	3979	2452	3972	2894	3993	3345	4072	3808	4129	4044
			21			5359	2456	5348	2901	5338	3342	5327	3782	5322	3999
			23					6811	2886	6800	3331	6780	3770	6780	3994
	7	7	15	1405	1405	1936	1936	2403	2403	2845	2845	3273	3273	3480	3480
			17	1690	1500	2096	2080	2474	2474	2852	2852	3280	3280	3487	3487
			19	3038	1597	3059	2049	3180	2533	3366	3037	3587	3540	3708	3708
			21			4653	2152	4643	2594	4643	3037	4653	3484	4684	3716
			23					6188	2620	6178	3063	6168	3505	6157	3722

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL62	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	880	1	1
Speed V3	660	0,79	0,74
Speed V2	500	0,64	0,60
Speed V1 (Minimum)	380	0,53	0,49

COOLING CAPACITY - FCL62

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	1677	1677	2095	2095	2499	2499	2895	2895	3291	3291	3487	3487
		17	2288	1803	2371	2270	2549	2549	2902	2902	3298	3298	3494	3494
		19	3558	1819	3551	2262	3544	2700	3548	3145	3622	3601	3665	3665
		21			4892	2254	4881	2697	4871	3136	4861	3573	4856	3789
		23					6318	2676	6303	3117	6292	3559	6282	3776
	5	15	1369	1369	1834	1834	2271	2271	2692	2692	3102	3102	3305	3305
		17	1576	1453	1911	1911	2275	2275	2695	2695	3109	3109	3312	3312
		19	2810	1502	2817	1946	2902	2414	3063	2902	3273	3273	3391	3391
		21			4264	1990	4257	2432	4257	2873	4257	3313	4279	3541
		23					5732	2432	5732	2878	5711	3313	5711	3534
	7	15	801	801	1440	1440	1954	1954	2414	2414	2852	2852	3066	3066
		17	803	803	1447	1447	1957	1957	2421	2421	2859	2859	3070	3070
		19	1326	896	1833	1511	2214	2073	2567	2567	2913	2913	3091	3091
		21			3316	1609	3323	2053	3423	2525	3580	3016	3672	3261
		23					5006	2142	5001	2582	4996	3021	4985	3236
13	3	15	1248	1248	1676	1676	2087	2087	2489	2489	2884	2884	3080	3080
		17	1348	1348	1679	1679	2093	2093	2492	2492	2892	2892	3088	3088
		19	2453	1355	2446	1790	2506	2247	2653	2653	2899	2899	3095	3095
		21			3808	1805	3801	2245	3794	2679	3786	3113	3804	3338
		23					5234	2232	5229	2674	5213	3109	5208	3325
	5	15	848	848	1383	1383	1840	1840	2271	2271	2688	2688	2895	2895
		17	852	852	1385	1385	1843	1843	2275	2275	2695	2695	2902	2902
		19	1333	901	1672	1447	1997	1979	2321	2321	2699	2699	2906	2906
		21			3038	1501	3038	1941	3102	2396	3237	2875	3316	3113
		23					4570	1974	4560	2410	4550	2844	4550	3062
	7	15	405	405	809	809	1472	1472	1968	1968	2424	2424	2642	2642
		17	405	405	809	809	1472	1472	1975	1975	2428	2428	2645	2645
		19	417	417	812	812	1490	1490	1979	1979	2432	2432	2653	2653
		21			1540	937	1975	1512	2339	2059	2674	2593	2831	2831
		23					3608	1615	3608	2051	3680	2512	3737	2748
15	3	15	798	798	1250	1250	1672	1672	2080	2080	2478	2478	2678	2678
		17	800	800	1251	1251	1676	1676	2086	2086	2485	2485	2681	2681
		19	1166	836	1410	1337	1704	1704	2089	2089	2489	2489	2688	2688
		21			2624	1343	2617	1774	2660	2223	2777	2688	2859	2859
		23					4075	1787	4072	2223	4057	2653	4054	2869
	5	15	324	324	877	877	1392	1392	1843	1843	2271	2271	2481	2481
		17	325	325	877	877	1394	1394	1847	1847	2275	2275	2485	2485
		19	326	326	884	884	1398	1398	1850	1850	2282	2282	2489	2489
		21			1462	910	1775	1438	2082	1959	2389	2389	2546	2546
		23					3266	1492	3266	1924	3305	2371	3355	2604
	7	15	64	64	405	405	841	841	1494	1494	1982	1982	2210	2210
		17	64	64	405	405	841	841	1497	1497	1986	1986	2214	2214
		19	64	64	405	405	844	844	1501	1501	1989	1989	2218	2218
		21			420	414	870	870	1544	1544	2007	2007	2225	2225
		23					1733	959	2132	1511	2474	2043	2638	2305

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL62	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	880	1	1
Speed V3	660	0,79	0,74
Speed V2	500	0,64	0,60
Speed V1 (Minimum)	380	0,53	0,49

COOLING CAPACITY - FCL72

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	4386	3454	4366	3930	4386	4386	4523	4523	4949	4949	5164	5164	
		17	5659	3436	5648	3922	5636	4400	5625	4876	5608	5348	5614	5586	
		19	7035	3408	7018	3895	7001	4377	6984	4855	6967	5326	6955	5563	
		21			8491	3858	8468	4341	8445	4819	8423	5296	8417	5534	
		23					10049	4292	10037	4781	10003	5256	9992	5495	
	5	5	15	3784	3139	3870	3650	4034	4034	4316	4316	4750	4750	4965	4965
			17	5130	3167	5119	3650	5102	4126	5125	4614	5181	5100	5238	5238
			19	6523	3152	6512	3640	6501	4122	6489	4603	6478	5076	6455	5308
			21			8002	3615	7979	4097	7968	4579	7951	5058	7945	5296
			23					9583	4063	9560	4544	9537	5023	9526	5261
	7	7	15	3033	2735	3315	3308	3624	3624	4042	4042	4495	4495	4722	4722
			17	4363	2792	4355	3273	4425	3777	4566	4302	4753	4753	4879	4879
			19	5909	2856	5898	3341	5886	3822	5864	4295	5875	4777	5886	5021
			21			7433	3343	7410	3822	7399	4303	7388	4782	7376	5016
			23					9037	3803	9025	4288	9003	4766	8991	5004
7	3	15	3405	2950	3452	3437	3639	3639	4073	4073	4503	4503	4714	4714	
		17	4687	2949	4675	3430	4660	3905	4656	4380	4738	4738	4800	4800	
		19	6057	2928	6046	3413	6034	3895	6012	4365	6006	4840	5989	5071	
		21			7513	3382	7490	3862	6012	4365	7456	4816	7450	5053	
		23					9071	3823	9059	4307	9037	4786	9025	5023	
	5	5	15	2811	2628	3057	3057	3413	3413	3862	3862	4304	4304	4519	4519
			17	4073	2655	4058	3131	4112	3627	4230	4138	4409	4409	4558	4558
			19	5494	2662	5483	3146	5477	3627	5460	4100	5454	4574	5466	4819
			21			6978	3132	6967	3617	6955	4095	6933	4567	6927	4803
			23					8559	3585	8548	4068	8525	4545	8514	4781
	7	7	15	2189	2189	2635	2635	3112	3112	3585	3585	4042	4042	4269	4269
			17	3072	2191	3252	2736	3487	3289	3757	3757	4073	4073	4277	4277
			19	4722	2313	4722	2798	4707	3271	4753	3769	4863	4281	4925	4538
			21			6330	2840	6319	3321	6307	3798	6296	4273	6296	4511
			23					7956	3316	7945	3797	7922	4271	7922	4513
9	3	15	2478	2465	2748	2748	3188	3188	3624	3624	4054	4054	4269	4269	
		17	3643	2454	3628	2927	3663	3414	3776	3776	4065	4065	4277	4277	
		19	5022	2448	5011	2929	4999	3406	4984	3877	4972	4348	4980	4589	
		21			6472	2905	6455	3384	6444	3861	6432	4336	6421	4567	
		23					8036	3354	8019	3832	8002	4309	7990	4544	
	5	5	15	2037	2037	2486	2486	2951	2951	3409	3409	3854	3854	4073	4073
			17	2861	2097	2986	2615	3190	3148	3467	3467	3862	3862	4081	4081
			19	4370	2159	4363	2638	4355	3115	4378	3600	4464	4098	4527	4352
			21			5875	2643	5864	3122	5852	3596	5841	4070	5835	4303
			23					7467	3106	7456	3585	7433	4057	7433	4298
	7	7	15	1540	1540	2123	2123	2635	2635	3119	3119	3589	3589	3815	3815
			17	1853	1615	2298	2238	2713	2713	3127	3127	3596	3596	3823	3823
			19	3331	1719	3354	2204	3487	2725	3690	3268	3933	3809	4065	4065
			21			5102	2316	5090	2792	5090	3268	5102	3749	5136	3999
			23					6785	2820	6774	3297	6762	3772	6751	4005

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL72	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V4	900	1	1
Speed V3	680	0,75	0,73
Speed V2	520	0,61	0,57
Speed V1 (Minimum)	400	0,51	0,46

COOLING CAPACITY - FCL72

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	1839	1839	2296	2296	2740	2740	3174	3174	3608	3608	3823	3823
		17	2509	1940	2599	2442	2795	2795	3182	3182	3616	3616	3831	3831
		19	3901	1957	3893	2434	3886	2906	3890	3384	3972	3875	4019	4019
		21			5363	2426	5352	2903	5341	3374	5329	3845	5324	4077
		23					6927	2879	6910	3354	6899	3830	6887	4064
	5	15	1501	1501	2011	2011	2490	2490	2951	2951	3401	3401	3624	3624
		17	1728	1563	2095	2095	2494	2494	2955	2955	3409	3409	3632	3632
		19	3080	1616	3088	2094	3182	2598	3358	3123	3589	3589	3718	3718
		21			4675	2142	4667	2618	4667	3092	4667	3565	4691	3810
		23					6285	2617	6285	3097	6262	3565	6262	3803
	7	15	879	879	1579	1579	2142	2142	2646	2646	3127	3127	3362	3362
		17	881	881	1587	1587	2146	2146	2654	2654	3135	3135	3366	3366
		19	1454	964	2009	1626	2427	2231	2814	2814	3194	3194	3389	3389
		21			3635	1732	3643	2209	3753	2718	3925	3245	4026	3509
		23					5488	2305	5483	2779	5477	3251	5466	3482
13	3	15	1368	1368	1837	1837	2289	2289	2728	2728	3162	3162	3377	3377
		17	1477	1452	1841	1841	2295	2295	2732	2732	3170	3170	3385	3385
		19	2689	1458	2682	1926	2748	2418	2908	2908	3178	3178	3393	3393
		21			4175	1942	4167	2416	4159	2883	4151	3350	4171	3592
		23					5739	2402	5733	2878	5716	3345	5710	3579
	5	15	930	930	1517	1517	2017	2017	2490	2490	2947	2947	3174	3174
		17	934	934	1519	1519	2021	2021	2494	2494	2955	2955	3182	3182
		19	1462	970	1833	1557	2189	2129	2545	2545	2959	2959	3186	3186
		21			3331	1616	3331	2088	3401	2578	3549	3093	3635	3350
		23					5011	2124	4999	2593	4988	3060	4988	3295
	7	15	444	444	887	887	1614	1614	2158	2158	2658	2658	2897	2897
		17	444	444	887	887	1614	1614	2166	2166	2662	2662	2900	2900
		19	458	453	890	890	1634	1634	2169	2169	2666	2666	2908	2908
		21			1689	1009	2166	1627	2564	2215	2932	2790	3104	3068
		23					3956	1738	3956	2207	4034	2703	4097	2957
15	3	15	875	875	1370	1370	1833	1833	2281	2281	2717	2717	2936	2936
		17	877	877	1372	1372	1837	1837	2287	2287	2725	2725	2940	2940
		19	1278	900	1546	1439	1868	1868	2291	2291	2728	2728	2947	2947
		21			2877	1445	2869	1909	2916	2392	3045	2892	3135	3135
		23					4468	1923	4464	2392	4449	2855	4445	3087
	5	15	355	355	961	961	1526	1526	2021	2021	2490	2490	2721	2721
		17	356	356	961	961	1528	1528	2025	2025	2494	2494	2725	2725
		19	358	358	969	969	1532	1532	2029	2029	2502	2502	2728	2728
		21			1603	979	1947	1547	2283	2108	2619	2619	2791	2791
		23					3581	1605	3581	2071	3624	2552	3678	2802
	7	15	70	70	444	444	922	922	1638	1638	2173	2173	2424	2424
		17	70	70	444	444	922	922	1642	1642	2177	2177	2427	2427
		19	70	70	444	444	926	926	1646	1646	2181	2181	2431	2431
		21			460	445	953	953	1693	1693	2201	2201	2439	2439
		23					1900	1032	2338	1626	2713	2199	2893	2481

Tw [°C] = Inlet water temperature
 Ta W.B. [°C] = Inlet air temperature with wet bulb
 Ta D.B. [°C] = Inlet air temperature with dry bulb
 Pc [w] = Total Cooling capacity
 Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL72	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	900	1	1
Speed V3	680	0,75	0,73
Speed V2	520	0,61	0,57
Speed V1 (Minimum)	400	0,51	0,46

COOLING CAPACITY - FCL82

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	4820	3538	4798	4026	4820	4516	4970	4970	5438	5438	5675	5675	
		17	6219	3520	6206	4017	6194	4507	6181	4995	6162	5479	6169	5722	
		19	7731	3492	7712	3990	7693	4483	7675	4974	7656	5456	7643	5699	
		21			9331	3952	9306	4447	9281	4936	9256	5425	9249	5669	
		23					11043	4397	11030	4898	10993	5384	10980	5629	
	5	5	15	4158	3216	4253	3739	4433	4267	4742	4742	5219	5219	5456	5456
			17	5638	3245	5625	3739	5606	4227	5631	4727	5694	5225	5756	5479
			19	7168	3229	7156	3729	7143	4223	7131	4716	7119	5200	7094	5437
			21			8793	3703	8768	4197	8756	4691	8737	5181	8731	5425
			23					10530	4162	10505	4655	10480	5146	10468	5390
	7	7	15	3333	2801	3643	3389	3982	3946	4442	4442	4940	4940	5189	5189
			17	4794	2860	4785	3353	4863	3869	5017	4407	5224	4945	5361	5217
			19	6494	2926	6481	3423	6469	3915	6444	4400	6456	4893	6469	5143
			21			8168	3424	8143	3916	8131	4408	8118	4899	8106	5139
			23					9930	3896	9918	4393	9893	4883	9880	5126
7	3	15	3742	3021	3793	3520	3999	3999	4476	4476	4949	4949	5181	5181	
		17	5151	3021	5138	3513	5121	4000	5116	4487	5206	4991	5275	5229	
		19	6656	2999	6644	3496	6631	3990	6606	4472	6600	4958	6581	5195	
		21			8256	3465	8231	3956	8206	4472	8193	4933	8187	5177	
		23					9968	3916	9955	4413	9930	4902	9918	5145	
	5	5	15	3089	2692	3359	3248	3750	3750	4244	4244	4730	4730	4966	4966
			17	4476	2719	4459	3207	4519	3715	4648	4238	4846	4756	5009	5009
			19	6037	2727	6025	3223	6019	3716	6000	4200	5994	4686	6006	4936
			21			7668	3209	7656	3705	7643	4195	7618	4678	7612	4920
			23					9405	3673	9393	4167	9368	4655	9356	4898
	7	7	15	2405	2291	2895	2895	3419	3419	3939	3939	4442	4442	4691	4691
			17	3376	2245	3574	2803	3832	3370	4128	3932	4476	4472	4700	4700
			19	5189	2369	5189	2867	5172	3351	5224	3861	5344	4385	5413	4648
			21			6956	2910	6944	3402	6931	3890	6919	4377	6919	4621
			23					8743	3397	8731	3890	8706	4375	8706	4623
9	3	15	2723	2525	3020	3020	3503	3503	3982	3982	4455	4455	4691	4691	
		17	4004	2513	3986	2999	4025	3497	4150	4005	4468	4468	4700	4700	
		19	5519	2507	5506	3001	5494	3489	5477	3971	5464	4454	5473	4701	
		21			7112	2976	7094	3466	7081	3955	7069	4442	7056	4679	
		23					8831	3435	8812	3926	8793	4414	8781	4655	
	5	5	15	2238	2206	2732	2732	3243	3243	3746	3746	4236	4236	4476	4476
			17	3144	2149	3282	2679	3505	3225	3810	3767	4244	4244	4485	4485
			19	4803	2211	4794	2703	4785	3191	4811	3688	4906	4198	4974	4458
			21			6456	2707	6444	3198	6431	3684	6419	4169	6412	4408
			23					8206	3181	8193	3672	8168	4156	8168	4403
	7	7	15	1692	1692	2332	2332	2895	2895	3428	3428	3943	3943	4193	4193
			17	2036	1654	2526	2292	2981	2896	3437	3437	3952	3952	4201	4201
			19	3660	1761	3686	2258	3832	2792	4055	3348	4321	3902	4468	4183
			21			5606	2373	5594	2860	5594	3348	5606	3840	5644	4096
			23					7456	2889	7443	3377	7431	3864	7418	4103

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL82	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	1100	1	1
Speed V3	830	0,80	0,79
Speed V2	680	0,68	0,66
Speed V1 (Minimum)	460	0,47	0,45

COOLING CAPACITY - FCL82

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	2021	2021	2524	2524	3011	3011	3488	3488	3965	3965	4201	4201
		17	2757	1988	2857	2502	3071	3023	3497	3497	3973	3973	4210	4210
		19	4287	2005	4279	2494	4270	2977	4274	3467	4364	3969	4416	4219
		21			5894	2485	5881	2973	5869	3457	5856	3939	5850	4177
		23					7612	2950	7593	3436	7581	3923	7568	4163
	5	15	1649	1649	2210	2210	2736	2736	3243	3243	3737	3737	3982	3982
		17	1899	1601	2302	2194	2741	2741	3247	3247	3746	3746	3991	3991
		19	3385	1655	3394	2145	3497	2661	3690	3199	3943	3740	4085	4005
		21			5138	2194	5129	2681	5129	3167	5129	3652	5155	3903
		23					6906	2681	6906	3172	6881	3652	6881	3895
	7	15	966	966	1735	1735	2354	2354	2908	2908	3437	3437	3694	3694
		17	968	968	1744	1744	2358	2358	2917	2917	3445	3445	3699	3699
		19	1598	988	2208	1665	2668	2286	3093	2883	3510	3452	3724	3724
		21			3995	1774	4004	2263	4124	2784	4313	3324	4425	3594
		23					6031	2361	6025	2846	6019	3331	6006	3567
13	3	15	1503	1503	2019	2019	2515	2515	2998	2998	3475	3475	3711	3711
		17	1624	1487	2023	2023	2521	2521	3003	3003	3484	3484	3720	3720
		19	2955	1493	2947	1973	3020	2477	3196	2995	3492	3492	3729	3729
		21			4588	1990	4579	2474	4571	2953	4562	3432	4584	3680
		23					6306	2461	6300	2948	6281	3427	6275	3666
	5	15	1022	1022	1667	1667	2216	2216	2736	2736	3239	3239	3488	3488
		17	1026	1026	1669	1669	2221	2221	2741	2741	3247	3247	3497	3497
		19	1606	993	2015	1595	2405	2181	2796	2745	3252	3252	3501	3501
		21			3660	1655	3660	2139	3737	2641	3900	3169	3995	3432
		23					5506	2176	5494	2657	5481	3135	5481	3376
	7	15	488	488	974	974	1774	1774	2371	2371	2921	2921	3183	3183
		17	488	488	974	974	1774	1774	2380	2380	2925	2925	3187	3187
		19	503	464	979	979	1795	1782	2384	2384	2930	2930	3196	3196
		21			1856	1033	2380	1667	2818	2270	3222	2858	3411	3143
		23					4347	1780	4347	2261	4433	2769	4502	3029
15	3	15	961	961	1505	1505	2015	2015	2506	2506	2985	2985	3226	3226
		17	963	963	1508	1508	2019	2019	2513	2513	2994	2994	3230	3230
		19	1405	922	1699	1474	2053	2025	2517	2517	2998	2998	3239	3239
		21			3162	1481	3153	1955	3205	2451	3346	2963	3445	3219
		23					4910	1970	4906	2451	4889	2925	4884	3162
	5	15	390	390	1056	1056	1677	1677	2221	2221	2736	2736	2990	2990
		17	391	391	1056	1056	1679	1679	2225	2225	2741	2741	2994	2994
		19	393	391	1065	1065	1684	1684	2229	2229	2749	2749	2998	2998
		21			1761	1003	2139	1585	2509	2159	2878	2721	3067	2997
		23					3935	1644	3935	2121	3982	2614	4042	2871
	7	15	77	77	488	488	1013	1013	1800	1800	2388	2388	2663	2663
		17	77	77	488	488	1013	1013	1804	1804	2393	2393	2668	2668
		19	77	77	488	488	1017	1017	1808	1808	2397	2397	2672	2672
		21			505	456	1048	1029	1860	1794	2418	2403	2680	2680
		23					2088	1057	2569	1666	2981	2253	3179	2541

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL82	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	1100	1	1
Speed V3	830	0,80	0,79
Speed V2	680	0,68	0,66
Speed V1 (Minimum)	460	0,47	0,45

COOLING CAPACITY - FCL102

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	7230	5611	7197	6383	7230	7161	7455	7455	8158	8158	8513	8513	
		17	9328	5582	9309	6370	9291	7147	9272	7920	9244	8688	9253	9074	
		19	11596	5537	11568	6326	11540	7109	11512	7887	11484	8652	11465	9036	
		21			13996	6267	13958	7052	13921	7827	13883	8602	13874	8990	
		23					16564	6973	16545	7766	16489	8537	16470	8926	
	5	5	15	6237	5100	6379	5929	6650	6650	7114	7114	7829	7829	8183	8183
			17	8456	5145	8438	5929	8410	6703	8447	7495	8541	8285	8634	8634
			19	10753	5121	10734	5912	10715	6697	10696	7478	10678	8246	10640	8622
			21			13190	5872	13152	6655	13133	7439	13105	8216	13096	8603
			23					15795	6600	15758	7381	15720	8159	15702	8546
	7	7	15	5000	4442	5464	5374	5973	5973	6663	6663	7410	7410	7784	7784
			17	7191	4536	7178	5317	7294	6135	7526	6989	7835	7835	8042	8042
			19	9740	4640	9722	5427	9703	6208	9665	6977	9684	7759	9703	8155
			21			12252	5430	12215	6209	12196	6989	12177	7768	12159	8148
			23					14896	6178	14877	6966	14839	7742	14821	8128
7	3	15	5612	4791	5690	5582	5999	5999	6714	6714	7423	7423	7771	7771	
		17	7726	4790	7707	5571	7681	6343	7674	7115	7810	7810	7913	7913	
		19	9984	4756	9965	5544	9947	6326	9909	7091	9900	7863	9872	8237	
		21			12384	5494	12346	6274	9909	7091	12290	7823	12281	8209	
		23					14952	6210	14933	6997	14896	7774	14877	8159	
	5	5	15	4633	4269	5039	5039	5625	5625	6366	6366	7094	7094	7449	7449
			17	6714	4312	6688	5085	6779	5891	6972	6721	7268	7268	7513	7513
			19	9056	4324	9037	5110	9028	5892	9000	6660	8991	7430	9009	7828
			21			11503	5088	11484	5875	11465	6652	11428	7418	11418	7802
			23					14108	5824	14090	6608	14052	7382	14033	7767
	7	7	15	3608	3608	4343	4343	5129	5129	5909	5909	6663	6663	7036	7036
			17	5065	3559	5361	4445	5748	5343	6192	6192	6714	6714	7049	7049
			19	7784	3757	7784	4546	7758	5314	7835	6122	8016	6954	8119	7371
			21			10434	4614	10415	5395	10397	6169	10378	6940	10378	7328
			23					13115	5387	13096	6168	13058	6938	13058	7330
9	3	15	4085	4004	4530	4530	5255	5255	5973	5973	6682	6682	7036	7036	
		17	6005	3985	5980	4755	6038	5546	6224	6224	6701	6701	7049	7049	
		19	8278	3976	8260	4758	8241	5532	8216	6297	8196	7063	8209	7454	
		21			10668	4719	10640	5497	10622	6271	10603	7044	10584	7419	
		23					13246	5447	13218	6225	13190	6999	13171	7382	
	5	5	15	3357	3357	4098	4098	4865	4865	5619	5619	6353	6353	6714	6714
			17	4717	3407	4923	4248	5258	5114	5715	5715	6366	6366	6727	6727
			19	7204	3507	7191	4286	7178	5060	7217	5848	7359	6657	7462	7069
			21			9684	4293	9665	5071	9647	5842	9628	6611	9619	6990
			23					12309	5045	12290	5823	12252	6591	12252	6982
	7	7	15	2539	2539	3499	3499	4343	4343	5142	5142	5915	5915	6289	6289
			17	3054	2623	3789	3635	4472	4472	5155	5155	5928	5928	6302	6302
			19	5490	2792	5528	3581	5748	4427	6083	5308	6482	6188	6701	6633
			21			8410	3762	8391	4535	8391	5309	8410	6090	8466	6495
			23					11184	4581	11165	5355	11146	6127	11128	6506

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL102	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V4	1350	1	1
Speed V3	1010	0,78	0,77
Speed V2	830	0,66	0,65
Speed V1 (Minimum)	560	0,45	0,44

COOLING CAPACITY - FCL102

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	3031	3031	3785	3785	4517	4517	5232	5232	5947	5947	6302	6302
		17	4136	3152	4285	3967	4607	4607	5245	5245	5960	5960	6315	6315
		19	6431	3179	6418	3954	6405	4720	6411	5497	6547	6294	6624	6624
		21			8841	3940	8822	4715	8803	5481	8784	6246	8775	6623
		23					11418	4677	11390	5449	11371	6221	11353	6601
	5	15	2474	2474	3315	3315	4104	4104	4865	4865	5606	5606	5973	5973
		17	2848	2539	3454	3454	4111	4111	4871	4871	5619	5619	5986	5986
		19	5077	2625	5090	3402	5245	4220	5535	5073	5915	5915	6128	6128
		21			7707	3479	7694	4252	7694	5022	7694	5791	7732	6190
		23					10359	4251	10359	5030	10322	5790	10322	6177
	7	15	1448	1448	2603	2603	3531	3531	4362	4362	5155	5155	5541	5541
		17	1452	1452	2616	2616	3537	3537	4375	4375	5168	5168	5548	5548
		19	2397	1566	3312	2641	4001	3624	4639	4572	5264	5264	5586	5586
		21			5992	2813	6005	3589	6186	4414	6469	5271	6637	5699
		23					9047	3744	9037	4514	9028	5281	9009	5656
13	3	15	2255	2255	3028	3028	3773	3773	4497	4497	5213	5213	5567	5567
		17	2435	2358	3035	3035	3782	3782	4504	4504	5226	5226	5580	5580
		19	4433	2368	4420	3129	4530	3928	4794	4750	5239	5239	5593	5593
		21			6882	3155	6869	3924	6856	4683	6843	5442	6875	5835
		23					9459	3902	9450	4674	9422	5434	9412	5813
	5	15	1533	1533	2500	2500	3325	3325	4104	4104	4858	4858	5232	5232
		17	1539	1539	2503	2503	3331	3331	4111	4111	4871	4871	5245	5245
		19	2410	1575	3022	2530	3608	3459	4195	4195	4878	4878	5251	5251
		21			5490	2624	5490	3392	5606	4188	5851	5025	5992	5442
		23					8260	3450	8241	4213	8222	4971	8222	5353
	7	15	731	731	1461	1461	2661	2661	3557	3557	4381	4381	4775	4775
		17	731	731	1461	1461	2661	2661	3570	3570	4388	4388	4781	4781
		19	754	736	1468	1468	2693	2693	3576	3576	4394	4394	4794	4794
		21			2783	1638	3570	2644	4227	3599	4833	4532	5116	4983
		23					6521	2823	6521	3585	6650	4390	6753	4803
15	3	15	1442	1442	2258	2258	3022	3022	3760	3760	4478	4478	4839	4839
		17	1445	1445	2261	2261	3028	3028	3769	3769	4491	4491	4845	4845
		19	2107	1461	2548	2337	3080	3080	3776	3776	4497	4497	4858	4858
		21			4742	2348	4729	3101	4807	3886	5019	4698	5168	5105
		23					7365	3124	7359	3886	7333	4638	7326	5014
	5	15	585	585	1585	1585	2516	2516	3331	3331	4104	4104	4485	4485
		17	587	587	1585	1585	2519	2519	3338	3338	4111	4111	4491	4491
		19	590	590	1598	1598	2526	2526	3344	3344	4124	4124	4497	4497
		21			2642	1590	3209	2513	3763	3424	4317	4315	4601	4601
		23					5902	2607	5902	3364	5973	4145	6063	4552
	7	15	116	116	731	731	1520	1520	2700	2700	3582	3582	3995	3995
		17	116	116	731	731	1520	1520	2706	2706	3589	3589	4001	4001
		19	116	116	731	731	1526	1526	2713	2713	3595	3595	4008	4008
		21			758	723	1572	1572	2790	2790	3628	3628	4021	4021
		23					3131	1676	3853	2641	4472	3572	4768	4030

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B.[°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL102	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	1350	1	1
Speed V3	1010	0,78	0,77
Speed V2	830	0,66	0,65
Speed V1 (Minimum)	560	0,45	0,44

COOLING CAPACITY - FCL122

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	8836	7135	8797	8118	8836	8836	9112	9112	9970	9970	10404	10404	
		17	11401	7099	11378	8101	11355	9089	11332	10073	11298	11049	11309	11309	
		19	14173	7041	14139	8046	14105	9041	14070	10030	14036	11004	14013	11492	
		21			17106	7970	17060	8968	17014	9955	16968	10940	16957	11433	
		23					20245	8867	20222	9877	20153	10857	20130	11351	
	5	5	15	7623	6485	7797	7540	8127	8127	8695	8695	9569	9569	10002	10002
			17	10336	6543	10313	7541	10278	8524	10324	9532	10439	10439	10553	10553
			19	13142	6512	13119	7519	13096	8516	13073	9510	13051	10487	13005	10965
			21			16121	7468	16075	8464	16052	9460	16018	10449	16006	10941
			23					19305	8393	19260	9387	19214	10377	19191	10869
	7	7	15	6111	5649	6678	6678	7300	7300	8143	8143	9057	9057	9514	9514
			17	8789	5768	8773	6762	8915	7802	9199	8888	9577	9577	9829	9829
			19	11905	5901	11882	6903	11859	7895	11813	8873	11836	9868	11859	10372
			21			14975	6905	14929	7896	14906	8889	14884	9880	14861	10363
			23					18206	7857	18183	8859	18137	9847	18114	10337
7	3	15	6859	6093	6954	6954	7332	7332	8206	8206	9073	9073	9498	9498	
		17	9443	6092	9419	7085	9388	8067	9380	9049	9545	9545	9671	9671	
		19	12203	6048	12180	7051	12157	8046	12111	9018	12100	9999	12065	10476	
		21			15136	6987	15090	7979	12111	9018	15021	9949	15010	10440	
		23					18274	7897	18252	8899	18206	9886	18183	10376	
	5	5	15	5662	5429	6158	6158	6875	6875	7781	7781	8671	8671	9104	9104
			17	8206	5484	8175	6467	8285	7492	8521	8521	8884	8884	9183	9183
			19	11069	5500	11046	6499	11034	7493	11000	8470	10989	9450	11011	9955
			21			14059	6471	14036	7471	14013	8460	13967	9434	13956	9923
			23					17243	7406	17221	8404	17175	9388	17152	9877
	7	7	15	4410	4410	5308	5308	6269	6269	7222	7222	8143	8143	8600	8600
			17	6190	4527	6552	5653	7025	6796	7568	7568	8206	8206	8616	8616
			19	9514	4777	9514	5781	9482	6758	9577	7786	9797	8843	9923	9374
			21			12753	5868	12730	6862	12707	7845	12684	8827	12684	9320
			23					16029	6850	16006	7845	15960	8824	15960	9322
9	3	15	4993	4993	5536	5536	6422	6422	7300	7300	8167	8167	8600	8600	
		17	7340	5069	7308	6048	7379	7053	7608	7608	8190	8190	8616	8616	
		19	10118	5056	10095	6051	10072	7035	10041	8008	10018	8982	10033	9480	
		21			13039	6001	13005	6990	12982	7975	12959	8958	12936	9436	
		23					16189	6928	16155	7917	16121	8902	16098	9388	
	5	5	15	4103	4103	5009	5009	5946	5946	6867	6867	7765	7765	8206	8206
			17	5765	4333	6017	5403	6426	6426	6985	6985	7781	7781	8222	8222
			19	8805	4460	8789	5450	8773	6435	8821	7437	8994	8466	9120	8990
			21			11836	5459	11813	6450	11790	7430	11768	8407	11756	8890
			23					15044	6416	15021	7405	14975	8382	14975	8879
	7	7	15	3103	3103	4276	4276	5308	5308	6285	6285	7230	7230	7686	7686
			17	3733	3336	4631	4623	5465	5465	6300	6300	7245	7245	7702	7702
			19	6710	3550	6757	4554	7025	5630	7434	6751	7923	7869	8190	8190
			21			10278	4785	10255	5767	10255	6752	10278	7745	10347	8261
			23					13669	5825	13646	6810	13623	7792	13600	8274

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL122	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	1750	1	1
Speed V3	1350	0,81	0,81
Speed V2	1100	0,68	0,68
Speed V1 (Minimum)	750	0,49	0,48

COOLING CAPACITY - FCL122

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	3705	3705	4627	4627	5521	5521	6395	6395	7269	7269	7702	7702
		17	5055	4008	5237	5045	5631	5631	6411	6411	7285	7285	7718	7718
		19	7860	4043	7844	5029	7828	6003	7836	6991	8001	8001	8096	8096
		21			10805	5011	10782	5996	10759	6971	10737	7943	10725	8423
		23					13956	5949	13921	6930	13898	7912	13875	8395
	5	15	3024	3024	4052	4052	5016	5016	5946	5946	6852	6852	7300	7300
		17	3481	3230	4221	4221	5024	5024	5954	5954	6867	6867	7316	7316
		19	6206	3338	6221	4326	6411	5367	6765	6452	7230	7230	7490	7490
		21			9419	4425	9403	5407	9403	6387	9403	7365	9451	7872
		23					12661	5406	12661	6398	12615	7364	12615	7856
	7	15	1770	1770	3181	3181	4316	4316	5332	5332	6300	6300	6773	6773
		17	1774	1774	3197	3197	4323	4323	5347	5347	6316	6316	6781	6781
		19	2929	1992	4048	3359	4890	4609	5670	5670	6434	6434	6828	6828
		21			7324	3578	7340	4564	7560	5614	7907	6704	8112	7248
		23					11057	4761	11046	5740	11034	6717	11011	7193
13	3	15	2756	2756	3701	3701	4611	4611	5497	5497	6371	6371	6804	6804
		17	2977	2977	3709	3709	4623	4623	5505	5505	6387	6387	6820	6820
		19	5418	3011	5402	3980	5536	4995	5859	5859	6403	6403	6836	6836
		21			8411	4013	8395	4990	8379	5955	8364	6921	8403	7421
		23					11561	4963	11550	5945	11516	6911	11504	7393
	5	15	1873	1873	3055	3055	4064	4064	5016	5016	5938	5938	6395	6395
		17	1881	1881	3059	3059	4071	4071	5024	5024	5954	5954	6411	6411
		19	2945	2003	3693	3218	4410	4398	5127	5127	5962	5962	6418	6418
		21			6710	3337	6710	4314	6852	5326	7151	6390	7324	6921
		23					10095	4388	10072	5358	10049	6321	10049	6807
	7	15	894	894	1786	1786	3252	3252	4347	4347	5355	5355	5836	5836
		17	894	894	1786	1786	3252	3252	4363	4363	5363	5363	5843	5843
		19	922	922	1794	1794	3292	3292	4371	4371	5371	5371	5859	5859
		21			3402	2083	4363	3362	5166	4577	5906	5764	6253	6253
		23					7970	3590	7970	4559	8127	5583	8253	6108
15	3	15	1762	1762	2760	2760	3693	3693	4595	4595	5473	5473	5914	5914
		17	1766	1766	2764	2764	3701	3701	4607	4607	5489	5489	5922	5922
		19	2575	1858	3114	2973	3764	3764	4615	4615	5497	5497	5938	5938
		21			5796	2986	5780	3944	5875	4942	6135	5975	6316	6316
		23					9002	3973	8994	4942	8962	5898	8954	6377
	5	15	716	716	1937	1937	3075	3075	4071	4071	5016	5016	5481	5481
		17	717	717	1937	1937	3079	3079	4079	4079	5024	5024	5489	5489
		19	721	721	1953	1953	3087	3087	4087	4087	5040	5040	5497	5497
		21			3229	2022	3922	3196	4599	4354	5276	5276	5623	5623
		23					7214	3316	7214	4278	7300	5272	7411	5789
	7	15	142	142	894	894	1857	1857	3300	3300	4379	4379	4883	4883
		17	142	142	894	894	1857	1857	3307	3307	4386	4386	4890	4890
		19	142	142	894	894	1865	1865	3315	3315	4394	4394	4898	4898
		21			927	920	1921	1921	3410	3410	4434	4434	4914	4914
		23					3827	2131	4709	3359	5465	4543	5828	5125

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B.[°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL122	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	1750	1	1
Speed V3	1350	0,81	0,81
Speed V2	1100	0,68	0,68
Speed V1 (Minimum)	750	0,49	0,48

COOLING CAPACITY - FCL34

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	1526	1281	1519	1457	1526	1526	1574	1574	1722	1722	1797	1797	
		17	1969	1274	1965	1454	1961	1631	1957	1808	1951	1951	1953	1953	
		19	2448	1264	2442	1444	2436	1623	2430	1800	2424	1975	2420	2062	
		21			2955	1430	2947	1609	2939	1786	2931	1963	2929	2052	
		23					3497	1591	3493	1773	3481	1948	3477	2037	
	5	5	15	1317	1164	1347	1347	1404	1404	1502	1502	1653	1653	1728	1728
			17	1785	1174	1781	1353	1775	1530	1783	1711	1803	1803	1823	1823
			19	2270	1169	2266	1349	2262	1528	2258	1707	2254	1882	2246	1968
			21			2784	1340	2777	1519	2773	1698	2767	1875	2765	1963
			23					3335	1506	3327	1684	3319	1862	3315	1951
	7	7	15	1056	1014	1154	1154	1261	1261	1407	1407	1564	1564	1643	1643
			17	1518	1035	1515	1213	1540	1400	1589	1589	1654	1654	1698	1698
			19	2056	1059	2052	1239	2048	1417	2040	1592	2044	1771	2048	1861
			21			2587	1239	2579	1417	2575	1595	2571	1773	2567	1860
			23					3145	1410	3141	1590	3133	1767	3129	1855
7	3	15	1185	1093	1201	1201	1266	1266	1417	1417	1567	1567	1641	1641	
		17	1631	1093	1627	1271	1621	1448	1620	1620	1649	1649	1670	1670	
		19	2108	1085	2104	1265	2100	1444	2092	1618	2090	1794	2084	1880	
		21			2614	1254	2606	1432	2092	1618	2595	1785	2593	1873	
		23					3156	1417	3153	1597	3145	1774	3141	1862	
	5	5	15	978	974	1064	1064	1188	1188	1344	1344	1498	1498	1573	1573
			17	1417	984	1412	1161	1431	1345	1472	1472	1534	1534	1586	1586
			19	1912	987	1908	1166	1906	1345	1900	1520	1898	1696	1902	1787
			21			2428	1161	2424	1341	2420	1518	2412	1693	2411	1781
			23					2978	1329	2974	1508	2967	1685	2963	1773
	7	7	15	762	762	917	917	1083	1083	1247	1247	1407	1407	1485	1485
			17	1069	812	1132	1014	1213	1213	1307	1307	1417	1417	1488	1488
			19	1643	857	1643	1037	1638	1213	1654	1397	1692	1587	1714	1682
			21			2203	1053	2199	1231	2195	1408	2191	1584	2191	1672
			23					2769	1229	2765	1408	2757	1583	2757	1673
9	3	15	862	862	956	956	1109	1109	1261	1261	1411	1411	1485	1485	
		17	1268	910	1262	1085	1275	1266	1314	1314	1415	1415	1488	1488	
		19	1748	907	1744	1086	1740	1263	1734	1437	1730	1612	1733	1701	
		21			2252	1077	2246	1254	2242	1431	2238	1608	2234	1693	
		23					2796	1243	2790	1421	2784	1597	2781	1685	
	5	5	15	709	709	865	865	1027	1027	1186	1186	1341	1341	1417	1417
			17	996	778	1039	970	1110	1110	1207	1207	1344	1344	1420	1420
			19	1521	800	1518	978	1515	1155	1524	1335	1553	1519	1575	1575
			21			2044	980	2040	1157	2037	1333	2033	1509	2031	1595
			23					2598	1151	2595	1329	2587	1504	2587	1593
	7	7	15	536	536	739	739	917	917	1086	1086	1249	1249	1328	1328
			17	645	599	800	800	944	944	1088	1088	1251	1251	1330	1330
			19	1159	637	1167	817	1213	1010	1284	1211	1368	1368	1415	1415
			21			1775	859	1771	1035	1771	1212	1775	1390	1787	1482
			23					2361	1045	2357	1222	2353	1398	2349	1485

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL34	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V3	600	1	1
Speed V2	410	0,77	0,82
Speed V1 (Minimum)	300	0,61	0,65

COOLING CAPACITY - FCL34

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	640	640	799	799	954	954	1105	1105	1256	1256	1330	1330
		17	873	719	905	905	973	973	1107	1107	1258	1258	1333	1333
		19	1358	726	1355	902	1352	1077	1353	1255	1382	1382	1398	1398
		21			1866	899	1862	1076	1858	1251	1854	1426	1853	1512
		23					2411	1068	2405	1244	2401	1420	2397	1506
	5	15	522	522	700	700	866	866	1027	1027	1183	1183	1261	1261
		17	601	580	729	729	868	868	1028	1028	1186	1186	1264	1264
		19	1072	599	1075	776	1107	963	1168	1158	1249	1249	1294	1294
		21			1627	794	1624	970	1624	1146	1624	1322	1632	1413
		23					2187	970	2187	1148	2179	1322	2179	1410
	7	15	306	306	550	550	745	745	921	921	1088	1088	1170	1170
		17	306	306	552	552	747	747	924	924	1091	1091	1171	1171
		19	506	357	699	603	845	827	979	979	1111	1111	1179	1179
		21			1265	642	1268	819	1306	1007	1366	1203	1401	1301
		23					1910	854	1908	1030	1906	1205	1902	1291
13	3	15	476	476	639	639	796	796	949	949	1100	1100	1175	1175
		17	514	514	641	641	798	798	951	951	1103	1103	1178	1178
		19	936	540	933	714	956	896	1012	1012	1106	1106	1181	1181
		21			1453	720	1450	896	1447	1069	1445	1242	1451	1332
		23					1997	891	1995	1067	1989	1240	1987	1327
	5	15	324	324	528	528	702	702	866	866	1026	1026	1105	1105
		17	325	325	528	528	703	703	868	868	1028	1028	1107	1107
		19	509	359	638	577	762	762	886	886	1030	1030	1109	1109
		21			1159	599	1159	774	1183	956	1235	1147	1265	1242
		23					1744	787	1740	961	1736	1134	1736	1222
	7	15	154	154	308	308	562	562	751	751	925	925	1008	1008
		17	154	154	308	308	562	562	754	754	926	926	1009	1009
		19	159	159	310	310	569	569	755	755	928	928	1012	1012
		21			588	374	754	603	892	821	1020	1020	1080	1080
		23					1377	644	1377	818	1404	1002	1426	1096
15	3	15	304	304	477	477	638	638	794	794	945	945	1022	1022
		17	305	305	477	477	639	639	796	796	948	948	1023	1023
		19	445	334	538	533	650	650	797	797	949	949	1026	1026
		21			1001	536	998	708	1015	887	1060	1060	1091	1091
		23					1555	713	1553	887	1548	1058	1547	1144
	5	15	124	124	335	335	531	531	703	703	866	866	947	947
		17	124	124	335	335	532	532	705	705	868	868	948	948
		19	125	125	337	337	533	533	706	706	871	871	949	949
		21			558	363	677	574	794	781	911	911	971	971
		23					1246	595	1246	768	1261	946	1280	1039
	7	15	25	25	154	154	321	321	570	570	756	756	843	843
		17	25	25	154	154	321	321	571	571	758	758	845	845
		19	25	25	154	154	322	322	573	573	759	759	846	846
		21			160	160	332	332	589	589	766	766	849	849
		23					661	383	813	603	944	815	1007	920

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B.[°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

FCL34	Qv [m³/h]	k (Pc)	k (Ps)
Speed V3	600	1	1
Speed V2	410	0,77	0,82
Speed V1 (Minimum)	300	0,61	0,65

COOLING CAPACITY - FCL38

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	2225	1887	2215	2147	2225	2225	2295	2295	2511	2511	2620	2620	
		17	2871	1877	2865	2142	2859	2404	2854	2664	2845	2845	2848	2848	
		19	3569	1862	3560	2128	3552	2391	3543	2653	3534	2910	3529	3039	
		21			4308	2108	4296	2372	4285	2633	4273	2893	4270	3024	
		23					5098	2345	5092	2612	5075	2871	5069	3002	
	5	5	15	1920	1715	1963	1963	2047	2047	2189	2189	2410	2410	2519	2519
			17	2603	1730	2597	1994	2588	2254	2600	2521	2629	2629	2657	2657
			19	3309	1722	3304	1989	3298	2252	3292	2515	3286	2773	3275	2900
			21			4059	1975	4048	2238	4042	2502	4034	2763	4031	2893
			23					4861	2220	4850	2482	4838	2744	4833	2874
	7	7	15	1539	1494	1682	1682	1838	1838	2051	2051	2281	2281	2396	2396
			17	2213	1525	2209	1788	2245	2063	2316	2316	2412	2412	2475	2475
			19	2998	1561	2992	1825	2986	2088	2975	2346	2981	2610	2986	2743
			21			3771	1826	3759	2088	3754	2351	3748	2613	3742	2741
			23					4585	2078	4579	2343	4567	2604	4561	2734
7	3	15	1727	1611	1751	1751	1846	1846	2066	2066	2285	2285	2392	2392	
		17	2378	1611	2372	1874	2364	2133	2362	2362	2404	2404	2435	2435	
		19	3073	1600	3067	1865	3061	2128	3050	2385	3047	2644	3038	2770	
		21			3811	1848	3800	2110	3050	2385	3783	2631	3780	2761	
		23					4602	2089	4596	2353	4585	2615	4579	2744	
	5	5	15	1426	1426	1551	1551	1731	1731	1959	1959	2183	2183	2293	2293
			17	2066	1450	2059	1710	2086	1981	2146	2146	2237	2237	2312	2312
			19	2787	1454	2782	1719	2779	1982	2770	2240	2767	2499	2773	2633
			21			3540	1711	3534	1976	3529	2237	3517	2495	3514	2624
			23					4342	1959	4336	2223	4325	2483	4319	2612
	7	7	15	1111	1111	1337	1337	1579	1579	1819	1819	2051	2051	2166	2166
			17	1559	1197	1650	1495	1769	1769	1906	1906	2066	2066	2170	2170
			19	2396	1263	2396	1529	2388	1787	2412	2059	2467	2339	2499	2479
			21			3211	1552	3206	1815	3200	2075	3194	2334	3194	2465
			23					4036	1812	4031	2075	4019	2334	4019	2465
9	3	15	1257	1257	1394	1394	1617	1617	1838	1838	2057	2057	2166	2166	
		17	1848	1340	1840	1599	1858	1858	1916	1916	2063	2063	2170	2170	
		19	2548	1337	2542	1600	2536	1861	2529	2118	2523	2375	2527	2507	
		21			3283	1587	3275	1849	3269	2109	3263	2369	3258	2495	
		23					4077	1832	4068	2094	4059	2354	4054	2483	
	5	5	15	1033	1033	1261	1261	1497	1497	1729	1729	1955	1955	2066	2066
			17	1452	1146	1515	1429	1618	1618	1759	1759	1959	1959	2070	2070
			19	2217	1179	2213	1441	2209	1702	2221	1967	2265	2239	2297	2297
			21			2981	1444	2975	1706	2969	1965	2963	2223	2960	2351
			23					3788	1697	3783	1958	3771	2217	3771	2348
	7	7	15	781	781	1077	1077	1337	1337	1583	1583	1821	1821	1936	1936
			17	940	882	1166	1166	1376	1376	1587	1587	1825	1825	1940	1940
			19	1690	939	1702	1204	1769	1489	1872	1785	1995	1995	2063	2063
			21			2588	1265	2582	1525	2582	1786	2588	2048	2606	2185
			23					3442	1541	3436	1801	3431	2061	3425	2188

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL38	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V3	600	1	1
Speed V2	410	0,75	0,74
Speed V1 (Minimum)	300	0,60	0,58

COOLING CAPACITY - FCL38

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	933	933	1165	1165	1390	1390	1610	1610	1830	1830	1940	1940
		17	1273	1060	1319	1319	1418	1418	1614	1614	1834	1834	1944	1944
		19	1979	1069	1975	1330	1971	1588	1973	1849	2015	2015	2039	2039
		21			2721	1325	2715	1586	2709	1844	2704	2101	2701	2228
		23					3514	1573	3506	1833	3500	2092	3494	2220
	5	15	761	761	1020	1020	1263	1263	1497	1497	1725	1725	1838	1838
		17	877	854	1063	1063	1265	1265	1499	1499	1729	1729	1842	1842
		19	1563	883	1567	1144	1614	1419	1704	1704	1821	1821	1886	1886
		21			2372	1170	2368	1430	2368	1689	2368	1948	2380	2082
		23					3188	1430	3188	1692	3177	1948	3177	2077
	7	15	446	446	801	801	1087	1087	1343	1343	1587	1587	1706	1706
		17	447	447	805	805	1089	1089	1347	1347	1590	1590	1707	1707
		19	738	527	1019	888	1232	1219	1428	1428	1620	1620	1719	1719
		21			1844	946	1848	1207	1904	1485	1991	1773	2043	1917
		23					2784	1259	2782	1518	2779	1776	2773	1902
13	3	15	694	694	932	932	1161	1161	1384	1384	1604	1604	1713	1713
		17	750	750	934	934	1164	1164	1386	1386	1608	1608	1717	1717
		19	1364	796	1360	1052	1394	1321	1475	1475	1612	1612	1721	1721
		21			2118	1061	2114	1320	2110	1575	2106	1830	2116	1962
		23					2911	1312	2908	1572	2900	1828	2897	1955
	5	15	472	472	769	769	1023	1023	1263	1263	1495	1495	1610	1610
		17	474	474	770	770	1025	1025	1265	1265	1499	1499	1614	1614
		19	742	530	930	851	1111	1111	1291	1291	1501	1501	1616	1616
		21			1690	883	1690	1141	1725	1409	1801	1690	1844	1830
		23					2542	1160	2536	1417	2531	1672	2531	1800
	7	15	225	225	450	450	819	819	1095	1095	1349	1349	1470	1470
		17	225	225	450	450	819	819	1099	1099	1351	1351	1471	1471
		19	232	232	452	452	829	829	1101	1101	1352	1352	1475	1475
		21			857	551	1099	889	1301	1210	1487	1487	1575	1575
		23					2007	949	2007	1206	2047	1477	2078	1615
15	3	15	444	444	695	695	930	930	1157	1157	1378	1378	1489	1489
		17	445	445	696	696	932	932	1160	1160	1382	1382	1491	1491
		19	648	492	784	784	948	948	1162	1162	1384	1384	1495	1495
		21			1460	790	1456	1043	1479	1307	1545	1545	1590	1590
		23					2267	1051	2265	1307	2257	1560	2255	1686
	5	15	180	180	488	488	774	774	1025	1025	1263	1263	1380	1380
		17	181	181	488	488	775	775	1027	1027	1265	1265	1382	1382
		19	182	182	492	492	777	777	1029	1029	1269	1269	1384	1384
		21			813	535	988	845	1158	1152	1329	1329	1416	1416
		23					1817	877	1817	1131	1838	1394	1866	1531
	7	15	36	36	225	225	468	468	831	831	1103	1103	1230	1230
		17	36	36	225	225	468	468	833	833	1105	1105	1232	1232
		19	36	36	225	225	470	470	835	835	1107	1107	1233	1233
		21			233	233	484	484	859	859	1116	1116	1237	1237
		23					964	564	1186	888	1376	1201	1468	1355

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

FCL38	Qv [m³/h]	k (Pc)	k (Ps)
Speed V3	600	1	1
Speed V2	410	0,75	0,74
Speed V1 (Minimum)	300	0,60	0,58

COOLING CAPACITY - FCL44

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	2932	2460	2919	2799	2932	2932	3024	3024	3308	3308	3452	3452	
		17	3783	2447	3775	2793	3768	3133	3760	3473	3749	3749	3753	3753	
		19	4703	2427	4692	2774	4680	3117	4669	3458	4657	3793	4650	3962	
		21			5676	2748	5661	3092	5646	3432	5630	3772	5627	3942	
		23					6718	3057	6710	3405	6687	3743	6680	3913	
	5	5	15	2530	2236	2587	2587	2697	2697	2885	2885	3175	3175	3319	3319
			17	3430	2256	3422	2600	3411	2939	3426	3286	3464	3464	3502	3502
			19	4361	2245	4353	2592	4346	2936	4338	3278	4330	3615	4315	3780
			21			5349	2575	5334	2918	5326	3261	5315	3602	5311	3772
			23					6406	2894	6391	3236	6375	3577	6368	3747
	7	7	15	2028	1948	2216	2216	2422	2422	2702	2702	3005	3005	3157	3157
			17	2916	1989	2911	2331	2958	2690	3052	3052	3178	3178	3261	3261
			19	3950	2034	3943	2380	3935	2722	3920	3059	3927	3402	3935	3576
			21			4969	2381	4954	2722	4946	3064	4939	3406	4931	3573
			23					6041	2709	6033	3054	6018	3395	6011	3564
7	3	15	2276	2101	2307	2307	2433	2433	2723	2723	3010	3010	3152	3152	
		17	3133	2100	3125	2443	3115	2781	3112	3112	3167	3167	3209	3209	
		19	4049	2085	4042	2431	4034	2774	4019	3109	4015	3447	4004	3612	
		21			5022	2409	5007	2751	4019	3109	4984	3430	4980	3599	
		23					6064	2723	6056	3068	6041	3408	6033	3577	
	5	5	15	1879	1872	2043	2043	2281	2281	2582	2582	2877	2877	3021	3021
			17	2723	1891	2713	2230	2749	2583	2828	2828	2948	2948	3047	3047
			19	3673	1896	3665	2240	3661	2583	3650	2920	3646	3258	3654	3432
			21			4665	2231	4657	2576	4650	2917	4635	3252	4631	3421
			23					5722	2553	5714	2897	5699	3237	5691	3405
	7	7	15	1463	1463	1761	1761	2080	2080	2396	2396	2702	2702	2854	2854
			17	2054	1561	2174	1949	2331	2331	2511	2511	2723	2723	2859	2859
			19	3157	1647	3157	1993	3146	2330	3178	2684	3251	3049	3293	3232
			21			4232	2023	4224	2366	4216	2705	4209	3043	4209	3213
			23					5319	2362	5311	2704	5296	3042	5296	3214
9	3	15	1657	1657	1837	1837	2131	2131	2422	2422	2710	2710	2854	2854	
		17	2436	1747	2425	2085	2449	2431	2524	2524	2718	2718	2859	2859	
		19	3357	1743	3350	2086	3342	2425	3332	2761	3324	3097	3329	3268	
		21			4327	2069	4315	2410	4308	2749	4300	3088	4292	3253	
		23					5372	2388	5361	2729	5349	3069	5342	3237	
	5	5	15	1361	1361	1662	1662	1973	1973	2279	2279	2577	2577	2723	2723
			17	1913	1494	1996	1863	2132	2132	2318	2318	2582	2582	2728	2728
			19	2922	1538	2916	1879	2911	2218	2927	2564	2984	2919	3026	3026
			21			3927	1882	3920	2224	3912	2561	3905	2898	3901	3065
			23					4992	2212	4984	2553	4969	2890	4969	3061
	7	7	15	1030	1030	1419	1419	1761	1761	2085	2085	2399	2399	2550	2550
			17	1239	1150	1537	1537	1814	1814	2091	2091	2404	2404	2556	2556
			19	2226	1224	2242	1570	2331	1941	2467	2327	2629	2629	2718	2718
			21			3411	1650	3403	1988	3403	2328	3411	2670	3433	2848
			23					4536	2008	4528	2348	4520	2686	4513	2852

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL44	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V4	700	1	1
Speed V3	530	0,82	0,75
Speed V2	360	0,64	0,58
Speed V1 (Minimum)	260	0,50	0,43

COOLING CAPACITY - FCL44

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	1229	1229	1535	1535	1832	1832	2122	2122	2412	2412	2556	2556
		17	1677	1382	1738	1738	1868	1868	2127	2127	2417	2417	2561	2561
		19	2608	1394	2603	1734	2598	2070	2600	2410	2655	2655	2686	2686
		21			3585	1728	3578	2067	3570	2403	3563	2738	3559	2904
		23					4631	2051	4619	2389	4612	2728	4604	2894
	5	15	1003	1003	1344	1344	1665	1665	1973	1973	2273	2273	2422	2422
		17	1155	1113	1401	1401	1667	1667	1976	1976	2279	2279	2428	2428
		19	2059	1151	2064	1492	2127	1850	2245	2224	2399	2399	2485	2485
		21			3125	1525	3120	1864	3120	2202	3120	2539	3136	2714
		23					4201	1864	4201	2206	4186	2539	4186	2708
	7	15	587	587	1056	1056	1432	1432	1769	1769	2091	2091	2247	2247
		17	589	589	1061	1061	1435	1435	1774	1774	2096	2096	2250	2250
		19	972	687	1343	1158	1623	1589	1881	1881	2135	2135	2266	2266
		21			2430	1233	2436	1573	2509	1935	2624	2311	2692	2499
		23					3669	1641	3665	1979	3661	2316	3654	2480
13	3	15	915	915	1228	1228	1530	1530	1824	1824	2114	2114	2258	2258
		17	988	988	1231	1231	1534	1534	1827	1827	2119	2119	2263	2263
		19	1798	1038	1793	1372	1837	1722	1944	1944	2125	2125	2268	2268
		21			2791	1383	2786	1720	2780	2053	2775	2386	2788	2558
		23					3836	1711	3832	2049	3821	2382	3817	2549
	5	15	622	622	1014	1014	1348	1348	1665	1665	1970	1970	2122	2122
		17	624	624	1015	1015	1351	1351	1667	1667	1976	1976	2127	2127
		19	977	691	1226	1109	1463	1463	1701	1701	1978	1978	2130	2130
		21			2226	1151	2226	1487	2273	1836	2373	2203	2430	2386
		23					3350	1513	3342	1847	3334	2179	3334	2347
	7	15	297	297	593	593	1079	1079	1442	1442	1777	1777	1936	1936
		17	297	297	593	593	1079	1079	1448	1448	1780	1780	1939	1939
		19	306	306	595	595	1092	1092	1450	1450	1782	1782	1944	1944
		21			1129	718	1448	1159	1714	1578	1960	1960	2075	2075
		23					2645	1238	2645	1572	2697	1925	2739	2106
15	3	15	585	585	916	916	1226	1226	1525	1525	1816	1816	1962	1962
		17	586	586	917	917	1228	1228	1529	1529	1821	1821	1965	1965
		19	854	641	1033	1025	1249	1249	1531	1531	1824	1824	1970	1970
		21			1923	1029	1918	1360	1949	1704	2036	2036	2096	2096
		23					2987	1370	2984	1704	2974	2033	2971	2198
	5	15	237	237	643	643	1020	1020	1351	1351	1665	1665	1819	1819
		17	238	238	643	643	1022	1022	1354	1354	1667	1667	1821	1821
		19	239	239	648	648	1024	1024	1356	1356	1672	1672	1824	1824
		21			1071	697	1301	1102	1526	1501	1751	1751	1866	1866
		23					2394	1143	2394	1475	2422	1817	2459	1996
	7	15	47	47	297	297	616	616	1095	1095	1453	1453	1620	1620
		17	47	47	297	297	616	616	1097	1097	1455	1455	1623	1623
		19	47	47	297	297	619	619	1100	1100	1458	1458	1625	1625
		21			308	308	637	637	1131	1131	1471	1471	1631	1631
		23					1270	735	1563	1158	1814	1566	1934	1767

Tw [°C] = Inlet water temperature
 Ta W.B. [°C] = Inlet air temperature with wet bulb
 Ta D.B. [°C] = Inlet air temperature with dry bulb
 Pc [w] = Total Cooling capacity
 Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL44	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	700	1	1
Speed V3	530	0,82	0,75
Speed V2	360	0,64	0,58
Speed V1 (Minimum)	260	0,50	0,43

COOLING CAPACITY - FCL64

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	3703	2974	3687	3383	3703	3703	3819	3819	4179	4179	4360	4360	
		17	4778	2958	4768	3376	4759	3788	4749	4198	4735	4605	4740	4740	
		19	5940	2935	5925	3353	5911	3768	5897	4180	5882	4586	5873	4789	
		21			7169	3322	7150	3738	7131	4149	7111	4559	7107	4765	
		23					8484	3696	8475	4116	8446	4525	8436	4731	
	5	5	15	3195	2703	3268	3142	3406	3406	3644	3644	4010	4010	4192	4192
			17	4332	2727	4322	3143	4308	3553	4327	3973	4375	4375	4423	4423
			19	5508	2714	5498	3134	5489	3549	5479	3963	5469	4371	5450	4570
			21			6756	3112	6737	3527	6727	3943	6713	4355	6708	4560
			23					8091	3498	8072	3912	8052	4325	8043	4530
	7	7	15	2561	2354	2799	2799	3060	3060	3413	3413	3796	3796	3987	3987
			17	3683	2404	3677	2818	3736	3252	3855	3704	4013	4013	4119	4119
			19	4989	2459	4980	2877	4970	3291	4951	3698	4960	4113	4970	4323
			21			6276	2878	6257	3291	6247	3705	6238	4118	6228	4319
			23					7630	3274	7620	3692	7601	4104	7591	4308
7	3	15	2875	2539	2914	2914	3073	3073	3439	3439	3802	3802	3980	3980	
		17	3957	2539	3947	2953	3934	3362	3931	3771	4000	4000	4053	4053	
		19	5114	2521	5105	2939	5095	3353	5076	3758	5071	4167	5056	4366	
		21			6343	2912	6324	3325	6295	3758	6295	4146	6290	4351	
		23					7659	3291	7649	3709	7630	4120	7620	4324	
	5	5	15	2373	2262	2581	2581	2881	2881	3261	3261	3634	3634	3815	3815
			17	3439	2285	3426	2695	3472	3123	3571	3562	3723	3723	3848	3848
			19	4639	2292	4629	2709	4624	3123	4610	3530	4605	3938	4615	4149
			21			5892	2697	5882	3114	5873	3526	5853	3932	5849	4135
			23					7227	3087	7217	3503	7198	3913	7188	4117
	7	7	15	1848	1848	2224	2224	2627	2627	3027	3027	3413	3413	3604	3604
			17	2594	1887	2746	2356	2944	2832	3172	3172	3439	3439	3611	3611
			19	3987	1991	3987	2409	3974	2817	4013	3245	4106	3686	4159	3907
			21			5345	2445	5335	2860	5325	3270	5316	3679	5316	3884
			23					6718	2855	6708	3269	6689	3677	6689	3885
9	3	15	2092	2092	2320	2320	2692	2692	3060	3060	3423	3423	3604	3604	
		17	3076	2112	3063	2520	3093	2939	3188	3188	3433	3433	3611	3611	
		19	4240	2107	4231	2522	4221	2932	4208	3338	4198	3743	4205	3951	
		21			5465	2501	5450	2913	5441	3324	5431	3734	5421	3932	
		23					6785	2887	6770	3299	6756	3710	6746	3913	
	5	5	15	1719	1719	2099	2099	2492	2492	2878	2878	3254	3254	3439	3439
			17	2416	1806	2522	2252	2693	2693	2928	2928	3261	3261	3446	3446
			19	3690	1859	3683	2272	3677	2682	3697	3100	3769	3528	3822	3747
			21			4960	2275	4951	2688	4941	3096	4932	3504	4927	3705
			23					6305	2674	6295	3086	6276	3493	6276	3701
	7	7	15	1300	1300	1792	1792	2224	2224	2634	2634	3030	3030	3221	3221
			17	1564	1390	1941	1927	2291	2291	2640	2640	3036	3036	3228	3228
			19	2812	1480	2832	1898	2944	2347	3116	2814	3320	3280	3433	3433
			21			4308	1994	4298	2404	4298	2814	4308	3228	4336	3443
			23					5729	2428	5719	2838	5709	3248	5700	3448

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL64	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V4	880	1	1
Speed V3	660	0,79	0,74
Speed V2	500	0,64	0,59
Speed V1 (Minimum)	380	0,53	0,49

COOLING CAPACITY - FCL64

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	1553	1553	1939	1939	2314	2314	2680	2680	3046	3046	3228	3228
		17	2118	1671	2195	2103	2360	2360	2687	2687	3053	3053	3235	3235
		19	3294	1685	3287	2096	3281	2502	3284	2914	3353	3336	3393	3393
		21			4528	2088	4519	2499	4509	2905	4500	3311	4495	3511
		23					5849	2479	5834	2888	5825	3297	5815	3499
	5	15	1267	1267	1698	1698	2102	2102	2492	2492	2871	2871	3060	3060
		17	1459	1346	1769	1769	2106	2106	2495	2495	2878	2878	3066	3066
		19	2601	1391	2607	1803	2687	2237	2835	2689	3030	3030	3139	3139
		21			3947	1844	3941	2254	3941	2662	3941	3070	3961	3281
		23					5306	2253	5306	2666	5287	3069	5287	3274
	7	15	742	742	1333	1333	1809	1809	2234	2234	2640	2640	2838	2838
		17	744	744	1340	1340	1812	1812	2241	2241	2647	2647	2842	2842
		19	1228	830	1696	1400	2050	1921	2376	2376	2696	2696	2862	2862
		21			3069	1491	3076	1902	3168	2340	3314	2794	3400	3021
		23					4634	1984	4629	2392	4624	2799	4615	2998
13	3	15	1155	1155	1551	1551	1932	1932	2304	2304	2670	2670	2852	2852
		17	1247	1247	1554	1554	1937	1937	2307	2307	2677	2677	2858	2858
		19	2271	1255	2264	1659	2320	2082	2456	2456	2683	2683	2865	2865
		21			3525	1672	3518	2080	3512	2482	3505	2884	3522	3093
		23					4845	2068	4840	2478	4826	2880	4821	3081
	5	15	785	785	1280	1280	1703	1703	2102	2102	2489	2489	2680	2680
		17	788	788	1282	1282	1706	1706	2106	2106	2495	2495	2687	2687
		19	1234	835	1548	1341	1848	1833	2149	2149	2498	2498	2690	2690
		21			2812	1391	2812	1798	2871	2220	2997	2663	3069	2884
		23					4231	1829	4221	2233	4212	2635	4212	2837
	7	15	375	375	749	749	1363	1363	1822	1822	2244	2244	2446	2446
		17	375	375	749	749	1363	1363	1828	1828	2248	2248	2449	2449
		19	386	386	752	752	1380	1380	1832	1832	2251	2251	2456	2456
		21			1426	868	1828	1401	2165	1907	2475	2402	2621	2621
		23					3340	1496	3340	1900	3406	2327	3459	2546
15	3	15	739	739	1157	1157	1548	1548	1926	1926	2294	2294	2479	2479
		17	740	740	1158	1158	1551	1551	1931	1931	2300	2300	2482	2482
		19	1079	775	1305	1239	1578	1578	1934	1934	2304	2304	2489	2489
		21			2429	1244	2423	1644	2462	2060	2571	2490	2647	2647
		23					3773	1656	3769	2060	3756	2458	3753	2658
	5	15	300	300	812	812	1289	1289	1706	1706	2102	2102	2297	2297
		17	301	301	812	812	1290	1290	1710	1710	2106	2106	2300	2300
		19	302	302	818	818	1294	1294	1713	1713	2112	2112	2304	2304
		21			1353	843	1644	1332	1927	1815	2211	2211	2357	2357
		23					3023	1382	3023	1783	3060	2197	3106	2413
	7	15	59	59	375	375	778	778	1383	1383	1835	1835	2046	2046
		17	59	59	375	375	778	778	1386	1386	1838	1838	2050	2050
		19	59	59	375	375	782	782	1389	1389	1842	1842	2053	2053
		21			388	383	805	805	1429	1429	1858	1858	2059	2059
		23					1604	888	1974	1400	2291	1893	2442	2136

Tw [°C] = Inlet water temperature
 Ta W.B. [°C] = Inlet air temperature with wet bulb
 Ta D.B.[°C] = Inlet air temperature with dry bulb
 Pc [w] = Total Cooling capacity
 Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL64	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	880	1	1
Speed V3	660	0,79	0,74
Speed V2	500	0,64	0,59
Speed V1 (Minimum)	380	0,53	0,49

COOLING CAPACITY - FCL84

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	4820	3538	4798	4026	4820	4516	4970	4970	5438	5438	5675	5675	
		17	6219	3520	6206	4017	6194	4507	6181	4995	6162	5479	6169	5722	
		19	7731	3492	7712	3990	7693	4483	7675	4974	7656	5456	7643	5699	
		21			9331	3952	9306	4447	9281	4936	9256	5425	9249	5669	
		23					11043	4397	11030	4898	10993	5384	10980	5629	
	5	5	15	4158	3216	4253	3739	4433	4267	4742	4742	5219	5219	5456	5456
			17	5638	3245	5625	3739	5606	4227	5631	4727	5694	5225	5756	5479
			19	7168	3229	7156	3729	7143	4223	7131	4716	7119	5200	7094	5437
			21			8793	3703	8768	4197	8756	4691	8737	5181	8731	5425
			23					10530	4162	10505	4655	10480	5146	10468	5390
	7	7	15	3333	2801	3643	3389	3982	3946	4442	4442	4940	4940	5189	5189
			17	4794	2860	4785	3353	4863	3869	5017	4407	5224	4945	5361	5217
			19	6494	2926	6481	3423	6469	3915	6444	4400	6456	4893	6469	5143
			21			8168	3424	8143	3916	8131	4408	8118	4899	8106	5139
			23					9930	3896	9918	4393	9893	4883	9880	5126
7	3	15	3742	3021	3793	3520	3999	3999	4476	4476	4949	4949	5181	5181	
		17	5151	3021	5138	3513	5121	4000	5116	4487	5206	4991	5275	5229	
		19	6656	2999	6644	3496	6631	3990	6606	4472	6600	4958	6581	5195	
		21			8256	3465	8231	3956	8206	4472	8193	4933	8187	5177	
		23					9968	3916	9955	4413	9930	4902	9918	5145	
	5	5	15	3089	2692	3359	3248	3750	3750	4244	4244	4730	4730	4966	4966
			17	4476	2719	4459	3207	4519	3715	4648	4238	4846	4756	5009	5009
			19	6037	2727	6025	3223	6019	3716	6000	4200	5994	4686	6006	4936
			21			7668	3209	7656	3705	7643	4195	7618	4678	7612	4920
			23					9405	3673	9393	4167	9368	4655	9356	4898
	7	7	15	2405	2291	2895	2895	3419	3419	3939	3939	4442	4442	4691	4691
			17	3376	2245	3574	2803	3832	3370	4128	3932	4476	4472	4700	4700
			19	5189	2369	5189	2867	5172	3351	5224	3861	5344	4385	5413	4648
			21			6956	2910	6944	3402	6931	3890	6919	4377	6919	4621
			23					8743	3397	8731	3890	8706	4375	8706	4623
9	3	15	2723	2525	3020	3020	3503	3503	3982	3982	4455	4455	4691	4691	
		17	4004	2513	3986	2999	4025	3497	4150	4005	4468	4468	4700	4700	
		19	5519	2507	5506	3001	5494	3489	5477	3971	5464	4454	5473	4701	
		21			7112	2976	7094	3466	7081	3955	7069	4442	7056	4679	
		23					8831	3435	8812	3926	8793	4414	8781	4655	
	5	5	15	2238	2206	2732	2732	3243	3243	3746	3746	4236	4236	4476	4476
			17	3144	2149	3282	2679	3505	3225	3810	3767	4244	4244	4485	4485
			19	4803	2211	4794	2703	4785	3191	4811	3688	4906	4198	4974	4458
			21			6456	2707	6444	3198	6431	3684	6419	4169	6412	4408
			23					8206	3181	8193	3672	8168	4156	8168	4403
	7	7	15	1692	1692	2332	2332	2895	2895	3428	3428	3943	3943	4193	4193
			17	2036	1654	2526	2292	2981	2896	3437	3437	3952	3952	4201	4201
			19	3660	1761	3686	2258	3832	2792	4055	3348	4321	3902	4468	4183
			21			5606	2373	5594	2860	5594	3348	5606	3840	5644	4096
			23					7456	2889	7443	3377	7431	3864	7418	4103

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL84	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V4	1100	1	1
Speed V3	830	0,80	0,79
Speed V2	680	0,68	0,66
Speed V1 (Minimum)	460	0,47	0,45

COOLING CAPACITY - FCL84

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	2021	2021	2524	2524	3011	3011	3488	3488	3965	3965	4201	4201
		17	2757	1988	2857	2502	3071	3023	3497	3497	3973	3973	4210	4210
		19	4287	2005	4279	2494	4270	2977	4274	3467	4364	3969	4416	4219
		21			5894	2485	5881	2973	5869	3457	5856	3939	5850	4177
		23					7612	2950	7593	3436	7581	3923	7568	4163
	5	15	1649	1649	2210	2210	2736	2736	3243	3243	3737	3737	3982	3982
		17	1899	1601	2302	2194	2741	2741	3247	3247	3746	3746	3991	3991
		19	3385	1655	3394	2145	3497	2661	3690	3199	3943	3740	4085	4005
		21			5138	2194	5129	2681	5129	3167	5129	3652	5155	3903
		23					6906	2681	6906	3172	6881	3652	6881	3895
	7	15	966	966	1735	1735	2354	2354	2908	2908	3437	3437	3694	3694
		17	968	968	1744	1744	2358	2358	2917	2917	3445	3445	3699	3699
		19	1598	988	2208	1665	2668	2286	3093	2883	3510	3452	3724	3724
		21			3995	1774	4004	2263	4124	2784	4313	3324	4425	3594
		23					6031	2361	6025	2846	6019	3331	6006	3567
13	3	15	1503	1503	2019	2019	2515	2515	2998	2998	3475	3475	3711	3711
		17	1624	1487	2023	2023	2521	2521	3003	3003	3484	3484	3720	3720
		19	2955	1493	2947	1973	3020	2477	3196	2995	3492	3492	3729	3729
		21			4588	1990	4579	2474	4571	2953	4562	3432	4584	3680
		23					6306	2461	6300	2948	6281	3427	6275	3666
	5	15	1022	1022	1667	1667	2216	2216	2736	2736	3239	3239	3488	3488
		17	1026	1026	1669	1669	2221	2221	2741	2741	3247	3247	3497	3497
		19	1606	993	2015	1595	2405	2181	2796	2745	3252	3252	3501	3501
		21			3660	1655	3660	2139	3737	2641	3900	3169	3995	3432
		23					5506	2176	5494	2657	5481	3135	5481	3376
	7	15	488	488	974	974	1774	1774	2371	2371	2921	2921	3183	3183
		17	488	488	974	974	1774	1774	2380	2380	2925	2925	3187	3187
		19	503	464	979	979	1795	1782	2384	2384	2930	2930	3196	3196
		21			1856	1033	2380	1667	2818	2270	3222	2858	3411	3143
		23					4347	1780	4347	2261	4433	2769	4502	3029
15	3	15	961	961	1505	1505	2015	2015	2506	2506	2985	2985	3226	3226
		17	963	963	1508	1508	2019	2019	2513	2513	2994	2994	3230	3230
		19	1405	922	1699	1474	2053	2025	2517	2517	2998	2998	3239	3239
		21			3162	1481	3153	1955	3205	2451	3346	2963	3445	3219
		23					4910	1970	4906	2451	4889	2925	4884	3162
	5	15	390	390	1056	1056	1677	1677	2221	2221	2736	2736	2990	2990
		17	391	391	1056	1056	1679	1679	2225	2225	2741	2741	2994	2994
		19	393	391	1065	1065	1684	1684	2229	2229	2749	2749	2998	2998
		21			1761	1003	2139	1585	2509	2159	2878	2721	3067	2997
		23					3935	1644	3935	2121	3982	2614	4042	2871
	7	15	77	77	488	488	1013	1013	1800	1800	2388	2388	2663	2663
		17	77	77	488	488	1013	1013	1804	1804	2393	2393	2668	2668
		19	77	77	488	488	1017	1017	1808	1808	2397	2397	2672	2672
		21			505	456	1048	1029	1860	1794	2418	2403	2680	2680
		23					2088	1057	2569	1666	2981	2253	3179	2541

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL84	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	1100	1	1
Speed V3	830	0,80	0,79
Speed V2	680	0,68	0,66
Speed V1 (Minimum)	460	0,47	0,45

COOLING CAPACITY - FCL104

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	5784	4465	5758	5080	5784	5698	5964	5964	6526	6526	6810	6810	
		17	7462	4442	7447	5069	7432	5687	7417	6303	7395	6914	7402	7221	
		19	9277	4406	9255	5034	9232	5658	9210	6276	9187	6885	9172	7191	
		21			11197	4987	11167	5612	11137	6229	11107	6846	11099	7154	
		23					13251	5549	13236	6180	13191	6794	13176	7103	
	5	5	15	4990	4058	5103	4718	5320	5320	5691	5691	6263	6263	6547	6547
			17	6765	4094	6750	4719	6728	5334	6758	5965	6833	6593	6908	6908
			19	8602	4075	8587	4705	8572	5329	8557	5951	8542	6562	8512	6861
			21			10552	4673	10522	5296	10507	5920	10484	6538	10477	6846
			23					12636	5252	12606	5874	12576	6493	12561	6801
	7	7	15	4000	3535	4371	4276	4779	4779	5330	5330	5928	5928	6227	6227
			17	5753	3609	5743	4231	5835	4882	6021	5562	6268	6240	6433	6433
			19	7792	3692	7777	4319	7762	4940	7732	5552	7747	6175	7762	6490
			21			9802	4321	9772	4941	9757	5562	9742	6182	9727	6484
			23					11916	4916	11901	5544	11871	6161	11856	6468
7	3	15	4490	3813	4552	4443	4799	4799	5371	5371	5938	5938	6217	6217	
		17	6181	3812	6165	4433	6145	5048	6139	5662	6248	6248	6330	6330	
		19	7987	3785	7972	4412	7957	5034	7927	5643	7920	6257	7897	6555	
		21			9907	4372	9877	4992	9727	5643	9832	6225	9824	6532	
		23					11961	4942	11946	5568	11916	6186	11901	6493	
	5	5	15	3706	3397	4031	4031	4500	4500	5093	5093	5675	5675	5959	5959
			17	5371	3431	5351	4047	5423	4688	5578	5349	5815	5815	6011	6011
			19	7245	3441	7230	4067	7222	4689	7200	5300	7192	5913	7207	6229
			21			9202	4049	9187	4675	9172	5294	9142	5903	9135	6209
			23					11287	4634	11272	5259	11242	5875	11227	6181
	7	7	15	2887	2887	3474	3474	4103	4103	4727	4727	5330	5330	5629	5629
			17	4052	2832	4289	3537	4598	4252	4954	4954	5371	5371	5639	5639
			19	6227	2989	6227	3617	6206	4229	6268	4872	6413	5534	6495	5866
			21			8347	3672	8332	4294	8317	4909	8302	5523	8302	5832
			23					10492	4287	10477	4909	10447	5521	10447	5833
9	3	15	3268	3187	3624	3624	4204	4204	4779	4779	5346	5346	5629	5629	
		17	4804	3172	4784	3784	4830	4413	4980	4980	5361	5361	5639	5639	
		19	6623	3164	6608	3786	6593	4402	6572	5011	6557	5620	6567	5932	
		21			8535	3755	8512	4374	8497	4990	8482	5606	8467	5904	
		23					10597	4335	10574	4954	10552	5570	10537	5875	
	5	5	15	2686	2686	3278	3278	3892	3892	4495	4495	5083	5083	5371	5371
			17	3773	2711	3938	3381	4206	4070	4572	4572	5093	5093	5382	5382
			19	5763	2791	5753	3410	5743	4026	5773	4654	5887	5298	5969	5625
			21			7747	3416	7732	4036	7717	4649	7702	5261	7695	5563
			23					9847	4015	9832	4634	9802	5245	9802	5556
	7	7	15	2031	2031	2799	2799	3474	3474	4113	4113	4732	4732	5031	5031
			17	2443	2087	3031	2893	3577	3577	4124	4124	4742	4742	5041	5041
			19	4392	2222	4423	2850	4598	3523	4866	4224	5186	4924	5361	5279
			21			6728	2994	6713	3609	6713	4225	6728	4846	6773	5169
			23					8947	3645	8932	4261	8917	4876	8902	5177

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL104	Qv [m ³ /h]	k (Pc)	k (Ps)
Speed V4	1350	1	1
Speed V3	1010	0,80	0,79
Speed V2	830	0,68	0,67
Speed V1 (Minimum)	560	0,49	0,47

COOLING CAPACITY - FCL104

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	2425	2425	3028	3028	3613	3613	4186	4186	4758	4758	5041	5041
		17	3308	2508	3428	3157	3686	3686	4196	4196	4768	4768	5052	5052
		19	5145	2530	5134	3147	5124	3756	5129	4375	5237	5009	5299	5299
		21			7073	3136	7058	3752	7043	4362	7028	4971	7020	5271
		23					9135	3722	9112	4336	9097	4951	9082	5253
	5	15	1979	1979	2652	2652	3284	3284	3892	3892	4485	4485	4779	4779
		17	2278	2021	2763	2763	3289	3289	3897	3897	4495	4495	4789	4789
		19	4062	2089	4072	2707	4196	3358	4428	4037	4732	4719	4902	4902
		21			6165	2769	6155	3384	6155	3997	6155	4609	6186	4926
		23					8287	3383	8287	4003	8257	4608	8257	4915
	7	15	1159	1159	2082	2082	2825	2825	3490	3490	4124	4124	4433	4433
		17	1161	1161	2093	2093	2830	2830	3500	3500	4134	4134	4438	4438
		19	1917	1246	2649	2102	3201	2884	3711	3638	4211	4211	4469	4469
		21			4794	2239	4804	2856	4949	3513	5175	4195	5309	4536
		23					7237	2979	7230	3592	7222	4203	7207	4501
13	3	15	1804	1804	2423	2423	3018	3018	3598	3598	4170	4170	4454	4454
		17	1948	1876	2428	2428	3026	3026	3603	3603	4181	4181	4464	4464
		19	3546	1884	3536	2490	3624	3126	3835	3780	4191	4191	4474	4474
		21			5505	2511	5495	3122	5485	3726	5474	4331	5500	4643
		23					7567	3105	7560	3720	7537	4324	7530	4626
	5	15	1226	1226	2000	2000	2660	2660	3284	3284	3887	3887	4186	4186
		17	1231	1231	2002	2002	2665	2665	3289	3289	3897	3897	4196	4196
		19	1928	1253	2417	2013	2887	2752	3356	3356	3902	3902	4201	4201
		21			4392	2088	4392	2700	4485	3333	4681	3999	4794	4331
		23					6608	2746	6593	3352	6578	3956	6578	4260
	7	15	585	585	1169	1169	2129	2129	2845	2845	3505	3505	3820	3820
		17	585	585	1169	1169	2129	2129	2856	2856	3510	3510	3825	3825
		19	604	585	1174	1174	2155	2155	2861	2861	3515	3515	3835	3835
		21			2227	1304	2856	2104	3381	2864	3866	3607	4093	3966
		23					5217	2246	5217	2853	5320	3494	5402	3822
15	3	15	1153	1153	1807	1807	2417	2417	3008	3008	3583	3583	3871	3871
		17	1156	1156	1809	1809	2423	2423	3015	3015	3593	3593	3876	3876
		19	1685	1163	2039	1860	2464	2464	3021	3021	3598	3598	3887	3887
		21			3794	1868	3784	2468	3845	3093	4016	3739	4134	4063
		23					5892	2486	5887	3093	5866	3691	5861	3990
	5	15	468	468	1268	1268	2013	2013	2665	2665	3284	3284	3588	3588
		17	470	470	1268	1268	2015	2015	2670	2670	3289	3289	3593	3593
		19	472	472	1278	1278	2021	2021	2675	2675	3299	3299	3598	3598
		21			2113	1265	2567	2000	3010	2725	3454	3434	3680	3680
		23					4722	2075	4722	2677	4779	3299	4851	3623
	7	15	93	93	585	585	1216	1216	2160	2160	2866	2866	3196	3196
		17	93	93	585	585	1216	1216	2165	2165	2871	2871	3201	3201
		19	93	93	585	585	1221	1221	2170	2170	2876	2876	3206	3206
		21			607	576	1257	1257	2232	2232	2902	2902	3217	3217
		23					2505	1334	3082	2102	3577	2842	3814	3207

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B.[°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL104	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	1350	1	1
Speed V3	1010	0,80	0,79
Speed V2	830	0,68	0,67
Speed V1 (Minimum)	560	0,49	0,47

COOLING CAPACITY - FCL124

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.		
5	3	15	7069	5703	7038	6489	7069	7069	7290	7290	7976	7976	8323	8323	
		17	9121	5674	9102	6475	9084	7265	9066	8051	9038	8831	9047	9047	
		19	11339	5628	11311	6431	11284	7227	11256	8017	11229	8795	11210	9185	
		21			13685	6370	13648	7168	13611	7957	13575	8744	13566	9138	
		23					16196	7088	16178	7895	16123	8678	16104	9073	
	5	5	15	6099	5184	6237	6027	6502	6502	6956	6956	7655	7655	8002	8002
			17	8268	5230	8250	6027	8223	6814	8259	7619	8351	8351	8443	8443
			19	10514	5205	10495	6010	10477	6807	10459	7601	10440	8382	10404	8764
			21			12897	5969	12860	6765	12842	7562	12814	8351	12805	8745
			23					15444	6709	15408	7503	15371	8294	15353	8687
	7	7	15	4889	4515	5343	5343	5840	5840	6515	6515	7245	7245	7611	7611
			17	7031	4610	7019	5405	7132	6236	7359	7104	7661	7661	7863	7863
			19	9524	4716	9506	5517	9487	6311	9451	7092	9469	7887	9487	8290
			21			11980	5519	11943	6311	11925	7105	11907	7897	11888	8283
			23					14565	6280	14546	7081	14510	7870	14491	8262
7	3	15	5488	4870	5563	5563	5866	5866	6565	6565	7258	7258	7598	7598	
		17	7554	4869	7535	5663	7510	6448	7504	7233	7636	7636	7737	7737	
		19	9762	4834	9744	5636	9726	6431	9689	7208	9680	7992	9652	8373	
		21			12108	5585	12072	6377	9689	7208	12017	7952	12008	8344	
		23					14620	6312	14601	7113	14565	7902	14546	8294	
	5	5	15	4530	4339	4927	4927	5500	5500	6225	6225	6937	6937	7283	7283
			17	6565	4383	6540	5169	6628	5989	6817	6817	7107	7107	7346	7346
			19	8855	4396	8837	5195	8827	5989	8800	6770	8791	7553	8809	7957
			21			11247	5172	11229	5972	11210	6762	11174	7541	11164	7931
			23					13795	5920	13776	6717	13740	7504	13721	7895
	7	7	15	3528	3528	4246	4246	5015	5015	5777	5777	6515	6515	6880	6880
			17	4952	3618	5242	4518	5620	5432	6055	6055	6565	6565	6893	6893
			19	7611	3819	7611	4621	7586	5402	7661	6223	7838	7068	7939	7493
			21			10202	4690	10184	5484	10166	6271	10147	7055	10147	7449
			23					12823	5476	12805	6270	12768	7053	12768	7451
9	3	15	3994	3994	4429	4429	5138	5138	5840	5840	6533	6533	6880	6880	
		17	5872	4051	5847	4834	5903	5637	6086	6086	6552	6552	6893	6893	
		19	8094	4042	8076	4837	8058	5623	8033	6401	8014	7179	8027	7578	
		21			10431	4797	10404	5587	10385	6375	10367	7160	10349	7542	
		23					12952	5537	12924	6328	12897	7115	12878	7504	
	5	5	15	3282	3282	4007	4007	4757	4757	5494	5494	6212	6212	6565	6565
			17	4612	3463	4813	4319	5141	5141	5588	5588	6225	6225	6578	6578
			19	7044	3565	7031	4356	7019	5143	7056	5945	7195	6767	7296	7186
			21			9469	4364	9451	5155	9432	5938	9414	6720	9405	7106
			23					12035	5128	12017	5919	11980	6700	11980	7097
	7	7	15	2482	2482	3421	3421	4246	4246	5028	5028	5784	5784	6149	6149
			17	2986	2666	3704	3695	4372	4372	5040	5040	5796	5796	6162	6162
			19	5368	2838	5406	3640	5620	4500	5948	5396	6338	6290	6552	6552
			21			8223	3825	8204	4610	8204	5397	8223	6190	8278	6603
			23					10935	4656	10917	5443	10899	6228	10880	6613

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

FCL124	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	1750	1	1
Speed V3	1350	0,83	0,82
Speed V2	1100	0,71	0,69
Speed V1 (Minimum)	750	0,52	0,50

COOLING CAPACITY - FCL124

Tw [°C]	ΔT [°C]	Ta W.B. [°C]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]	Pc [W]	Ps [W]
			21°C Ta D.B.		23°C Ta D.B.		25°C Ta D.B.		27°C Ta D.B.		29°C Ta D.B.		30°C Ta D.B.	
11	3	15	2964	2964	3701	3701	4416	4416	5116	5116	5815	5815	6162	6162
		17	4044	3204	4190	4033	4505	4505	5128	5128	5828	5828	6174	6174
		19	6288	3231	6275	4020	6263	4798	6269	5588	6401	6398	6477	6477
		21			8644	4005	8626	4793	8608	5572	8589	6349	8580	6733
		23					11164	4755	11137	5539	11119	6324	11100	6710
	5	15	2419	2419	3241	3241	4013	4013	4757	4757	5481	5481	5840	5840
		17	2785	2581	3377	3377	4019	4019	4763	4763	5494	5494	5853	5853
		19	4965	2668	4977	3458	5128	4290	5412	5157	5784	5784	5992	5992
		21			7535	3537	7523	4322	7523	5105	7523	5887	7560	6292
		23					10129	4321	10129	5114	10092	5886	10092	6279
	7	15	1416	1416	2545	2545	3452	3452	4265	4265	5040	5040	5418	5418
		17	1419	1419	2558	2558	3459	3459	4278	4278	5053	5053	5425	5425
		19	2344	1592	3238	2685	3912	3684	4536	4536	5147	5147	5462	5462
		21			5859	2860	5872	3648	6048	4487	6326	5358	6489	5794
		23					8846	3806	8837	4588	8827	5369	8809	5749
13	3	15	2205	2205	2961	2961	3689	3689	4398	4398	5097	5097	5443	5443
		17	2381	2381	2967	2967	3698	3698	4404	4404	5110	5110	5456	5456
		19	4335	2407	4322	3181	4429	3992	4687	4687	5122	5122	5469	5469
		21			6729	3207	6716	3989	6704	4760	6691	5532	6722	5931
		23					9249	3967	9240	4752	9212	5524	9203	5909
	5	15	1499	1499	2444	2444	3251	3251	4013	4013	4750	4750	5116	5116
		17	1505	1505	2447	2447	3257	3257	4019	4019	4763	4763	5128	5128
		19	2356	1601	2955	2572	3528	3516	4101	4101	4769	4769	5135	5135
		21			5368	2668	5368	3448	5481	4257	5721	5108	5859	5532
		23					8076	3507	8058	4282	8039	5053	8039	5441
	7	15	715	715	1429	1429	2602	2602	3478	3478	4284	4284	4668	4668
		17	715	715	1429	1429	2602	2602	3490	3490	4290	4290	4675	4675
		19	738	738	1435	1435	2633	2633	3497	3497	4297	4297	4687	4687
		21			2722	1665	3490	2687	4133	3658	4725	4607	5002	5002
		23					6376	2869	6376	3644	6502	4463	6603	4882
15	3	15	1410	1410	2208	2208	2955	2955	3676	3676	4379	4379	4731	4731
		17	1413	1413	2211	2211	2961	2961	3686	3686	4391	4391	4738	4738
		19	2060	1485	2492	2376	3011	3011	3692	3692	4398	4398	4750	4750
		21			4637	2387	4624	3152	4700	3950	4908	4775	5053	5053
		23					7201	3176	7195	3950	7170	4714	7164	5097
	5	15	572	572	1549	1549	2460	2460	3257	3257	4013	4013	4385	4385
		17	574	574	1549	1549	2463	2463	3263	3263	4019	4019	4391	4391
		19	577	577	1562	1562	2470	2470	3270	3270	4032	4032	4398	4398
		21			2583	1616	3137	2555	3679	3480	4221	4221	4498	4498
		23					5771	2651	5771	3420	5840	4214	5929	4627
	7	15	113	113	715	715	1486	1486	2640	2640	3503	3503	3906	3906
		17	113	113	715	715	1486	1486	2646	2646	3509	3509	3912	3912
		19	113	113	715	715	1492	1492	2652	2652	3515	3515	3919	3919
		21			741	735	1537	1537	2728	2728	3547	3547	3931	3931
		23					3062	1704	3767	2685	4372	3631	4662	4096

Tw [°C] = Inlet water temperature

Ta W.B. [°C] = Inlet air temperature with wet bulb

Ta D.B. [°C] = Inlet air temperature with dry bulb

Pc [w] = Total Cooling capacity

Ps [w] = Sensible Cooling capacity

COOLING CAPACITY CORRECTION FACTORS

The Cooling capacity of the table are at maximum speed (maximum air flow). To determine the Cooling capacity based on the speed (air flow), the values shown in the table must be multiplied by the following factors (k):

Qv [m³/h] = Air flow rate

NB: the output values in bold type indicate the nominal value.

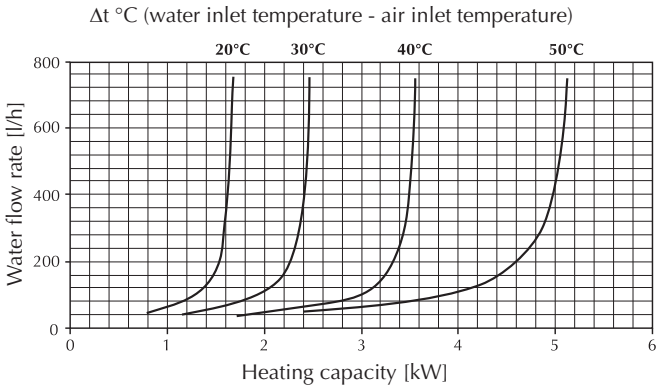
If sensible output values are above the total output, this means that cooling is carried out without dehumidification.

If this occurs, take into consideration only the sensible output values.

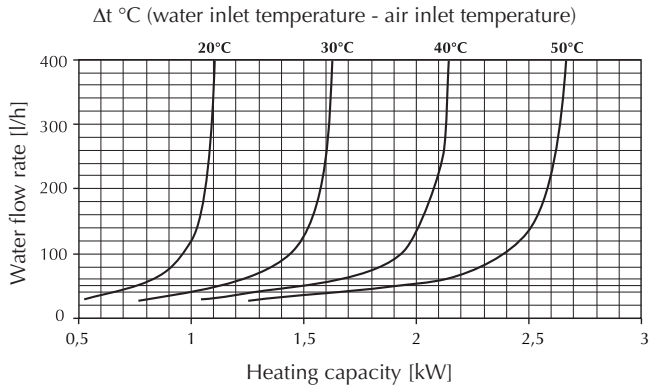
FCL124	Qv [m³/h]	k (Pc)	k (Ps)
Speed V4	1750	1	1
Speed V3	1350	0,83	0,82
Speed V2	1100	0,71	0,69
Speed V1 (Minimum)	750	0,52	0,50

HEATING CAPACITY [kW]

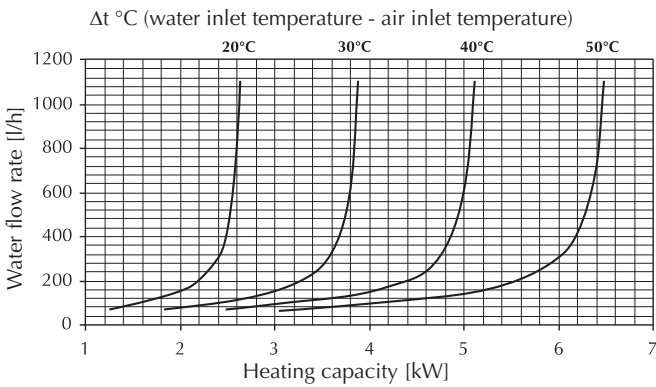
FCL 32



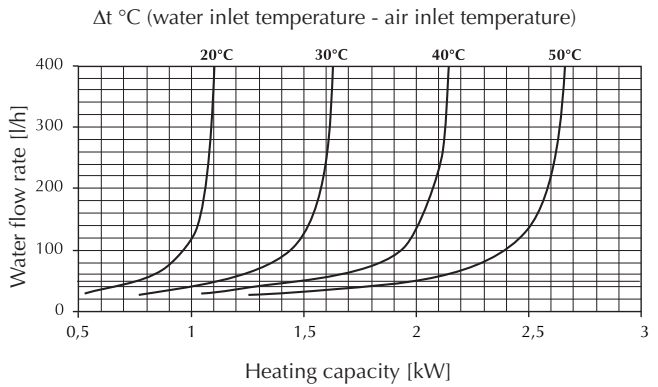
FCL 34



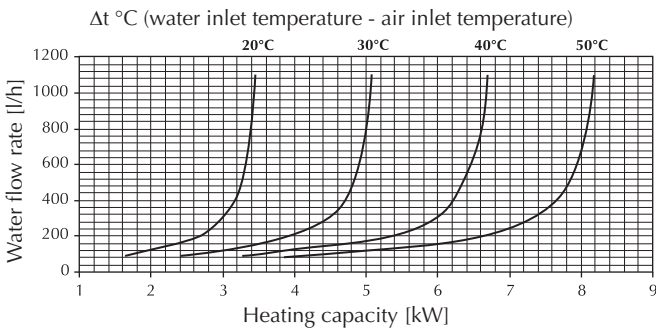
FCL 36



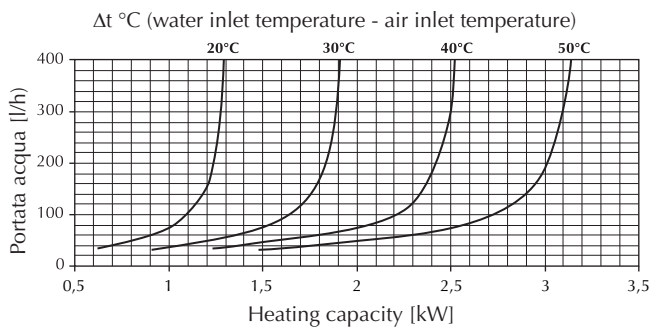
FCL 38



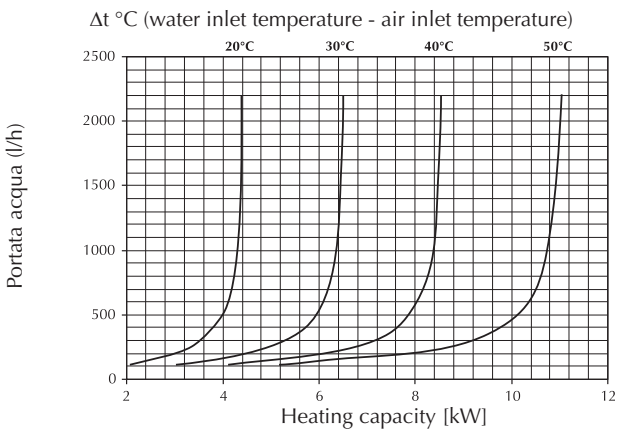
FCL 42



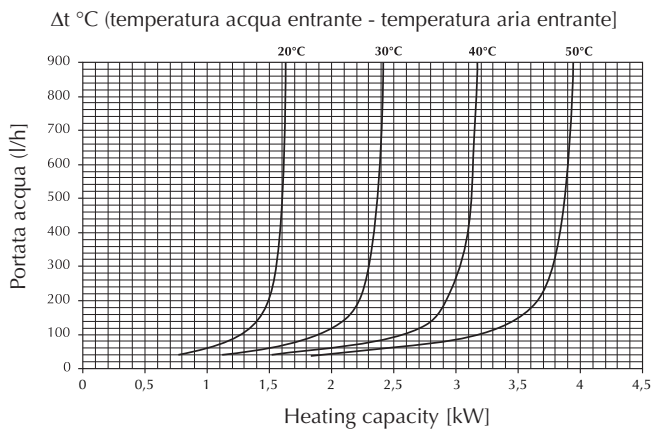
FCL 44



FCL 62



FCL 64



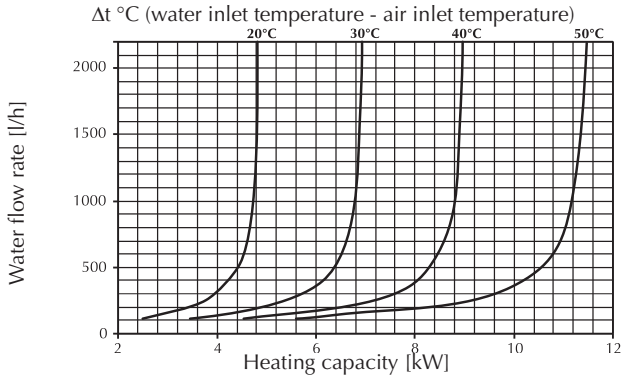
HEATING CAPACITY CORRECTION FACTORS

The heat yields refer to the maximum speed. For the rest of the speeds the values must be multiplied by the following factors:

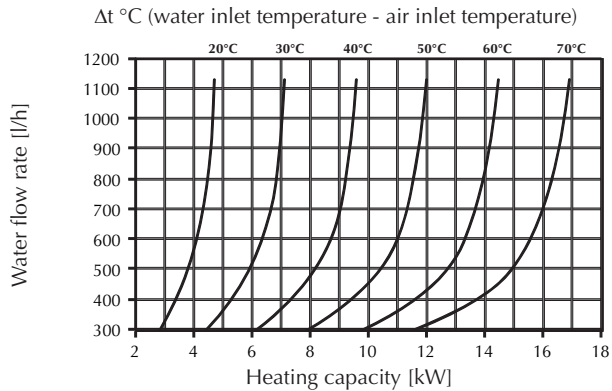
FCL	32	34	36	38	42	44	62	64
Speed 4	-	-	-	-	1	1	1	1
Speed 3	1	1	1	1	0,81	0,89	0,80	0,89
Speed 2	0,82	0,84	0,75	0,84	0,61	0,78	0,66	0,81
Speed 1 (minimum)	0,71	0,75	0,60	0,75	0,50	0,72	0,55	0,75

HEATING CAPACITY [KW]

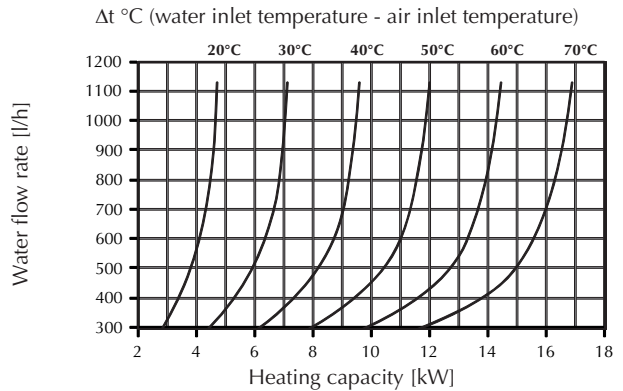
FCL 72



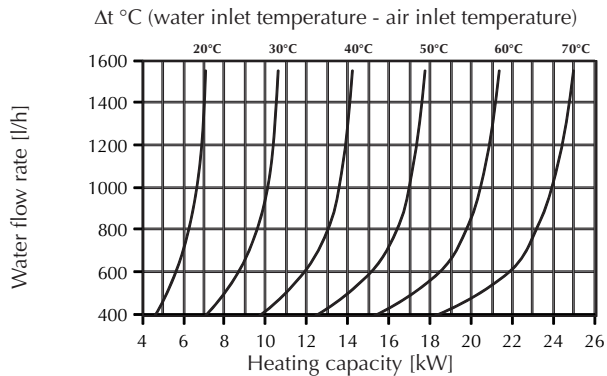
FCL 82



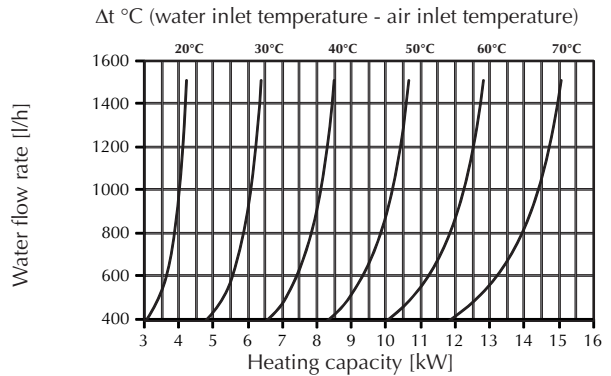
FCL 84



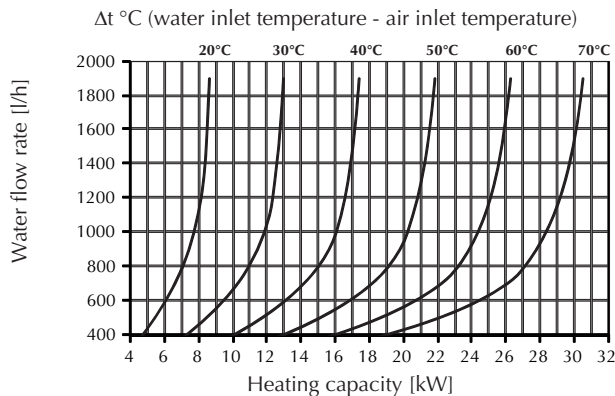
FCL 102



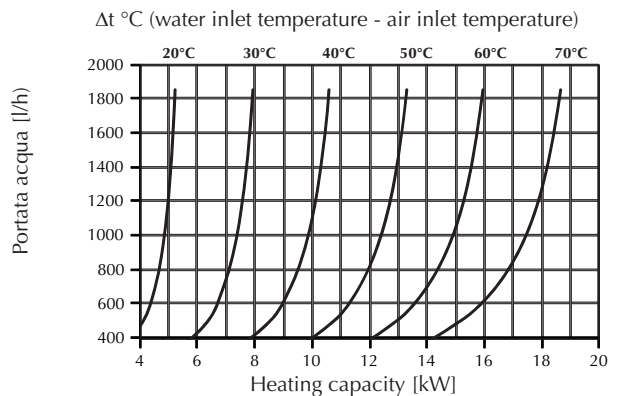
FCL 104



FCL 122



FCL 124



HEATING CAPACITY CORRECTION FACTORS

The heat yields refer to the maximum speed. For the rest of the speeds the values must be multiplied by the following factors:

FCL	72	82	84	102	104	122	124
Speed 4	1	1	1	1	1	1	1
Speed 3	0,77	0,82	0,85	0,81	0,85	0,85	0,86
Speed 2	0,67	0,72	0,82	0,70	0,76	0,73	0,78
Speed 1 (minimum)	0,54	0,54	0,64	0,51	0,62	0,55	0,61

MAIN HEATING COIL PRESSURE DROP [kPa] (VL version, without internal valve) - HEATING

The pressure drops are calculated with the following formula:

$$DP = \frac{DP_{\text{rated}}}{(Q_{\text{w rated}})^{1.8} * (Q_{\text{w}})^{1.8}}$$

The table shows the pressure drop for each size with flow rate intervals of 50 and 100l/h

Pressure drops [kPa] with water 50°C								
Water flow rate [l/h]	FCL32	FCL36	FCL42	FCL62	FCL72	FCL82	FCL102	FCL122
100	1,07	0,73	0,73					
150	2,21	1,51	1,52	1,39	1,40			
200	3,71	2,54	2,55	2,33	2,35			
250	5,55	3,80	3,81	3,48	3,51	1,79		
300	7,71	5,27	5,29	4,84	4,87	2,49		
350	10,17	6,96	6,98	6,38	6,43	3,28	1,72	1,63
400	12,93	8,85	8,87	8,12	8,18	4,18	2,19	2,07
500	19,33	13,23	13,26	12,13	12,22	6,24	3,27	3,10
600	26,84	18,37	18,41	16,84	16,97	8,67	4,54	4,30
700	35,42	24,24	24,30	22,23	22,40	11,44	5,99	5,68
750	40,10	27,45	27,51	25,17	25,36	12,95	6,78	6,43
800				28,27	28,48	14,54	7,62	7,22
900				34,95	35,21	17,98	9,42	8,93
1000				42,25	42,56	21,73	11,39	10,79
1050				46,12	46,47	23,73	12,43	11,78
1100						25,80	13,52	12,81
1200						30,17	15,81	14,98
1300						34,85	18,26	17,30
1400						39,82	20,86	19,77
1500						45,09	23,62	22,39
1600						50,64	26,53	25,14
1700						56,48	29,59	28,04
1750						59,51	31,18	29,55
1800							32,80	31,08
1900							36,15	34,26
2000							39,65	37,57
2100							43,29	41,02
2200							47,07	44,60
2300							50,99	48,32
2400							55,05	52,17
2450							57,13	54,14

Pressure drops [kPa] with water 70°C							
Water flow rate [l/h]	FCL34	FCL38	FCL44	FCL64	FCL84	FCL104	FCL124
50	0,74	0,74	0,70	0,71			
100	2,58	2,58	2,44	2,49			
150	5,34	5,34	5,06	5,16	0,81	0,82	0,84
200	8,97	8,97	8,49	8,67	1,36	1,38	1,41
250	13,40	13,40	12,69	12,95	2,03	2,06	2,10
300	18,61	18,61	17,62	17,98	2,82	2,85	2,92
350	24,56	24,56	23,26	23,73	3,72	3,77	3,85
400	31,24	31,24	29,58	30,18	4,73	4,79	4,89
450					5,85	5,92	6,05
500					7,07	7,16	7,31
550					8,39	8,50	8,68
600					9,81	9,94	10,15
650					11,33	11,48	11,72
700					12,95	13,12	13,40
750					14,66	14,85	15,17
800					16,47	16,68	17,04
850					18,37	18,60	19,00
900					20,36	20,62	21,06
950					22,44	22,73	23,21
1000					24,61	24,93	25,46
1050					26,87	27,21	27,80
1100					29,21	29,59	30,23
1150					31,65	32,06	32,74
1200					34,17	34,61	35,35

MAIN COOLING COIL PRESSURE DROP [kPa] (VL version, without internal valve) - COOLING

The pressure drops are calculated with the following formula:

$$DP = \frac{DP_{\text{rated}}}{(Q_{w \text{ rated}})^{1.8} \cdot (Q_w)^{1.8}}$$




The table shows the pressure drop for each size with flow rate intervals of 50 and 100l/h

Pressure drops [kPa] with water 7°C								
Water flow rate [l/h]	FCL32	FCL36	FCL42	FCL62	FCL72	FCL82	FCL102	FCL122
100	1,19	0,78	0,80					
150	2,46	1,62	1,65	1,56	1,58			
200	4,13	2,72	2,77	2,62	2,66			
250	6,17	4,07	4,14	3,92	3,97	1,95		
300	8,56	5,65	5,75	5,44	5,51	2,70		
350	11,30	7,46	7,58	7,18	7,28	3,57	1,93	1,82
400	14,37	9,48	9,64	9,13	9,26	4,54	2,45	2,32
500	21,48	14,17	14,41	13,65	13,83	6,78	3,66	3,46
600	29,82	19,68	20,01	18,95	19,20	9,42	5,08	4,81
700	39,35	25,97	26,41	25,01	25,34	12,43	6,71	6,35
750	44,56	29,41	29,90	28,32	28,69	14,07	7,60	7,19
800				31,81	32,23	15,81	8,53	8,07
900				39,32	39,84	19,54	10,55	9,98
1000				47,53	48,16	23,62	12,75	12,06
1050				51,89	52,58	25,79	13,92	13,17
1100						28,04	15,14	14,32
1200						32,80	17,71	16,74
1300						37,88	20,45	19,34
1400						43,29	23,37	22,10
1500						49,01	26,46	25,02
1600						55,05	29,72	28,10
1700						61,39	33,14	31,34
1750						64,68	34,92	33,02
1800							36,73	34,74
1900							40,49	38,29
2000							44,40	41,99
2100							48,48	45,85
2200							52,71	49,85
2300							57,11	54,01
2400							61,65	58,30
2450							63,98	60,51

Pressure drops [kPa] with water 7°C							
Water flow rate [l/h]	FCL34	FCL38	FCL44	FCL64	FCL84	FCL104	FCL124
100	1,19	0,78	0,81				
150	2,46	1,63	1,67	1,55			
200	4,13	2,73	2,81	2,60			
250	6,17	4,08	4,19	3,88	1,95	1,46	1,49
300	8,56	5,66	5,82	5,39	2,70	2,03	2,06
400	14,37	9,51	9,77	9,04	4,54	3,40	3,46
500	21,48	14,20	14,60	13,51	6,78	5,08	5,17
600	29,82	19,72	20,27	18,76	9,42	7,06	7,18
700	39,35	26,03	26,75	24,77	12,43	9,32	9,48
750	44,56	29,47	30,28	28,04	14,07	10,55	10,73
800			34,01	31,49	15,81	11,85	12,05
900			42,05	38,93	19,54	14,65	14,90
1000			50,83	47,06	23,62	17,70	18,01
1050			55,49	51,38	25,79	19,33	19,67
1100				55,87	28,04	21,02	21,38
1200					32,80	24,58	25,01
1300					37,88	28,39	28,88
1400					43,29	32,44	33,01
1500					49,01	36,73	37,37
1600					55,05	41,26	41,97
1700					61,39	46,01	46,81
1750					64,68	48,48	49,32

CORRECTION FACTORS WHEN OPERATING USING GLYCOL WATER

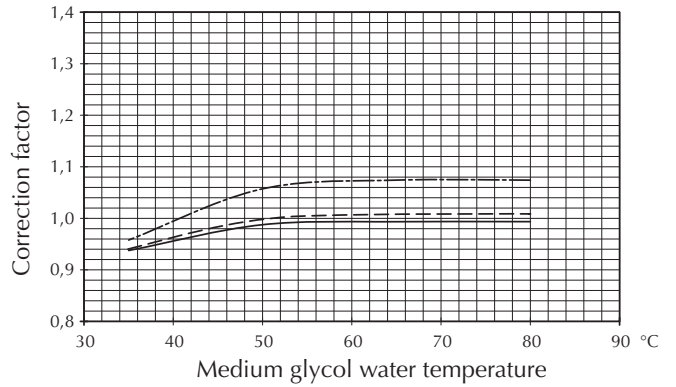
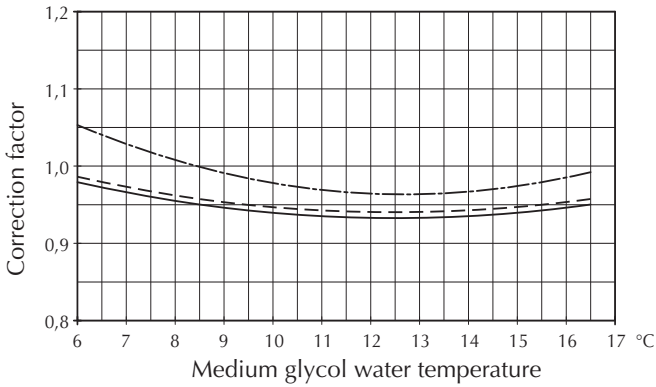
Key:

-  Pressure drops
-  Air flow rate
-  Output

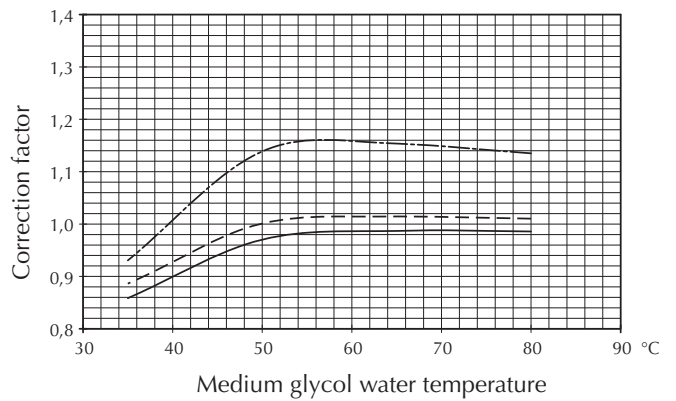
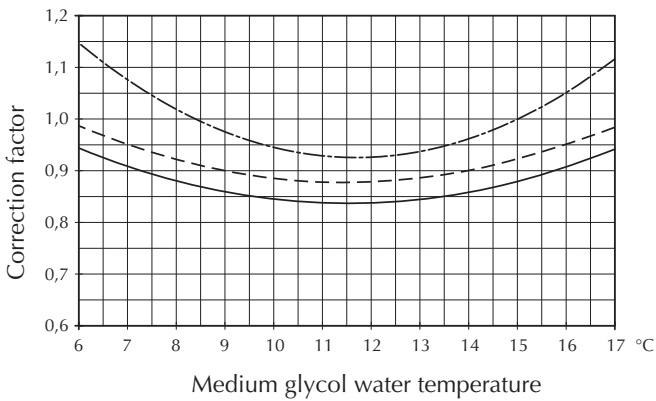
COOLING FUNCTION MODE

HEATING FUNCTION MODE

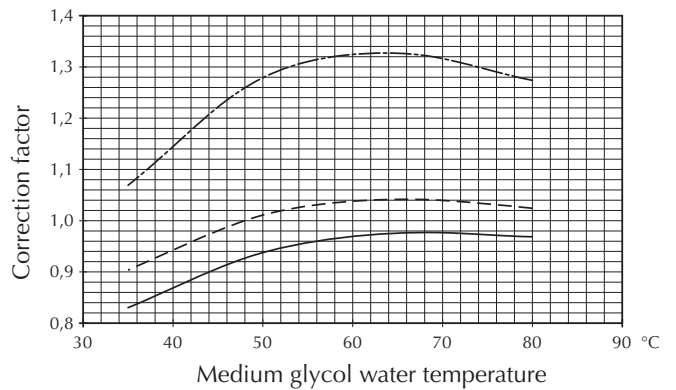
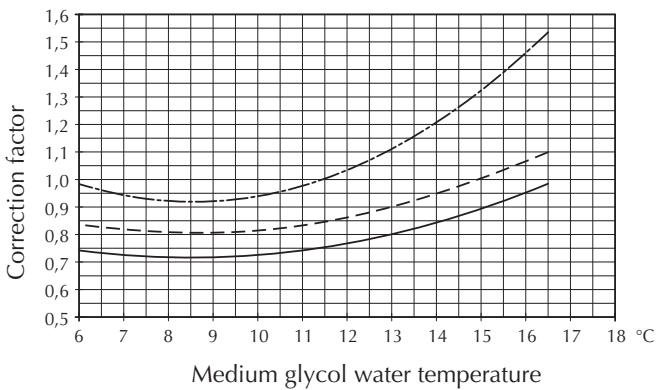
GLYCOL WATER AT 10%










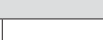
GLYCOL WATER AT 20%



GLYCOL WATER AT 35%



SOUND POWER LEVEL expressed in db

Mod.	Speed	Central band frequency (Hz)							Globale		
		125	250	500	1000	2000	4000	8000	dB	dB(A)	
FCL32 FCL34	Speed 3	49,6	48,5	45,7	39,1	36,2	20,5	14,0	53	46	
	Speed 2	38,2	40,2	38,7	31,0	23,9	22,4	18,9	44	38	
	Speed 1 (Min)	35,2	37,2	35,7	28,0	20,9	19,4	15,9	41	35	
FCL36 FCL38	Speed 3	49,6	48,5	45,7	39,1	36,2	20,5	14,0	53	46	
	Speed 2	38,2	40,2	38,7	31,0	23,9	22,4	18,9	44	38	
	Speed 1 (Min)	35,2	37,2	35,7	28,0	20,9	19,4	15,9	41	35	
FCL42 FCL44	Speed 4	54,1	54,2	51,7	46,8	44,0	31,2	16,6	59	53	
	Speed 3	49,6	48,5	45,7	39,1	36,2	20,5	14,0	53	46	
	Speed 2	38,2	40,2	38,7	31,0	23,9	22,4	18,9	44	38	
	Speed 1 (Min)	35,2	37,2	35,7	28,0	20,9	19,4	15,9	41	35	
FCL62 FCL64	Speed 4	60,5	63,7	58,3	55,5	52,3	45,2	31,8	67	61	
	Speed 3	55,1	55,2	52,7	47,8	45,0	32,2	17,3	60	54	
	Speed 2	48,9	48,9	46,0	39,3	36,0	19,4	10,6	53	47	
	Speed 1 (Min)	42,6	43,7	41,4	32,0	23,3	9,1	9,4	48	41	
FCL72	Speed 4	62,5	65,7	60,3	57,5	54,3	47,2	33,8	69	63	
	Speed 3	57,1	57,2	54,7	49,8	47,0	34,2	19,3	62	56	
	Speed 2	50,9	50,9	48,0	41,3	38,0	21,4	12,6	55	49	
	Speed 1 (Min)	44,6	45,7	43,4	34,0	25,3	11,1	11,4	50	43	
FCL82 FCL84	Speed 4	57,3	49,5	46,2	46,3	39,0	28,3	18,1	59	50	
	Speed 3	56,4	42,6	42,1	40,1	25,2	7,5	12,9	57	45	
	Speed 2	55,3	41,2	41,0	35,0	27,8	9,9	12,5	56	43	
	Speed 1 (Min)	51,5	35,3	36,6	25,9	30,4	11,0	12,2	52	39	
FCL102 FCL104	Speed 4	61,3	53,5	50,2	50,3	43,0	32,3	19,2	63	54	
	Speed 3	59,4	45,6	45,1	43,1	28,2	11,8	17,6	60	48	
	Speed 2	58,5	41,0	41,6	37,0	26,5	12,3	12,5	59	45	
	Speed 1 (Min)	52,2	38,1	37,9	31,9	24,7	7,5	12,9	53	40	
FCL122 FCL124	Speed 4	63,1	60,1	56,3	55,1	52,5	46,3	36,6	66	60	
	Speed 3	58,8	53,3	49,8	50,1	45,9	37,0	23,5	61	54	
	Speed 2	59,6	48,3	46,6	46,2	34,6	21,8	18,1	60	50	
	Speed 1 (Min)	55,4	41,6	41,1	39,1	24,2	10,1	15,3	56	44	



= Acoustic tests certified EUROVENT 8/2 (ISO 3741/2001)

SOUND PRESSURE LEVEL expressed in db (a)

Speed	FCL	32	34	36	38	42	44	62	64	72	82	84	102	104	122	124
Speed 4	dB(A)	-	-	-	-	44	44	52	52	54	41	41	45	45	51	51
Speed 3	dB(A)	37	37	37	37	37	37	45	45	47	36	36	39	39	45	45
Speed 2	dB(A)	29	29	29	29	29	29	38	38	40	34	34	36	36	41	41
Speed 1 (Min)	dB(A)	26	26	26	26	26	26	32	32	34	30	30	31	31	35	35

Level of sound pressure (A-weighted) measured in the room with volume $V = 100 \text{ m}^3$; reverberation time $t = 0.5 \text{ s}$; direction factor $Q = 2$; distance $r = 2.5 \text{ m}$.

ACCESSORIES

Consult the compatibility table to make your choice

	FCL	32	34	36	38	42	44	62	64	72	82	84	102	104	122	124
Obligatory accessories																
Suction and delivery grille units																
GLL10*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
GLL10M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
GLL10R	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
GLL20*											✓	✓	✓	✓	✓	✓
GLL20R											✓	✓	✓	✓	✓	✓
Standard control panels (electronic and electromechanical)																
FMT10**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FMT20AW**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PX**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PX2**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PX2C6**	✓x6	✓x6	✓x6	✓x6	✓x6	✓x6	✓x6	✓x6	✓x6	✓x6	✓x6	✓x6	✓x6	✓x6	✓x6	✓x6
PXAE**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
WMT10**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Intake and delivery grille units with electronic thermostat incorporated for the VMF System																
GLL10N***	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
GLL20N***											✓	✓	✓	✓	✓	✓
Wall-mounted control panel for the VMF System																
VMF-E4 ***	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VMF-E4D ***	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Accessories																
Perimeter casing accessory for ceiling installation																
FCLMC10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
FCLMC20											✓	✓	✓	✓	✓	✓
Accessory for air purification																
FEL10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
Accessories for air delivery in an adjacent room and for connection to a fresh air intake																
KFL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
KFL20											✓	✓	✓	✓	✓	✓
KFLD****	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
KFLD20****											✓	✓	✓	✓	✓	✓
Probe accessories for standard control panels (also consult the control panel documentation)																
SW3** (PXAE)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SW4 ***** (GLL_M/GLL_R/GLL_N)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SWA** (FMT20AW)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Interface card accessories for standard control panels																
SIT 3*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SIT 5*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

FCL	32	34	36	38	42	44	62	64	72	82	84	102	104	122	124
Hot water circuit valve accessories for 4-pipe systems (to combine with the provided control panels and the VMF System)															
VHL1 ^(H)		✓		✓		✓		✓							
VHL20 ^(H)											✓		✓		✓
VHL2 ^(H)		✓		✓		✓		✓							
VHL22 ^(H)											✓		✓		✓
Electric resistor accessories (to combine with the provided control panels and the VMF System)															
RXLE**	✓		✓		✓		✓		✓						
RXLE20**										✓		✓		✓	
Accessories for VMF System (FCL with GLL_N grille) Obligatory accessories, essential for unit operation.															
<p>The individual or network master units are required to be combined with the VMF-E4 / VMF-E4D control panel. The Slave network units do not require the VMF-E4 / VMF-E4D control panel, they simply need to be connected (TTL) to the Master unit. Each network Master unit can have up to 5 Slave units connected to it. The Master network units can be connected to a VMF-E5B or VMF-E5N main interface panel to manage the system. The VMF system includes a variety of accessories and compositions. This table shows only the accessories designed for the operation of the units, for the selection refer to the compatibility table, the documentation of all the accessories and the fan coil.</p>															
VMF System control panel accessory (connected to the individual units or only to the Master units)															
VMF-E4 ***	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VMF-E4D ***	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Main interface panel Accessory to manage the VMF System network (connected to the Master units)															
VMF-E5B															
VMF-E5N															
Accessory water temperature probe for a 2-pipe system															
SW4 ^(C) ^(H)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Accessories water temperature probes for a 4-pipe system															
VMF-SW1 ^(C)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SW4 ^(H)		✓		✓		✓		✓			✓		✓		✓

Obligatory accessories, essential for unit operation.

The GLL, GLL_R and GLL_N range intake and delivery grille units with electric box are compulsory accessories as the FCL units are dispatched without these components (they also include the electrical box for the FCL).

NB>

* The GLL10 and GLL20 grille units have to be combined with an electronic or electromechanical standard control panel.

** Accessories that can only be used in combination with GLL10 and GLL20 grilles.

*** The GLL10N and GLL20N grille units have to be combined with a VMF range control panel (see VMF-E4 / VMF-E4D).

**** Up to three KFL20 or KFL20D devices can be assembled on a single unit (refer to the manual)

***** Requires GLL_M, GLL_R or GLL_N

^(H) Hot water circuit

^(C) Cold water circuit



Some accessories may not be applied at the same time on the same fan coil, while others need to be used with other accessories and/or with a particular fan coil configuration.
Before placing an order, see documentation relating to all accessories and the fan coil.

ACCESSORIES

Obligatory accessories

The GLL range intake and delivery grille units are compulsory accessories as the FCL units are dispatched without these components. They are essential for unit operation.

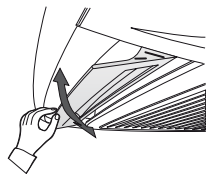
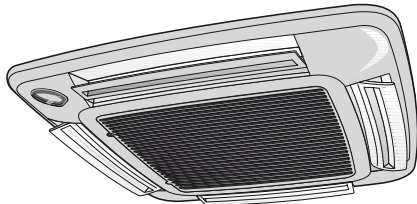
These accessories consist of the grille with central suction and lateral air delivery fins, all within a frame. The electrical box for FCL is included in the kit.

The GLL_ and GLL_R accessories have

to be combined with a wall-mounted control panel.

The GLL10M accessory with motorised fins also includes a remote control.

GLL10 - GLL20 INTAKE AND DELIVERY GRILLE UNIT



GLL10 (600x600)

GLL20 (840x840)

Intake and delivery grille unit (obligatory accessory)

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

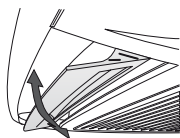
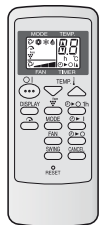
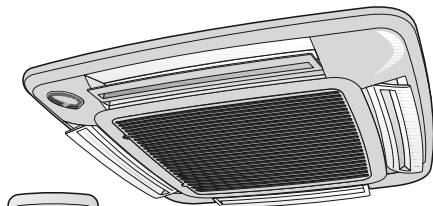
Suction occurs through the central grille, and delivery through the manually adjustable, perimetric slots. It contains the air filter that can be easily removed for cleaning.

The GLL includes the electric box, with bayonet coupling to the connector bound to the unit load-bearing structure.

In plastic, colour RAL 9010.

Combined with wall-mounted control panel.

GLL10M INTAKE AND DELIVERY GRILLE UNIT WITH MOTORISED FINS



GLL10M (600x600)

Intake and delivery grille unit with motorised fins and remote control (obligatory accessory)

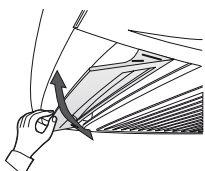
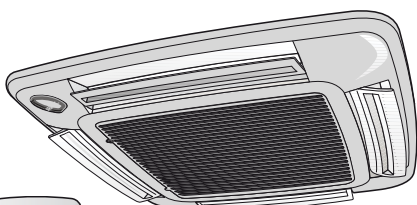
The form and opening of the delivery fins were developed in order to have the best possible distribution of the air, both when functioning in winter as well as in summer. Motorised fins are adjusted using the remote control.

Suction occurs through the central grille, and delivery through the manually adjustable, perimetric slots. It contains the air filter that can be easily removed for cleaning.

The GLL10M includes the electric box, with bayonet coupling to the connector bound to the unit load-bearing structure and remote control. The infrared receiver and emergency operation key are on the grille frame.

In plastic, colour RAL 9010.

GLL10R - GLL20R INTAKE AND DELIVERY GRILLE UNIT



GLL10R (600x600)

GLL20R (840x840)

Intake and delivery grille unit (obligatory accessory)

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

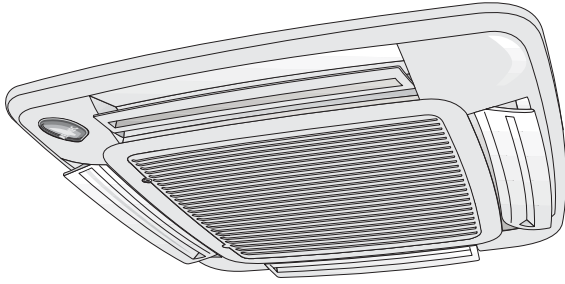
Suction occurs through the central grille, and delivery through the manually adjustable, perimetric slots. It contains the air filter that can be easily removed for cleaning.

The GLL_R includes the electric box, with bayonet coupling to the connector bound to the unit load-bearing structure.

The infrared receiver and emergency operation key are on the grille frame.

In plastic, colour RAL 9010.

GLL10N - GLL20N INTAKE AND DELIVERY GRILLE UNIT WITH "VMF System" THERMOSTAT



GLL10N (600x600)

GLL20N (840x840)

Intake and delivery grille unit with "VMF System" advanced electronic thermostat (obligatory accessory).

The form and opening of the suction louvres 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.

The GLL_N includes the electric box with incorporated VMF System thermostat board, with bayonet coupling to the connector bound to the unit load-bearing structure.

The GLLI_N needs to be interfaced with a VMF-E4 / VMF-E4D external control panel if installed on a single FCL unit, or with a "Master" function in a network with up to 5 other "Slave" fan coils supplied with "VMF System" thermostat only (GLLI-N and/or GLL-N and/or VMF-E18 and/or VMF-E1 and/or VMF-E0).

If GLL_N is combined with a VMF-E4 / VMF-E4D control panel ("Master" configuration), the fan coil can be connected to a VMF-E5B / VMF-E5N central supervisor system.

The GLL_N accessory consists of :

- Intake and delivery grille unit
- "VMF System" advanced electronic thermostat board, installed in the electric box, easily applicable to the fan coil.

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

- the power supply,
- the earthing,

- the valve control,
- fan motor supply,
- the ambient air temperature probe,
- the water temperature probe,
- the auxiliary water temperature probe,
- the control panel (user interface),
- the presence sensor,
- the external contact,
- the VMF-E5B / VMF-E5N central supervisor system serial,

- the fan coil network serial (TTL).

The thermostat is used to control:

WARNING: Not all functions can be operated simultaneously, see the documentation of the accessory

- Three fan coil speeds in manual mode
- Continuous and thermostat-controlled ventilation via valve control
- Season visualisation
- Visualisation of alarms and ventilation request
- Up to two ON/OFF 2- or 3-way valves
- The switch-on of an electric heater
- An air temperature probe
- A water temperature probe, with minimum and maximum temperature and changeover functions
- An additional water probe for controlling the second coil (4-pipe systems)
- Season change according to the water or air temperature (4-pipe systems)
- Input for "external contact". This is a digital input with the following logic:

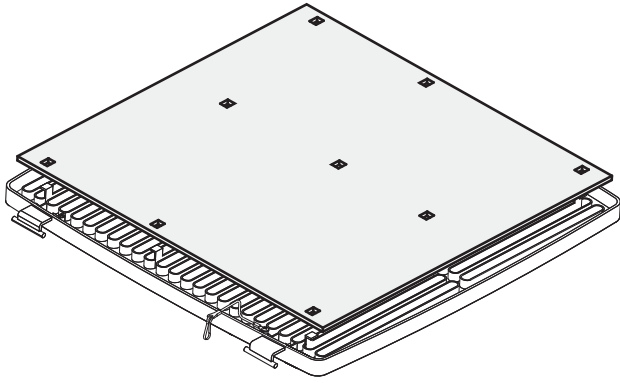
- When open, the thermostat works normally;
- When closed, the fan coil is switched off.
- Anti-freeze function
- Presence sensor to enable the "SLEEP" function from an external contact (reduction of ambient set-point by 2 or 5 degrees, depending on the settings, if a room is unoccupied)
- Input for local serial. The thermostat is designed to communicate with other GLLI-N and/or GLL-N and/or VMF-E18 and/or VMF-E1 and/or VMF-E0 type thermostats via a dedicated serial based on the TTL logic standards. This serial communication is essential for the exchange of information within small fan coil networks (up to 6 thermostats and with a maximum length of 30 metres.) It was designed, in fact, for

small areas where the fan coils (more than one) need to be controlled from a single control point. More specifically, this network always contains a Master (to which a user interface VMF-E2, VMF-E4 / VMF-E4D is connected) which controls the operation of the Slaves connected to it, according to the settings made on its user interface.

- Input for supervision serial. In networks made up of several fan coils subdivided into independent temperature areas, the GLL-N (with VMF-E4 / VMF-E4D) area thermostat allows communication with a VMF-E5B / VMF-E5N central system supervisor.

ACCESSORIES

FEL10 ELECTROSTATICALLY PRE-CHARGED AIR FILTER



FEL10

For GLL10, GLL10R and GLL10N grille units.

Electrostatically pre-charged air filter, regenerated with class-2 fire resistance (UL 900).

Supplied in a sealed package which should only be opened at the time of use.

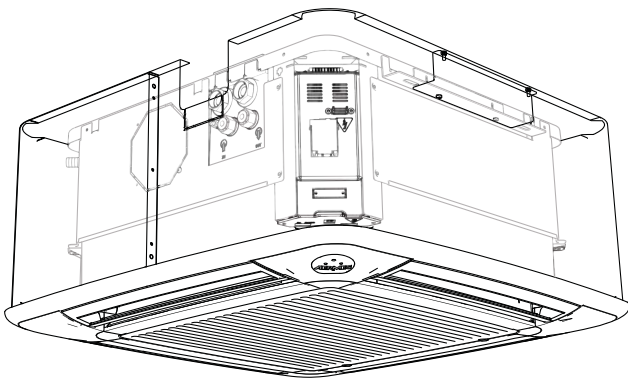
The electrostatically pre-charged filter combines the normal mechanical filtering of the air that passes through the filter, with an electrostatic attraction of powder that increases its filtering considerably.

The electrostatic filter charge runs down two years after the opening of the box; after this period it behaves like a normal filter.

Frequent cleaning, removal (with a vacuum) of the dust that has built up, and the use of water and detergents considerably speeds up the deterioration of the electrostatic charge.

FCLMC SUCTION FLANGE

FCLMC10



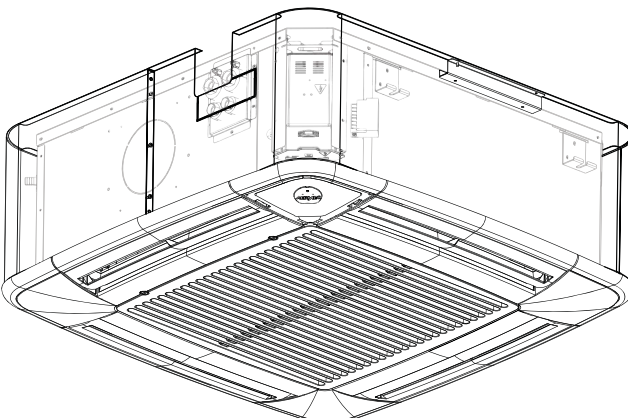
FCLMC10

FCLMC20

The FCLMC10 / FCLMC20 accessory is a galvanised steel sheet and painted perimeter housing used when the fan coil is installed outside the suspended ceiling. It is used for aesthetic and protective purposes. FCL technical features remain unchanged.

Color: RAL9010

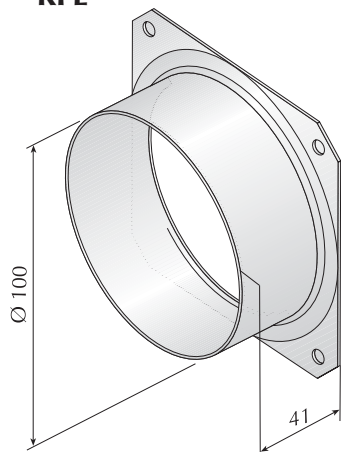
FCLMC20



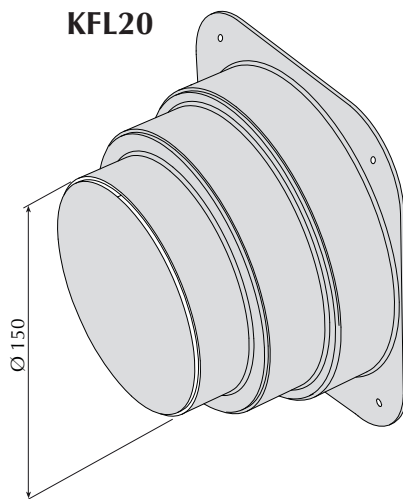
ACCESSORIES

KFL DELIVERY FLANGE

KFL



KFL20



KFL

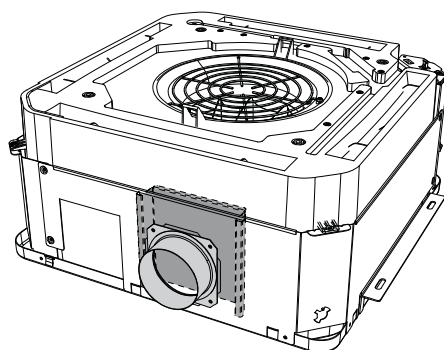
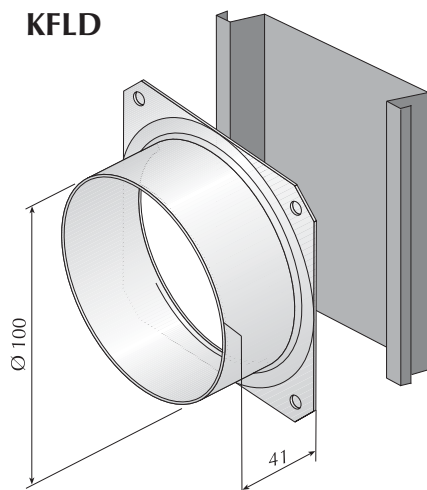
Delivery flange for directing air to an adjacent room.

KFL20 (*)**

Delivery flange for directing air to an adjacent room. Up to three KFL20 can be assembled on a single unit.

KFLD SUCTION FLANGE

KFLD

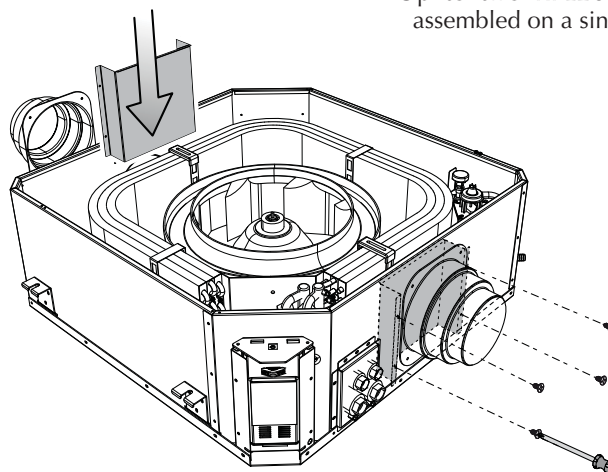
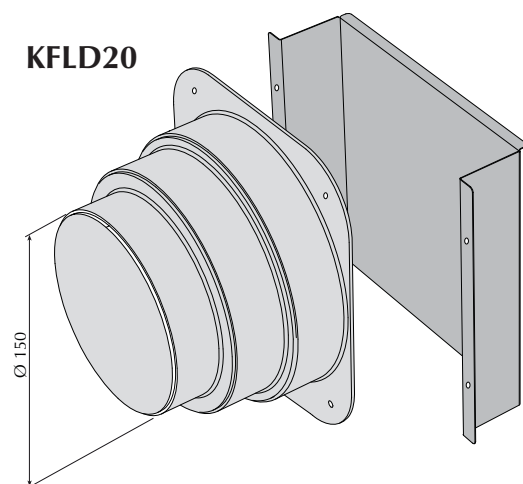


KFLD

Suction flange for connection to a duct, to introduce fresh air into the room via an external fan. The fresh air is directly introduced from the fin corresponding to the flange position.

The air is not extracted by the fan, so is not mixed inside the unit with air that has already been treated.

KFLD20



KFLD20 (*)**

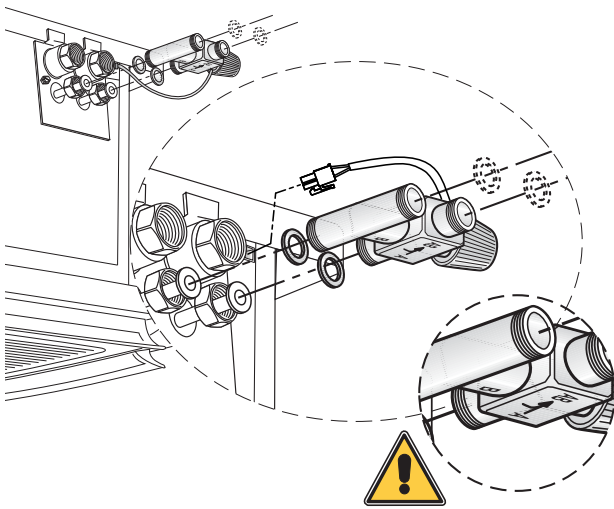
Suction flange for connection to a duct, to introduce fresh air into the room via an external fan. The fresh air is directly introduced from the fin corresponding to the flange position.

The air is not extracted by the fan, so is not mixed inside the unit with air that has already been treated.

Up to two KFLD20 devices can be assembled on a single unit.

ACCESSORIES

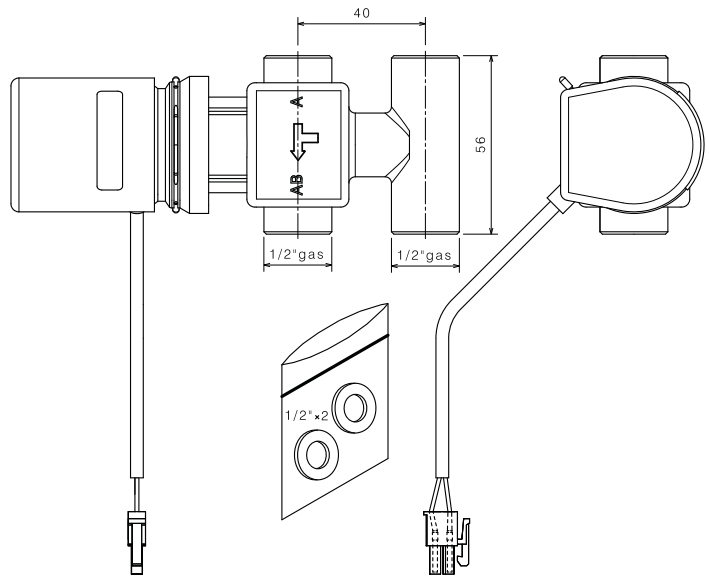
VHL1 - VHL20 3-WAY VALVES KIT



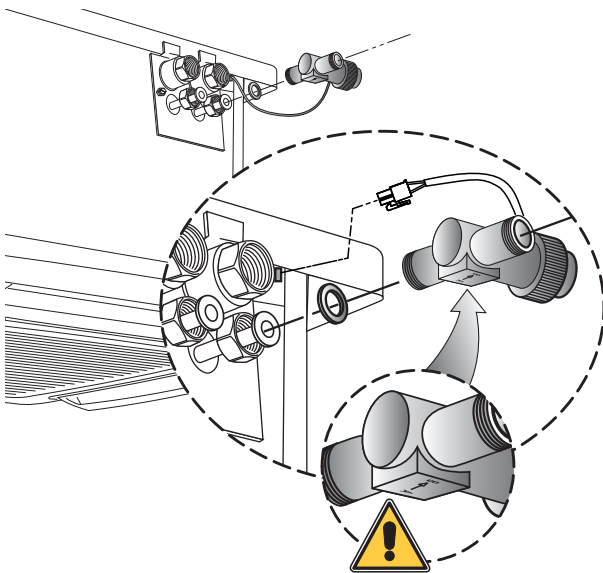
VHL1 - VHL20

Motor-driven three-way valve for the heating battery in 4-pipe systems.

Obligatory accessory for 4-pipe systems.



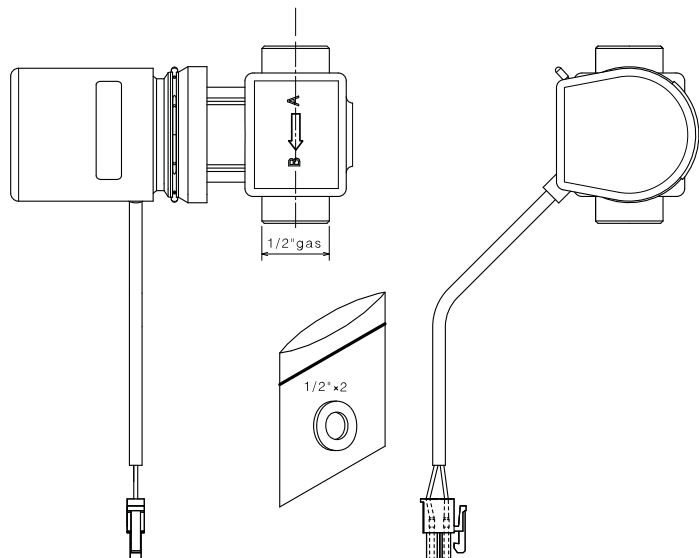
VHL2 - VHL22 2-WAY VALVES KIT



VHL2 - VHL22

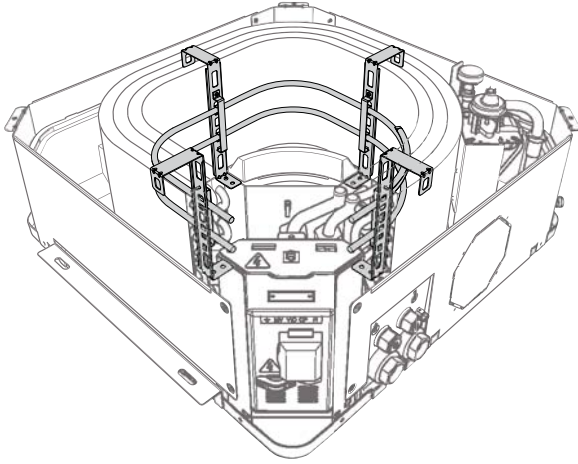
motor-driven two-way valve for the heating battery in 4-pipe systems.

Obligatory accessory for 4-pipe systems with variable flow rates.



ACCESSORIES

RXLE - RXLE20 ELECTRIC RESISTOR FOR HEATER SYSTEM

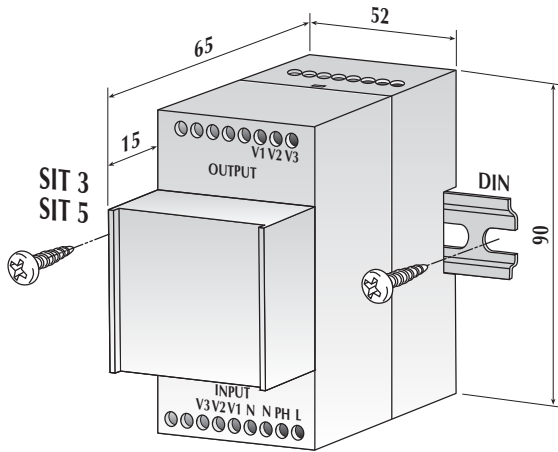


RXLE

RXLE20

Electric resistor for heater system to be installed on FCL units.
This accessory can only be used with the FCL models fitted with GLL_M, GLL_R or GLL_N range grilles.

SIT3 - SIT5 INTERFACE CARDS



SIT 3

Each fan coil fitted with a SIT3 card becomes a Slave and can be controlled from a centralised control panel with electro-mechanical selector or with a SIT 5. Up to ten (FCX range) fan coils fitted with SIT 3 can be applied to a single centralised control.

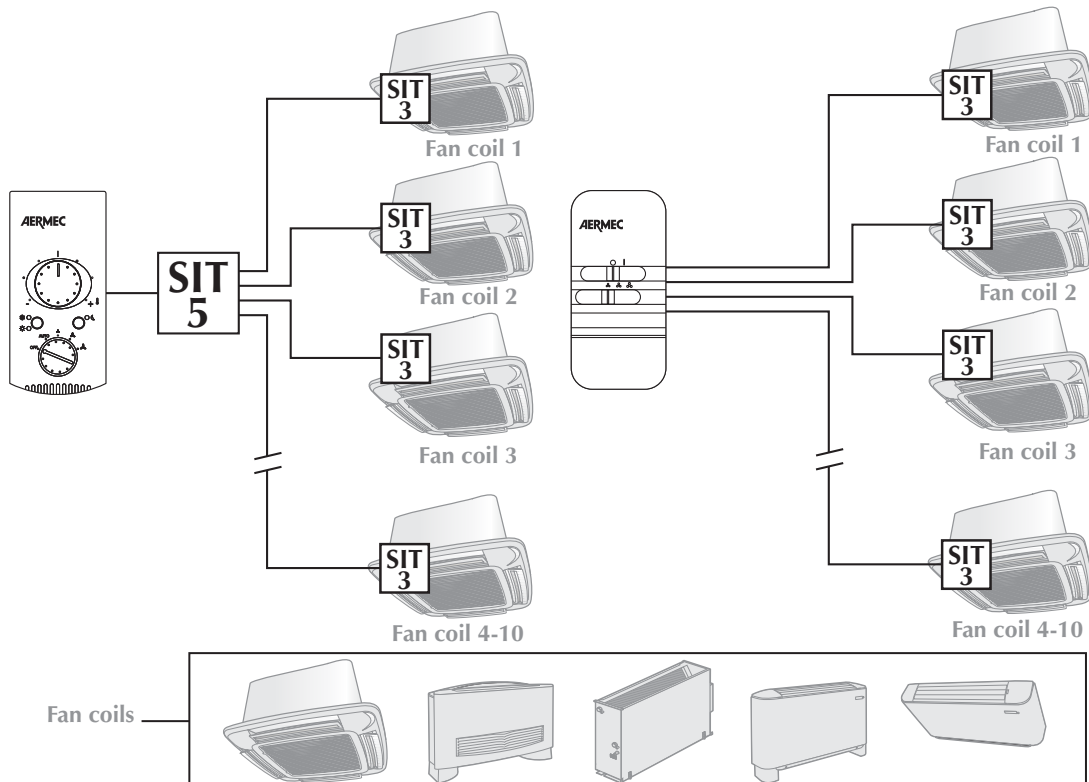
⚠ The electronic control panels or those with valve control must be interfaced with a SIT 5.

⚠ The electromechanical control panels with just the speed control can be fitted directly to the SIT 3 without the SIT 5 interface.

SIT 5

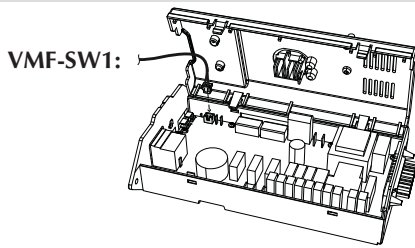
The SIT 5 accessory, a Master interface card, connects to the electronic control panels with or without valve or electric resistor valve control.

The SIT5 interface card requires all fan coils connected to it (up to 10) to be fitted with SIT3 Slave interface cards.



ACCESSORIES

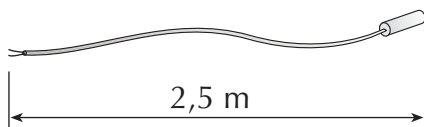
VMF-SW1 WATER TEMPERATURE PROBE FOR: - COLD WATER CIRCUIT IN 4-PIPE SYSTEMS



VMF-SW1:

Water temperature probe for VMF System thermostats to be used in:
- the cold water circuit in 4-pipe systems

SW3 MINIMUM WATER TEMPERATURE SENSOR



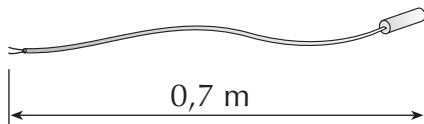
SW3 water temperature probe accessory to be used with the PXAE control panel.

It detects the water temperature in the heating coil, to prevent the fans from operating when the water temperature

is lower than 35°C. The SW3 sensors are fit for 230V single phase power supply.

The probe is equipped with a 2.5 metre length cable.

SW4 WATER TEMPERATURE PROBE FOR: - 2-PIPE SYSTEMS - HOT WATER CIRCUIT IN 4-PIPE SYSTEMS

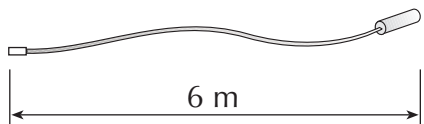


SW4

Water temperature probe for VMF System thermostats to be used in:

- 2-pipe systems
- the hot water circuit in 4-pipe systems

SWA MINIMUM WATER AND AIR TEMPERATURE PROBE



SWA external probe accessory for FMT20AW control panels.

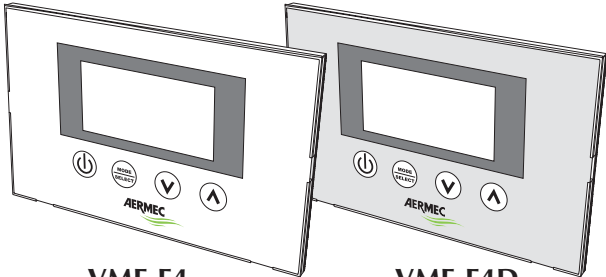
- **The probe detects the temperature of the ambient air** if connected to the connector (A) of the FMT20AW panel; the ambient air temperature probe incorporated in the panel is automatically deactivated.
- **Detects the temperature of the water** in the system for ventilation consent, if connected to the connector (W) of the FMT20AW panel.

Two SWA probes can be connected to the panel FMT20AW simultaneously.

The probe is equipped with a 6 metre length cable.

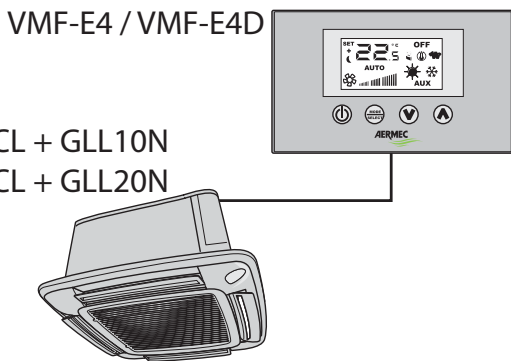
ACCESSORIES VMF SYSTEM CONTROL PANELS

VMF-E4 / VMF-E4D VMF RANGE THERMOSTAT CONTROL PANEL, WALL MOUNTING



VMF-E4
PANTONE COOL GRAY 1C

VMF-E4D
PANTONE 425C (METAL)



FCL + GLL10N
FCL + GLL20N

Wired control panel, user interface for thermostats incorporated in GLL10N and GLL20N grille units, and for all other VMF range thermostats.

The panel must be used with VMF range thermostats and operates a single or networked fan coil (see characteristics of the combined thermostat)

Wall mounting with connection cable.

Digital display, "Touch" keyboard, only 11mm thick and mounted on the wall in Type 503 recessed electrical boxes and compatible with the Type 502 boxes, M20 (see installation manual).

The following can be selected from the control panel:

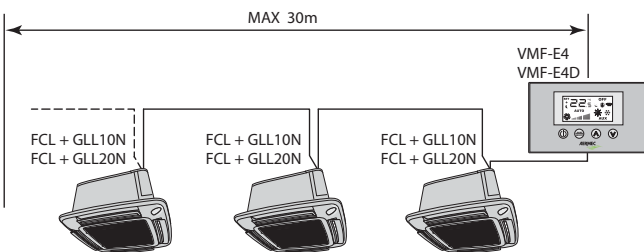
- Switching the device on and off
- The ventilation speed, in automatic or manual mode
- The room temperature
- The operating mode

The digital display also shows:

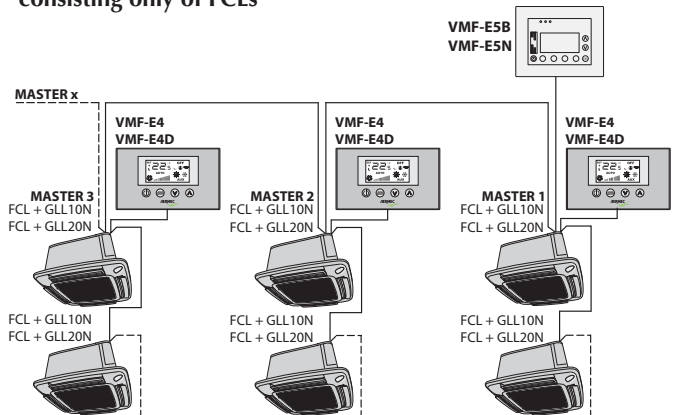
- Thermostat On / Off
- The room temperature / set temperature
- The ventilation speed with 3 positions displayed by graduated bar
- The operating mode (Automatic / Heating / Cooling)
- The night-time comfort function (Sleep)
- Supervisor controlled operating mode (VMF-E5B / VMF-E5N)

See the accessories manual for complete information on its features.

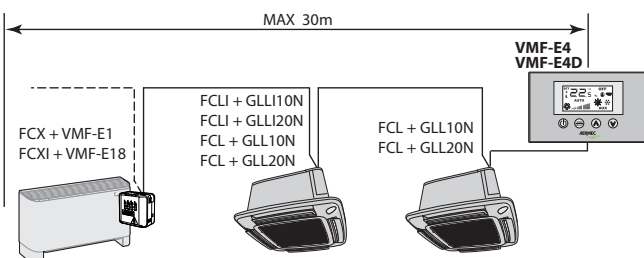
Example of a TTL local network consisting only of FCLs



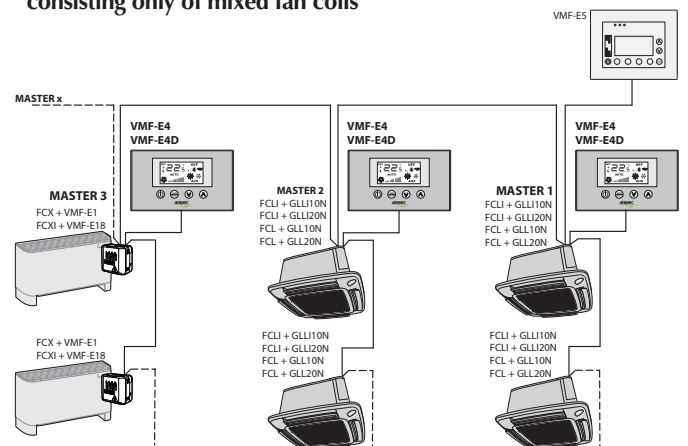
Example of a network with VMF-E5B / VMF-E5N supervisor consisting only of FCLs



Example of a TTL local network consisting of mixed fan coils



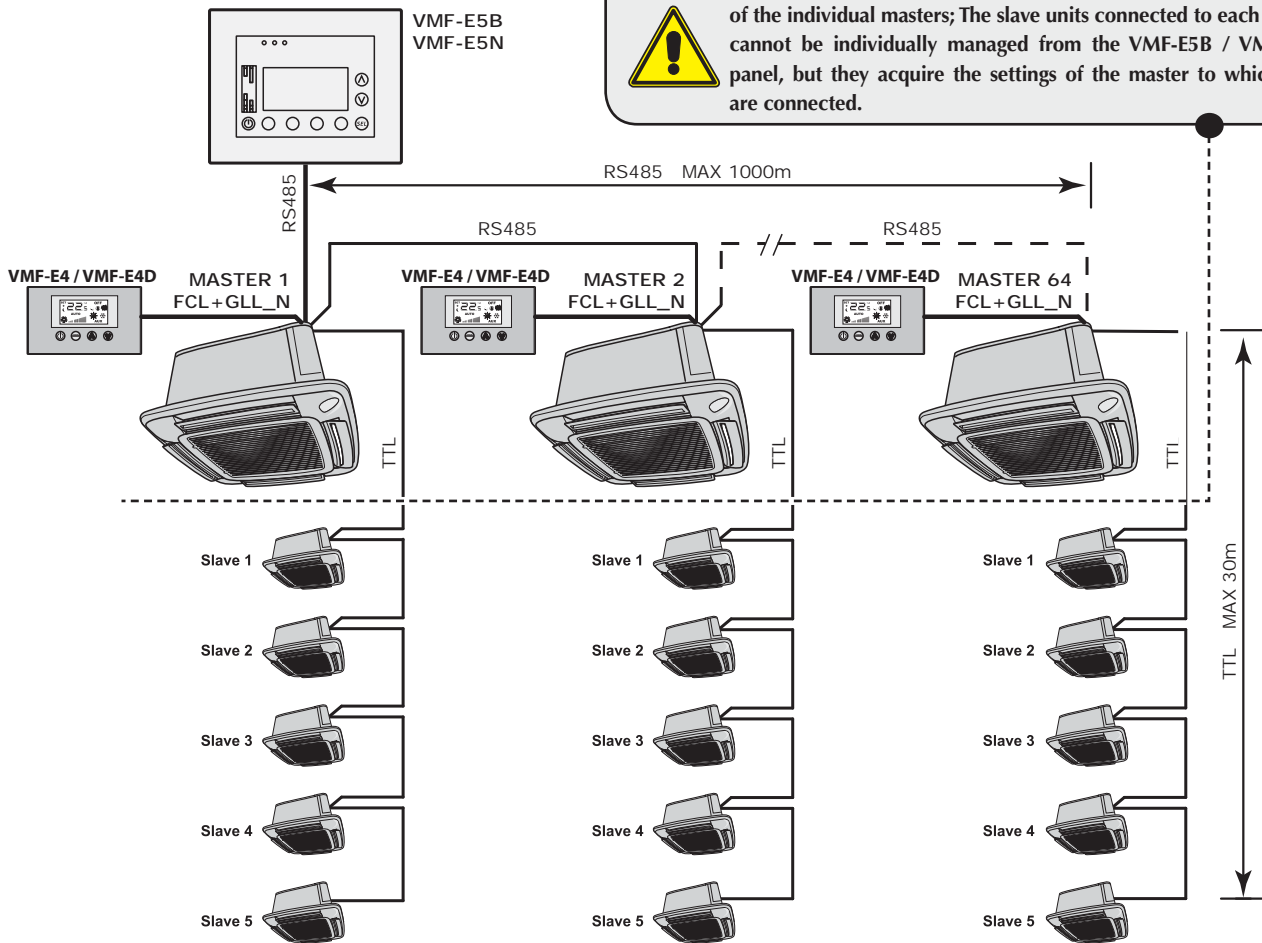
Example of a network with VMF-E5B / VMF-E5N supervisor consisting only of mixed fan coils



ACCESSORIES VMF SYSTEM SUPERVISION

VMF-E5B / E5N SYSTEM'S MAIN SUPERVISION INTERFACE

WARNING: the VMF-E5B / VMF-E5N panel allows the management of the individual masters; The slave units connected to each master cannot be individually managed from the VMF-E5B / VMF-E5N panel, but they acquire the settings of the master to which they are connected.



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

Recessed supervisor control panel, available in two colours:

- **VMF-E5B** white
- **VMF-E5N** black.

Graphic back-lit LCD display and capacitive keyboard.

VMF-E5B / VMF-E5N allows for the centralised control/operation of a complete hydronic system consisting of:

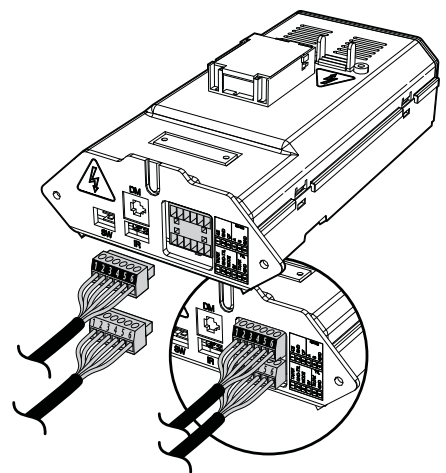
- Fan coils: up to 64 fan coil zones comprising 1 master + maximum 5 slaves.
- Chiller/heat pump equipped with controls Modu_Control, GR3 and pCO₂ / PCO₃ (required accessory RS 485 interface respectively MODU-485A, AER485, AER485P2 / AER485P1)
- Circulators: maximum of 12 configurable zone circulators.
- Boiler: boiler consensus management for hot water production.
- Heat recovery units: consents up to 3 per programmable recovery units based on the timing and/or by measuring the

air quality obtained with the VMF-VOC accessory.

- Domestic hot water module: complete management of the domestic hot water production through the control of:
 - Diverting valve/circulator
 - Supplementary heater
 - Accumulation temperature probe
 - Anti-legionella circuit

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

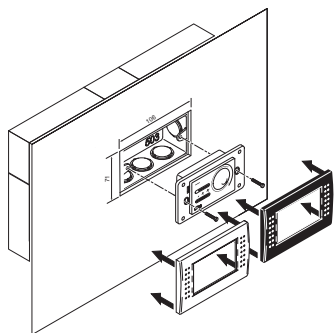
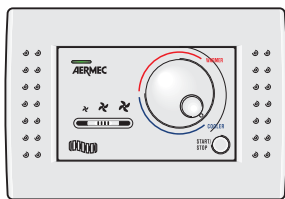
⚠ See the accessories manual for complete information on its features.



CONTROL PANEL ACCESSORIES

FMT10 CONTROL PANEL WITH THERMOSTAT

FMT10



Thermostat for fan coils installed in systems with 4 pipes, 2 pipes and 2 pipes with heater, with the possibility of connecting two On - Off valves to shut off the water feeding the coils.

Commands simplified with only two selectors for temperature and ventilation control (3 speeds).

Colour: RAL 9016.

Two cover plates supplied, Black and White.

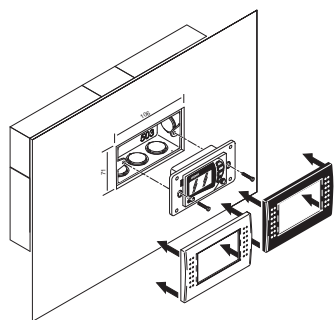
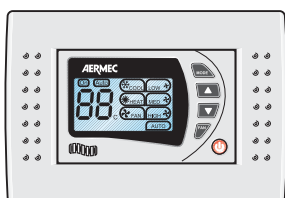
Ambient air probe (L=6000mm, supplied with probe holder) to be positioned inside the fan coil.

⚠ See the accessories manual for complete information on its features.

Built-in installation (module 503).

FMT20AW CONTROL PANEL WITH THERMOSTAT AND LCD DISPLAY

FMT20 AW



Thermostat with LCD display for fan coils installed in systems with 4 pipes, 2 pipes and 2 pipes with heater, with the possibility of connecting two On-Off valves to shut off the water feeding the coils.

Colour: RAL 9016. Two cover plates supplied, Black and White.

Air temperature probe inside the panel.

It is possible to connect a probe to measure the ambient air temperature (SWA accessory) which disables the internal probe.

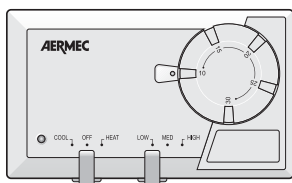
It is possible to connect a probe to measure the water temperature of the system (SWA accessory).

⚠ See the accessories manual for complete information on its features.

Built-in installation (module 503).

WMT10 CONTROL PANEL WITH ELECTROMECHANICAL THERMOSTAT

WMT10



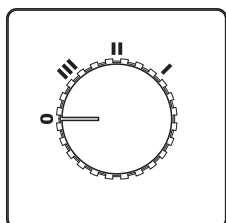
electromechanical thermostat for fan coils installed in 4-pipe, 2-pipe and 2-pipe with heater systems, with the possibility of connecting two On-Off valves to shut off the water feeding the coils.

The panel is electrically protected by an internal fuse. Continuous or thermostat-controlled ventilation.

⚠ See the accessories manual for complete information on its features.

Wall-mounting.

PX CONTROL PANEL WITH SPEED SELECTOR



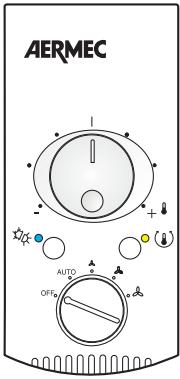
PX: control panel with selector.

⚠ See the accessories manual for complete information on its features.

Wall-mounting.

CONTROL PANEL ACCESSORIES

PXAE CONTROL PANEL WITH MULTIFUNCTION ELECTRONIC THERMOSTAT



Multifunction electronic room thermostat for fan coils in 2-pipe and 4-pipe systems.

Simplified controls with only two selectors to control temperature and ventilation, 3 speeds + automatic speed, on-off and automatic summer-winter switching, according to water temperature.

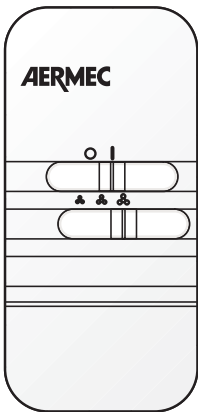
It can control up to two On-Off valves. Continuous or thermostat-controlled ventilation.

The minimum water temperature probe SW3 is available as an accessory. It interrupts the heating operation when the water temperature is below 35°C.

⚠ See the accessories manual for complete information on its features.

Wall-mounting.

PX2 - PX2C6 CONTROL PANEL WITH SPEED SELECTOR



PX2

Control panel for manual control of ventilation speed, consisting of an on/off selector and a three position selector to choose the fan speed.

⚠ See the accessories manual for complete information on its features.

Packaged individually.

Wall-mounting.

PX2C6

Same panel used for PX2 accessory without bracket for installation on the fan coil machine.

⚠ See the accessories manual for complete information on its features.

In multiple 6-piece pack, individually sealed.

Wall-mounting.

INSTALLATION

ATTENTION: before carrying out any intervention, make sure that the electric power supply has been disconnected.

ATTENTION: before carrying out any work, wear the appropriate individual protection devices.

ATTENTION: The appliance must be installed in compliance with national regulations on this subject.

ATTENTION: the electric connections, the installation of the fan coils and their accessories must only be performed by subjects with the technical-professional requisites for enabling and installation, transformation, extension and maintenance of the systems and able to check the same for safety and functionality purposes (in this manual they will be indicated by the generic term "staff with specific technical skill").

In particular, for the electric connections, checks relative to the following are requested:

- Measurement of the electric plant isolation resistance.
- Continuity test of the protection wires.

ATTENTION: Install a device, master switch or electric plug that allows to completely interrupt the appliance's electric power supply.

Here find the essential indications for correct installation of the appliance.

The completion of all operations, according to specific requirements, is left to the experience of the installer.

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

The fan coil must be installed in a position such to easily allow routine maintenance (cleaning the filter) and extraordinary maintenance, as well as access to the air vent valve on the side of the frame (connections side).

Do not install the unit in rooms where inflammable gases or acid or alkaline substances are present that can permanently damage the copper-aluminium heat exchangers or internal plastic components.

Do not install the unit in workshops or kitchens, where oil vapours mixed with the treated can deposit on the heat exchanger coils, reducing their performance, or on the internal parts of the unit, thus damaging the plastic components.

The fan coil must be installed in a position such that the air can be distributed throughout the entire room, that there are no obstacles (curtains or objects) to the passage of air from the intake grids.

Choose a position in the centre of the room if possible; the regulation of the air output allows the air to be distributed optimally in the room. Generally

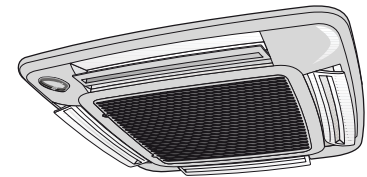
the best position of the fins is that that allows the launch of the air adhering to the ceiling for the coined effect, during cold functioning. The side section of the deflectors (Module 600) shows the opening positions for proper warm functioning (opening 20°) and cold functioning (opening 10°) of the machine.

For the Module 840 units, it is recommended to completely open the deflector in heating mode. In cooling mode, rotate the deflector to half way.

Depending on the user's requirements, it is possible to position the louvered fins in the intermediate of complete closure positions. Thanks to the special shapes of the louvered fins the machine can also function with the deflectors completely closed.

Do not install at height of above three metres.

The FCL unit is set for connection with fresh air ducts and for the flow of the treated air in an adjacent room.



SYSTEM EXAMPLES

Key:

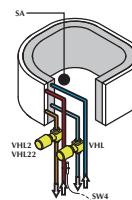
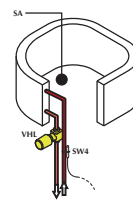
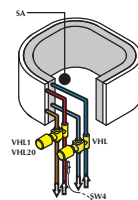
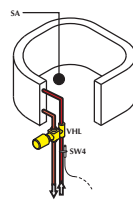
- SA
- SW
- RXLE

- Room temperature probe
- Water temperatur probe
- Electric heater (for Module 600 only)

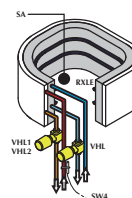
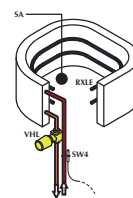
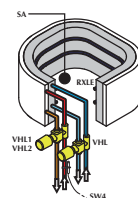
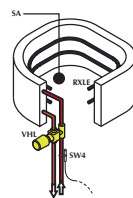
- VHL
- VHL1 / VHL20
- VHL2 / VHL22

- Solenoid valve (Heating/Cooling)
- Hot Valve (3-way)
- Hot Valve (2-way)

2-pipe systemi

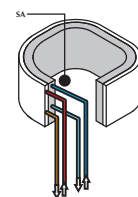
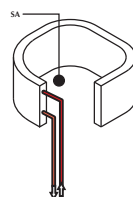


4-pipe system



2-pipe system with resistance

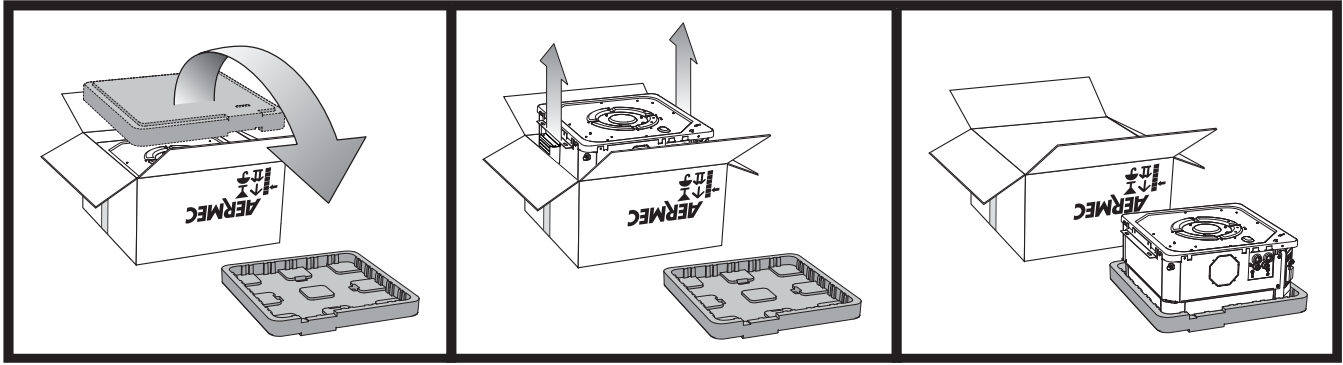
(Only for models and configurations that envision heating with resistance)



4-pipe system with resistance

(Only for models and configurations that envision heating with resistance)

INSTALLATION OF THE "MODULE 600" UNIT



- Choose where to install the machine according to the layout of the room, the number of units to be installed and any limitations imposed by the architecture. Check that installation and maintenance of the machine is possible in the position chosen.

- Install four M8 threaded rods into the ceiling to hold the frame.

Proceed as follows to install the FCL unit:

- Overturn the FCL cassette fan coil box.

- Open the cardboard package.

- Remove the box, it is recommended to make incisions on the corners of the box and to remove the cardboard one piece at a time.

- Remove the upper part of the packaging shell used to protect the unit during transport.

- If necessary, mount any accessories (electric resistances, fresh air kit or flow to adjacent room, hot water valve). Carry out these operations before installing the unit on the ceiling.

ATTENTION: consult the accessory manuals.

- Do not handle the unit using the hydraulic connections but use the appropriate brackets.

- Lift the unit carefully using the brackets and holding it slightly inclined. Fix it to the 4 threaded rods using the 8 nuts of which 4 are self-locking. Act on the nuts to adjust the height, finally check that the unit is installed in a horizontal position.

- Feed the hydraulic lines through the suspended-ceiling to the attachment plate on the unit;

- Make the hydraulic connections as described in the relative chapter.

- Take the condensate drain pipe to the respective fitting on the attachment plate;

- Bleed the system, the vent valve for the two-pipe circuit is external on the connections plate. The vent valve for the heating circuit of the 4-pipe system is internal, to access remove the polystyrene basin.

- Connect the condensate drain as described in the relative chapter.

- Take the electric power supply cables and control cables in proximity of

the electric box; make sure that 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 grid accessories (GLL10, GLL10R and GLL10 M).

- Consult the grid accessories manuals. The instructions for mounting and connection of the electric box are contained in the manual supplied with the grid accessory.

- After having completed the connections and the electric box is inserted in its housing in the FCL unit, fix it using the two screws.

ATTENTION: fix the safety cable to the electric box screw fastener positioned at the side of the hydraulic connections. The safety cable snap hook must then be attached to the grid frame.

- For GLL10M and GLL10R only: apply any air probe (SA) to the centre of the fan grid, fix the cable using the supplied straps, lay the excess cable in the grooves made in the polystyrene.

- The grill frame must be positioned in a way that the AERMEC logo holder corresponds with the corner of the electric box.

- Mount the grill to the safety cable.

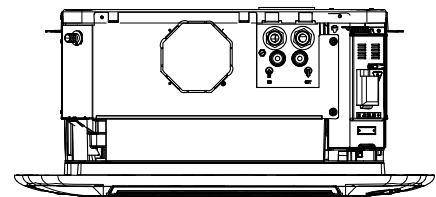
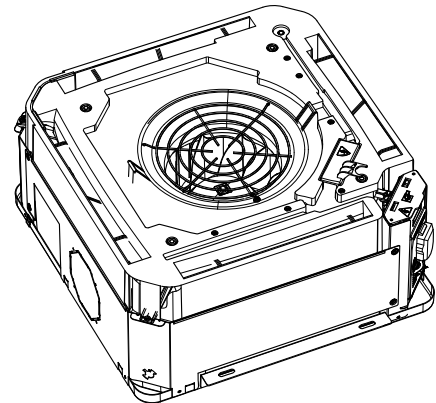
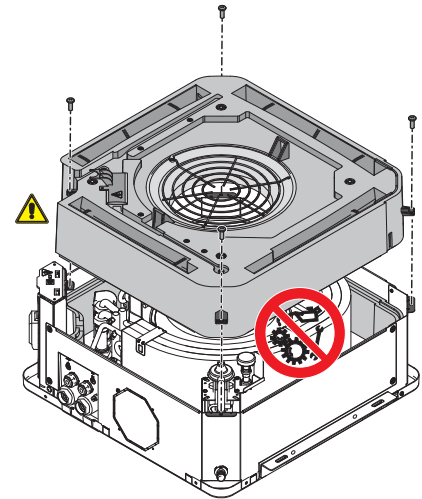
- For GLL10M and GLL10R only: make the connections between the electric box and the receiver.

- Fix the grid using the 4 screws.

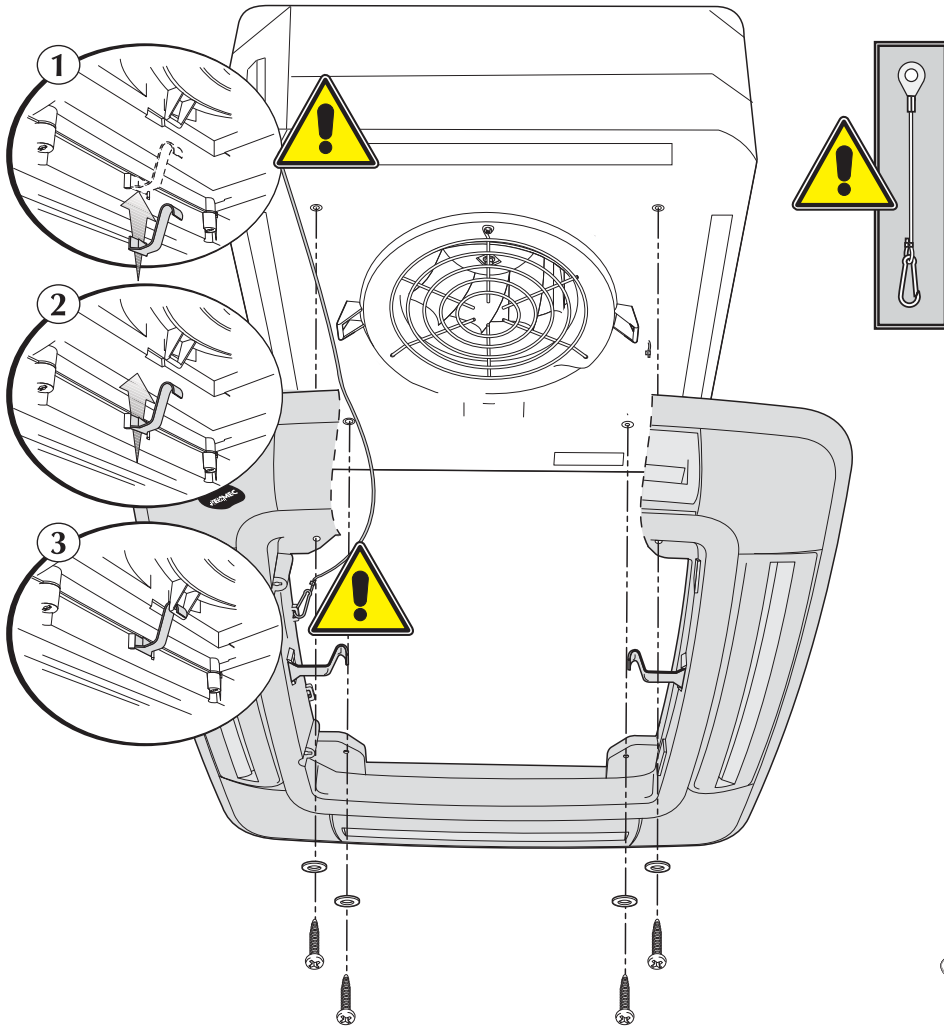
ATTENTION!! tighten the screws with maximum coupling torque of 0.45 Nm. It is advised to use a screwdriver, do not use non-calibrated electric screwdrivers. An excessive coupling torque will damage the tray irreparably.

- Adjust the position of the unit by the support bracket by means of the nuts, in a way that the unit is level and the frame rests slightly in the suspended ceiling.

- Start the fan coil and carry out a functioning test. The functions are described in the user manual.

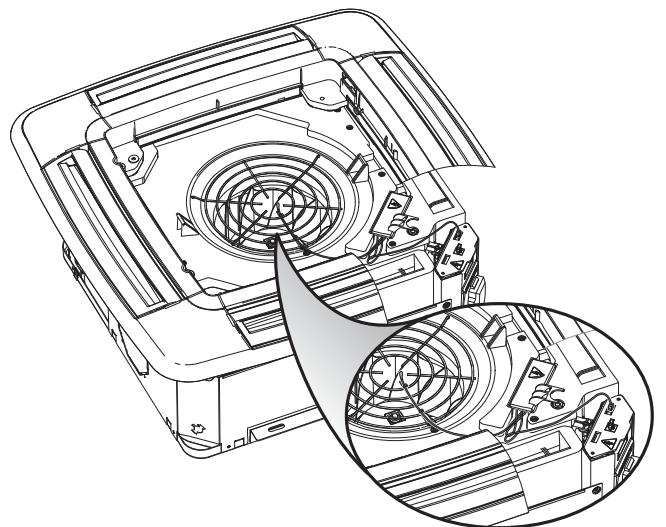
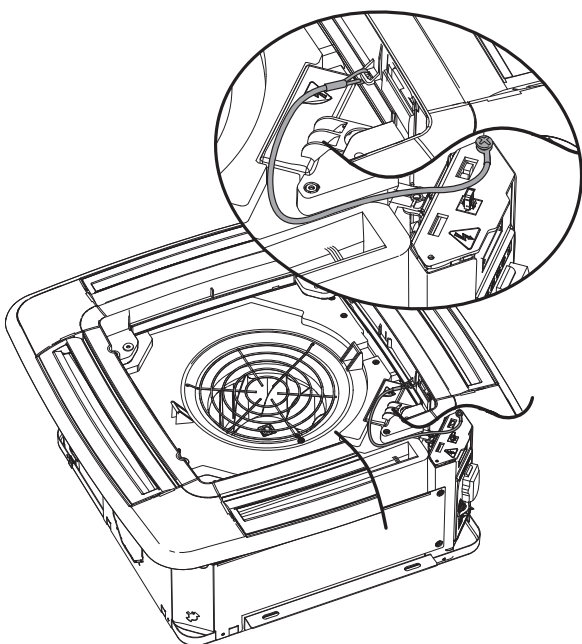
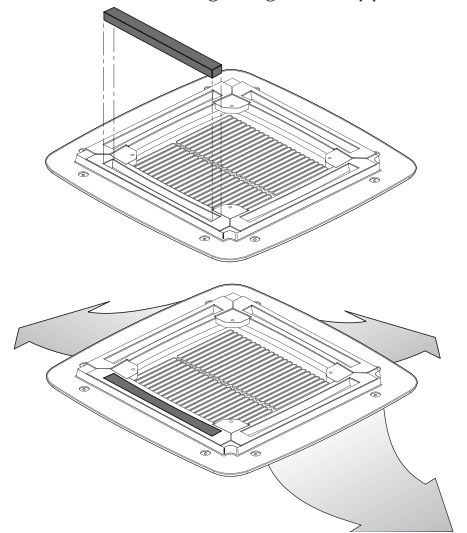


"MODULE 600" INSTALLATION

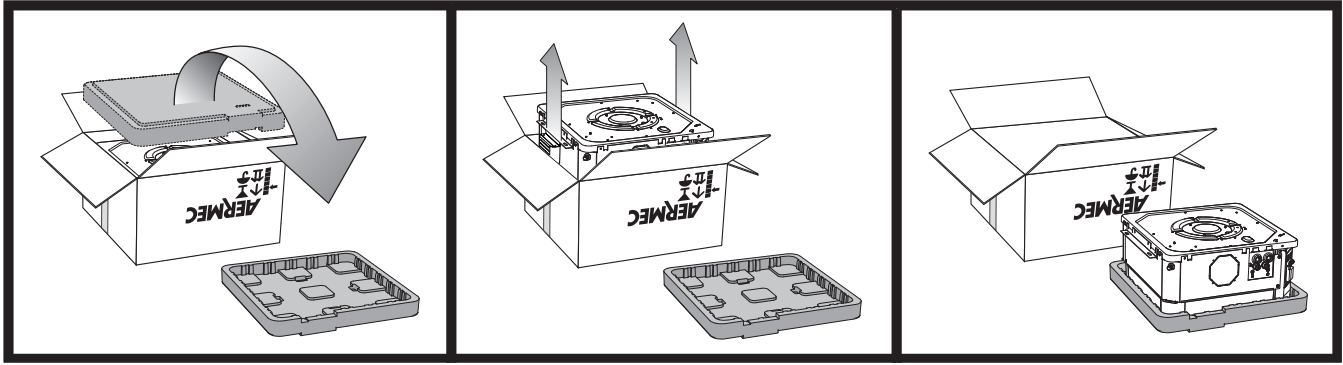


• INSTALLATION IN PROXIMITY OF A WALL

If installed in proximity of a wall it is possible to close the corresponding flow inlet using the gasket supplied.



INSTALLATION OF THE "MODULE 840" UNIT



- Choose where to install the machine according to the layout of the room, the number of units to be installed and any limitations imposed by the architecture. Check that installation and maintenance of the machine is possible in the position chosen.
- Install four M8 threaded rods into the ceiling to hold the frame.

Proceed as follows to install the FCL unit:

- Open the cardboard package.
- Overturn the FCL cassette fan coil box.
- Remove the box.
- Remove the packaging shells used to protect the unit during transport.
- Apply the 4 installation brackets all' unit. (see figure)
- If necessary, mount any accessories (electric resistances, fresh air kit or flow to adjacent room, hot water valve). Carry out these operations before installing the unit on the ceiling.

ATTENTION: consult the accessory manuals.

- **Do not handle the unit using the hydraulic connections but use the brackets.**
- Lift the unit carefully using the brackets and holding it slightly inclined. Fix it to the 4 threaded rods using the 8 nuts of which 4 are self-locking. Act on the nuts to adjust the height, finally check that the unit is installed in a horizontal position.
- Feed the hydraulic lines through the suspended-ceiling to the attachment plate on the unit;
- Make the hydraulic connections as described in the relative chapter.
- Take the condensate drain pipe to the respective fitting on the attachment plate;
- Connect the condensate drain as described in the relative chapter.
- Bleed the system, the vent valves are external on the connections plate.
- Take the electric power supply cables and control cables in proximity of the electric box; make sure that 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 grid

accessories (GLL20 and GLL20R)).

- Consult the grid accessory manuals. The instructions for mounting and connection of the electric box are contained in the manual supplied with the accessory.
- After having completed the connections and the electric box is inserted in its housing in the FCL unit, fix it using the two screws.

- **For GLL20R only:** apply any air probe (SA) to the centre of the fan grid, fix the cable using the supplied straps, lay the excess cable in the grooves made in the polystyrene.

- **The grill frame must be positioned in a way that the AERMEC logo holder corresponds with the corner of the electric box.**

- Fix the grid using the 4 screws.

ATTENTION!! tighten the screws with maximum coupling torque of 0.45 Nm. It is advised to use a screwdriver, do not use non calibrated electric screwdrivers. An excessive coupling torque will damage the tray irreparably.

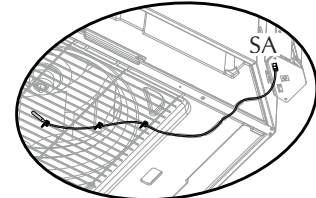
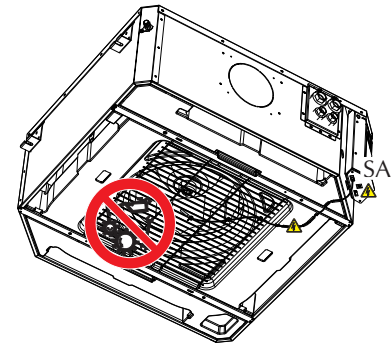
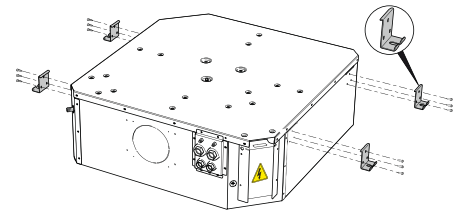
- **ATTENTION: fix a safety cable snap hook must then be attached to the grid frame and the other snap hook to the fan protection grid.**

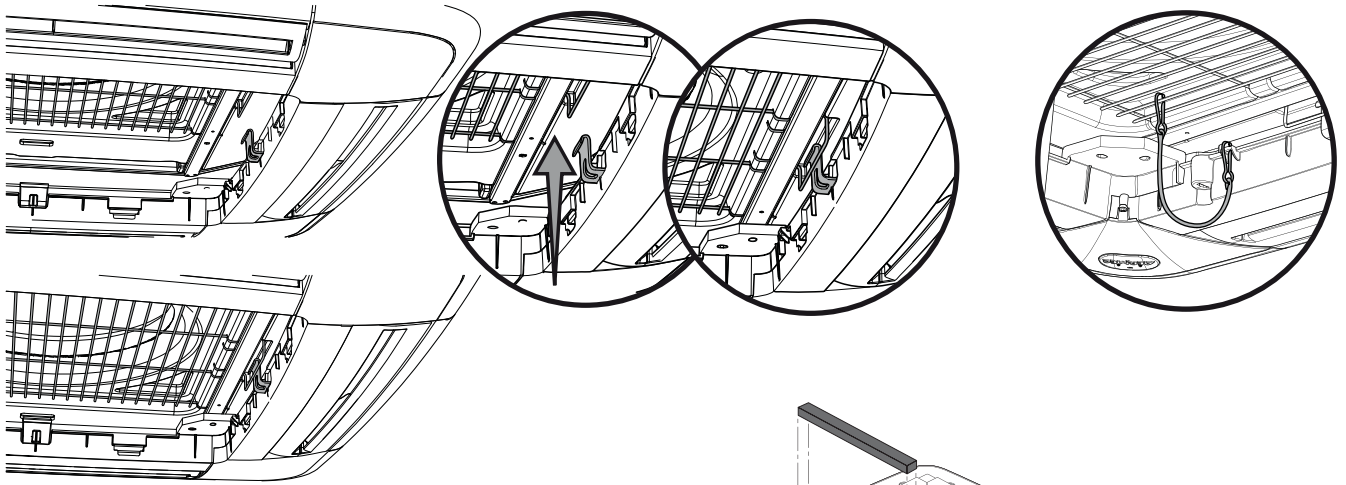
- Fix the intake grill to the safety cable.

- **For GLL20R only:** make the connections between the electric box and the receiver.

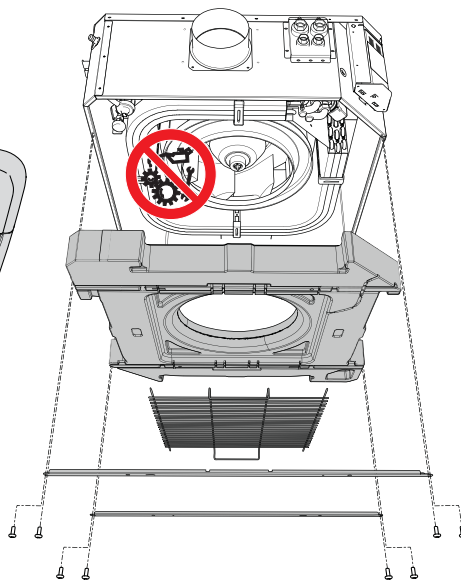
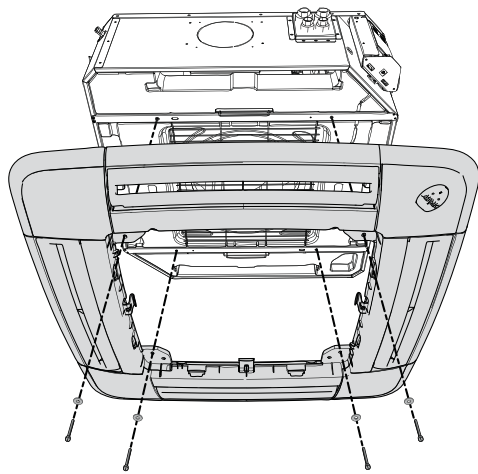
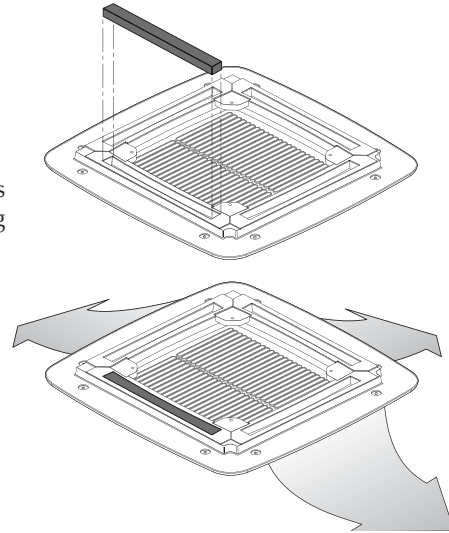
- Adjust the position of the unit by the support brackets by means of the nuts, in a way that the unit is level and the frame rests slightly on the suspended ceiling.

- Start the fan coil and carry out a functioning test. The functions are described in the user manual.



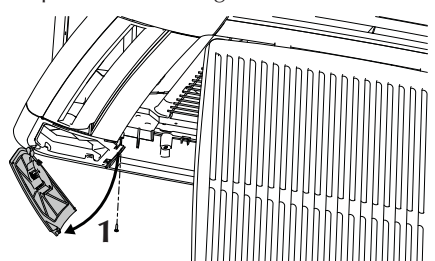


- **Installation in proximity of a wall**
If installed in proximity of a wall it is possible to close the corresponding flow inlet using the gasket supplied.

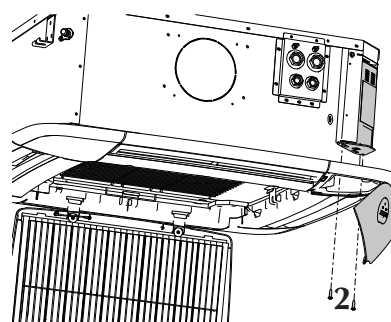


- **Disassembly for maintenance**
 - Before performing any operation on the unit, the electric power supply must be interrupted.
 - To access the inside of the unit, remove the two cross-members fixed to the frame with the screws. It is now possible to remove the fan protection grid and the polystyrene basin. (see figure)
 - **DANGER!!** Before re-applying voltage to the unit, all components, especially the protection grid, must have been re-mounted correctly.

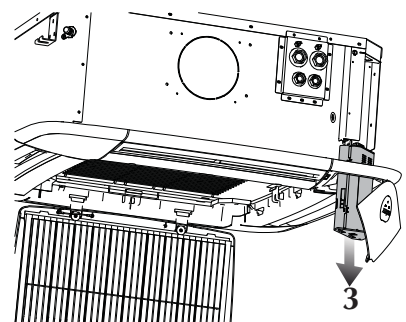
- **Electric box maintenance**
If the electric box must be accessed for maintenance, follow the indications below:



- Open the filter grid (turn the two ratchets by $\frac{1}{4}$ of a turn).
- Remove the lock screw on the corner door with the Aermec logo.
- Remove the 2 lock screws from the electric box.



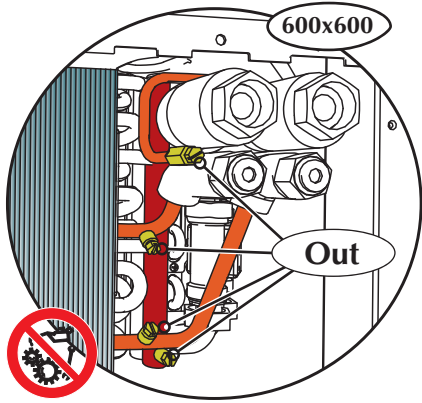
- Slide the electric box downwards.
- Carry out the necessary maintenance.
- Re-mount everything performing the disassembly procedure in reverse order.



CONNECTIONS

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

HYDRAULIC CONNECTIONS

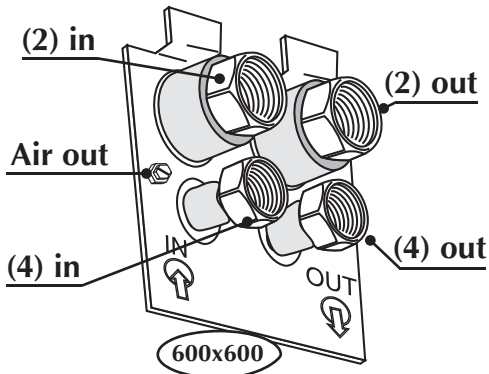
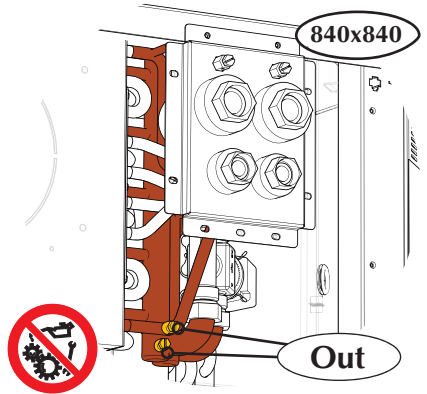


The hydraulic attachments are with flat stroke fittings complete with supplied gaskets.

In the 4-pipe version of the unit, it is **mandatory to install the hot water coil valve accessory**. For this purpose use the supplied gaskets, the accessory has gaskets for connection to the system.

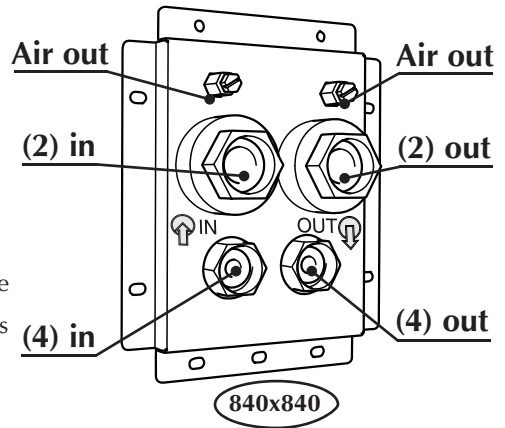
Information for the correct installation of the valve is contained in the accessory's instructions.

The flow and return pipes must be equal, suitably dimensioned and insulated to avoid heat dispersion and dripping during functioning in cooling mode



CONNECTIONS

- (2) = Standard coil connections
- Air = Standard coil air vent valve
- (4) = Hot water coil connections



Mod. FCL	32	36	42	62	72	82	102	122	34	38	44	64	84	104	124	
Standard coil connections (2) \varnothing	3/4" F								3/4" F							
Additional coil connections (4) \varnothing	--								1/2" F							

CONDENSATE DRAIN CONNECTIONS

During functioning in cooling mode the internal unit removes humidity from the air. The condensate water must be eliminated by linking the proper drainage pipe attachment with the condensate system drain pipe.

In the "Module 600" unit, the polystyrene basin has a hole that allows to empty the condensate, useful in the case of disassembly.

The draining hole must always be closed again using the rubber cap.

The units are supplied as standard with a number of floating pump-floats for lifting the condensate from the basin to the drainage consisting of one electric card, one electric pump with non-return valve and float with three-level sensors: ON, OFF and Alarm.

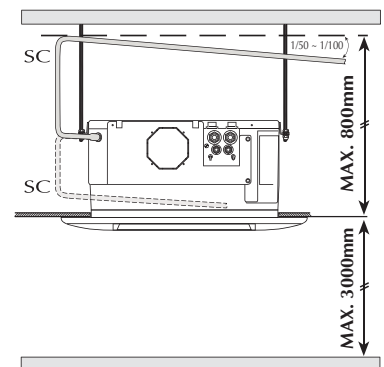
The electrical supply to the pump-float device must never be interrupted.

In the case of alarm the lifting 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 pump-float device is not working. In this case dripping can be seen from the grid.

The pump allows a maximum head of 80 cm from the level of the suspended ceiling. If this height is not sufficient an aux. device must be used.

It is advised to use heat-insulated rigid piping in order to avoid condensation on the outer surfaces.

SC = Condensate drain (male \varnothing 16mm)



CONNECTIONS FOR THE INTAKE OF EXTERNAL FRESH AIR

The unit can be connected to a fresh air intake duct through the circular flange accessory, applied to the vent.

The application of the flange requires the opening of a hole on the side. Connection to the outside is direct and

independent from unit ventilation. The accessory also includes a deflector to be mounted inside the unit.

CONNECTION FOR THE AIR FLOW CONDITIONED IN AN ADJOINING ROOM

The unit can be connected to a pipe for conditioned air flow into an adjacent

room, via the circular flange. The application of the flange requires the

opening of a hole on the side.

ELECTRIC CONNECTIONS

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

The FCL cassette fan coils must be powered with 230V ~ 50Hz current and have an earth connection. The line voltage must remain within the tolerance of $\pm 10\%$ with respect to the nominal value.

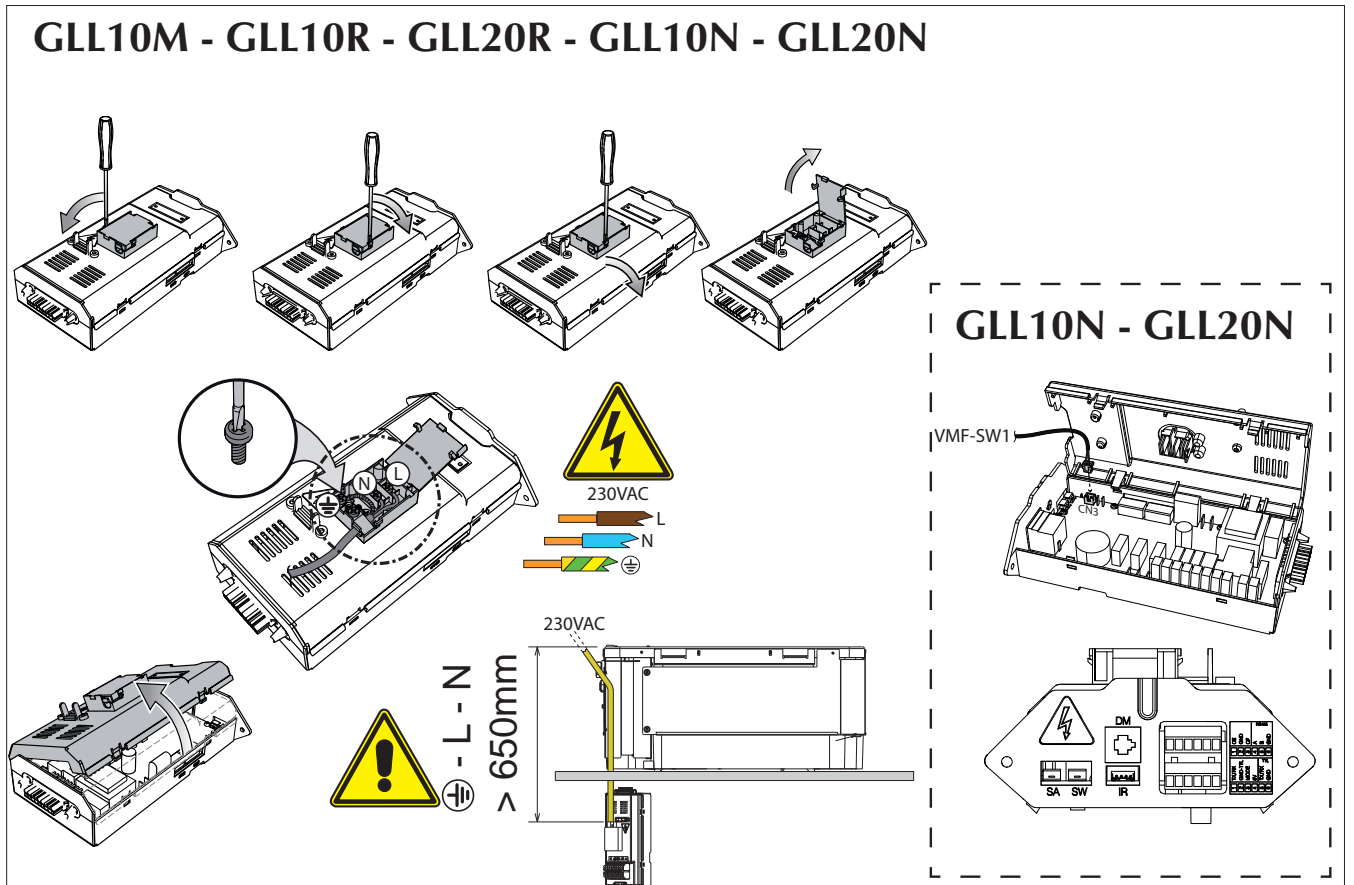
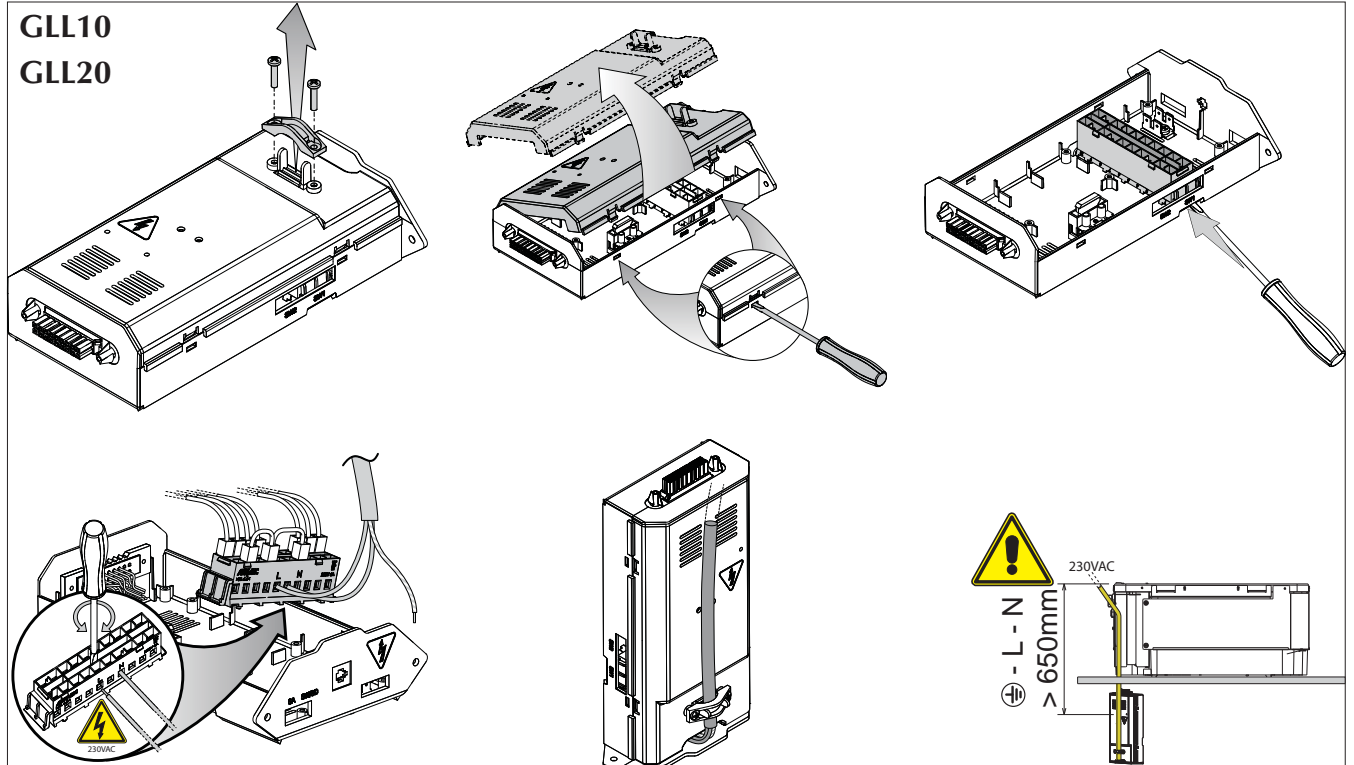
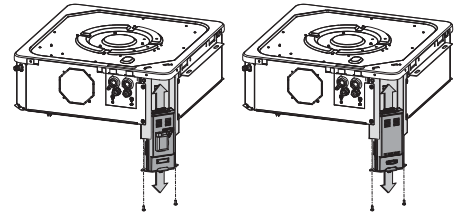
In order to protect the unit against short circuits, mount a max. 2A 250V (IG)

magnet circuit breaker omnipolar switch on the power supply line with a minimum contact opening distance of 3 mm.

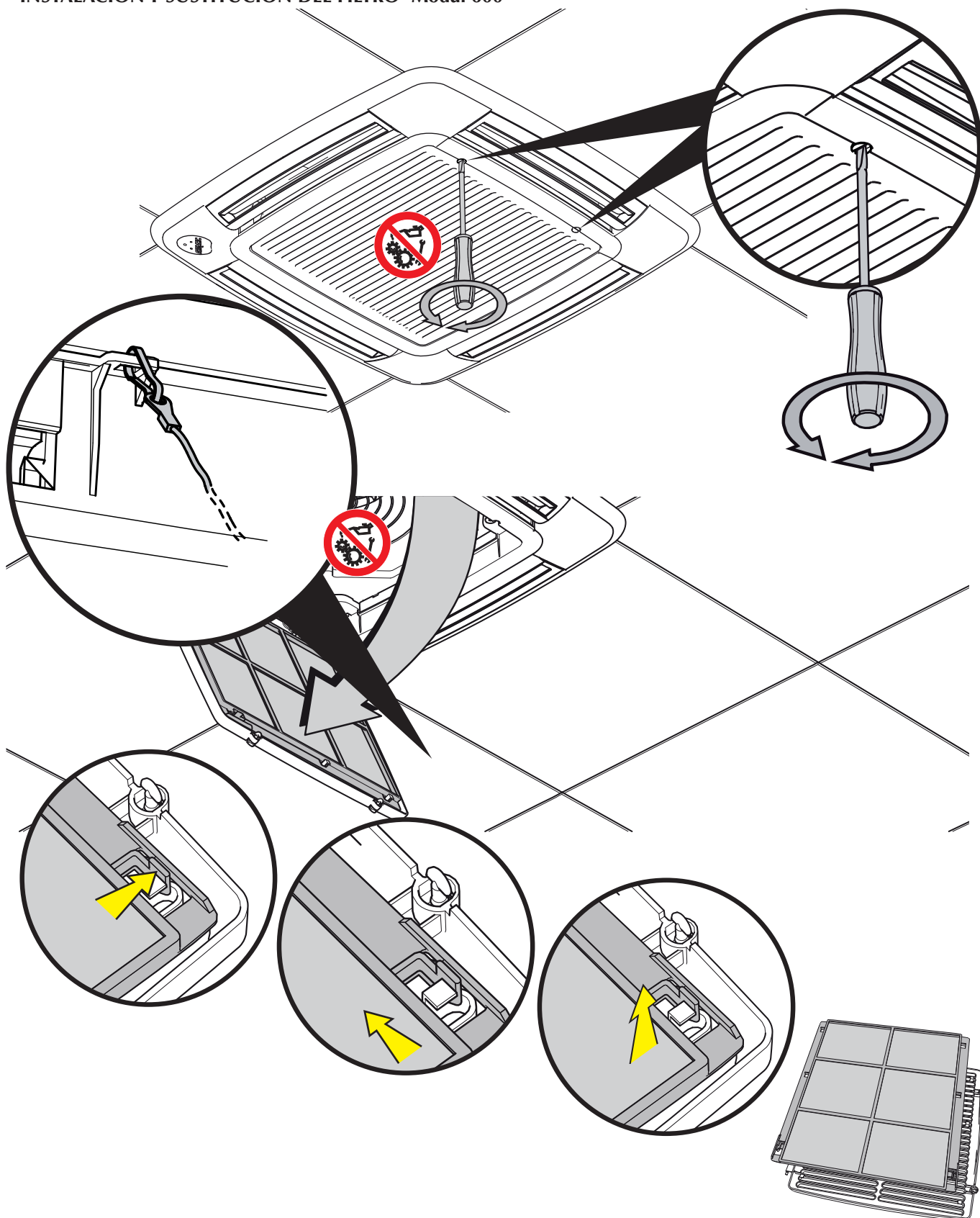
The electrical power supply cable must be of the H07 V-K or N07 V-K type with 450/750V insulation if inside a tube or raceway. Use cables with double H5VV-F type insulation for visible cable installation.

Refer to the wiring diagrams of the

appliance and the control panel.

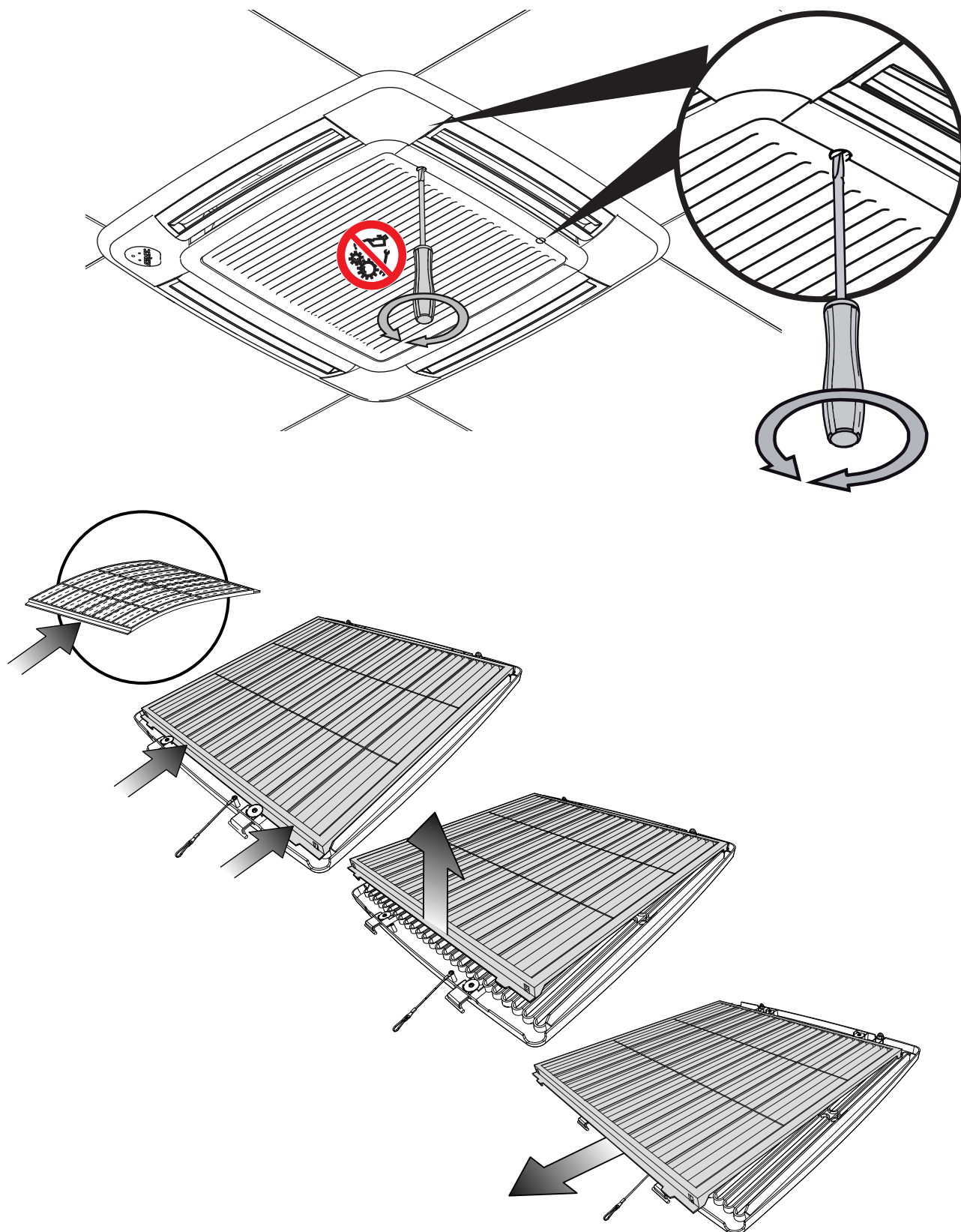


INSTALLAZIONE E SOSTITUZIONE DEL FILTRO "Modulo 600"
INSTALLATION AND REPLACEMENT OF THE "Module 600" FILTER
INSTALLATION ET REMPLACEMENT DU FILTRE "Module 600"
INSTALLATION UND AUSTAUSCH DES FILTERS "Modul 600"
INSTALACIÓN Y SUSTITUCIÓN DEL FILTRO "Módul 600"



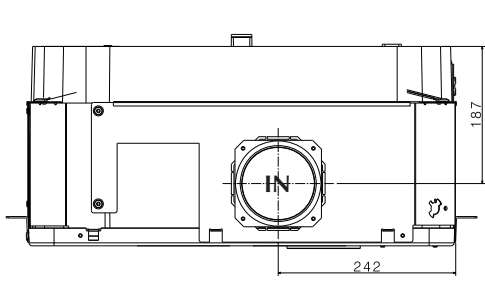
PERICOLO: Togliere tensione prima d'iniziare le operazioni di pulizia del filtro e/o dell'unità.
DANGER: Switch off power supply before cleaning filter and/or unit.
DANGER: Couper la tension avant de commencer les opérations de nettoyage du filtre et/ou de l'unité.
GEFAHR: Vor der Reinigung des Filters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

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"



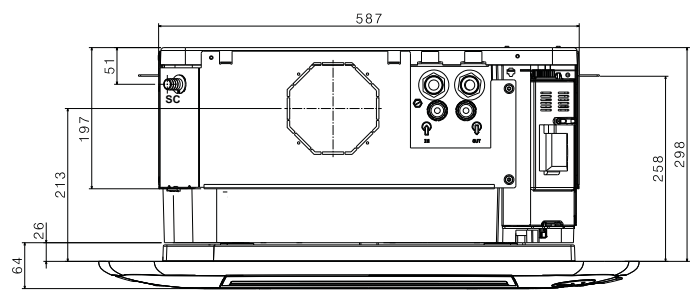
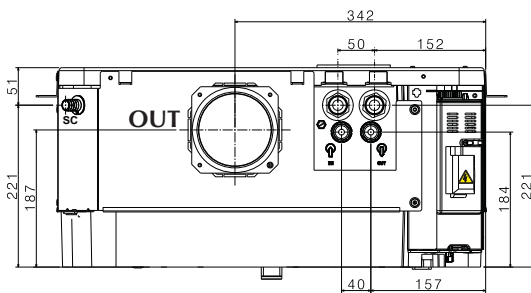
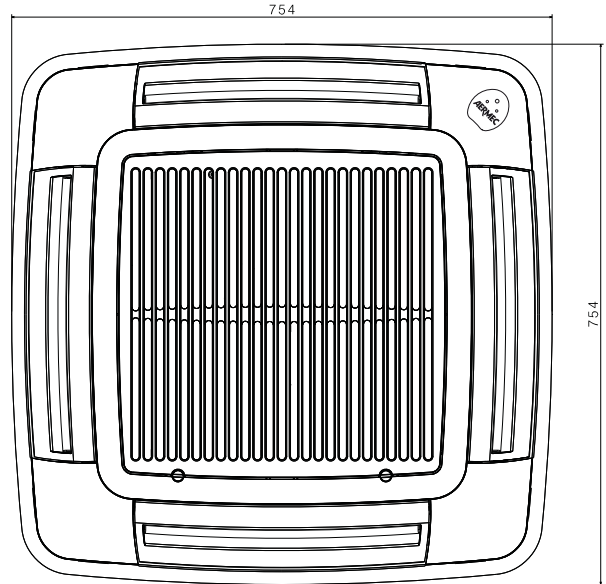
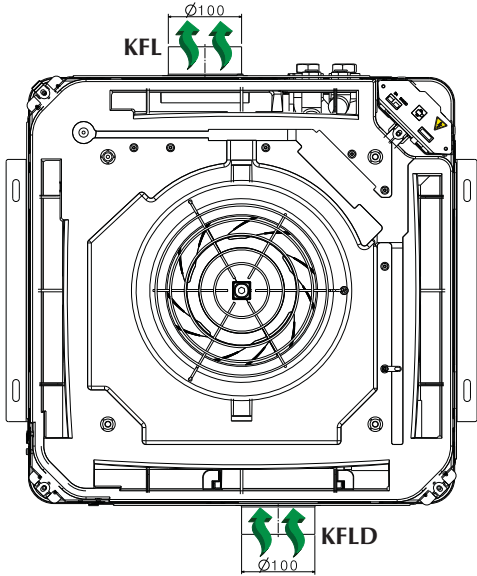
PERICOLO: Togliere tensione prima d'iniziare le operazioni di pulizia del filtro e/o dell'unità.
DANGER: Switch off power supply before cleaning filter and/or unit.
DANGER: Couper la tension avant de commencer les opérations de nettoyage du filtre et/ou de l'unité.
GEFAHR: Vor der Reinigung des Filters 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]

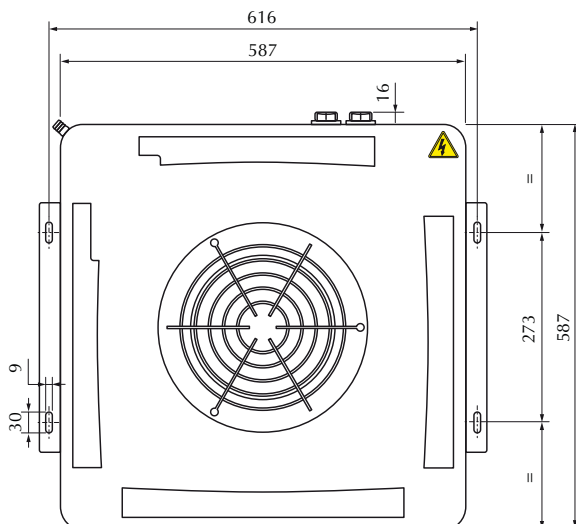


- FCL 32
- FCL 34
- FCL 36
- FCL 38
- FCL 42
- FCL 44
- FCL 62
- FCL 64
- FCL 72

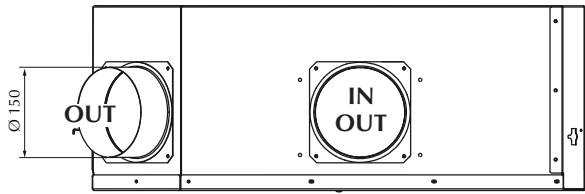
- GLL 10
- GLL 10 R
- GLL 10 M
- GLL 10 N



	FCL	32	34	36	38	42	44	62	64	72
FCL_	kg	20,5	21,0	20,5	21,0	20,5	21,0	22	22,5	22
FCL_V2	kg	20,5	21,0	20,5	21,0	20,5	21	21	22,5	21
FCL_VL	kg	20,0	20,5	20,0	20,5	20,0	20,5	21,5	22	21,5

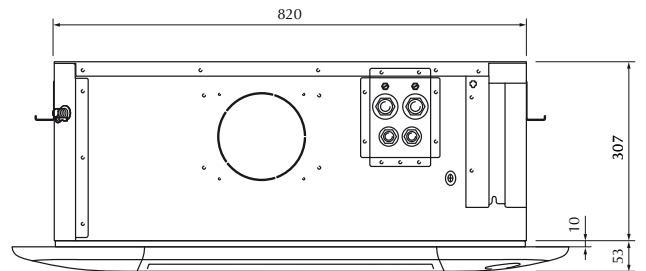
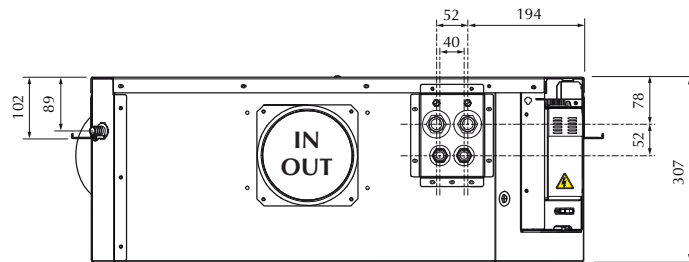
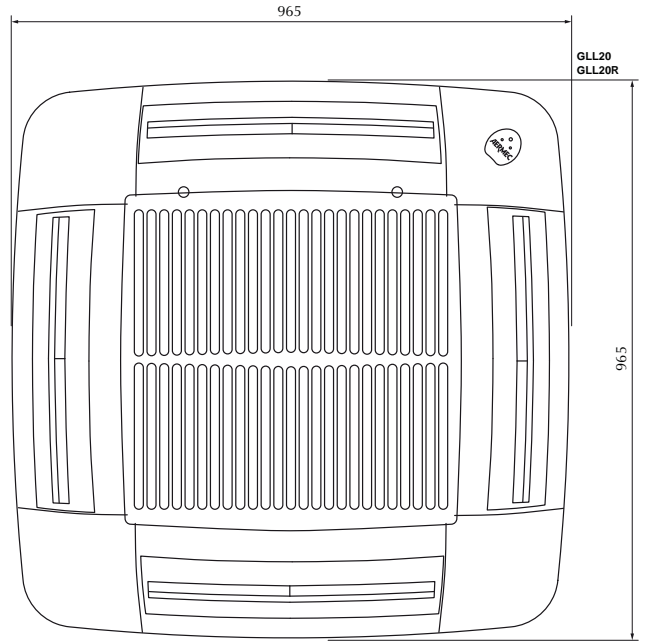
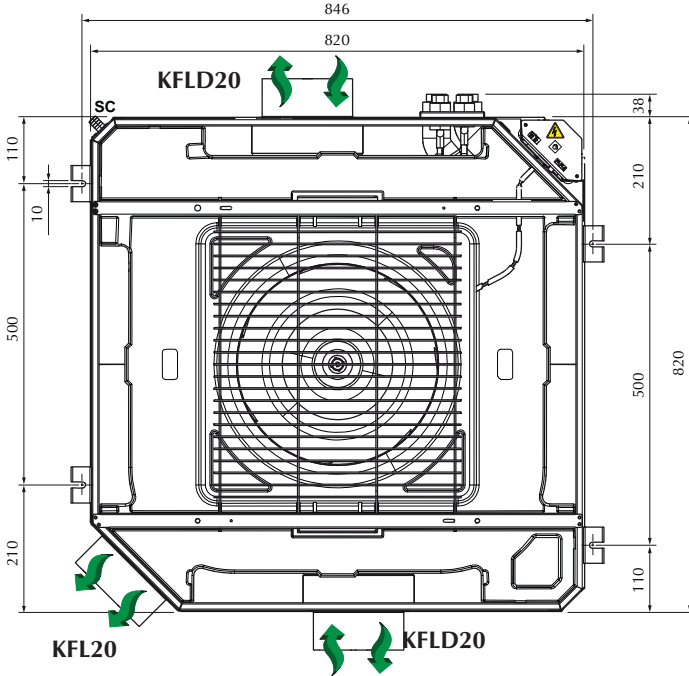


DATI DIMENSIONALI • DIMENSIONS • DONNÉES DES LES DIMENSIONS • ABMESSUNGEN • DATOS DIMENSIONALES [mm]

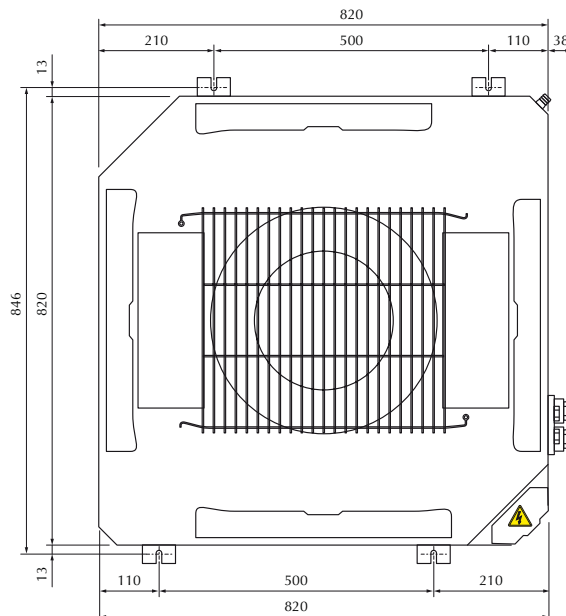


- FCL 82
- FCL 84
- FCL 102
- FCL 104
- FCL 122
- FCL 124

- GLL 20
- GLL 20 R
- GLL 20 N

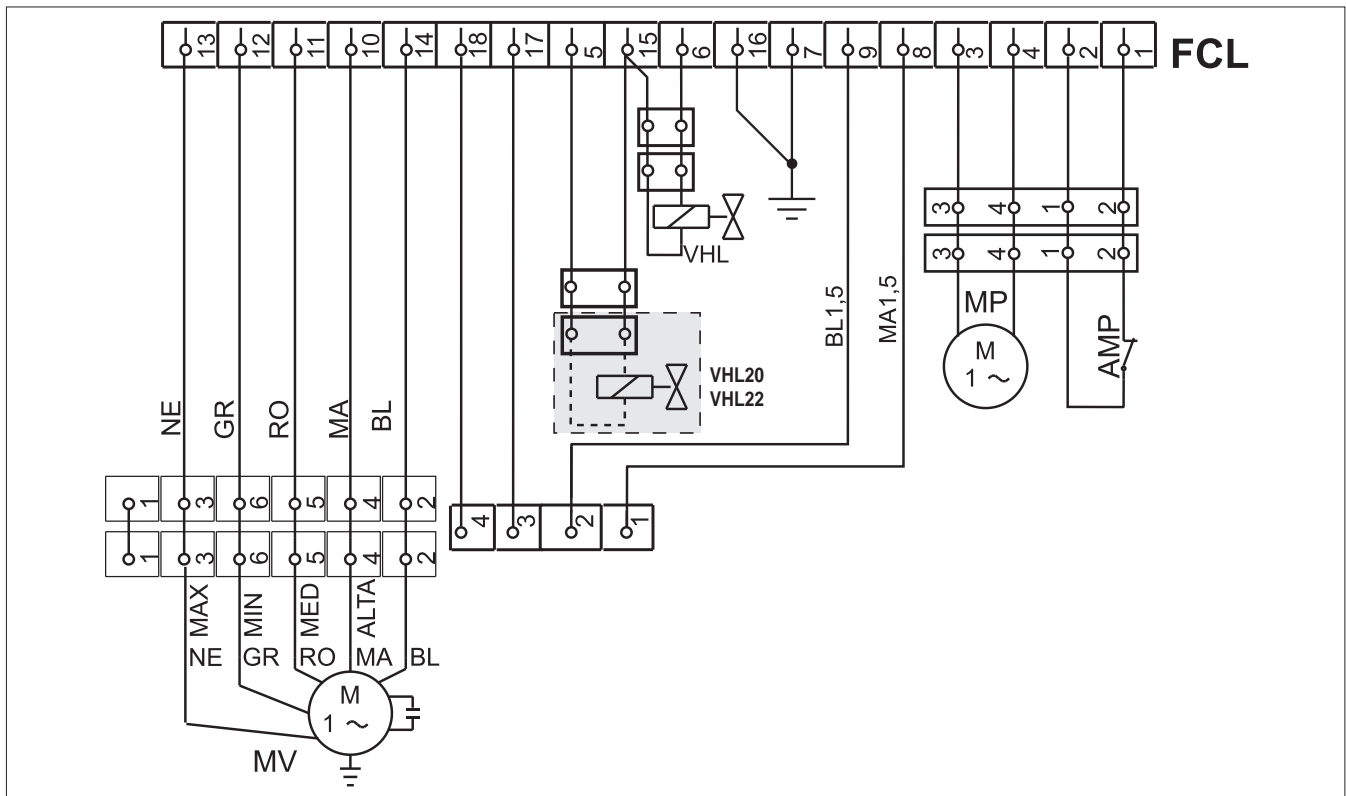


	FCL	82	84	102	104	122	124
FCL_	kg	36	36	36	36	36	36
FCL_V2	kg	36	36	36	36	36	36
FCL_VL	kg	36	35	35	35	35	35



LEGENDA • READING KEY • LEGENDE • LEGENDE • LEYENDA

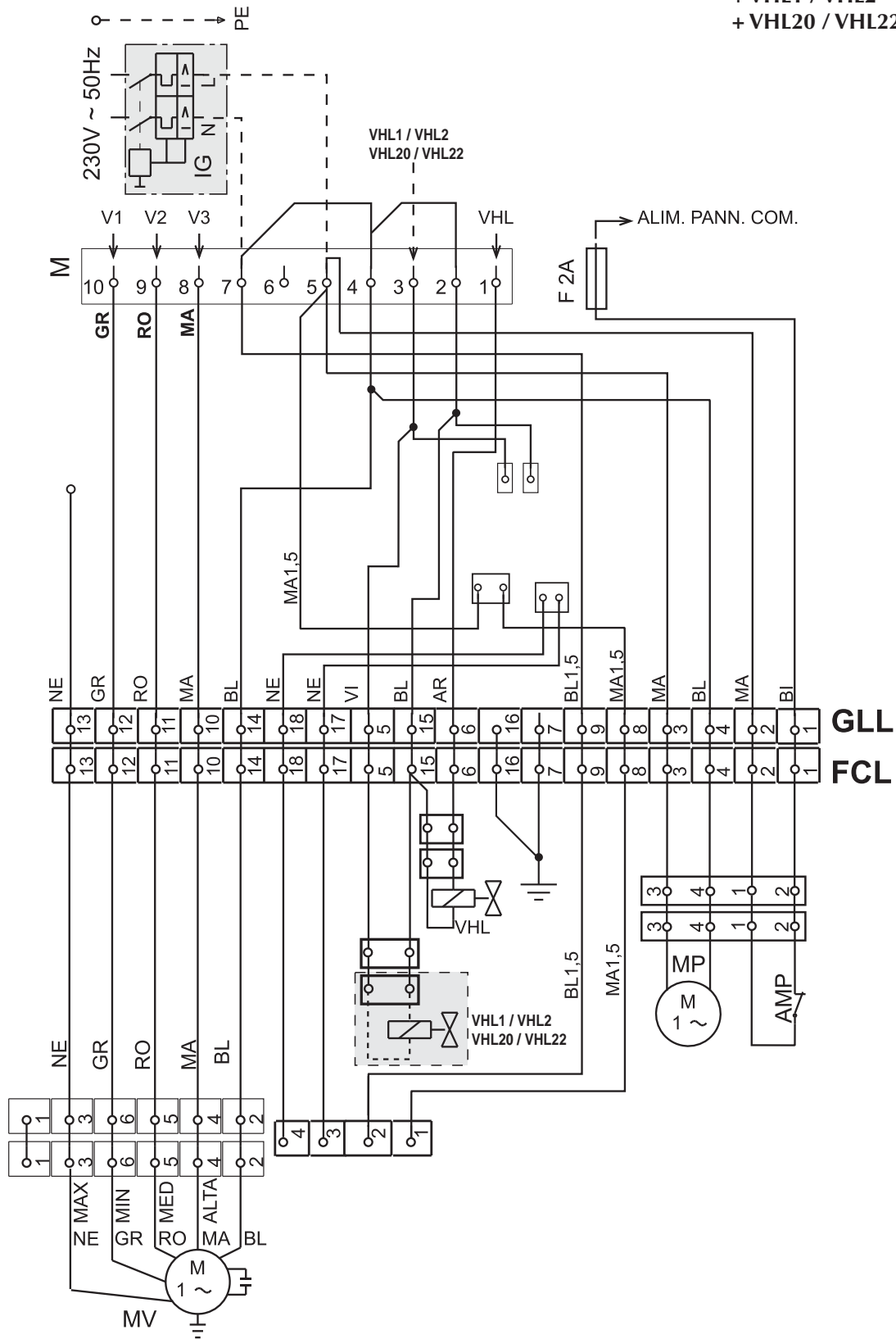
- AL** = Alimentatore
Power supply
Alimentation électrique
Spannung
Alimentador
- AMP** = Contatto allarme pompa scarico condensa
Contact alarm condensate pump discharge
Contact d'alarme de décharge de pompe condensat
Kontakt Alarm Kondensatpumpe Entlastung
Contacto de alarma de bomba de descarga de condensados
- CE** = Contatto esterno
- EX** = External contact
Contact extérieur
Externer Kontakt
Contacto externo
- CN** = Connettore
Connector
Connecteur
Schütz
Conector
- F** = Fusibile • Fuse • Fusible
Sicherung • Fusible
- IG** = Interruttore generale • Main switch
Interrupteur général • Hauptschalter
Interruptor general
- M** = Morsettiera • Terminal board
Boitier • Klemmleiste
Placa de bornes
- DM** = Motore aletta
Louvre motor
Moteur deflecteur
Motor- Umlenkklappe
Lamas motorizadas
- MP** = Pompa scarico condensa
Condensate drain pump
Pompe de vidange du condensat
Kondensatablass Pumpe
Bomba de desagüe de condensado
- MV** = Motore ventilatore • Fan motor
Moteur ventilateur • Ventilatormotor
Motor del ventilador
- PE** = Collegamento a terra
- GND** = Earth connection
Mise à terre
Erdanschluss
Toma de tierra
- RE** = Resistenza elettrica
- RXLE** = Electric heater
Résistance électrique
El. Heizregister
Resistencia eléctrica
- SA** = Sonda ambiente
Room sensor
Sonde ambiante
Raumtemperaturfühler
Sonda ambiente
- SC** = Scheda di controllo
Electronic control board
Platine de contrôle • Steuerschaltkreis
Tarjeta electrónica de control
- SIT** = Scheda interfaccia termostato
Thermostat interface card
Carte d'interface thermostat
Thermostat-Schnittstellenkarte
Tarjeta interfaz termostato
- SR** = Sonda resistenza elettrica
Electric heater sensor
Sonde résistance électrique
El. Heizregister sensor
Sonda de la resistencia eléctrica
- SW** = Sonda minima temperatura acqua
Water low temperature sensor
Sonde minimum temp. eau
Wasserfühler
Sonda temperatura mínima del agua
- SWA** = (FMT20AW)
Sonda temperatura acqua / ambiente
Water / Room temperature sensor
Sonde temp. eau / ambiante
Wasserfühler / Raumtemperaturfühler
Sonda temperatura del agua / ambiente
- VHL** = Valvola solenoide • Solenoid valve
Vanne solenoide • Magnetventil
Válvula solenoide
- Componenti non forniti**
Components not supplied
Composants non fournis
Nicht lieferbare Teile
Componentes no suministrados
- Componenti forniti optional**
Optional components
Composants en option
Optionsteile
Componentes opcionales
- Collegamenti da eseguire in loco**
On-site wiring
Raccordements à effectuer in situ
Vor Ort auszuführende Anschlüsse
Cableado in situ
- AR** = Arancio • Orange • Orange • Orange • Naranja
- BI** = Bianco • White • Blanc • Weiss • Blanco
- BL** = Blu • Blue • Bleu • Blau • Azul
- 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



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FCL
GLL10 / GLL20

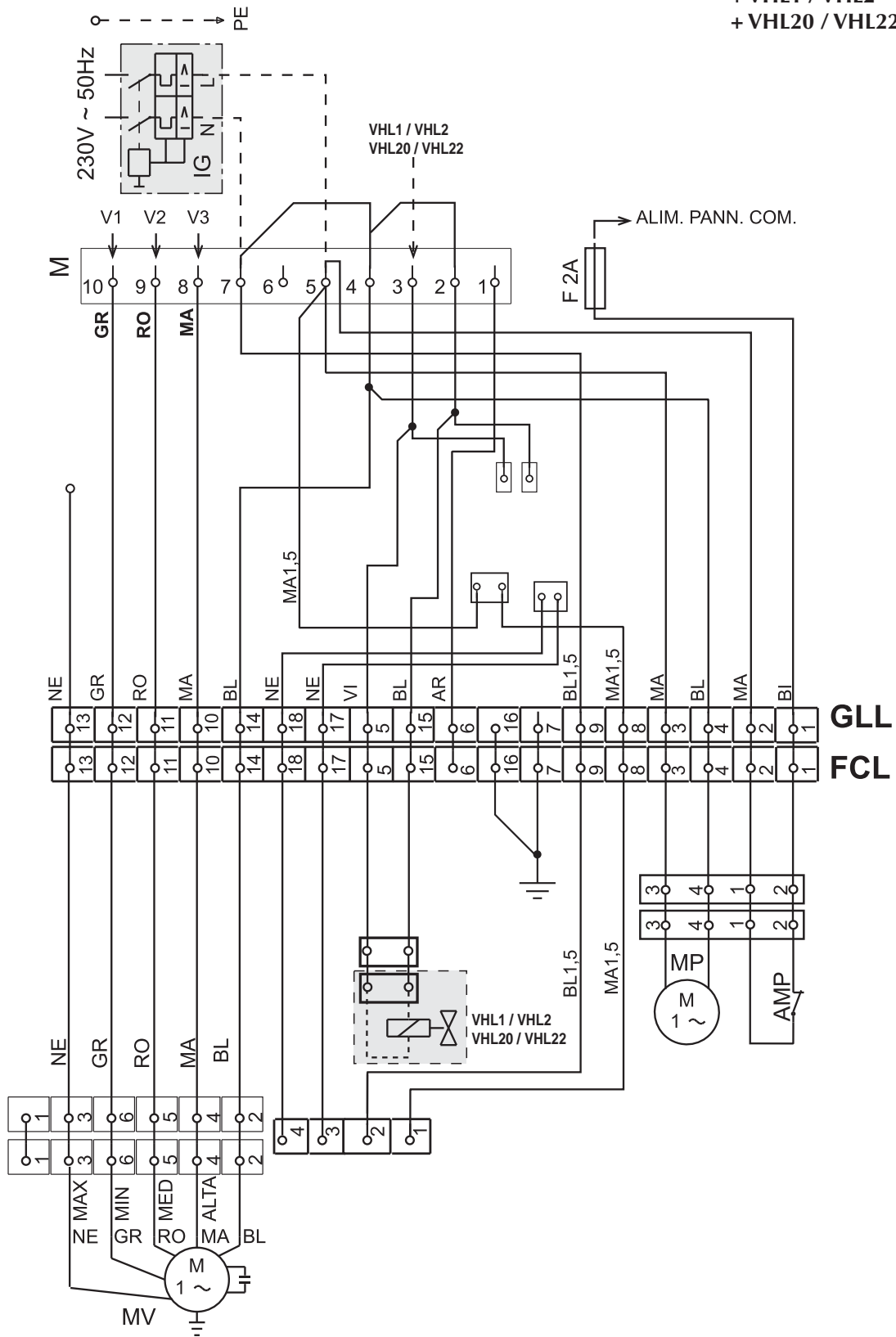
+ VHL1 / VHL2
+ VHL20 / VHL22



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FCL VL
GLL10 / GLL20

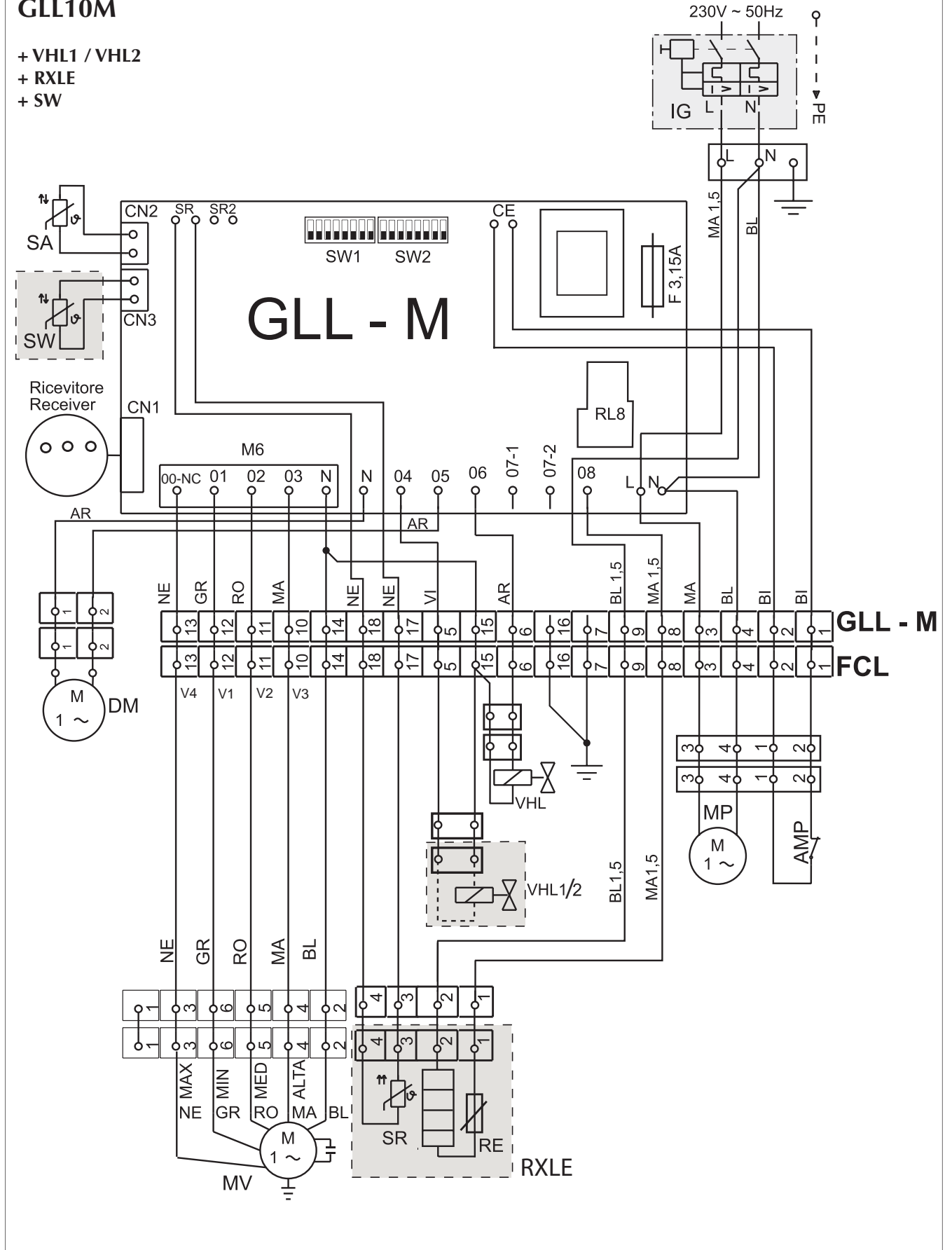
+ VHL1 / VHL2
+ VHL20 / VHL22



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**FCL
GLL10M**

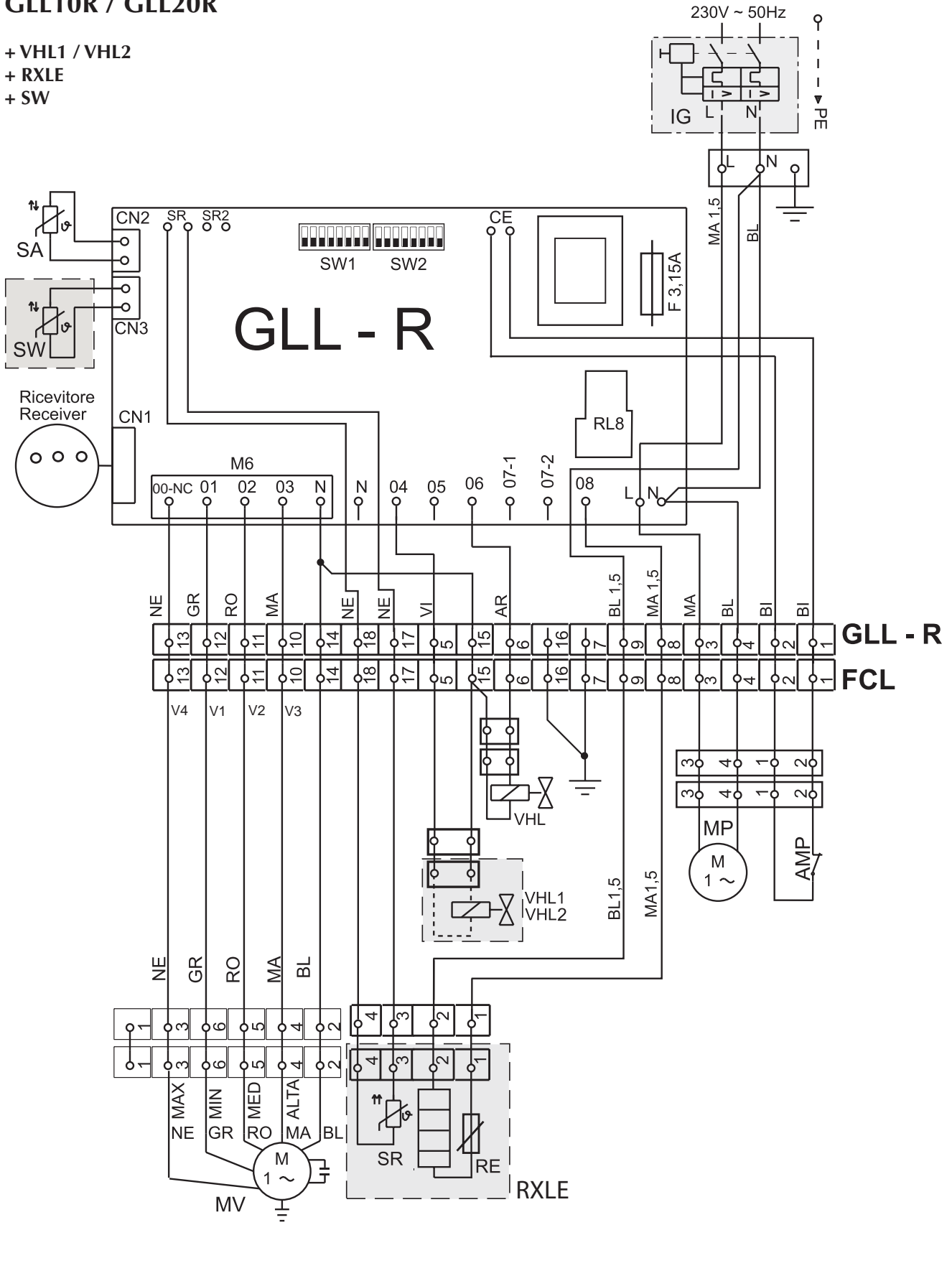
+ VHL1 / VHL2
+ RXLE
+ SW



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FCL
GLL10R / GLL20R

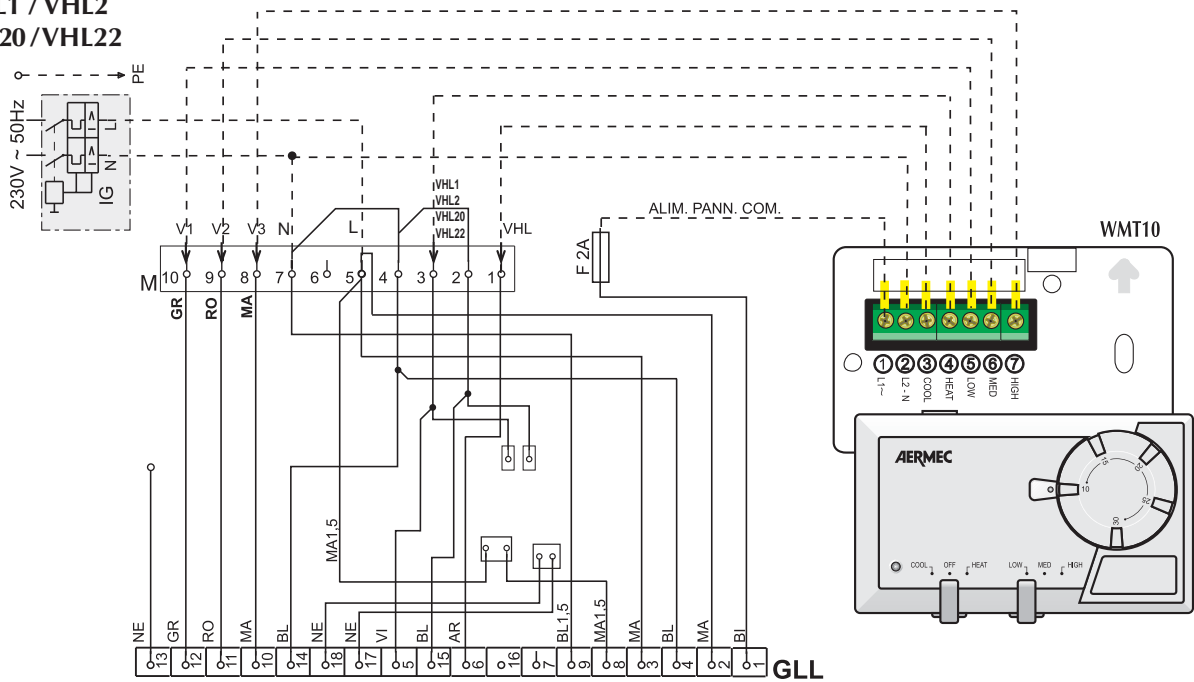
- + VHL1 / VHL2
- + RXLE
- + SW



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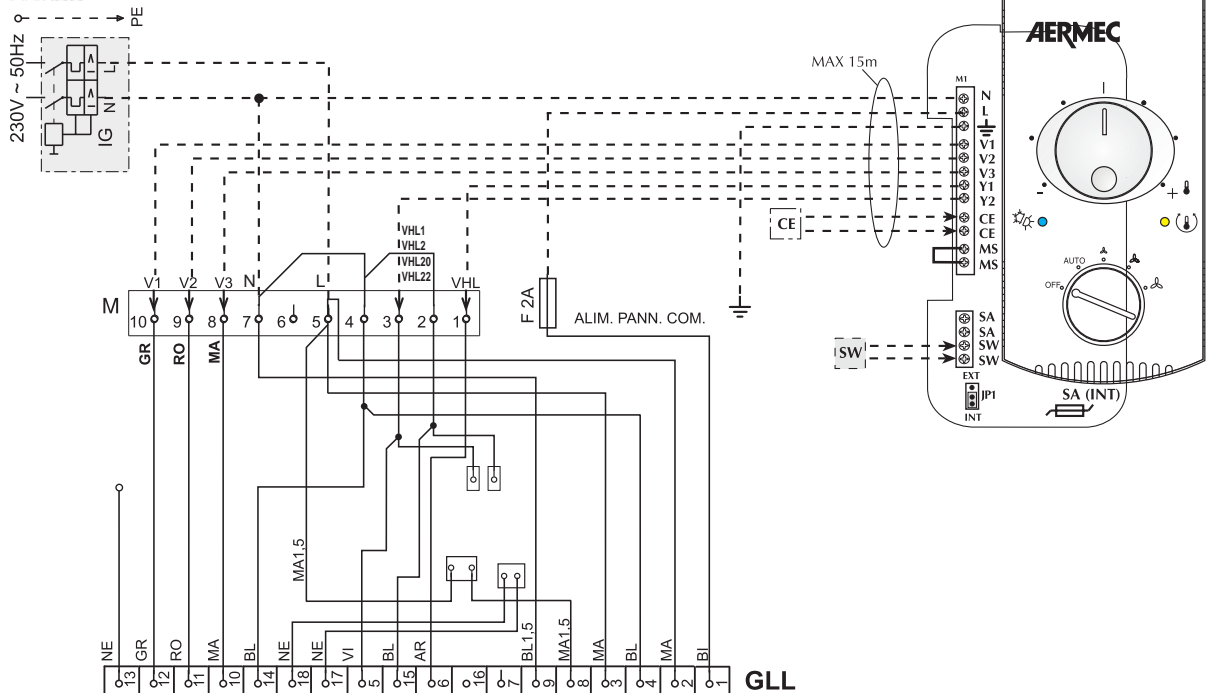
FCL
GLL10 / GLL20
WMT10

+ VHL1 / VHL2
+ VHL20 / VHL22



FCL
GLL10 / GLL20

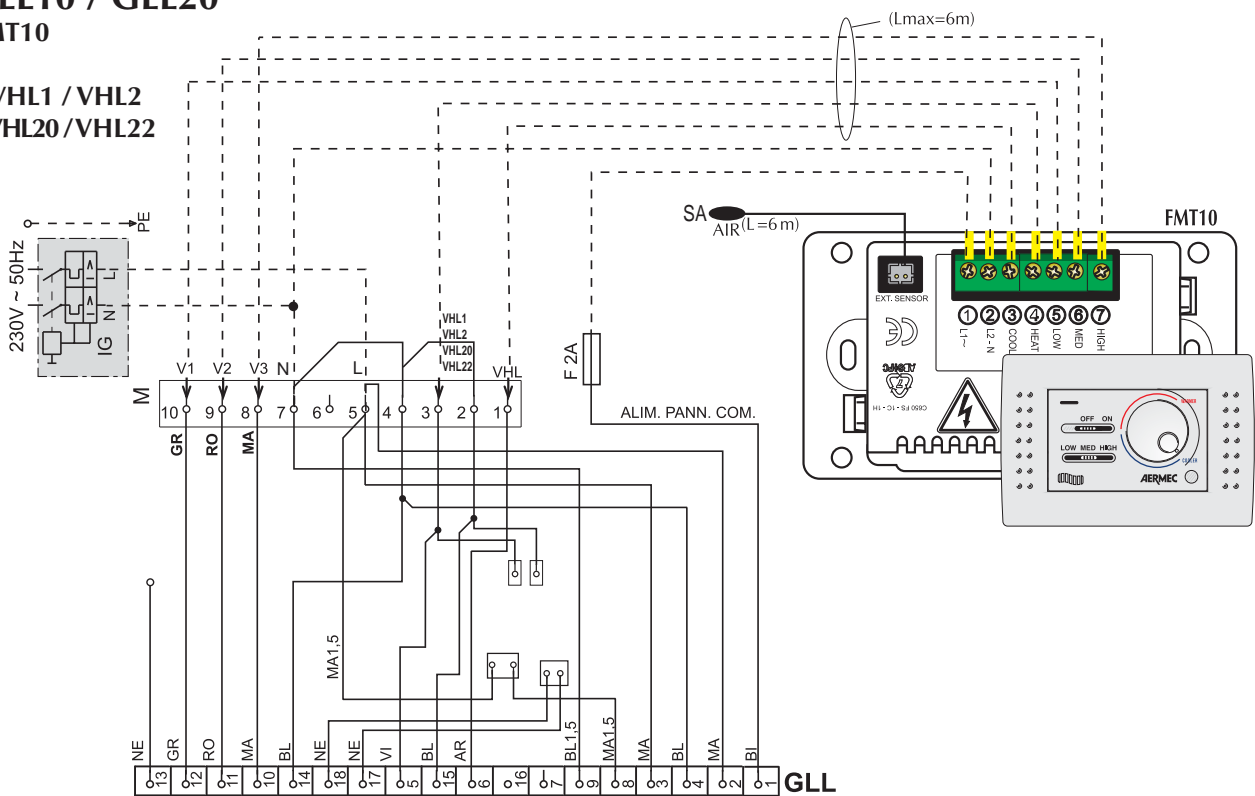
PXAE
+ VHL1 / VHL2
+ VHL20 / VHL22
+ SW



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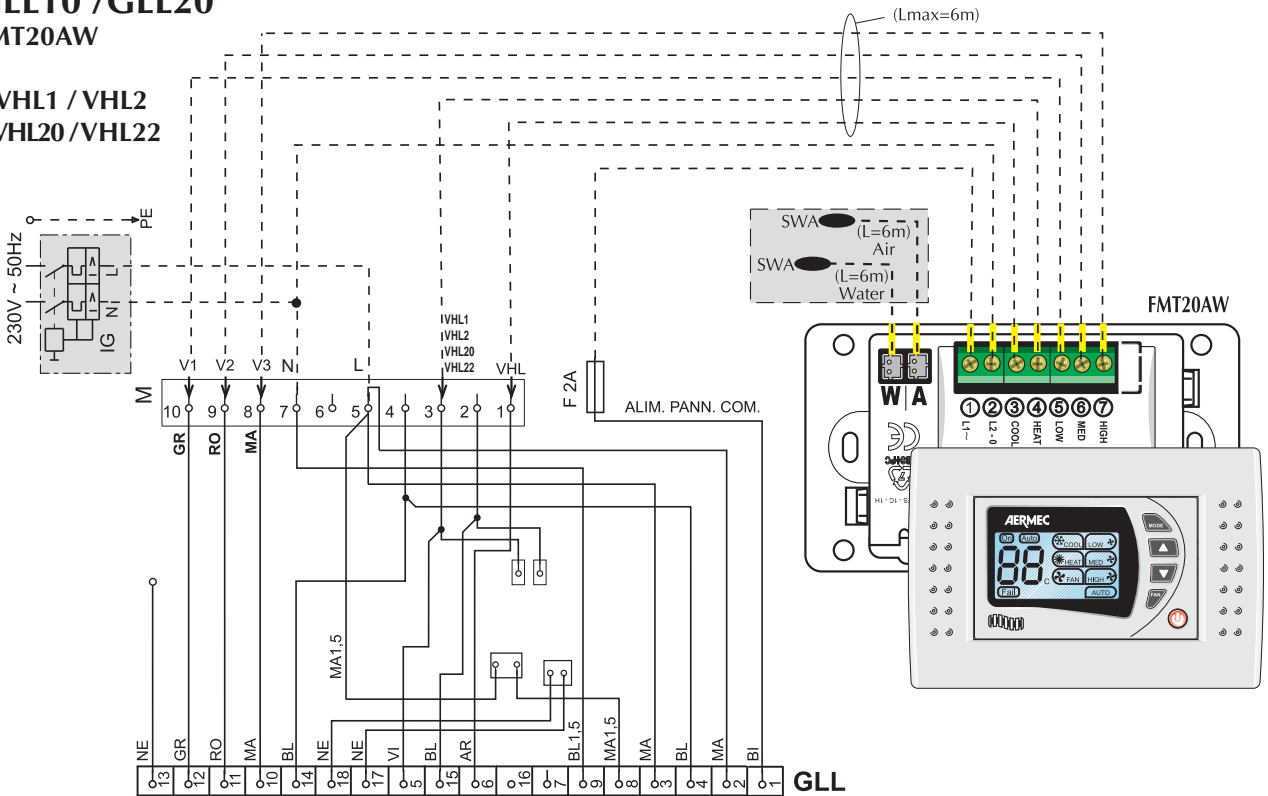
FCL
GLL10 / GLL20
FMT10

+ VHL1 / VHL2
+ VHL20 / VHL22



FCL
GLL10 / GLL20
FMT20AW

+ VHL1 / VHL2
+ VHL20 / VHL22



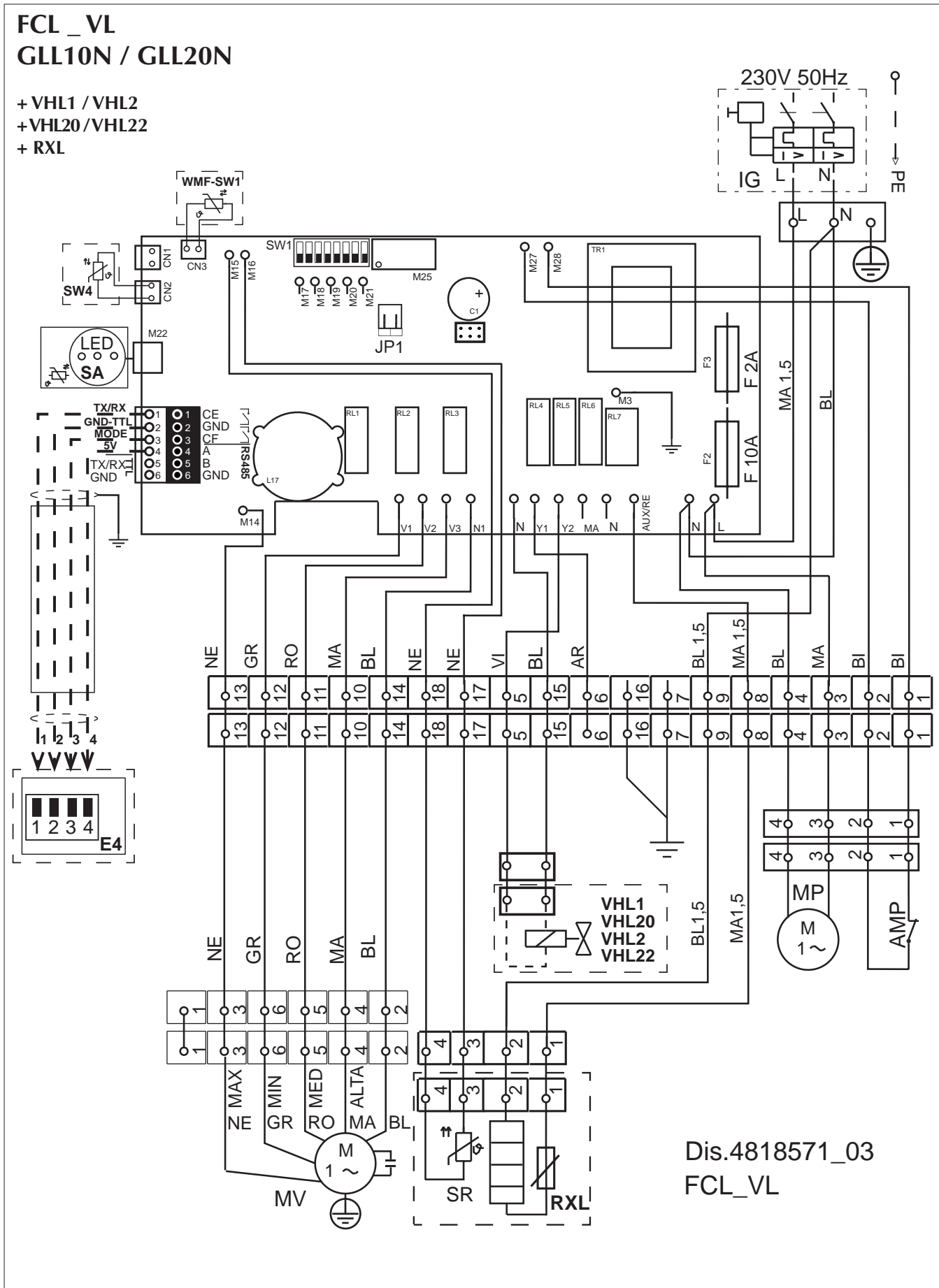
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FCL GLL10N / GLL20N

+ VHL1 / VHL2
+ VHL20 / VHL22
+ RXL



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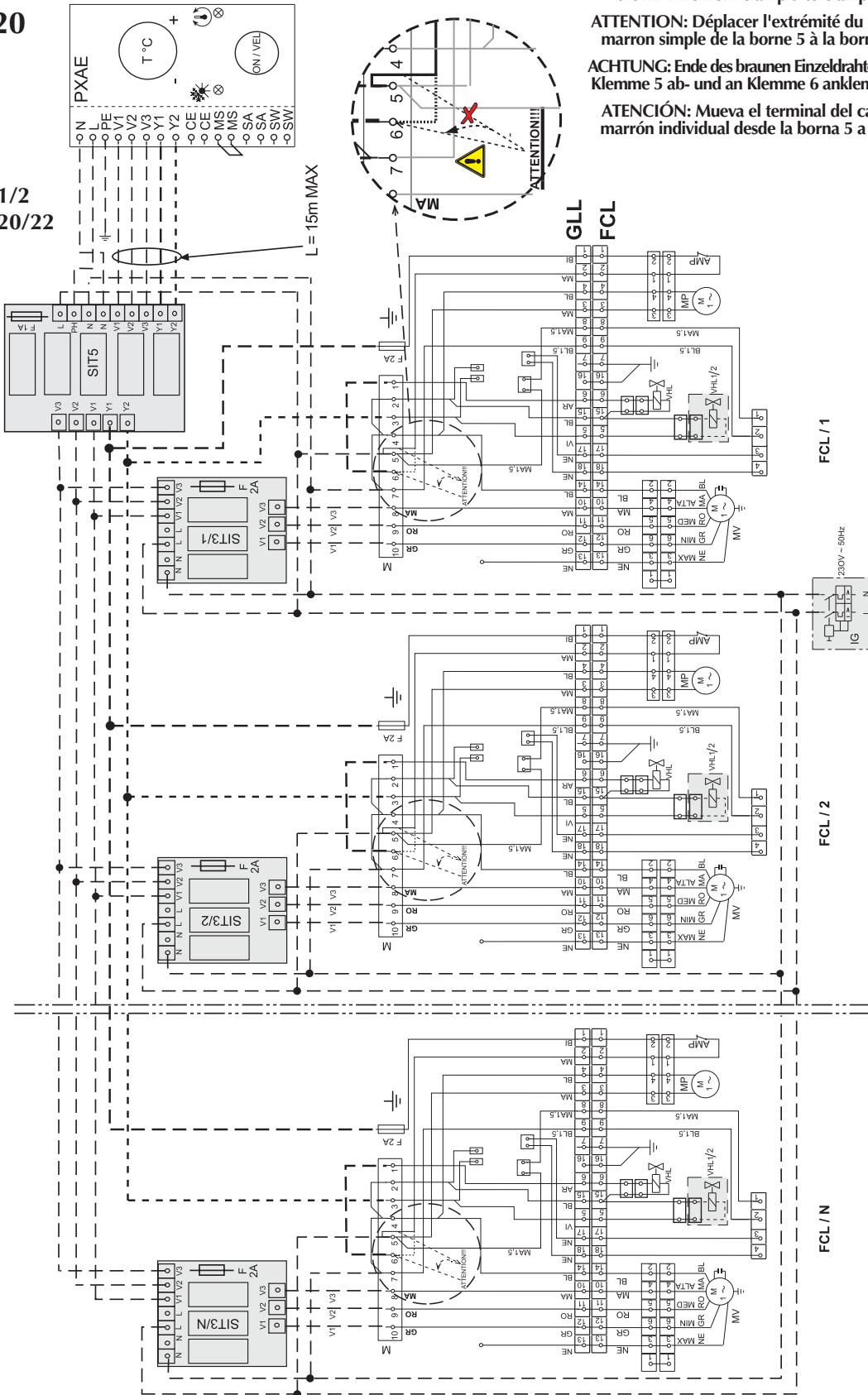


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FCL
GLL10
GLL20

PXAE
SIT3
SIT5

+ VHL1/2
+ VHL20/22



ATTENZIONE: Spostare il terminale del filo marrone singolo dal morsetto 5 al morsetto 6
WARNING: Move the end of the individual brown wire from clamp 5 to clamp 6
ATTENTION: Déplacer l'extrémité du câble marron simple de la borne 5 à la borne 6
ACHTUNG: Ende des braunen Einzeldrahtes von Klemme 5 ab- und an Klemme 6 anklammern
ATENCIÓN: Mueva el terminal del cable marrón individual desde la borna 5 a la 6

ATTENCIÓN: La instalación se detiene si se quita la tensión a la unidad Master.
PELIGRO: Quite la tensión a toda la unidad cuando se realicen intervenciones técnicas.

ACHTUNG: Bei Unterbrechung der Spannung an der Master-Einheit stoppt die gesamte Anlage.
GEFAHR: Bei technischen Eingriffen sämtliche Einheiten von der Spannungsversorgung trennen.

ATTENTION: La fait de retirer la tension de l'unité Maître arrête toute l'installation.
DANGER: En cas d'interventions techniques, retirer la tension à toutes les unités.

WARNING: By removing voltage from the Master unit the entire system stops.
DANGER: Remove voltage from the entire unit if technical interventions must be carried out.

ATTENZIONE: Togliendo tensione all'unità Master si ferma tutto l'impianto.
PERICOLO: In caso di interventi tecnici togliere tensione a tutte le unità.

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I-37040 Bevilacqua (VR) - Italia

Via Roma, 996 - Tel. (+39) 0442 633111

Telefax (+39) 0442 93730 - (+39) 0442 93566

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