AERMEC
La prima per il clima

TECHNICAL AND INSTALLATION BOOKLET

FANCOIL

Omnia UL

AERMEC
COMPANY QUALITY SYSTEM
ICIM
ISO 9001 - Cert. nº 0128/3
CISQ IQNet
AERMEC S.P.A.

EUROVENT
CERTIFIED PERFORMANCE

Plasmacluster™

replace:
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IULPY
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69764.71_00

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Omnia UL

DICHIARAZIONE DI CONFORMITÀ

Noi, firmatari della presente, dichiariamo sotto la nostra esclusiva responsabilità, che la macchina in oggetto è conforme a quanto prescritto dalle seguenti Direttive:

- Direttiva macchine 98/37 CEE
- Direttiva bassa tensione 73/23 CEE
- Direttiva compatibilità elettromagnetica EMC 89/336 CEE
- Normativa EN 60335-2-40

CERTIFICAT DE CONFORMITE

Nous, signataires de la présente, certifions sous notre propre responsabilité, que l'appareil en objet est conforme aux suivantes Directives:

- Directive appareil 98/37 EEC
- Directive basse tension 73/23 EEC
- Directive de compatibilité électromagnetique EMC 89/336 EEC.
- Directive EN 60335-2-40

DECLARACIÓN DE CONFORMIDAD

Los abajo firmantes declaramos, bajo nuestra exclusiva responsabilidad, que la máquina en objeto respeta cuanto prescriben las siguientes Directivas:

- Directiva de máquinas 98/37;
- Directiva de baja tensión 73/23 CEE;
- Directiva de compatibilidad electromagnética EMC 89/336 CEE
- Directiva EN 60335-2-40

DECLARATION OF CONFORMITY

We declare under our own responsability that the above equipment complies with provisions of the following Standards:

- Equipment Standard 98/37 EEC
- Low voltage Standard 73/23 EEC
- Electromagnetic compatibility Standard EMC 89/336 EEC
- Standard EN 60335-2-40

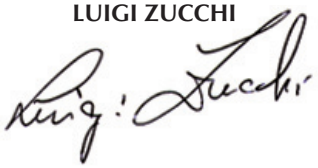
KONFORMITÄTSERKLÄRUNG

Wir, Unterzeichner dieser Bescheinigung, bestätigen, daß diese Geräte den Vorschriften:

- Vorschrift Geräte 98/37 EWG
- Niederspannung - Vorschrift 73/23 EWG
- Funkentstörung - Vorschrift EMC 89/336 EWG
- Vorschrift EN 60335-2-40

Bevilacqua, 01/03/2006

La Direzione Commerciale - Sales and Marketing Director
LUIGI ZUCCHI



EUROVENT CERTIFIED PERFORMANCE

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

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

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

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

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

INDEX

REMARKS

Store the manuals in a dry location to avoid deterioration, as they must be kept for at least 10 years for any future reference.

Carefully and thoroughly read all the information referred to in this manual. Pay particular attention to the usage regulations accompanied by the words "DANGER" or "WARNING" because, if they are not complied with, damage can be caused to the machine and/or injury to persons or damage to property may result.

If any malfunctions are not included in this manual, contact the local After Sales Service immediately.

The apparatus must be installed in such a way that maintenance and/or repair operations are possible.
The apparatus's warranty does not in any case cover costs due to automatic ladders, scaffolding or other lifting systems necessary for carrying out repairs under guarantee.

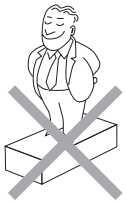
AERMEC S.p.A. declines all liability for any damage due to improper use of the machine or the partial or superficial reading of the information contained in this manual.

This manual contains the following number of pages: 48.

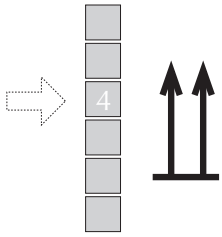
TRANSPORT

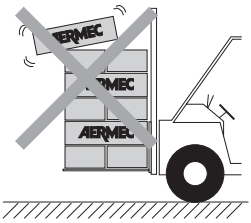
Do NOT wet

Do NOT trample



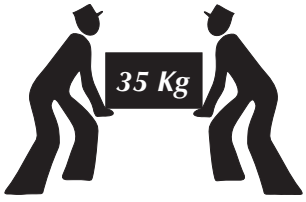
Stacking: control the packing for the arrow position to know the number of machines that can be stacked



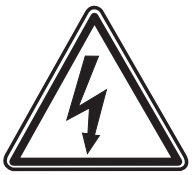


Do NOT leave loose packages during transport

Das Gerät NICHT alleine tragen, wenn sein Gewicht 35 Kg überschreitet.



SAFETY SYMBOL



Danger:
Power supply

Danger:
Movings parts

Danger!!!

MAINTENANCE

ORDINARY MAINTENANCE

Ordinary maintenance can also be carried out by the user, it consists of a set of simple operations by means of which the fan coil can operate at maximum efficiency.
Operations:
- External cleaning, weekly to be carried out with a moist cloth and neutral soap; do not use other detergents and solvents of any type.
- cleaning the electrostatically precharged filter, every two weeks or weekly if the installation is in a very dusty environment, remove the dust that has accumulated with a vacuuming device, washing with running water and neutral soap is allowed but it speeds up the deterioration of the electrostatic precharge; do not use other detergents and solvents of any type.
- Replacement of the filter every two years. Failure to make this replacement in the time specified means the end of the filtering of the microdusts because the electrostatic precharge has run out; the filtering capacity will be compared with that of a normal filter.
- Visual examination of the state of the fan coil each time maintenance is carried out; every fault must be communicated to the After Sales Service department.

EXTRAORDINARY MAINTENANCE

The extraordinary maintenance must only be carried out by Aermec After Sales Service or by persons in possession of the required technical and professional requirements for the installation, transformation, expansion or the maintenance of the plants and able to assess the same to make sure they are safe and working properly, in particular for the electrical connections checks relative to :
- Measurement of the electrical system insulation resistance.
- Continuity test of the protection wires.
Extraordinary maintenance consists of a set of complex operations that involve the dismantling of the fan coil or its components, thanks to which the condition of maximum efficiency in the functioning of the fan coil is restored.
Operations:
- Internal cleaning, annually or before shutting down for long periods; cleaning can be more frequent in environments where a high degree of air cleaning is required; it consists of cleaning the coil, the removable volute, the fan slats, the basin and all the parts in contact with the treated air.
- Repairs and fine tuning, when faults crop up read the "TROUBLESHOOTING" section of this manual before contacting the After-sales-service department.

PROBLEM AND REMEDY

PROBLEM	PROBABLE CAUSE	REMEDY
Feeble air discharge	Wrong speed setting on the control panel	Select the speed on the control panel
	Blocked filter	Clean the filter
	Obstruction of the air flow (inlet and/or outlet)	Remove the obstruction
It does not heat	Poor hot water supply	Control the boiler
	Wrong setting on control panel	See control panel settings
It does not cool	Poor chilled water supply	Control the chiller
	Wrong setting on control panel	See control panel settings
The fan does not turn	No current	Control the power supply
	The water has not reached operating temperature	Please check up the boiler or the chiller Check up the thermostat settings
Condensation on the unit cabinet.	The limit conditions of temperature and humidity indicated in the Technical booklets (Operating limits) have been reached.	Increase the water temperature beyond the minimum limits indicated in the technical booklet

For anomalies don’t hesitate, contact the aftersales service immediately

UNIT DESCRIPTION

The **OMNIA UL** fan coil concentrates hi-tech and highly functional features that make it the ideal means of climate control in every room.

The **OMNIA UL** fan coil can be mounted vertically or horizontally, it is available with RAL9002 colour casing with RAL7044 colour head; the **OMNIA UL P** version does not have external casing because it has been designed for mounting in suspended ceilings for a canalised system or recessed into the wall together with the CHU system **Ventilcassaforma** accessory.

The supply of climate controlled air is immediate and distributed throughout the room; **OMNIA UL** generates heat if inserted in a system with boiler or heat pump but it can also be used in summer as an air conditioner if the heating plant has an air chiller.

The quantity of air treated is guaranteed by a special electrostatically precharged filter that absorbs and traps the dust in suspension, with the fan coil off the closed slat prevents dust and foreign objects from getting inside.

The **OMNIA UL** version is also available fitted with "**PLASMACLUSTER**" purification system that breaks down the water and oxygen molecules, normally present in the ambient air ("humidity " and "oxygen"), in positive and negative ions. These ions liberated into the air will stick to the molecules of the polluting substances and by being recombined (once activated) decomposes them into non-toxic sub-products (water, oxygen and carbon dioxide etc.). The possibility of removing the basin and the inspectionable fan volutes (only by suitably trained and qualified personnel) it allows thorough cleaning to be carried out even in the interior parts, an essential condition when installed in very crowded areas or places requiring high standards of hygiene.

The quietness of the new centrifugal fan assembly is such that at normal speeds of use you cannot hear when the **OMNIA UL**c uts in.

The **OMNIA UL** fan coil has been designed to meet all system requirements partly through its extensive range of accessories.

Ease of installation that can be either horizontal or vertical, with reversible plumbing connections at the installation phase.

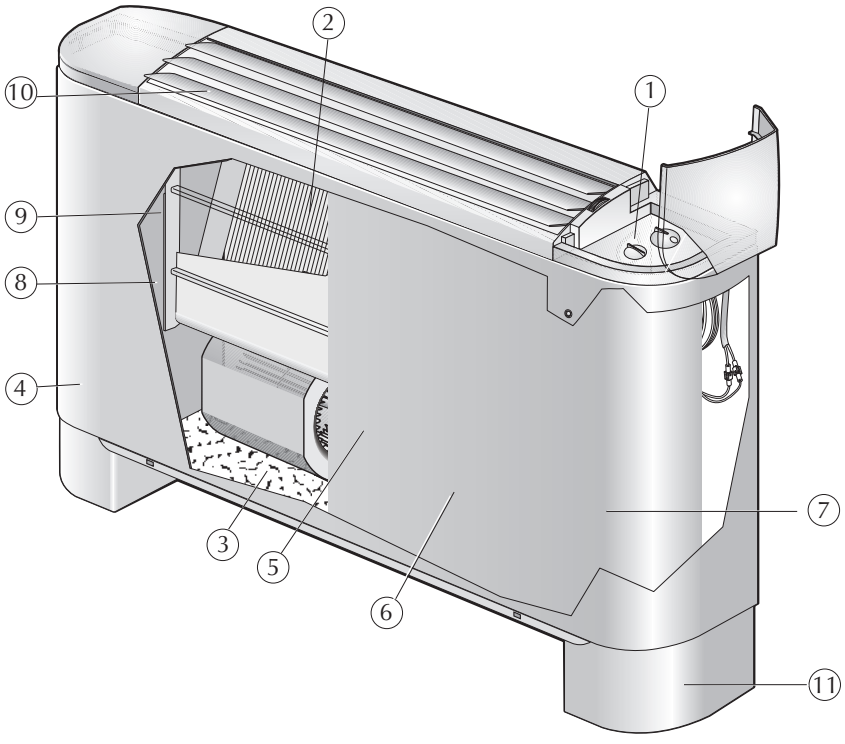
Full respect for accident prevention regulations.

Routine maintenance is limited to periodic cleaning of the air filter.

MAIN DESCRIPTION

1 Control panel (UL C)
2 Heat exchanger
3 Air cleaner
4 Cabinet
5 Fan motor
6 Fan
7 Bearing structure
8 Condensate discharge
9 Water connections
10 Went with adjustable slats
11 Mounting feets (ZU accessory)

OMNIA UL-C



VERSIONS AVAILABLE

The OMNIA UL fan coil units are available in 4 sizes:
To adapt to the most varied requirements of the users, the versions with a cabinet can be fitted both with a multislat head as well as a single slat version (the latter identified by the letter "M"), the performance is exactly the same.
In this manual the version "M" will only be indicated when type of slat is important for the subject being treated. For simplicity's sake the reference will always be to Omnia UL standard versions.
The slats also have the job of switches, closed the ventilation is off, open the ventilation is enabled, assuming that the control panel gives the enabling signal for start up.

Sizes:

OMNIA 11
OMNIA 16
OMNIA 26
OMNIA 36

Versions:

UL With selector on board. Multislat head.
RAL9002 cabinet, the head and plinths (accessory) are RAL7044.

UL M With selector on board. Single slat head.
RAL9002 cabinet, the head and plinths (accessory) are RAL7044.

UL C with incorporated electronic thermostat. Multislat head.
RAL9002 cabinet, the head and plinths (accessory) are RAL7044.

UL MC with incorporated electronic thermostat. Single slat head.
RAL9002 cabinet, the head and plinths (accessory) are RAL7044.

UL PC With electronic thermostat on the machine and Plasmacluster purifier. Multislat head.
RAL9002 cabinet, the head and plinths (accessory) are RAL7044.

UL S Without incorporated control panel, for installations with external optional control panel, especially suitable for ceiling installations. Multislat head.
RAL9002 cabinet, the head and plinths (accessory) are RAL7044.

UL MS Without incorporated control panel, for installations with external optional control panel, especially suitable for ceiling installations. Single slat head.
RAL9002 cabinet, the head and plinths (accessory) are RAL7044.

UL P Without cabinet and without control panel for vertical or overhanging installation in channelled systems with optional external control panel.

DESCRIPTION OF PARTS

CONTROL PANELS

The control panel (in the versions with one) is housed in the head of the fan coil protected by a flap. Versions are available without a control panel on board, prepared for use with optional external control panels particularly suitable for hanging ceiling installations (UL S) or channelled installations (UL P).

SELECTOR (UL VERSION):
OMNIA UL fan coils with selector for turning on and off and the selection of the ventilation speed.

ELECTRONIC THERMOSTAT
(UL C and UL PC versions):
OMNIA UL C fancoils are delivered ready to operate in standard configuration, though can be adjusted by the installation technician to specific requirements by means of dedicated accessories and configuration of functions at the internal dipswitches (see DIPSWITCH CONFIGURATION).
Response to controls is immediate, except in special cases.

Unit types
OMNIA UL C fancoils are designed for twin-tube units, in the following types:
- without valve;
- with 2-way valve (water probe below valve);
- with 3-way valve (water probe above valve).

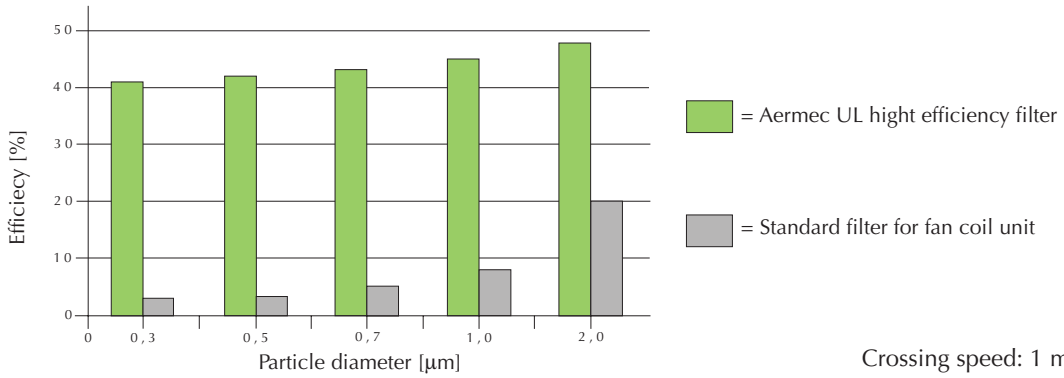
Ventilation
Ventilation speed can be controlled either manually by setting the selector switch A to position V1, V2 or V3 (the fan operates in on-off cycles according to the speed selected), or automatically when the selector switch is set to the AUTO position (fan speed is controlled by the thermostat according to room temperature detected).
On systems with a valve (dip1 = ON) and a Water Probe installed upstream of the valve (dip2 = ON), a delay (maximum 2'40'') can be set between the valve switching on and the fan starting up (pre-heating of the heat exchanger).
Ventilation can only take place with the louvers open. On models where the louvers are not motorised these must be opened manually.

Season changeover
The thermostat changes seasonal operation automatically.
Season changeover takes place according to the water temperature detected in the unit.
According to the dipswitch settings, two types of season change (water side) are possible:
- Dip1 = OFF, Dip2 = OFF with minimum/maximum temperature control only;
- Dip1 = ON, Dip2 = ON with minimum/maximum temperature control and coil preheating (fan operation delay maximum 2'40").

n the case of special units with water probe below the valve or fitted with 2-way valve, season change takes place from the air side, through operation of the temperature selector switch. Though this setting allows use of the fancoil in pre-existing 2-way valve plants, it is not recommended, given that it hampers the operation of the electronic thermostat (the Heating/Cooling mode status display by LED is altered, depending on the temperature selected and the room air temperature).

Water temperature controls
The thermostat only enables fan operation when the water temperature is suitable for Heating or Cooling mode.
Both the hot and cold starting up temperatures can be set to suit the conditions under which the system operates.
The hot starting up threshold can be selected using Dip 5: OFF position for normal Heat (39°C) and ON position for reduced Heat (35°C).
The cold starting up threshold can be selected using Dip 6: OFF position for normal Cold (17°C) and ON position for reduced Cold (22°C).
If the water temperature is not suitable for the operating

ELECTROSTATICALLY PRECHARGED AIR FILTER



Crossing speed: 1 m/sec

mode selected, LED lamp C on the control panel flashes alternately pink, red and blue next to the relative mode; this display is switched off when Dip1 = ON and Dip 2 = OFF.

Valve control

The valve can be controlled in two ways:

- **optimised:** this mode exploits the capacity of the fancoil (Heating) to supply heat even when fan operation has been shut down; during Cooling, ventilation continues for control of room temperature by the valve.
- **normal:** the valve opens or closes, depending on whether the fan starts up or shuts down.

Probe correction

The required correction to be applied to the ambient probe can be selected.

Frost Protection

This function prevents room temperature from dropping below an ambient temperature of 7°C (even when the fancoil is off and selector switch A is in the OFF position).

In the event that room temperature drops below 7°C, the thermostat starts up the fancoil in heating mode at a temperature setting of 12°C and fan operation set to AUTO (if permitted by water temperature, the unit is connected to the power supply and the louvers are open, in the case of manual units).

Frost protection mode is deactivated when room temperature rises above 9°C.

Emergency mode

In the event of failure of the SA ambient sensor, the thermostat goes into Emergency mode as indicated by the yellow LED (D) flashing. Under these conditions the control panel operates in the following way:

- with selector switch (A) in OFF position: the water valve is closed and the fan is off.
- with selector switch (A) in AUTO, V1, V2 or V3 position: the water valve is always open and the fan performs on-off cycles; in this case, the power supplied by the terminal is controlled manually by means of the temperature selector switch (B): rotate the switch to right to increase cycle duration, or to the left to reduce it.

PLASMACLUSTER (ONLY FOR OMNIA UL PC)

The Plasmacluster air purifier is activated at the same time as the ventilation whether hot or cold.

The functioning of the device is indicated by a yellow Led coming on the control panel.

The Plasmacluster purification breaks down the water and oxygen molecules normally present in ambient air ("dampness" and "oxygen"), into positive and negative ions. These ions liberated into the air will stick to the molecules of the polluting substances and by being recombined (once activated) decomposes them into non-toxic sub-products (water, oxygen and carbon dioxide etc..).

HEAT EXCHANGE COIL

The coil is a two row copper pipe coil with aluminium fins mechanically fitted by expansion of the pipes. The terminals are fitted with female unions and air bleeders at the top.

The coil can be reversed on site.

CABINET

(not on the UL P version)

Made from specially treated, steel to ensure superior rust and corrosion resistance available in colour RAL9002.

The head and the plinths made of plastic are both a RAL7044 colour.

ELECTROSTATICALLY PRECHARGED AIR FILTER

Filter fire resistance is Class 2 (UL 900).

The easy to remove air filter is delivered in sealed packaging together with the fan coil. The packaging should only be opened at the moment of installation.

The electrostatically precharged air filter combines normal, mechanical filtration of the air passing through it with an electrostatic filtration that attracts dust and significantly improves performance.

The filter's electrostatic charge lasts for 2 years after the protective packaging is opened. After this, the filter acts only as a normal filter. For this reason it is important to replace the filter with a new one at these intervals.

Clean the filter frequently. Use a vacuum cleaner to remove built up dust. Avoid water or detergents if possible since they greatly accelerate loss of the filter's electrostatic charge.

THE FAN GROUP

The fan group is fitted directly on the fan coil frame and comprises a set of extremely silent running and compact double intake centrifugal fans. The three speed electric motor is protected against overload and features a permanently active condenser. The motor is coupled directly to the fans. Vibration is damped by elastic mountings.

The fan screws (cochleas) can be opened for inspection and thorough internal cleaning (by personnel with the necessary technical skills).

MAIN FRAME

The frame is made from suitably thick sheet metal and is galvanised to ensure protection against corrosion. The frame also features closed cell thermal insulation with Class 1 fire resistance.

The rear of the frame has holes for wall mounting the appliance. To facilitate ceiling mounting, hung models are provided with two brackets for fixing to the sides of the frame. All appliances come complete with a condensation drip tray that can be easily removed for thorough cleaning (only by personnel with the necessary technical skills).

CONDENSATION DRAIN

This connection permits the condensation that forms inside the cooling unit to be drained off.

WATER CONNECTIONS

The female union water connections are located on the left hand side panel. The coil can be reversed on site if required.

HEAD WITH SLATS THAT CAN BE DIRECTED

(not on the UL P version)

The head is made of plastic and is RAL7044 colour.
With the deflector slat fully closed, the tripping of the microswitch stops the ventilation thereby interrupting any further heat exchange with the environment.
The head also houses the control panel (in the versions with one) protected by a flap.

SELECTION CRITERIA

The versions with cabinet UL - UL C - UL PC - UL S, are fitted with intake from below and lend themselves to vertical wall installations or floor installation with the use of the relative plinths.
The UL S, version without the control panel is also particularly suited for hanging installations, because it is designed for the connection to one of the external control panels available as accessories.
The UL S, version without the cabinet is also suited for channelled installations, because it is designed for the connection to one of the external control panels available as accessories.

The tables in from TAB. 1 to 4 show the sensible and total refrigerating yield in accordance to the maximum temperature of the inlet water, of its temperature change and the temperature of the dry bulb and wet bulb of the air for the sensitive yield and the total yield respectively, the performance at average and minimum speed are obtained by applying the relative correction coefficients

The diagrams in the tables TAV. 5 to 8 show the heating capacity yielded at maximum speed in function of water flow rate and the difference in temperature between the inlet water and inlet air for two-row coils (standard), for lower speeds refer to the relative correction coefficients.

The diagram TAV 9 shows the coil's pressure drops in function of the water flow rate at the average temperature of 10°C, for water circulating at different temperatures refer to the relative correction coefficients.

Tables TAV.10 and TAV.11 respectively show the level of capacity and sound pressure of the fan coils at the various speeds.

OPERATING LIMITS

Maximum water inlet temperature..... 80 °C
Maximum working pressure..... 8 bar

Water flow limits:

MOD.	UL	11	16	26	36
Minimum water flow	[l/h]	100	100	100	150
Maximum water flow	[l/h]	700	700	700	1.050

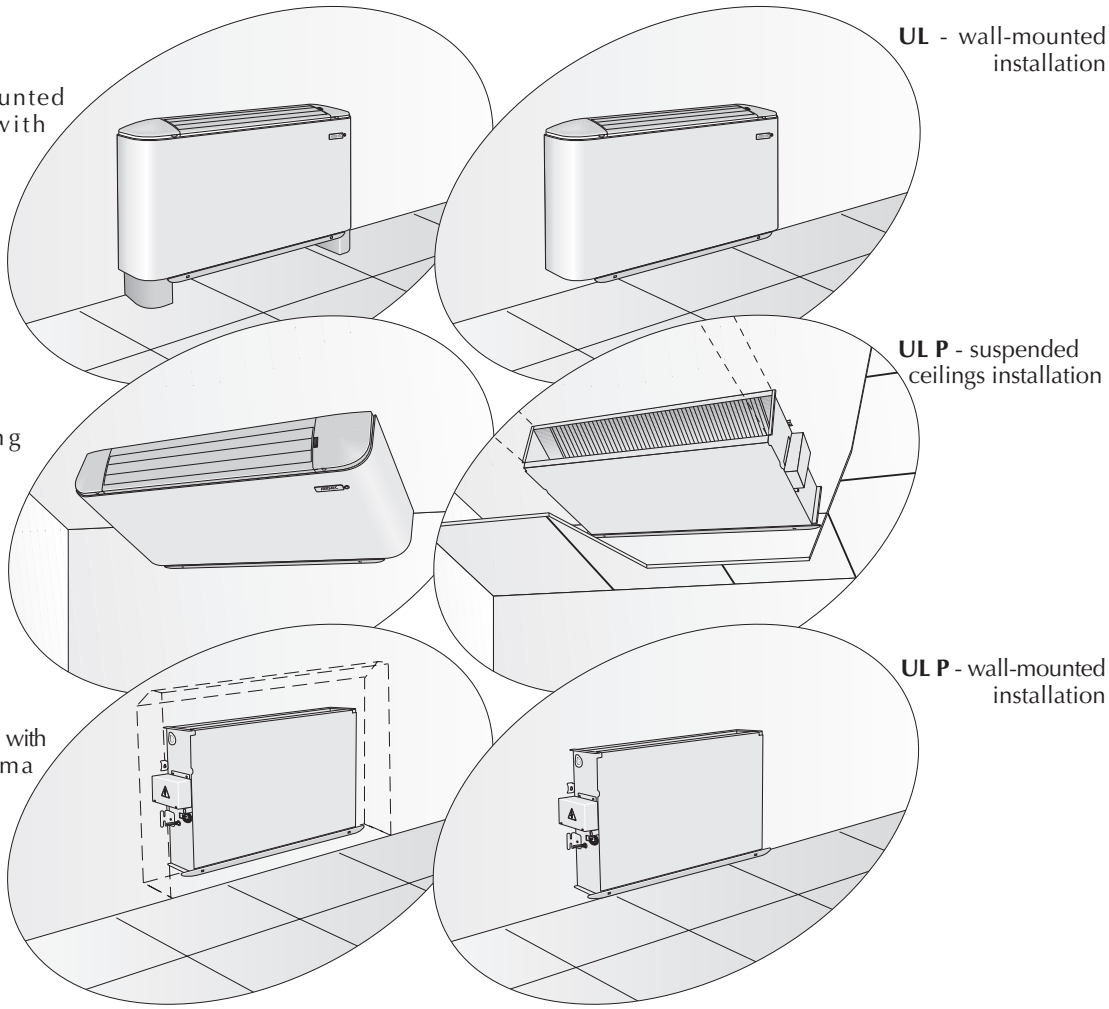
Average minimum water temperature

To prevent the formation of condensation on the exterior of the unit while the fan is operating, the average water temperature should not drop beneath the limits shown in the table below, determined by the ambient conditions.
These limits refer to unit operation with fan at minimum speed.
Note that condensation may form on the exterior of the unit if cold water circulates through the coil while the fan is off for prolonged periods of time, **so it is advisable to fit the additional three-way valve .**

MINIMUM AVERAGE WATER TEMPERATURE

		Dry bulb temperature °C					
		21	**23**	**25**	**27**	**29**	**31**
Wet bulb temperature °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

INSTALLATION EXAMPLES



IMPORTANT INFORMATION

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

MALFUNCTIONING

In the case of malfunctioning remove the power to the unit then repower it and start the apparatus up again. If the problem occurs again, call your areas After Sales Service department promptly.

POWER THE FANCOIL WITH SINGLE-PHASE 230 V ONLY

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

DO NOT TUG THE ELECTRICAL CABLE

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

DO NOT PUT ANYTHING IN THE AIR OUTLETS

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

NEVER USE THE FANCOIL FOR APPLICATIONS FOR WHICH IT WAS NOT DESIGNED

Do not use the fancoil in husbandry applications (e.g. incubation).

AIR THE ROOM

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

CORRECTLY ADJUST THE TEMPERATURE

Room temperature should be regulated to ensure maximum comfort to persons present, particularly in the case of the elderly, infants and invalids. Prevent temperature fluctuations between indoors and outdoors greater than 7 °C during summer.
Note that very low temperatures during summer will lead to greater electricity consumption.

ORIENT AIR FLOW CORRECTLY

Air delivered by the fancoil should not be oriented directly at people; even if air temperature is greater than room temperature, it can cause a cold sensation and consequently discomfort.

DURING UNIT OPERATION

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

IT IS NORMAL

During cooling, water vapour may be present in the air delivery.
During heating operation a light rustling sound may be perceived near the fancoil.
Sometimes the fancoil can give off unpleasant odours due to the accumulation of substances present in the room: air the room and clean the filter more often.

TECHNICAL DATA

Mod.		OMNIA	UL11	UL16	UL26	UL36
✻ Heating capacity	max.	[W]	2010	2910	4620	5940
	med.	[W]	1460	2120	3830	4870
	min.	[W]	1060	1540	2890	3530
✻ Water flow		[l/h]	173	250	397	511
✻ Water pressure drops		[kPa]	1,6	3,7	10,5	7,4
✻✻ Heating capacity (water in 50°C) **(E)**		[W]	1150	1700	2750	3540
❄ Total cooling capacity	max. **(E)**	[W]	840	1200	2030	2830
	med.	[W]	650	950	1780	2310
	min.	[W]	490	690	1420	1730
❄ Sensible cooling capacity	max. **(E)**	[W]	700	990	1640	2040
	med.	[W]	530	750	1370	1790
	min.	[W]	390	520	1050	1280
❄ Water flow		[l/h]	144	206	349	487
❄ Water pressure drops		[kPa]	1,9	4,8	11,0	9,5
Air flow	max.	[m^3/h]	180	240	350	460
	med.	[m^3/h]	120	160	270	350
	min.	[m^3/h]	80	110	190	240
Fan number		n	1	1	2	2
♪ Sound pressure level	max.	[dB (A)]	37,5	39,5	39,5	39,5
	med.	[dB (A)]	28,5	34,5	34,5	32,5
	min.	[dB (A)]	22,5	25,5	26,5	25,5
Sound pressure level	max. **(E)**	[dB (A)]	46,0	48,0	48,0	48,0
	med.	[dB (A)]	37,0	43,0	43,0	41,0
	min.	[dB (A)]	31,0	34,0	35,0	34,0
Max. motor power	**(E)**	[W]	18	32	35	42
Max. input current		[A]	0,09	0,15	0,18	0,22
Water content		[l]	0,4	0,5	0,8	1,1
Coil connections		ø	1/2″	1/2″	1/2″	1/2″
Dimensions with base supports (ZU)	Altezza	[mm]	606	606	606	606
	Larghezza	[mm]	640	750	980	1200
	Profondità	[mm]	173	173	173	173
Base support height		[mm]	93	93	93	93
Net weight without base supports (UL-UL C)		[kg]	12,5	13,5	16,5	19,5
Net weight (UL P)		[kg]	10,2	11,6	14,9	18,3

Power supply = 1 ~ 230 V 50 Hz (± 10 %).

(E) = Eurovent Certified Performance

Performances refer to following conditions:

– power supply 1 ~ 230 V 50 Hz;

♪ sound pressure level (weighted A) measured in room with 85 m^3 volume and reverberation time of 0.5 seconds.

✻ **heating:**
water in = 70°C ; air in = 20°C ;
- maximum fan speed: Δt water = 10°C ;
- medium and minimum fan speed: water flow as per maximum speed;

✻✻ **heating:**
water in = 50°C; air in = 20°C ;
- maximum fan speed: water flow as in cooling operation;

❄ **cooling:**
water in = 7°C ; air in = 27°C d. b. ; 19°C w. b.
- maximum fan speed: Δt water = 5°C ;
- medium and minimum fan speed: water flow as per maximum speed;

COOLING CAPACITY

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Tw [°C]	Δt	Ta b.u. [°C]	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
			21°C Ta b.s.		23°C Ta b.s.		25°C Ta b.s.		27°C Ta b.s.		29°C Ta b.s.		31°C Ta b.s.	
		15	613	496	827	748	901	853	1010	956	1117	1058	1224	1159
		17	1096	643	1084	744	1086	848	1107	956	1142	1060	1226	1161
	3	19	1422	653	1417	746	1411	847	1405	949	1397	1051	1400	1153
		21	-	-	1764	756	1756	844	1750	943	1742	1045	1736	1146
		23	-	-	-	-	2122	853	2114	939	2105	1035	2100	1136
		15	530	491	608	576	706	669	840	796	962	912	1079	1023
		17	647	450	676	557	754	678	850	798	964	913	1081	1024
5	5	19	1084	503	1077	600	1065	700	1073	804	1103	913	1157	1026
		21	-	-	1472	627	1465	720	1458	820	1450	921	1442	1021
		23	-	-	-	-	1861	739	1849	825	1844	924	1839	1026
		15	460	435	544	515	628	595	712	675	798	756	884	837
		17	530	398	575	501	636	596	714	676	798	756	886	839
	7	19	710	354	706	453	725	556	767	659	819	754	888	841
		21	-	-	966	426	958	524	947	622	970	727	1027	842
		23	-	-	-	-	1489	588	1483	683	1478	783	1461	880
		15	589	534	678	642	794	752	905	857	1012	959	1119	1060
		17	857	539	851	641	880	750	925	858	1014	960	1121	1062
	3	19	1193	549	1188	646	1184	749	1172	849	1180	953	1209	1063
		21	-	-	1539	655	1558	748	1525	848	1517	949	1511	1050
		23	-	-	-	-	1900	755	1894	859	1886	942	1878	1043
		15	436	413	521	494	607	575	727	689	855	810	976	924
		17	494	384	542	486	609	577	729	691	857	812	977	926
7	5	19	771	376	756	473	783	583	**840**	**700**	909	815	989	918
		21	-	-	1210	519	1207	617	1199	717	1191	817	1203	921
		23	-	-	-	-	1242	492	1606	728	1600	828	1592	929
		15	373	353	458	434	543	514	627	594	712	675	796	754
		17	400	336	466	434	544	515	628	595	712	675	797	755
	7	19	531	286	548	390	590	494	645	591	714	676	798	756
		21	-	-	741	344	737	444	752	546	787	648	836	747
		23	-	-	-	-	1172	470	1165	567	1153	666	1157	768
		15	446	422	571	541	687	651	798	756	907	859	1014	960
		17	584	425	626	538	700	652	800	758	909	861	1016	962
	3	19	943	444	937	544	928	645	941	750	977	859	1033	896
		21	-	-	1294	552	1289	648	1283	750	1275	851	1272	953
		23	-	-	-	-	1661	655	613	277	1647	847	1642	949
		15	390	370	435	412	520	493	615	582	746	707	869	823
		17	367	321	435	412	521	494	615	582	748	709	870	824
9	5	19	498	274	512	377	555	480	628	585	750	711	872	826
		21	-	-	909	404	904	504	897	603	928	712	977	824
		23	-	-	-	-	1342	532	1333	626	1328	728	1319	828
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	292	271	373	353	458	434	543	514	627	594	712	675
	7	19	363	223	409	330	471	429	544	515	628	595	712	675
		21	-	-	553	279	567	382	605	485	659	585	722	676
		23	-	-	-	-	779	336	773	436	790	540	829	645
		15	327	310	455	431	576	546	691	654	801	759	909	861
		17	337	308	456	432	578	548	692	656	802	760	911	863
	3	19	659	333	649	433	680	542	729	653	804	761	913	865
		21	-	-	1029	448	1023	547	1018	938	1016	751	1035	855
		23	-	-	-	-	1403	554	1397	649	1389	750	1383	851
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	264	250	350	332	435	412	520	493	632	599	762	722
11	5	19	328	211	375	316	439	412	521	494	634	600	764	723
		21	-	-	521	268	531	370	576	477	677	599	785	726
		23	-	-	-	-	1031	420	1023	518	1012	617	1031	723
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
	7	19	222	166	294	268	374	354	458	434	543	514	627	594
		21	-	-	374	218	419	323	479	424	546	514	628	595
		23	-	-	-	-	578	272	588	374	622	476	672	576

Tw [°C]	Δt	Ta b.u. [°C]	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
			21°C Ta b.s.		23°C Ta b.s.		25°C Ta b.s.		27°C Ta b.s.		29°C Ta b.s.		31°C Ta b.s.	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	239	226	329	312	464	439	582	552	695	658	804	761
		19	295	200	363	314	473	441	584	553	697	660	806	763
		21	-	-	731	340	722	439	737	545	777	654	836	764
		23	-	-	-	-	1123	451	1115	549	1109	650	1103	750
	5	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	192	154	266	230	350	332	435	412	521	494	651	617
		21	-	-	341	206	384	311	446	409	522	495	653	618
		23	-	-	-	-	599	278	603	380	660	489	756	619
	7	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	226	162	299	265	374	354	458	434	543	514
		23	-	-	-	-	387	212	429	317	487	417	554	512
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	161	141	241	228	341	323	471	447	588	557	699	662
		21	-	-	311	197	405	324	496	445	589	558	701	664
		23	-	-	-	-	806	344	802	445	802	546	830	653
	5	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	196	151	268	249	350	332	435	412	529	501
		23	-	-	-	-	351	201	393	305	452	404	536	505
	7	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	-	-	-	-	-	-	-	-	-	-
		23	-	-	-	-	230	158	303	261	377	353	458	434

Cooling capacities are referred to high speed.
To obtain values for other speed, multiply the values read by following factors:

MOD.		UL 11
Medium speed	total capacity	0,77
	sensible capacity	0,76
Minimum speed	total capacity	0,58
	sensible capacity	0,56

Tw [°C] = Inlet water temperature
Ta w.b.[°C] = Inlet wet bulbe air temperature
Ta b.s.[°C] = Dry bulbe air temperature
Pc [W] = Total cooling capacity
Ps [W] = Sensible cooling capacity

NOTE: Values of capacity in bold face refer to nominal value.
Values of sensible capacity higher than values of total capacity mean that cooling is without dehumidification In this case consider only the values of sensible capacity.

COOLING CAPACITY

TAV. 2 UL 16

Tw [°C]	Δt	Ta b.u. [°C]	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
			21°C Ta b.s.		23°C Ta b.s.		25°C Ta b.s.		27°C Ta b.s.		29°C Ta b.s.		31°C Ta b.s.	
		15	875	702	1181	1058	1287	1207	1442	1353	1595	1496	1748	1640
		17	1565	910	1549	1052	1552	1200	1582	1351	1631	1499	1751	1642
	3	19	2032	923	2024	1055	2016	1198	2008	1343	1996	1486	2000	1631
		21	-	-	2520	1069	2508	1194	2500	1334	2488	1478	2480	1622
		23	-	-	-	-	3032	1207	3020	1328	3008	1463	3000	1607
		15	758	695	869	815	1009	946	1200	1126	1375	1289	1542	1446
		17	924	637	965	787	1077	958	1214	1129	1377	1292	1544	1448
5	5	19	1549	712	1538	849	1522	989	1533	1137	1576	1291	1653	1451
		21	-	-	2103	887	2093	1018	2083	1160	2071	1302	2060	1444
		23	-	-	-	-	2659	1045	2641	1167	2635	1307	2627	1451
		15	657	615	777	729	897	841	1017	954	1140	1069	1263	1184
		17	758	563	821	709	908	843	1020	957	1140	1069	1265	1187
	7	19	1015	500	1009	641	1036	786	1096	932	1170	1067	1268	1189
		21	-	-	1380	602	1369	741	1353	880	1385	1029	1467	1191
		23	-	-	-	-	2127	832	2119	965	2111	1107	2087	1244
		15	841	755	968	908	1134	1064	1293	1212	1446	1356	1598	1499
		17	1225	763	1216	906	1257	1061	1321	1213	1448	1358	1601	1502
	3	19	1705	777	1696	913	1691	1059	1674	1201	1686	1348	1727	1503
		21	-	-	2198	927	2226	1058	2179	1199	2167	1342	2159	1485
		23	-	-	-	-	2714	1068	2706	1216	2694	1332	2682	1475
		15	623	584	744	698	867	813	1039	975	1222	1146	1394	1307
		17	706	543	774	688	870	816	1042	977	1225	1149	1396	1310
7	5	19	1102	532	1080	669	1118	825	**1200**	**990**	1298	1153	1413	1299
		21	-	-	1729	734	1724	872	1713	1015	1702	1156	1718	1303
		23	-	-	-	-	1774	696	2294	1030	2286	1172	2274	1314
		15	533	500	654	614	776	728	896	840	1017	954	1137	1067
		17	571	475	665	613	777	729	897	841	1017	954	1139	1068
	7	19	758	404	783	552	843	698	922	836	1020	956	1140	1069
		21	-	-	1058	487	1053	628	1075	772	1124	916	1195	1057
		23	-	-	-	-	1674	665	1664	802	1647	942	1653	1087
		15	637	597	815	765	982	921	1140	1069	1295	1215	1448	1358
		17	834	601	894	761	1000	923	1143	1072	1298	1218	1451	1361
	3	19	1347	629	1339	769	1325	912	1345	1061	1396	1215	1476	1268
		21	-	-	1849	781	1841	917	1833	1061	1821	1203	1817	1348
		23	-	-	-	-	2373	927	875	392	2353	1198	2345	1342
		15	558	523	622	583	743	697	878	824	1066	1000	1241	1164
		17	525	455	622	583	744	698	878	824	1069	1003	1243	1166
9	5	19	712	387	731	533	792	678	897	828	1072	1005	1246	1169
		21	-	-	1298	571	1291	713	1282	853	1325	1007	1396	1166
		23	-	-	-	-	1917	752	1905	886	1897	1029	1885	1171
		15												
		17	417	383	533	500	654	614	776	728	896	840	1017	954
	7	19	518	316	585	467	672	607	777	729	897	841	1017	954
		21	-	-	789	394	810	540	864	686	941	827	1031	956
		23	-	-	-	-	1113	475	1104	617	1129	764	1184	912
		15	468	439	650	610	824	772	987	926	1144	1073	1298	1218
		17	481	435	652	611	826	775	989	927	1145	1074	1301	1220
	3	19	941	471	927	612	971	767	1042	924	1148	1077	1304	1223
		21	-	-	1470	634	1462	774	1454	1327	1451	1062	1478	1210
		23	-	-	-	-	2004	783	1996	918	1984	1061	1976	1203
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	378	354	500	469	622	583	743	697	903	847	1088	1021
11	5	19	469	299	536	447	627	582	744	698	905	849	1091	1023
		21	-	-	744	378	758	523	824	674	968	847	1121	1026
		23	-	-	-	-	1473	594	1462	733	1446	873	1473	1023
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
	7	19	317	235	421	379	534	501	654	614	776	728	896	840
		21	-	-	534	308	599	457	684	600	780	727	897	841
		23	-	-	-	-	826	385	840	529	889	674	960	815

Tw [°C]	Δt	Ta b.u. [°C]	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
			21°C Ta b.s.		23°C Ta b.s.		25°C Ta b.s.		27°C Ta b.s.		29°C Ta b.s.		31°C Ta b.s.	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	341	320	470	441	663	621	832	780	993	931	1148	1077
		19	422	283	518	445	676	624	834	783	995	934	1151	1079
		21	-	-	1045	480	1031	621	1053	771	1110	925	1195	1080
		23	-	-	-	-	1604	639	1593	777	1585	920	1576	1061
	5	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	274	218	380	325	500	469	622	583	744	698	930	872
		21	-	-	487	292	548	439	637	578	746	700	933	875
		23	-	-	-	-	856	393	862	537	943	692	1080	876
	7	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	323	229	427	374	534	501	654	614	776	728
		23	-	-	-	-	554	300	614	448	695	590	791	724
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	230	200	344	323	487	456	674	632	840	788	998	936
		21	-	-	444	279	578	458	709	629	841	789	1001	939
		23	-	-	-	-	1151	486	1145	629	1145	773	1186	924
	5	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	279	214	383	352	500	469	622	583	755	708
		23	-	-	-	-	502	284	562	431	646	572	766	714
	7	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	-	-	-	-	-	-	-	-	-	-
		23	-	-	-	-	329	224	432	369	539	499	654	614

Cooling capacities are referred to high speed.
To obtain values for other speed, multiply the values read by following factors:

MOD.		UL 16
Medium speed	total capacity	0,79
	sensible capacity	0,76
Minimum speed	total capacity	0,57
	sensible capacity	0,53

Tw [°C] = Inlet water temperature
Ta w.b.[°C] = Inlet wet bulbe air temperature
Ta b.s.[°C] = Dry bulbe air temperature
Pc [W] = Total cooling capacity
Ps [W] = Sensible cooling capacity

NOTE: Values of capacity in bold face refer to nominal value.
Values of sensible capacity higher than values of total capacity mean that cooling is without dehumidification In this case consider only the values of sensible capacity.

COOLING CAPACITY

TAV. 3 UL 26

Tw [°C]	Δt	Ta b.u. [°C]	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	P s
			21°C Ta b.s.		23°C Ta b.s.		25°C Ta b.s.		27°C Ta b.s.		29°C Ta b.s.		31°C Ta b.s.	
		15	1481	1162	1997	1752	2177	2000	2440	2241	2698	2478	2957	2716
		17	2648	1507	2621	1743	2625	1988	2676	2239	2759	2484	2962	2721
	3	19	3437	1529	3424	1748	3410	1984	3397	2225	3377	2462	3383	2702
		21	-	-	4263	1772	4242	1978	4229	2210	4209	2448	4195	2686
		23	-	-	-	-	5128	1999	5108	2200	5088	2424	5075	2662
		15	1282	1151	1469	1350	1707	1568	2030	1864	2325	2136	2608	2396
		17	1564	1055	1633	1304	1822	1588	2053	1870	2330	2140	2611	2398
5	5	19	2621	1180	2602	1406	2574	1639	2593	1884	2667	2139	2796	2404
		21	-	-	3558	1469	3541	1687	3524	1921	3504	2157	3484	2391
		23	-	-	-	-	4497	1730	4468	1934	4457	2166	4444	2404
		15	1112	1019	1314	1207	1517	1393	1721	1580	1928	1771	2136	1962
		17	1282	933	1389	1174	1536	1397	1725	1585	1928	1771	2140	1966
	7	19	1716	829	1707	1062	1753	1303	1855	1544	1979	1767	2145	1970
		21	-	-	2335	997	2316	1228	2288	1457	2344	1704	2482	1973
		23	-	-	-	-	3598	1378	3585	1599	3571	1835	3530	2062
		15	1423	1251	1638	1505	1918	1762	2187	2009	2445	2246	2704	2483
		17	2071	1263	2058	1501	2127	1758	2235	2010	2450	2250	2708	2487
	3	19	2884	1287	2870	1513	2861	1755	2832	1989	2851	2233	2921	2490
		21	-	-	3719	1536	3766	1752	3685	1986	3665	2222	3652	2460
		23	-	-	-	-	4591	1769	4578	2014	4558	2207	4538	2443
		15	1054	968	1259	1157	1467	1347	1758	1614	2067	1898	2358	2165
		17	1195	899	1310	1139	1472	1352	1762	1619	2071	1903	2362	2170
7	5	19	1864	882	1827	1108	1892	1366	**2030**	**1640**	2196	1910	2390	2151
		21	-	-	2925	1217	2916	1445	2898	1681	2879	1915	2907	2158
		23	-	-	-	-	3001	1153	3880	1707	3867	1941	3846	2176
		15	902	828	1107	1017	1312	1205	1515	1392	1721	1580	1924	1767
		17	966	788	1126	1016	1315	1208	1518	1394	1721	1580	1926	1769
	7	19	1282	670	1325	914	1425	1157	1559	1384	1725	1584	1928	1771
		21	-	-	1790	806	1781	1040	1818	1280	1901	1517	2021	1751
		23	-	-	-	-	2832	1101	2814	1328	2787	1561	2796	1800
		15	1077	989	1379	1267	1661	1525	1928	1771	2191	2013	2450	2250
		17	1412	996	1513	1261	1691	1528	1933	1775	2196	2017	2455	2255
	3	19	2279	1041	2265	1274	2242	1511	2275	1757	2362	2013	2496	2100
		21	-	-	3128	1294	3115	1519	3101	1758	3081	1993	3075	2233
		23	-	-	-	-	4014	1535	1481	649	3981	1984	3967	2223
		15	944	867	1052	966	1257	1155	1485	1364	1804	1657	2099	1928
		17	888	753	1052	966	1259	1157	1485	1364	1808	1661	2103	1931
9	5	19	1204	641	1236	883	1340	1124	1518	1371	1813	1665	2108	1936
		21	-	-	2196	946	2184	1182	2168	1413	2242	1669	2362	1931
		23	-	-	-	-	3242	1245	3222	1468	3209	1705	3189	1939
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	705	634	902	828	1107	1017	1312	1205	1515	1392	1721	1580
	7	19	877	523	989	773	1137	1005	1315	1208	1518	1394	1721	1580
		21	-	-	1335	653	1370	894	1462	1136	1592	1370	1744	1583
		23	-	-	-	-	1882	787	1868	1022	1910	1265	2002	1511
		15	791	726	1100	1010	1393	1280	1669	1533	1935	1778	2196	2017
		17	814	721	1102	1013	1398	1284	1672	1536	1938	1780	2201	2021
	3	19	1592	780	1569	1014	1642	1271	1762	1530	1942	1784	2205	2026
		21	-	-	2487	1050	2473	1282	2459	2198	2454	1759	2501	2004
		23	-	-	-	-	3390	1297	3377	1521	3356	1757	3343	1993
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	639	587	846	777	1052	966	1257	1155	1527	1403	1841	1691
11	5	19	793	495	906	741	1061	965	1259	1157	1532	1407	1845	1695
		21	-	-	1259	627	1282	866	1393	1117	1637	1404	1896	1700
		23	-	-	-	-	2491	984	2473	1214	2445	1446	2491	1695
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
	7	19	537	390	711	628	904	830	1107	1017	1312	1205	1515	1392
		21	-	-	904	510	1013	758	1158	994	1319	1204	1518	1394
		23	-	-	-	-	1398	637	1421	876	1504	1116	1624	1350

Tw [°C]	Δt	Ta b.u. [°C]	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
			21°C Ta b.s.		23°C Ta b.s.		25°C Ta b.s.		27°C Ta b.s.		29°C Ta b.s.		31°C Ta b.s.	
13	3	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	577	530	796	731	1121	1029	1407	1292	1679	1542	1942	1784
		19	714	468	876	737	1144	1034	1412	1297	1684	1547	1947	1788
		21	-	-	1767	796	1744	1029	1781	1277	1878	1533	2021	1790
		23	-	-	-	-	2713	1058	2694	1287	2681	1524	2667	1758
	5	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	464	361	642	539	846	777	1052	966	1259	1157	1573	1445
		21	-	-	823	484	927	728	1077	958	1262	1159	1578	1449
		23	-	-	-	-	1449	651	1458	890	1595	1146	1827	1451
	7	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	546	380	722	620	904	830	1107	1017	1312	1205
		23	-	-	-	-	936	497	1038	742	1176	978	1338	1199
15	3	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	390	331	582	535	823	756	1139	1047	1421	1305	1688	1551
		21	-	-	752	462	978	759	1199	1042	1423	1307	1693	1555
		23	-	-	-	-	1947	805	1938	1042	1938	1280	2007	1530
	5	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	473	354	648	583	846	777	1052	966	1278	1174
		23	-	-	-	-	849	471	950	715	1093	947	1296	1183
	7	15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
		19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	-	-	-	-	-	-	-	-	-	-
		23	-	-	-	-	556	371	731	611	911	827	1107	1017

Cooling capacities are referred to high speed.
To obtain values for other speed, multiply the values read by following factors:

MOD.		UL 26
Medium speed	total capacity	0,88
	sensible capacity	0,83
Minimum speed	total capacity	0,70
	sensible capacity	0,64

Tw [°C] = Inlet water temperature
Ta w.b.[°C] = Inlet wet bulbe air temperature
Ta b.s.[°C] = Dry bulbe air temperature
Pc [W] = Total cooling capacity
Ps [W] = Sensible cooling capacity

NOTE: Values of capacity in bold face refer to nominal value.
Values of sensible capacity higher than values of total capacity mean that cooling is without dehumidification In this case consider only the values of sensible capacity.

COOLING CAPACITY

TAV. 4 UL 36

Tw [°C]	Δt	Ta b.u. [°C]	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
			21°C Ta b.s.		23°C Ta b.s.		25°C Ta b.s.		27°C Ta b.s.		29°C Ta b.s.		31°C Ta b.s.	
		15	2064	1446	2785	2180	3035	2487	3401	2787	3762	3083	4123	3379
		17	3692	1875	3653	2168	3660	2472	3731	2785	3846	3090	4129	3384
	3	19	4792	1903	4773	2174	4754	2468	4735	2767	4707	3063	4717	3361
		21	-	-	5942	2204	5914	2461	5896	2749	5868	3045	5849	3341
		23	-	-	-	-	7150	2487	7121	2737	7093	3015	7075	3312
		15	1787	1432	2048	1679	2380	1950	2830	2319	3242	2657	3636	2980
		17	2180	1312	2277	1622	2541	1975	2862	2326	3248	2662	3640	2983
5	5	19	3653	1467	3628	1749	3589	2039	3615	2343	3718	2661	3898	2990
		21	-	-	4960	1828	4936	2099	4913	2390	4885	2683	4857	2975
		23	-	-	-	-	6270	2152	6228	2406	6213	2694	6195	2990
		15	1550	1267	1832	1501	2115	1733	2399	1966	2688	2203	2978	2440
		17	1787	1160	1936	1461	2142	1737	2405	1971	2688	2203	2983	2445
	7	19	2393	1031	2380	1321	2444	1620	2586	1921	2759	2198	2990	2451
		21	-	-	3255	1240	3229	1527	3190	1812	3267	2120	3460	2454
		23	-	-	-	-	5016	1715	4997	1989	4979	2282	4922	2564
		15	1984	1556	2284	1872	2674	2192	3049	2498	3409	2794	3769	3089
		17	2888	1571	2869	1867	2965	2186	3116	2500	3415	2799	3776	3094
	3	19	4020	1601	4001	1882	3988	2183	3948	2474	3975	2778	4072	3097
		21	-	-	5184	1910	5250	2180	5138	2471	5110	2765	5091	3060
		23	-	-	-	-	6401	2201	6382	2505	6354	2745	6326	3039
		15	1469	1204	1756	1439	2045	1676	2450	2008	2881	2361	3287	2694
		17	1666	1119	1826	1417	2052	1681	2457	2013	2888	2367	3293	2699
7	5	19	2598	1097	2547	1379	2637	1699	**2830**	**2040**	3062	2376	3332	2676
		21	-	-	4078	1513	4065	1797	4039	2091	4014	2382	4052	2685
		23	-	-	-	-	4184	1434	5409	2123	5390	2414	5362	2707
		15	1257	1030	1543	1265	1830	1499	2113	1731	2399	1966	2682	2198
		17	1347	980	1569	1264	1833	1502	2116	1734	2399	1966	2685	2201
	7	19	1788	833	1847	1138	1987	1439	2174	1722	2405	1971	2688	2203
		21	-	-	2495	1002	2483	1294	2534	1592	2650	1887	2817	2178
		23	-	-	-	-	3948	1370	3924	1652	3885	1941	3898	2239
		15	1501	1231	1923	1576	2315	1898	2688	2203	3055	2504	3415	2799
		17	1968	1239	2109	1568	2357	1901	2695	2208	3062	2509	3423	2805
	3	19	3177	1295	3158	1585	3126	1879	3171	2186	3293	2504	3480	2613
		21	-	-	4361	1610	4342	1889	4324	2187	4296	2479	4286	2777
		23	-	-	-	-	5596	1910	2065	807	5549	2468	5531	2765
		15	1315	1078	1466	1202	1752	1436	2071	1697	2515	2061	2926	2398
		17	1238	937	1466	1202	1756	1439	2071	1697	2521	2066	2932	2403
9	5	19	1678	798	1723	1098	1868	1398	2116	1705	2528	2071	2938	2408
		21	-	-	3062	1177	3045	1470	3023	1758	3126	2076	3293	2402
		23	-	-	-	-	4520	1549	4492	1826	4473	2120	4445	2412
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	983	788	1257	1030	1543	1265	1830	1499	2113	1731	2399	1966
	7	19	1222	651	1379	962	1585	1250	1833	1502	2116	1734	2399	1966
		21	-	-	1862	812	1910	1112	2039	1414	2219	1704	2431	1970
		23	-	-	-	-	2624	979	2605	1271	2663	1574	2791	1879
		15	1103	904	1534	1257	1942	1592	2327	1907	2698	2211	3062	2509
		17	1135	897	1537	1260	1949	1597	2331	1911	2701	2214	3068	2514
	3	19	2219	970	2187	1261	2290	1581	2457	1904	2708	2219	3074	2520
		21	-	-	3467	1307	3448	1595	3428	2734	3422	2188	3486	2493
		23	-	-	-	-	4726	1614	4707	1891	4679	2185	4660	2480
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	890	730	1180	967	1466	1202	1752	1436	2129	1745	2566	2103
11	5	19	1106	615	1264	922	1479	1200	1756	1439	2135	1750	2573	2108
		21	-	-	1756	780	1788	1077	1942	1389	2282	1746	2644	2115
		23	-	-	-	-	3473	1224	3448	1510	3409	1799	3473	2108
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
	7	19	748	485	992	781	1260	1033	1543	1265	1830	1499	2113	1731
		21	-	-	1260	634	1412	943	1614	1236	1839	1498	2116	1734
		23	-	-	-	-	1949	793	1981	1089	2097	1389	2264	1679

Tw [°C]	Δt	Ta b.u. [°C]	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps	Pc	Ps
			21°C Ta b.s.		23°C Ta b.s.		25°C Ta b.s.		27°C Ta b.s.		29°C Ta b.s.		31°C Ta b.s.	
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	805	659	1109	909	1563	1281	1962	1608	2341	1919	2708	2219
	3	19	995	582	1222	916	1595	1286	1968	1613	2348	1924	2714	2224
		21	-	-	2463	990	2431	1280	2483	1588	2618	1907	2817	2226
		23	-	-	-	-	3782	1316	3756	1601	3737	1896	3718	2187
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
13	5	19	647	449	895	670	1180	967	1466	1202	1756	1439	2193	1797
		21	-	-	1147	602	1292	905	1501	1191	1759	1441	2199	1802
		23	-	-	-	-	2019	810	2032	1108	2223	1426	2547	1805
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
	7	19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	761	473	1006	771	1260	1033	1543	1265	1830	1499
		23	-	-	-	-	1305	618	1447	923	1640	1216	1865	1491
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
	3	19	543	411	811	665	1148	941	1588	1302	1981	1623	2354	1929
		21	-	-	1048	574	1363	944	1672	1296	1984	1626	2360	1934
		23	-	-	-	-	2714	1002	2701	1296	2701	1592	2798	1903
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
15	5	19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	659	440	903	726	1180	967	1466	1202	1781	1460
		23	-	-	-	-	1183	586	1325	889	1524	1178	1807	1472
		15	-	-	-	-	-	-	-	-	-	-	-	-
		17	-	-	-	-	-	-	-	-	-	-	-	-
	7	19	-	-	-	-	-	-	-	-	-	-	-	-
		21	-	-	-	-	-	-	-	-	-	-	-	-
		23	-	-	-	-	776	461	1019	760	1270	1028	1543	1265

Cooling capacities are referred to high speed.
To obtain values for other speed, multiply the values read by following factors:

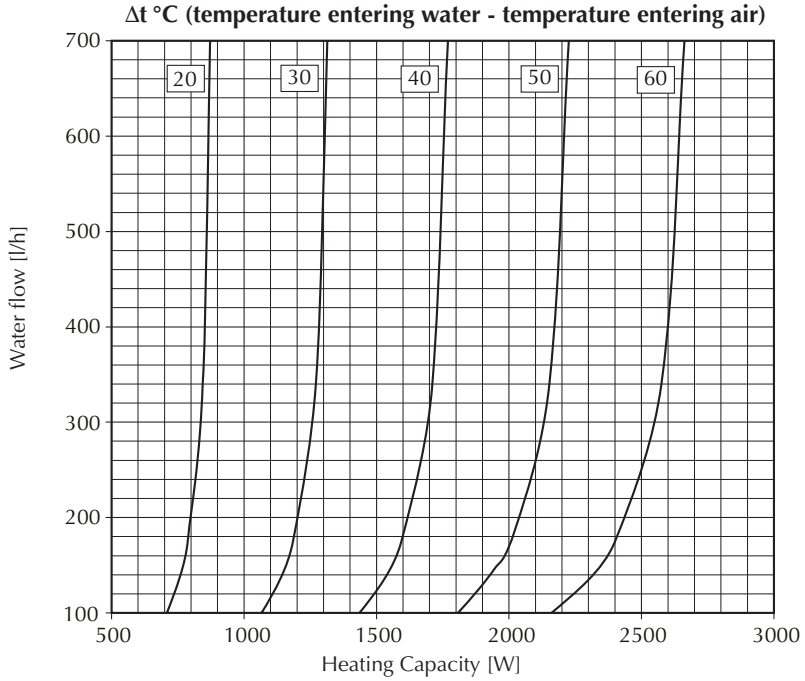
MOD.		UL 36
Medium speed	total capacity	0,82
	sensible capacity	0,87
Minimum speed	total capacity	0,61
	sensible capacity	0,63

Tw [°C] = Inlet water temperature
Ta w.b.[°C] = Inlet wet bulbe air temperature
Ta b.s.[°C] = Dry bulbe air temperature
Pc [W] = Total cooling capacity
Ps [W] = Sensible cooling capacity

NOTE: Values of capacity in bold face refer to nominal value.
Values of sensible capacity higher than values of total capacity mean that cooling is without dehumidification In this case consider only the values of sensible capacity.

HEATING CAPACITY

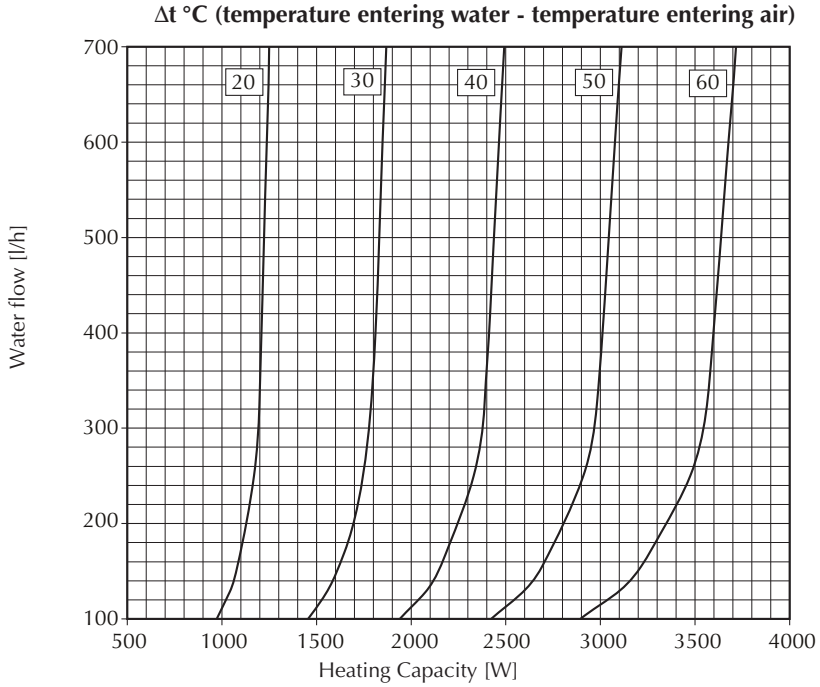
TAV. 5 UL 11



Heating capacity figures refer to maximum fan speed. Performance for other fan speeds can be obtained by multiplying these figures by the following correction factors:

MOD.	**UL 11**	Medium fan speed	Minimum fan speed
		0,73	0,53

TAV. 6 UL 16

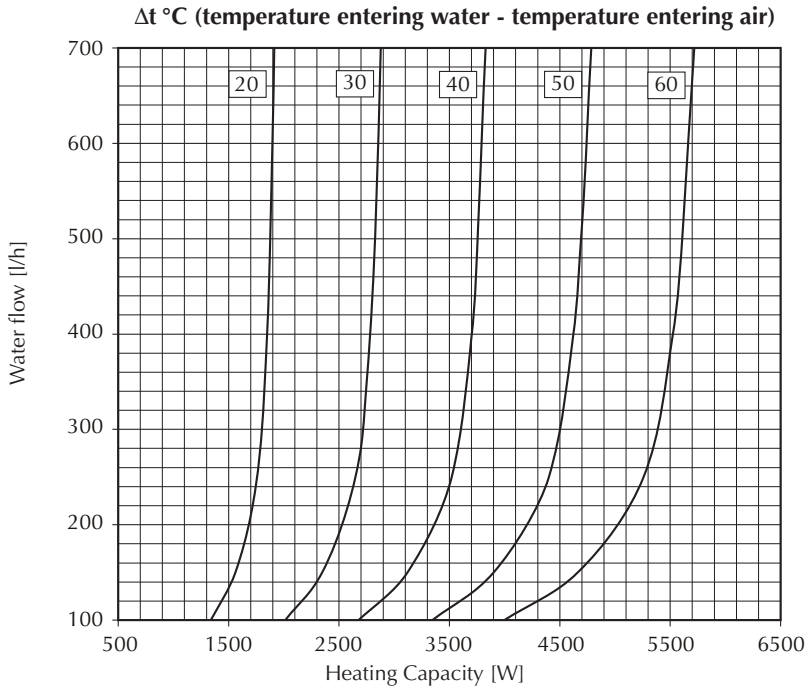


Heating capacity figures refer to maximum fan speed. Performance for other fan speeds can be obtained by multiplying these figures by the following correction factors:

MOD.	**UL 16**	Medium fan speed	Minimum fan speed
		0,73	0,53

HEATING CAPACITY

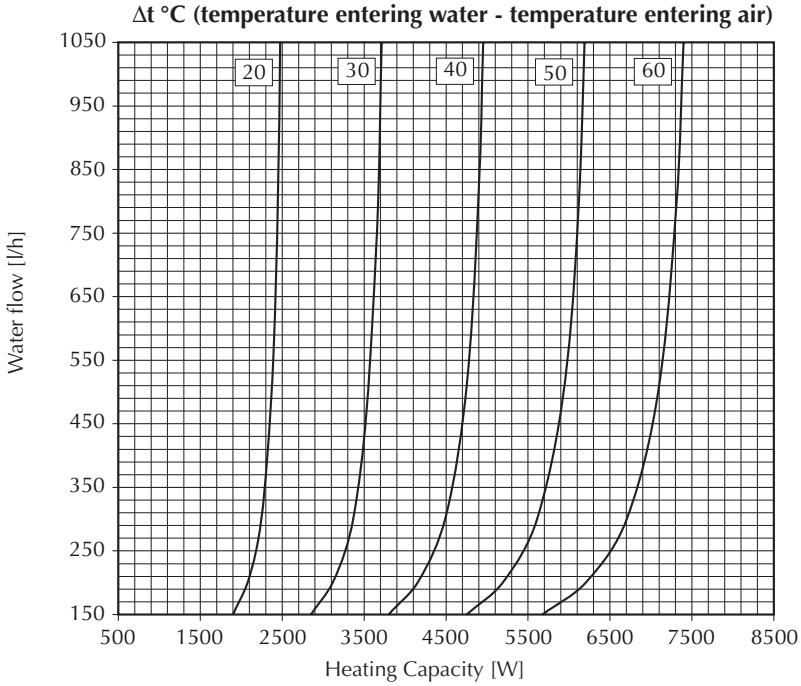
TAV. 7 UL 26



Heating capacity figures refer to maximum fan speed. Performance for other fan speeds can be obtained by multiplying these figures by the following correction factors:

MOD.	**UL 26**	Medium fan speed	Minimum fan speed
		0,83	0,63

TAV. 8 UL 36

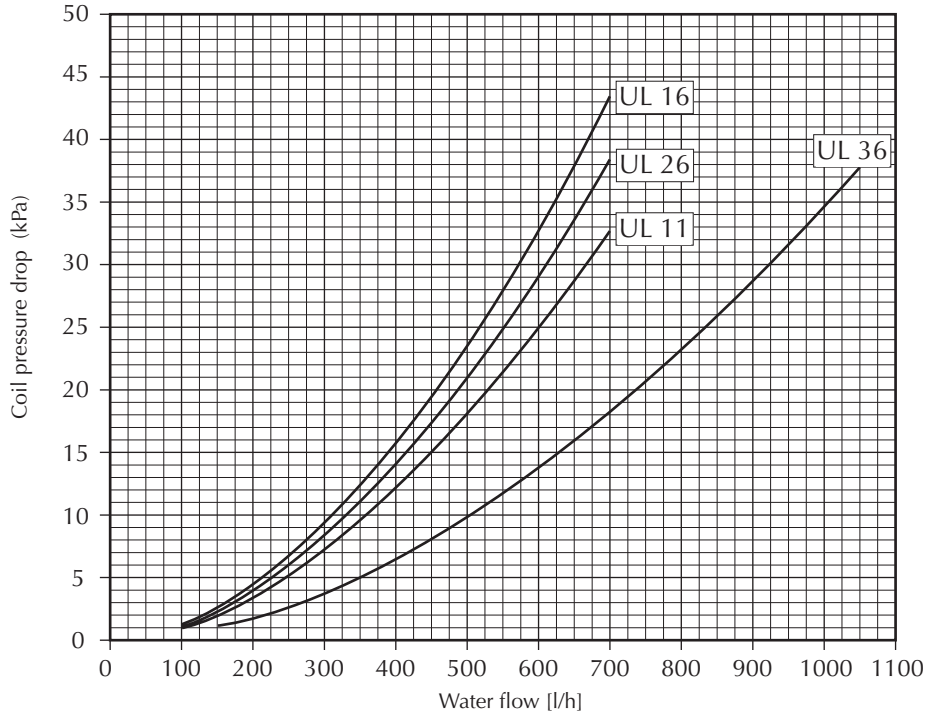


Heating capacity figures refer to maximum fan speed. Performance for other fan speeds can be obtained by multiplying these figures by the following correction factors:

MOD.	**UL 36**	Medium fan speed	Minimum fan speed
		0,82	0,59

COIL PRESSURE DROP

TAV. 9

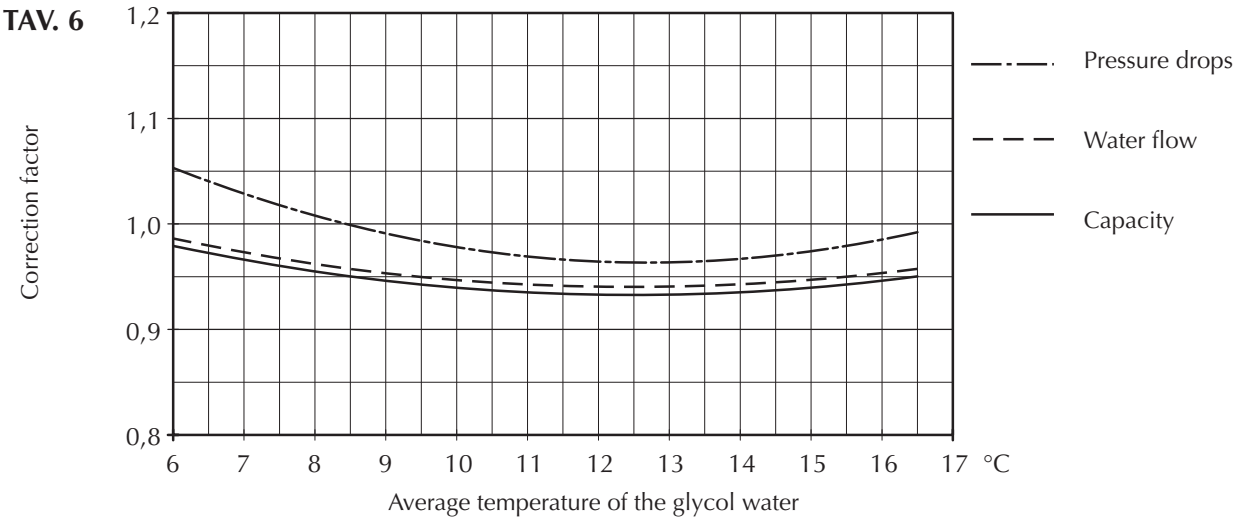


The pressure drops in the charts above refer to an average water temperature of 10 °C. The following table shows the corrections to apply to the pressure drops with a variation in average water temperature.Temperatura media dell'acqua °C 5

Average water temperature	°C	5	10	15	20	50	60	70
Correction factor		1,03	1	0,96	0,91	0,78	0,75	0,72

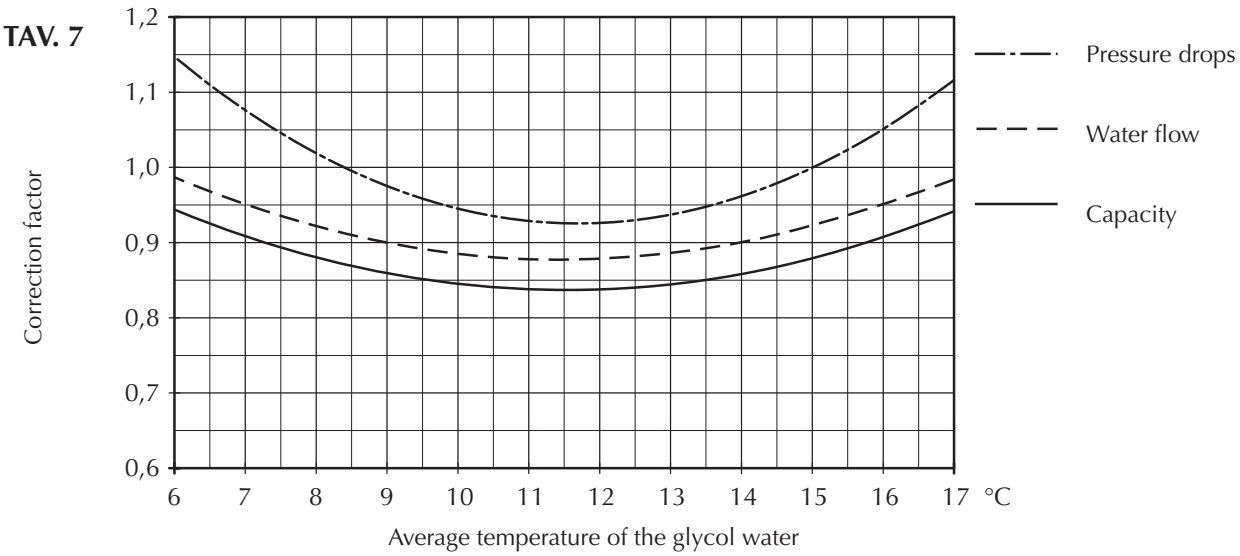
GLYCOL WATER AT 10%

TAV. 6



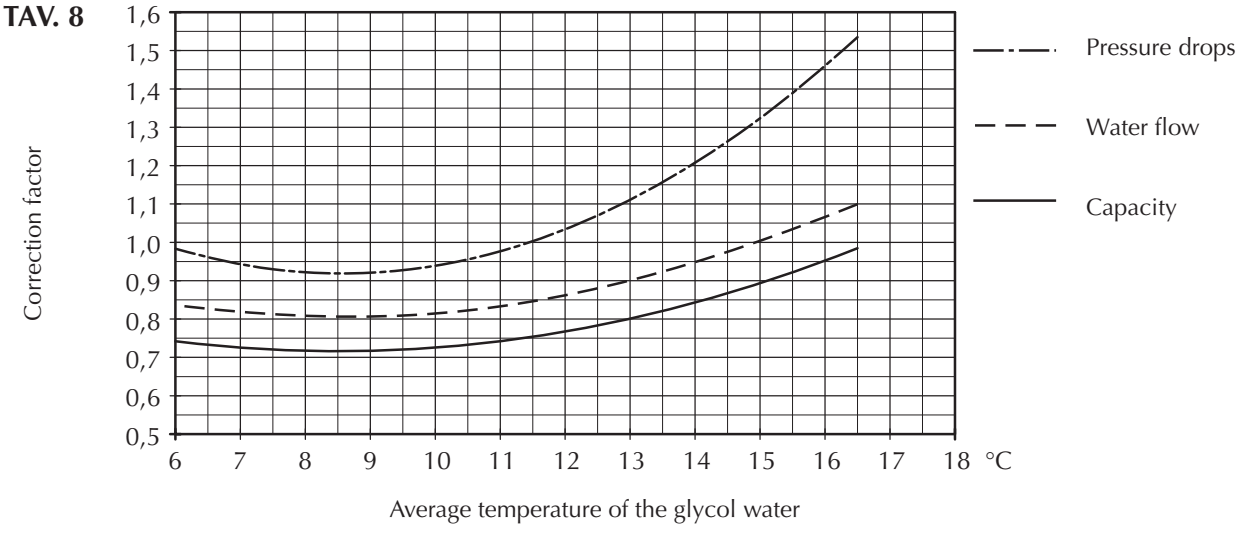
GLYCOL WATER AT 20%

TAV. 7



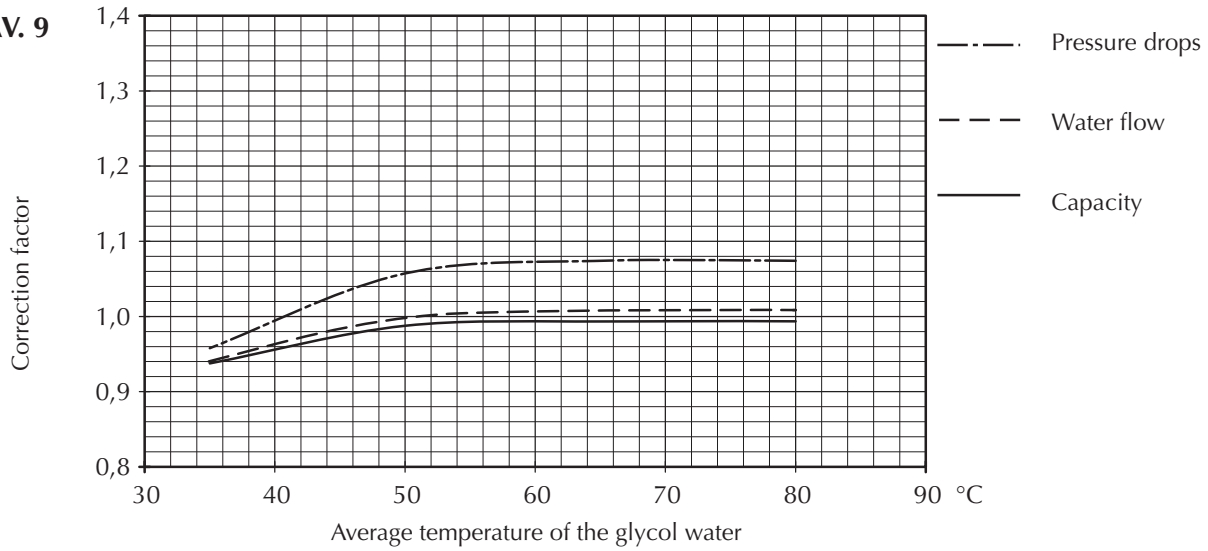
GLYCOL WATER AT 35%

TAV. 8



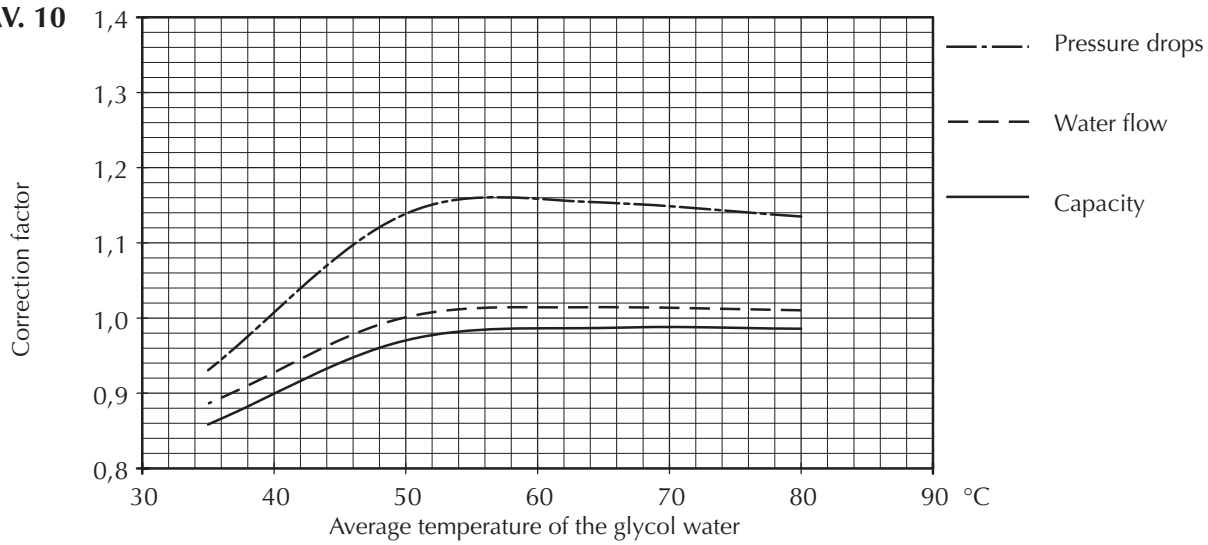
GLYCOL WATER AT 10%

TAV. 9



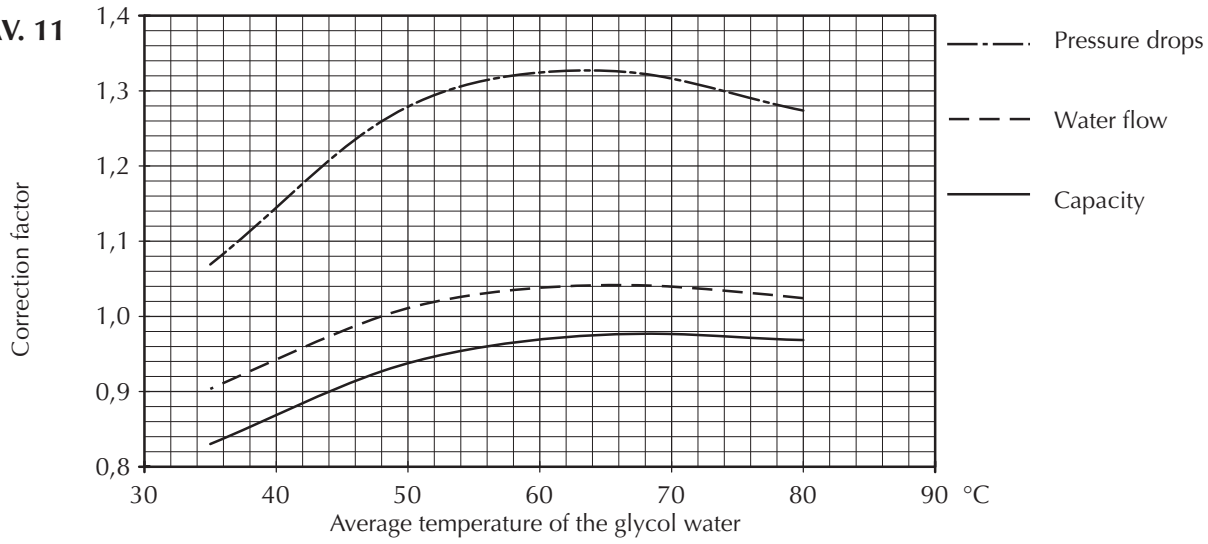
GLYCOL WATER AT 20%

TAV. 10



GLYCOL WATER AT 35%

TAV. 11



SOUND POWER level rated in dB

TAV. 16

Mod.	Speed	Band middle frequency (Hz) 125	250	500	1000	2000	4000	8000	Global dB	dB (A)
UL 11	Max. **(E)**	43,6	47,1	46,4	38,5	34,4	23,9	11,1	51,1	46,0
	Med.	37,5	39,3	37,3	28,4	24,3	17,4	6,3	43,1	37,0
	Min.	35,3	34,3	30,8	20,0	18,1	14,0	3,3	38,7	31,0
UL 16	Max. **(E)**	46,4	47,8	46,8	41,9	40,1	31,9	19,9	52,5	48,0
	Med.	42,0	43,6	43,4	35,9	31,7	21,3	12,0	48,2	43,0
	Min.	41,2	36,0	34,4	22,8	19,3	9,2	7,1	43,1	34,0
UL 26	Max. **(E)**	46,4	48,5	47,4	42,7	37,4	27,1	14,3	52,9	48,0
	Med.	44,3	44,2	43,1	36,3	30,5	18,8	10,2	49,0	43,0
	Min.	41,7	37,1	35,5	24,5	19,0	9,4	8,1	43,8	35,0
UL 36	Max. **(E)**	45,4	47,4	47,7	41,8	38,8	29,0	17,2	52,4	48,0
	Med.	45,0	40,9	41,4	33,5	29,2	18,8	8,4	47,8	41,0
	Min.	42,1	34,4	34,4	24,1	19,9	10,5	9,1	43,4	34,0

(E) = Eurovent certified Performance

SOUND PRESSURE level rated in dB (A)

TAV. 17

Speed	Mod. UL 11	16	26	36
Max	37,5	39,5	39,5	39,5
Med	28,5	34,5	34,5	32,5
Min	22,5	25,5	26,5	25,5

The table gives the sound pressure level (weighted A) measured in a room with 85 m^3 volume and reverberation time Tr = 0.5 seconds.

ACCESSORIES

AMP10 BRACKET FOR CEILING INSTALLATION

Supplied in the Omnia UL P, S and UL SM versions.

The AMP10 accessory consists of two brackets and screws for fixing fan coils to the frame.

AMP10 has been designed in order to make it easier to fix the fan coil unit to the wall above all in ceiling installations but it can be applied also for installations on vertical walls.

BC10 AUXILIARY CONDENSATE BASIN FOR VERTICALLY-INSTALLED FAN COILS

Made of plastic, it allows for the collection of condensate that is formed on the plumbing connections and on any three-way valve in the units installed vertically, during functioning with cold water.

The BC10 accessory can be combined with the OMNIA fan coils of all sizes and in all versions.

BC10 AUXILIARY CONDENSATE BASIN FOR FAN COILS INSTALLED HANGING

Made of plastic, it allows for the collection of condensate that is formed on the plumbing connections and on any three-way valve in the ULP units installed hanging on the ceiling, during functioning with cold water.

The BC20 accessory can be combined with OMNIA fan coils in all sizes.

CHU VENTILCASSAFORMA

The Ventilcassaforma system permits the installation of a OMNIA UL P fan coil in a niche with a front panel that makes it invisible from the outside. The CHU accessory includes the recess box, the front panel and all the parts necessary for their assembly.

GU FRONT INTAKE GRILLE

Intake grille, this covers the front space between the plinths. It does not interfere with the air filter.

Advisable in hanging ceiling installations.

Combination with ZU plinths is obligatory.

PCU REAR COVER PANEL

This permits the total coverage of the rear part of the machine if this is visible or accessible from outside. In the case of accessibility from outside it is necessary to avoid contact with the control board.

PX2 CONTROL PANEL(WALL-MOUNTED INSTALLATION)

Installation on the machine is not possible.

Control panel to be fitted on the wall, consisting of on/off selector switch and three-position selector switch to select fan speed.

The panel cannot be coupled with a water temperature sensor.

Each panel can control a single fan coil.

See the accessory instructions for further information.

PXB CONTROL PANEL(WALL-MOUNTED INSTALLATION)

Installation on the machine is not possible.

The three-speed control panel PXB is fitted with an electronic thermostat that stops the fan when the set environment temperature is reached.

The room temperature sensor is situated inside the thermostat.

The thermostat can be coupled with a water temperature sensor.

Each panel can control a single fan coil.

See the accessory instructions for further information.

PXL2E MULTI-FUNCTION CONTROL PANEL

Control panel for wall-mounted installation, two-pipe systems, fitted with multifunction electronic thermostat that controls fan coil functioning in accordance with the mode set, the environment temperature and the water in the circuit to keep the environment at the set temperature.

The control panel must bee used with two-pipe systems with the possibility of the on-off valve (VCH) to cut off the water feeding the battery.

The room temperature sensor is situated inside the thermostat. See the accessory instructions for further information.

PXLM **MULTI-FUNCTION CONTROL PANEL**

(Wall-mounted installation)

Kit for the motorisation of the fins and control with control panel. It consists of a control panel with electronic thermostat, a motor to be applied to the delivery slats, a power supply card and water and air temperature measuring probes.

PXLM controls the functioning of the fan coil inserted in a two-pipe hydraulic system.

The check parameters of the electronic panel can be programmed even after installation by pressing just two keys.

SIT 3

Only for units without control panels on the machine.

The SIT 3 interface card must be fitted on each fan coil connected to the centralised command.

Up to ten fan coils fitted with SIT 3 can be applied to a single centralised command.The electronic control panels or those fitted with valve control must also be interfaced with a SIT **5**. The electromechanical control panels with just the speed control can be connected directly to the SIT 3 without SIT 5 interface.

SIT 5

Only for units without control panels on the machine.

The SIT 5 accessory is interfaced with the electronic control panels or those fitted with three-way valve and heaters fitted to fan coils control. The SIT **5 interface card requires the fan coils to connected (up to 10) to all be fitted with SIT 3** interface cards.

SW 3

Probe for units combined with electronic thermostats PXL2E.

Allows the functioning of the unit only with water above 35 °C.

VCH THREE-WAY VALVE SET

The control panel with incorporated OMNIA UL fan coil selector does not allow the control of the valve.

The control panels with thermostats incorporated in OMNIA UL C and PC fan coils allow the control of the VCH valve, for the UL S and UL P fan coils, it is necessary to use an external control panel fitted with this control.

Sets complete with copper fittings and three-way valves of the all or nothing type designed for single phase 230V power supply.

The VCH accessory can be combined with OMNIA fan coils in all sizes.

ZU PLINTHS FOR CABINETS (ONLY FOR VERSIONS WITH CABINETS)

Made of RAL7044 coloured plastic, they are fitted to the base of the cabinet when the device is stood on the floor.

The ZU accessory can be combined with OMNIA U L fan coils in all sizes.

ACCESSORIES COMPATIBILITY TABLE

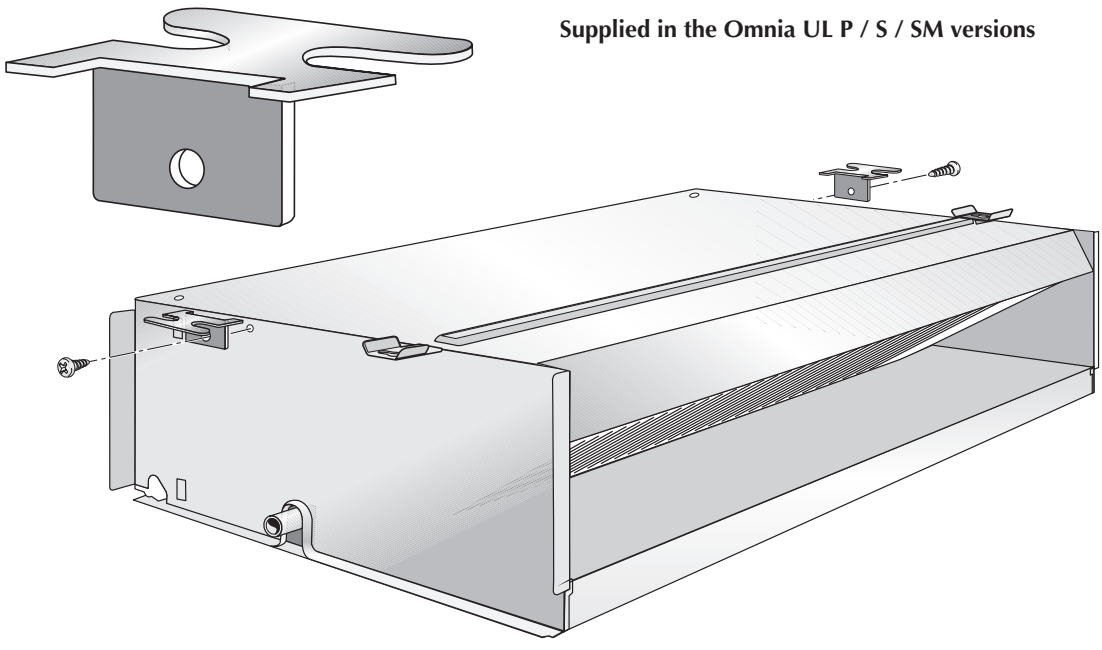
	UL fancoil				
	Size				Versions
Accessories	11	16	26	36	
AMP10(*)			✔		UL - UL C
BC 10	✔	✔	✔	✔	UL - UL C - UL P - UL S
BC 20	✔	✔	✔	✔	UL - UL C - UL P - UL S
GU 10(**)	✔				UL - UL C - UL S
GU 15(**)		✔			UL - UL C - UL S
GU 25(**)			✔		UL - UL C - UL S
GU 35(**)				✔	UL - UL C - UL S
CHU 12	✔				UL P
CHU 17		✔			UL P
CHU 27			✔		UL P
CHU 37				✔	UL P
PCU 10	✔				UL - UL C - UL S
PCU 15		✔			UL - UL C - UL S
PCU 25			✔		UL - UL C - UL S
PCU 35				✔	UL - UL C - UL S
PX2	✔	✔	✔	✔	UL P - UL S
PXB	✔	✔	✔	✔	UL P - UL S
PXL2E	✔	✔	✔	✔	UL P - UL S
PXLM	✔	✔	✔	✔	UL S
SIT 3(***)	✔	✔	✔	✔	UL P - UL S
SIT 5(***)	✔	✔	✔	✔	UL P - UL S
SW3	✔	✔	✔	✔	UL P - UL S
VCH(****)	✔	✔	✔	✔	UL - UL C - UL P - UL S
ZU	✔	✔	✔	✔	UL - UL C - UL S

(*) = The AMP10 accessory is supplied with the OMNIA UL S and P.
(**) = Combination with ZU plinths is obligatory
(***) = It is possible to connect up to ten units fitted with SIT 3 cards to a SIT 5 card..
(****) = Valve managed just in the OMNIA UL C and PC, versions. The command panels on the other versions do not manage the valve, it is necessary to combine an external control panel with the valve control function.

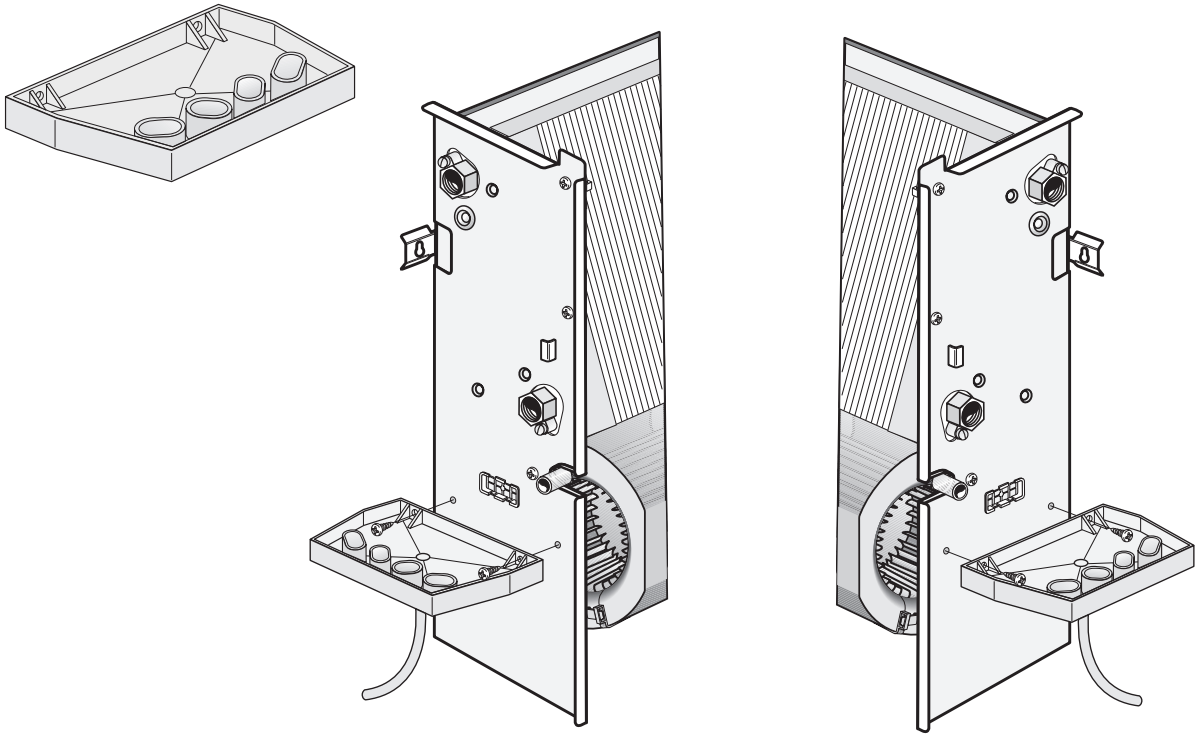
ACCESSORIES DATA

AMP10 **SUPPORTS FOR HANGING INSTALLATIONS**

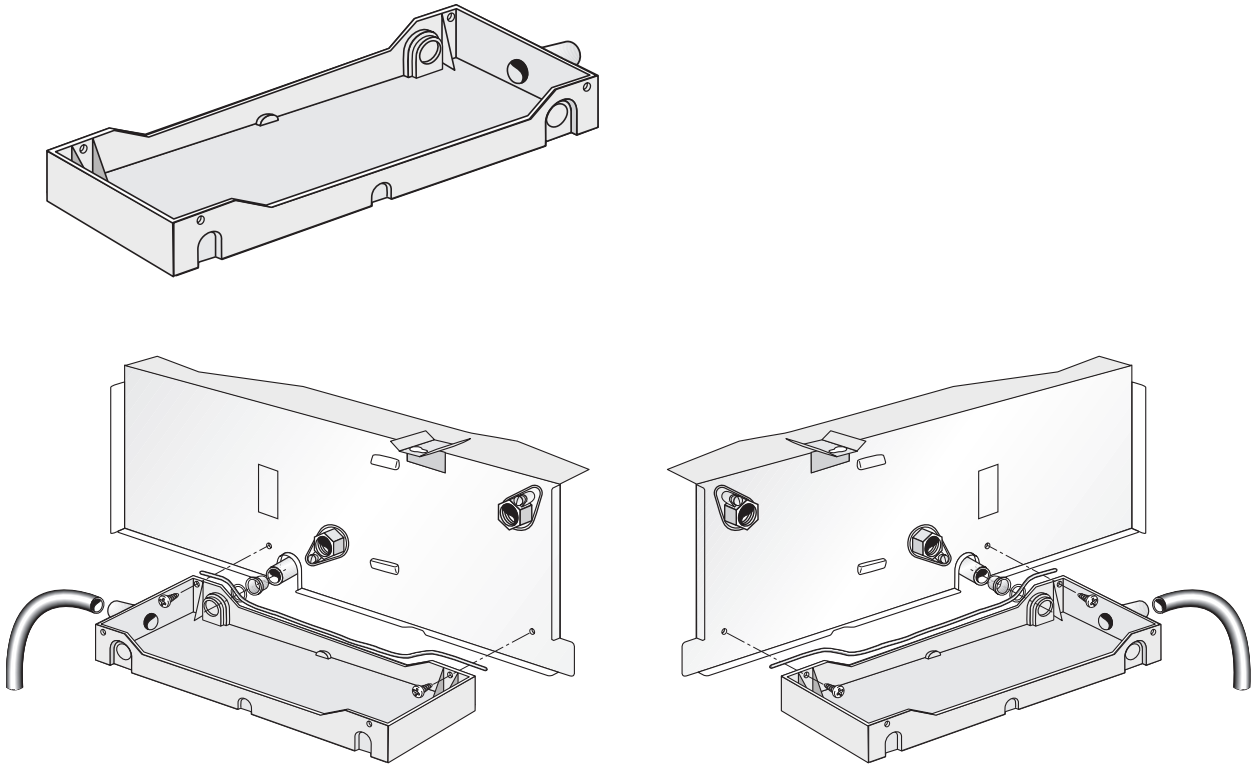
Supplied in the Omnia UL P / S / SM versions



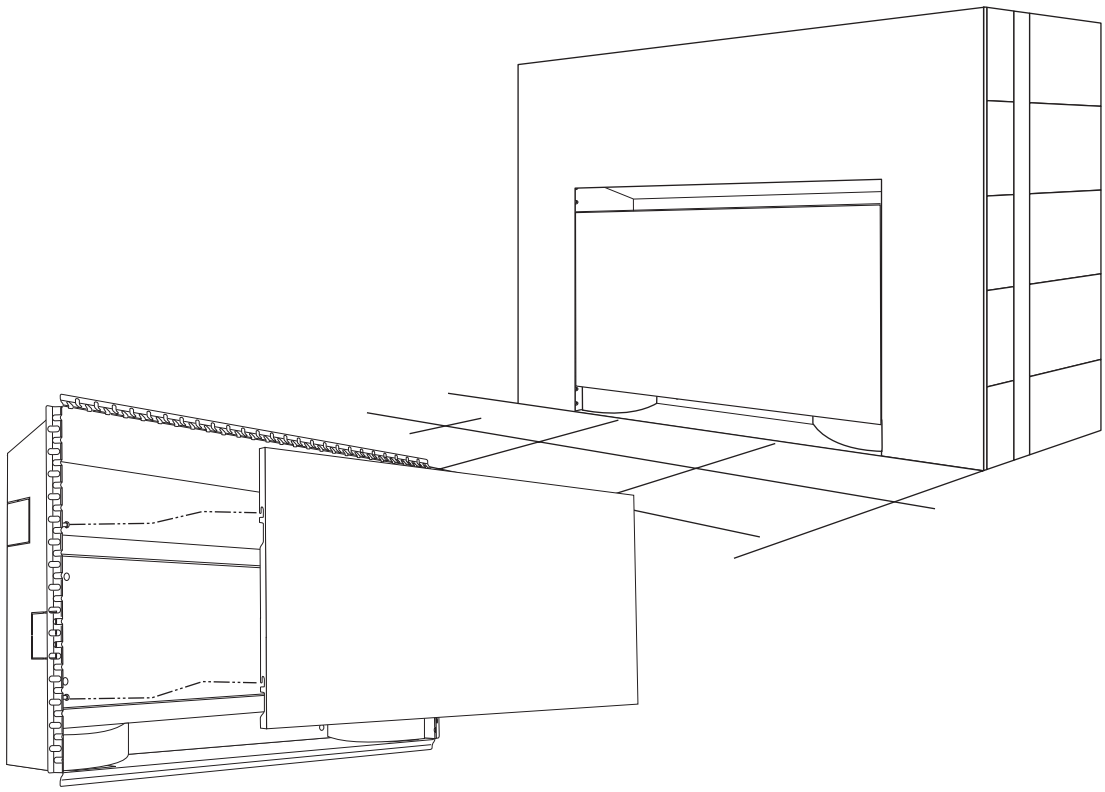
BC 10 **DRIP TRAY**



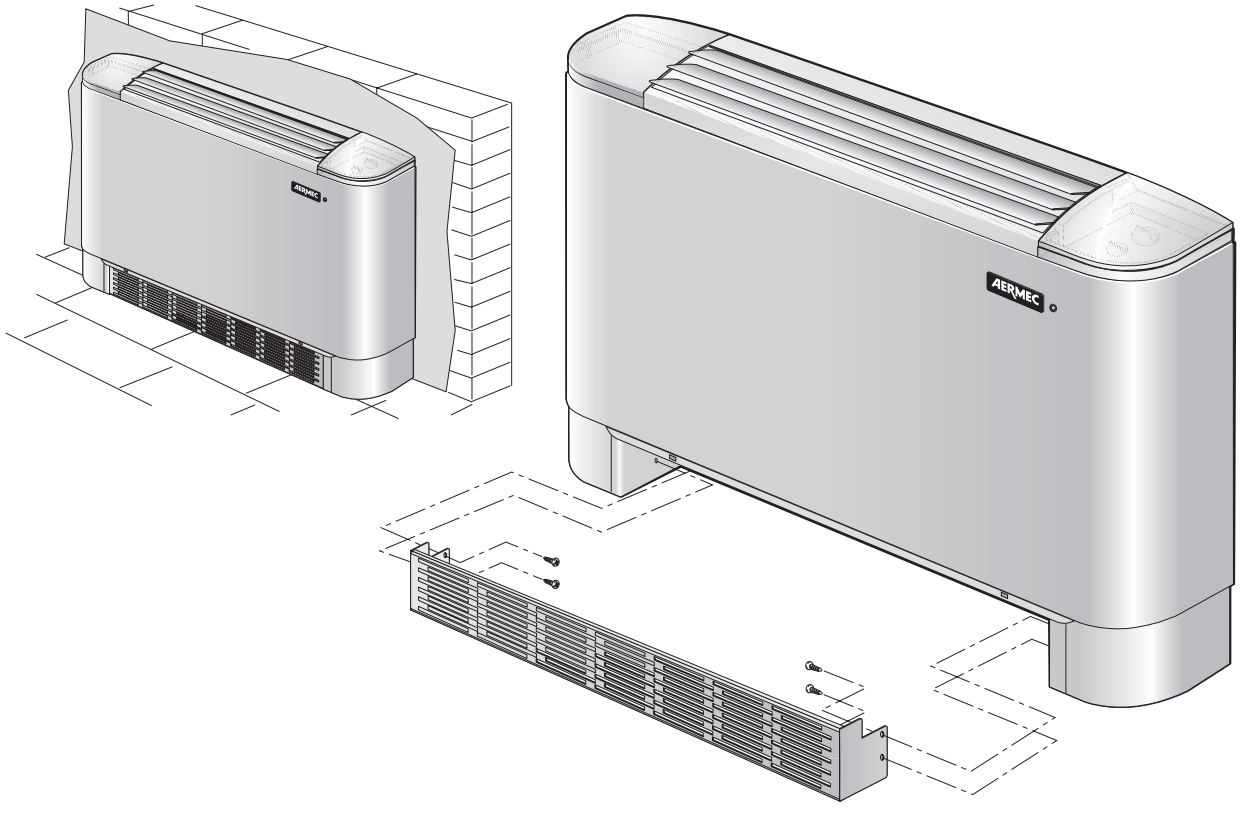
BC 20 **DRIP TRAY**



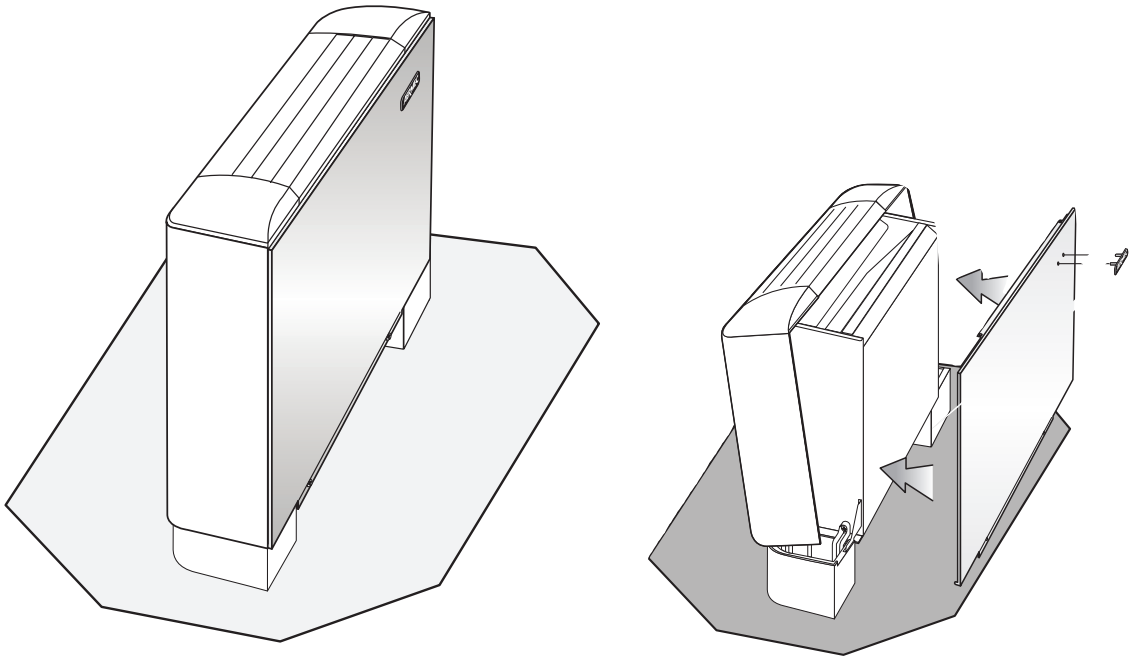
CHU **"VENTILCASSAFORMA"**



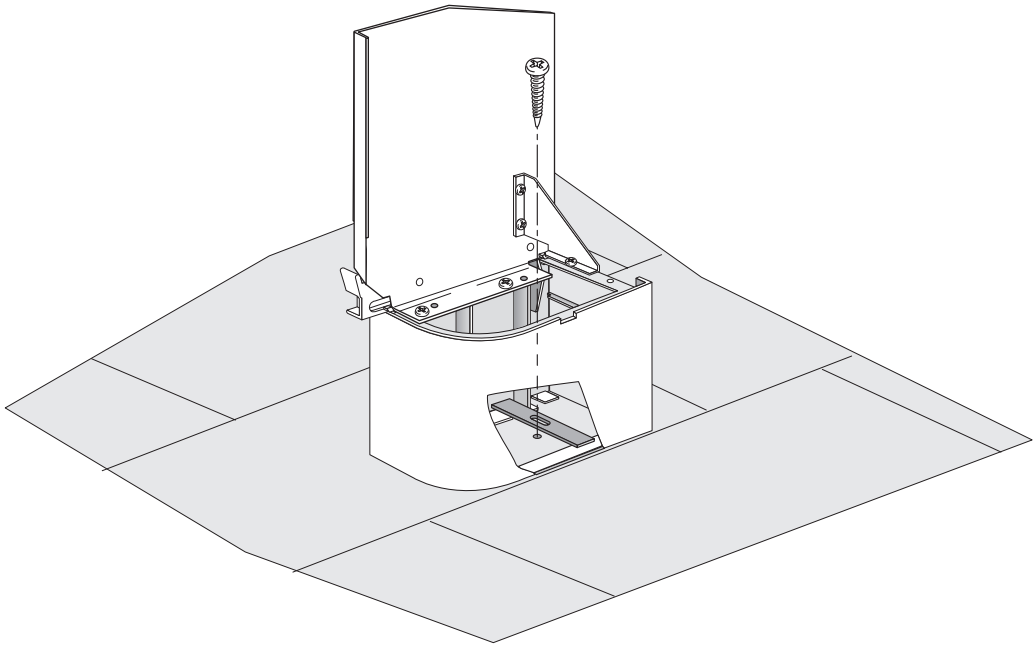
GU **FRONT INTAKE GRILLE**



PCU **REAR COVER PANEL**



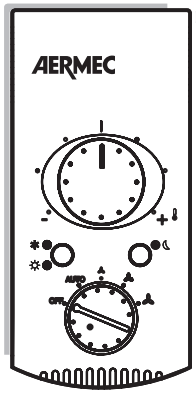
ZU **PLINTHS FOR CABINETS**



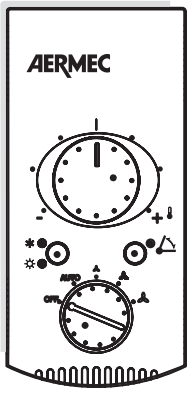
ACCESSORIES DATA

ELECTRONIC CONTROL PANELS

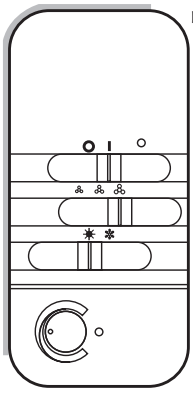
PXL2E



PXLM

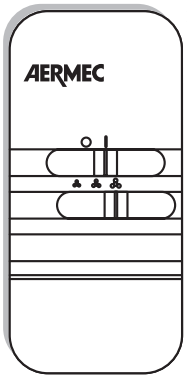


PXB



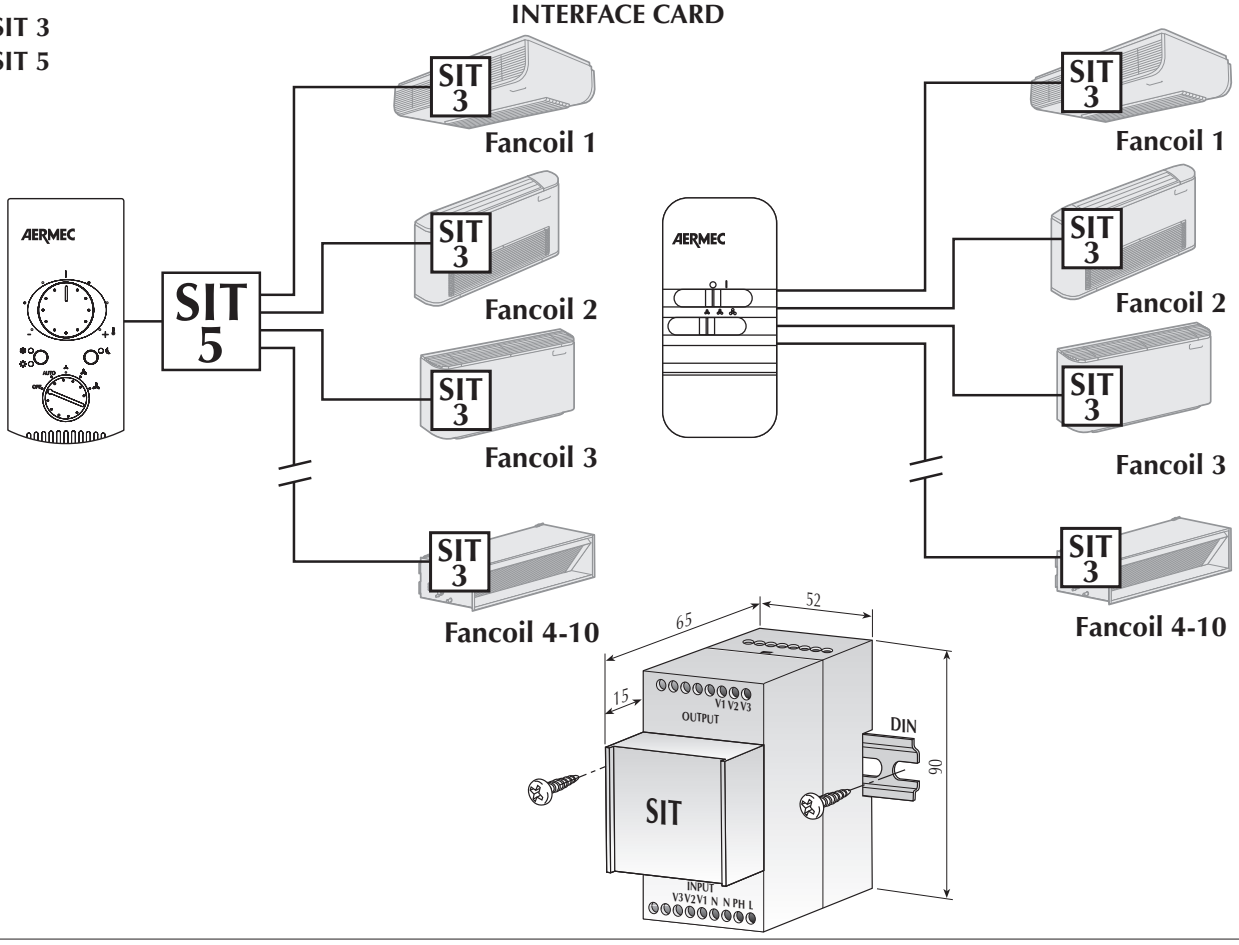
CONTROL PANEL

PX2

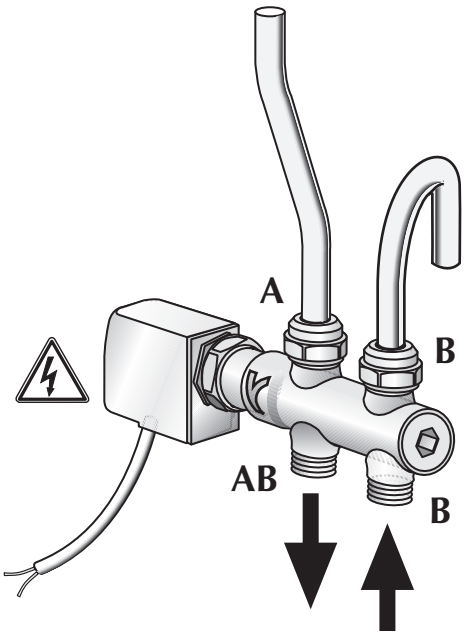


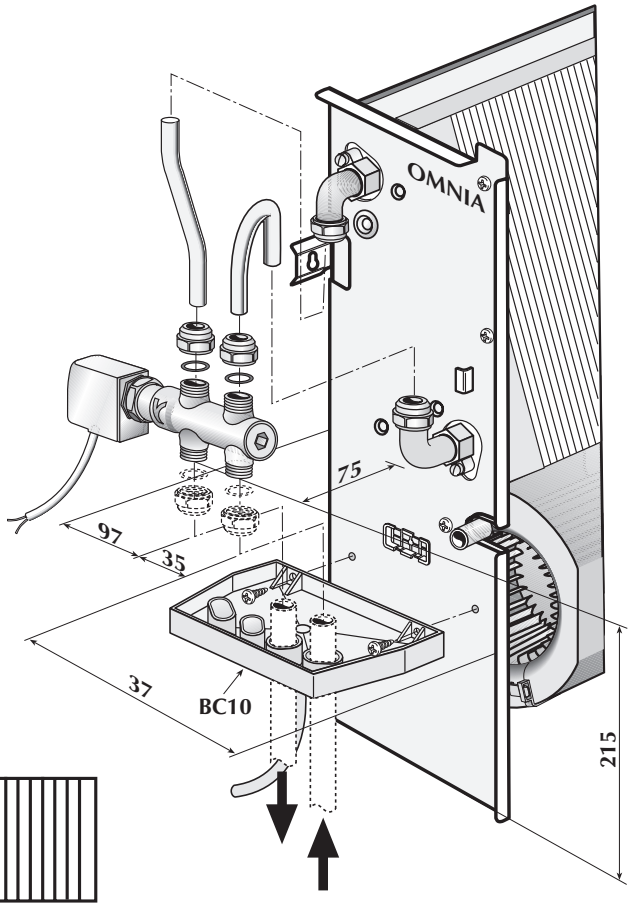
SIT 3
SIT 5

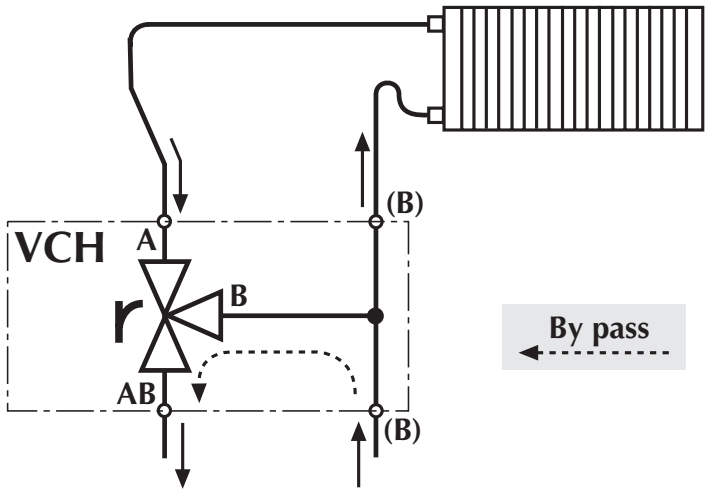
INTERFACE CARD



VCH **THREE-WAY VALVE FOR COIL**







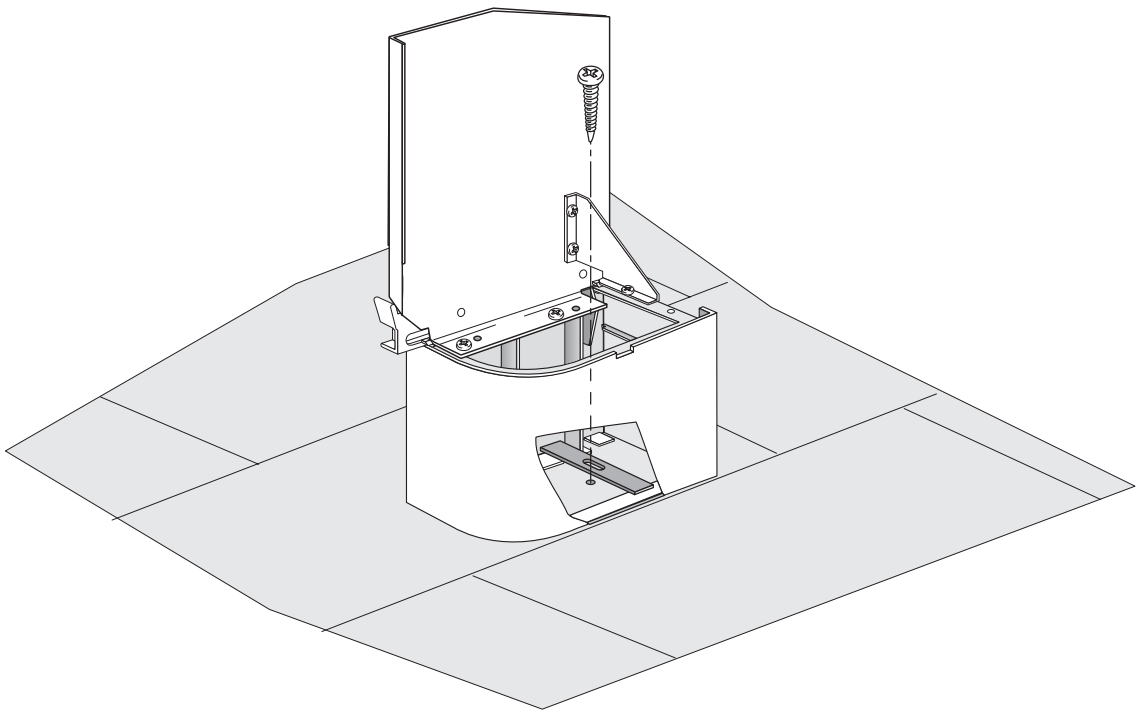
TECHNICAL DATA		
Start input powert	VA	8
Operation input power	VA	3
Water temperature	°C	4 ÷ 100
Operation timemin.	min.	2 ÷ 4
Max. differential pressure	kPa	30
Max. static pressure	kPa	1600
Room temperature	°C	0 ÷ 40
Protection degree		IP 44
Flow direction		
Valve activated		AB - A
Valve unoperative		AB - B

Valve connectors [mm]

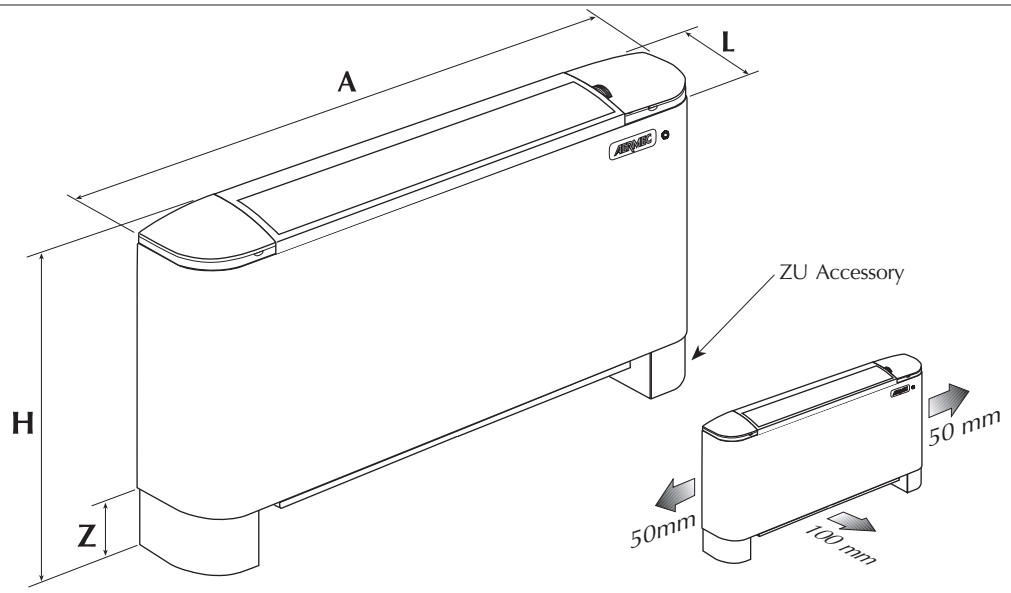
	AB	A	B
VCH	ø1/2″	ø1/2″	ø1/2″

SW3 **WATER PROBE**

ZU **CABINET PLINTHS**



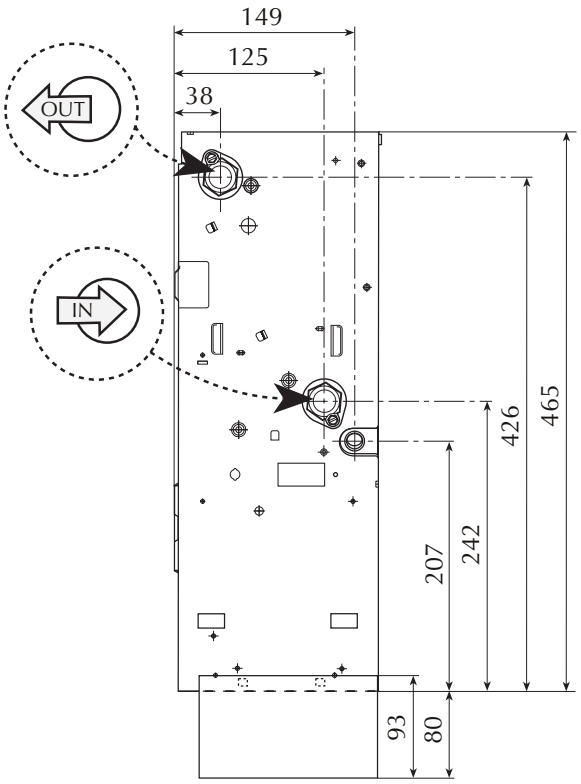
DIMENSIONS [mm]



Mod		UL 11	UL 16	UL 26	UL 36
Width	A	640	750	980	1200
Height	H	606	606	606	606
Depth	L	173	173	173	173
Feet height	Z	93	93	93	93
Weight	[kg]	12,5	13,5	16,5	19,5

Weight of fan coil without feet

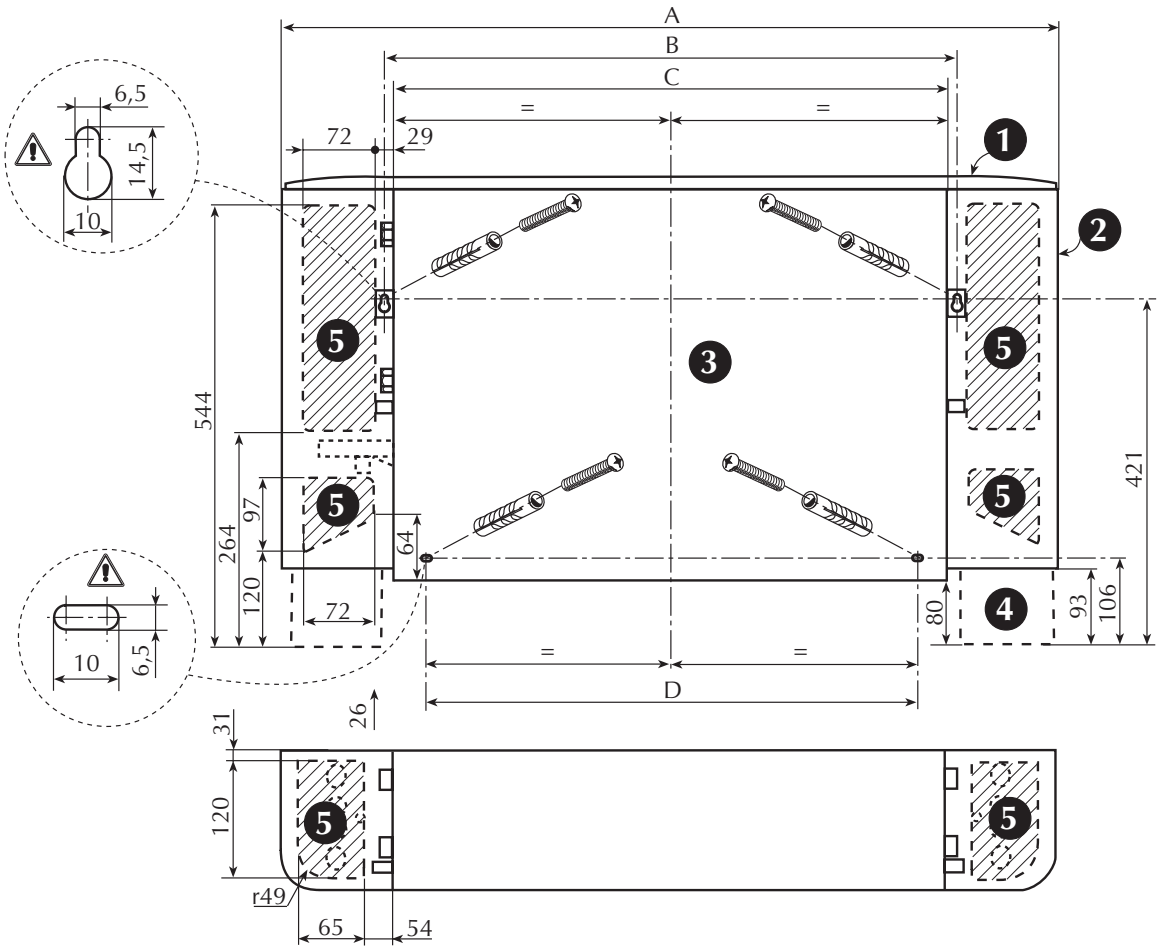
OMNIA UL



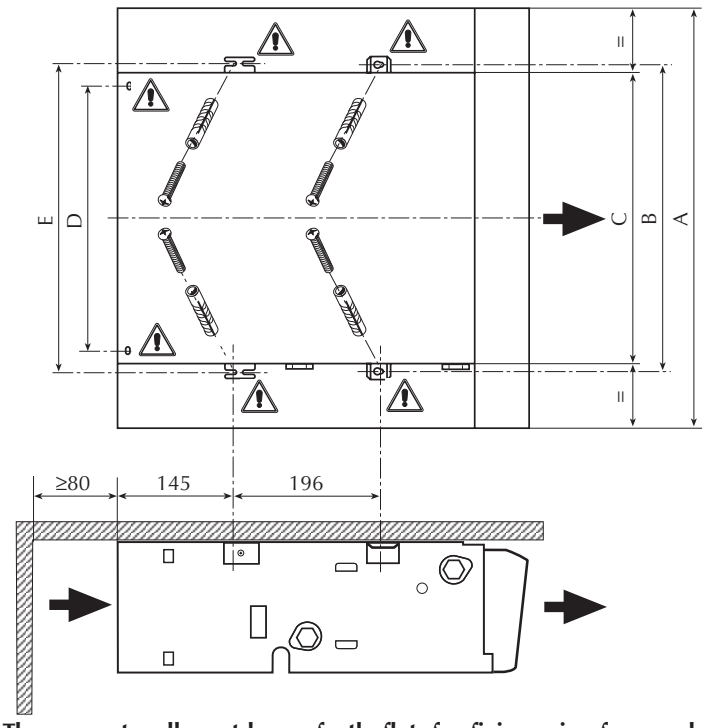
Coil connection (female)

Mod.	Omnia UL 11	Omnia UL 16	Omnia UL 26	Omnia UL 36
2 R	1/2″	1/2″	1/2″	1/2″

DIMENSIONS [mm]



1 Head with slats that can be directed
2 Cabinet
3 Load-bearing structure
4 ZU Plinth
5 Space for connections

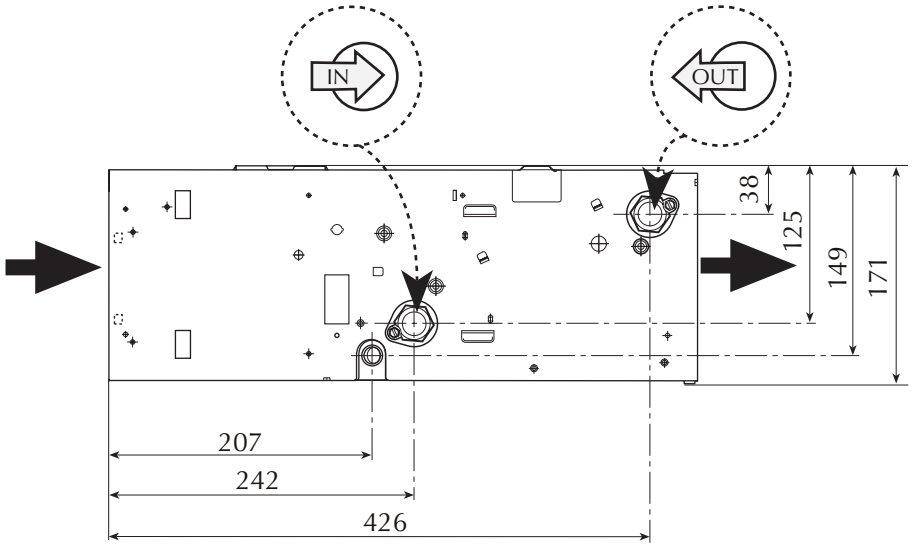


Mod.	UL 11	UL 16	UL 26	UL 36
A	640	750	980	1200
B	384	494	725	945
C	360,5	470,5	701,5	921,5
D	288	398	629	849
E	394	504	735	955

The support wall must be perfectly flat, for fixing using four anchor screws with characteristics suitable for the type of wall (not supplied).

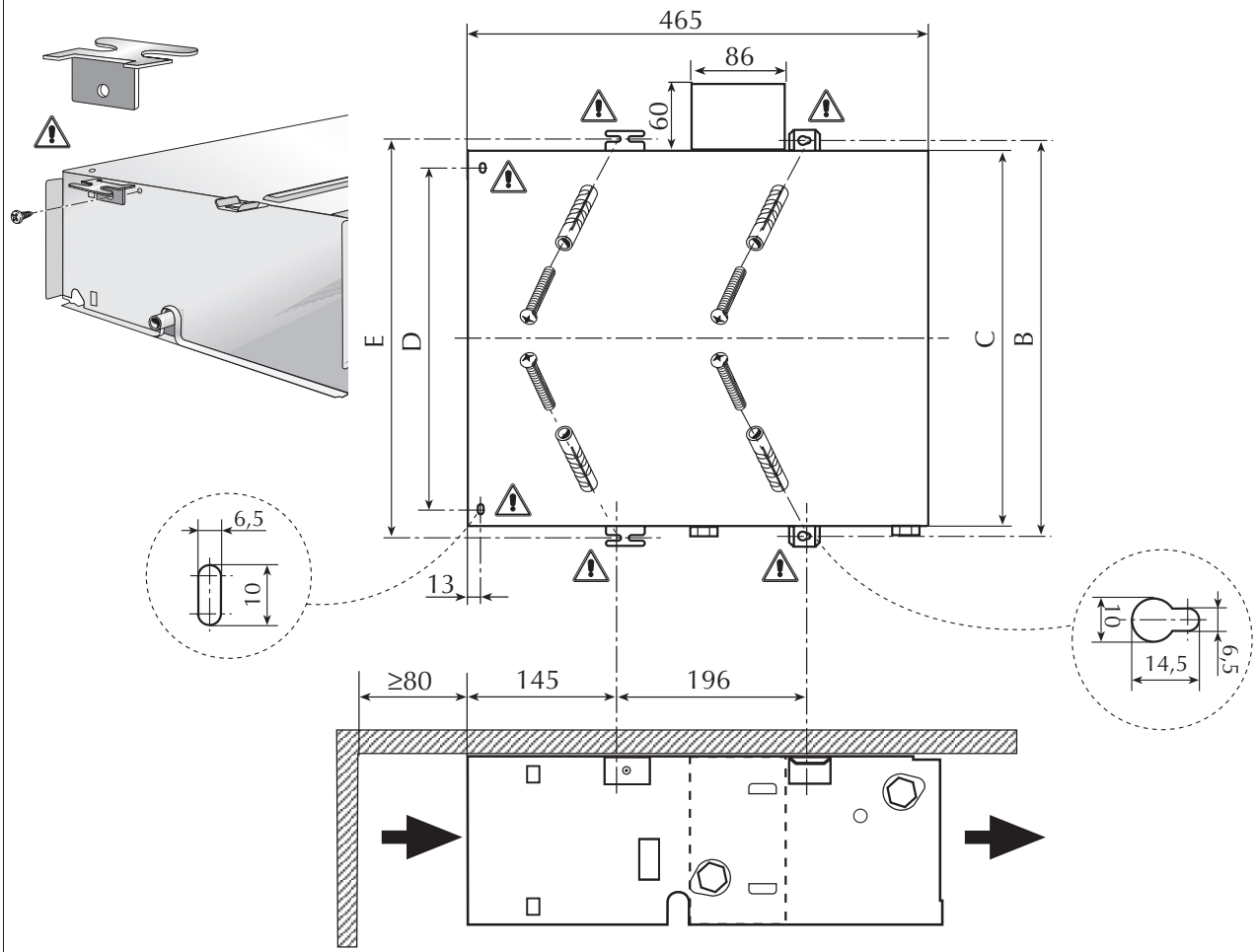
DIMENSIONS [mm]

OMNIA UL P



Coil connection (female)

Mod.	Omnia UL 11 P	Omnia UL 16 P	Omnia UL 26 P	Omnia UL 36 P
3 R	1/2"	1/2"	1/2"	1/2"

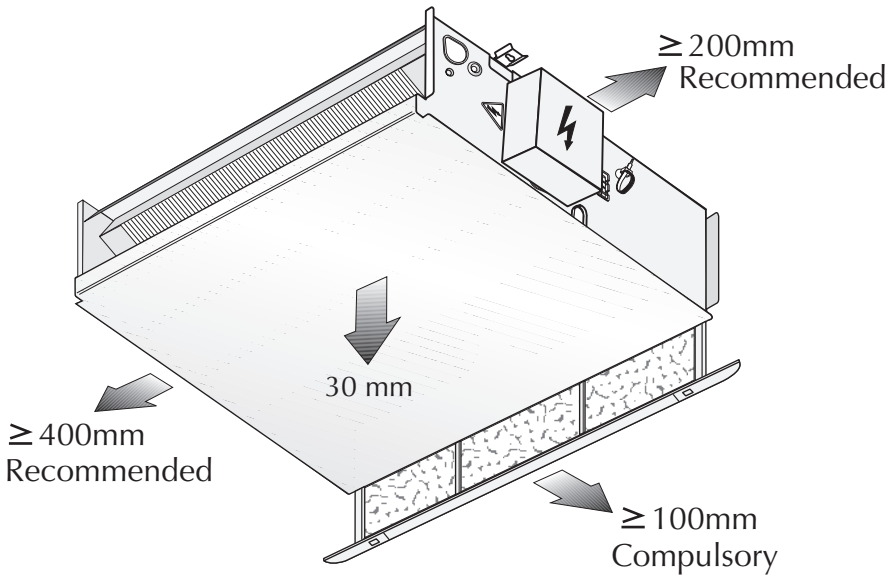


Mod.	UL 10 P	UL 15 P	UL 25 P	UL 35 P
B	384	494	725	945
C	360,5	470,5	701,5	921,5
D	288	398	629	849
E	394	504	735	955

The support wall must be perfectly flat, for fixing using four anchor screws with characteristics suitable for the type of wall (not supplied).

DIMENSIONS [mm]

OMNIA UL P



PACKAGING

The fancoils are delivered in standard packing comprising protective shells and cardboard.

INSTALLATION

WARNING: before carrying out any work, put the proper individual protection devices on.
WARNING: before carrying out any work, make sure the electrical power is unplugged.
CAUTION: electrical connections, the installation of the fan coils and their accessories must only be carried out by people with the proper technical and professional qualifications for the installation, conversion, expansion and maintenance of the machinery and able to check that it is working properly and safe.
Install the fancoil in a position that will facilitate routine (filter cleaning) and special maintenance, and easy access to the air breather valve on the side of the unit (connections side).
Note that certain operating conditions could lead to the formation of condensate on the unit housing with subsequent dripping, or faults to the water circuit or condensate drainage could cause liquids to overflow. For these reasons, avoid installing the unit on surfaces damageable by moisture.
Make sure that the unit is installed in a site where the ambient temperature is inside the minimum and maximum limits 0 - 45°C (<85% R.H.).
To install the unit, proceed as follows:
- Remove the cover by unscrewing the screws in the head piece under the doors.
- In the case of wall mounting, ensure a minimum distance of 80 mm from the floor. For free-standing installation on feet, refer to the instructions provided with the unit.

⚠ **The support wall must be perfectly flat, for fixing using four anchor screws with characteristics suitable for the type of wall (not supplied).**
- **Make water connections. To make the air vent from the coil easier, you are recommended to connect the outlet water pipe with the connection positioned on the top, the possible inversion will not affect the proper unit operation.**
The position and diameter of water connectors are given in the dimensional data.
Insulation of water lines is recommended. Install the condensate water collection tray (optional accessory) to prevent dripping during cooling operation.
N.B.: Use a tool to break the push-out in the drip tray (water connection side) before connecting the condensate drainage.
Size and arrange the condensate drain system in such a way as to ensure a gradient of at least 1%. If drainage is emptied into the sewerage system, fit a siphon to prevent the return of unpleasant odours into the room.
Test the seal of water and condensate drainage connections.
- Fit accessories (as applicable).
- (OMNIA UL C and PC) To modify the settings of the electronic thermostat, modify the dip switches from the relevant window at the back of the control panel, (see the "DIP-SWITCH SETTINGS" chapter).
- Make all wiring connections as shown in wiring diagrams and the section "ELECTRICAL CONNECTIONS". Connect the control panel to the connector on the inside of the fancoil, then earth the unit.
- (OMNIA UL C and PC) Check the proper functioning of the fan coil by means of the Autotest procedure.
- Re-install the casing.
- Check that the fancoil operates correctly.

WARNING: the filter may only be removed from the sealed box and fitted to the unit at the time it will be used for the first time.

ELECTRICAL CONNECTIONS

⚠ **WARNING: always check that the electricity supply to the unit has been disconnected before carrying out any operations.**
In the specific case of electrical connections, the following must be checked:
- Measurement of the isolation resistance on the electrical system.
- Testing of the continuity of protection conductors.
Electric circuits are connected to mains voltage of 230V; make sure that all components correspond to this voltage.
CONNECTING CABLES
Use H05V-K or N07V-K cables with insulation 300/500 V in conduit or raceway. All cables exterior to the fancoil must be protected in this way.
Only use power cables with a minimum cross section of 1.5mm^2.
Position cable lengths not protected by the conduit or raceway in such a way as to ensure that they are not subject to stress, twisting or external agents.
When making connections, always refer to the wiring diagrams supplied with the unit and shown in this document.
To protect fan coils against short circuits, always fit the power cable to the units with 2A 250V (IG) thermo-magnetic all-pole switches with a minimum contact gap of 3 mm.
Each control panel controls a single fancoil.

⚠ **WARNING: probes have double insulation due to the presence of 230V AC.**

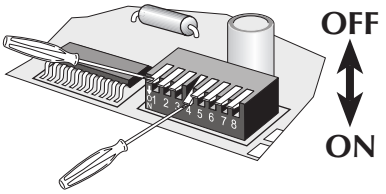
COIL ROTATION

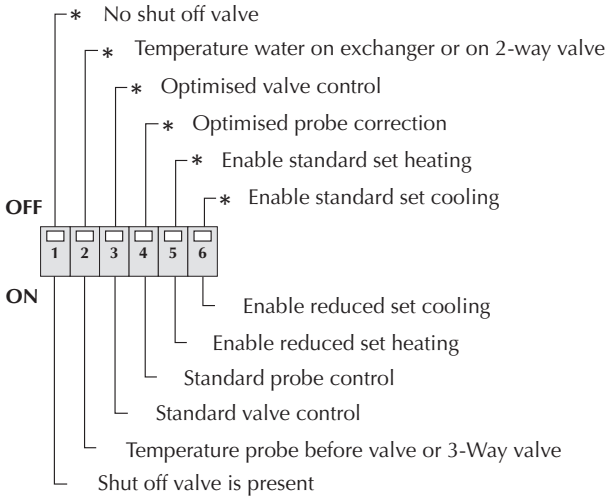
Coils may have to be reversed for match the layout of water connections. To do so, first remove the body, then, in the case of Omnia UL Cfan coils, also remove the room temperature sensor from its housing. Then proceed as follows:
- disconnect wires from the terminal block;
- remove the probe from the coil (UL C);
- Remove the drip tray fixing screws and remove the tray.
- Remove the coil fixing screws and remove the coil.
- Remove the push-out covers from the right hand side.
- Turn the coil around and re-fit it using the fixing screws removed previously.
- Re-fit the drip tray using the screws removed previously. All drip trays are designed for condensate draining from either side.

N.B.: Before connecting up the condensate drain, use a tool to open the diaphragm in the tray (where fitted) on the water connection side. Seal the unused drain outlet using the plug provided.

Remove the electrical connections from the right hand side. Remove the push-out and move the cable sheath from the right to the left.
- Move the motor cable to the left hand side, passing it through the protective sheath.
- Move the terminal board and the earthing pin to the left hand side.
- Restore the motor cable electrical connections.
- Insert the battery probe.
- Remove the switch cards from the right hand element.
- Disconnect the microswitch.
- Remove the reinforcing stay.
- Pass the wire for the microswitch through the opening on the opposite side.
- Secure the reinforcing stay.
- Fit the thermostat card on the left hand element and fit the knobs.
- Restore the control panel electrical connections.

UL C - DIP SWITCH





* = Factory setting

DIP SWITCH CONFIGURATION

Configuration of dipswitches must only be carried out by qualified personnel during unit installation.
Adjust the dipswitches inside the thermostat for the following functions:
(Dip 1 and 2 must have the same configuration for a correct functioning).
Dipswitch 1 (Default OFF)
Shut-off valve:
- if not fitted, set to OFF
- if fitted, set to ON

Dipswitch 2 (Default OFF)
Water temperature probe:
- if probe is below valve or 2-way valve is fitted, set to OFF
- if probe is above valve or 3-way valve is fitted, set to ON

Combination of Dip.1 ON with Dip.2 OFF is not recommended (used only for installation on two units using only pre-existing 2-way valves).

Dipswitch 3 (Default OFF)
Valve control:
- for Optimised valve, set to OFF
- for Normal valve, set to ON

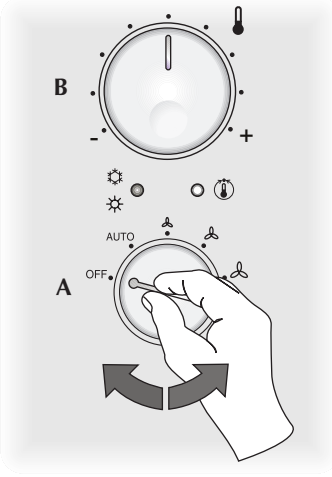
Dipswitch 4 (Default OFF)
Probe (Heating) correction to compensate overheating of metal structure:
- for optimised correction, set to OFF
- for fixed correction, set to ON

Dipswitch 5 (Default OFF)
Enable Heating mode according to water temperature:
- for Normal Heating mode (39°C), set to OFF
- for Reduced Heating (35°C), set to ON

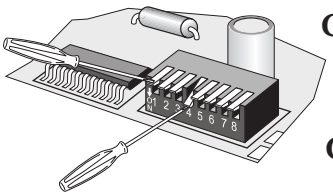
Dipswitch 6 (Default OFF)
Enable Cooling mode according to water temperature:
- for Normal Cooling (17°C), set to OFF
- for Reduced Cooling (22°C), set to ON

UL C - AUTOTEST

This function is designed to check the operation of the fan, valves and heaters.
To run the Autotest function, proceed as follows:
1) Selector switch B in central position.
2) Selector switch A in OFF position.
3) Adjust the selector switch A rapidly to obtain the following sequence:
AUTO - OFF - V1 - OFF - V2 - OFF - V3 - OFF.
At this stage the unit sets to AUTOTEST mode (PINK LED flashing).
4) With the selector switch A in the AUTO position, the valve is activated. Yellow LED (D) runs 1-flash cycles.
5) With the selector switch A in the V1 position, minimum speed V1 is activated. Yellow LED (D) runs 2-flash cycles.
6) With the selector switch A in the V2 position, the medium speed V2 is activated. Yellow LED (D) runs 3-flash cycles.
7) With the selector switch A in the V3 position, the maximum speed V3 is activated. Yellow LED (D) runs 4-flash cycles.
The Autotest function automatically stops after one minute.



UL PC - DIP-SWITCH



OFF

ON

OFF

ON

1 2 3 4 5 6 7 8

∗ No shut off valve
∗ Temperature water on exchanger or on 2-way valve
∗ Optimised valve control
∗ Optimised probe correction
∗ Enable standard set heating
∗ Enable standard set cooling
∗ Werkseinstellung
Plasmacluster enabled
∗ Plasmacluster disabled
Enable reduced set cooling
Enable reduced set heating
Standard probe control
Standard valve control
Temperature probe before valve or 3-Way valve
Shut off valve is present

∗ = Factory setting

DIP-SWITCH CONFIGURATION

Configuration of dipswitches must only be carried out by qualified personnel during unit installation.
Adjust the dipswitches inside the thermostat for the following functions:
(Dip 1 and 2 must have the same configuration for a correct functioning).
Dip 1 (Default OFF)
Shut-off valve:
- if not fitted, set to OFF
- if fitted, set to ON

Dip 2 (Default OFF)
Water temperature probe:
- if probe is below valve or 2-way valve is fitted, set to OFF
- if probe is above valve or 3-way valve is fitted, set to ON

Combination of Dip.1 ON with Dip.2 OFF is not recommended (used only for installation on two units using only pre-existing 2-way valves).
Dip 3 (Default OFF)
Valve control:
- for Optimised valve, set to OFF
- for Normal valve, set to ON

Dip 4 (Default OFF)
Probe (Heating) correction to compensate overheating of metal structure:
- for optimised correction, set to OFF
- for fixed correction, set to ON

Dip 5 (Default OFF)
Enable Heating mode according to water temperature:
- for Normal Heating mode (39°C), set to OFF
- for Reduced Heating (35°C), set to ON

Dip 6 (Default OFF)
Enable Cooling mode according to water temperature:
- for Normal Cooling (17°C), set to OFF
- for Reduced Cooling (22°C), set to ON

Dip 7 (Default OFF)
Factory settings OFF
Dip 8 (Default ON)
Plasmacluster enabling:
-Plasmacluster enabled ON
-Plasmacluster disabled OFF

EXAMPLES OF SYSTEM SETTING

Dip 8	Dip 7	Dip 2	Dip 1	System types
ON	OFF	OFF	OFF	Two-pipe system and active Plasmaculter.
ON	OFF	ON	ON	Two pipe system with three-way valve, upline probe and Plasmaculter active.

UL PC - AUTOTEST

This function is designed to check the operation of the fan, valves and heaters.
To run the Autotest function, proceed as follows:
1) Selector switch B in central position.
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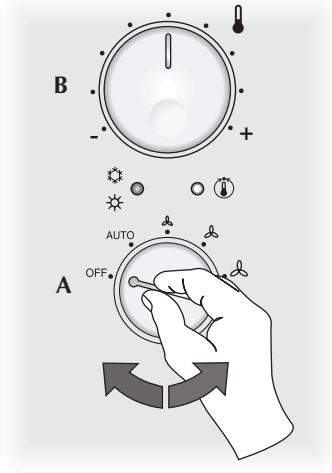
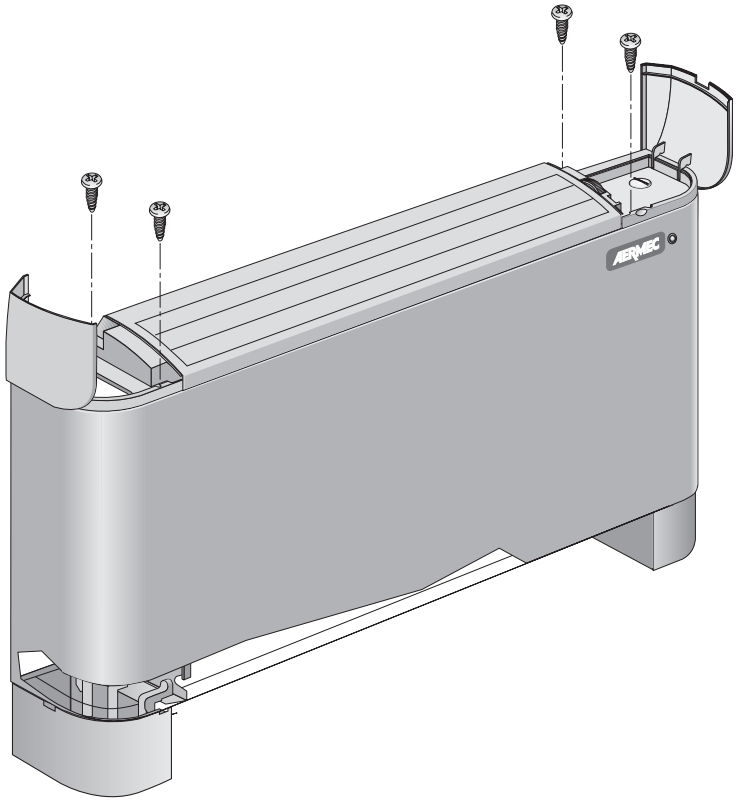
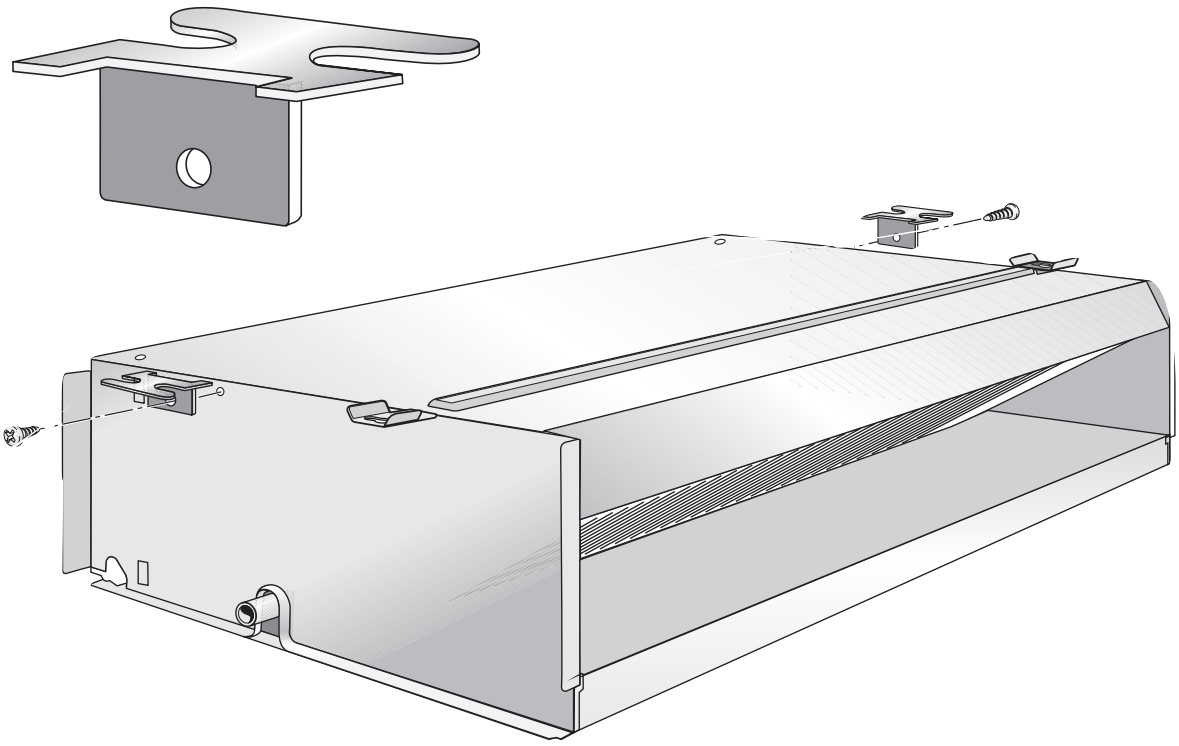


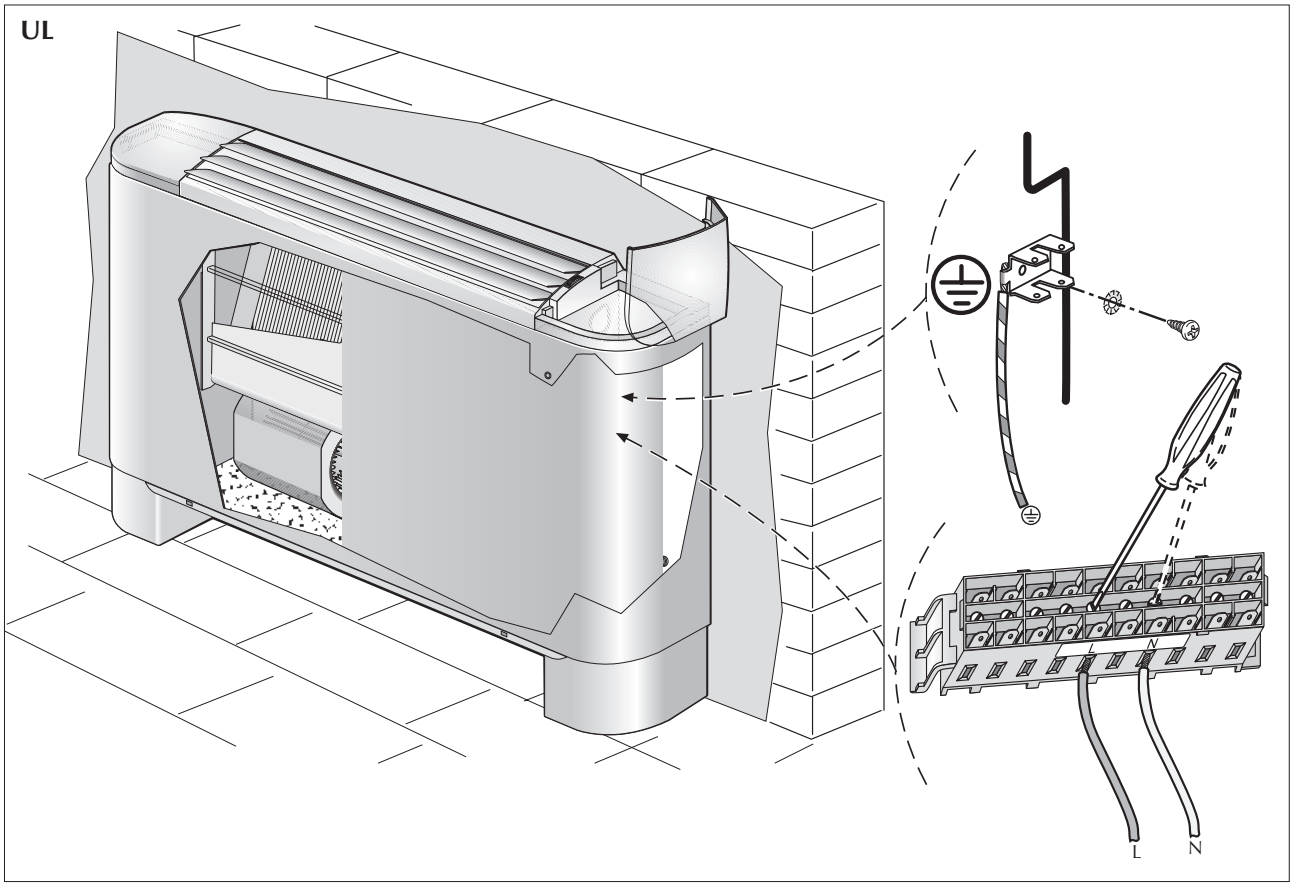


SUPPORTS FOR HANGING INSTALLATIONS

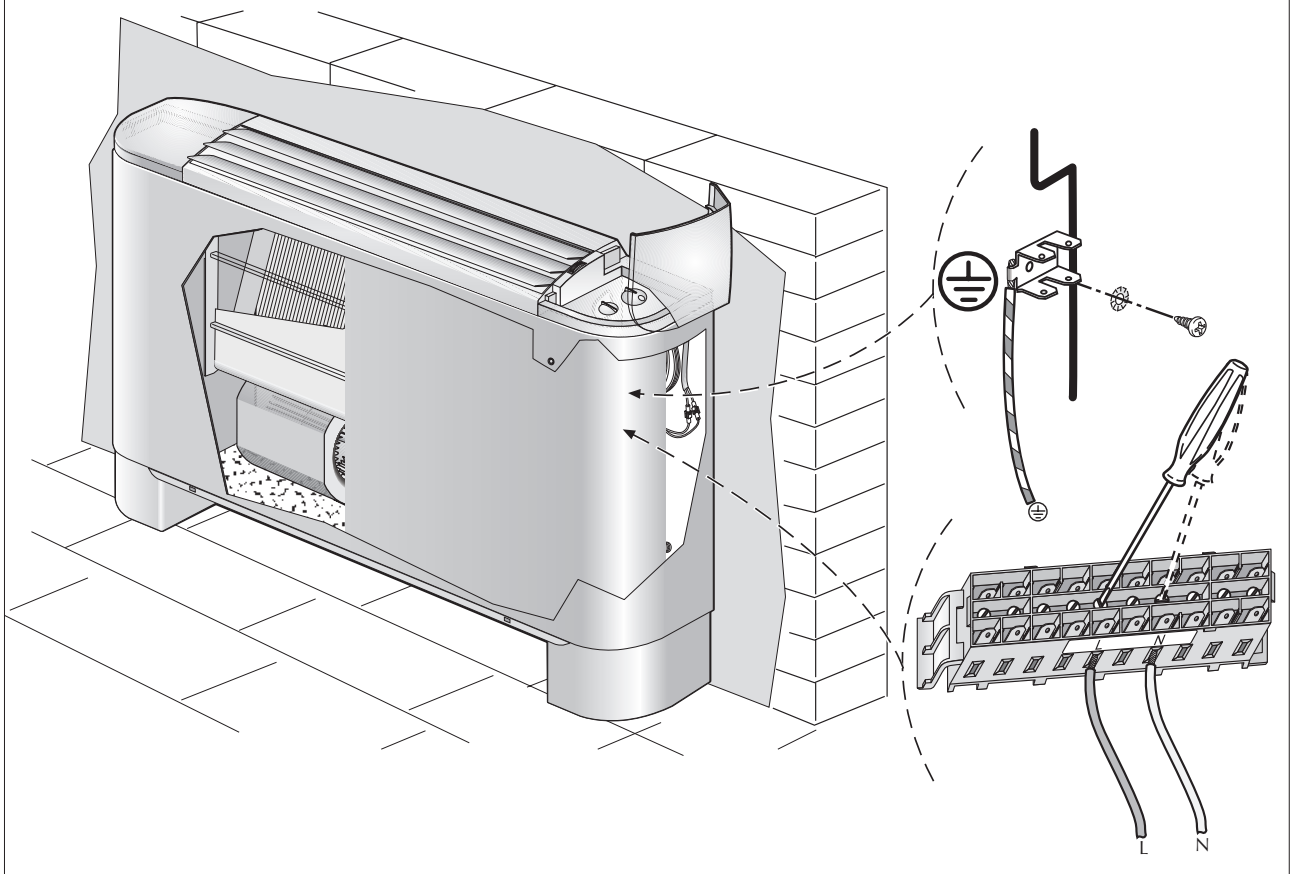


INSTALLATION DIAGRAMS

UL

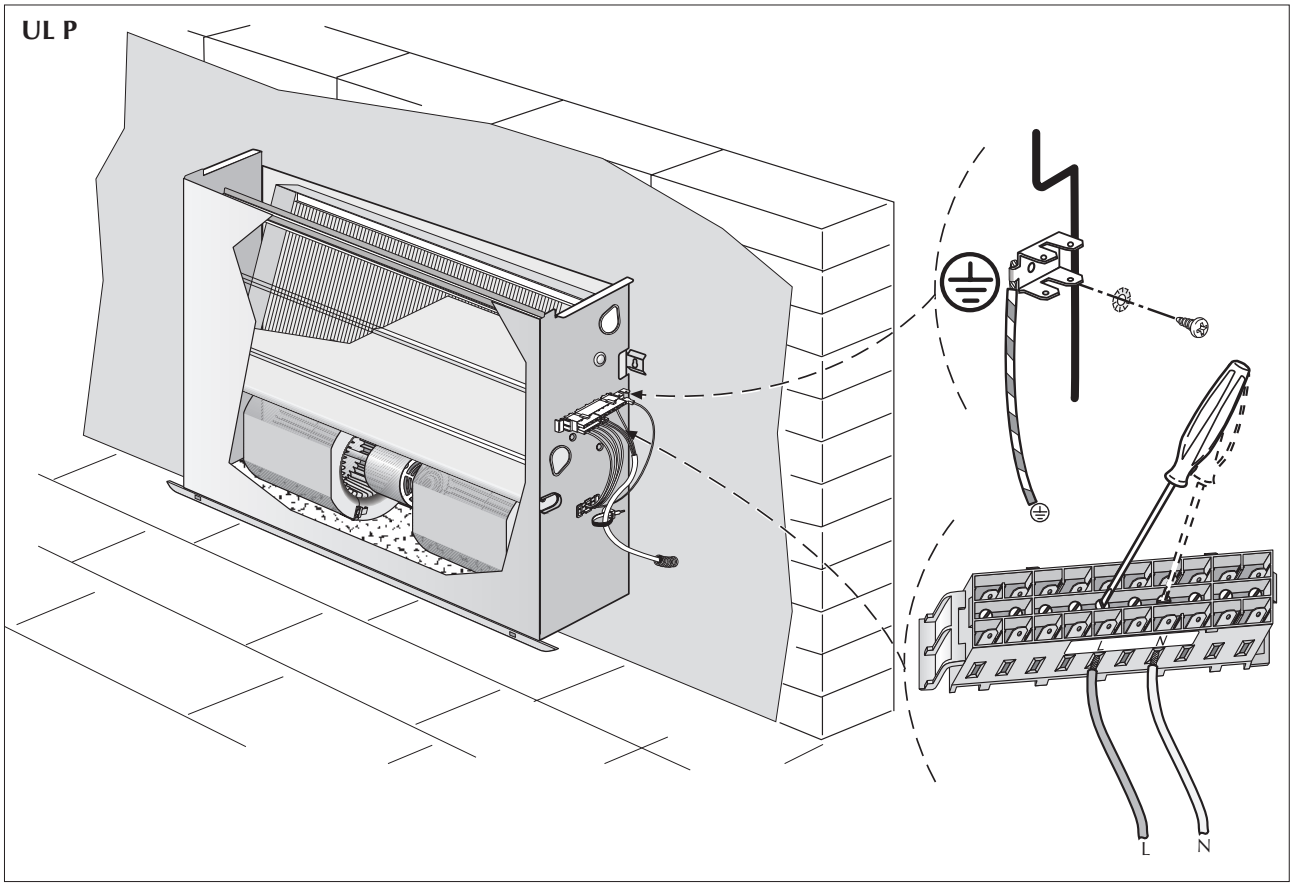


UL C

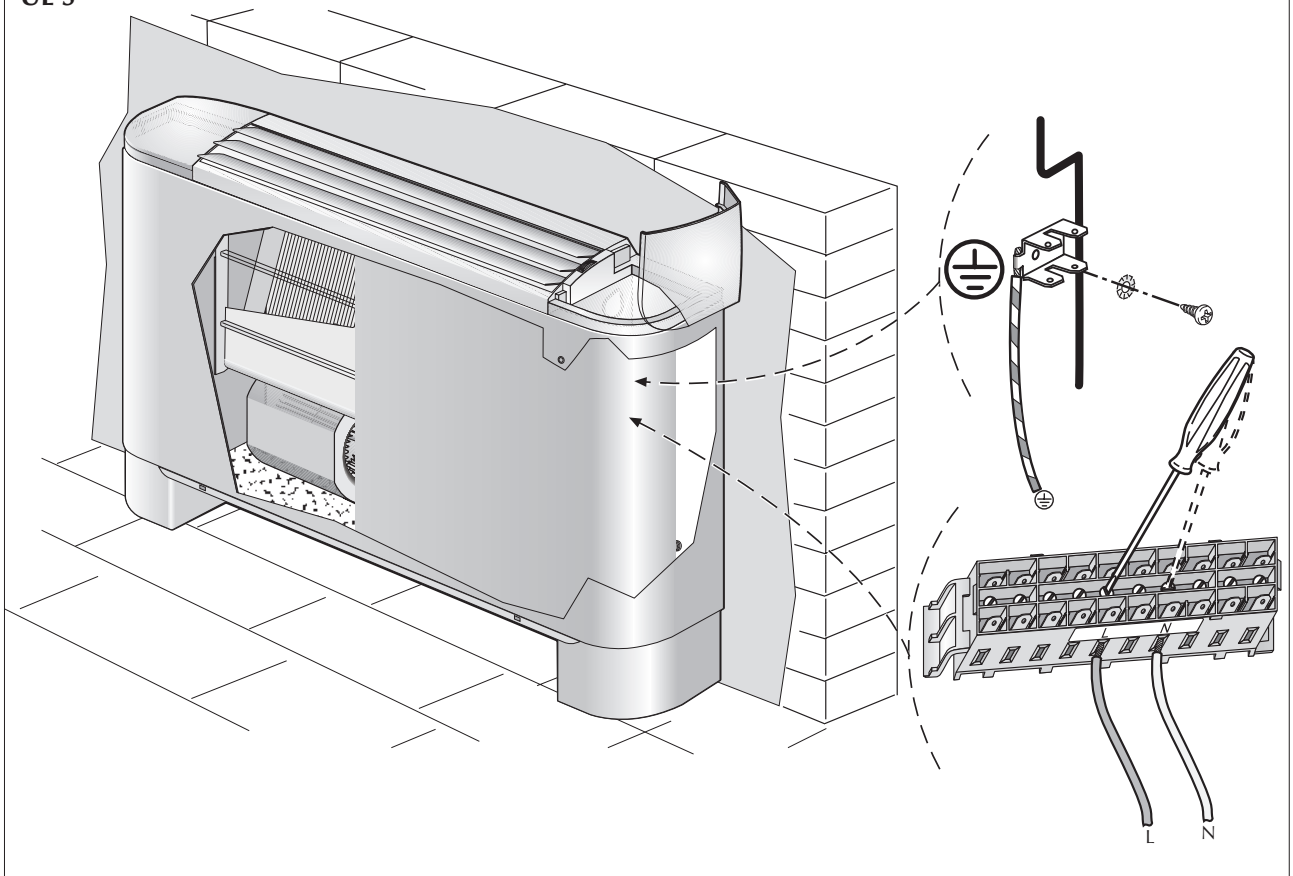


INSTALLATION DIAGRAMS

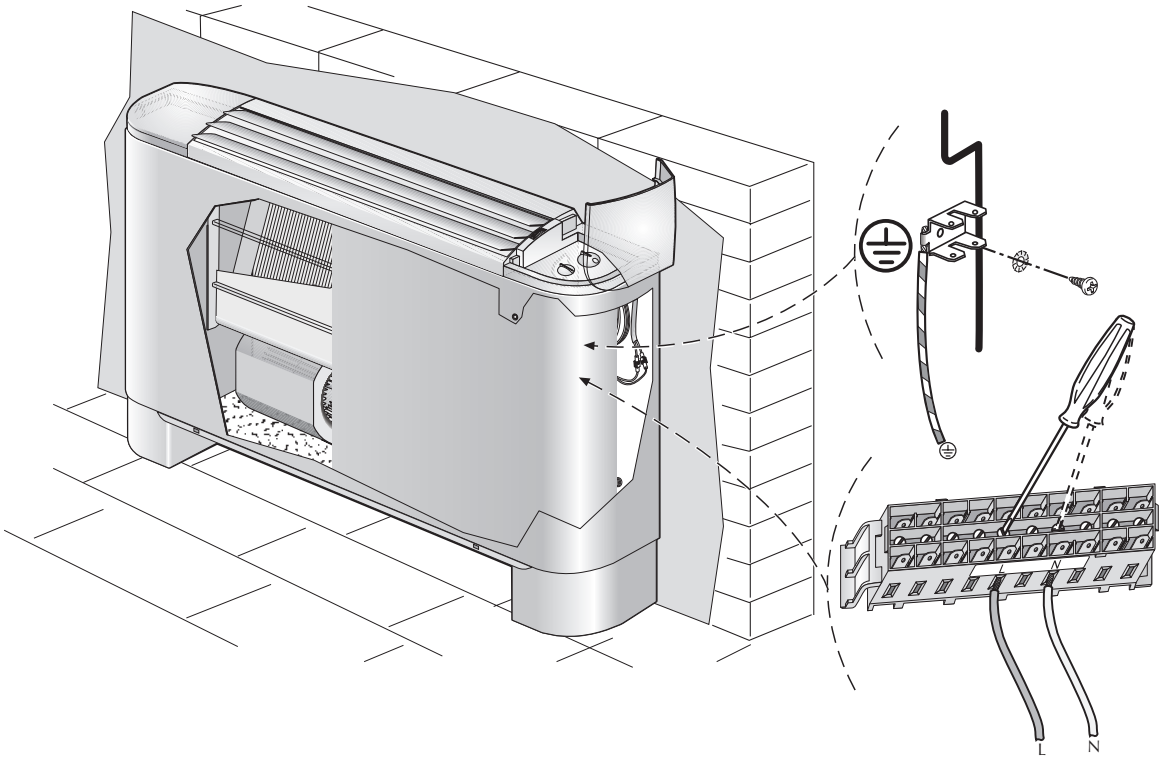
UL P



UL S



UL PC



WIRING DIAGRAMS

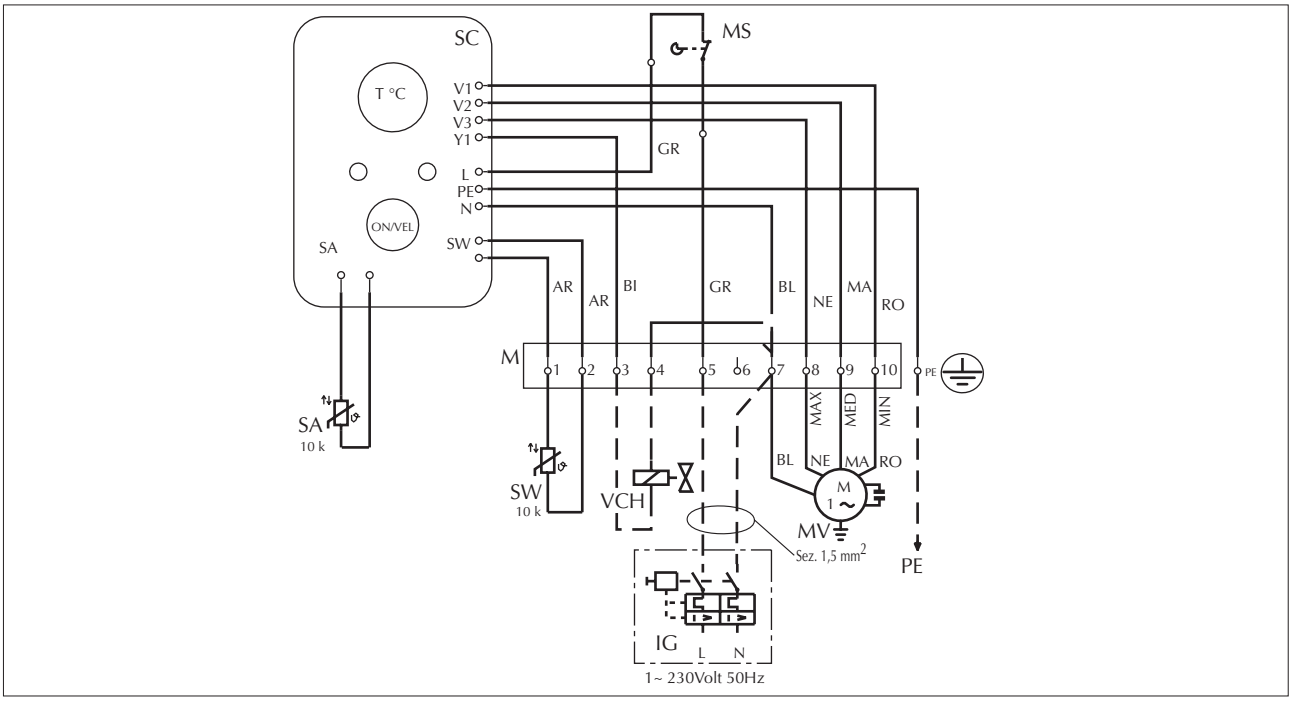
READING KEY

IG = Main switch
M = Terminal board
MS = Microswitch
MV = Fan motor
PE = Earth connection
SA = Room sensor
SC = Electronic control board
SW = Water temperature sensor
VCH = Solenoid valve

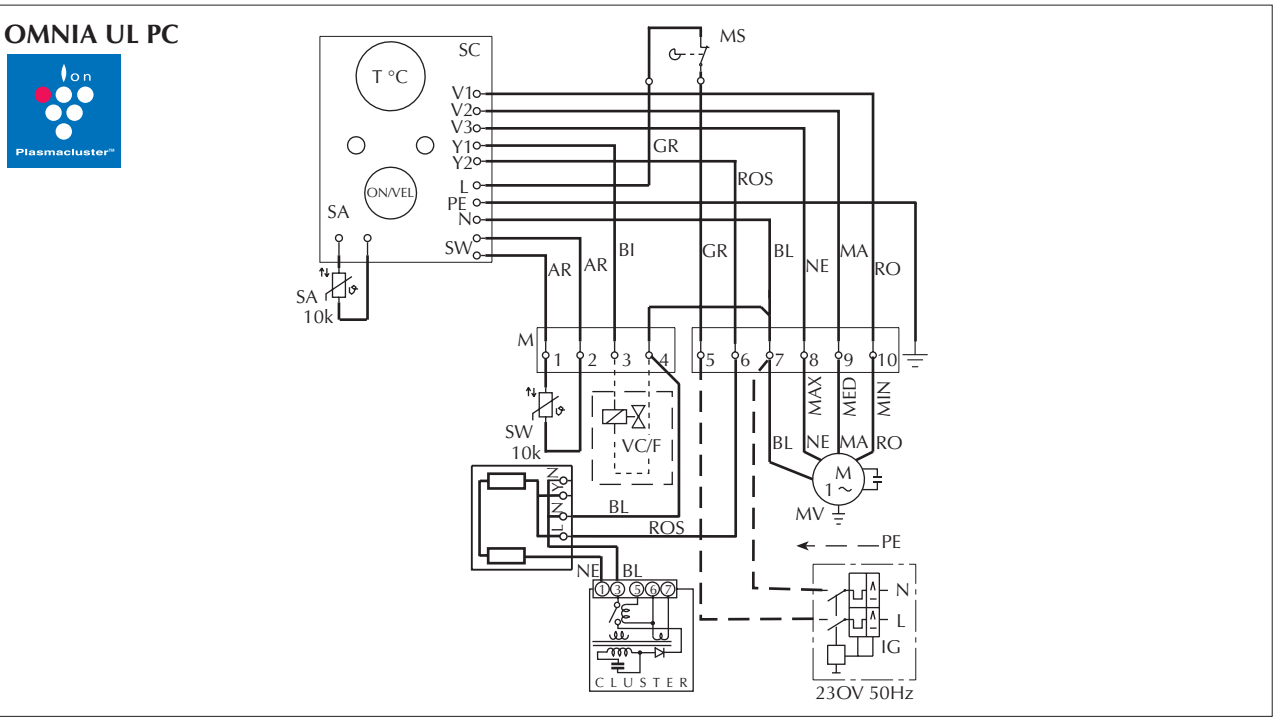
= Components not supplied

= On-site wiring

AR = Orange
BI = White
BL = Blue
GR = Grey
GV = Yellow-Green
MA = Brown
NE = Black
RO = Red



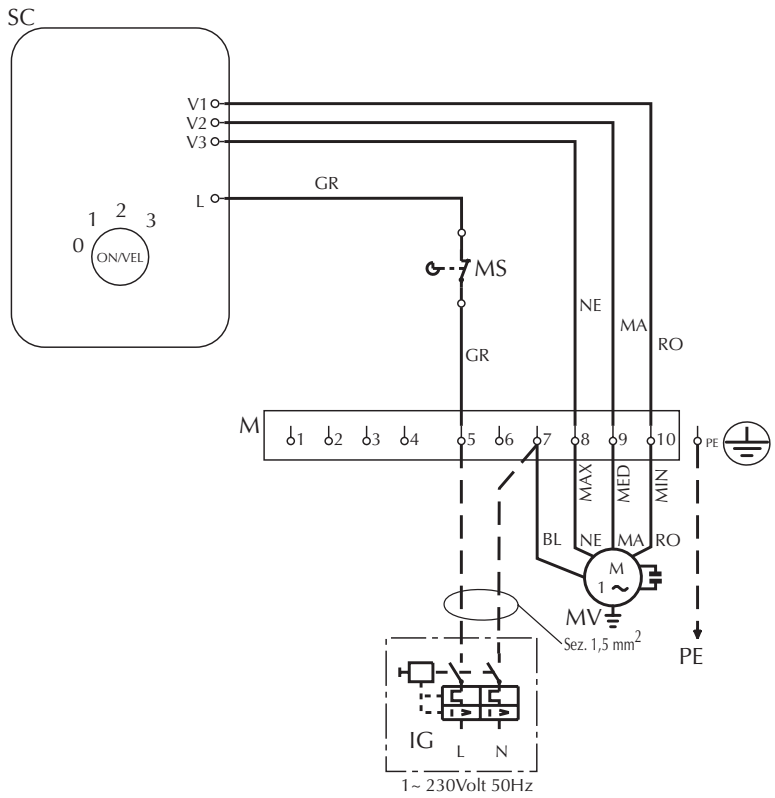
OMNIA UL PC



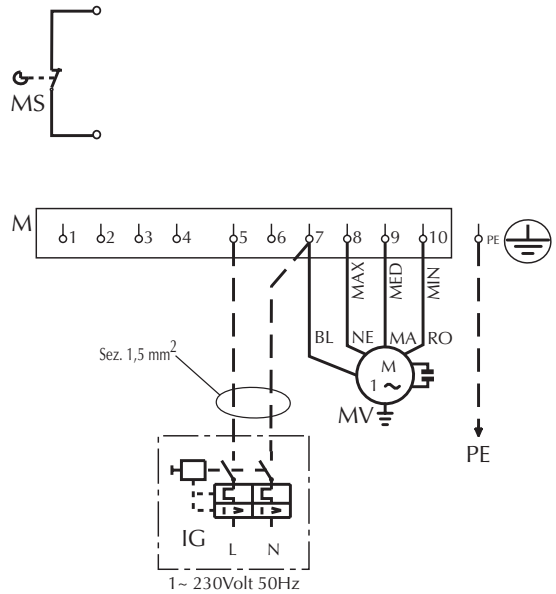
Wiring diagrams may change for updating. It is therefore necessary to refer always to the wiring diagram inside the units.

WIRING DIAGRAMS

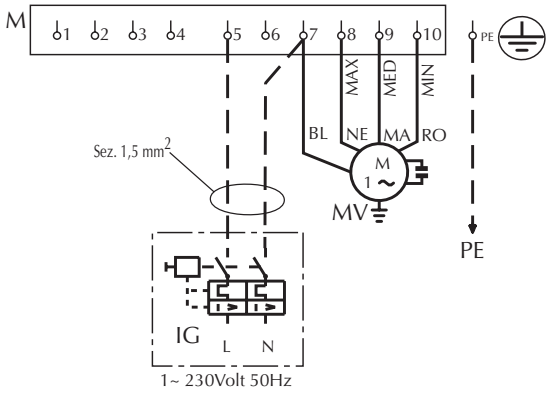
OMNIA UL



OMNIA UL S



OMNIA UL P



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