

**FAN COIL**  
FOR HORIZONTAL AND VERTICAL DUCTED INSTALLATION**VED**~~Variable Multi Flow~~**VMF****VED 430****VED 440****VED 530****VED 540****VED 432****VED 441****VED 532****VED 541****VED 630****VED 640****VED 730****VED 740****VED 632****VED 641****VED 732****VED 741****AERMEC**

COMPANY QUALITY SYSTEM



ISO 9001:2008 - Cert. n° 0128



IVEDPY 1107 - 4879010\_00



AERMEC

is involved in the Eurovent programme:

**FCU**

Products covered by the programme can  
be found on the site

[www.eurovent-certification.com](http://www.eurovent-certification.com)

**Made with materials of superior quality in strict compliance with safety regulations, VED is easy to use and will have a long life.**

**The range of VED fan coils are designed for integration in the VMF system.**

**The VMF (Variable Multi Flow) system is able to intelligently manage a complete hydronic system, made up of chiller/heat pump, a boiler, a network of fan coils (multi-speed or continuous modulation of the speed) divided into zones (up to 64), circulation pumps (up to 12) and heat recovery units with air quality sensor (up to 3), optimising conditioning and heating performance to ensure comfort and energy savings.**

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## REMARKS

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

**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.

The information contained in this manual conform to the description of the units at the time of drafting.

This document has been prepared with reference to the pre-series or prototypes, the technical data contained in this document are not binding.

As part of the continuous product improvement policy, AERMEC SpA reserves the right to make any changes at any time deemed necessary to the improvement of the product.

Some configurations and/or functions may not be available for all units.

This manual contains the following number of pages: 84.

**AERMEC S.p.A.**

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**CONFORMITY DECLARATION**

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

**FAN COIL FOR HORIZONTAL AND VERTICAL DUCTED INSTALLATION****VED series**

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

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

thus meeting the essential requisites of the following directives:

- Directive LVD 2006/95/CE
- EMC Electromagnetic Compatibility Directive 2004/108/CE
- Machine Directive 2006\_42\_CE

**VED WITH ACCESSORIES**

It is not allowed to use the unit equipped with accessories not supplied by Aermech.

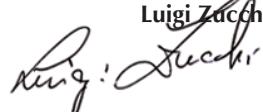
La persona autorizzata a costituire il fascicolo tecnico è: / The person authorized to compile the technical file is: / La personne autorisée à constituer le dossier technique est: / Die Person berechtigt, die technischen Unterlagen zusammenzustellen:

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Bevilacqua, 15/11/2010

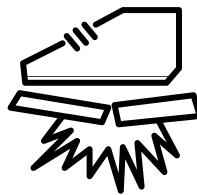
La Direzione Commerciale – Sales and Marketing Director

**Luigi Zucchi**

## 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



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



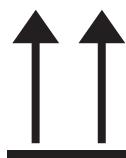
~~NON lasciare gli imballi sciolti durante il trasporto - Non rovesciare~~  
Do NOT leave loose packages during transport  
ATTACHER les emballages pendant le transport  
Die Verpackungen nicht ungesichert transportieren  
NO lleve las cajas sueltas durante el transporte



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 SICHERHEITSSYMBOLE • SÍMBOLOS DE SEGURIDAD



Pericolo:  
Tensione  
Danger:  
Power supply  
Danger:  
Tension  
Gefahr !  
Spannung  
Peligro:  
Tensión



Pericolo:  
Organi in movimento  
Danger:  
Movings parts  
Danger:  
Organes en mouvement  
Gefahr !  
Rotierende Teile  
Peligro:  
Elementos en movimiento



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

## IMPORTANT INFORMATION AND MAINTENANCE

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

### ⚠ ONLY POWER THE FAN COIL AT 230V ~ 50Hz

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

### DO NOT USE THE FAN COIL IMPROPERLY

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

### AIRING THE ROOM

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

### CORRECTLY REGULATING THE TEMPERATURE

The external temperature should be adjusted in order to provide maximum comfort to the people in the room, especially if they are elderly, children or sick people; avoid differences over 7°C between the outdoor temperature and the temperature inside the room in summer.

In summer, a temperature that is too low causes higher electrical consumption.

### CORRECTLY ADJUSTING THE AIR JET

The area coming out of the fan coil must not strike people directly; in fact, even if at a temperature that is higher than the room temperature, it could cause a cold sensation and resulting 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 fancoil. Do not spray water on the outer or inner surfaces of the fan coil (it might cause short circuits).

### CLEANING PERIODICALLY THE FILTER

Frequent cleaning of the filter will ensure more efficient unit operation.

Check whether the filter is very dirty: in this case, repeat the operation more often.

Clean frequently. Remove the accumulated dust with a vacuum cleaner.

When the filter is clean, refit it on the fan coil following the dismantling instructions in reverse order.

### EXTRAORDINARY 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 OPERATIONS

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

### WHAT IS NORMAL

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

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.

### AIR FILTER REMOVAL AND REPLACEMENT

The air filter must be removed from the fan coil for cleaning.

The cleaned or new air filter (for replacement) must be correctly fitted and secured in its housing in the fancoil.

To remove the air filter:

- loosen the screws of the two filter clips
- slide the two filter retainers until they stop
- remove the filter from its housing

To reassemble the air filter:

- insert the air filter into its housing,
- slide the two filter clips until the filter is secured,
- tighten the screws of the two filter clips,
- make sure the filter is secured in its housing.

### MALFUNCTIONING

In the case of malfunctioning remove the power to the unit then repower it and start the apparatus up again.

**⚠ CAUTION!** Do not attempt to repair the unit alone, this is extremely dangerous!

If the problem occurs again, call your areas After-Sales Service promptly.

### 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.

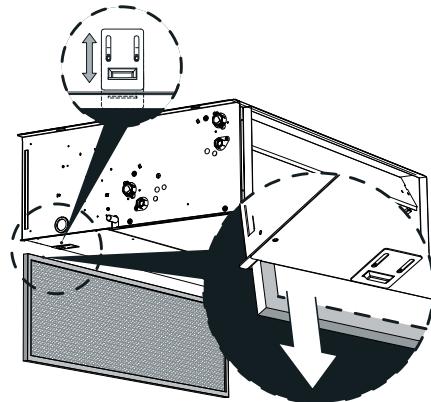
### DO NOT PUT ANYTHING IN THE AIR OUTLETS

Never insert objects of any kind in the air delivery and outlet.

**⚠ This could cause injury to people and damage to the fan.**

### ⚠ CAUTION

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



## PACKAGING

The cassette fan coils are sent in standard packaging made of foam polystyrene and cardboard.

## USE

Consult control panel manual for installation and use instructions.

## DESCRIPTION OF THE UNIT

### PURPOSE OF THE VED FANCOILS

The fan coil is a room air treatment terminal unit for both winter and summer operation. The VED fancoils are designed to fit any ducted type system.

In particular, the possibility to be integrated into the VMF system allows the control of a single fancoil with accessories and the management of the VED introduced in complex fancoil networks and their accessories.

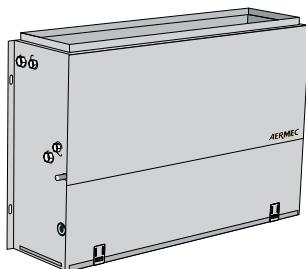
### AVAILABLE SIZES

VED fan coils are available in:

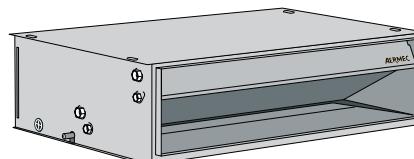
8 sizes for 2-pipe systems		8 sizes for 4-pipe systems	
<b>VED 430</b>	(3 row coil)	<b>VED 432</b>	(3 row + 2 Row coil)
<b>VED 440</b>	(4 row coil)	<b>VED 441</b>	(4 row + 1 Row coil)
<b>VED 530</b>	(3 row coil)	<b>VED 532</b>	(3 row + 2 Row coil)
<b>VED 540</b>	(4 row coil)	<b>VED 541</b>	(4 row + 1 Row coil)
<b>VED 630</b>	(3 row coil)	<b>VED 632</b>	(3 row + 2 Row coil)
<b>VED 640</b>	(4 row coil)	<b>VED 641</b>	(4 row + 1 Row coil)
<b>VED 730</b>	(3 row coil)	<b>VED 732</b>	(3 row + 2 Row coil)
<b>VED 740</b>	(4 row coil)	<b>VED 741</b>	(4 row + 1 Row coil)

### Main features of the VED fancoils

- Fancoil for both vertical wall installation and horizontal false ceiling installation
- Main coil with 3 and 4 rows
- Versions for 4-pipe systems also with heating-only coil of 1 or 2 rows
- Low pressure drop coils
- Couplings reversible onsite
- Wide range of accessories to connect the fan coil to each type of air ducting
- Requires external control panel (accessory)
- Designed to fit in the VMF system
- Wide range of controls and accessories
- High possibility of having different useful static pressures
- 5-speed fan motor, 3 preferred speeds of which can be selected.
- Centrifugal fans with fans designed for low noise emission
- Filter filtration class G3
- Air intake filter, easily removable for periodic cleaning
- Accessories for 3-way valve with 4 connections
- Accessories 2-way valve for the systems to variable water flow rate
- Internal insulating, class 1
- Full compliance with the accident prevention standards
- Ease of installation and maintenance
- Discharge flange incorporated in the unit



Vertical installation



Horizontal installation

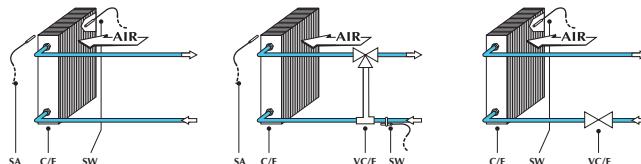
## SYSTEM EXAMPLE

### Key:

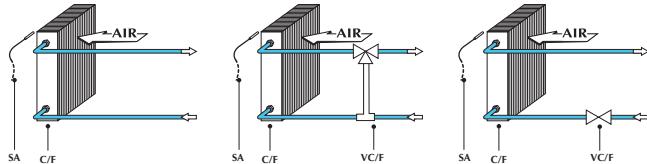
**SW** Water temperature sensor  
**VC/F** Valve (Heating / cooling)  
**VC** Valve (Heating)

**SA** External temperature sensor  
**C/F** Coil(Heating / Cooling)  
**C** Coil(heating)

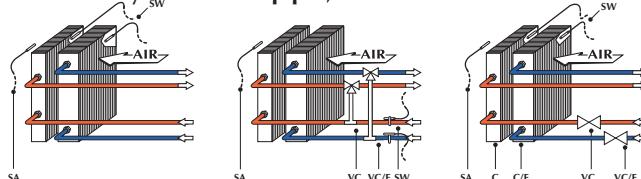
### System with 2 pipes, with water sensor



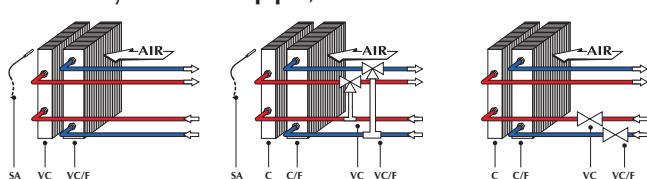
### System with 2 pipes, without water sensor



### System with 4 pipes, with water sensor



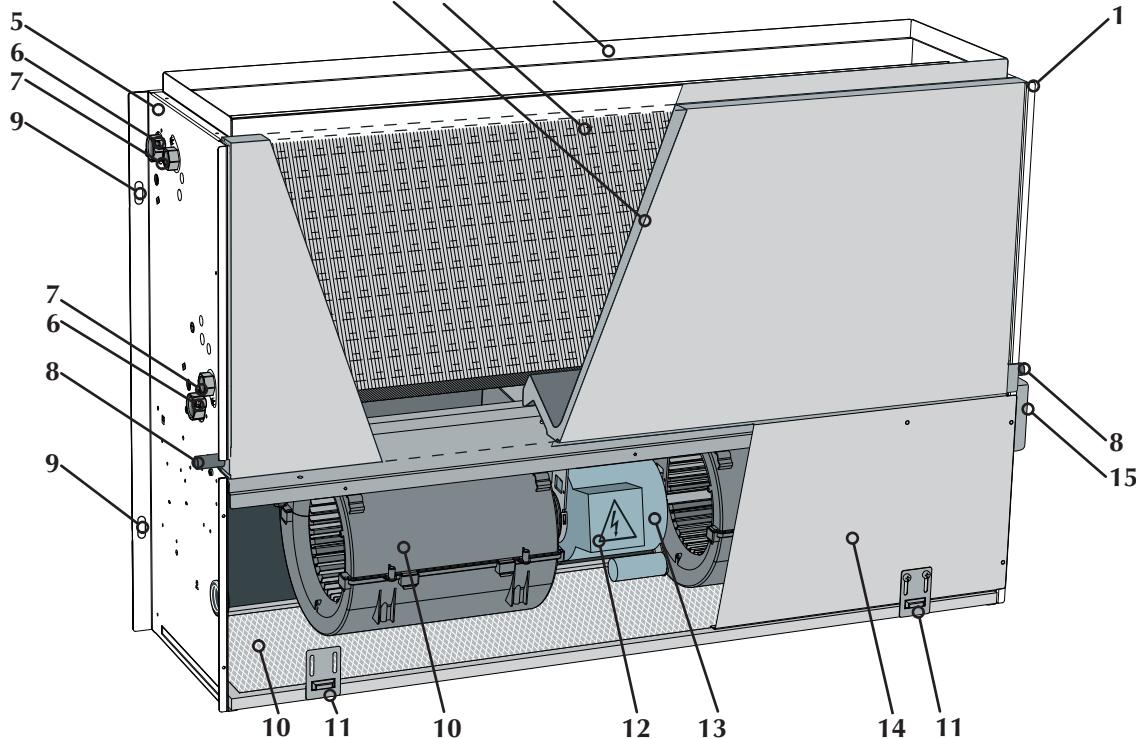
### System with 4 pipes, without water sensor



## MAIN COMPONENTS

- |  |                                  |                                  |
|--|----------------------------------|----------------------------------|
| 1 Right side (load-bearing structure)              | 6 Vents / discharges on the coil | 10 Centrifugal fan               |
| 2 Air delivery flanges                             | 7 Hydraulic connections          | 12 Electric motor electrical box |
| 3 Heat exchange coil                               | 8 Condensate drain               | 13 Electric motor                |
| 4 Condensate collection tray / Front panel (upper) | 9 Fixing slots                   | 14 Front closure panel (lower)   |
| 5 Left side (load-bearing structure)               | 10 Air filter (suction)          | 15 Electrical wiring             |

## VED



## DESCRIPTION OF COMPONENTS

### System types

The fancoils are designed for 2 and 4 pipe systems with fixed or variable flow rate, in versions:  
 - 3 Rows and 4 Rows;  
 - 3 Rows with 2-row hot water coil for heating-only.  
 - 4 Rows with 1-row hot water coil for heating-only.

### Ventilation

Ventilation is controlled via a control panel (accessory).

The 5-speed fan motor can connect the control panel to 3 speeds that produce the optimum useful head for the system.

### HEAT EXCHANGE COIL

Main coil with 3 and 4 rows Heating-only coil with 1 or 2 rows Coil with low pressure drops, in copper piping and corrugated aluminium fins, blocked via mechanical expansion of the tubes. The collectors are fitted with female hydraulic connections and air vents in the upper part of the coil.

### FILTERING SECTION

Air intake filter, easily removable for periodic cleaning Built with renewable materials and can be cleaned with a vacuum cleaner.

Filtration class G3. Behaviour to flames M1 NF F 16-101.

### ELECTRIC FAN UNIT

Double suction centrifugal fans with fans designed for low noise emission. The fans are directly coupled with the shaft of the electric motor. The 5-speed fan motor allows you to choose the 3 preferred speeds by changing the settings on the electrical box on the motor. The electric motor is cushioned with elastic supports.

### STRUCTURE

Made of galvanised sheet iron of a suitable thickness. Internal insulation in Class 1. The installation slots are positioned at the rear. The inlets and outlets are designed to connect the fancoil to all types of air ducting. The delivery outlet includes the coupling flange.

### CONDENSATE DRAIN

Every device is equipped with a condensate collection tray for both vertical and horizontal installation. The tray has 2 fittings ( $\varnothing 0.63$  in) for the discharge of condensate. The 2 fittings protrude from the side of the unit.

### PLUMBING CONNECTIONS

The connectors, located on the left hand side, are female. The coil can be rotat-

ed onsite to reverse the fittings onto the right side.

### CONTROL PANEL

There are several control panels available to choose the most suitable for the system.

The full potential of the VED units can be exploited by combining the control panels, thermostats and other accessories of the VMF series.

The thermostats of the VMF series allow to:

- Control a single unit and the accessories.
- Control a network of 6 units, including a master with thermostat and control panel plus 5 slave units equipped with thermostat, which operate independently based on the ambient conditions.
- Control of the VED unit in a complex network of up to 64 zones with 6 fancoils (up to 384 fancoils with a single VMF-E5 control board).

## SELECTION CRITERIA

The VED suspended fancoils are suitable for both vertical and horizontal ducted installations.

VED is factory set to operate at the 3 default speeds indicated in the manual.

In case of ducted installations where pressure drops in the ducts are considerable, the VED allows to achieve the static pressure necessary to guarantee a correct air flow rate by altering the settings of the electrical box connection on the motor. VED allows the selection of 3 speed from the 5 available on the motor.

All versions have to be combined with a control panel (accessory); consult the characteristics and compatibility of the control panels supplied as accessories.

There is a wide range of accessories for VED fan coils, sometimes some of them cannot be used at the same time; check that the accessories are compatible with the fan coil chosen. The manual shows the 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.

The main technical data of the VED fan-coils are summarised in the tables.

The sensible and total cooling capacities at maximum speed depending on the incoming water temperature, its ther-

mal head and air temperature with dry bulb and wet bulb respectively for sensible output and total cooling capacity are shown in the table and refer to the high speed; the capacity at the average and minimum speed are obtained by multiplying the values obtained from the table at maximum speed by the indicated correction factors.

The water pressure drops, respectively for the 3 - 4 row coils (heating and cooling) and 1 - 2 row (heating-only) are illustrated in the diagrams.

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 from the 3 - 4 and 1 - 2 row coils based on the water flow rate and temperature difference between the inlet water and inlet air is shown in a graphical form and refers to the maximum speed; the performances at average and minimum speeds are obtained by multiplying the values obtained from the chart at maximum speed by the corrective factors indicated.

The pressure level and sound power of the fancoils at different speeds is shown in separate tables.

For the ducted installations, the sound power level is expressed according to the air flow rate and pressure, and represented as graphs.

The static pressure for the suspended versions, according to the air flow rate and the fan speed, are shown as a table; the curves are shown for each reference speed.

For scaling the ducted wall/ceiling-mounting models, it is advisable to proceed as follows: choose the size that in conditions of nominal flow rate has a power immediately above that required; afterwards, mark out the curve of the duct pressure drops on the rate-pressure diagram related to the machine in question in order to individualise the points of machine operation at the different speeds. Based on the output values of these points, you will obtain the correction factors that help calculate the output given the actual conditions of air flow rate.

The above procedure allows to choose whether to change the settings of the motor's connections.

## OPERATIONAL LIMITS

VED		430	440	530	540	432	441	532	541
Maximum water inlet temperature	°F				176				
Maximum recommended water inlet temperature	°F				149				
Maximum operating pressure	psi				116				
Minimum water flow rate (Main coil)	gpm	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32
Maximum water flow rate (Main coil)	gpm	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
Minimum water flow rate (Heating Only Coil)	gpm	-	-	-	-	0.88	0.44	0.88	0.44
Maximum water flow rate (Heating Only Coil)	gpm	-	-	-	-	8.8	6.6	8.8	6.6
External temperature limits (Ta)	°F				32° < Ta < 104°				
Relative humidity limits in the room (R.H.)					R.H. < 85%				
Power supply					230V ( ±10% ) ~ 60 Hz				
Protection level	IP				20				

VED		630	640	730	740	632	641	732	741
Maximum water inlet temperature	°F				176				
Maximum recommended water inlet temperature	°F				149				
Maximum operating pressure	psi				116				
Minimum water flow rate (Main coil)	gpm	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32
Maximum water flow rate (Main coil)	gpm	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
Minimum water flow rate (Heating Only Coil)	gpm	-	-	-	-	1.32	1.32	1.32	1.32
Maximum water flow rate (Heating Only Coil)	gpm	-	-	-	-	13.2	13.2	11	13.2
External temperature limits (Ta)	°F				32° < Ta < 104°				
Relative humidity limits in the room (R.H.)					R.H. < 85%				
Power supply					230V ( ±10% ) ~ 60 Hz				
Protection level	IP				20				

**!** The leakage current to earth of several devices placed under the same circuit breaker is summed, so attention should be paid to the calibration of the circuit

breaker and possibly consider the division of the installation into several circuits each of which protected by its own circuit breaker.

### Water temperature

In order to prevent air stratification in the room, and therefore to achieve improved mixing, it is advisable not to supply the fan coil with water at a

temperature over 65°C.

The use of water at high temperatures could cause squeaking due to the different thermal expansions of the elements (plastics and metals), this does not

however cause damage to the unit if the maximum operating temperature is not exceeded.

### Minimum average water temperature

If the fan coil is working in continuous cooling mode in an environment where the relative humidity is high, condensate might form on the air delivery and on the outside of the device. This condensate might be deposited on the floor and on any objects underneath.

To avoid condensate on the external

structure of the apparatus with the fan in operation, the average temperature of the water must not be lower than the limits shown in the table below, that depend on the thermo-hygrometric condition of the air in the environment. The limits mentioned above refer to operation while the fan is set to its minimum speed level.

In the event of prolonged fan inactivity

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

MINIMUM AVERAGE WATER TEMPERATURE [°F]	Ambient air temperature with dry bulb						
	69.8	73.4	77	80.6	84.2	87.8	
Ambient air temperature with wet bulb	59	37.4	37.4	37.4	37.4	37.4	37.4
	62.6	37.4	37.4	37.4	37.4	37.4	37.4
	66.2	37.4	37.4	37.4	37.4	37.4	37.4
	69.8	42.8	41	39.2	37.4	37.4	37.4
	73.4		46.4	44.6	42.8	41	41

































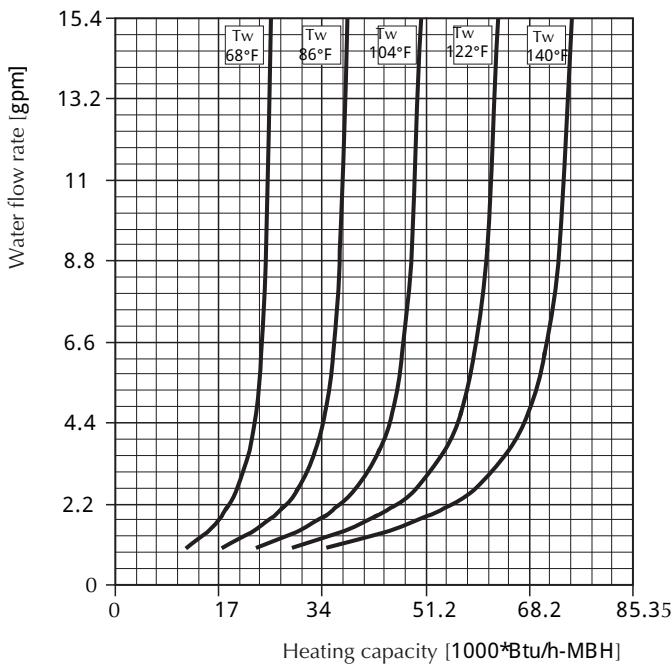




## HEATING CAPACITY

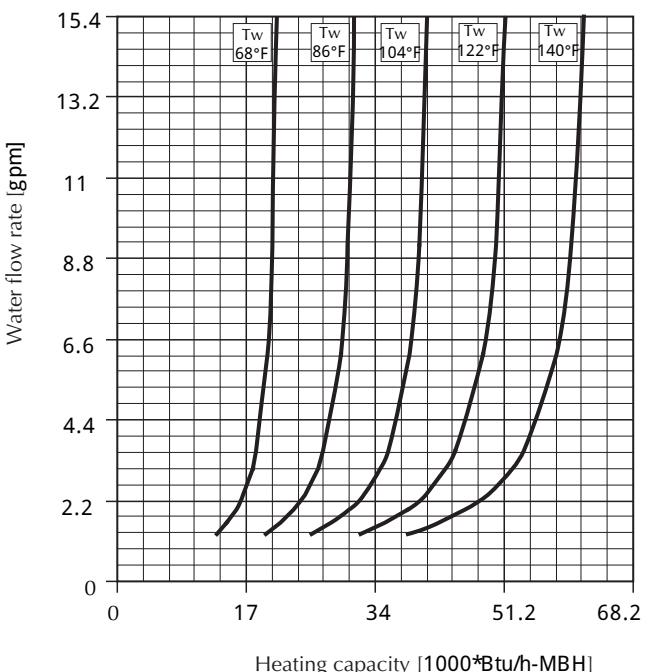
### VED 430

$T_w$ =water inlet temperature - air inlet temperature = $68^{\circ}\text{F}$



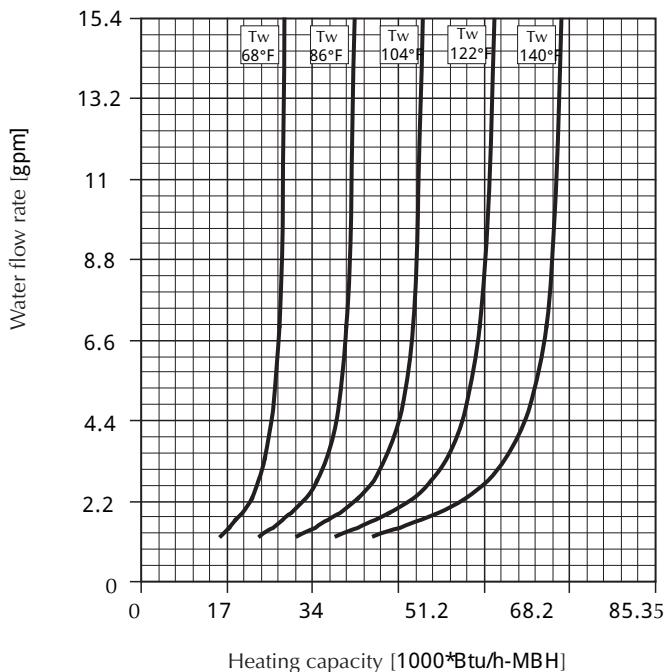
### VED 432

$T_w$ =water inlet temperature - air inlet temperature = $68^{\circ}\text{F}$



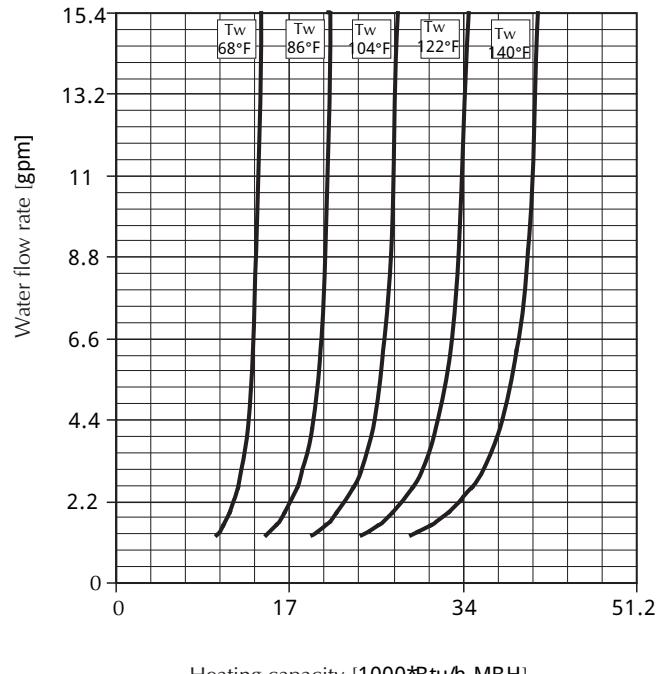
### VED 440

$T_w$ =water inlet temperature - air inlet temperature = $68^{\circ}\text{F}$



### VED 441

$T_w$ =water inlet temperature - air inlet temperature = $68^{\circ}\text{F}$



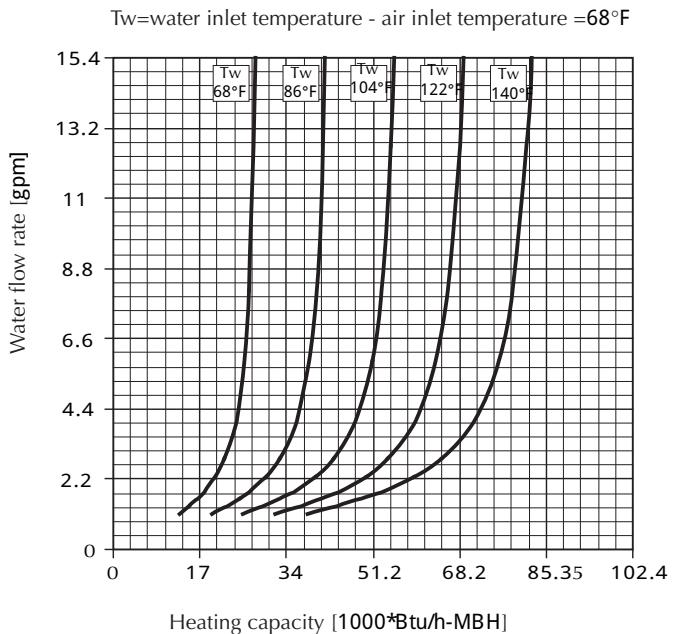
## HEATING CAPACITY CORRECTION FACTORS

The heat capacities refer to the rated speed. For the rest of the speeds the values must be multiplied by the following values:

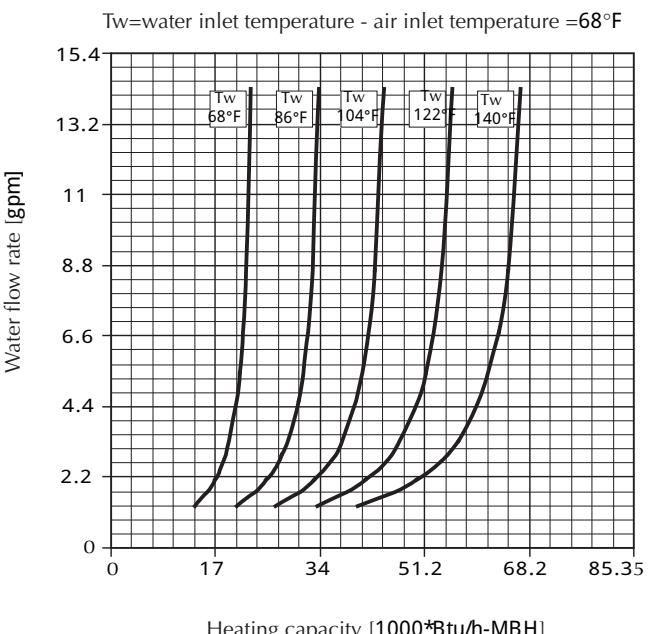
VED	430	432	440	441
	k (Ph)	k (Ph)	k (Ph)	k (Ph)
Rated speed	1	1	1	1
Maximum speed	0.91	0.91	0.90	0.91
Average speed	0.79	0.83	0.76	0.83
Minimum speed	0.59	0.69	0.57	0.69

## HEATING CAPACITY

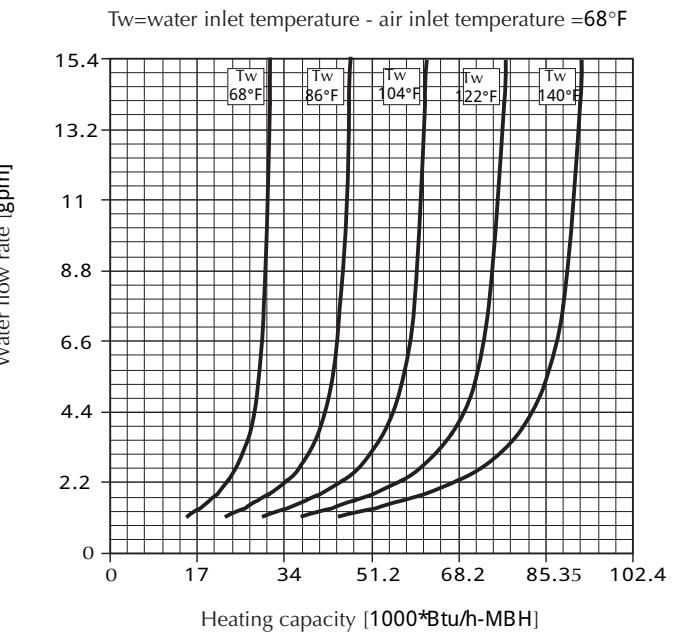
### VED 530



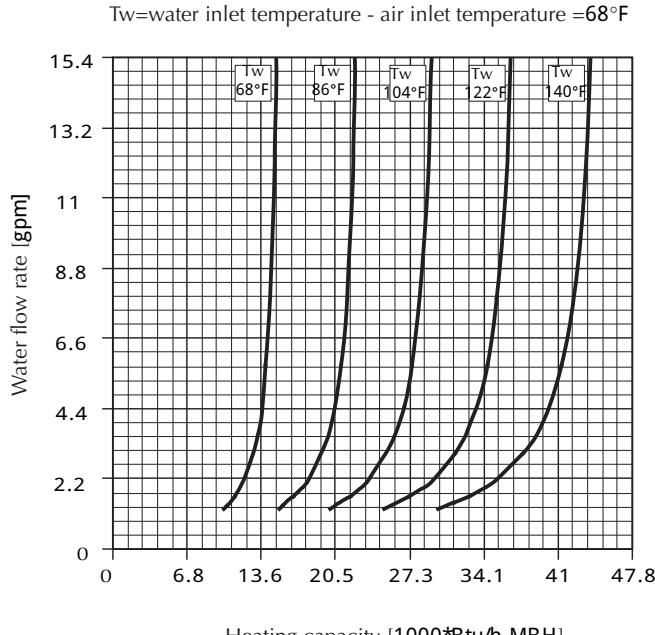
### VED 532



### VED 540



### VED 541



## HEATING CAPACITY CORRECTION FACTORS

The heat capacities refer to the rated speed. For the rest of the speeds the values must be multiplied by the following values:

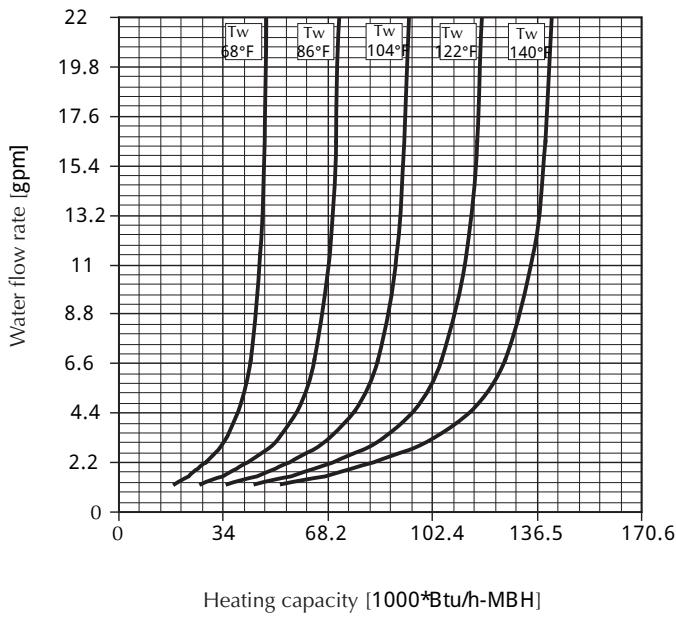
VED	530	532	540	541
	k (Ph)	k (Ph)	k (Ph)	k (Ph)
Rated speed	1	1	1	1
Maximum speed	0.92	0.90	0.90	0.93
Average speed	0.86	0.86	0.84	0.90
Minimum speed	0.72	0.71	0.7	0.79



## HEATING CAPACITY

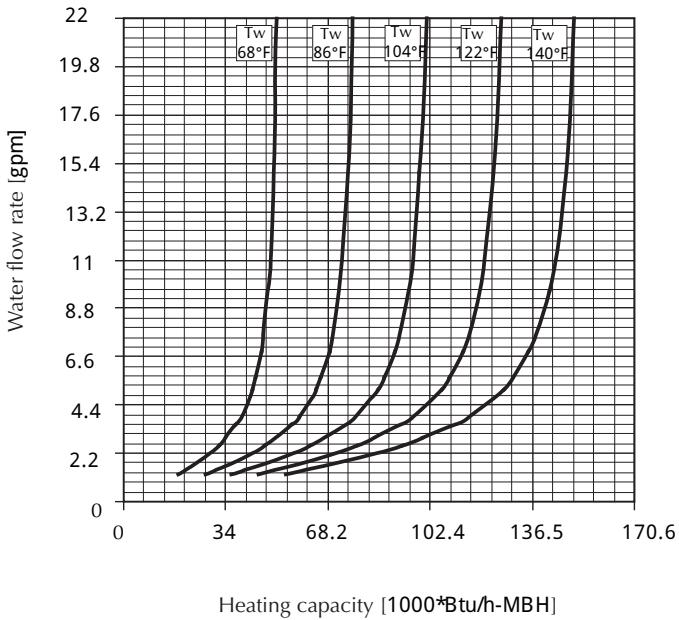
### VED 730

$T_w$ =water inlet temperature - air inlet temperature = $68^{\circ}\text{F}$



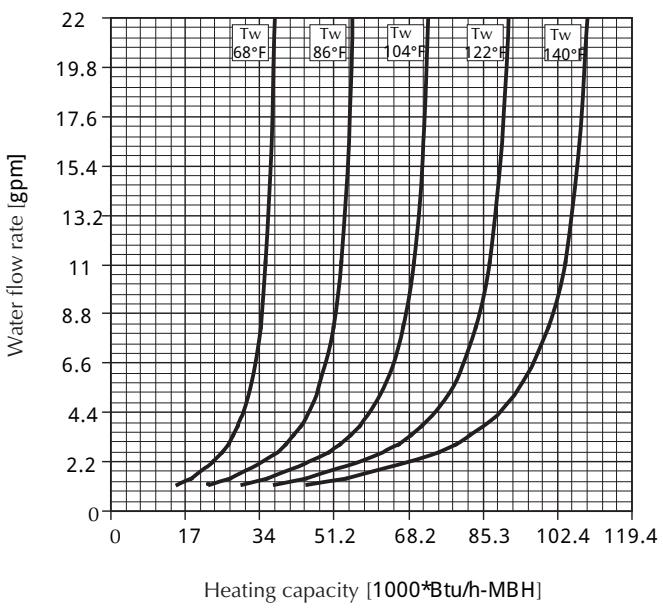
### VED 740

$T_w$ =water inlet temperature - air inlet temperature = $68^{\circ}\text{F}$



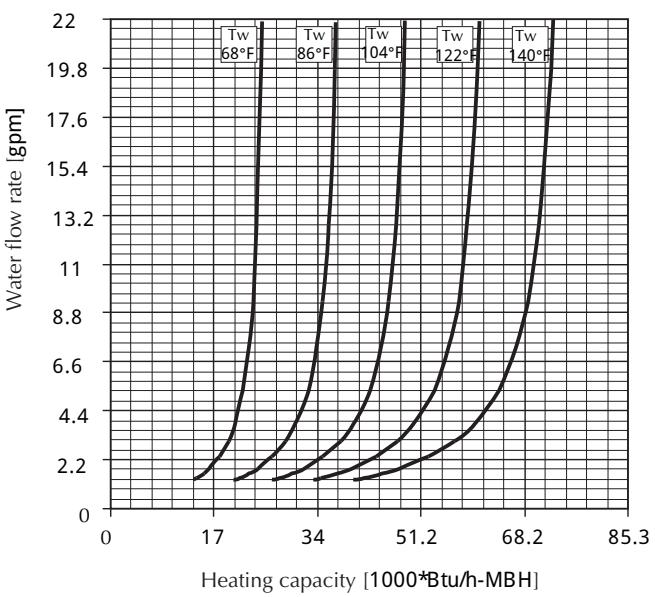
### VED 732

$T_w$ =water inlet temperature - air inlet temperature = $68^{\circ}\text{F}$



### VED 741

$T_w$ =water inlet temperature - air inlet temperature = $68^{\circ}\text{F}$



## HEATING CAPACITY CORRECTION FACTORS

The heat capacities refer to the rated speed. For the rest of the speeds the values must be multiplied by the following values:

VED	730	732	740	741
	k (Ph)	k (Ph)	k (Ph)	k (Ph)
Rated speed	1	1	1	1
Maximum speed	0.86	0.88	0.88	0.92
Average speed	0.75	0.79	0.76	0.84
Minimum speed	0.63	0.67	0.63	0.75





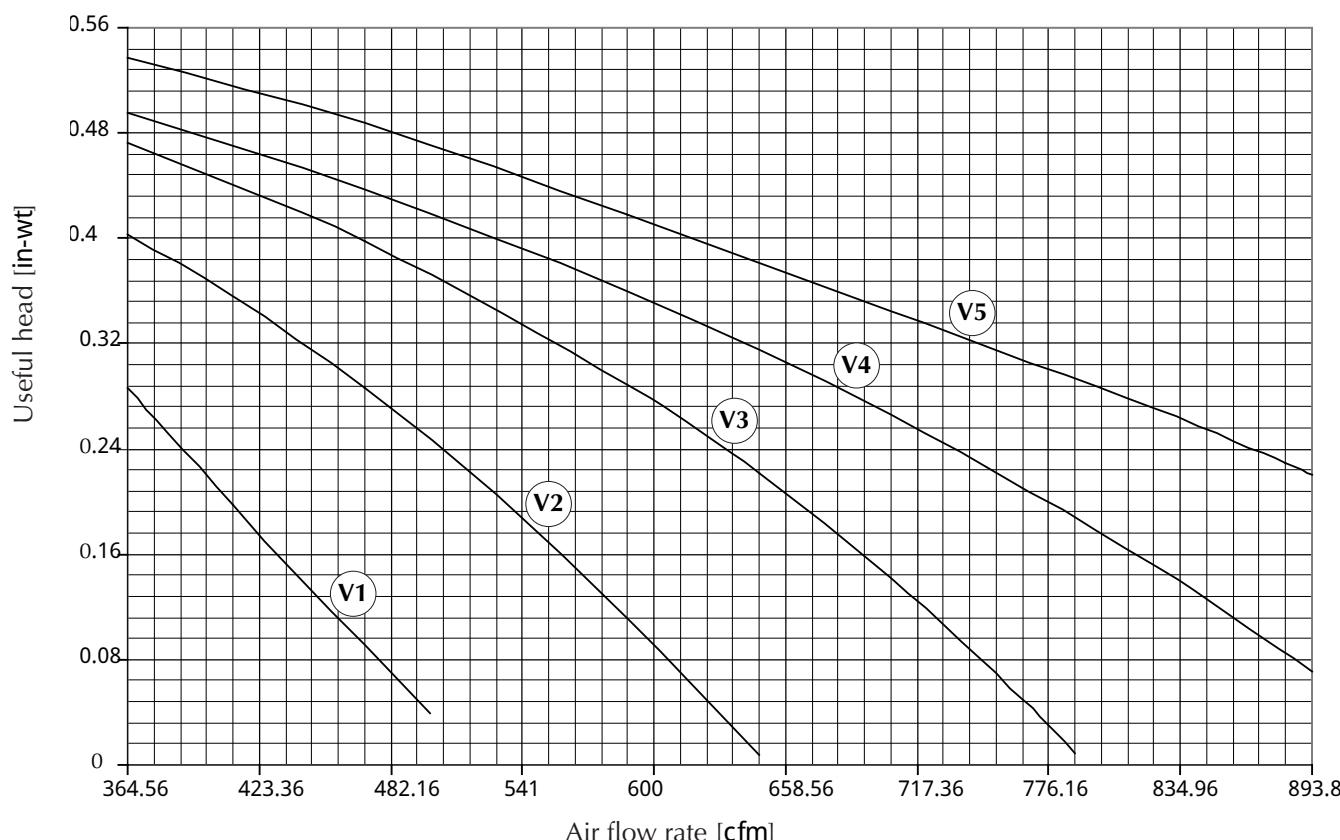


## STATIC PRESSURE

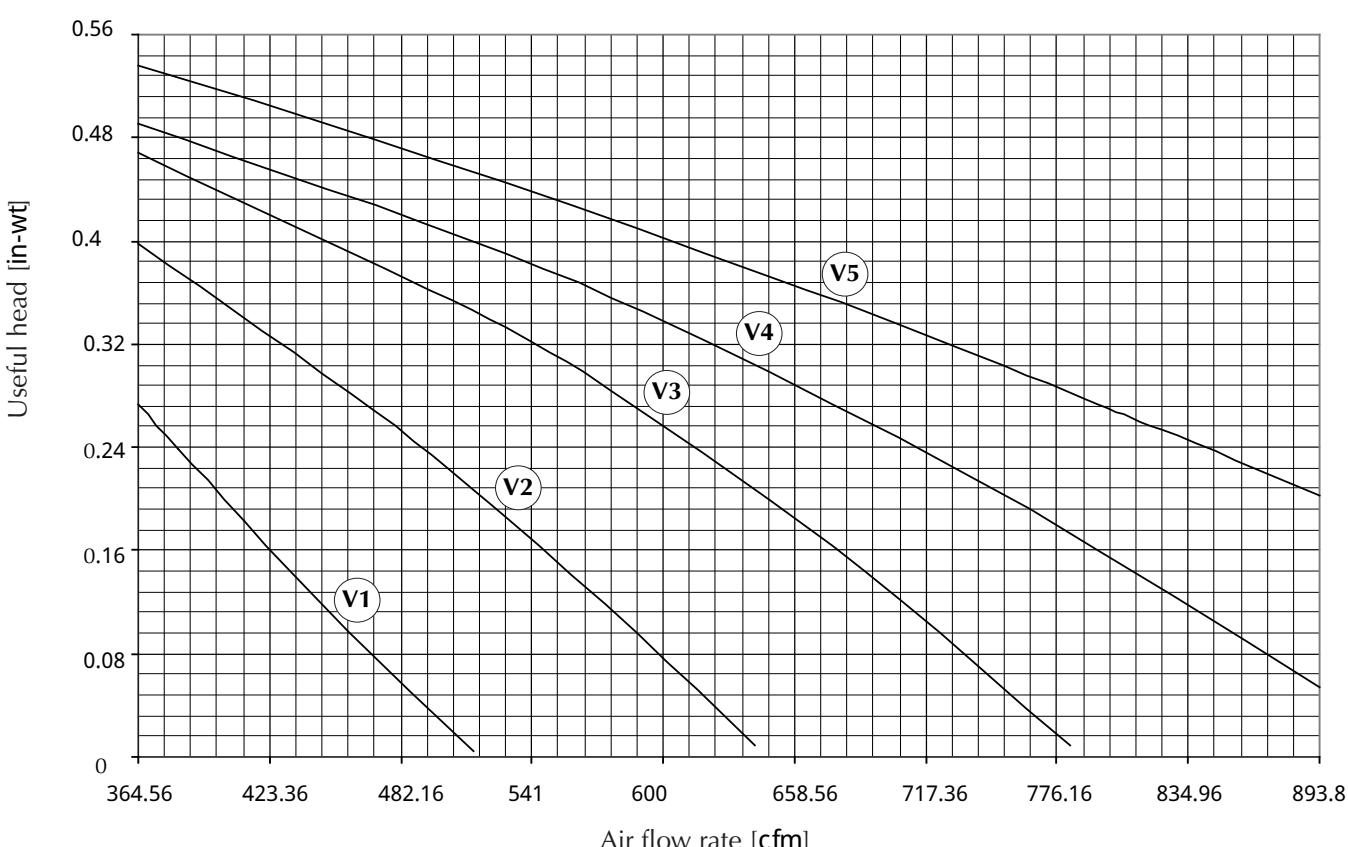
The fan coils in the VED series have been designed to make it possible to adjust the static pressure supplied by the fan upon pressure drops in the duct by choosing an appropriate set of three speeds.

The graph shows the useful static pressure of the machines with the uprated multispeed motor in function of the air flow rate and speed of the fan (V1...V5).

### VED 430



### VED 440

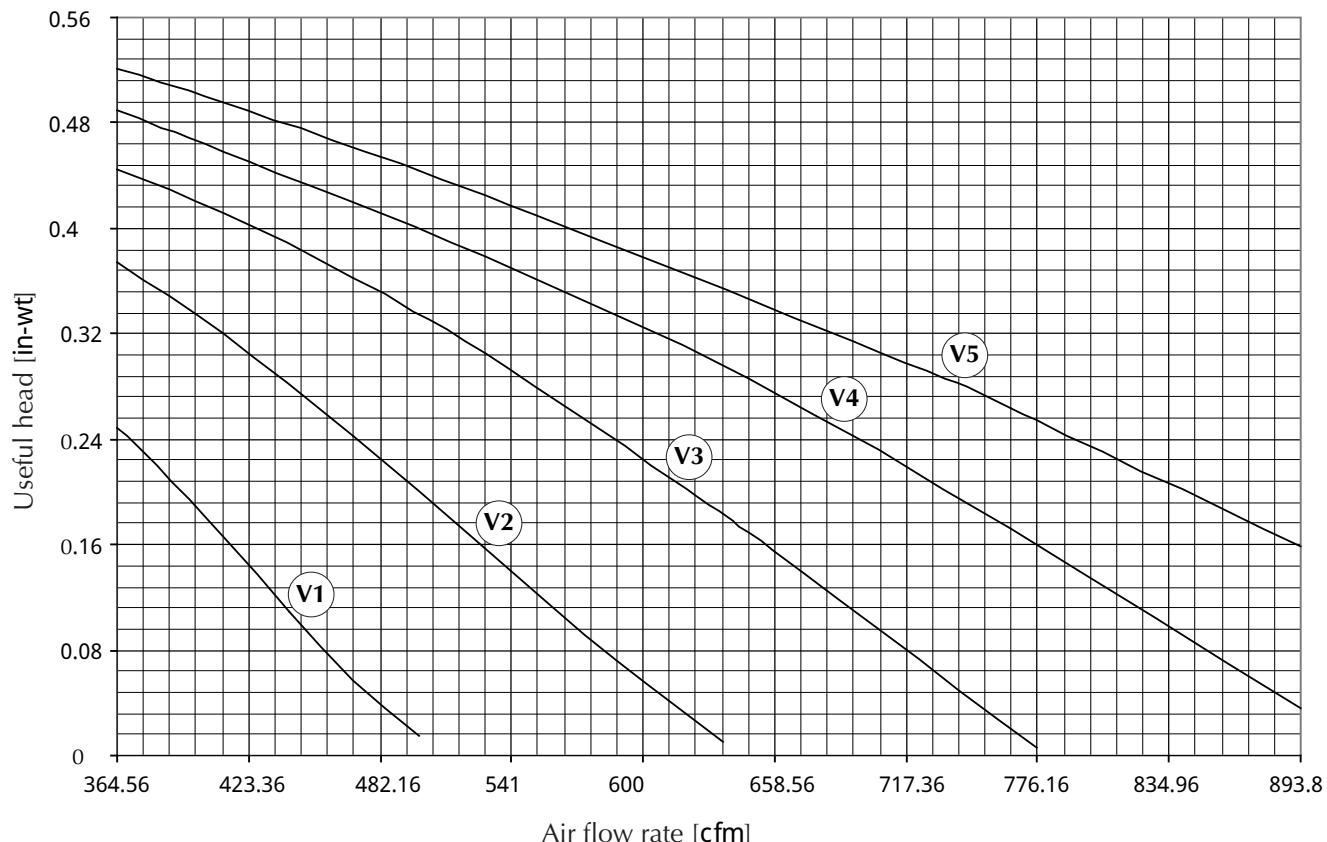


## STATIC PRESSURE

The fan coils in the VED series have been designed to make it possible to adjust the static pressure supplied by the fan upon pressure drops in the duct by choosing an appropriate set of three speeds.

The graph shows the useful static pressure of the machines with the uprated multispeed motor in function of the air flow rate and speed of the fan (V1...V5).

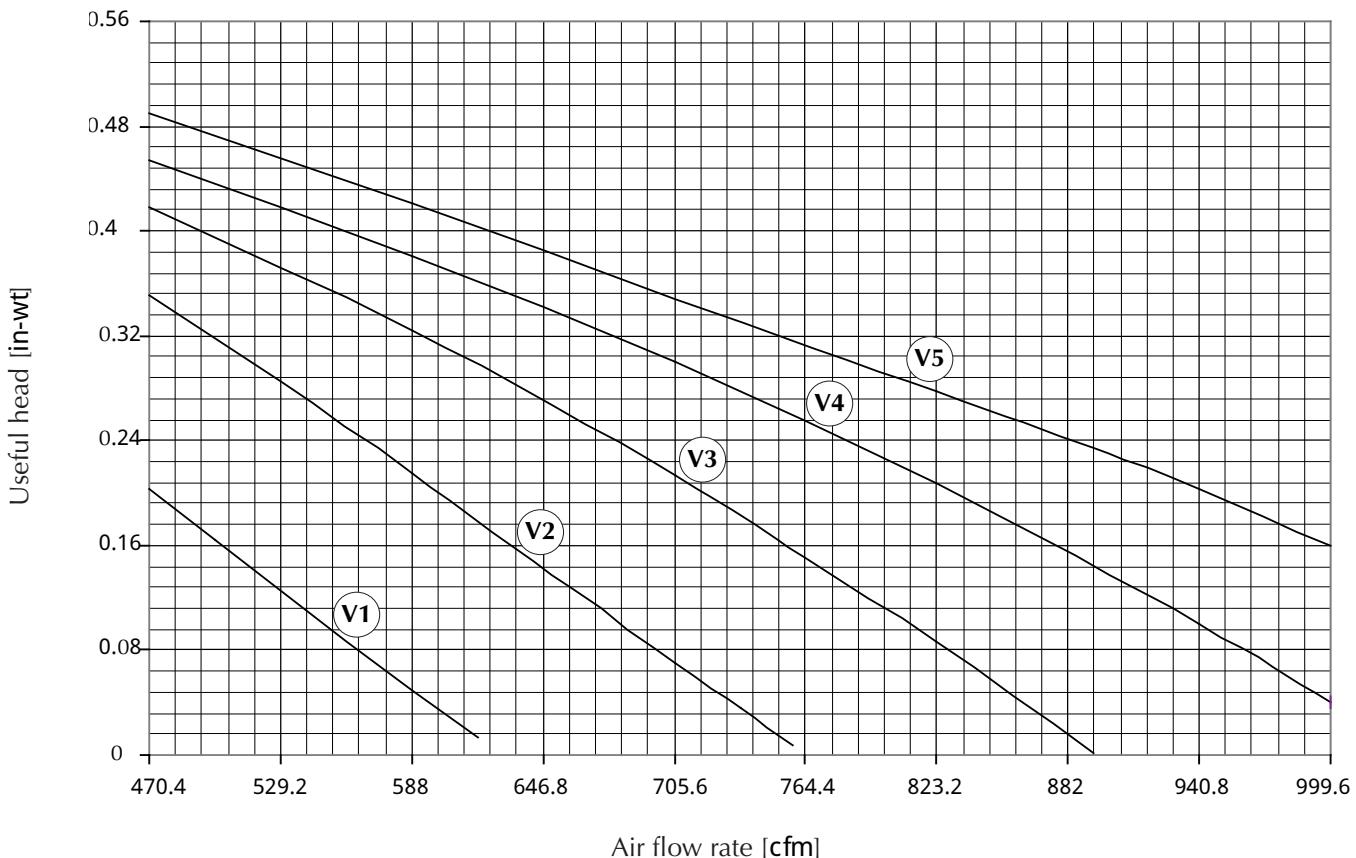
### VED 432 - VED 441



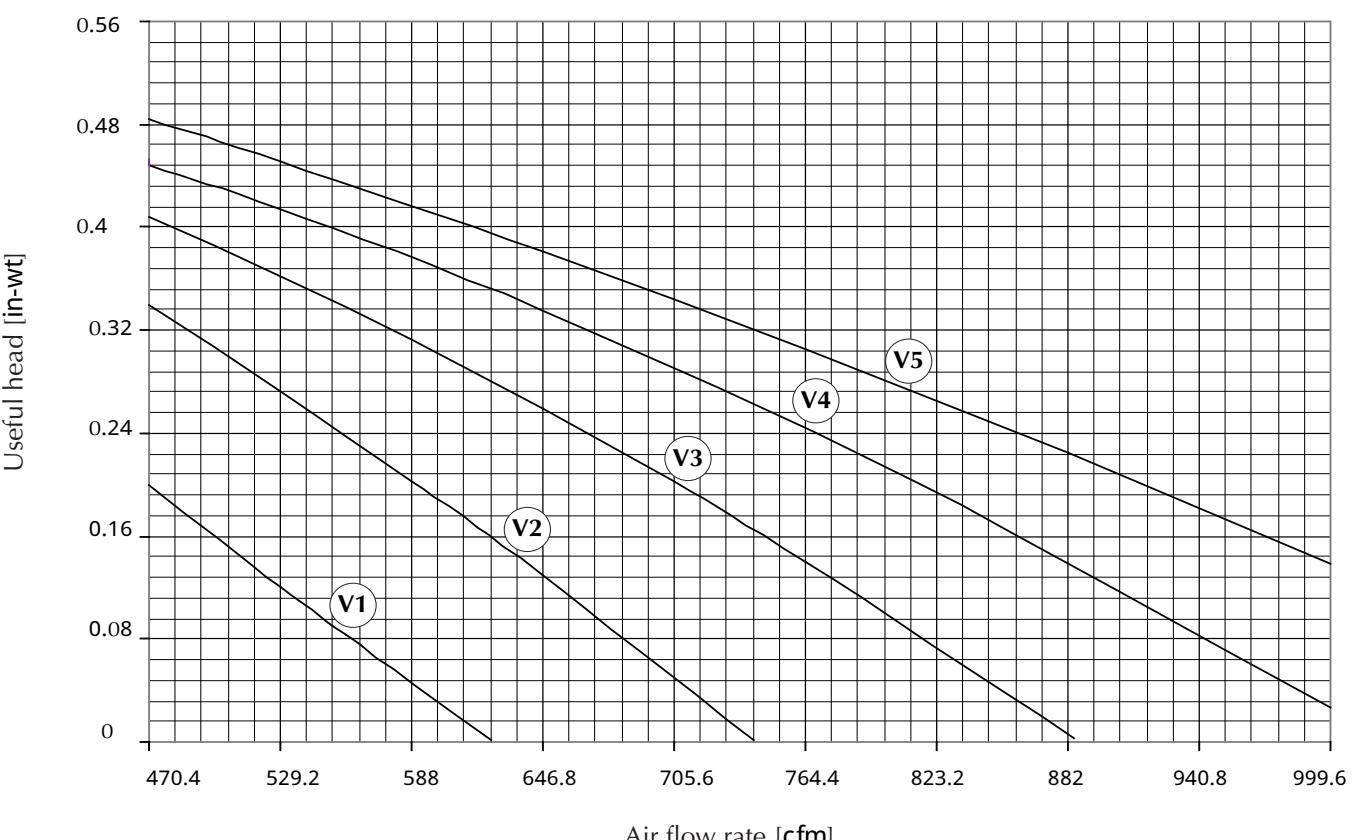
## STATIC PRESSURE

The fan coils in the VED series have been designed to make it possible to adjust the static pressure supplied by the fan upon pressure drops in the duct by choosing an appropriate set of three speeds.  
The graph shows the useful static pressure of the machines with the uprated multispeed motor in function of the air flow rate and speed of the fan (V1...V5).

### VED 530



### VED 540

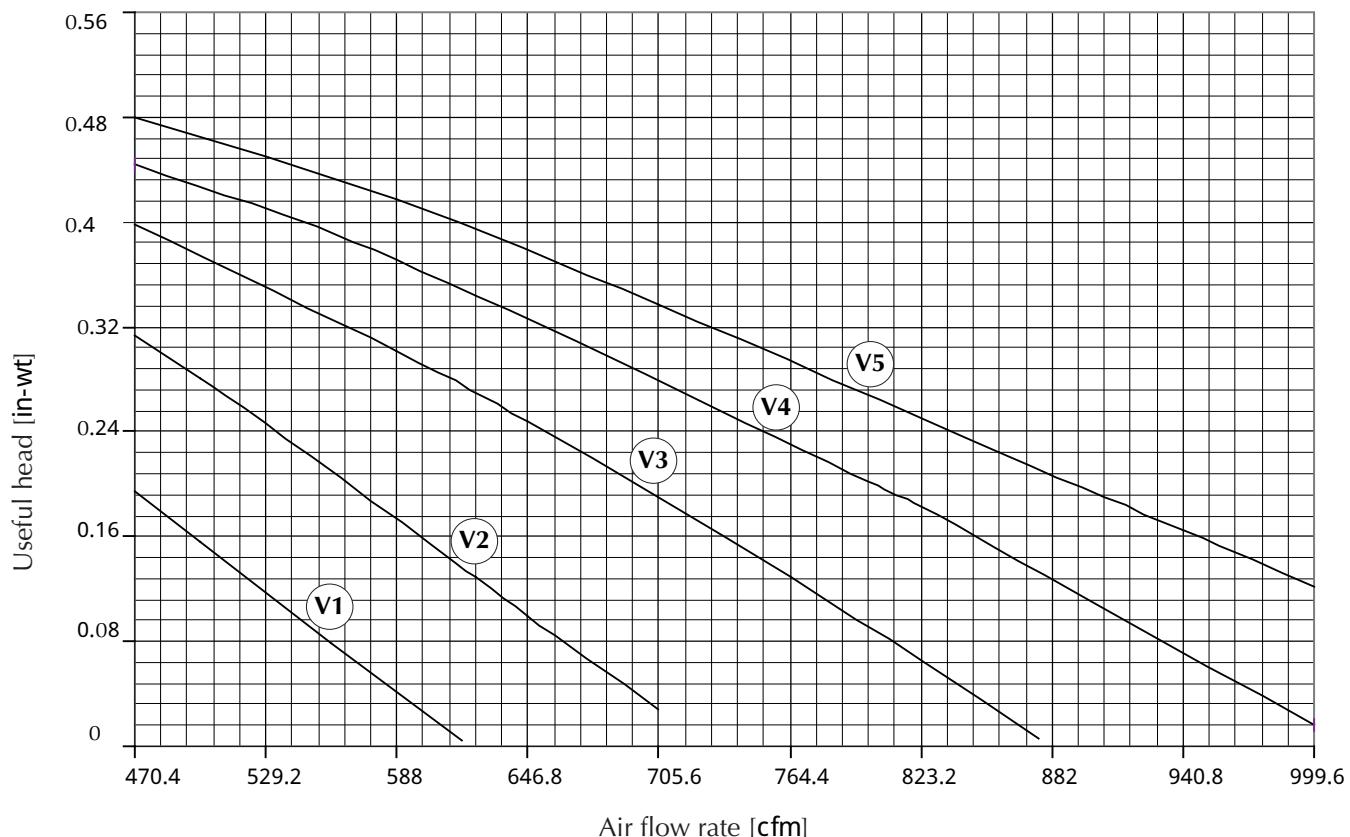


## STATIC PRESSURE

The fan coils in the VED series have been designed to make it possible to adjust the static pressure supplied by the fan upon pressure drops in the duct by choosing an appropriate set of three speeds.

The graph shows the useful static pressure of the machines with the uprated multispeed motor in function of the air flow rate and speed of the fan (V1...V5).

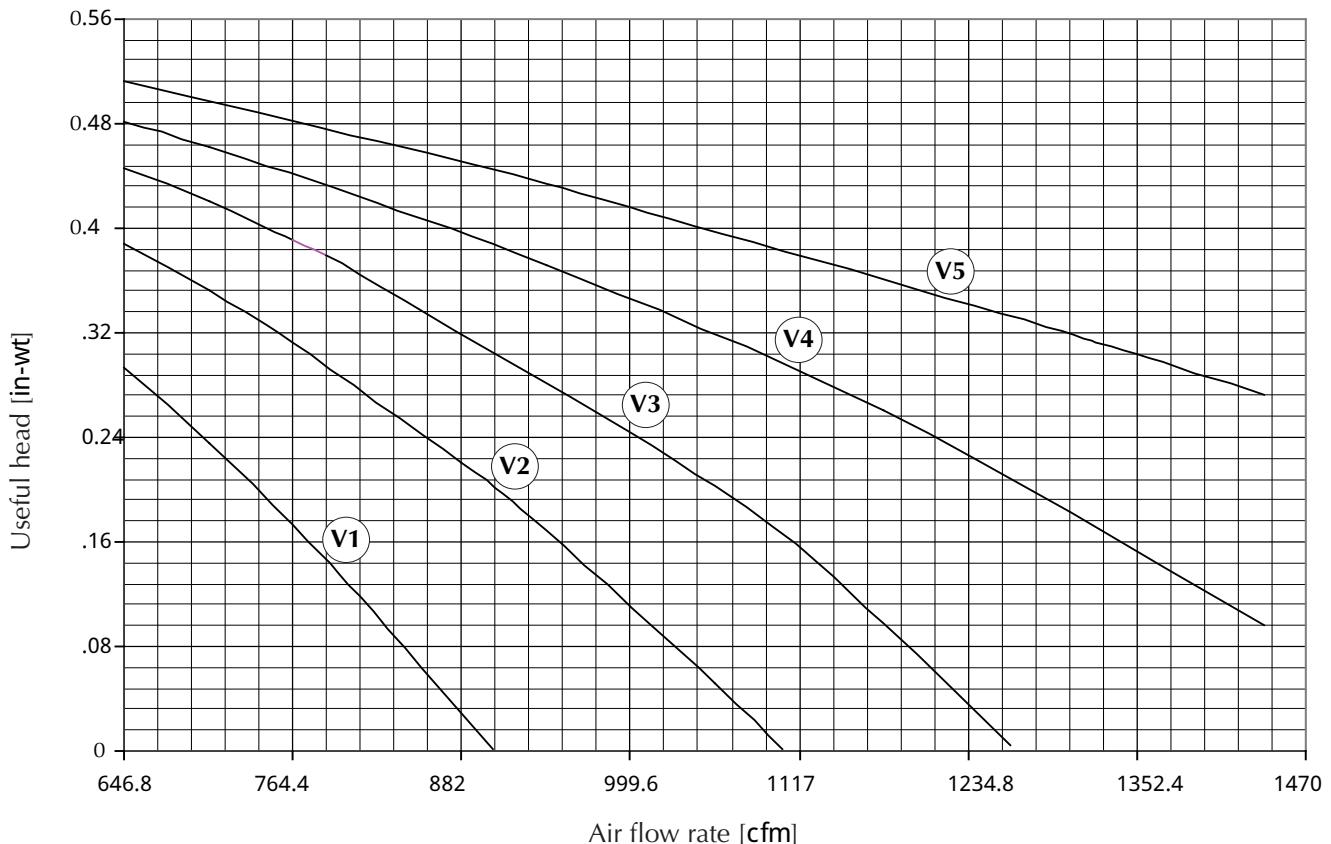
### VED 532 - VED 541



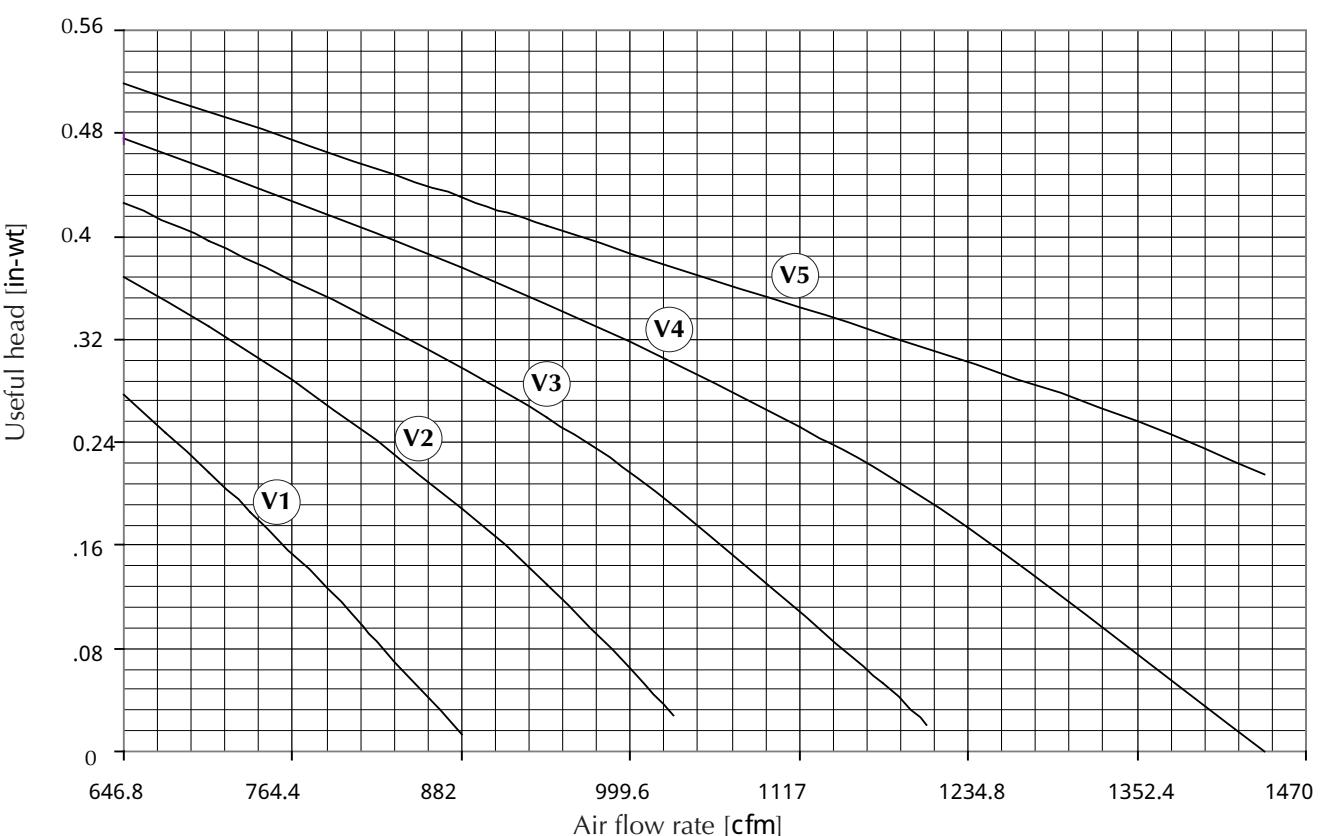
## STATIC PRESSURE

The fan coils in the VED series have been designed to make it possible to adjust the static pressure supplied by the fan upon pressure drops in the duct by choosing an appropriate set of three speeds.  
The graph shows the useful static pressure of the machines with the uprated multispeed motor in function of the air flow rate and speed of the fan (V1...V5).

### VED 630



### VED 640

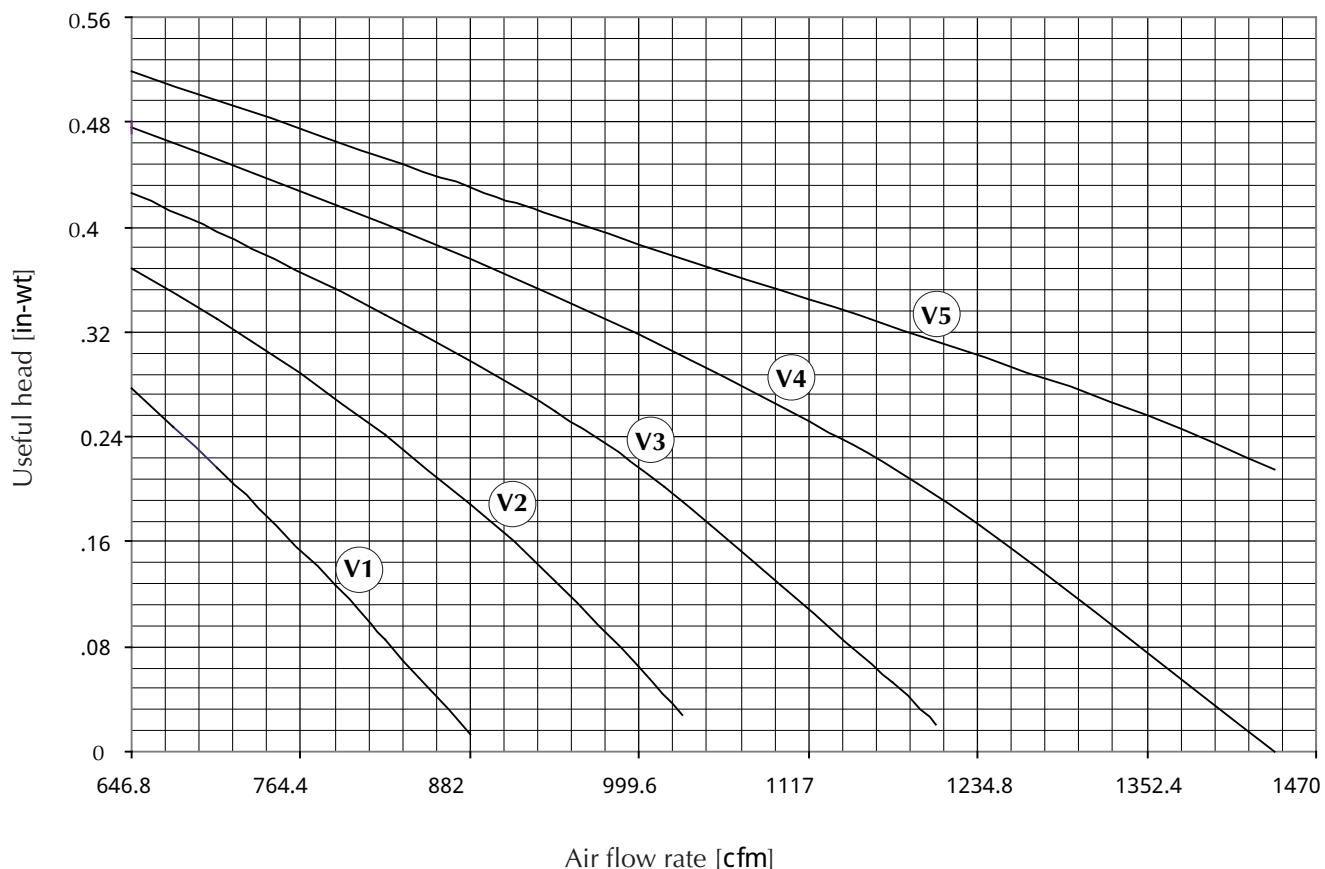


## STATIC PRESSURE

The fan coils in the VED series have been designed to make it possible to adjust the static pressure supplied by the fan upon pressure drops in the duct by choosing an appropriate set of three speeds.

The graph shows the useful static pressure of the machines with the uprated multispeed motor in function of the air flow rate and speed of the fan (V1...V5).

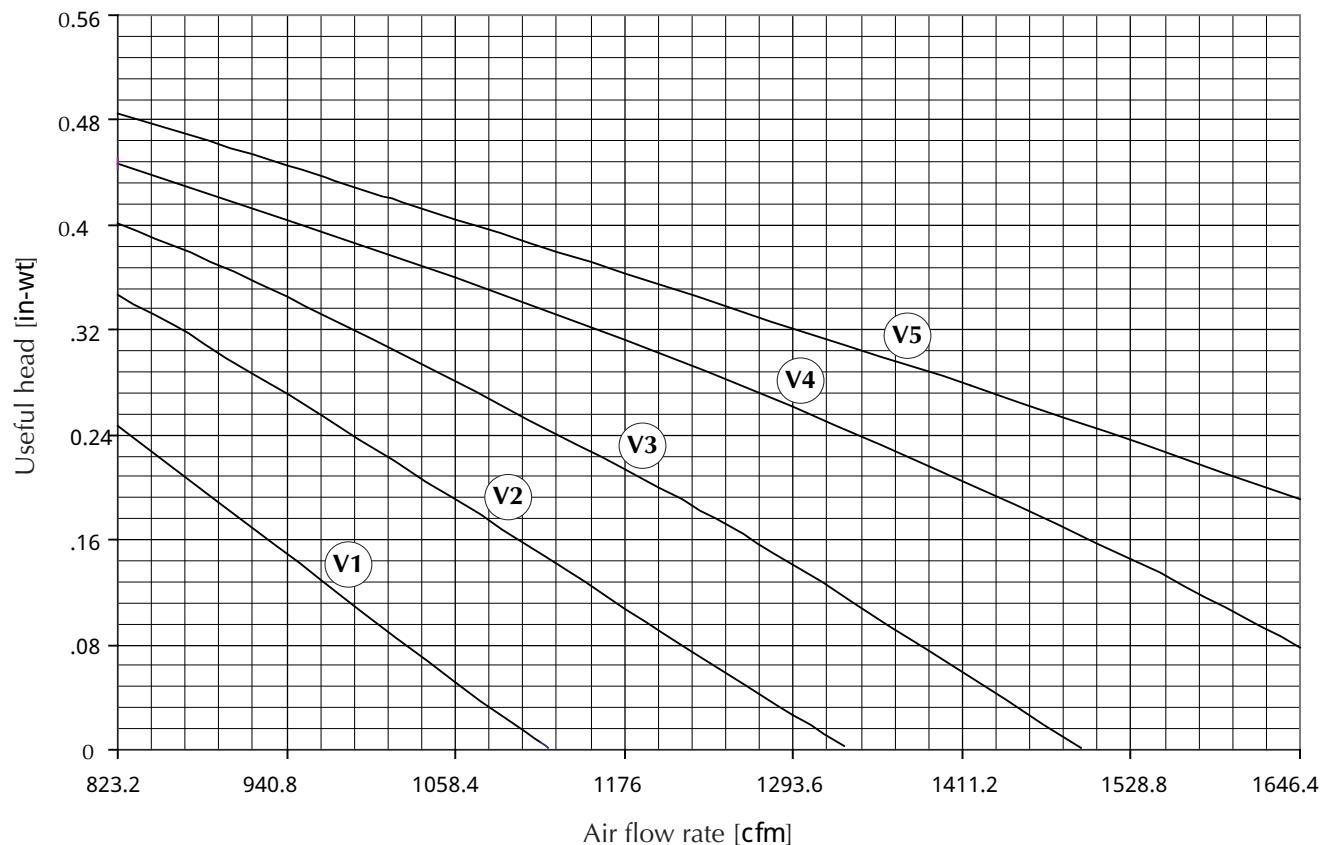
### VED 632 - VED 641



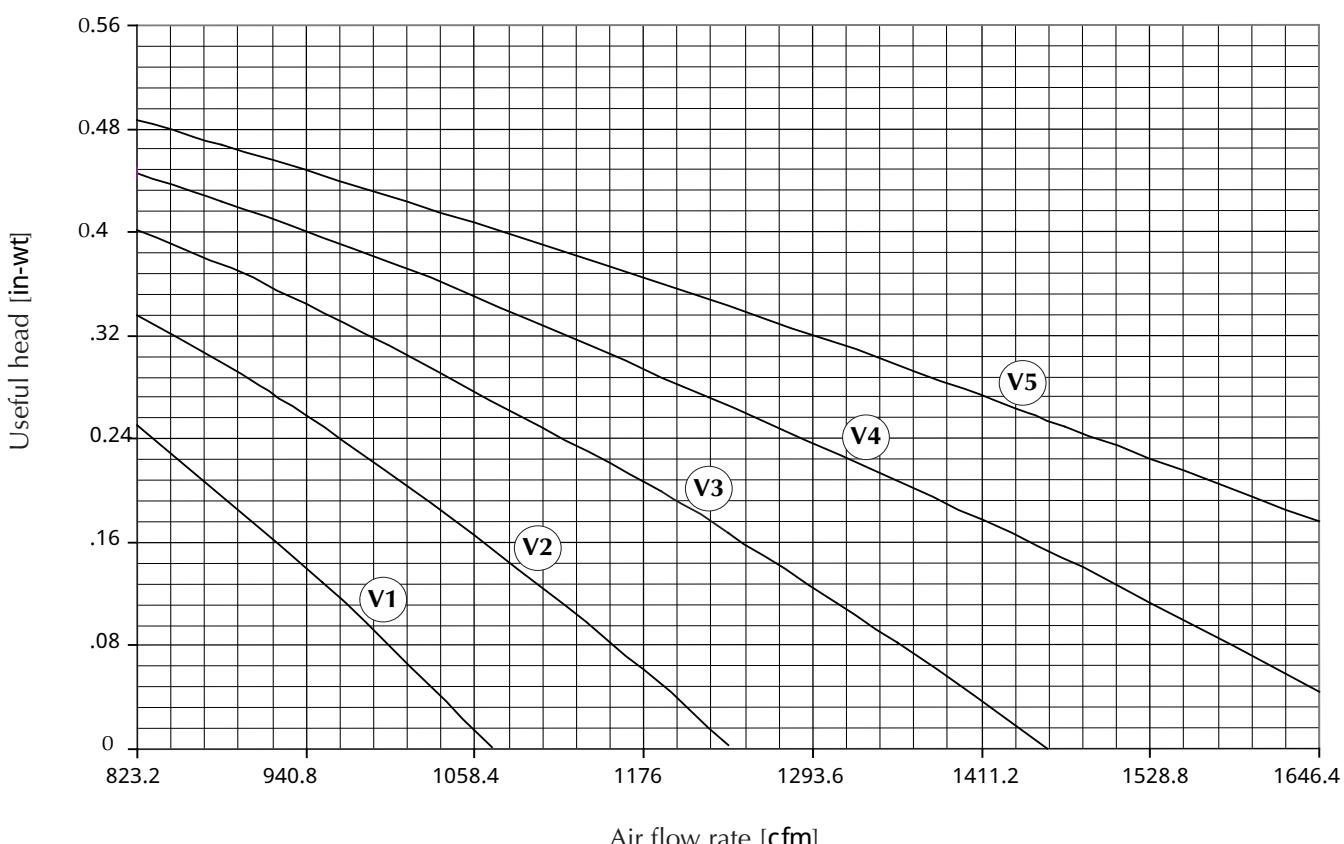
## STATIC PRESSURE

The fan coils in the VED series have been designed to make it possible to adjust the static pressure supplied by the fan upon pressure drops in the duct by choosing an appropriate set of three speeds.  
The graph shows the useful static pressure of the machines with the uprated multispeed motor in function of the air flow rate and speed of the fan (V1...V5).

### VED 730



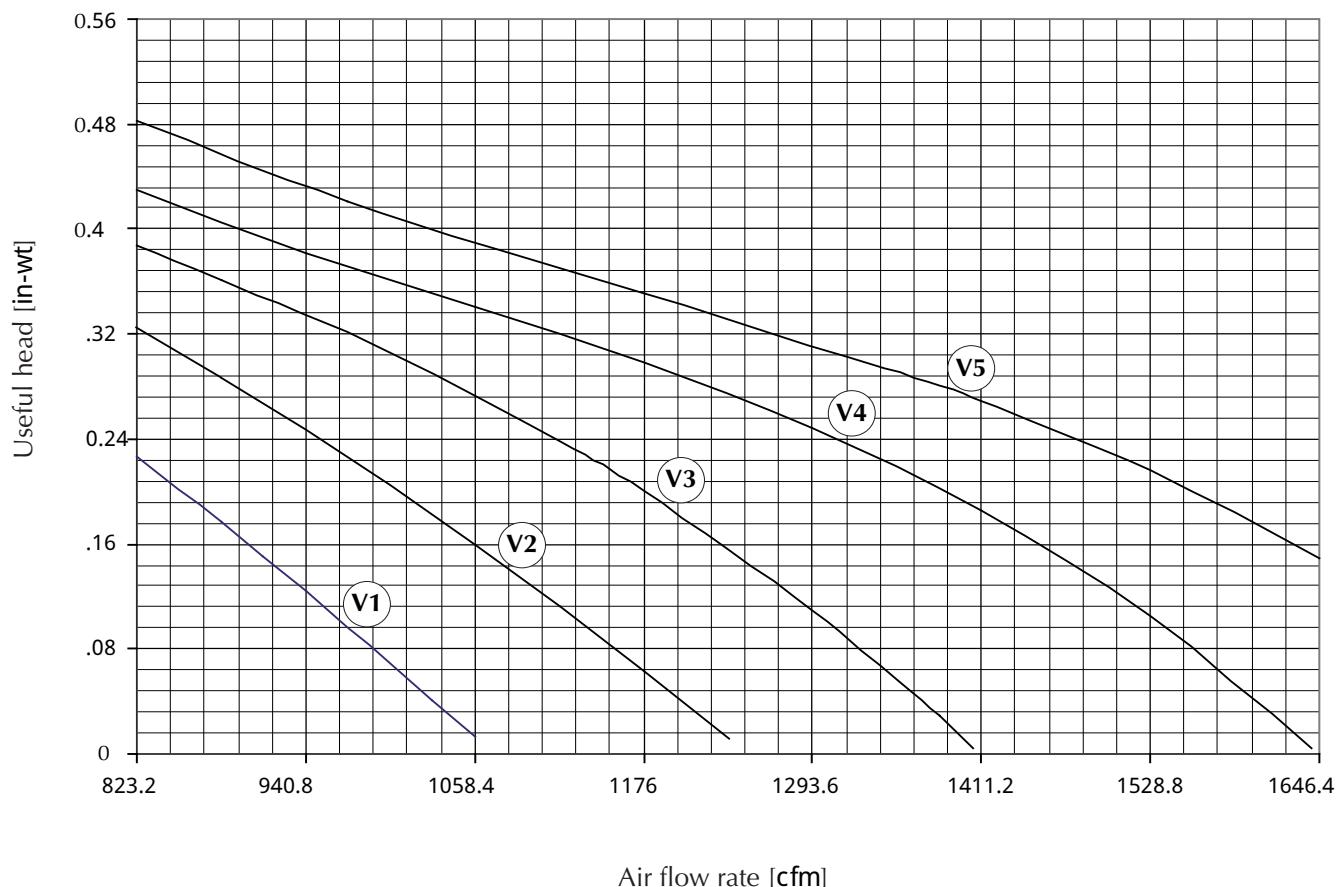
### VED 740



## STATIC PRESSURE

The fan coils in the VED series have been designed to make it possible to adjust the static pressure supplied by the fan upon pressure drops in the duct by choosing an appropriate set of three speeds.  
The graph shows the useful static pressure of the machines with the uprated multispeed motor in function of the air flow rate and speed of the fan (V1...V5).

### VED 732 - VED 741

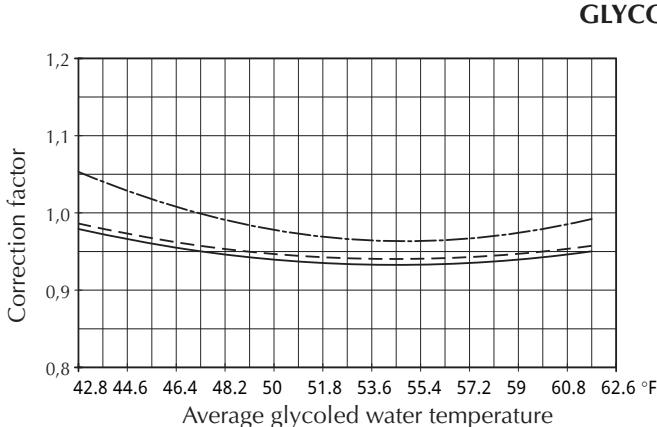


## CORRECTION FACTORS WHEN OPERATING USING GLYCOL WATER

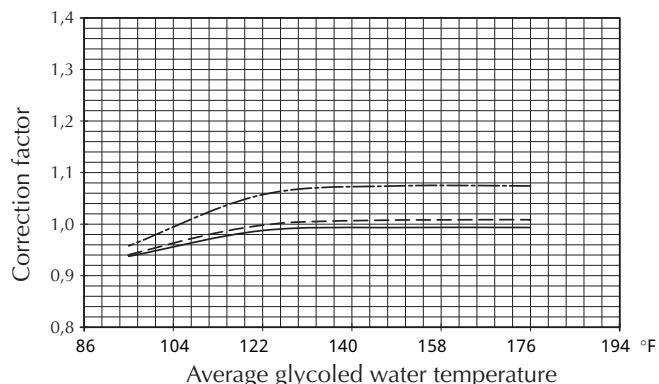
Key:

- Pressure drop
- Reduce air flow
- Yield

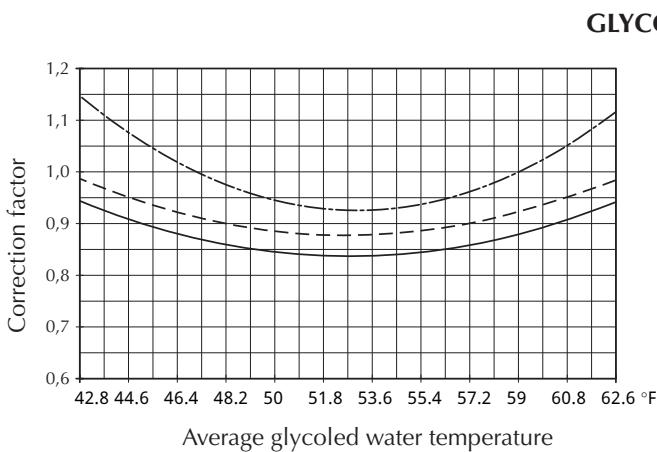
### COOLING FUNCTION MODE



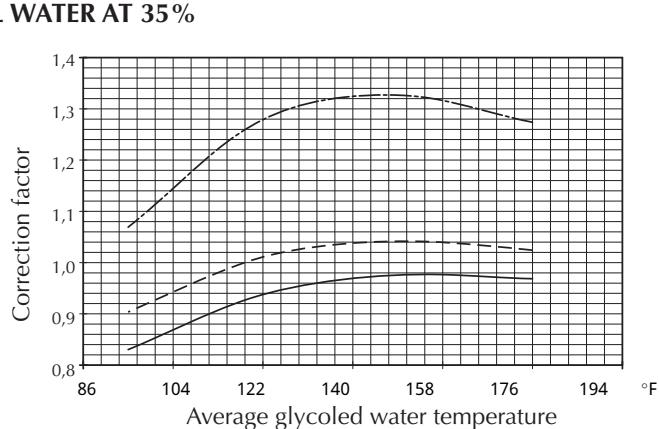
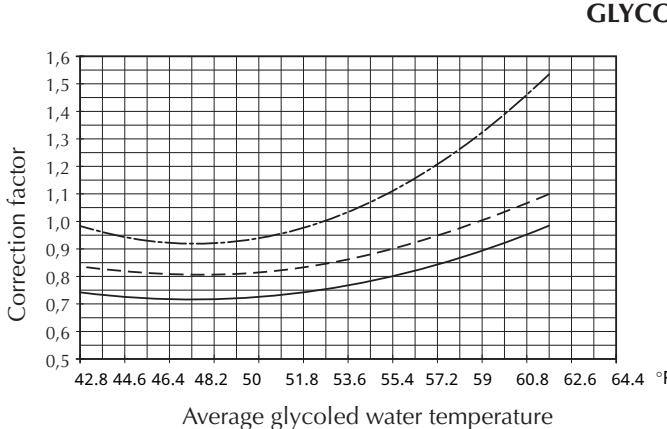
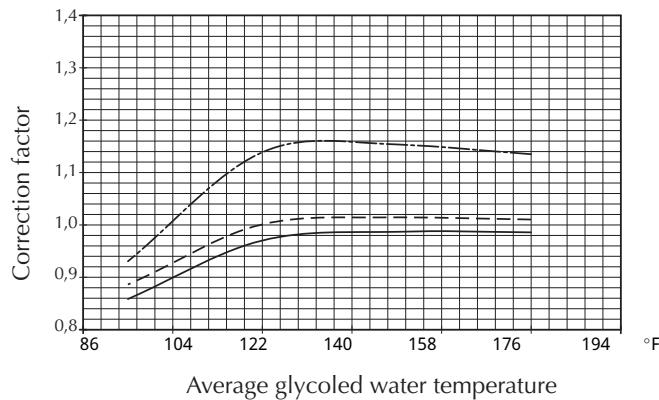
### GLYCOL WATER AT 10%



### HEATING FUNCTION MODE



### GLYCOL WATER AT 20%

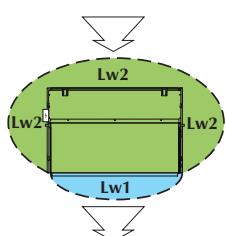


## SOUND POWER LEVEL expressed in dB (A)

### VED 430-440-432-441

Frequency	Maximum			Average			Minimum		
	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1
Hz	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]
100	36.5	35.0	31.0	32.7	31.2	27.2	25.0	23.5	19.5
125	38.6	37.1	33.1	33.5	32.0	28.0	27.7	26.2	22.2
160	43.9	42.4	38.4	39.6	38.1	34.1	32.6	31.1	27.1
200	48.1	46.6	42.6	44.1	42.6	38.6	37.8	36.3	32.3
250	50.8	49.3	45.3	46.9	45.4	41.4	40.5	39.0	35.0
315	51.3	49.8	45.8	47.6	46.1	42.1	41.8	40.3	36.3
400	51.0	49.5	45.5	47.5	46.0	42.0	43.0	41.5	37.5
500	50.6	49.1	45.1	47.3	45.8	41.8	43.0	41.5	37.5
630	51.6	50.1	46.1	47.8	46.3	42.3	44.0	42.5	38.5
800	54.9	53.4	49.4	51.7	50.2	46.2	44.2	42.7	38.7
1000	54.7	53.2	49.2	50.0	48.5	44.5	42.6	41.1	37.1
1250	53.3	51.8	47.8	49.1	47.6	43.6	41.5	40.0	36.0
1600	52.8	51.3	47.3	48.4	46.9	42.9	39.8	38.3	34.3
2000	50.6	49.1	45.1	46.1	44.6	40.6	37.5	36.0	32.0
2500	48.8	47.3	43.3	44.2	42.7	38.7	35.1	33.6	29.6
3150	45.7	44.2	40.2	40.8	39.3	35.3	30.8	29.3	25.3
4000	42.6	41.1	37.1	37.5	36.0	32.0	27.0	25.5	21.5
5000	38.9	37.4	33.4	33.1	31.6	27.6	24.0	22.5	18.5
6300	34.7	33.2	29.2	30.4	28.9	24.9	14.0	12.5	8.5
8000	31.0	29.5	25.5	26.1	24.6	20.6	13.0	11.5	7.5
10000	26.9	25.4	21.4	21.3	19.8	15.8	12.3	10.8	6.8
<b>dB[A] tot.</b>	<b>63.0</b>	<b>61.5 (E)</b>	<b>57.5 (E)</b>	<b>59.0</b>	<b>57.5 (E)</b>	<b>53.5 (E)</b>	<b>52.5</b>	<b>51.0 (E)</b>	<b>47.0 (E)</b>

Acoustic tests carried out in accordance with EUROVENT 8/2 (ISO 3741/2001)



Legend:

**Tot.:** Total sound power level

**Lw1:** Sound power level emitted by the delivery of the unit

**Lw2:** Sound power level emitted by the unit and by the air intake side

(E) = EUROVENT certificate performances 6/3

## SOUND PRESSURE LEVEL expressed in dB (A)

### VED 430-440-432-441

	Maximum			Average			Minimum		
	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1
dB[A]	54.5	53	49	50.5	49	45	44	42.5	38.5

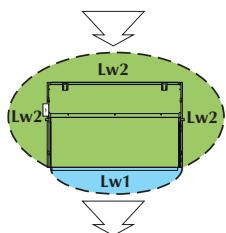
Level of sound pressure (A-weighted) measured in the room with volume  $V = 3001 \text{ ft}^3$ ; reverberation time  $t = 0.5 \text{ s}$ ; direction factor  $Q = 2$ ; distance  $r = 8.2 \text{ ft}$ .

## SOUND POWER LEVEL expressed in dB (A)

### VED 530-540-532-541

	Maximum			Average			Minimum		
Frequency	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1
Hz	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]
100	36.9	35.4	31.4	35.1	33.6	29.6	28.3	26.8	22.8
125	38.9	37.4	33.4	35.9	34.4	30.4	29.7	28.2	24.2
160	44.1	42.6	38.6	41.5	40.0	36.0	35.4	33.9	29.9
200	48.6	47.1	43.1	46.0	44.5	40.5	40.0	38.5	34.5
250	51.1	49.6	45.6	48.6	47.1	43.1	42.9	41.4	37.4
315	51.7	50.2	46.2	49.1	47.6	43.6	44.0	42.5	38.5
400	51.2	49.7	45.7	49.1	47.6	43.6	44.6	43.1	39.1
500	50.8	49.3	45.3	48.8	47.3	43.3	44.7	43.2	39.2
630	51.6	50.1	46.1	49.8	48.3	44.3	45.5	44.0	40.0
800	55.3	53.8	49.8	53.5	52.0	48.0	47.1	45.6	41.6
1000	55.4	53.9	49.9	52.2	50.7	46.7	45.3	43.8	39.8
1250	54.0	52.5	48.5	51.1	49.6	45.6	44.6	43.1	39.1
1600	53.4	51.9	47.9	50.6	49.1	45.1	43.4	41.9	37.9
2000	51.2	49.7	45.7	48.2	46.7	42.7	41.1	39.6	35.6
2500	49.4	47.9	43.9	46.3	44.8	40.8	38.8	37.3	33.3
3150	46.3	44.8	40.8	43.0	41.5	37.5	35.0	33.5	29.5
4000	43.4	41.9	37.9	39.8	38.3	34.3	31.2	29.7	25.7
5000	39.7	38.2	34.2	35.8	34.3	30.3	26.6	25.1	21.1
6300	36.3	34.8	30.8	32.1	30.6	26.6	24.5	23.0	19.0
8000	32.5	31.0	27.0	28.1	26.6	22.6	19.8	18.3	14.3
10000	27.8	26.3	22.3	23.6	22.1	18.1	15.1	13.6	9.6
<b>dB[A] tot.</b>	<b>63.5</b>	<b>62.0 (E)</b>	<b>58.0 (E)</b>	<b>61.0</b>	<b>59.5 (E)</b>	<b>55.5 (E)</b>	<b>55.0</b>	<b>53.5 (E)</b>	<b>49.5 (E)</b>

Acoustic tests carried out in accordance with EUROVENT 8/2 (ISO 3741/2001)



Legend:

**Tot.:** Total sound power level

**Lw1:** Sound power level emitted by the delivery of the unit

**Lw2:** Sound power level emitted by the unit and by the air intake side

(E) =EUROVENT certificate performances

## SOUND PRESSURE LEVEL expressed in dB (A)

### VED 530-540-532-541

	Maximum			Average			Minimum		
	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1
dB[A]	55	53.5	49.5	52.5	51	47	46.5	45	41

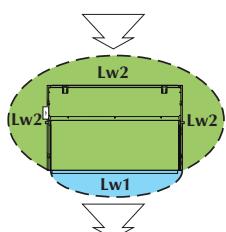
Level of sound pressure (A-weighted) measured in the room with volume  $V = 3001 \text{ ft}^3$ ; reverberation time  $t = 0.5 \text{ s}$ ; direction factor  $Q = 2$ ; distance  $r = 8.2 \text{ ft}$ .

## SOUND POWER LEVEL expressed in dB (A)

### VED 630-640-632-641

Frequency	Maximum			Average			Minimum		
	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1
Hz	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]
100	39.5	38.0	34.0	35.0	33.5	29.5	31.3	29.8	25.8
125	42.0	40.5	36.5	38.5	37.0	33.0	33.8	32.3	28.3
160	47.7	46.2	42.2	43.7	42.2	38.2	38.6	37.1	33.1
200	51.7	50.2	46.2	47.7	46.2	42.2	42.9	41.4	37.4
250	53.0	51.5	47.5	49.2	47.7	43.7	44.7	43.2	39.2
315	54.0	52.5	48.5	50.5	49.0	45.0	46.1	44.6	40.6
400	54.8	53.3	49.3	52.0	50.5	46.5	48.4	46.9	42.9
500	57.0	55.5	51.5	54.3	52.8	48.8	50.9	49.4	45.4
630	57.0	55.5	51.5	54.1	52.6	48.6	49.9	48.4	44.4
800	60.1	58.6	54.6	57.0	55.5	51.5	51.9	50.4	46.4
1000	62.8	61.3	57.3	59.5	58.0	54.0	54.7	53.2	49.2
1250	62.5	61.0	57.0	59.0	57.5	53.5	53.5	52.0	48.0
1600	60.5	59.0	55.0	56.2	54.7	50.7	50.2	48.7	44.7
2000	57.8	56.3	52.3	53.6	52.1	48.1	47.2	45.7	41.7
2500	54.4	52.9	48.9	50.0	48.5	44.5	43.9	42.4	38.4
3150	50.8	49.3	45.3	46.5	45.0	41.0	39.7	38.2	34.2
4000	47.7	46.2	42.2	42.7	41.2	37.2	34.3	32.8	28.8
5000	43.2	41.7	37.7	37.0	35.5	31.5	28.3	26.8	22.8
6300	38.6	37.1	33.1	32.3	30.8	26.8	23.8	22.3	18.3
8000	35.2	33.7	29.7	28.7	27.2	23.2	20	18.5	14.5
10000	30.2	28.7	24.7	23.7	22.2	18.2	15.2	13.7	9.7
dB[A] tot.	69.5	68.0 (E)	64.0 (E)	66.0	64.5 (E)	60.5 (E)	61.0	59.5 (E)	55.5 (E)

Acoustic tests carried out in accordance with EUROVENT 8/2 (ISO 3741/2001)



Legend:

**Tot.:** Total sound power level

**Lw1:** Sound power level emitted by the delivery of the unit

**Lw2:** Sound power level emitted by the unit and by the air intake side

(E) =EUROVENT certificate performances 6/3

## SOUND PRESSURE LEVEL expressed in dB (A)

### VED 630-640-632-641

	Maximum			Average			Minimum		
	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1
dB[A]	61	59.5	55.5	57.5	56	52	52.5	51	47

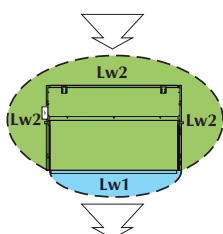
Level of sound pressure (A-weighted) measured in the room with volume  $V = 3001 \text{ ft}^3$ ; reverberation time  $t = 0.5 \text{ s}$ ; direction factor  $Q = 2$ ; distance  $r = 8.2 \text{ ft}$ .

## SOUND POWER LEVEL expressed in dB (A)

### VED 730-740-732-741

Frequency	Maximum			Average			Minimum		
	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1
Hz	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]	dB[A]
100	39.1	37.6	33.6	36.0	34.5	30.5	32.5	31.0	27.0
125	42.4	40.9	36.9	39.8	38.3	34.3	36.0	34.5	30.5
160	48.1	46.6	42.6	45.2	43.7	39.7	41.0	39.5	35.5
200	52.3	50.8	46.8	49.4	47.9	43.9	45.2	43.7	39.7
250	53.3	51.8	47.8	50.8	49.3	45.3	46.8	45.3	41.3
315	54.2	52.7	48.7	51.9	50.4	46.4	48.3	46.8	42.8
400	55.3	53.8	49.8	53.3	51.8	47.8	50.3	48.8	44.8
500	57.4	55.9	51.9	55.6	54.1	50.1	52.8	51.3	47.3
630	57.5	56.0	52.0	55.5	54.0	50.0	51.9	50.4	46.4
800	60.5	59.0	55.0	58.6	57.1	53.1	54.5	53.0	49.0
1000	63.4	61.9	57.9	60.9	59.4	55.4	57.1	55.6	51.6
1250	63.1	61.6	57.6	60.5	59.0	55.0	56.4	54.9	50.9
1600	61.0	59.5	55.5	58.1	56.6	52.6	53.2	51.7	47.7
2000	58.3	56.8	52.8	55.4	53.9	49.9	50.4	48.9	44.9
2500	54.9	53.4	49.4	51.8	50.3	46.3	46.9	45.4	41.4
3150	51.3	49.8	45.8	48.3	46.8	42.8	43.2	41.7	37.7
4000	48.0	46.5	42.5	44.8	43.3	39.3	38.4	36.9	32.9
5000	43.5	42.0	38.0	39.5	38.0	34.0	32.5	31.0	27.0
6300	39.0	37.5	33.5	34.8	33.3	29.3	27.8	26.3	22.3
8000	35.7	34.2	30.2	31.2	29.7	25.7	24.0	22.5	18.5
10000	30.8	29.3	25.3	26.2	24.7	20.7	19.1	17.6	13.6
<b>dB[A] tot.</b>	<b>70.0</b>	<b>68.5 (E)</b>	<b>64.5 (E)</b>	<b>67.5</b>	<b>66.0 (E)</b>	<b>62.0 (E)</b>	<b>63.5</b>	<b>62.0 (E)</b>	<b>58.0 (E)</b>

Acoustic tests carried out in accordance with EUROVENT 8/2 (ISO 3741/2001)



Legend:

**Tot.:** Total sound power level

**Lw1:** Sound power level emitted by the delivery of the unit

**Lw2:** Sound power level emitted by the unit and by the air intake side

(E) = EUROVENT certificate performances 6/3

## SOUND PRESSURE LEVEL expressed in dB (A)

### VED 730-740-732-741

	Maximum			Average			Minimum		
	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1	Tot.	Lw2	Lw1
<b>dB[A]</b>	61.5	60	56	59	57.5	53.5	55	53.5	49.5

Level of sound pressure (A-weighted) measured in the room with volume  $V = 3001 \text{ ft}^3$ ; reverberation time  $t = 0.5 \text{ s}$ ; direction factor  $Q = 2$ ; distance  $r = 8.2 \text{ ft}$ .

## ACCESSORIES

Consult the compatibility table to make your choice.

Accessories	VED fancoil															
	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
<b>Intake connections and plenum</b>																
RDA450V	✓	✓	✓	✓	✓	✓	✓	✓								
RDA670V										✓	✓	✓	✓	✓	✓	✓
RPA45 V	✓	✓	✓	✓	✓	✓	✓	✓								
RPA670V										✓	✓	✓	✓	✓	✓	✓
PA450V	✓	✓	✓	✓	✓	✓	✓	✓								
PA670V										✓	✓	✓	✓	✓	✓	✓
<b>Delivery connections and plenum</b>																
RPM450V	✓	✓	✓	✓	✓	✓	✓	✓								
RPM670V										✓	✓	✓	✓	✓	✓	✓
PM450V	✓	✓	✓	✓	✓	✓	✓	✓								
PM670V										✓	✓	✓	✓	✓	✓	✓
<b>Circular flange for intake and delivery plenum</b>																
KFV	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Three-way water valve for main coil</b>																
VCF45C	✓	✓	✓	✓	✓	✓	✓	✓								
VCF47C										✓	✓	✓	✓	✓	✓	✓
<b>Two-way water valve for main coil</b>																
VCF25C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Three-way water valve for heating only coil</b>																
VCF45H		✓		✓		✓		✓								
VCF47H											✓		✓		✓	
<b>Two-way water valve for heating only coil</b>																
VCF25H		✓		✓		✓		✓		✓		✓		✓		✓
<b>Control panels, interface cards and probes</b>																
SIT3*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
WMT05	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
WMT06	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
WMT10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SIT5**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PXAE**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SW3***	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>VMF System - Thermostats, control panels and system components</b>																
VMF-SIT3****	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VMF-E0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VMF - E1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VMF-SW	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
•VMF-SW1:	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VMF-E4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
•VMF-E5B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
•VMF-E5N	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

\* SIT3 = Accessory compulsory on VED units combined with thermostats different from the VMF System

\*\* SIT5 = Accessory compulsory on VED units combined with a networked centralised PXAE panel

\*\*\* SW3 = Water temperature probe for PXAE

\*\*\*\* VMF-SIT3 = Mandatory accessory to be combined with or VMF-E0 or VMF-E1 thermostats

## POSSIBLE CONFIGURATIONS OF THE VED FAN COILS WITH THE AVAILABLE THERMOSTATS

ACCESSORY	NOTES	Single unit						Fan coil network					
		VED 4X - 5X	VED 6X - 7X	VED 4X - 5X	VED 6X - 7X	VED 4X - 5X	VED 6X - 7X	VED 4X - 5X	VED 6X - 7X	VED 4X - 5X	VED 6X - 7X	VED 4X - 5X	VED 6X - 7X
FAN COIL CONFIGURATION													
		Without valves	Two pipe circuit with valve	Four pipe circuit with valve	VED network Without valves	VED network Two pipe circuit with valve							

### VED combined with VMF-System series control devices

<b>VMF-SIT3 (4A)</b>	Thermostat interface	Mandatory accessory Mandatory accessory between the VED fan coil and the VMF-E0 or VMF-E1 thermostats	Permitted combinations (mandatory combination with VMF-SIT3)
<b>VMF-E0 (0.7A) VMF-E1 (0.7A)</b>	VMF-System thermostats Obligatory accessories	Permitted combinations (mandatory combination with VMF-SIT3)	Possible combinations: VMF-E1 (Master) + VMF-E1 (Slave) VMF-E1 (Master) + VMF-E0 (Slave) VMF-E0 (Master) + VMF-E0 (Slave)
<b>VMF-E4</b>	VMF-System control panels	Single unit To be combined with thermostats VMF-E0 and VMF-E1	Fan coil network To be combined with thermostats VMF-E0 (Master) and VMF-E1 (Master)
<b>VMF - E5</b>	Control panel for VMF-E1 stand alone or for a VMF network in which the first is a VMF-E1.	Single unit To be combined with a VMF-E1 thermostat	Fan coil network To be combined with VMF-E1 (Master) thermostats

### VED combined with control panels with thermostat

<b>PXAE (1.1A)</b>	Command panels with thermostat	Combinations allowed for installation on a single unit (mandatory combination with SIT3)	Combinations permitted for networked VED fan coils installation (mandatory combination with SIT3 + SIT5)
<b>WMT05 (3A)</b>	Command panels with thermostat	Permitted Not permitted	Permitted with SIT3 Not permitted Not permitted
<b>WMT06 (3A)</b>	Command panels with thermostat	Permitted	Permitted with SIT3 Permitted with SIT3 Not permitted
<b>WMT10 (1.4A)</b>	Command panels with thermostat	Permitted with SIT3 Permitted with SIT3 Permitted with SIT3 Permitted with SIT3	Permitted with SIT3 Permitted with SIT3 Permitted with SIT3
<b>SIT3 (4A)</b>	Control panel interface	Mandatory accessory in a VED network (max 3), one for each unit controlled by control panels with thermostat. Interface mandatory between the VED fan coils and the WMT10 control panels (as indicated in the table)	Not permitted
<b>SIT5 (4A)</b>	PXAE Control panel network interface		Interface mandatory between the VED fan coils and the PXAE control panels
<b>SW3</b>	Water temperature probe	PXAE control panel dedicated accessory	

## ACCESSORIES

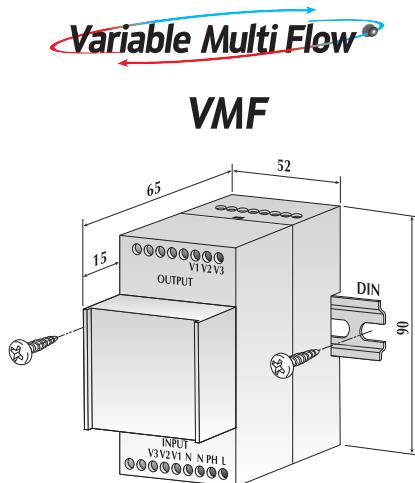
### ACCESSORIES MANDATORY FOR THE OPERATION:

• **VMF-SIT3** : VMF System thermostat interface card Mandatory accessory on the VED unit equipped with VMF-E0 or VMF-E1 thermostat. The VMF-SIT3 accessory sends back the control of the three speeds to the fan coils.

• **SIT3** : Thermostat interface card Accessory compulsory on VED units combined with thermostats different from the VMF System. The SIT3 accessory sends back the control of the three speeds to the fan coils.

• **SIT5** : Thermostat interface card Accessory compulsory on the VED unit with up to 2 water valves, combined to the PXAE control panel. The SIT5 accessory sends back the control of the three speeds and the valves to the fan coils.

### VMF-SIT3 INTERFACE CARD DEDICATED TO THE VMF SERIES THERMOSTATS



#### Thermostat interface card dedicated to the VMF thermostats

The VMF-SIT3 accessory sends back the control of the three speeds to the fan coils.

The VMF-SIT3 thermostat interface card is dedicated to the fan coils with VMF E0/E1 thermostats, except for the models in which the absorption of the motor does not exceed 0.7 A.

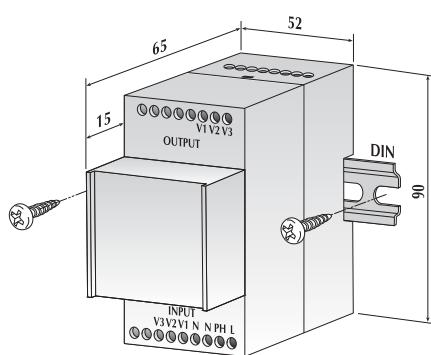
**⚠ Each fan col must be interfaced with the VMF-SIT3 card.**

VMF-SIT3 is equipped with a 2A fuse to protect the fan coil.

If the fan coil absorbs more than 2A and up to 4A, the internal fuse must be replaced with a 4A fuse, (supplied).

The VMF-SIT3 accessory can no longer be used for absorptions over 4A.

### SIT3 - SIT5 INTERFACE CARDS



#### SIT 3

Each fan coil fitted with SIT3 card becomes a Slave and can be controlled from a centralised control panel with electromechanical selector or with SIT 5. The accessory sends back the control of the three speeds to the fan coils.

**⚠ 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 SIT5 accessory, Master interface card, is connected to the electronic control panels with or without control of the valves and/or the electric resistors.

The accessory sends back the control of the three speeds to the fan coils.

**⚠ The PXAE electronic control panels or those with valve control must also be interfaced with a SIT5 .**

**VMF - VARIABLE MULTI FLOW SYSTEM****• VMF: Variable Multi Flow system**

Management and control system of hydronic systems for the conditioning, heating and production of domestic hot water.

The VMF system allows complete control of every component of a hydronic system both locally and centrally and, communicating between the various components of the system, manages the performance without ever neglecting the end user's request of comfort, but reaching it as efficiently as possible with energy saving.

Summing up the advantages of this innovative control with the flexibility of a hydronic system, a more effective and efficient alternative to the variable refrigerant flow systems (VRF) is obtained.

The VMF system is extremely flexible, enough to allow various control and manage steps, expandable at different moments:

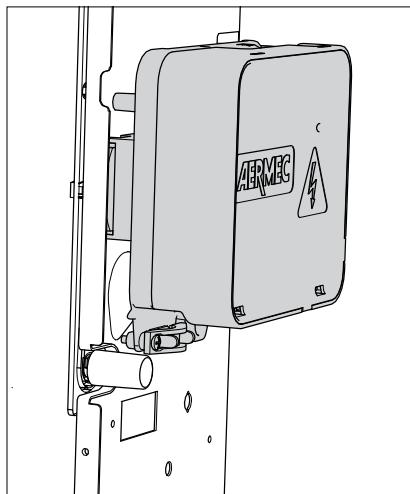
- 1) Control of a single fancoil
- 2) Control of a microzone (one MASTER fancoil and a maximum of 5 SLAVE fancoils)

**Variable Multi Flow**

- 3) Control of multi independent zones system (one MASTER fancoil and a maximum of 5 SLAVE fancoils for each zone)
  - 4) Control of a fancoil system, plus management of the heat pump (if compatible with the VMF system)
  - 5) Control of a fancoil system, heat pump and management of the domestic hot water system (VMF-DHW)
  - 6) Control of a fancoil system, heat pump, domestic hot water production and additional circulators (up to a maximum of 12 using three additional VMF-CRP modules).
  - 7) Control of a fancoil system, heat pump, domestic hot water production, additional circulators and management of heat recovery units, maximum 3, (with the ability to handle up to 3 VMF-VOC probes) or a boiler.
- The VMF system can operate and manage, through a VMF-E5 panel, a maximum of 64 zones consisting of a MASTER fancoil and a maximum of

5 SLAVE fancoils connected to each MASTER, for a total of 384 fancoils

- Besides the central control supplied by the VMF-E5 panel, the MASTER fancoils must be provided with a local control interface; this interface can be assembled on the fancoil (VMF-E2 / VMF-E2H) or on a wall panel (VMF-E4)
- Different functions can be controlled through the VMF-E5 panel, including :
  - Identify the different zones setting a name for each one
  - Check and set the ON-OFF function and the set temperature of each zone
  - Set and manage the set temperature of the heat pump
  - Scheduling time slots
- Simple installation of the fancoil system through the SELF-MONITORING function of the MASTER fancoils

**VMF-E0 ELECTRONIC THERMOSTAT FOR FANCOILS**

**⚠ Each thermostat applied to a VED series unit must be interfaced with a VMF-SIT3 card.**

The VMF-E0 accessory is an advanced electronic thermostat kit to be applied

to the fan coils; requires a wall mounted interface (VMF-E4).

The VMF-E0 thermostat must be applied to the side of the fan coil.

**The VMF-E0 kit consists of:**

- an E0-type thermostat board inserted in a protective box and easily applied to the side of the fan coil. The E0-type thermostat board has a protective fuse, a dip-switch for configuration, and connectors for connection with:
  - the power supply,
  - the earthing,

- the valve control,
- the fan motor control,
- external air temperature sensor,
- water temperature sensor,
- the control panel (user interface),
- the external contact,
- the fan coil network serial (TTL).

- 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.
- Microswitch for fin contact.
- Anti-freeze function.
- Communication with other thermostats, via a dedicated serial based on the TTL logic standards.

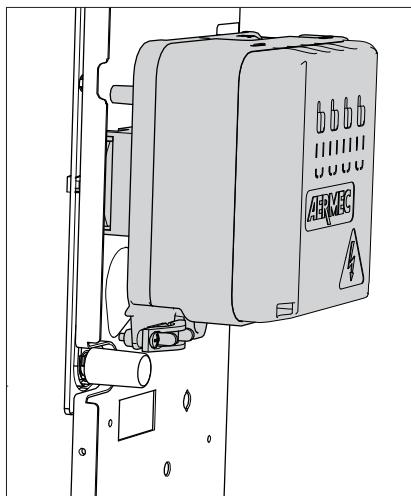
**With the VMF-E0, you can manage:**

- Three fan coil speeds in manual mode
- Continuous ventilation and thermostat control, by controlling the valves.
- Automatic fan mode according to the load.
- 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.
- A germicidal lamp.
- Plasmacluster filter.
- An air temperature sensor.
- A water temperature probe, with minimum and maximum temperature and changeover functions.
- Season change according to the water or air temperature (4-pipe systems).

**⚠ WARNING! :** Not all accessory features are applicable to the unit. Check the compatibility of the functions with the configuration of the unit and other accessories used. For complete information concerning the functions, refer to the technical manuals of the unit and the accessories.

## ACCESSORIES

### VMF-E1 ELECTRONIC THERMOSTAT FOR FANCOILS



**⚠ Each thermostat applied to a VED series unit must be interfaced with a VMF-SIT3 card.**

The VMF-E1 of the unit accessory is an advanced electronic thermostat kit to be

applied to the fan coils; requires a wall mounted interface (VMF-E4).

The VMF-E1 thermostat must be applied to the side of the fan coil.

#### VMF-E1 comprises:

- An E1-type thermostat board inserted in a protective box and easily applied to the side of the fan coil. This board has a protective fuse, a dip-switch for configuration, and connectors for connection with:
  - the power supply,
  - the earthing,
  - the valve control,
  - the fan motor control,

- external air temperature sensor,
- water temperature sensor,
- auxiliary water temperature sensor,
- the control panel (user interface),
- the presence sensor,
- the external contact,
- the central supervisor system serial (VMF-E5),
- the fan coil network serial (TTL).

#### With the VMF-E1, you can manage:

- Three fan coil speeds in manual mode
- Continuous ventilation and thermostat control, by controlling the valves.
- Automatic fan mode according to the load.
- 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.
- A germicidal lamp.
- Plasmacluster filter.
- An air temperature sensor.

- A water temperature probe, with minimum and maximum temperature and changeover functions.
- An additional water probe (accessory) 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.

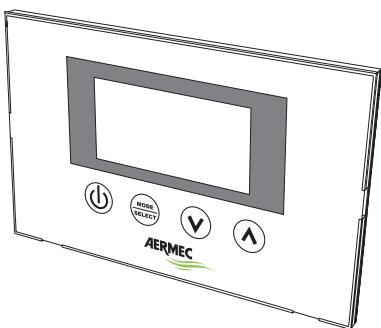
- Microswitch for fin contact.
- Anti-freeze function.
- Presence sensor
- Input for supervision serial. In networks made up of several fan coils subdivided into independent temperature areas, the VMF-E1 area regulator allows communication with a central system supervisor (VMF-E5)
- Communication with other thermostats, via a dedicated serial based on the TTL logic standards.

**⚠ WARNING! :** Not all accessory features are applicable to the unit. Check the compatibility of the functions with the configuration of the unit and other accessories used. For complete information concerning the functions, refer to the technical manuals of the unit and the accessories.

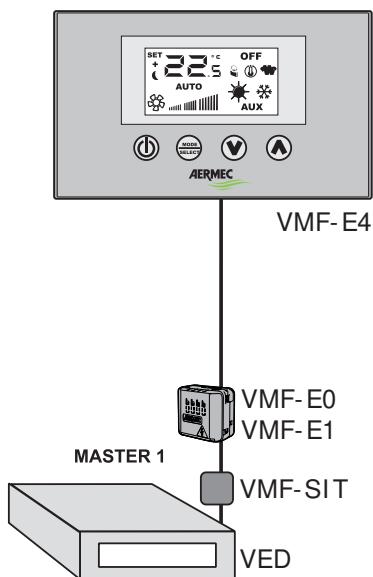
## ACCESSORIES

### VMF-E4 VMF SERIES THERMOSTATS CONTROL PANEL, WALL MOUNTING

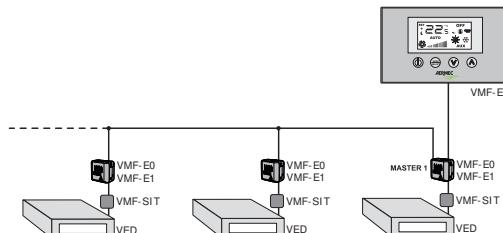
**VMF-E4**



#### Control panel connection for a single unit



#### Control of a TTL network with fancoil (up to 6)



Wall mounted wire connected electronic control panel, advanced interface for VMF series thermostats.

Must be combined to VMF-E0 or VMF-E1 thermostats.

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).

#### Usage:

- control panel for a single fancoil;
- a single control panel to control a TTL network with up to 6 fancoils;
- control panel to control a TTL network (zone) with up to 6 fancoils placed in a higher-level network;

The following can be selected from the control panel:

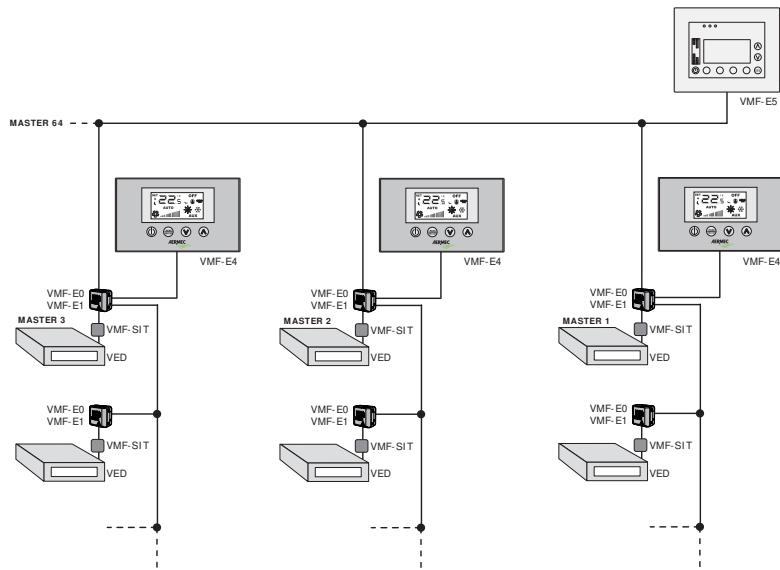
- automatic or manual ventilation speed with 20 positions displayed by graduated bar;
- the external temperature;
- the operating mode.

The digital display also shows:

- the set temperature;
- the external temperature;
- possible alarms.

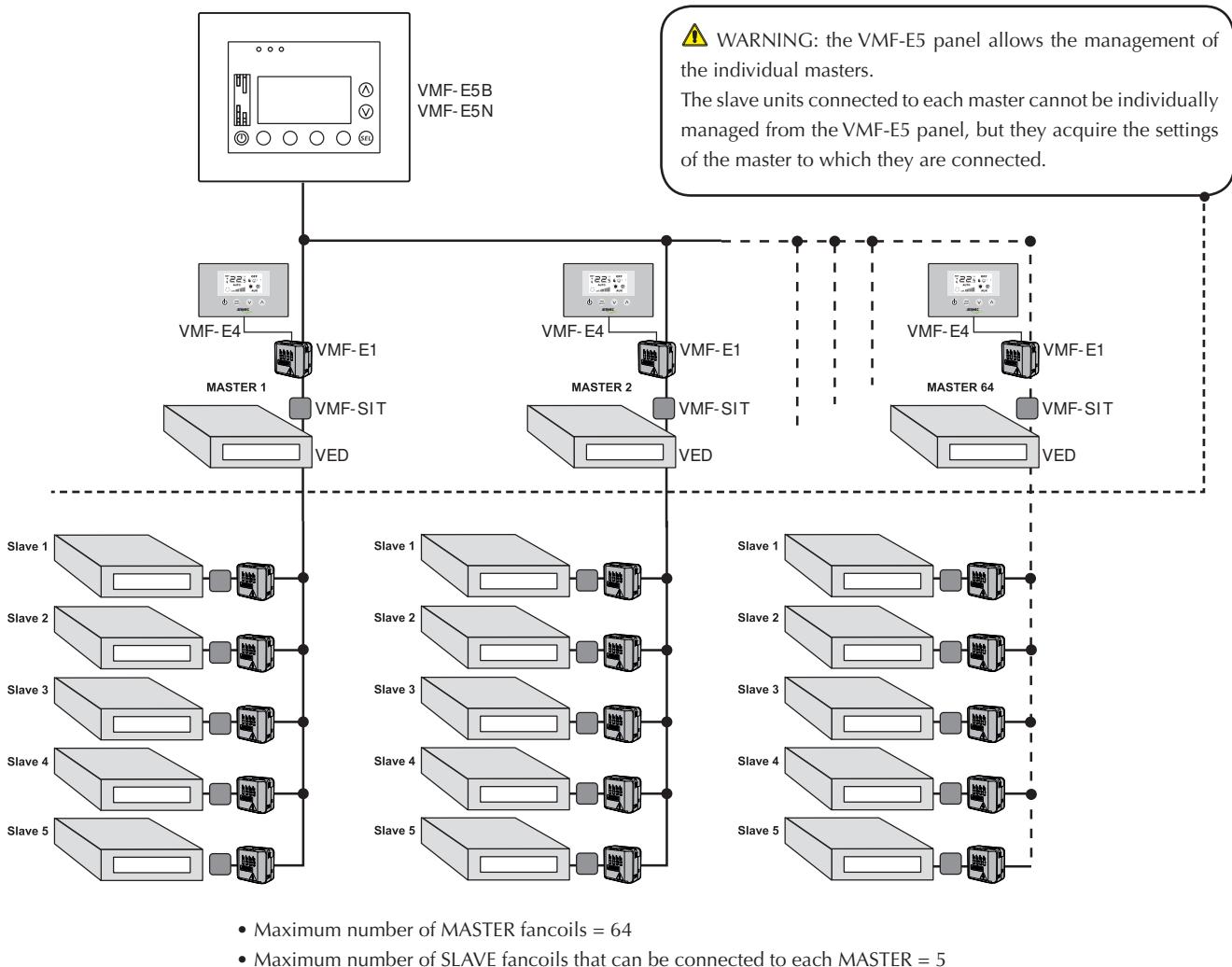
**⚠ CAUTION! :** Not all accessory features are applicable to the unit. Check the compatibility of the functions with the configuration of the unit and other accessories used. For complete information concerning the functions, refer to the technical manuals of the unit and the accessories.

#### Zone control (up to 6 fancoils) in a network of up to 64 zones (up to 384 fancoils)



## ACCESSORIES

### VMF-E5B / VMF-E5N SYSTEM'S MAIN SUPERVISION INTERFACE



Built-in panel available in two colours, VMF-E5B white and VMF-E5N black with graphic LCD backlit display and capacitive keyboard, allows the centralised control/command 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 pCO<sub>2</sub> / PCO<sup>3</sup> (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.

**CAUTION!** : Not all accessory features are applicable to the unit. Check the compatibility of the functions with the configuration of the unit and other accessories used. For complete information concerning the functions, refer to the technical manuals of the unit and the accessories.

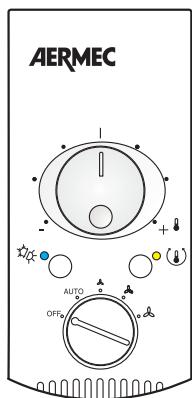
## ACCESSORIES

### CONTROL PANELS AND THERMOSTATS - ACCESSORIES COMPULSORY FOR THE OPERATION:

The full characteristics of the control panels are described on the appropriate card. See the accessory instructions for further information.

Some control panels need to be combined with other accessories, see the related documentation.

#### PXAE CONTROL PANEL WITH MULTIFUNCTION ELECTRONIC THERMOSTAT



Multifunction electronic room thermostat for fan coils on two or three 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.

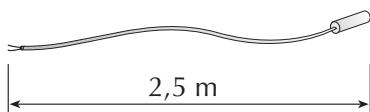
It can control up to two On-Off valves. Continuous or thermostat-controlled ventilation.

The minimum water temperature SW3 probe is available as an accessory. It

interrupts the heating operation when the water temperature is below 95°F. See the accessory instructions for further information.

Wall-mounting.

#### SW3 MINIMUM WATER TEMPERATURE SENSOR



Water temperature probe SW3 accessory for use with PXAE control panels.

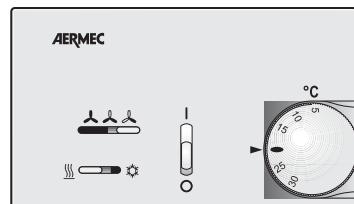
Detects the water temperature in the heating coil, to prevent the operation of the fan coils when the water temperature is less than 95° F. The SW3

sensors are arranged for 230V single phase power supply.

The probe has a 8.2 ft long cable.

#### WMT05 CONTROL PANEL WITH THERMOSTAT

WMT05



Electronic thermostat for fan coils installed on two-pipe systems.

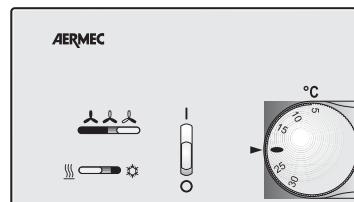
The panel is electrically protected by an internal fuse.

See the accessory instructions for further information.

Wall-mounting.

#### WMT06 CONTROL PANEL WITH THERMOSTAT

WMT05



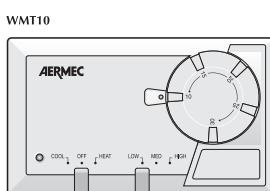
Electronic thermostat for fan coils installed on two-pipe and four-pipe systems.

The panel is electrically protected by an internal fuse.

See the accessory instructions for further information.

Wall-mounting.

#### WMT10 CONTROL PANEL WITH ELECTROMECHANICAL THERMOSTAT



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.

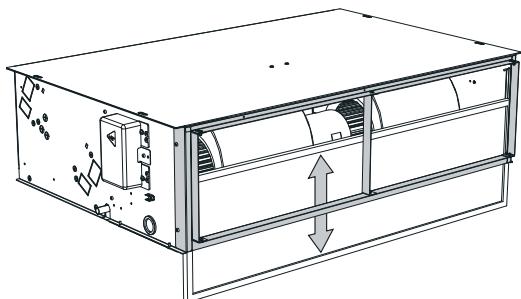
See the accessory instructions for further information.

Wall-mounting.

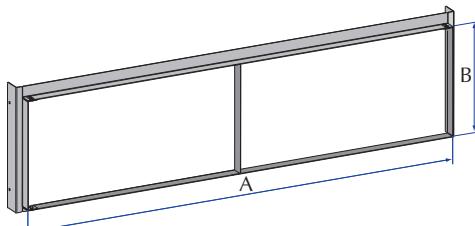
## ACCESSORIES

### DUCTING ACCESSORIES:

#### RDA\_V STRAIGHT INTAKE COUPLING

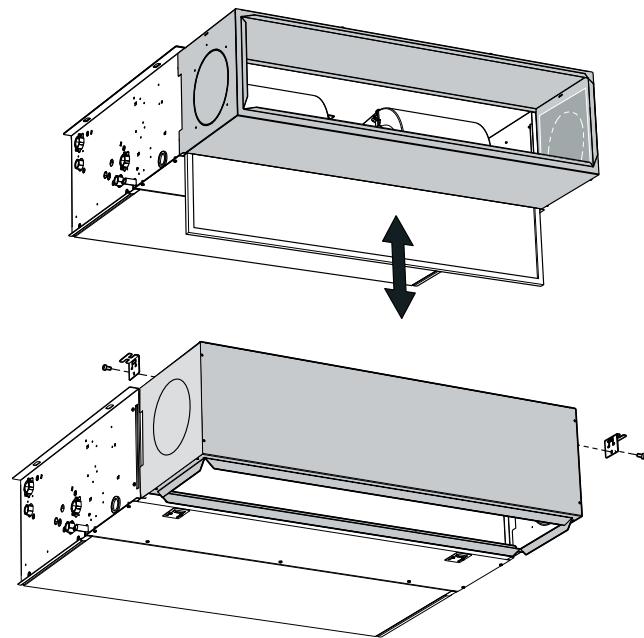


Straight intake coupling with rectangular flange for ducting. In galvanised steel. Air filter can also be housed.



DIMENSIONS [mm]		
MOD.	A	B
RDA450V	1053	257
RDA670V	1453	308

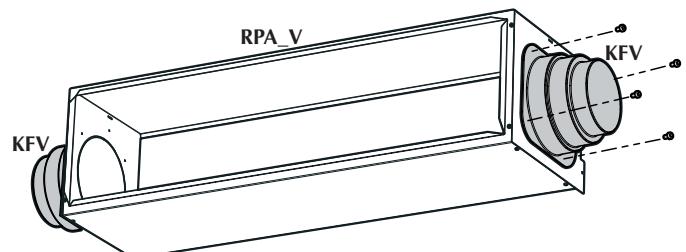
#### RPA\_V INTAKE PLENUM WITH RECTANGULAR FLANGE



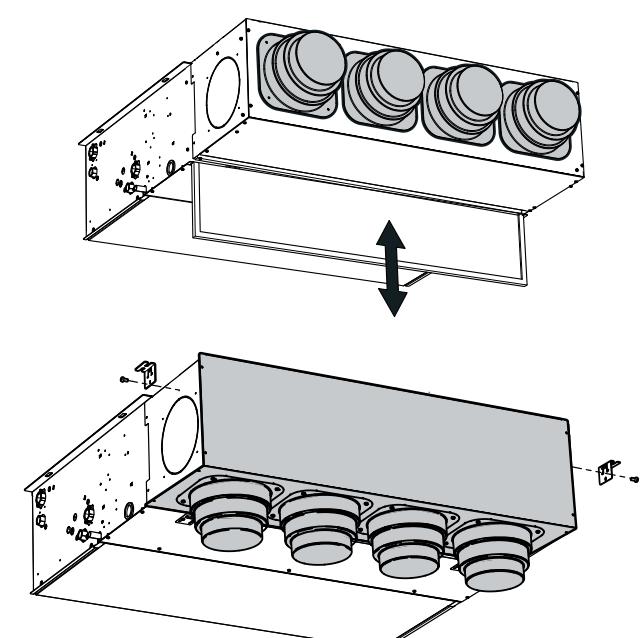
RPA\_V is an intake plenum with rectangular flange made of galvanised steel. This accessory allows to connect a duct of rectangular section to the inlet of the VED unit.

Due to the different system needs, the RPA\_V accessory allows the intake both longitudinally and perpendicularly to the air flow passing through the VED unit.

A circular duct can be connected to the sides of the RPA\_V intake plenum by means of the accessory KFV.

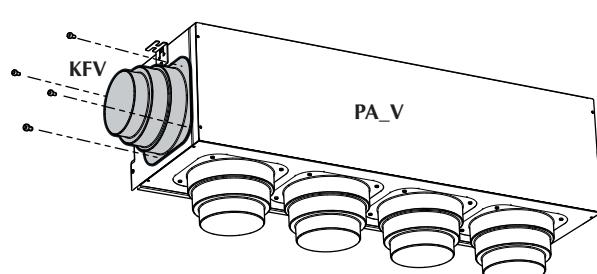


#### PA\_V INTAKE PLENUM WITH CIRCULAR FLANGE



PA\_V is a galvanised steel intake plenum with a plastic variable section circular flange. This accessory allows to connect ducts of circular section to the inlet of the VED unit. Due to the different system needs, the PA\_V accessory allows the intake both longitudinally and perpendicularly to the air flow passing through the VED unit.

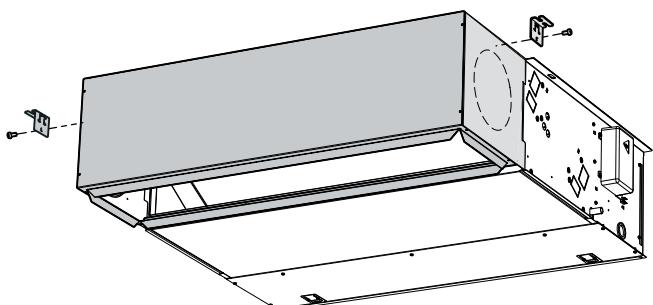
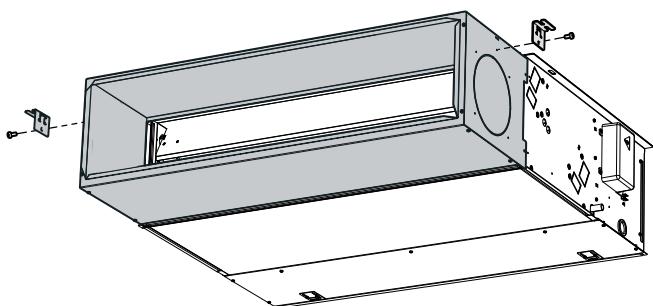
A circular duct can be connected to the sides of the PA\_V intake plenum by means of the accessory KFV.



## ACCESSORIES

### DUCTING ACCESSORIES:

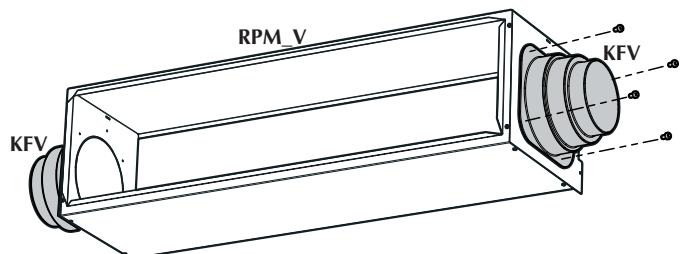
#### RPM\_V DELIVERY PLENUM WITH RECTANGULAR FLANGE



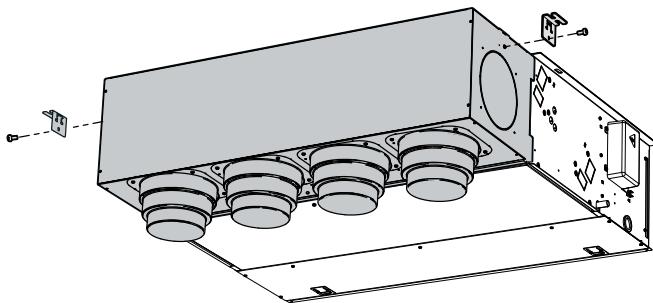
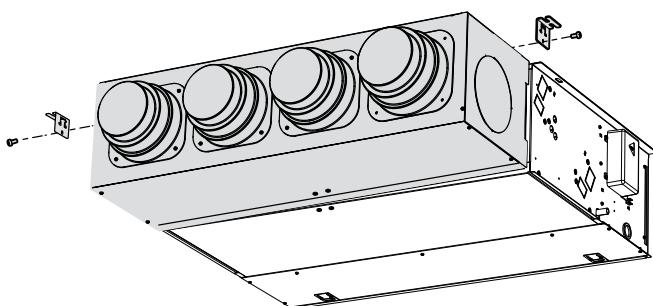
RPM\_V is an internally insulated galvanised steel delivery plenum with rectangular flange. This accessory allows to connect a duct of rectangular section to the delivery outlet of the VED unit.

Due to the different system needs, the RPM\_V accessory allows the delivery both longitudinally and perpendicularly to the air flow passing through the VED unit.

A circular duct can be connected to the sides of the RPM\_V delivery plenum by means of the accessory KFV.



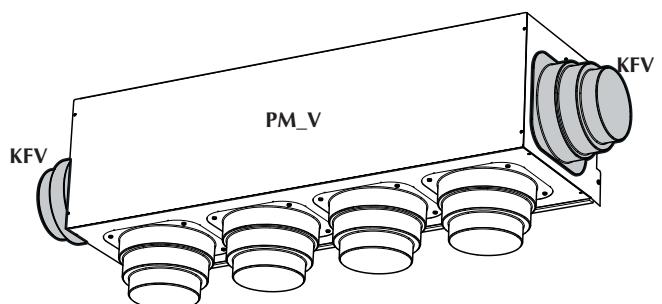
#### PM\_V DELIVERY PLENUM WITH CIRCULAR FLANGE



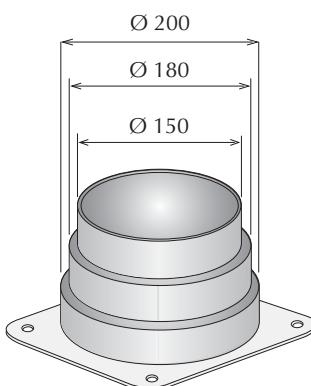
PM\_V is an internally insulated galvanised steel delivery plenum with a plastic variable section circular flange. This accessory allows to connect ducts of circular section to the delivery outlet of the VED unit.

Due to the different system needs, the PM\_V accessory allows the delivery both longitudinally and perpendicularly to the air flow passing through the VED unit.

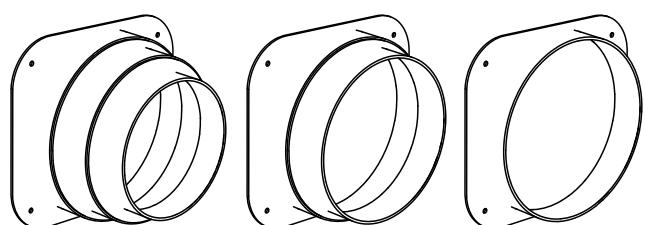
A circular duct can be connected to the sides of the PM\_V delivery plenum by means of the accessory KFV.



#### KFV CIRCULAR FLANGE KIT FOR INTAKE OR DELIVERY PLENUMS

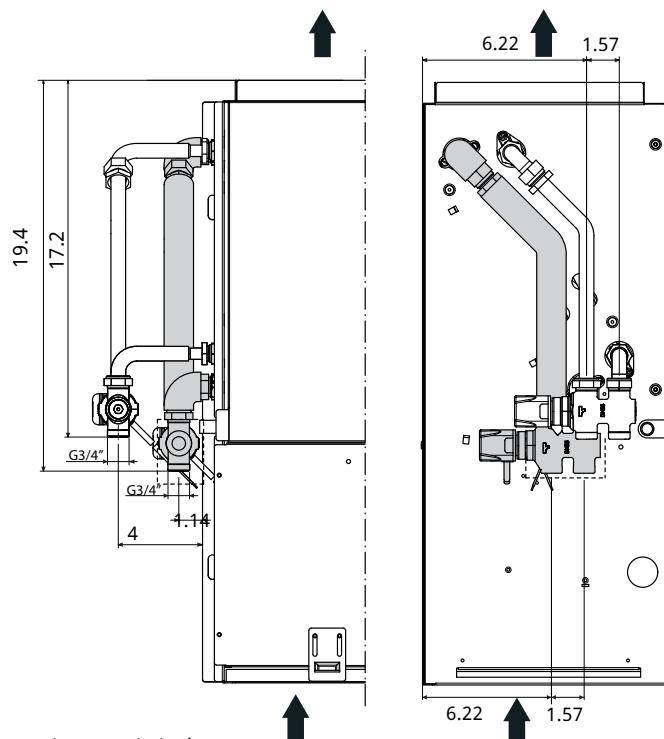


KFV is a plastic variable section intake/delivery circular flange kit. This accessory allows to connect an additional circular duct using connection points present on the sides of the inlet/delivery plenum of the VED unit.



## ACCESSORIES

### MAIN COIL WATER VALVE



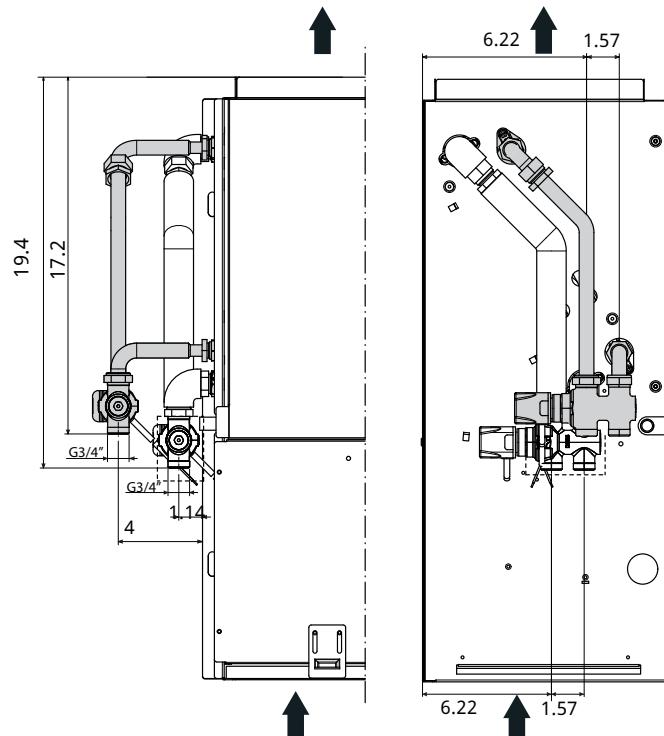
\*Dimensions are in inch

- **VCF45C:** The kit comprises a motorised 3-way valve with insulating shell, plus couplings and insulated copper pipes. For main coil. Power supply 230V-1-60Hz.

- **VCF47C:** The kit comprises a motorised 3-way valve with insulating shell, plus couplings and insulated copper pipes. For main coil. Power supply 230V-1-60Hz.

- **VCF25C:** Kit consisting of a motorised 2-way valve, with copper couplings and pipes. For main coil. Power supply 230V-1-60Hz.

### HEATING ONLY COIL WATER VALVE



- **VCF45H:** Kit consisting of motorised 3-way motorised valve, copper couplings and pipes. For heating-only coil. Power supply 230V-1-60Hz.

- **VCF47H:** Kit consisting of motorised 3-way motorised valve, copper couplings and pipes. For heating-only coil. Power supply 230V-1-60Hz.

- **VCF25H:** Kit consisting of a motorised 2-way valve, with copper couplings and pipes. For main coil. Power supply 230V-1-60Hz.

## INSTALLATION INFORMATION

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

**⚠ CAUTION:** before carrying out any work, put the proper individual protection devices on.

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

**⚠ WARNING:** electrical wiring, installation of the fan coils and relevant accessories should be performed by a technician who has the necessary technical and professional expertise to install, modify, extend and maintain systems, and who is able to check the systems for the purposes of safety and correct operation.

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

**⚠ WARNING:** Consult all documentation before starting the installation.

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

The installer's experience will be necessary however, to perfect all the operations in accordance with the specific requirements.

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

The fan coil must be installed in such a position that the air can be distributed throughout the room and so that there are no obstacles (curtains or objects) to the passage of the air from the suction inlet and delivery outlet.

The fan coil should be installed in such a way as to facilitate routine (filter cleaning) and special maintenance operations, **as well as access to the air drain valve on the side of the unit frame (connections side).**

Do not install units in rooms where there are inflammable gases or acid or alkaline substances that could irreparably damage the aluminium-copper heat exchanger or internal plastic parts.

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

The VED unit is prepared for connection with air ducting.

The VED fancoils are equipped with 5 speed motors, 3 operating speeds of which can be selected by changing the connections in the electrical box of the motor. The fancoils are provided with connections to the standard speed. See the wiring diagram before changing the motor connections.

If a three-way valve is installed, the minimum water temperature sensor can be installed in two locations:

- in its housing in the coil;
- on the delivery pipe up stream of the valve.

Check the thermostat manual before choosing the location of the minimum water temperature sensor, according to the preferred control logic. The thermostat may need the settings of the dip-switches changed.

**⚠ CAUTION:** After completing the installation check the operation of the condensate discharge system, the seal of the hydraulic fittings, insulation of ducts and pipes. Then perform a functional test.

**⚠ DANGER!** Only qualified service personnel can access it.

## INSTALLING THE UNIT

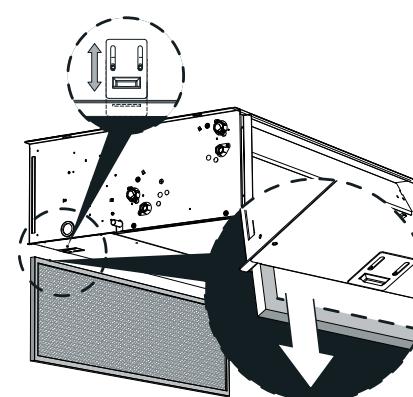
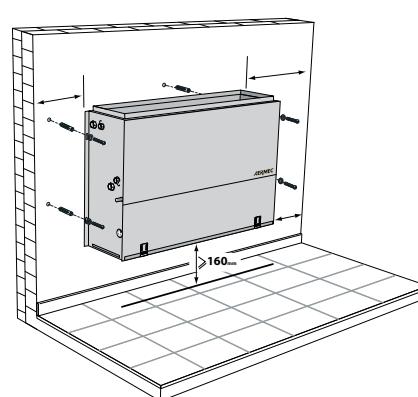
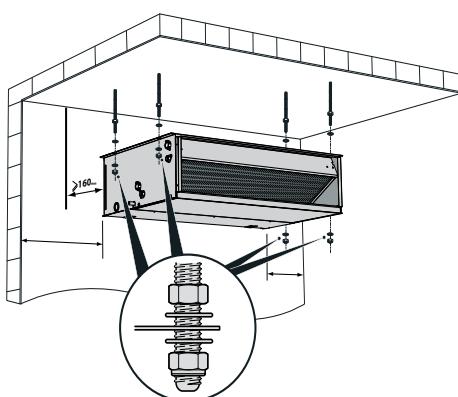
To install the unit, proceed as follows:

- For wall mounting, maintain a minimum distance of 160mm from the floor;
- For ducted installation, provide the fitting of the channels to the unit, see the drawing with the dimensional data. The delivery outlet is already provided with coupling flange.
- Use expansion bolts (not supplied) for wall or ceiling installation, finally make sure that the unit is installed horizontally.
- For installation suspended from the ceiling, use four M8 threaded rods to support the frame. Secure the unit to the 4 threaded rods using 8 nuts of

which 4 self-locking nuts. Use the nuts to adjust the height of the unit; finally, check that the unit is installed in a horizontal position

- **WARNING:** The fan coil must be installed in a horizontal position, otherwise the correct discharge of condensate can not be guaranteed.
- Make the hydraulic connections as described in the relative chapter.
- Make the condensate discharge connection as described in the relative chapter. The fan coils that work in heat mode only do not require condensate discharge.

- Make the electrical wirings as shown in the relative chapter and in the wiring diagrams.
- Install and connect any accessories.
- Start up the fan coil and check all the components and functions are operating correctly.



## PLUMBING CONNECTIONS

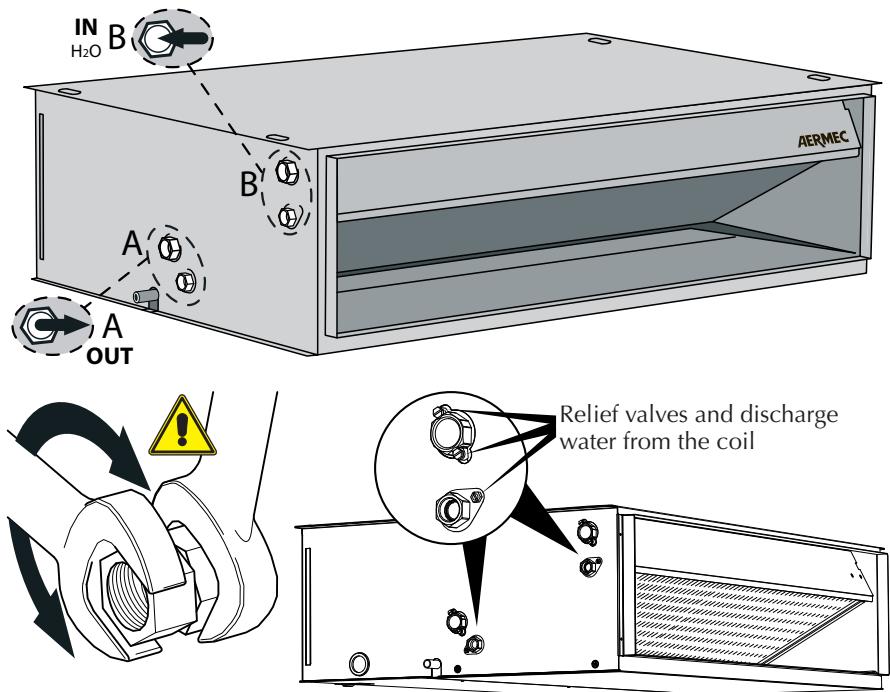
- Make the hydraulic connections.  
**WARNING:** Always use a wrench and counter-wrench to fix the pipes. Refer to the size data for the position, type and diameter of the hydraulic connections.

You are advised to adequately insulate water lines and/or fit the auxiliary condensate drain tray (available as an accessory), to prevent dripping during the cooling function.

After installing, check the seal on the connections.

**WARNING:** Bleed the hydraulic system. The relief valves are positioned at the top of the coil near the hydraulic fittings.

**WARNING:** To discharge the unit, use the exhaust valves located in the lower part of the coil near the hydraulic fittings.



## ELECTRICAL CONNECTIONS

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

**WARNING: WARNING: it is compulsory to connect the power cables Phase (L) and Neutral (N) to the respective terminals, do not reverse the connections, and observe the wiring diagram.**

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

To protect the unit against short circuits, fit an omnipolar thermal-magnetic trip 2A 250V (IG) to the power line with a minimum contact opening distance of 3mm.

For installations with three-phase power supply, the following precautions should be considered:

1. In the presence of breakers or thermomagnetic switches 3P + N, the triggering current must be at least 170% of the total load absorbed by the fan coils for each phase.
2. The section of the neutral wire must be of a dimension taking into consideration the operating current equal to 170% of the total load absorbed by the fan coils for each phase.

### CHARACTERISTICS OF THE CONNECTION CABLES

Use H05V-K or N07V-K type cables with 300/500 V with insulation, routed through pipes or raceway.

Use a cable with a minimum section of 1mm<sup>2</sup>.

All the cables must be in pipes or raceways until they are inside the fan coil.

The cables leaving the pipe or raceway must be positioned in such a way that they are pulled or twisted and are anyway protected from outside agents.

**Stranded cables can only be used with cable terminals. Make sure that the strands of the wires are inserted properly.**

**The wiring diagrams are subject to continuous updates, so it is essential to use those on the machine as your reference.**

The control panel may not be fitted on a metal wall unless this is connected to a grounded outlet permanently.

Before installing the control panel, read the instructions carefully and configure the panel if necessary. Some control panels require the combination with components supplied as accessories, check availability.

**WARNING:** Make sure the control panel supports the load of the electric motor, otherwise placed an SIT3 interface accessory between the fan and the control panel.

**WARNING:** The units that are equipped with VMF series thermostats must be combined with an VMF-SIT interface accessory.

When combining to control panels, the relative wiring diagram must be respected.

If present, connect the valve and sensor to the control board, in the positions indicated in the wiring diagram. In installations with a 3-way valve, the minimum water temperature sensor must be relocated from its standard mounting in the coil assembly to the delivery hose upstream of the valve.

If the highest speeds of the motor are required, change the connection to the control board on the electric motor. Follow the wiring diagram.

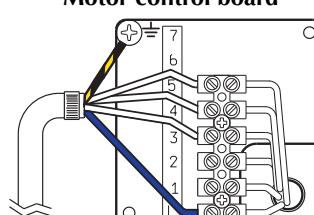
**WARNING: check whether the installation has been carried out correctly. FOLLOW THE CHECKING PROCEDURES indicated in the control panel manuals.**

**WARNING:** VED is supplied with connections to terminals 5 - 4 - 3.

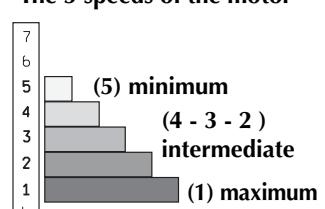
To make use of the higher speeds (terminals 2 and 1), disconnect the wires from the terminals of the default speeds and connect them to the terminals of the desired speed.

The three speeds must always be adjacent.

Motor control board



The 5 speeds of the motor



## CONDENSATE DRAIN

The tray of the fan coil has 2 condensate drainage connections with external diameter  $\varnothing = .63$  in.

The condensate drain connection should ideally be used on the hydraulic connection side.

Connect the tray connection to the condensate drainage system, using a hose fixed to the tray connection. The drain connections are designed to be connected to flexible hose only of suitable internal diameter, avoid applying higher loads and do not use for other purposes.

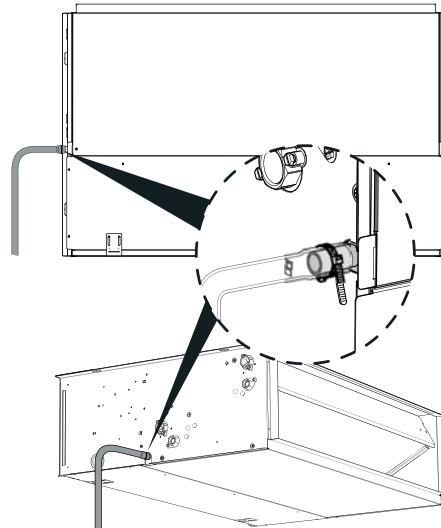
Make sure the discharge that is not used is closed and not leaking.

The condensate drain network must be

properly scaled and the piping situated in such a ways as to keep an adequate slope along the route (min.1%).

In the case of drainage into the sewerage network, you are advised to make a siphon to stop bad smells being returning into the room.

Carry out a functioning and seal test of the condensate drain system by pouring water into the tray



## COIL ROTATION

If the hydraulic connections require the rotation of the coil, remove the front closure panel and proceed as follows:

- Remove the condensate drip tray;
- Undo the screws and remove the coil cover.
- Remove the screws securing the coil, then remove the coil.
- Remove the push-outs on the right-hand side.

**⚠ WARNING:** Consult the coil rotation diagram before rotating the coil.

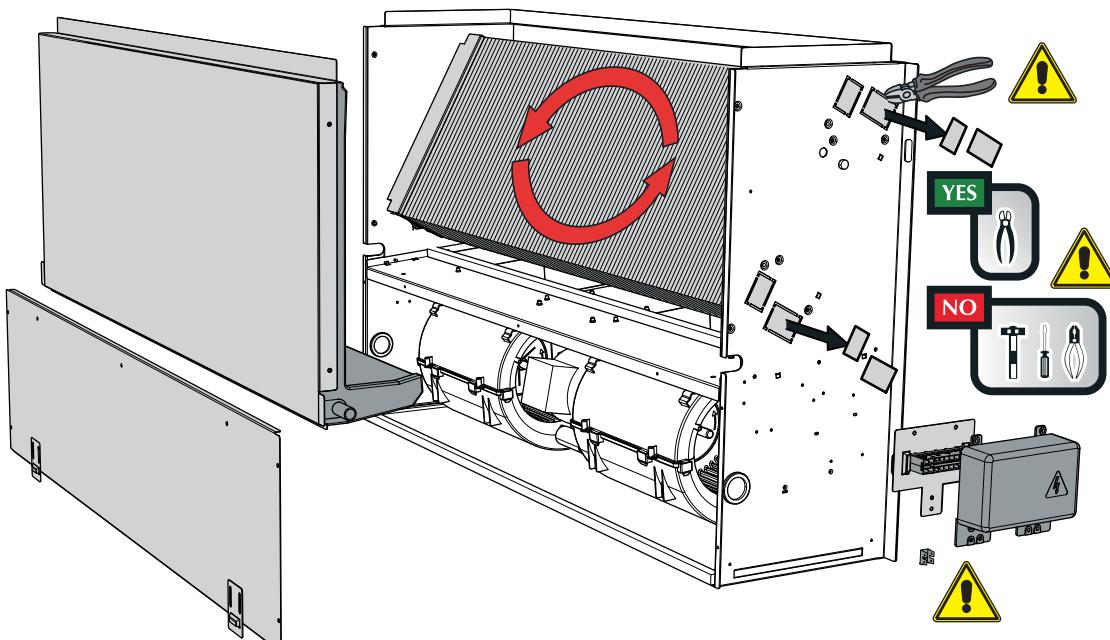
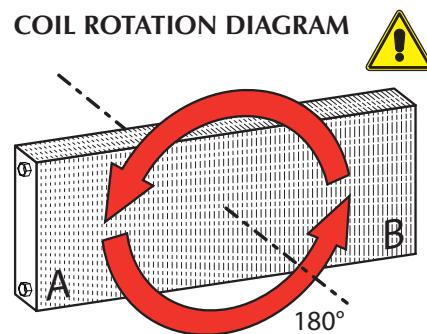
It is important that the coil is installed and rotated in the right direction.

Rotate the coil correctly and secure it with the previously removed screws; The spaces between the collector and the hole on the side must be completely sealed and filled with insulating material.

Reassemble the coil cover and fix it with the screws.

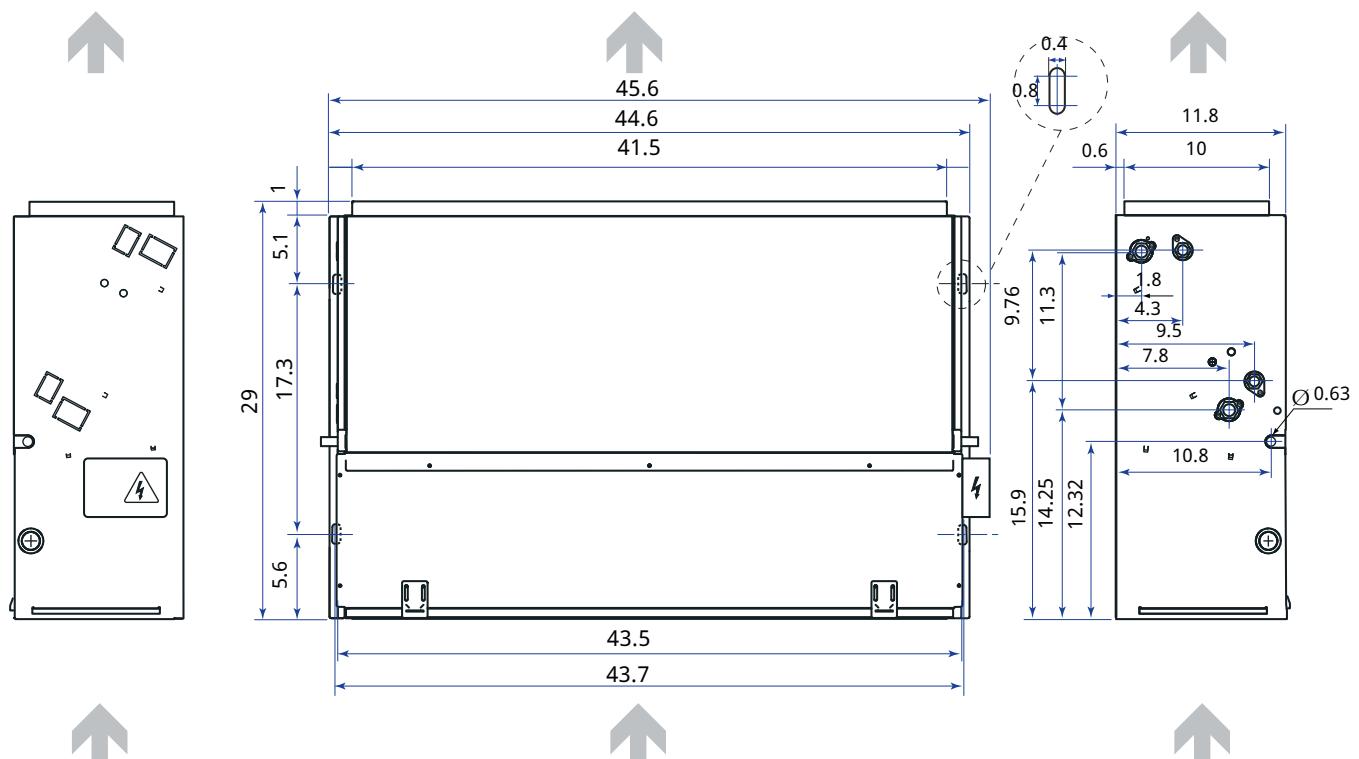
- Block the holes left open by the hydraulic connections on the left side with insulating material.
- Reassemble the condensate drip tray. The tray is designed to drain the condensate on both sides. The condensate drain connection should ideally be used on the hydraulic connection side.
- Make sure the discharge that is not used is closed and not leaking.
- Pull the electrical connections out of the right side.
- Transfer the electrical wirings to the left side through the cable grommet.
- Move the support plate, the control board, the earthing u-bolt and any electric devices from the right side to the left side.
- Reassemble the front closure panel.

COIL ROTATION DIAGRAM



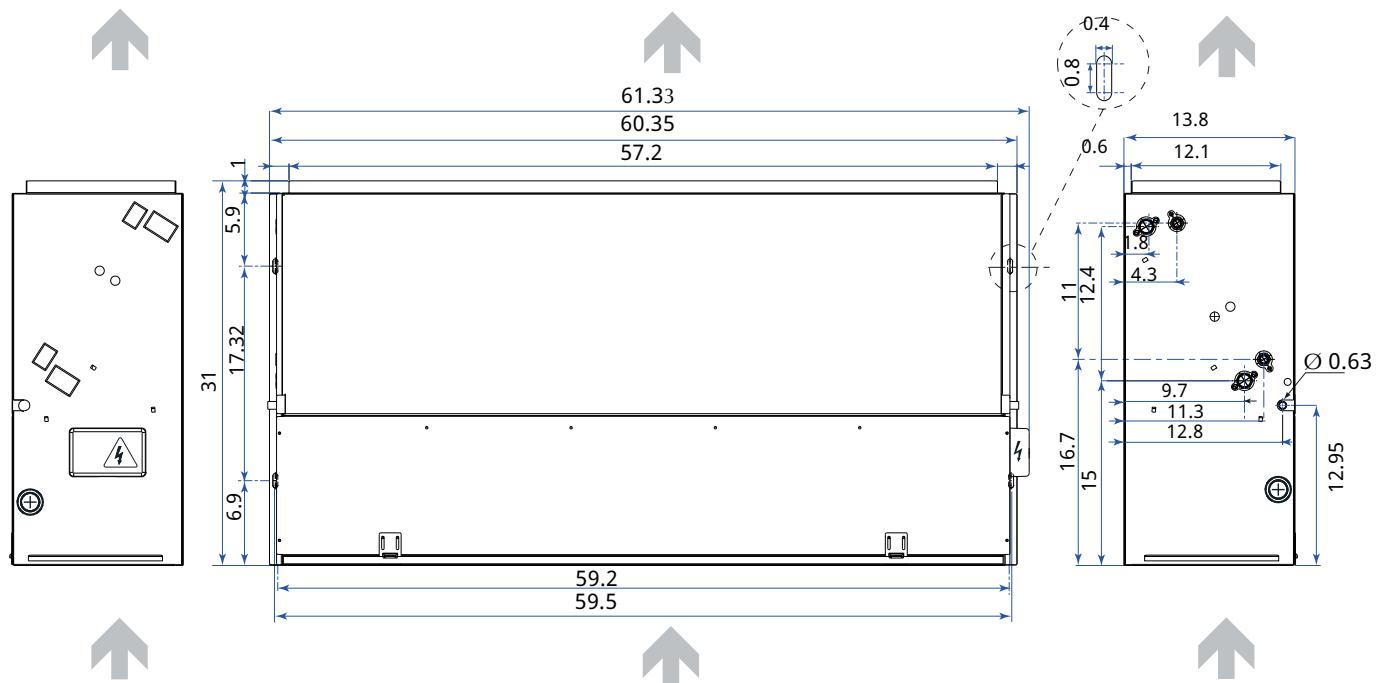
## DIMENSIONS [in]

**VED 430 - 440 - 530 - 540 - 432 - 441 - 532 - 541**



VED	430	440	530	540	432	441	532	541
Main coil water connections (female)	$\emptyset$	3/4"G						
heating only coil water connections (female)	$\emptyset$	-	-	-	-	1/2"G	1/2"G	1/2"G
Condensate discharge connections (external diameter)	in	0.63	0.63	0.63	0.63	0.63	0.63	0.63

**VED 630 - 640 - 730 - 740 - 632 - 641 - 732 - 741**



VED	630	640	730	740	632	641	732	741
Main coil water connections (female)	$\emptyset$	3/4"G						
heating only coil water connections (female)	$\emptyset$	-	-	-	-	1/2"G	1/2"G	1/2"G
Condensate discharge connections (external diameter)	in	0.63	0.63	0.63	0.63	0.63	0.63	0.63

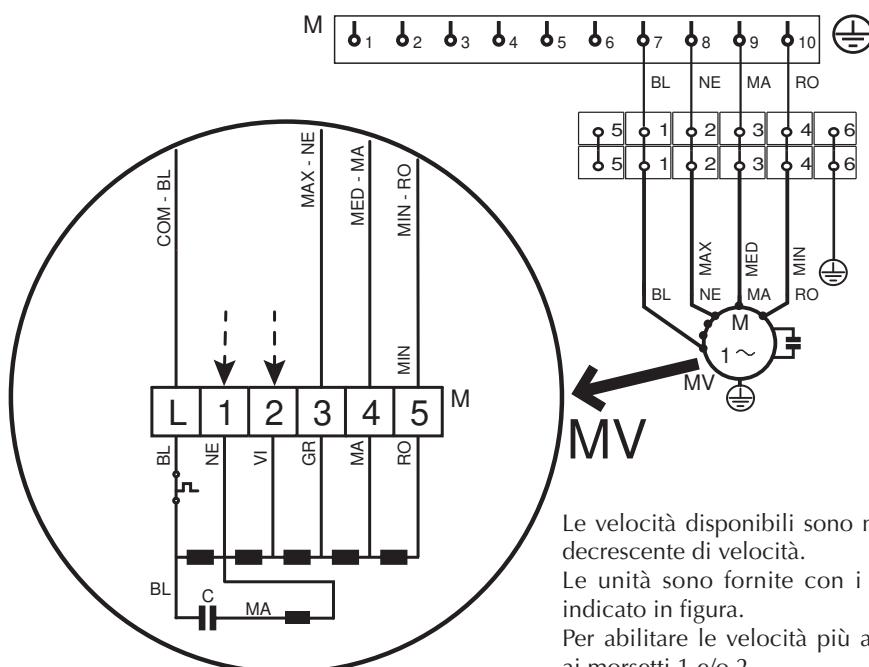
# SCHEMI ELETTRICI • WIRING DIAGRAMS • SCHEMAS ELECTRIQUES • SCHALTPLÄNE • ESQUEMAS ELÉCTRICOS

## LEGENDA • READING KEY • LEGENDE • LEGENDE • LEYENDA

- F** = Fusibile • Fuse • Fusible • Sicherung • Fusible
- IG** = Interruttore generale • Master switch • Interrupteur général • Hauptschalter • Interruptor general
- M** = Morsettiera • Control board • Bornier • Klemmleiste • Caja de conexiones
- MV** = Motore ventilatore • Fan motor • Moteur du ventilateur • Ventilatormotor • Motor ventilador
- PE** = Collegamento di terra • Earth connection • Mise à la terre • Erdung • Toma de tierra
- SA** = Sonda ambiente • Ambient probe • Sonde ambiante • Raumtemperaturfühler • Sonda ambiente
- SC** = Sonda ambiente • Control card • carte de contrôle • Steuerplatine • Tarjeta de control
- SW** = Sonda minima temperatura acqua • Minimum water temperature probe • Sonde de température minimale de l'eau  
Sonde für Mindest-Wassertemperatur • Sonda mínima temperatura del agua
- VC** = Valvola solenoide caldo • Solenoid valve hot • Vanne magnétique chaud  
Magnetventil Heizbetrieb • Válvula solenoide para calor
- VF** = Valvola solenoide freddo • Solenoid valve cold • Vanne magnétique froid  
Magnetventil Kühlbetrieb • Válvula solenoide para frío
- = Componenti non forniti • Components not supplied • Composants non fournis  
Nicht lieferbare Teile • Componentes no suministrados
-  = Componenti forniti optional • Components supplied as optional extras • Composants fournis en option  
Als Option lieferbare Teile • Componentes opcionales facilitados
- - - = Collegamenti da eseguire in loco • Connections to be made on site • Branchements à effectuer sur les lieux  
Vor Ort auszuführende Anschlüsse • Conexiones que realizar in situ

<b>AR</b>	= Arancio	<b>AR</b>	= Orange	<b>AR</b>	= orange	<b>AR</b>	= Orange	<b>AR</b>	= Naranja
<b>BI</b>	= Bianco	<b>BI</b>	= White	<b>BI</b>	= blanc	<b>BI</b>	= Weiß	<b>BI</b>	= Blanco
<b>BL</b>	= Blu	<b>BL</b>	= Blue	<b>BL</b>	= bleu	<b>BL</b>	= Blau	<b>BL</b>	= Azul
<b>GR</b>	= Grigio	<b>GR</b>	= Grey	<b>GR</b>	= gris	<b>GR</b>	= Grau	<b>GR</b>	= Gris
<b>GV</b>	= Giallo-Verde	<b>GV</b>	= Yellow-green	<b>GV</b>	= jaune-vert	<b>GV</b>	= Gelb/Grün	<b>GV</b>	= Amarillo-Verde
<b>MA</b>	= Marrone	<b>MA</b>	= Brown	<b>MA</b>	= marron	<b>MA</b>	= Braun	<b>MA</b>	= Marrón
<b>NE</b>	= Nero	<b>NE</b>	= Black	<b>NE</b>	= noir	<b>NE</b>	= Schwarz	<b>NE</b>	= Negro
<b>RO</b>	= Rosso	<b>RO</b>	= Red	<b>RO</b>	= rouge	<b>RO</b>	= Rot	<b>RO</b>	= Rojo

## VED



Le velocità disponibili sono numerate da 1 a 5 in ordine decrescente di velocità.

Le unità sono fornite con i collegamenti (3-4-5) come indicato in figura.

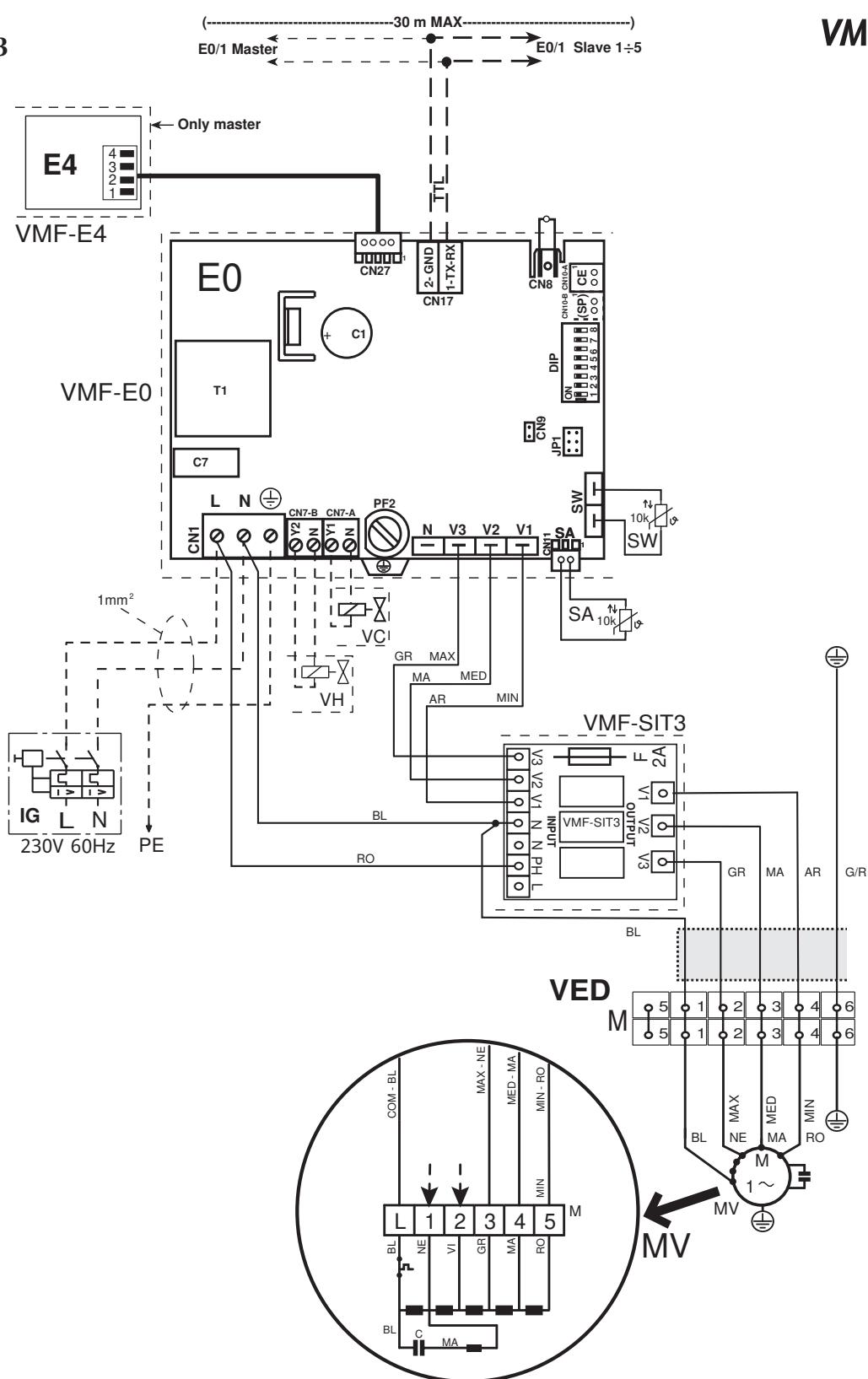
Per abilitare le velocità più alte spostare il collegamento ai morsetti 1 e/o 2.

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**VED**  
**VMF-E0**  
**VMF-E4**  
**VMF-SIT3**

Variable Multi Flow

**VMF**



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**VED**

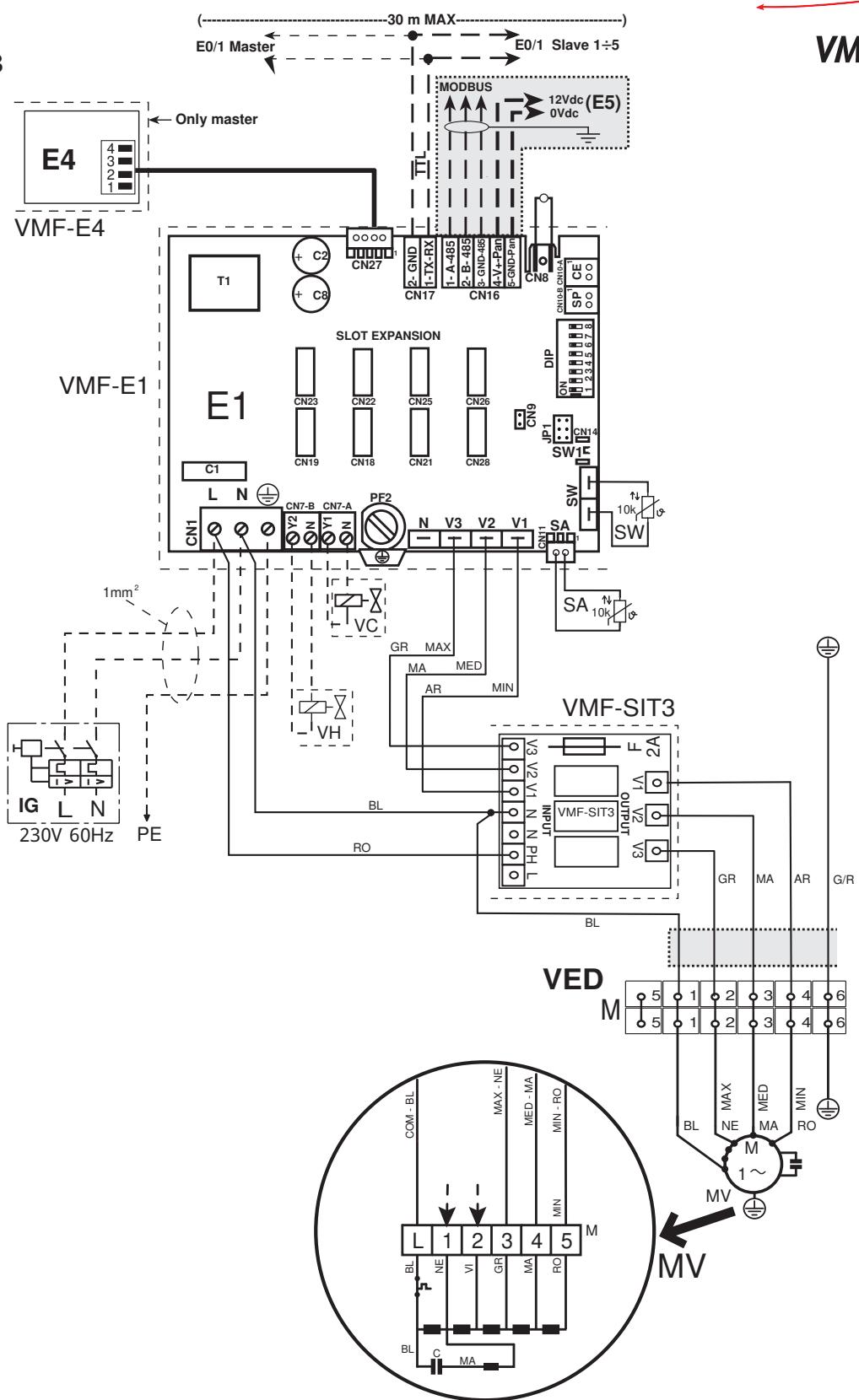
**VMF-E1**

**VMF-E4**

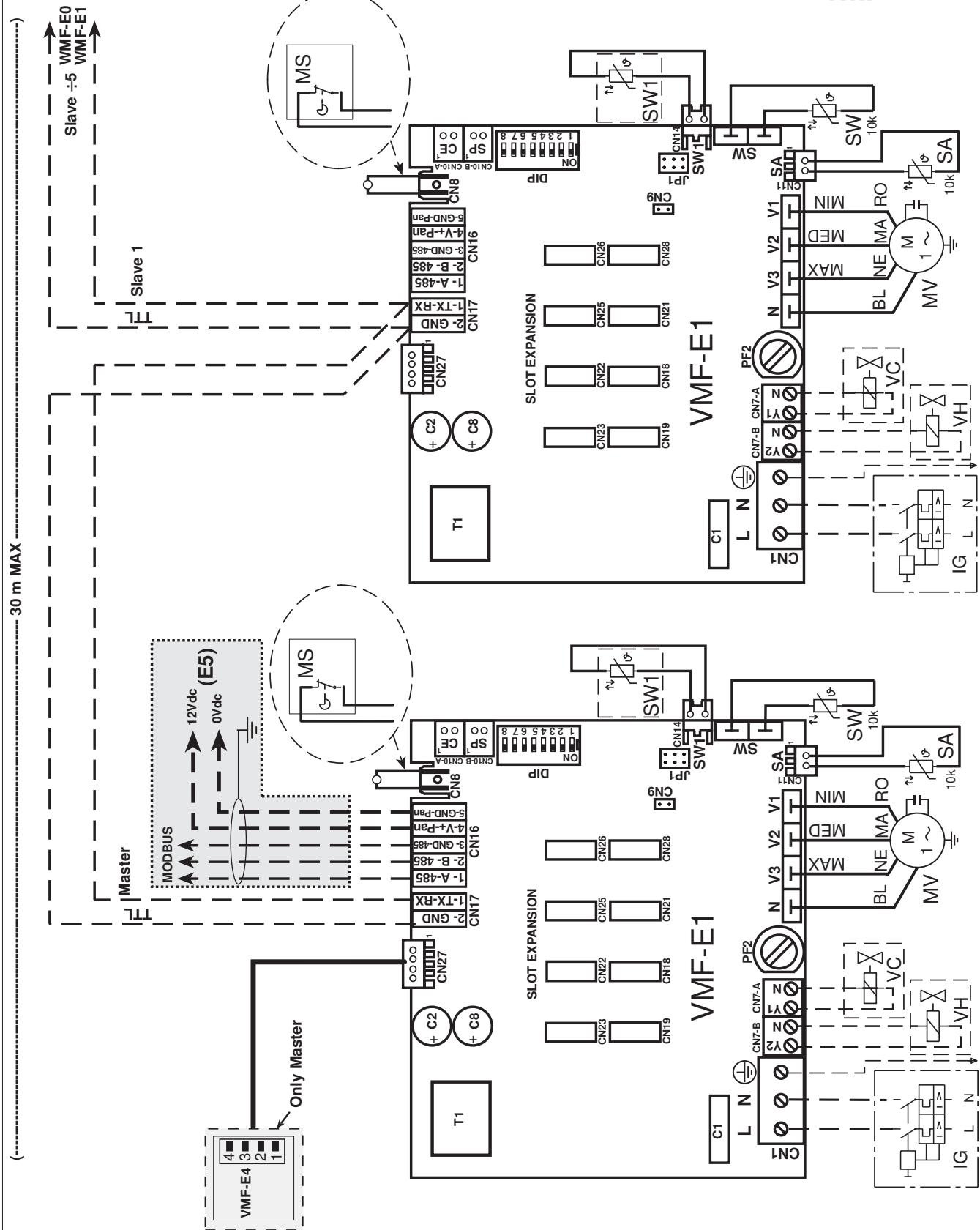
**VMF-SIT3**

**Variable Multi Flow**

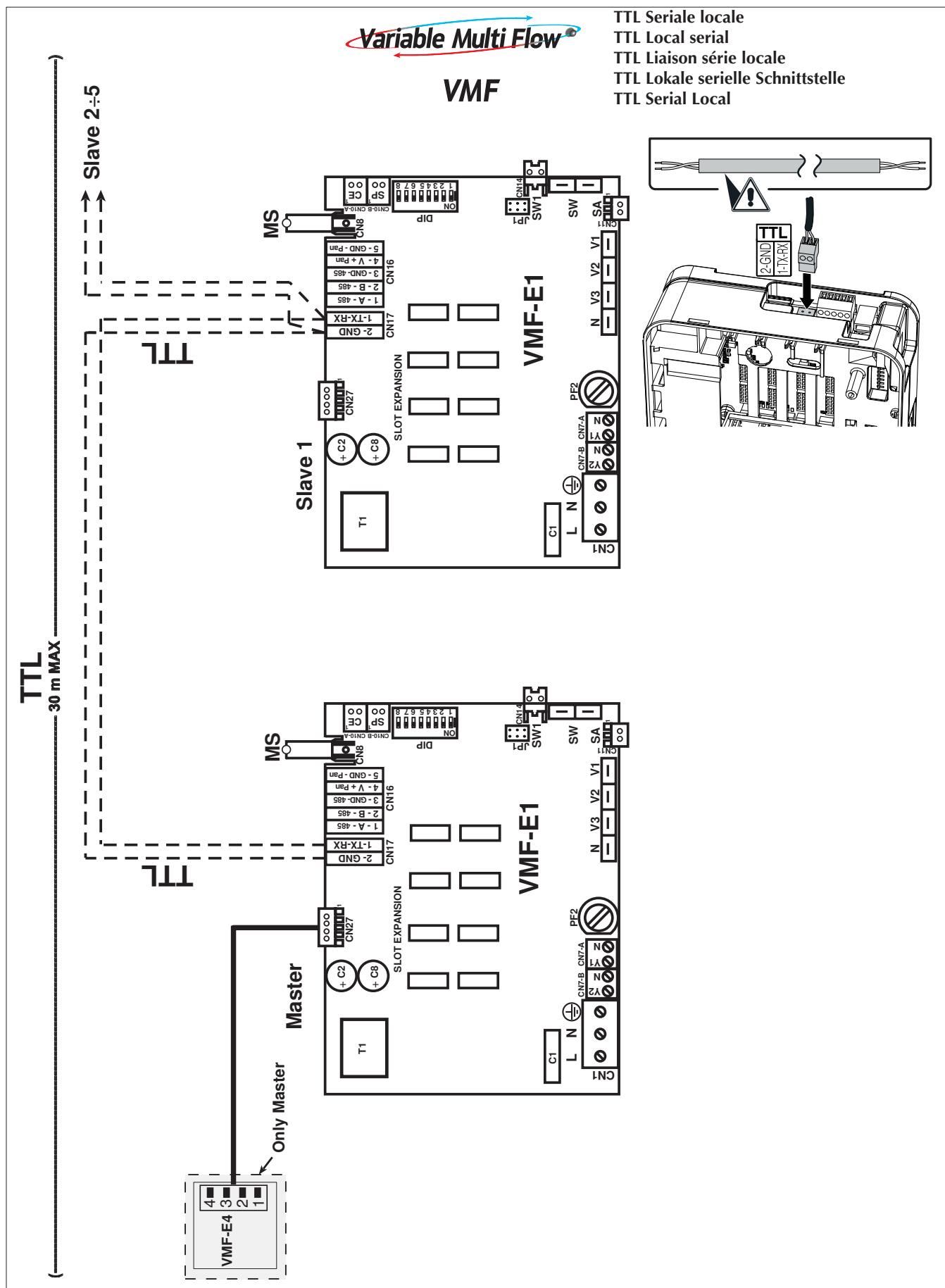
**VMF**



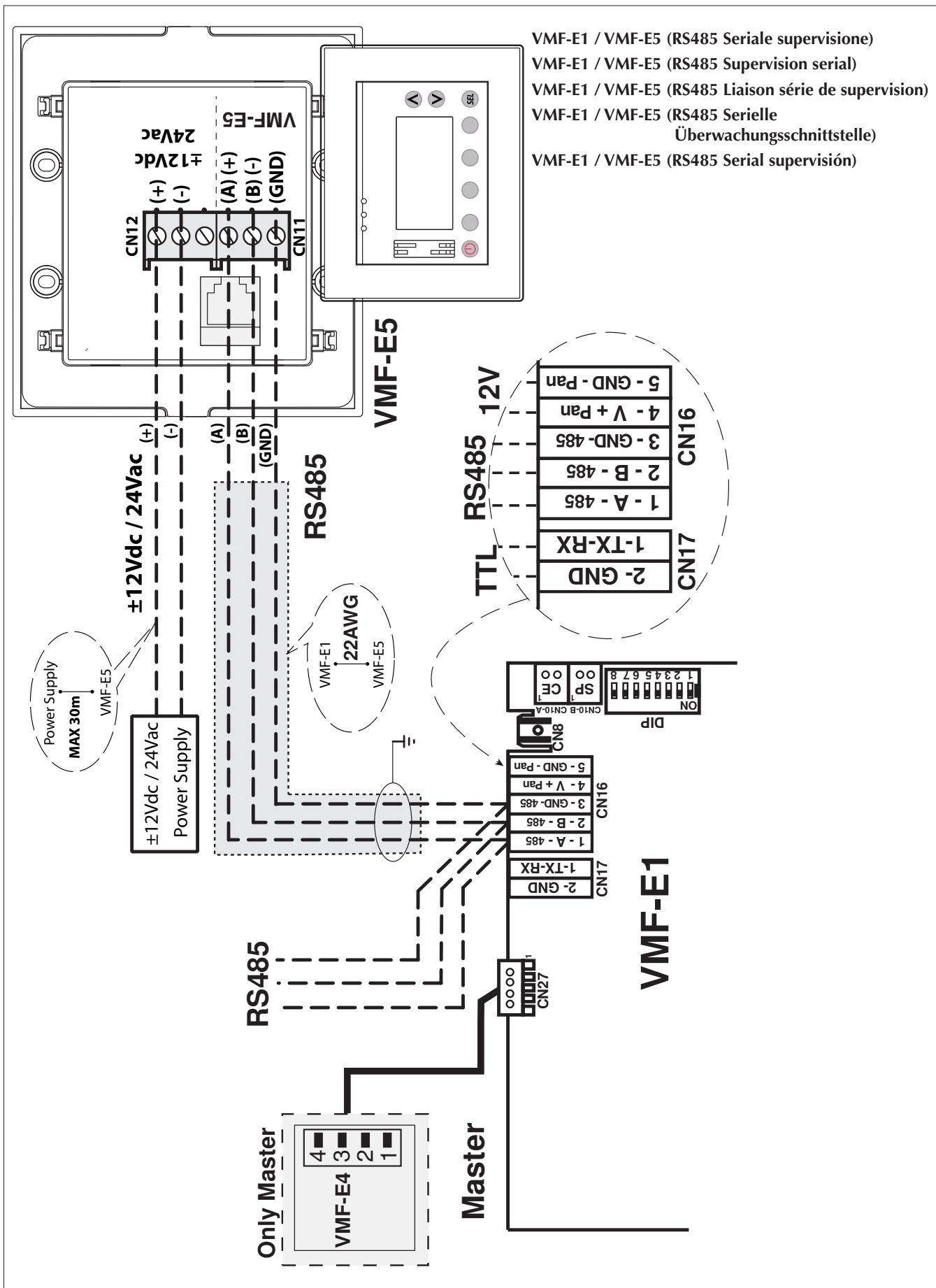
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**VMF-E1 (master + slave)**
**VMF-E5**
**VMF-E4**
**VMF**


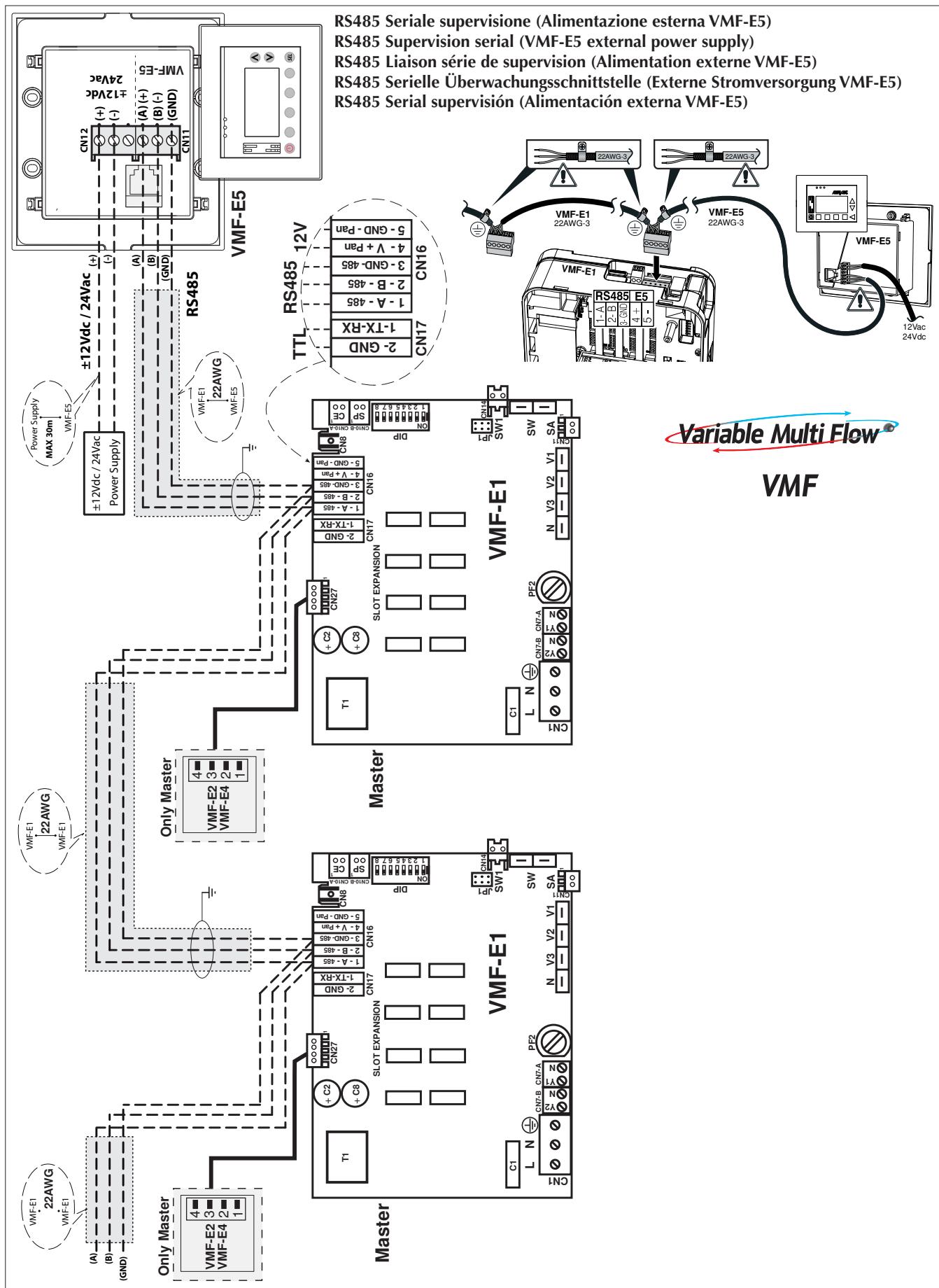
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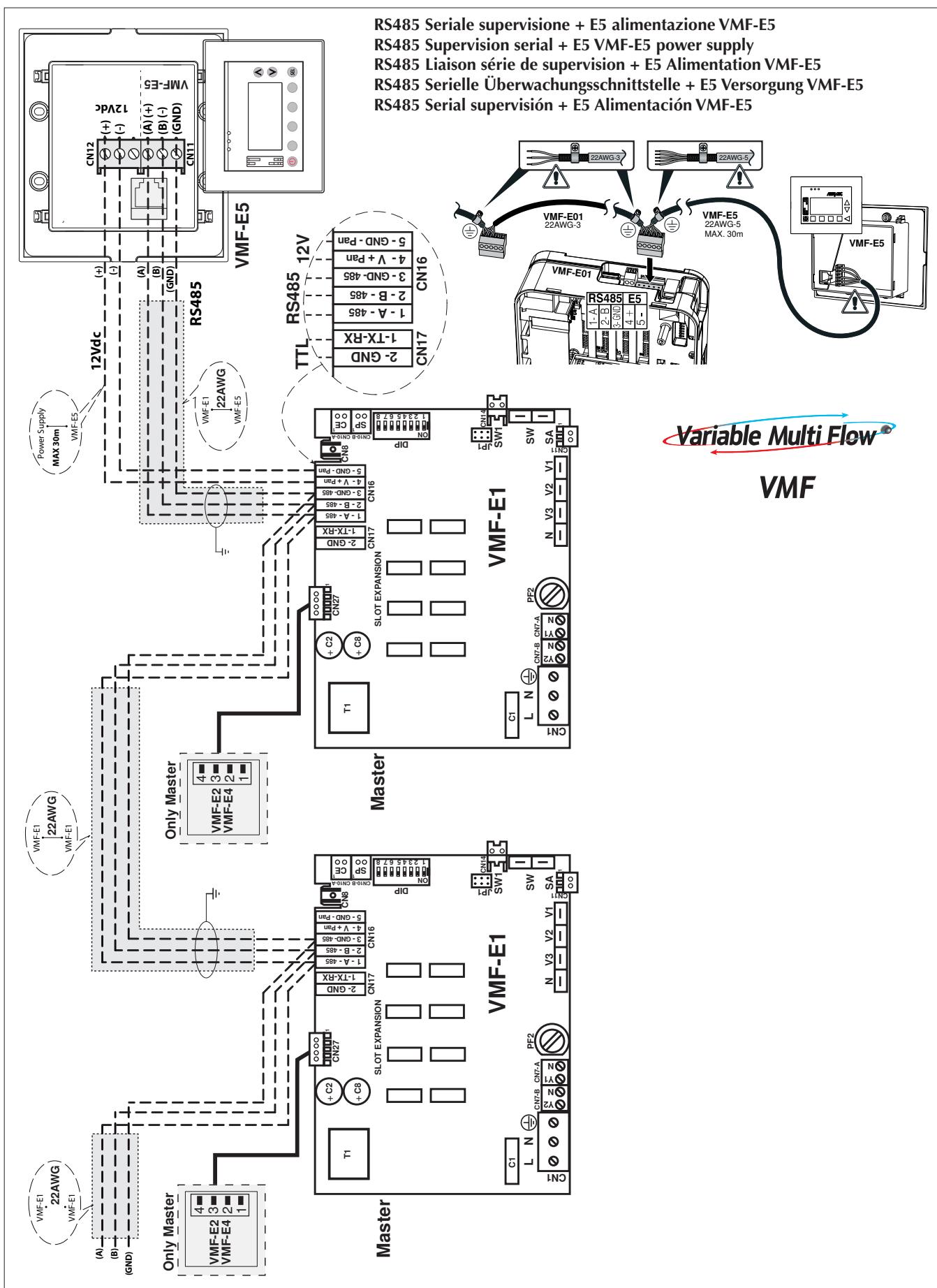
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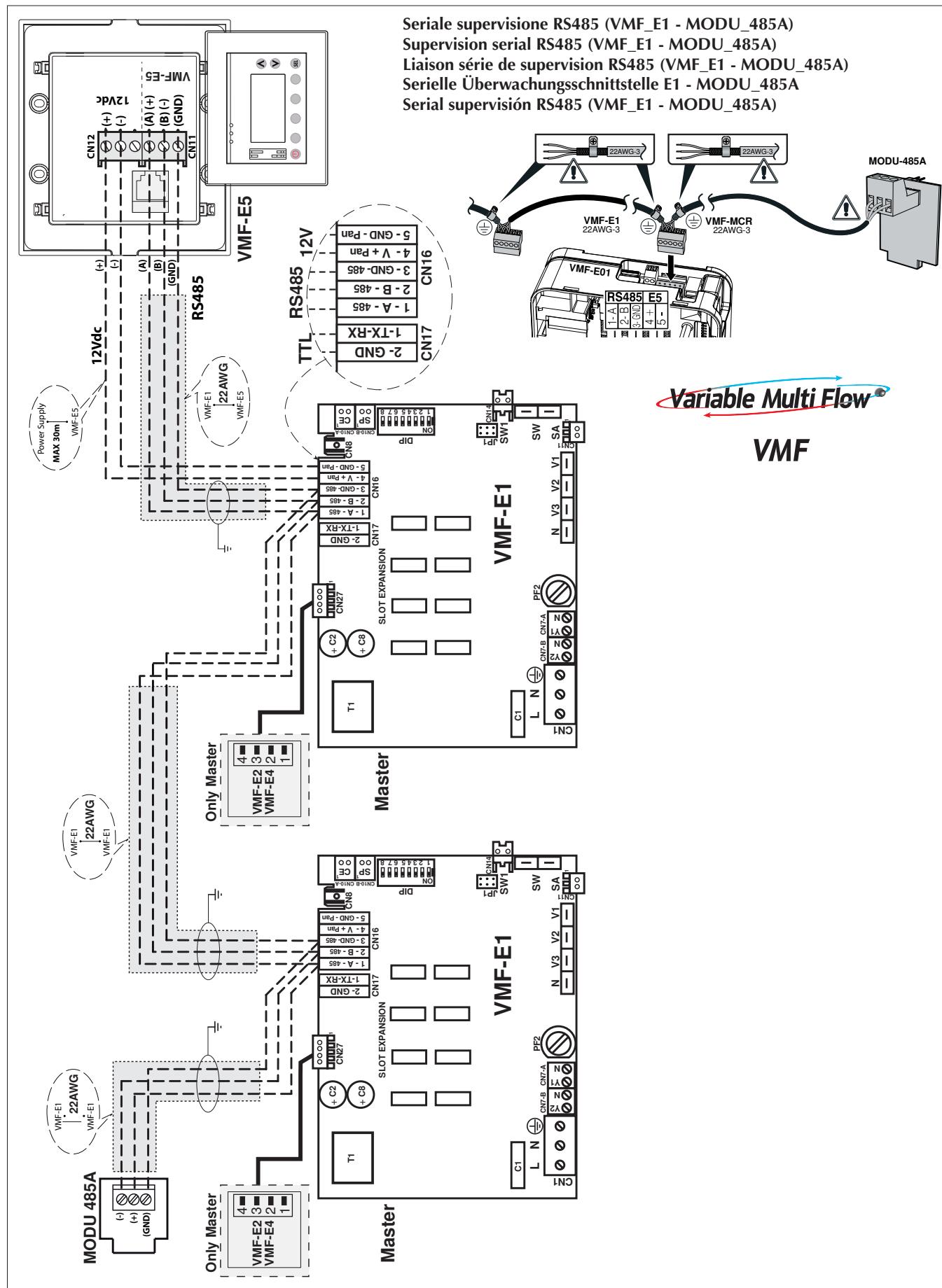
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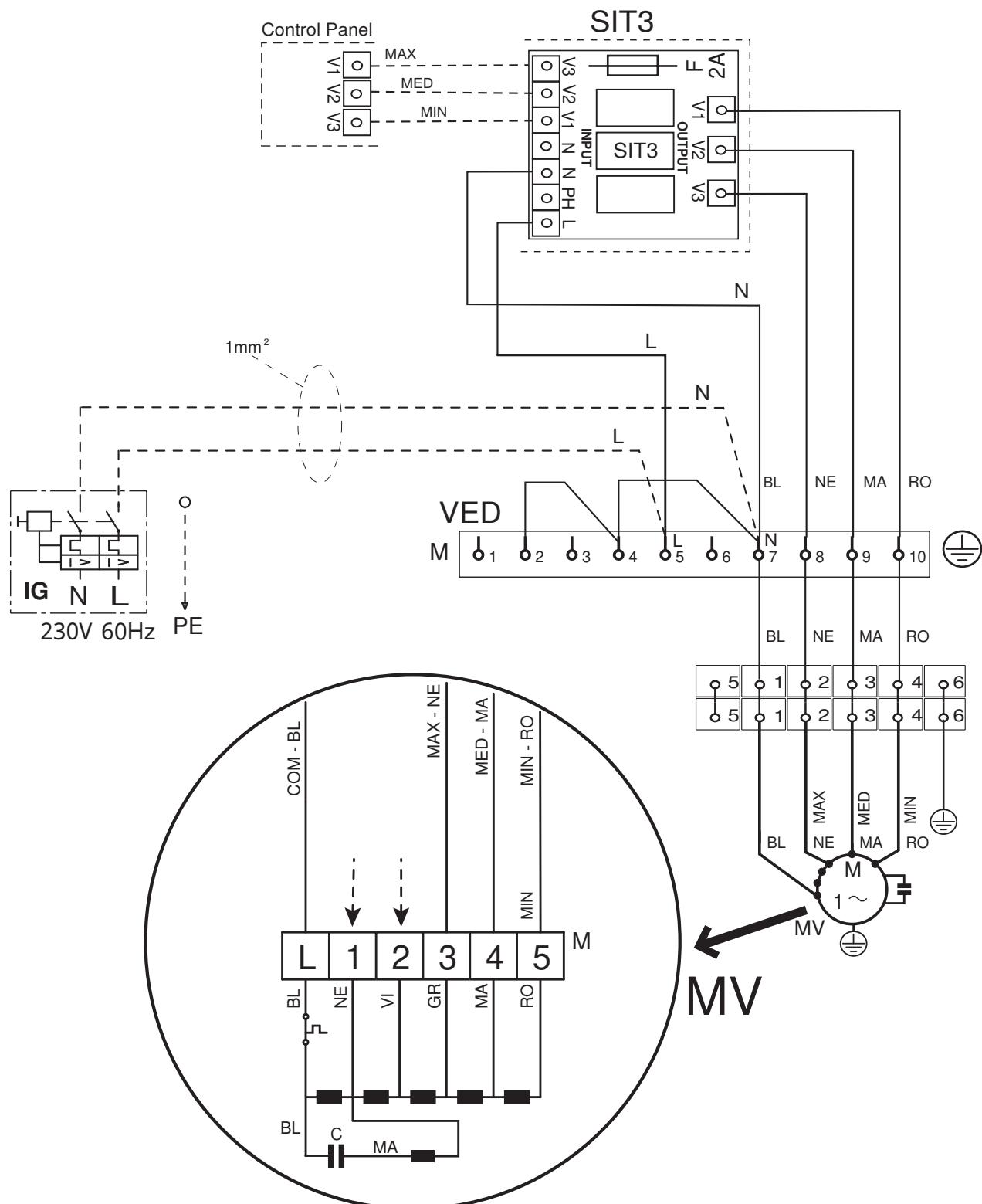


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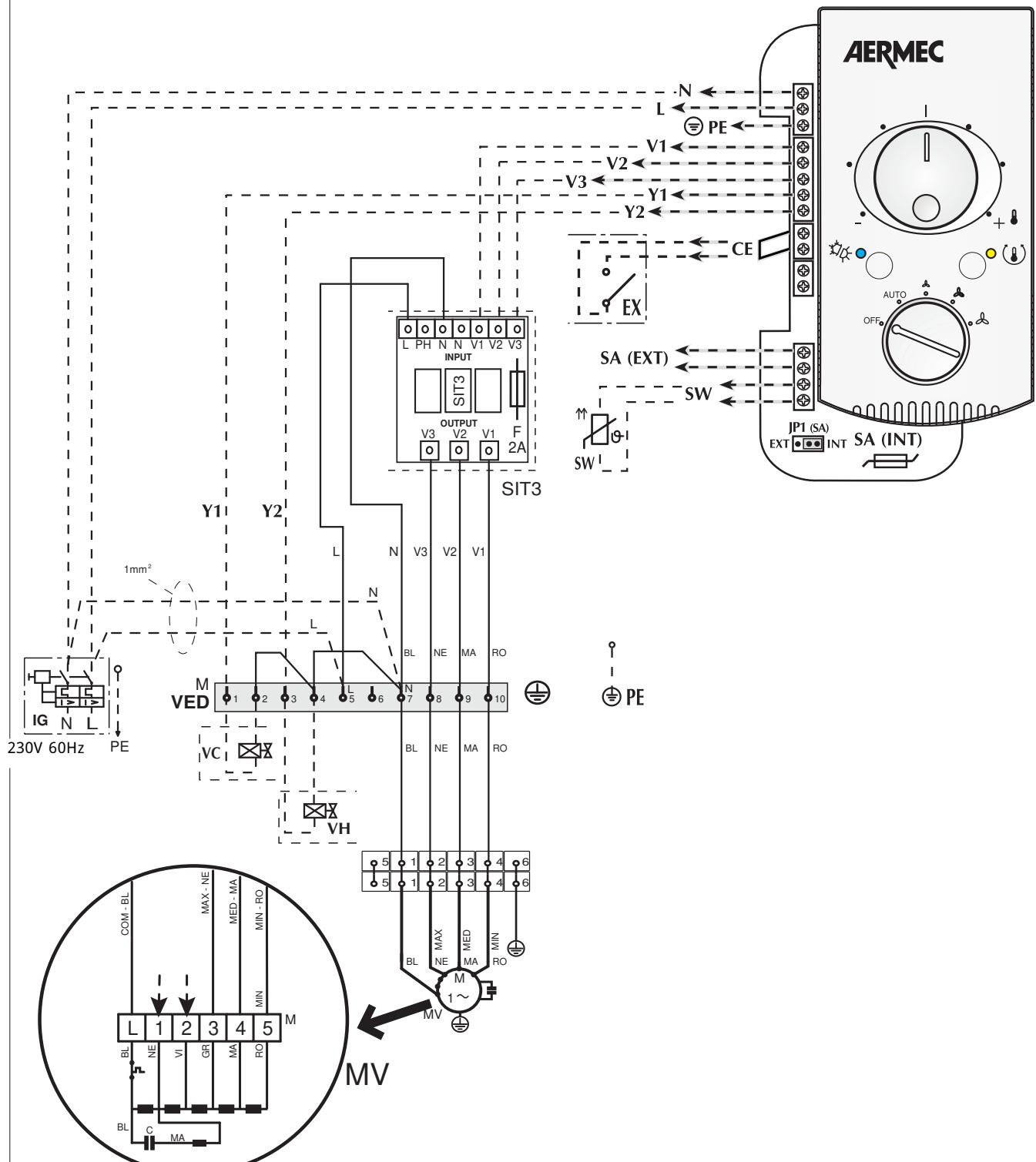
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**VED**  
**SIT3**



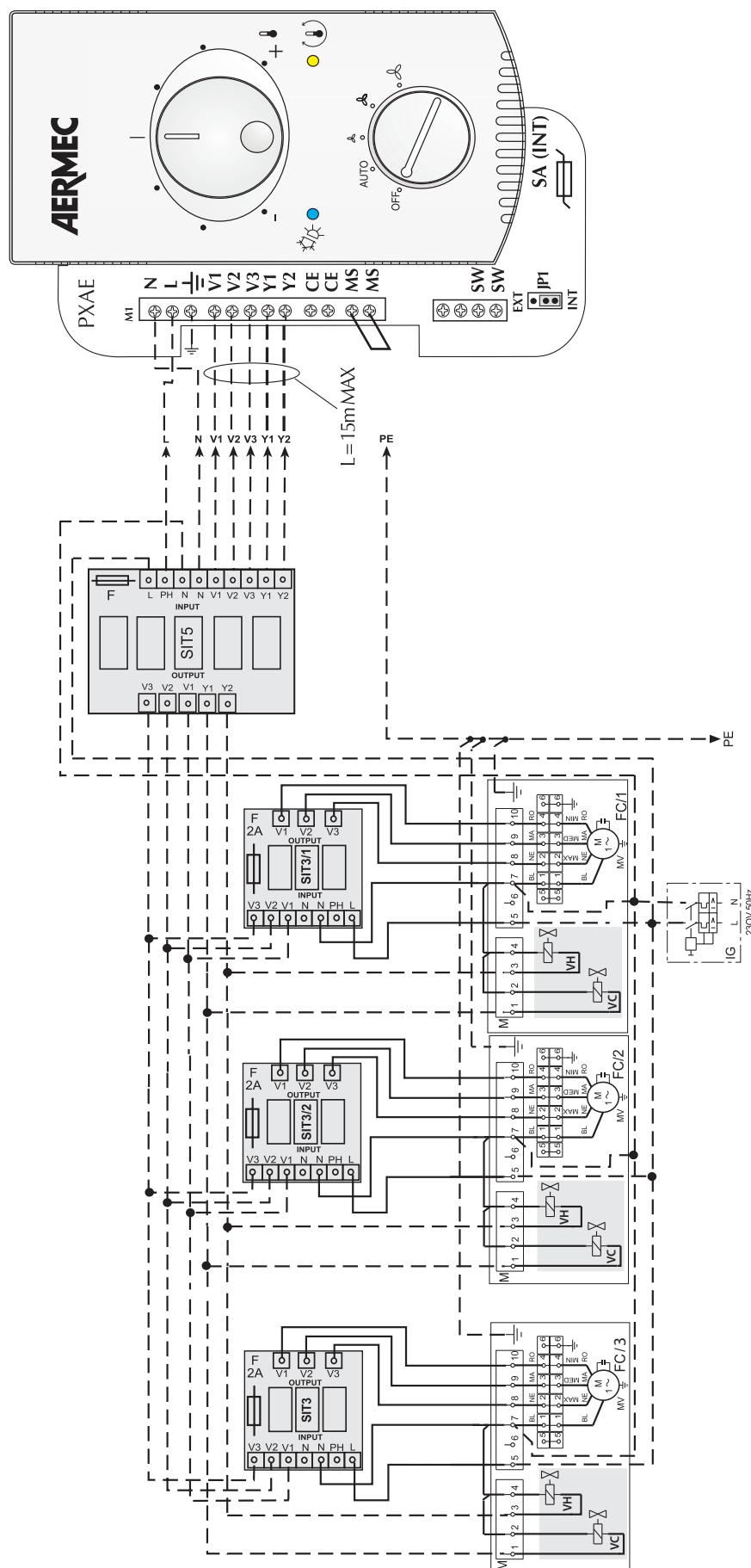
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VED  
PXAE  
SIT3



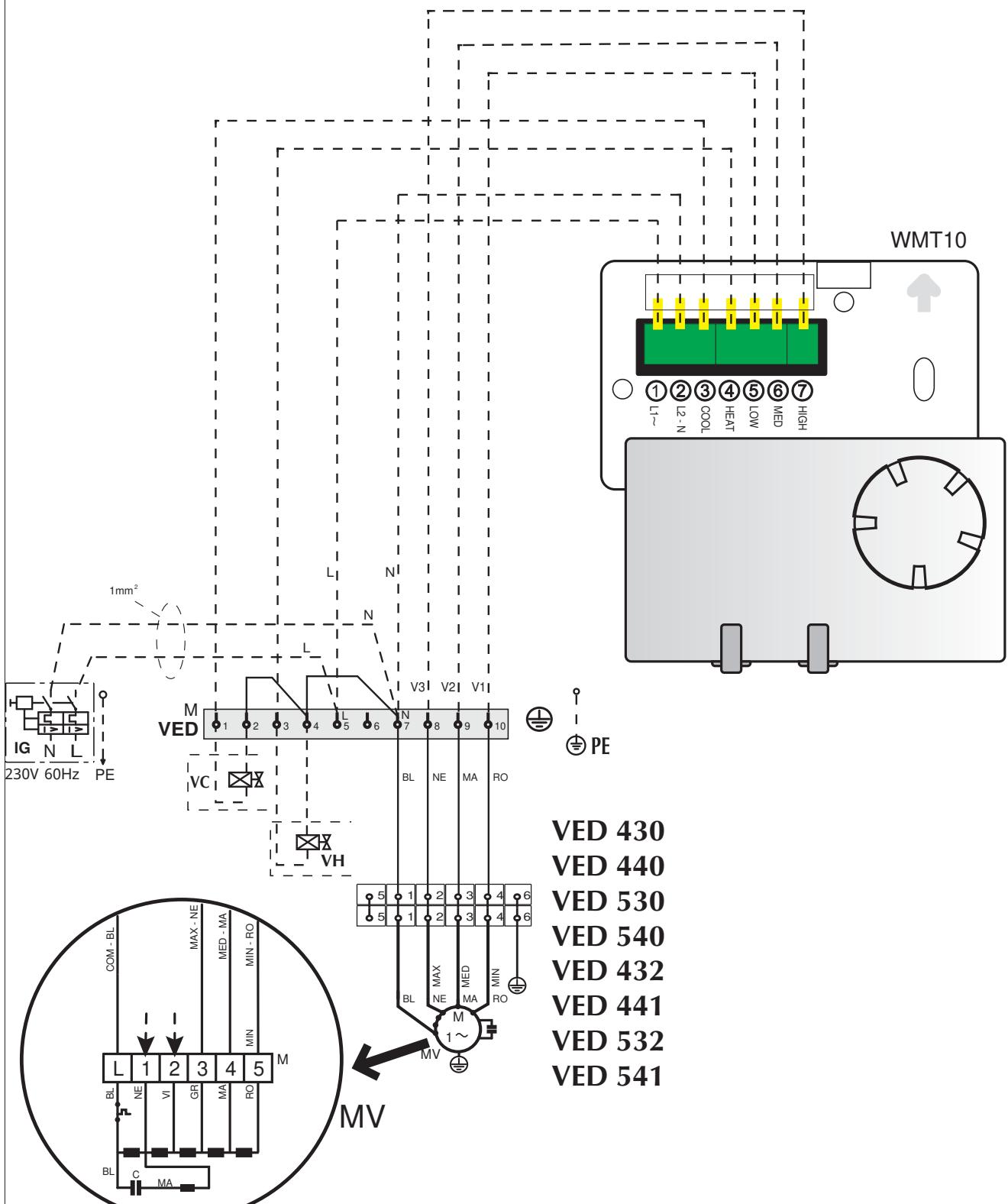
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VED  
PXAE  
SIT3  
SIT5



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**VED 4 - 5  
WMT10**



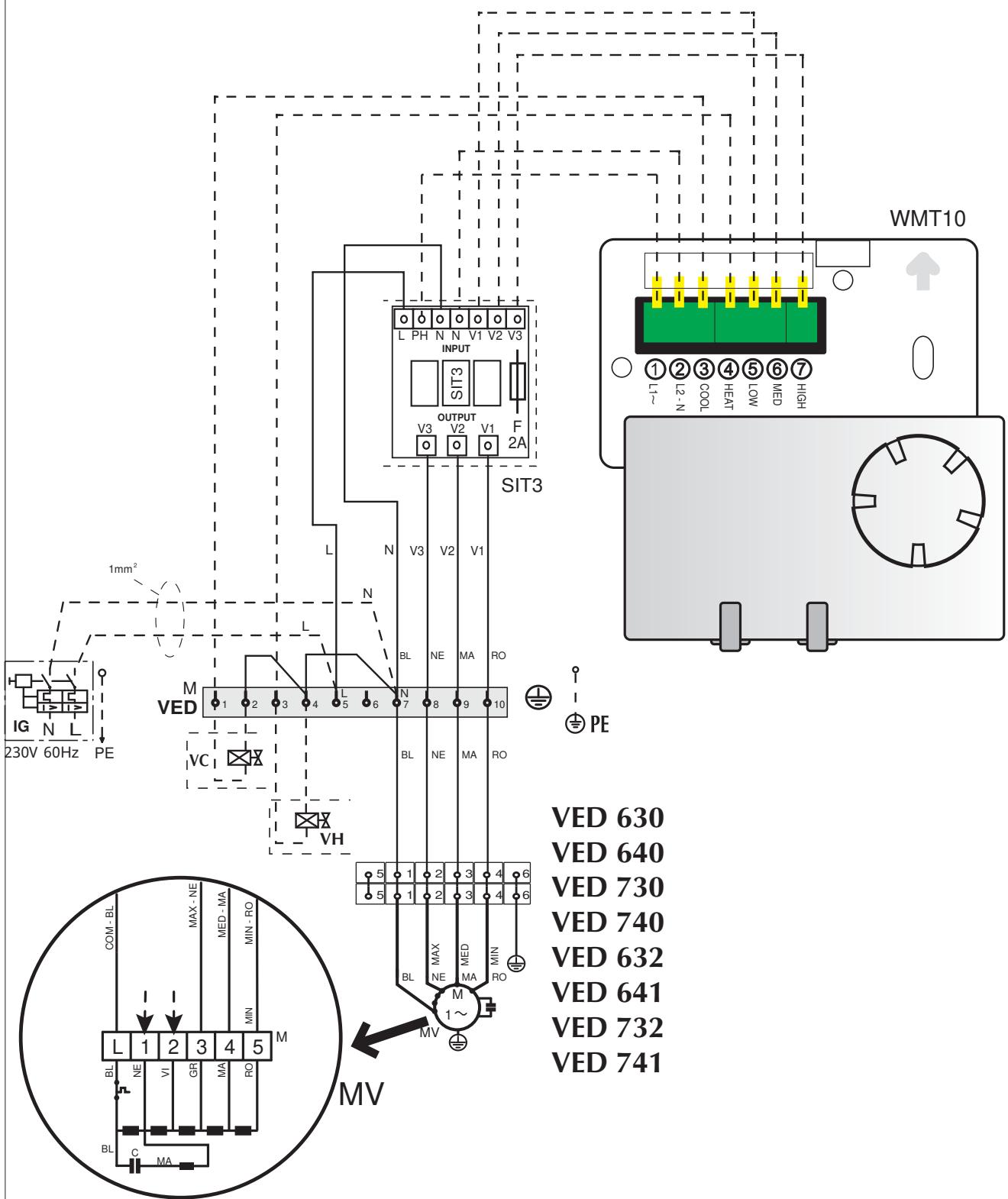
**VED 430  
VED 440  
VED 530  
VED 540  
VED 432  
VED 441  
VED 532  
VED 541**

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**VED 6 - 7**

**WMT10**

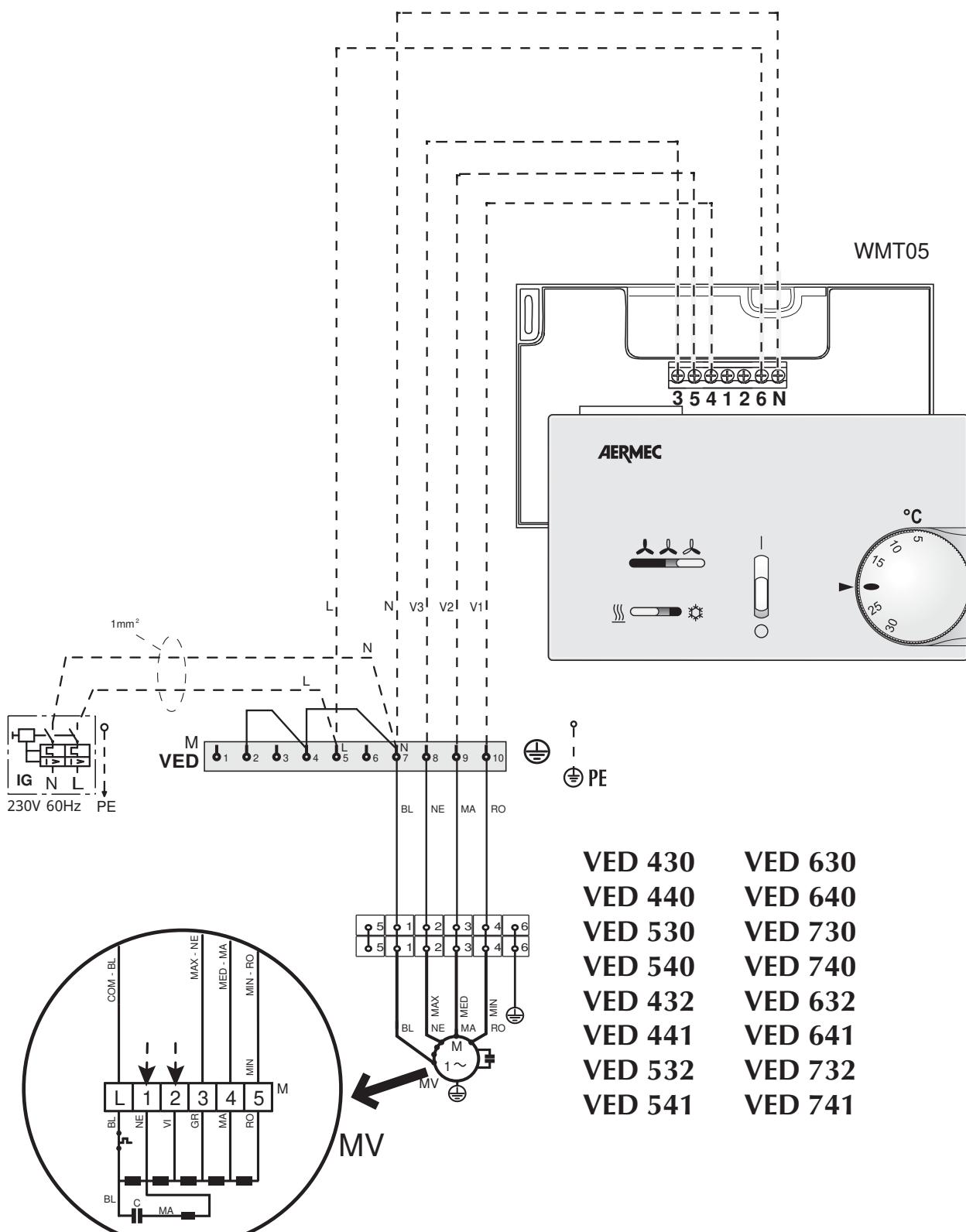
**SIT3**



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**VED 4 - 5 - 6 - 7**

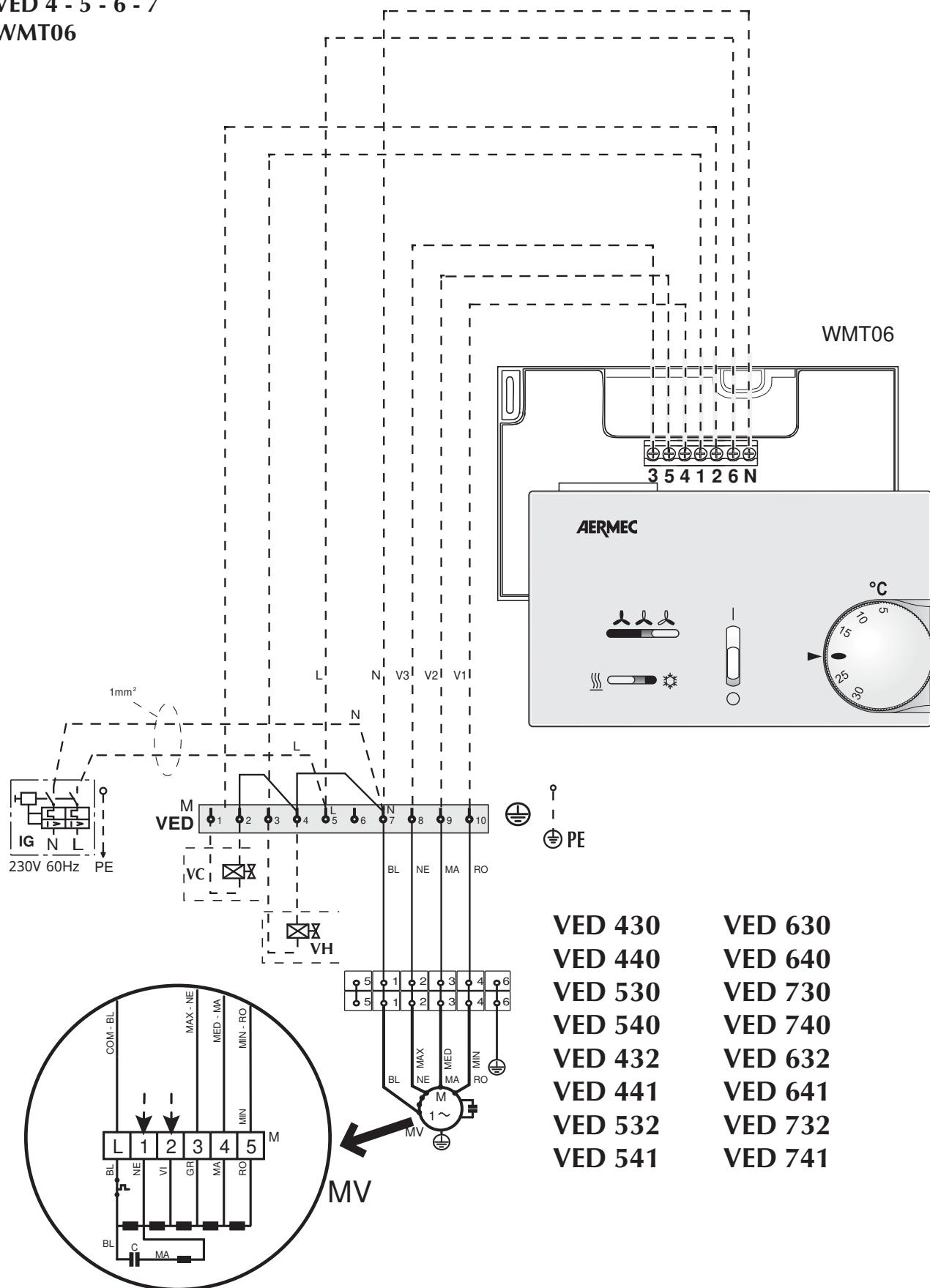
**WMT05**



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**VED 4 - 5 - 6 - 7**

**WMT06**



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<b>PROBLEMA • PROBLEM</b> <b>PROBLEME • PROBLEM</b> <b>PROBLEMA</b>	<b>PROBABILE CAUSA • PROBABLE CAUSE</b> <b>CAUSE PROBABLE • MÖGLICHE URSACHE</b> <b>CAUSA PROBABLE</b>	<b>SOLUZIONE • REMEDY</b> <b>SOLUTION • ABHILFE</b> <b>SOLUCIÓN</b>
Poca aria in uscita. Feeble air discharge. Il y a peu d'air en sortie. Schwacher Luftstrom am Austritt. Poco aire en salida.	Errata impostazione della velocità sul pannello comandi. Wrong speed setting on the control panel. Mauvaise préselection de la vitesse sur le panneau de commandes. Falsche Geschwindigkeitseinstellung am Bedienpaneel. Programación errada de la velocidad en el tablero de mandos.	Scegliere la velocità corretta sul pannello comandi. Select the speed on the control panel. Choisir la vitesse sur la panneau de commandes. Die Geschwindigkeit am Bedienpaneel wählen. Elegir la velocidad correcta en el tablero de mandos.
	Filtro intasato. Blocked filter. Filtre encrassé. Filter verstopft. Filtro atascado.	Pulire il filtro. Clean the filter. Nettoyer le filtre. Filter reinigen. Limpiar el filtro.
Non fa caldo. It does not heat. Pas de chaleur. Keine Heizung. No hace calor.	Ostruzione del flusso d'aria (entrata e/o uscita). Obstruction of the air flow (inlet and/or outlet). Obstruction du flux d'air (entrée/sortie). Luftstrom behindert (Eintritt bzw. Austritt). Obstrucción del chorro del aire (entrada y/o salida). Mancanza di acqua calda. Poor hot water supply. Il n'y a pas d'eau chaude. Kein Warmwasser. Falta de agua caliente.	Rimuovere l'ostruzione. Remove the obstruction. Enlever l'objet faisant obstruction. Verstopfung beseitigen. Quitar la obstrucción. Controllare la caldaia. Control the boiler. Verifier la chaudière. Kaltwasserseiteigen Wärmeaustauscher kontrollieren. Comprobar el calentador.
Non fa freddo. It does not cool. Pas de froid. Keine Kühlung. No hace frío.	Impostazione errata del pannello comandi. Wrong setting on control panel. Mauvaise préselection sur le panneau de commandes. Falsche Einstellung am Bedienpaneel. Programación errada del tablero de mandos. Mancanza di acqua fredda. Poor chilled water supply. Il n'y a pas d'eau froide. Kein Kaltwasser. Falta de agua fría.	Impostare il pannello comandi. See control panel settings. Présélectionner au panneau de commandes. Richtige Einstellung am Bedienpaneel vornehmen. Programar el tablero de mandos. Controllare il refrigeratore. Control the chiller. Vérifier le réfrigérateur. Kaltwasserseiteigen Wärmeaustauscher kontrollieren. Comprobar el refrigerador.
Il ventilatore non gira. The fan does not turn. Le ventilateur ne tourne pas. Ventilator Arbeitet nicht. El ventilador no gira.	Impostazione errata del pannello comandi. Wrong setting on control panel. Mauvaise préselection sur le panneau de commandes. Falsche Einstellung am Bedienpaneel. Programación errada del tablero de mandos. Mancanza di corrente. No current. I n'y a pas de courant. Kein Strom. Falta de corriente. L'acqua non ha raggiunto la temperatura d'esercizio. The water has not reached operating temperature. L'eau n'a pas atteint la température de service. Das Wasser hat die Betriebstemperatur nicht erreicht. El agua no ha alcanzado la temperatura de ejercicio.	Impostare il pannello comandi. See control panel settings. Présélectionner au panneau de commandes. Richtige Einstellung am Bedienpaneel vornehmen. Programar el tablero de mandos. Controllare la presenza di tensione elettrica. Control the power supply. Contrôler l'alimentation électrique. Kontrollieren, ob Spannung anliegt. Comprobar la presencia de tensión eléctrica. Controllare la caldaia o il refrigeratore. Controllare il settaggio del termostato. Please check up the boiler or the chiller. Check up the thermostat settings. Contrôler la chaudière ou le refroidisseur. Contrôler le réglage du thermostat. Das Heiz- oder Kühlaggregat überprüfen. Die Einstellungen des Temperaturreglers überprüfen. Comprobar el calentador o el refrigerador. Comprobar la programación del termostato.
Fenomeni di condensazione sulla struttura esterna dell'apparecchio. Condensation on the unit cabinet. Phénomènes de condensation sur la structure extérieure de l'appareil. Kondenswasserbildung am Gerät. Fenómenos de condensación en la estructura externa del aparato.	Sono state raggiunte le condizioni limite di temperatura e umidità descritte in "MINIMA TEMPERATURA MEDIA DELL'ACQUA". The limit conditions of temperature and humidity indicated in "MINIMUM AVERAGE WATER TEMPERATURE" have been reached. On a atteint les conditions limite de température et d'humidité indiquées dans "TEMPERATURE MINIMALE MOYENNE DE L'EAU". Erreichen der maximalen Temperatur- und Feuchtigkeitswerte (siehe Abschnitt "DURCHSCHNITTTLICHE MINDEST - WASSERTEMPEARTUR"). Se han alcanzado las condiciones límites de temperatura y humedad descritas en "MÍNIMA TEMPERATURA MEDIA DEL AGUA".	Innalzare la temperatura dell'acqua oltre i limiti minimi descritti in "MINIMA TEMPERATURA MEDIA DELL'ACQUA". Increase the water temperature beyond the minimum limits indicated in "MINIMUM AVERAGE WATER TEMPERATURE". Elever la température de l'eau audelà des limites minimales indiquées dans "TEMPERATURE MINIMALE MOYENNE DE L'EAU". Wassertemperatur über die um Abschnitt "DURCHSCHNITTTLICHE MINDEST - WASSERTEMPEARTUR" angegebenen min. Werte erhöhen. Aumentar la temperatura del agua por encima de los límites descritos en "Mínima temperatura media del agua".

**Per anomalie non contemplate, interpellare tempestivamente il Servizio Assistenza.**

**For anomalies don't hesitate, contact the aftersales service immediately.**

**Pour toute anomalie non répertoriée, consulter le service après-vente.**

**Sich bei hier nicht aufgeführten Störungen umgehend an den Kundendienst wenden.**

**En el caso de anomalías no contempladas, ponerse en contacto de inmediato con el Servicio de Asistencia.**









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I prodotti interessati figurano sul sito [www.eurovent-certification.com](http://www.eurovent-certification.com)

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