

Omnia Radiant

Fan coils with radiant panel for residential use

- Low temperature radiation *
- Ventilated heating
- Cooling - dehumidification
- Energy saving
- Low operating temperature



DESCRIPTION

* Radiant technology under licence.

Omnia Radiant and Omnia Radiant Plus Aermec innovative solutions. In this particular worldwide market evolution, we are pleased to present to you OMNIA Radiant, which represents the innovation of the OMNIA AERMEC series, fan coils especially designed for residential comfort.

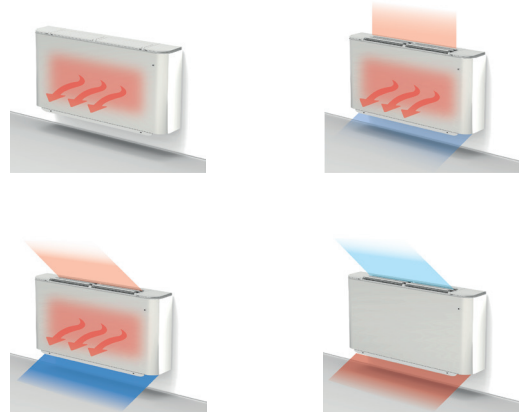
OMNIA Radiant inherits all the advantages of the OMNIA UL series, and is characterized by the introduction of the frontal plate for radiant heating.

OMNIA Radiant Plus is provided with the DC Brushless electric engine, equipped with the latest Inverter technology, granting the highest energy efficiency and able to regulate the air flow through the continuous fan speed modulation. This allows to achieve up to 60% in energy saving when compared to the traditional On-Off fan system, in both air conditioning and heating.

OMNIA Radiant and Radiant Plus offer the following advantages when compared to the traditional systems:

- The radiant plate combination – the finned coil allows the best winter comfort with the lower energy consumption because it provides heating with lower water temperature: only 45°C against the about 65°C needed for the traditional radiator. This not only increases the comfort for the user, but also significantly increases the overall efficiency in case of heat pumps usage;
- The fan system allows to quickly reach the desired temperature, meeting the requirement of a fast start-up;
- The unit can be combined other than the boiler, also to energy saving heat pumps: air to water, water to water and geothermic type;
- The electrostatic charge filter standard supplied, provides pure and clean air;
- During summer Omnia Radiant and Radiant Plus provide air conditioning and dehumidification in a fast and efficient way in every room.

THE FOUR DIFFERENT WORKING MODES OF OMNIA RADIANT ANNUAL FUNCTIONING



Radiant

Heating through radiation, comfortable and noiseless, is granted by the radiant plate placed on the front of the fan coil cover; if necessary, the triple-fins delivery head can be closed to increase the heating of the plate, thus maximizing the radiant effect.

Radiant + Natural Convection

With the triple-fins open, heating through natural convection, obtained thanks to the bigger coil exchange surface, is added to the radiant heating. As for the radiant-only mode (see above), the fan groups are in off mode. This results in acoustic comfort and energy saving.

Radiant + Forced Convection

The electronic regulation, precise and reliable, continuously compares the effective indoor temperature with the desired temperature: whenever the difference between the two should prove to be too high (e.g. during the heating system start-up) the software will lead the fan system start-up.

Start-up is fast and efficient and grants significant energy savings especially in rooms that are occasionally used.

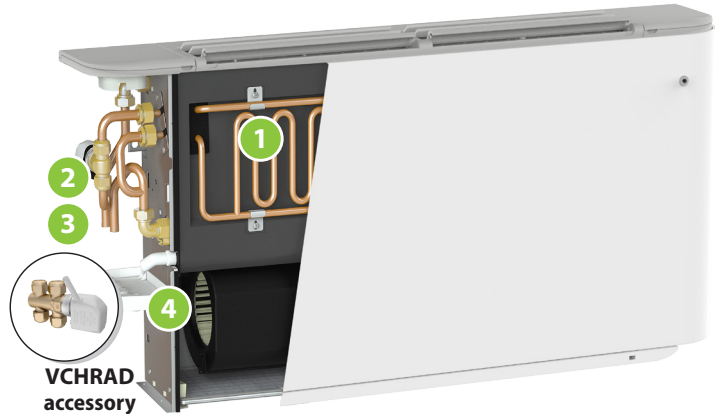
Omnia Radiant during summer provides air conditioning and dehumidification

Forced Convection

During summer, Omnia Radiant and Radiant Plus provide air conditioning and dehumidification for each room of the house in a fast and efficient way. Efficiency and quietness benefit from the quality that has always characterized the Omnia series.

FEATURES

- 1 Radiant plate
- 2 Switching valve
- 3 Water probe
- 4 Condensate storage container, hydraulic hoses



OMNIA Radiant (UL_R) standard features:

- Radiant plate
- Centrifugal fan
- Three-speed cross flow fan
- Condensate storage container, hydraulic hoses
- Two way valve
- Water temperature probe
- VMF-thermostat for asynchronous motor
- Compatibility with VMF system

OMNIA Radiant (UL_RI) standard features:

- Radiant plate
- Centrifugal fan
- Electric DC Brushless motor with Inverter
- Condensate storage container, hydraulic hoses
- Two way valve
- Water temperature probe
- VMF thermostat for DC Brushless motor

- Compatibility with VMF system

Ventilation group

Thanks to special centrifugal fans, Omnia Radiant fan coils are incredibly silent, making them the best buy when it comes to acoustic comfort, given the total lack of peak noise.

"The heating by radiation at top speed ensures total silence regime"

The fan blades on the Omnia Radiant are easy to clean. As a matter of fact, the new versions now offer the possibility of opening the worm screw of the fan (the casing that encloses the blades) to perform routine cleaning.

Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

The heat exchanger is not reversible.

ACCESSORIES

AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



VMF system

DI24: Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

DI24CP: Complete flush-mounted interface plate with support for DI24, Vi-mar brand, Arké series, graphite gray color.

VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

VMHI: The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface

is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

VMF-E5B: White recessed panel with backlit graphic LCD display and capacitive keyboard, it allows the centralised command/control of a complete hydronic system consisting of Fan coils: up to 64 fan coil zones consisting of 1 master + up to 5 slaves; Chiller/heat pump (accessory required for RS 485 interface), pumps: up to 12 configurable zone pumps; boiler: boiler hook-up management for hot water production; heat recovery units: up to 3 hook-ups per programmable recovery units based on time periods and/or by measuring air quality with the VMF-VOC accessory; domestic water module: complete management of the domestic hot water production through the control of: diverter valve/pump, integrated heating element, storage tank temperature sensor, anti-legionella circuit system.

VMF-E5N: Black recessed panel with backlit graphic LCD display and capacitive keyboard, it allows the centralised command/control of a complete hydronic system consisting of Fan coils: up to 64 fan coil zones consisting of 1 master + up to 5 slaves; Chiller/heat pump (accessory required for RS 485

interface), pumps: up to 12 configurable zone pumps; boiler: boiler hook-up management for hot water production; heat recovery units: up to 3 hook-ups per programmable recovery units based on time periods and/or by measuring air quality with the VMF-VOC accessory; domestic water module: complete management of the domestic hot water production through the control of: diverter valve/pump, integrated heating element, storage tank temperature sensor, anti-legionella circuit system.

For compatibility of the VMF-E5N / VMF-E5B with sizes 27R-37R contact the office.

Common accessories

AMP: Wall mounting kit

GU: Intake grid covers the front space between the ornamental feet and does not interfere with the filter.

PCU: Sheet metal panel closing the rear of the unit.

ZU1: Pair of stylish and structural feet.

VCHRAD: Kit consisting of motor-driven 3-way valve copper couplings and pipes.

ACCESSORIES COMPATIBILITY

VMF system

Accessory	UL27R	UL27RI	UL37R	UL37RI
D124	*	*	*	*
D124CP	*	*	*	*
VMF-E4DX	*	*	*	*
VMF-E4X	*	*	*	*
VMF-E5B		*		*
VMF-E5N		*		*
VMHI	*	*	*	*

3 way valve kit

Accessory	UL27R	UL27RI	UL37R	UL37RI
VCHRAD	*	*	*	*

Accessory	UL27R	UL27RI	UL37R	UL37RI
PCU27	*	*		
PCU37			*	*

Intake grids

Accessory	UL27R	UL27RI	UL37R	UL37RI
GU27	*	*		
GU37			*	*

Wall mounting kit

Accessory	UL27R	UL27RI	UL37R	UL37RI
AMP10	*	*	*	*

Pair of stylish structural feet

Accessory	UL27R	UL27RI	UL37R	UL37RI
ZU1	*	*	*	*

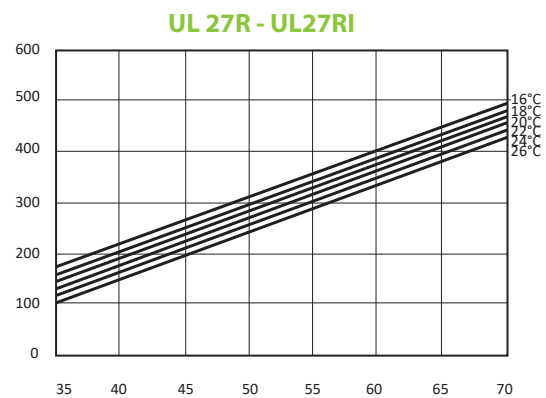
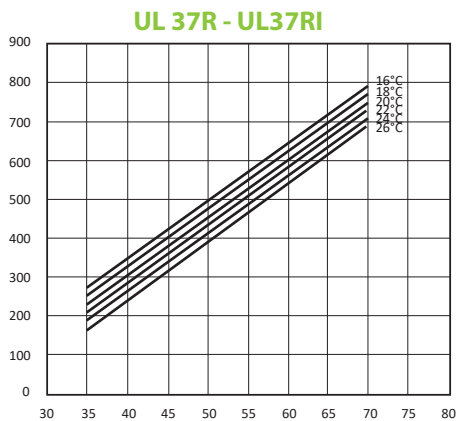
PERFORMANCE SPECIFICATIONS

2-pipe

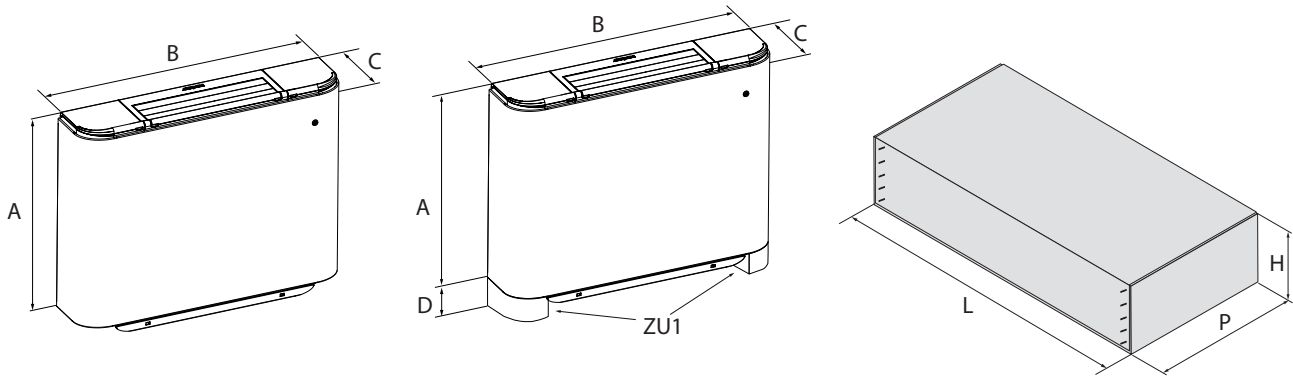
	UL27R			UL27RI			UL37R			UL37RI			
	1	2	3	1	2	3	1	2	3	1	2	3	
	L	M	H	L	M	H	L	M	H	L	M	H	
Heating performances													
Heating capacity (70 °C) (1)	kW	2,89	3,83	4,62	2,89	3,83	4,62	3,53	4,87	5,94	3,53	4,87	5,94
Heating capacity (50 °C) (2)	kW	2,75	2,75	2,75	2,75	2,75	2,75	3,54	3,54	3,54	3,54	3,54	3,54
Water flow rate system side	l/h	397	397	397	397	397	397	511	511	511	511	511	511
Pressure drop system side	kPa	17	17	17	17	17	17	21	21	21	21	21	21
Static heating power (70 °C) (3)	kW	0,65	0,65	0,65	0,65	0,65	0,65	0,75	0,75	0,75	0,75	0,75	0,75
Static heating power (50 °C) (4)	kW	0,39	0,39	0,39	0,39	0,39	0,39	0,45	0,45	0,45	0,45	0,45	0,45
Static heating power (35 °C) (5)	kW	0,20	0,20	0,20	0,20	0,20	0,20	0,23	0,23	0,23	0,23	0,23	0,23
Cooling performance 7 °C/12 °C (6)													
Cooling capacity	kW	1,42	1,78	2,03	1,42	1,78	2,03	1,73	2,31	2,83	1,73	2,31	2,83
Sensible cooling capacity	kW	1,05	1,37	1,64	1,05	1,37	1,64	1,28	1,79	2,04	1,28	1,79	2,04
Water flow rate system side	l/h	349	349	349	349	349	349	487	487	487	487	487	487
Pressure drop system side	kPa	18	18	18	18	18	18	22	22	22	22	22	22
Fan													
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Inverter			Asynchronous			Inverter		
Number	no.	2			2			2			2		
Air flow rate	m ³ /h	190	270	350	190	270	350	240	350	460	240	350	460
Fan coil sound data (7)													
Sound power level	dB(A)	35,0	43,0	48,0	35,0	43,0	48,0	34,0	43,0	50,0	34,0	43,0	50,0
Sound pressure	dB(A)	27,0	35,0	40,0	27,0	35,0	40,0	26,0	33,0	40,0	26,0	33,0	40,0
Fan													
Input power	W	35	35	35	12	12	12	42	42	42	16	16	16
Electrical wiring		V1	V2	V1	-	-	-	V1	V2	V3	-	-	-
Signal 0-10V	%	-	-	-	5	7	9	-	-	-	5	7	9
Diameter hydraulic fittings													
Main heat exchanger	Ø	1/2"			1/2"			1/2"			1/2"		
Finned pack heat exchanger													
Water content main heat exchanger	l	0,8			0,8			1,1			1,1		
Power supply													
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

- (1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
- (2) Room air 20 °C b.s.; Water (in) 50 °C; Water flow rate as in cooling mode (EUROVENT)
- (3) Radiant power + natural convection; Hot water (in) 70 °C (water flow same as in heating cycle)
- (4) Radiant power + natural convection; Hot water (in/*) 50 °C/*°C (water flow same as in heating cycle)
- (5) Radiant power + natural convection; Hot water (in/*) 35 °C/*°C (water flow same as in heating cycle)
- (6) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
- (7) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

HEATING CAPACITY WITH FAN OFF



DIMENSIONS



		UL27R	UL27RI	UL37R	UL37RI
Dimensions and weights					
A	mm	513	513	513	513
B	mm	980	980	1200	1200
C	mm	173	173	173	173
D	mm	93	93	93	93
Empty weight	kg	20	20	24	24
Dimensions and weights for transport					
H	mm	275	275	275	275
L	mm	1050	1050	1270	1270
P	mm	590	590	590	590
Weight for transport	kg	22,0	22,0	27,0	27,0

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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