

# OMNIA RADIANT

FAN COIL WITH RADIANT HEATING PANEL

THE FAN COIL FEATURING 3 HEATING MODES

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Floor & ceiling installation

On/off & inverter versions, applicable with VMF management system

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OMNIA RADIANT AND OMNIA RADIANT PLUS

# 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.

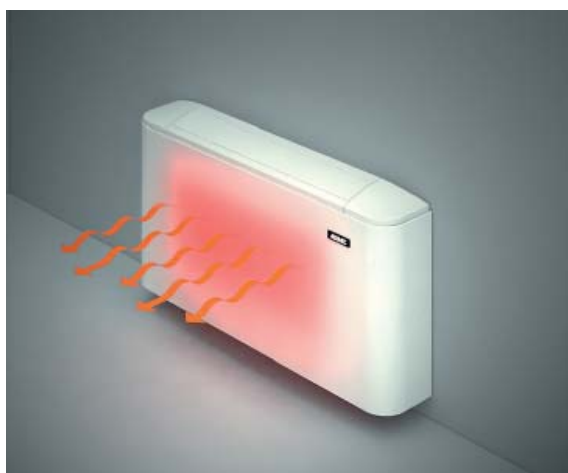
This allows to achieve up to 60% in energy saving when compared to the traditional On-Off fan system, in both air conditioning and heating.

*\* Radiant Technology under licence*



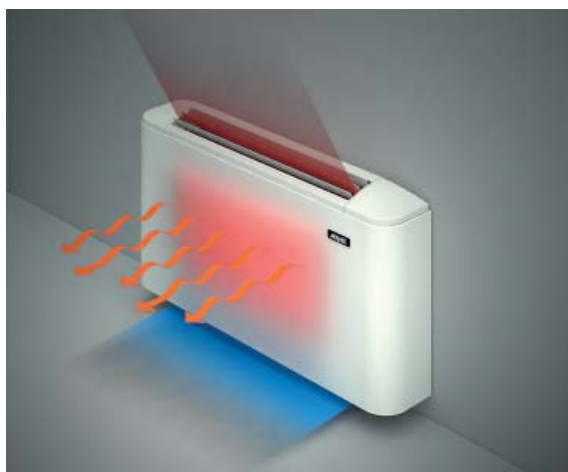
# Le 4 modalità distintive del funzionamento a ciclo annuale di Omnia Radiant

**Omnia Radiant** d'inverno può riscaldare l'ambiente in **4 diverse modalità**:



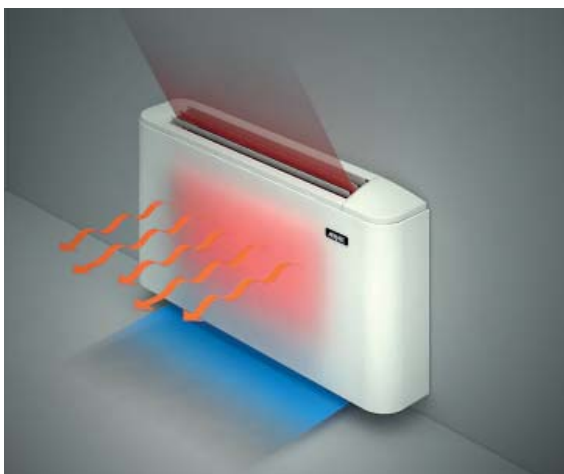
## Radiant

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.



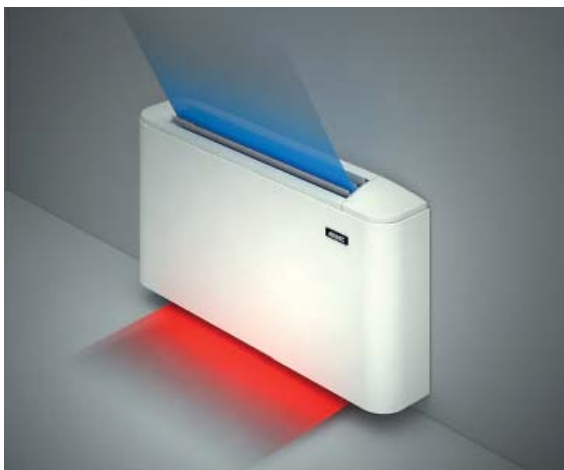
## Radiant + Natural Convection

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.



### 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.

# 3 livelli di comfort in riscaldamento

**Omnia Radiant** can manage **three levels of heating during winter**:

- **Radiant**
- **Radiant + Natural Convection**
- **Radiant + Forced Convection**

During winter operating mode, OMNIA Radiant and Radiant Plus will give priority to indoor heating through radiation, exactly as an usual radiator, using natural convection and forced convection only when it is needed (e.g. for the start-up).



- 1 Radiant plate
- 2 Switching valve

- 3 Water probe
- 4 Condensate storage container, hydraulic hoses

# Features of the Omnia Radiant series



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 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**.



The fan system allows to quickly reach the desired temperature, meeting the requirement of a **fast start-up**.



During summer Omnia Radiant and Radiant Plus provide **air conditioning and dehumidification** in a fast and efficient way in every room.



**OMNIA Radiant e Radiant Plus fan coils**, combined with the innovative annual cycle AERMEC **heat pumps** technology, during summer refresh and dehumidify the house.

**Radiant e Radiant Plus** can also be controlled through the innovative **VMF Aermec System**: the Manage and Control System of the whole heating, air conditioning, controlled mechanical ventilations and domestic hot water production. The VMF allows all the system devices to interact between them: boiler/heat pump, fan coils and possible renewable energy integration system.

\* Winner for the International design Award "Good Design 2010" for the "Electronics"

## Technical Data

| Omnia UL R   |     |         | 26            |      |      | 36   |      |      |
|--|-----|---------|---------------|------|------|------|------|------|
| Fan speed  |     |         | H             | M    | L    | H    | M    | L    |
| <b>Heating Performance - 2 pipe configuration</b>  |     |         |               |      |      |      |      |      |
| Heating capacity (70°C)                            | (1) | kW      | 4,62          | 3,83 | 2,89 | 5,94 | 4,87 | 3,53 |
| Heating capacity (50°C)                            | (2) | kW      |               | 2,75 |      |      | 3,54 |      |
| Water flow rate                                    |     | l/h     |               | 397  |      |      | 511  |      |
| Pressure drop                                      |     | kPa     |               | 17   |      |      | 21   |      |
| Static heating power (70°C)                        | (3) | kW      |               | 0,65 |      |      | 0,75 |      |
| Static heating power (50°C)                        | (4) | kW      |               | 0,39 |      |      | 0,45 |      |
| Static heating power (35°C)                        | (5) | kW      |               | 0,20 |      |      | 0,23 |      |
| <b>Cooling Performance</b>                         |     |         |               |      |      |      |      |      |
| Total cooling capacity                             | (6) | kW      | 2,03          | 1,78 | 1,42 | 2,83 | 2,31 | 1,73 |
| Sensible cooling capacity                          | (6) | kW      | 1,64          | 1,37 | 1,05 | 2,04 | 1,79 | 1,28 |
| Water flow rate                                    | (6) | l/h     |               | 349  |      |      | 487  |      |
| Pressure drops                                     | (6) | kPa     |               | 18   |      |      | 22   |      |
| Water content                                      |     | l       |               | 0,8  |      |      | 1,1  |      |
| <b>Fans</b>  |     |         |               |      |      |      |      |      |
| Fan  |     | type/n° | centrifugal/2 |      |      |      |      |      |
| Air flow rate                                      |     | m³/h    | 350           | 270  | 190  | 460  | 350  | 240  |
| <b>Sound data</b>                                  |     |         |               |      |      |      |      |      |
| Sound power level                                  | (7) | dB(A)   | 48            | 43   | 35   | 50   | 43   | 34   |
| Sound pressure level                               |     | dB(A)   | 40            | 35   | 27   | 40   | 33   | 26   |
| <b>Diameter connections</b>                        |     |         |               |      |      |      |      |      |
| Standard coil                                      |     | Ø(mm)   | 14            |      |      | 14   |      |      |
| <b>Electrical Features</b>                         |     |         |               |      |      |      |      |      |
| Absorbed power                                     |     | W       | 35            |      |      | 42   |      |      |
| Max. input current                                 |     | A       | 0,18          |      |      | 0,22 |      |      |
| Electrical connections                             |     |         | V3            | V2   | V1   | V3   | V2   | V1   |
| Power supply                                       |     | V/ph/Hz | 230V~50Hz     |      |      |      |      |      |
| <b>Energy Efficiency classification (EUROVENT)</b> |     |         |               |      |      |      |      |      |
| FCEER  |     |         | D             |      |      | D    |      |      |
| FCCOP  | (8) |         | D             |      |      | D    |      |      |

H max. speed; M med. speed; L min. speed

(1) Room air 20°C b.s.; 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) Room temperature 20°C b.s.; 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 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(7) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Level of sound pressure (A-weighted) measured in the room with volume V = 85m³; reverberation time t = 0.5s; direction factor Q = 2; distance r = 2.5m

(8) FCCOP Related to: Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode

**Note: For more information, please refer to the program selection and the technical documentation available on the website [www.aermec.com](http://www.aermec.com)**



## Technical Data

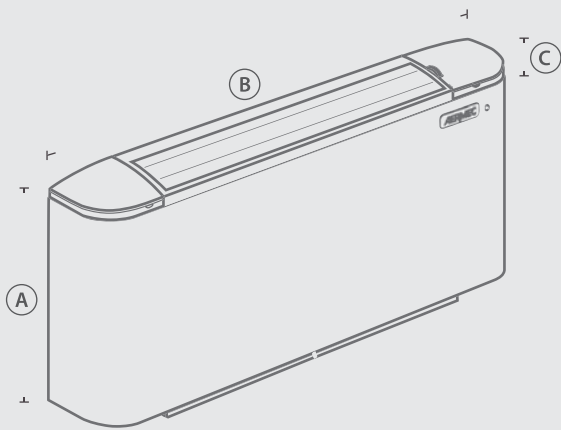


| Omnia UL RI  |     |         | 26            |      |      | 36   |      |      |
|--|-----|---------|---------------|------|------|------|------|------|
| Fan speed  |     |         | H             | M    | L    | H    | M    | L    |
| <b>Heating Performance - 2 pipe configuration</b>  |     |         |               |      |      |      |      |      |
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| Water flow rate                                    |     | l/h     |               | 397  |      |      | 511  |      |
| Pressure drop                                      |     | kPa     |               | 17   |      |      | 21   |      |
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| Air flow rate                                      |     | m³/h    | 350           | 270  | 190  | 460  | 350  | 240  |
| <b>Sound data</b>                                  |     |         |               |      |      |      |      |      |
| Sound power level                                  |     | dB(A)   | 48            | 43   | 35   | 50   | 43   | 34   |
| Sound pressure level                               |     | dB(A)   | 40            | 35   | 27   | 40   | 33   | 26   |
| <b>Diameter connections</b>                        |     |         |               |      |      |      |      |      |
| Standard coil                                      |     | Ø(mm)   | 14            |      |      | 14   |      |      |
| <b>Electrical Features</b>                         |     |         |               |      |      |      |      |      |
| Absorbed power                                     |     | W       | 12            |      |      | 16   |      |      |
| Max. input current                                 |     | A       | 0,18          |      |      | 0,22 |      |      |
| Electrical connections                             |     |         | 9V            | 7V   | 5V   | 9V   | 7V   | 5V   |
| Power supply                                       |     | V/ph/Hz | 230V~50Hz     |      |      |      |      |      |
| <b>Energy Efficiency classification (EUROVENT)</b> |     |         |               |      |      |      |      |      |
| FCEER  |     |         | D             |      |      | D    |      |      |
| FCCOP  | (8) |         | D             |      |      | D    |      |      |

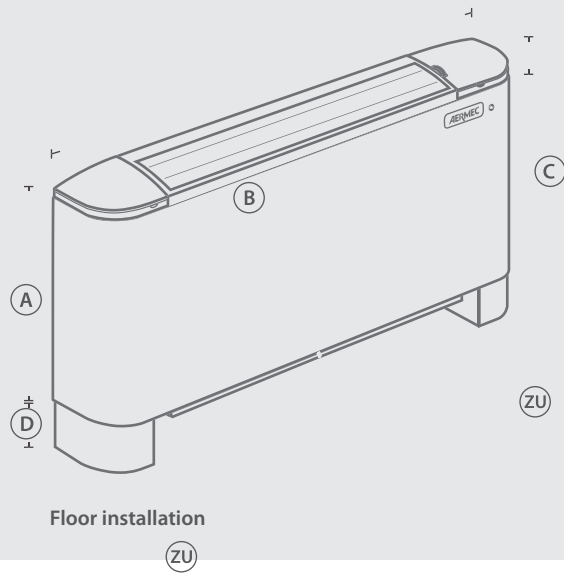


Aermec  
participate in the EUROVENT program: FCU  
the products are present on the site  
[www.eurovent-certification.com](http://www.eurovent-certification.com)

## Dimensions



Wall installation



Floor installation

## Dimensions in mm

| OMNIA ULR - ULRI               | u.m. | 26  | 36   |
|--------------------------------|------|-----|------|
| Height (mm)                    | A    | 606 | 606  |
| Width(mm)                      | B    | 980 | 1200 |
| Depth (mm)                     | C    | 173 | 173  |
| Height with - Accessories (mm) | D    | 93  | 93   |
| Weight <sup>(1)</sup>          | (Kg) | 20  | 24   |

(1) Standard configuration of unit with accessories

Please note: the coil of the Omnia Radiant series' fan coil unit has hydraulic connections on the left side and is not reversible.



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