# High wall-mounted fan coil units

# FM 2 - 4 kW

Inverter Technology


BLDC motor | Supervision GARDA | 2 pipes systems | Tangential fan | High wall mounting | Infrared remote controller

## New Galletti hydronic indoor unit which combines quiet operation, a refined design and comfort control

FM stands out for its advanced technological features, including a BLDC motor, incorporated adjustment valve and serial communication.
Automatic control of the fan speed is managed through a proportional, integrative and derivative logic capable of ensuring stability, precision and rapid intervention, respectively.
The serial communication enables the interaction of up to 32 units, thus guaranteeing a global management with automatic adjustment of the parameters on all units coordinated from a single point.
With the WALLPAD accessory it is possible to control the units connected in the system one by one.
FM can be interconnected with a supervision system with Modbus communication.
On the one hand the valve already installed on the unit and the system of hoses permits fast, safe installation, and on the other hand the BLDC fan motor technology and coil providing an optimized heat exchange offer the user a quiet, high-performance, energy efficient indoor unit.

## PLUS

- Electronically controlled BLDC motor
- Compact dimensions, identical for the whole range
- Incorporated 2- way ON OFF valves
- PID regulation
- Construction of global addressable networks with an external supervisor

**22/32/42 models**
The models with a 2-way valve already installed on them can be perfectly adapted to systems which include a modulating circulator or another means for varying the water flow.

## MAIN COMPONENTS

### Cabinet
The ABS cabinet features attractive design, for every type of environment. The integrated air outlet is equipped with a motor driven flap that can sweep automatically or be positioned manually, and adjustable fins for a uniform distribution of air in the room. The front panel is complete with display to show all the functions of the unit and the room temperature.

### Heat exchanger
The finned block heat exchangers consist of copper tubing and aluminium fins.
The hydrophilic treatment on the fins assures an optimal heat exchange even in the presence of surface condensation.

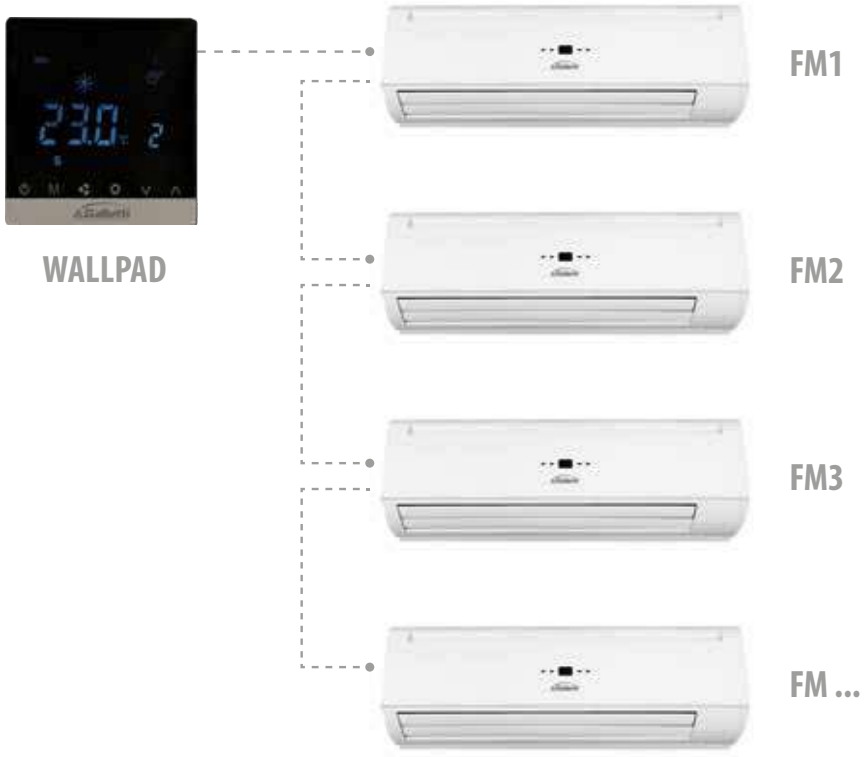
### Valve assembly
Two-way ON/OFF valves already wired and installed inside the indoor unit. The connection to the system is made with hoses located on the rear of the unit.
Without any increase in dimensions or complications in installation, the valve closes on reaching the set point, recirculating the flow of water and preventing it from entering the heat exchanger.

### Remote control
Supplied as a standard feature, the infrared controller can be used to control a single indoor unit or a combined network and to program daily time slots.

### BLDC motor
Permanent magnet electronic motor enabling continuous modulation of the fan speed with electricity consumption reduced by more than one half compared to asynchronous motors.

### Fan
Low-noise tangential fan.

### WALLPAD
The true strong point of this controller is tied to the development of communication networks. By connecting up to 32 units via a network bus and connecting the WALLPAD controller to one of them (Master) it is possible to control their operation.
In particular, the user can choose whether to communicate simultaneously with all of the connected units, for example to change the operating mode of the entire system, or dialogue with each individual unit, differentiating the settings between one fan coil and another. The selection of "global" communication or communication with a single indoor unit is made by simply pressing a button.




## ACCESSORIES

| Wire remote control | |
|---|---|
| **WALLPAD** | The wired controller, which may be mounted on the wall, enables advanced control of the hydronic indoor unit. In particular the controller provides the user with detailed information concerning the operating status of the unit at any given time, including temperature, set point, speed, operating mode, flap movement and a lot of other information. It also implements a weekly control of the time slots with an on/off timer. |

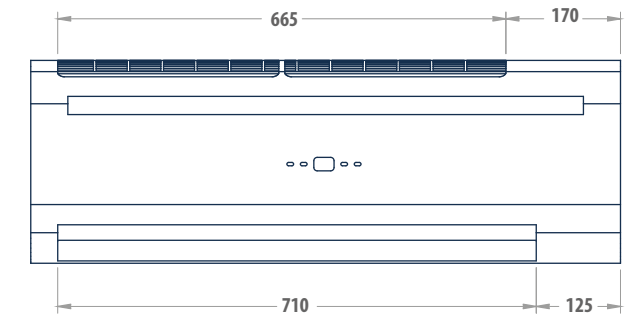
## RATED TECHNICAL DATA

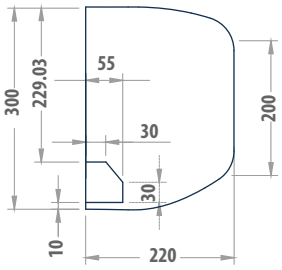
| FM | | | 22 | | | 32 | | | 42 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Speed | | | min | med | max | min | med | max | min | med | max |
| Total cooling capacity | (1)(E) | kW | 1,21 | 1,43 | 1,82 | 1,86 | 2,47 | 3,01 | 2,66 | 3,26 | 3,71 |
| Sensible cooling capacity | (1)(E) | kW | 1,00 | 1,20 | 1,53 | 1,35 | 1,81 | 2,22 | 1,94 | 2,40 | 2,74 |
| FCEER class | | | | C | | | B | | | B | |
| Water flow | (2) | l/h | 191 | 229 | 288 | 227 | 301 | 367 | 458 | 561 | 639 |
| Water pressure drop | (2)(E) | kPa | 12 | 19 | 29 | 16 | 28 | 39 | 28 | 40 | 50 |
| 2/3-way valve pressure drop | (2) | kPa | 2 | 3 | 5 | 5 | 6 | 11 | 11 | 17 | 22 |
| Heating capacity | (3)(E) | kW | 1,38 | 1,76 | 2,23 | 2,07 | 2,65 | 3,25 | 3,12 | 3,86 | 4,06 |
| FCCOP class | | | | C | | | B | | | B | |
| Water flow | (3) | l/h | 250 | 303 | 384 | 289 | 369 | 453 | 537 | 665 | 699 |
| Water pressure drop | (3)(E) | kPa | 12 | 19 | 29 | 17 | 28 | 39 | 32 | 46 | 52 |
| Rated air flow | | $m^3/h$ | 290 | 370 | 500 | 370 | 500 | 645 | 570 | 740 | 788 |
| Power input | (E) | W | 10 | 13 | 18 | 10 | 15 | 22 | 13 | 20 | 30 |
| Total sound power level | (4)(E) | dB(A) | 33 | 35 | 45 | 40 | 43 | 54 | 46 | 53 | 58 |

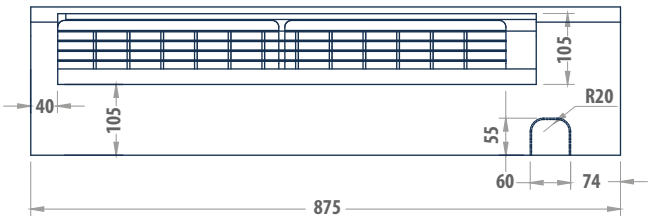
(1) Water temperature 7°C / 12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity) according to EN1397:2015
(2) Water temperature 7°C / 12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity)
(3) Water temperature 45°C / 40°C, air temperature 20°C
(4) Sound power measured according to standards ISO 3741 and ISO 3742
(E) EUROVENT certified data
Power supply 230-1-50 or 220/-1-60 (V-ph-Hz)

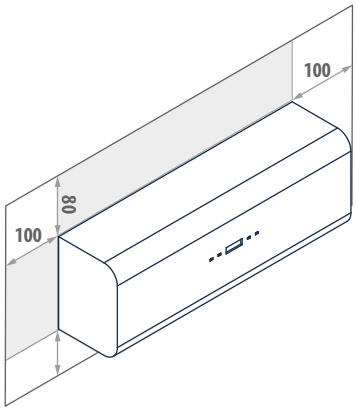
# DIMENSIONAL DRAWINGS

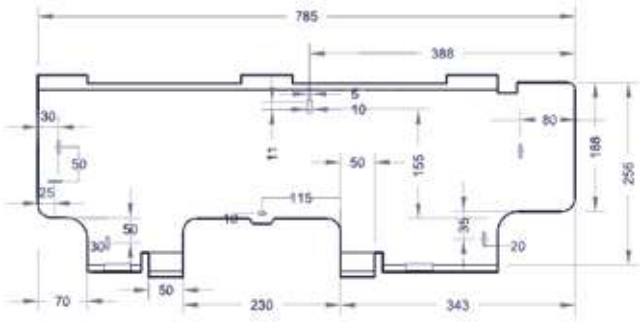
## FM




| FM | | 22 | 32 | 42 |
|---|---|---|---|---|
| Water connections | " | | 1/2 | |
| Condensate discharge | mm | | 16 | |
| Weight | kg | 12 | 13 | 14 |