

# FCW

## Fan coils wall-mount installation



- Versions with internal 2 or 3-way valve
- Compact dimensions



### DESCRIPTION

Fan coil model for wall-mount installations, whose elegance and reduced dimensions make it aesthetically pleasing; this terminal is thus suitable for applications in residential or light commercial sectors.

To respond to the various system requirements, the product is configurable and available with or without (2- or 3-way) valve, as well as with or without control board, which ensures compatibility with various system requirements.

Fan coils without control board must be necessarily combined with an external control device.

### VERSIONS

- 2V** Internal 2-way valve and microprocessor control
- 2VN** Internal 2-way valve without microprocessor control
- 3V** Internal 3-way valve and microprocessor control
- 3VN** Internal 3-way valve without microprocessor control
- VL** Without internal valve but with microprocessor control
- VLN** Without internal valve and microprocessor control

### FEATURES

#### Case

- Aesthetically styled with flat panel:
- Microprocessor control

- Air flow louvered fins with horizontal adjustment facility
- Colors pure white pantone GRIS 1C RAL 9010.

#### Ventilation group

Consisting of a tangential fan, especially quiet and directly coupled to the motor shaft.

Three-speed cross flow fan.

#### Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas hydraulic connections and is fitted with air vents.

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

#### Air filter

Fan coils are fitted with air filters easy to remove and clean.

#### Control

The versions with microprocessor control have:

- Timer for programming switch-off or switch-on (TLW2 and PFW2)
- Program for operation in automatic, cooling, heating, ventilation and air ionising mode (TLW2 and PFW2)
- Night time Well-being Program (TLW2)
- Automatic season change (TLW2 and PFW2)
- Automatic re-start after power cut.

## ACCESSORIES

For models with control board installed

**FCW\_2V, 3V, VL it is mandatory to select among the user interfaces designed for the FCW series (TLW2 or PFW2)**

**PFW2:** Wired panel to control all the functions of the unit. It is supplied separately and can control only one unit. The panel must be installed on the wall and connected to the fan coil with the supplied cable, 7.5 meters long.

**TLW2:** Infrared remote control with liquid crystal display for controlling all unit functions. The remote control is delivered separately from the fan coil; with a single remote control it is possible to control more than one fan coil. The remote control is equipped with a support that allows you to hang it on the wall, from which it can be operated without having to be removed.

**TLW2**



**PFW2**



For models without control board installed

**FCW\_2VN, 3VN, VLN a user interface must be mounted outside the fan coil, using either a visible or a recessed wall-mount installation.**

To make the selection please refer to the "control panels" or "VMF system shett" where you will find comprehensive information on this topic.

**VMF-E0X:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**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.

## ACCESSORIES COMPATIBILITY

VMF system

Control panels and dedicated accessories

| Model    | Ver      | 22 | 32 | 42 | 52 |
|----------|----------|----|----|----|----|
| PFW2     | 2V,3V,VL | .  | .  | .  | .  |
| TLW2 (1) | 2V,3V,VL | .  | .  | .  | .  |

(1) Accessory is required for operating the fan coil as an alternative to the wired remote control panel PFW2. mandatory accessory for versions with controller FCW\_2V, FCW\_3V, FCW\_VL.

## PERFORMANCE SPECIFICATIONS

### 2-pipe

|  | FCW22VL |   |   | FCW32VL |   |   | FCW42VL |   |   | FCW52VL |   |   | FCW222V |   |   | FCW223V |   |   |
|--|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|
|  | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 |
|  | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |       |       |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|-------|-------|------|------|------|------|------|------|
| Heating capacity            | kW  | 2,85 | 3,66 | 4,29 | 3,73 | 4,51 | 5,24 | 6,44 | 7,84 | 8,56 | 8,20 | 13,06 | 15,28 | 2,35 | 3,02 | 4,03 | 2,35 | 3,02 | 4,03 |
| Water flow rate system side | l/h | 250  | 321  | 377  | 328  | 396  | 460  | 565  | 688  | 751  | 718  | 1145  | 1339  | 206  | 265  | 354  | 206  | 265  | 354  |
| Pressure drop system side   | kPa | 4    | 6    | 9    | 9    | 12   | 16   | 16   | 22   | 26   | 10   | 23    | 30    | 9    | 14   | 24   | 9    | 14   | 24   |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,42 | 1,82 | 2,14 | 1,85 | 2,24 | 2,61 | 3,21 | 3,90 | 4,26 | 4,10 | 6,50 | 7,60 | 1,17 | 1,50 | 2,00 | 1,17 | 1,50 | 2,00 |
| Water flow rate system side | l/h | 246  | 316  | 371  | 322  | 390  | 453  | 556  | 677  | 739  | 712  | 1129 | 1320 | 203  | 261  | 348  | 203  | 261  | 348  |
| Pressure drop system side   | kPa | 4    | 6    | 8    | 9    | 12   | 16   | 15   | 22   | 25   | 10   | 22   | 29   | 9    | 14   | 24   | 9    | 14   | 24   |

#### Cooling performance 7 °C / 12 °C (3)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 1,37 | 1,74 | 2,05 | 1,78 | 2,15 | 2,50 | 3,07 | 3,74 | 4,08 | 4,40 | 6,50 | 7,45 | 1,10 | 1,45 | 1,90 | 1,10 | 1,45 | 1,90 |
| Sensible cooling capacity   | kW  | 1,16 | 1,47 | 1,73 | 1,51 | 1,82 | 2,04 | 2,59 | 3,10 | 3,47 | 3,30 | 5,05 | 5,80 | 0,92 | 1,20 | 1,55 | 0,92 | 1,20 | 1,55 |
| Water flow rate system side | l/h | 236  | 299  | 353  | 306  | 370  | 430  | 528  | 643  | 702  | 755  | 1115 | 1278 | 189  | 249  | 327  | 189  | 249  | 327  |
| Pressure drop system side   | kPa | 5    | 7    | 9    | 8    | 11   | 15   | 15   | 21   | 26   | 12   | 24   | 30   | 9    | 14   | 23   | 9    | 14   | 23   |

#### Fan

|               |                   |              |     |     |              |     |     |              |     |     |              |     |      |              |     |     |     |     |     |
|---------------|-------------------|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|------|--------------|-----|-----|-----|-----|-----|
| Type          | type              | Tangential   |     |     | Tangential   |     |     | Tangential   |     |     | Tangential   |     |      | Tangential   |     |     |     |     |     |
| Fan motor     | type              | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |      | Asynchronous |     |     |     |     |     |
| Number        | no.               | 1            |     |     | 1            |     |     | 1            |     |     | 1            |     |      | 1            |     |     |     |     |     |
| Air flow rate | m <sup>3</sup> /h | 280          | 340 | 389 | 330          | 400 | 446 | 476          | 602 | 684 | 592          | 945 | 1179 | 270          | 330 | 380 | 270 | 330 | 380 |
| Input power   | W                 | 23           | 24  | 27  | 22           | 23  | 27  | 31           | 41  | 48  | 38           | 55  | 75   | 23           | 24  | 27  | 23  | 24  | 27  |

#### Fan coil sound data (4)

|                   |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level | dB(A) | 42,0 | 48,0 | 53,0 | 42,0 | 48,0 | 53,0 | 44,0 | 49,0 | 54,0 | 44,0 | 54,0 | 60,0 | 42,0 | 48,0 | 53,0 | 42,0 | 48,0 | 53,0 |
| Sound pressure    | dB(A) | 34,0 | 39,5 | 44,5 | 34,0 | 39,5 | 44,5 | 35,5 | 40,5 | 45,5 | 35,5 | 45,5 | 51,5 | 34,0 | 39,5 | 44,5 | 34,0 | 39,5 | 44,5 |

#### Diameter hydraulic fittings

|           |   |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |
|-----------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|
| Main coil | ∅ | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 3/4" |  |  | 1/2" |  |  | 1/2" |  |  |
|-----------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|

#### Power supply

|              |  |           |  |  |           |  |  |           |  |  |           |  |  |           |  |  |           |  |  |
|--------------|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|
| Power supply |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  |
|--------------|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|

|  | FCW322V |   |   | FCW323V |   |   | FCW422V |   |   | FCW423V |   |   | FCW522V |   |   | FCW523V |   |   |
|--|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|
|  | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 |
|  | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |      |       |       |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|------|-------|-------|
| Heating capacity            | kW  | 3,25 | 4,36 | 5,03 | 3,25 | 4,36 | 5,03 | 6,29 | 7,23 | 7,97 | 6,29 | 7,23 | 7,97 | 8,04 | 11,80 | 14,00 | 8,04 | 11,80 | 14,00 |
| Water flow rate system side | l/h | 286  | 383  | 442  | 286  | 383  | 442  | 552  | 635  | 699  | 552  | 635  | 699  | 704  | 1034  | 1227  | 704  | 1034  | 1227  |
| Pressure drop system side   | kPa | 13   | 22   | 29   | 13   | 22   | 29   | 21   | 27   | 32   | 21   | 27   | 32   | 10   | 21    | 28    | 10   | 21    | 28    |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,62 | 2,17 | 2,50 | 1,62 | 2,17 | 2,50 | 3,13 | 3,60 | 3,96 | 3,13 | 3,60 | 3,96 | 4,00 | 5,90 | 7,00 | 4,00 | 5,90 | 7,00 |
| Water flow rate system side | l/h | 281  | 377  | 434  | 281  | 377  | 434  | 543  | 624  | 688  | 543  | 624  | 688  | 695  | 1025 | 1216 | 695  | 1025 | 1216 |
| Pressure drop system side   | kPa | 13   | 22   | 29   | 13   | 22   | 29   | 20   | 26   | 31   | 20   | 26   | 31   | 11   | 22   | 30   | 11   | 22   | 30   |

#### Cooling performance 7 °C / 12 °C (3)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 1,55 | 2,08 | 2,40 | 1,55 | 2,08 | 2,40 | 3,00 | 3,45 | 3,80 | 3,00 | 3,45 | 3,80 | 4,00 | 6,00 | 7,00 | 4,00 | 6,00 | 7,00 |
| Sensible cooling capacity   | kW  | 1,28 | 1,68 | 1,97 | 1,28 | 1,68 | 1,97 | 2,01 | 2,50 | 2,85 | 2,01 | 2,50 | 2,85 | 2,85 | 4,50 | 5,30 | 2,85 | 4,50 | 5,30 |
| Water flow rate system side | l/h | 267  | 358  | 413  | 267  | 358  | 413  | 516  | 593  | 654  | 516  | 593  | 654  | 686  | 1030 | 1201 | 686  | 1030 | 1201 |
| Pressure drop system side   | kPa | 13   | 22   | 29   | 13   | 22   | 29   | 21   | 27   | 32   | 21   | 27   | 32   | 11   | 23   | 30   | 11   | 23   | 30   |

#### Fan

|               |                   |              |     |     |              |     |     |              |     |     |              |     |     |              |     |      |     |     |      |
|---------------|-------------------|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|------|-----|-----|------|
| Type          | type              | Tangential   |     |     | Tangential   |     |     | Tangential   |     |     | Tangential   |     |     | Tangential   |     |      |     |     |      |
| Fan motor     | type              | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |      |     |     |      |
| Number        | no.               | 1            |     |     | 1            |     |     | 1            |     |     | 1            |     |     | 1            |     |      |     |     |      |
| Air flow rate | m <sup>3</sup> /h | 320          | 390 | 440 | 320          | 390 | 440 | 370          | 470 | 540 | 370          | 470 | 540 | 535          | 859 | 1082 | 535 | 859 | 1082 |
| Input power   | W                 | 22           | 23  | 27  | 22           | 23  | 27  | 31           | 41  | 48  | 31           | 41  | 48  | 38           | 55  | 75   | 38  | 55  | 75   |

#### Fan coil sound data (4)

|                   |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level | dB(A) | 42,0 | 48,0 | 53,0 | 42,0 | 48,0 | 53,0 | 44,0 | 49,0 | 54,0 | 44,0 | 49,0 | 54,0 | 44,0 | 54,0 | 60,0 | 44,0 | 54,0 | 60,0 |
| Sound pressure    | dB(A) | 34,0 | 39,5 | 44,5 | 34,0 | 39,5 | 44,5 | 35,5 | 40,5 | 45,5 | 35,5 | 40,5 | 45,5 | 35,5 | 45,5 | 51,5 | 35,5 | 45,5 | 51,5 |

#### Diameter hydraulic fittings

|           |   |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |
|-----------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|
| Main coil | ∅ | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 3/4" |  |  | 3/4" |  |  |
|-----------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|

#### Power supply

|              |  |           |  |  |           |  |  |           |  |  |           |  |  |           |  |  |           |  |  |
|--------------|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|
| Power supply |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  |
|--------------|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|

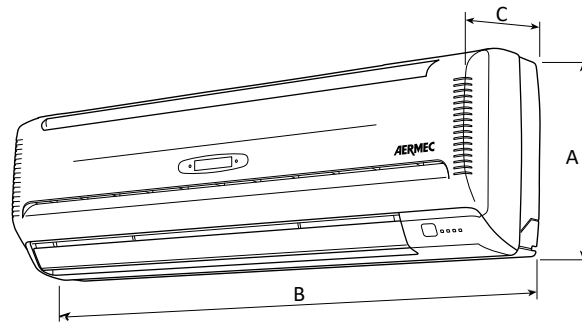
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS



|                               |    | FCW22VL | FCW32VL | FCW42VL | FCW52VL | FCW222V | FCW223V |
|-------------------------------|----|---------|---------|---------|---------|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |
| A                             | mm | 298     | 305     | 360     | 365     | 298     | 298     |
| B                             | mm | 880     | 990     | 1170    | 1450    | 880     | 880     |
| C                             | mm | 205     | 210     | 220     | 230     | 205     | 205     |
| Empty weight                  | kg | 9       | 10      | 19      | 28      | 9       | 9       |
|                               |    | FCW322V | FCW323V | FCW422V | FCW423V | FCW522V | FCW523V |
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |
| A                             | mm | 305     | 305     | 360     | 360     | 365     | 365     |
| B                             | mm | 990     | 990     | 1170    | 1170    | 1450    | 1450    |
| C                             | mm | 210     | 210     | 220     | 220     | 230     | 230     |
| Empty weight                  | kg | 10      | 10      | 19      | 19      | 28      | 28      |

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