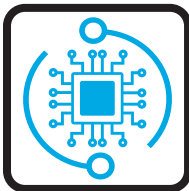


## PHW - HIGHWALL FAN COIL



### FEATURES



#### CONTROL FLEXIBILITY

Two types of control system: Intelligent control board (I-Control) controlled via Infra-red handset and/or Intelligent wired wall pad or Flexible control (W-Control) permitting operation with external thermostat applications both controls allows configuration for 2 or 4-pipe settings.

Please refer to page 14 for further information on controls.



#### INTEGRATED VALVES

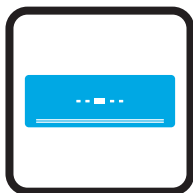
Optional 2 or 3-way both On/Off and modulating thermoelectric integrated valves located in a new position for easier maintenance. Synthetic elastomer tubes with stainless steel outer braiding and brass connectors, to enable quick and low-cost connections with no brazing.



#### ENERGY EFFICIENT MOTORS

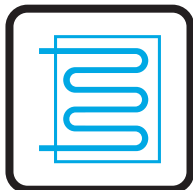
EC motors allow the tangential blower wheel to operate at optimum airflow performance, energy efficiency and quiet operation. EC motors include driven control PCB, constant torque, permanent magnet and 3 speeds pre-set or modulating with a 0-10 VDC signal for precise air balancing control.

## CASING



New stylish design built of durable flame-resistant ABS white color plastic, with rounded corners to give modern aesthetics and integrated LED display. Housed in only two casing sizes, to allow consistency and uniformity on projects where multiple units are required.

## WATER COILS



Built with seamless copper tubes and headers, mechanically expanded into corrugated aluminium fin material for a permanent primary to secondary surface bond. Tested at 35 bar, with maximum operating limits at 20 bar.

## READY TO INSTALL



The PHW range is offered as a complete package including standard items such as internal drain pan, NBR insulation, and MERV 4 filter.

Furthermore, we offer multiple optional accessories.

## KEY POINTS

- High latent performance- dehumidification
- Auto Dynamic Balancing with I-Control
- Easy maintenance accessibility
- 4 Pipe design



## ACCESSORIES

- IR Handset or Wired Wall Pad (Available with I-Control)
- Thermostat Controller (Available with W-Control)
- 2 or 3 Way On/Off & Modulating Valves
- Integrated Sauermann Condensate Pump
- Electric heater up to 1.5kW

\*Please refer to page 80 for further information and accessories.

# TECHNICAL SPECIFICATIONS

## Hydronic Highwall, 2 Pipe with **EC Motor**

| UNIT<br>GENERAL<br>SPECS      | PHW-[Size]-V-ECM          |         |       | 200                 | 300      | 400      | 500      | 600      | 750      |
|-------------------------------|---------------------------|---------|-------|---------------------|----------|----------|----------|----------|----------|
|                               | Configuration             |         |       | 2-pipe              |          |          |          |          |          |
|                               | Number of Fan Blowers     |         |       | Single              |          |          |          |          |          |
|                               | Power Supply (V/Ph/Hz)    |         |       | 220 - 240/1/50 - 60 |          |          |          |          |          |
| AIR                           | Total Air Flow            | H       | m3/h  | 380                 | 550      | 680      | 788      | 1050     | 1250     |
|                               |                           | M       |       | 270                 | 380      | 550      | 600      | 850      | 1020     |
|                               |                           | L       |       | 200                 | 270      | 340      | 380      | 510      | 600      |
| COOLING                       | Total Cooling Capacity    | H       | kW    | 1.85                | 2.51     | 3.3      | 4.37     | 5.03     | 6.57     |
|                               |                           | M       |       | 1.43                | 1.92     | 2.84     | 3.58     | 4.25     | 5.6      |
|                               |                           | L       |       | 1.12                | 1.46     | 1.94     | 2.52     | 2.89     | 3.72     |
|                               | Sensible Cooling Capacity | H       |       | 1.33                | 1.84     | 2.39     | 3.12     | 3.62     | 4.73     |
|                               |                           | M       |       | 1.01                | 1.37     | 2.04     | 2.52     | 3.02     | 3.97     |
|                               |                           | L       |       | 0.78                | 1.03     | 1.36     | 1.73     | 2.01     | 2.58     |
|                               |                           | HEATING |       | Heating Capacity    | H        | kW       | 1.9      | 2.62     | 3.4      |
| M                             | 1.48                      |         | 1.99  |                     | 2.91     |          | 3.57     | 4.35     | 5.7      |
| L                             | 1.16                      |         | 1.52  |                     | 2        |          | 2.51     | 2.94     | 3.77     |
| Max. Electric Heater Capacity |                           |         | 1     |                     | 1.5      |          |          |          |          |
| SOUND                         | Pressure Level (H/M/L)    |         | dB(A) | 33/27/25            | 42/33/27 | 47/42/30 | 50/45/33 | 51/46/32 | 53/48/36 |
|                               | Power Level (H/M/L)       |         |       | 42/36/34            | 51/42/36 | 56/51/39 | 59/54/42 | 60/55/41 | 62/57/45 |
| ELECTRICAL                    | Power Input               | H       | W     | 13                  | 20       | 30       | 38       | 50       | 65       |
|                               |                           | M       |       | 9                   | 13       | 20       | 25       | 31       | 40       |
|                               |                           | L       |       | 7                   | 9        | 11       | 13       | 12       | 16       |
|                               | Running Current (H)       |         | A     | 0.11                | 0.17     | 0.26     | 0.33     | 0.43     | 0.57     |
| HYDRONIC                      | Cooling Water Flow Rate   | H       | L/h   | 316                 | 431      | 565      | 749      | 863      | 1126     |
|                               |                           | M       |       | 244                 | 329      | 487      | 614      | 729      | 960      |
|                               |                           | L       |       | 193                 | 251      | 333      | 432      | 496      | 638      |
|                               | Cooling Pressure Drop     | H       | kPa   | 10                  | 9.6      | 14.8     | 20       | 32.5     | 56.1     |
|                               |                           | M       |       | 6.3                 | 5.9      | 11.3     | 14       | 24       | 42.1     |
|                               |                           | L       |       | 4.1                 | 3.6      | 5.7      | 7.4      | 12       | 20.2     |
|                               | Heating Water Flow Rate   | H       | L/h   | 326                 | 449      | 583      | 753      | 874      | 1138     |
|                               |                           | M       |       | 253                 | 342      | 498      | 612      | 745      | 977      |
|                               |                           | L       |       | 199                 | 261      | 343      | 431      | 504      | 647      |
|                               | Heating Pressure Drop     | H       | kPa   | 8.6                 | 8.5      | 9.2      | 20.1     | 30.7     | 57.3     |
|                               |                           | M       |       | 5.5                 | 5.2      | 7        | 13.9     | 23.1     | 43.5     |
|                               |                           | L       |       | 3.6                 | 3.2      | 3.6      | 7.4      | 11.4     | 20.7     |

### EUROVENT TESTING CONDITIONS:

#### a. Cooling mode (2-pipe):

- Return air temperature: 27°C DB/19°C WB
- Inlet/ outlet water temperature: 7°C/ 12°C

#### b. Heating mode (2-pipe):

- Return air temperature: 20°C
- Inlet water temperature: 45°C/40°C

\* Please refer to [www.eurovent-certification.com](http://www.eurovent-certification.com) for further information.

## TECHNICAL SPECIFICATIONS

Hydronic Highwall, 4 Pipe with **EC Motor**

| UNIT<br>GENERAL<br>SPECS | PHW-[Size]-P-ECM             |   |       | 500                 | 750      |
|--------------------------|------------------------------|---|-------|---------------------|----------|
|                          | Configuration                |   |       | 4-pipe              |          |
|                          | Number of Fan Blowers        |   |       | Single              |          |
|                          | Power Supply (V/Ph/Hz)       |   |       | 220 - 240/1/50 - 60 |          |
| AIR                      | Total<br>Air Flow            | H | m3/h  | 788                 | 1250     |
|                          |                              | M |       | 600                 | 1020     |
|                          |                              | L |       | 380                 | 600      |
| COOLING                  | Total Cooling<br>Capacity    | H | kW    | 3.15                | 4.91     |
|                          |                              | M |       | 2.58                | 4.18     |
|                          |                              | L |       | 1.81                | 2.78     |
|                          | Sensible Cooling<br>Capacity | H |       | 2.21                | 3.45     |
|                          |                              | M |       | 1.79                | 2.9      |
|                          |                              | L |       | 1.23                | 1.88     |
| HEATING                  | Heating<br>Capacity          | H | kW    | 2.3                 | 3.3      |
|                          |                              | M |       | 1.87                | 2.8      |
|                          |                              | L |       | 1.32                | 1.87     |
| SOUND                    | Pressure Level (H/M/L)       |   | dB(A) | 50/45/33            | 53/48/36 |
|                          | Power Level (H/M/L)          |   |       | 59/54/42            | 62/57/45 |
| ELECTRICAL               | Power Input                  | H | W     | 38                  | 65       |
|                          |                              | M |       | 25                  | 40       |
|                          |                              | L |       | 13                  | 16       |
|                          | Running Current (H)          |   | A     | 0.33                | 0.57     |
| HYDRONIC                 | Cooling<br>Water Flow Rate   | H | L/h   | 539                 | 841      |
|                          |                              | M |       | 442                 | 717      |
|                          |                              | L |       | 311                 | 477      |
|                          | Cooling<br>Pressure Drop     | H | kPa   | 21.1                | 53.2     |
|                          |                              | M |       | 14.8                | 39.9     |
|                          |                              | L |       | 7.8                 | 19.1     |
|                          | Heating<br>Water Flow Rate   | H | L/h   | 197                 | 283      |
|                          |                              | M |       | 161                 | 240      |
|                          |                              | L |       | 113                 | 161      |
|                          | Heating<br>Pressure Drop     | H | kPa   | 6.5                 | 12.4     |
|                          |                              | M |       | 4.5                 | 9.2      |
|                          |                              | L |       | 2.4                 | 4.5      |

### EUROVENT TESTING CONDITIONS:

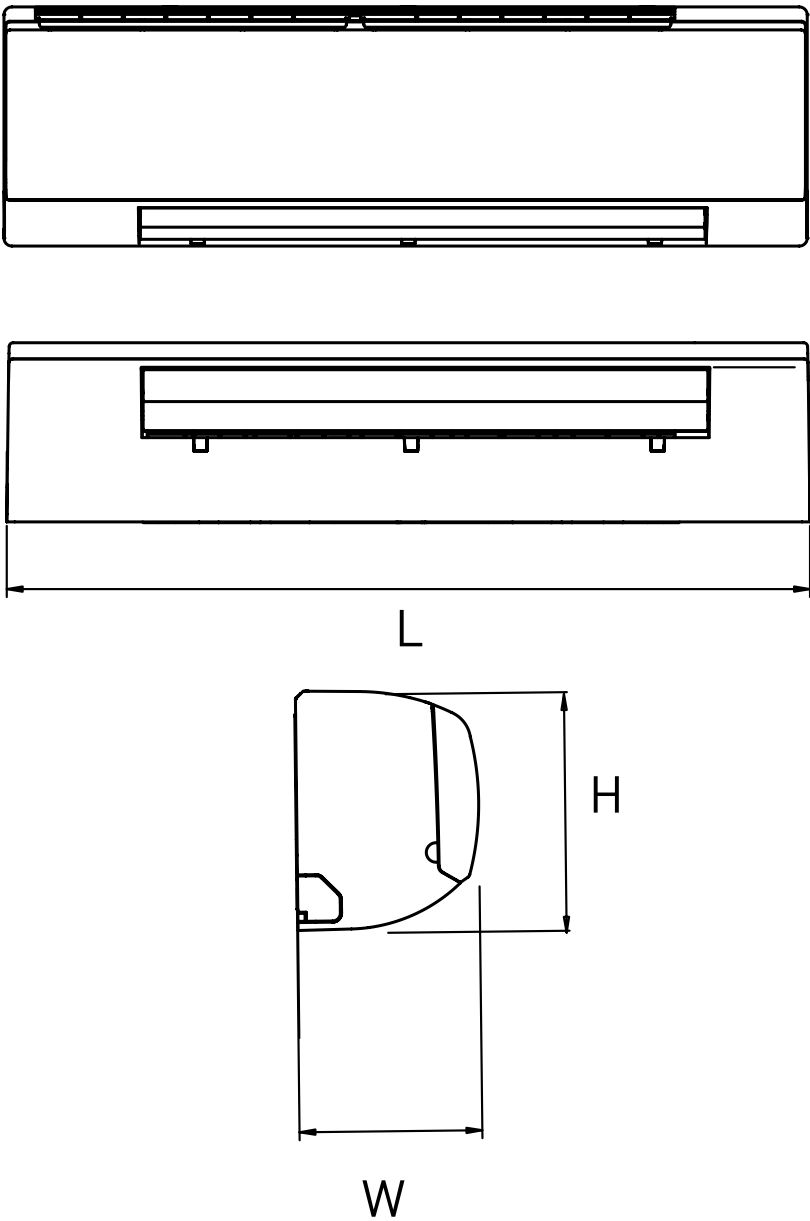
#### a. Cooling mode (4-pipe):

- Return air temperature: 27°C DB/19°C WB.
- Inlet/ outlet water temperature: 7°C/ 12°C

#### b. Heating mode (4-pipe):

- Return air temperature: 20°C
- Inlet water temperature: 65°C/55°C

DIMENSIONAL DRAWINGS, DATA & WEIGHTS



| PHW                                 |                        |      |              | 200                              | 300 | 400 | 500 | 600  | 750 |
|-------------------------------------|------------------------|------|--------------|----------------------------------|-----|-----|-----|------|-----|
| CONSTRUCTION<br>AND PACKING<br>DATA | Water<br>Connections   | Type |              | PT Threaded Male (from the hose) |     |     |     |      |     |
|                                     |                        | In   | mm<br>[inch] | 12.7 [1/2]                       |     |     |     |      |     |
|                                     |                        | Out  |              | 16 [5/8]                         |     |     |     |      |     |
|                                     | Condensate<br>Drainage |      | mm           | 1010                             |     |     |     | 1175 |     |
|                                     | Dimensions             | L    |              | 230                              |     |     |     |      |     |
|                                     |                        | W    |              | 300                              |     |     |     |      |     |
|                                     |                        | H    |              |                                  |     |     |     |      |     |
| WEIGHT                              | Net                    | kg   |              | 12                               | 14  | 15  | 17  | 18   | 19  |