



PHV Series.

A powerful solution for high-velocity applications.



Robust and reliable, Thermoscreens PHV air curtains are designed for exposed doorways that require higher than normal air velocity. Perfect for hotels, airports and commercial buildings, they provide extremely efficient climate separation in doorways up to 4m high (surface mounted) and 3.75m (recessed units).

Key features.



Water



Electric



Ambient



ErP compliant



Custom Paint

- A powerful solution for exposed doorways
- Ambient, water heated or electric heated
- Surface or recessed mounting
- Ecopower energy saving controls (water and electric units)
- ErP compliant and BMS ready
- Heating coils for low or high-grade water temperatures (60°C to 90°C)
- Water heated units supplied with a motorised three-port valve
- High-efficiency heating element (electric)
- Hinged grilles for easy installation and maintenance (recessed units)
- Downrated single phase output (electric units)
- Supplied with wall brackets as standard
- Ceiling fixings provided (excluding drop-rods)
- Joining kits available for connecting surface mounted units

Sizes (Width)

(Joining kits available)

1m, 1.5m and 2m

Mounting Height

Surface mounted - up to 4m

Recessed units - up to 3.75m

Colour

Standard RAL 9016 (White)

RAL colour matching available

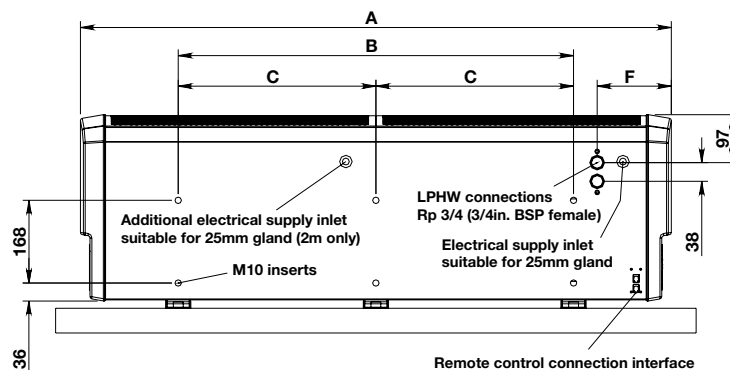
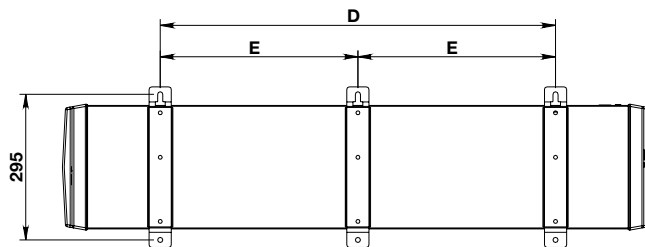
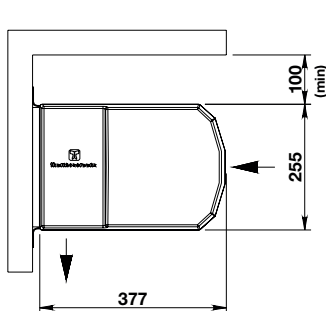
Warranty

2 years



PHV Series | Surface Mounted

| Model | Dimensions (L x W x D) (mm) | Supply (50Hz) | Loading (A) per phase | Heat output (kW) | Max velocity (m/s) | Max air volume (m ³ /h) | Weight (kg) | Noise output dB(A) @3m | | |
|--------------------------|--------------------------------|------------------|--------------------------|------------------------|--------------------------|--|----------------|---------------------------|----|----|
| | | | | | | | | H | M | L |
| Electric | | | | | | | | | | |
| PHV1000E | 1196x377x255 | 400V~3P&N | 18.7 | 6/12 | 12.0 | 2880 | 32 | 59 | 57 | 56 |
| PHV1500E | 1746x377x255 | 400V~3P&N | 27.9 | 9/18 | 12.0 | 4020 | 45 | 60 | 57 | 53 |
| PHV2000E | 2296x377x255 | 400V~3P&N | 37.5 | 12/24 | 12.0 | 5760 | 62 | 61 | 59 | 58 |
| Water 2 row 82/71 | | | | | | | | | | |
| PHV1000W | 1196x377x255 | 230V~1P&N | 1.3 | 6/12 | 11 | 2630 | 35 | 59 | 57 | 56 |
| PHV1500W | 1746x377x255 | 230V~1P&N | 1.8 | 9/18 | 11 | 3670 | 47 | 60 | 57 | 53 |
| PHV2000W | 2296x377x255 | 230V~1P&N | 2.7 | 12/24 | 11 | 5260 | 64 | 61 | 59 | 58 |
| Water 3 row 60/40 | | | | | | | | | | |
| PHV1000W | 1196x377x255 | 230V~1P&N | 1.3 | 6/12 | 10.5 | 2370 | 35 | 59 | 57 | 56 |
| PHV1500W | 1746x377x255 | 230V~1P&N | 1.8 | 6/18 | 10.5 | 3300 | 47 | 60 | 57 | 53 |
| PHV2000W | 2296x377x255 | 230V~1P&N | 2.7 | 12/24 | 10.5 | 4730 | 64 | 61 | 59 | 58 |
| Ambient | | | | | | | | | | |
| PHV1000A | 1196x377x255 | 230V~1P&N | 1.3 | - | 12.0 | 2880 | 29 | 59 | 57 | 56 |
| PHV1500A | 1746x377x255 | 230V~1P&N | 1.8 | - | 12.0 | 4020 | 43 | 60 | 57 | 53 |
| PHV2000A | 2296x377x255 | 230V~1P&N | 2.7 | - | 12.0 | 5760 | 58 | 61 | 59 | 58 |

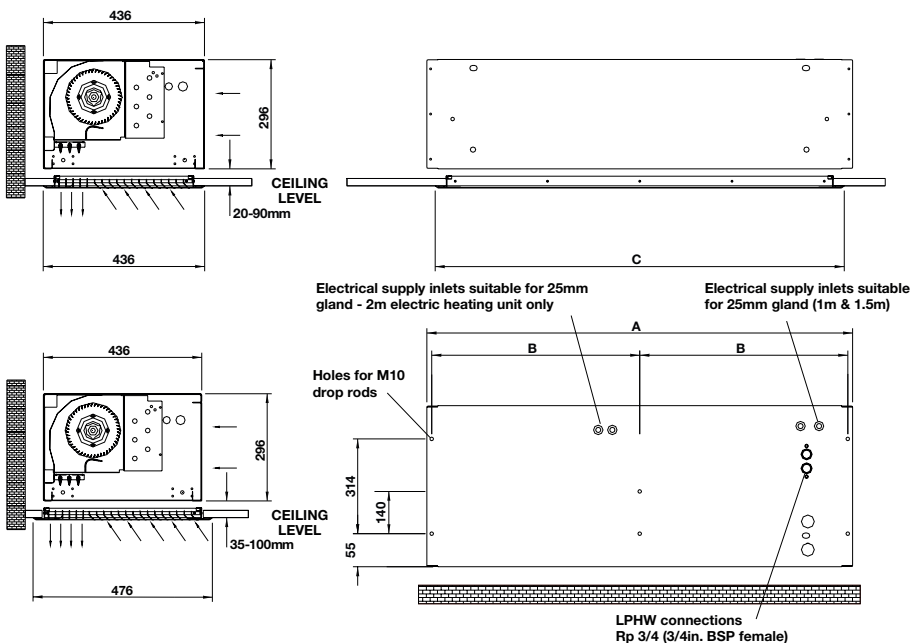


| | PHV1000 | PHV1500 | PHV2000 |
|--|---------|---------|---------|
|--|---------|---------|---------|

| | | | |
|--------|------|------|------|
| A (mm) | 1196 | 1746 | 2296 |
| B (mm) | 800 | 1400 | 1896 |
| C (mm) | - | 700 | 948 |
| D (mm) | 800 | 1300 | 1824 |
| E (mm) | - | 650 | 912 |
| F (mm) | 226 | 271 | 228 |

PHV Series | Recessed

| Model | Dimensions (L x W x D) (mm) | Standard grille size (mm) | Supply (50Hz) | Loading (A) per phase | Heat output (kW) | Max velocity (m/s) | Max air volume (m³/h) | Weight (kg) | Noise output dB(A) @3m | | | |
|--------------------------|--------------------------------|---------------------------------|------------------|--------------------------|------------------------|--------------------------|-----------------------------|----------------|---------------------------|----|----|--|
| | | | | | | | | | H | M | L | |
| Electric | | | | | | | | | | | | |
| PHV1000ER | 1150x436x296 | 1104x436 | 400V~3P&N | 18.7 | 6/12 | 11.5 | 2750 | 37 | 59 | 57 | 56 | |
| PHV1500ER | 1650x436x296 | 1604x436 | 400V~3P&N | 27.9 | 9/18 | 11.5 | 3840 | 53 | 60 | 57 | 53 | |
| PHV2000ER | 2240x436x296 | 2190x436 | 400V~3P&N | 37.5 | 12/24 | 11.5 | 5500 | 71 | 61 | 59 | 58 | |
| Water 2 row 82/71 | | | | | | | | | | | | |
| PHV1000WR | 1150x436x296 | 1104x436 | 230V~1P&N | 1.3 | 6/12 | 10.5 | 2500 | 40 | 59 | 57 | 56 | |
| PHV1500WR | 1650x436x296 | 1604x436 | 230V~1P&N | 1.8 | 9/18 | 10.5 | 3500 | 55 | 60 | 57 | 53 | |
| PHV2000WR | 2240x436x296 | 2190x436 | 230V~1P&N | 2.7 | 12/24 | 10.5 | 5010 | 73 | 61 | 59 | 58 | |
| Water 3 row 60/40 | | | | | | | | | | | | |
| PHV1000WR | 1150x436x296 | 1104x436 | 230V~1P&N | 1.3 | 6/12 | 10.0 | 2250 | 40 | 59 | 57 | 56 | |
| PHV1500WR | 1650x436x296 | 1604x436 | 230V~1P&N | 1.8 | 9/18 | 10.0 | 3150 | 55 | 60 | 57 | 53 | |
| PHV2000WR | 2240x436x296 | 2190x436 | 230V~1P&N | 2.7 | 12/24 | 10.0 | 4510 | 73 | 61 | 59 | 58 | |
| Ambient | | | | | | | | | | | | |
| PHV1000AR | 1150x436x296 | 1104x436 | 230V~1P&N | 1.3 | - | 11.5 | 2750 | 33 | 59 | 57 | 56 | |
| PHV1500AR | 1650x436x296 | 1604x436 | 230V~1P&N | 1.8 | - | 11.5 | 3840 | 47 | 60 | 57 | 53 | |
| PHV2000AR | 2240x436x296 | 2190x436 | 230V~1P&N | 2.7 | - | 11.5 | 5500 | 63 | 61 | 59 | 58 | |



Standard Recessed Grille

| | PHV1000R | PHV1500R | PHV2000R |
|-----------------|----------|----------|----------|
| A (mm) | 1150 | 1650 | 2240 |
| B (mm) | - | 800 | 1095 |
| C (mm) | 1104 | 1604 | 2190 |
| Aperture | | | |
| Length (mm) | 1055 | 1555 | 2145 |
| Width (mm) | 390 | 390 | 390 |

Wider Recessed Grille

| | PHV1000R | PHV1500R | PHV2000R |
|-----------------|----------|----------|----------|
| A (mm) | 1150 | 1650 | 2240 |
| B (mm) | - | 800 | 1095 |
| C (mm) | 1190 | 1690 | 2290 |
| Aperture | | | |
| Length (mm) | 1150 | 1650 | 2240 |
| Width (mm) | 436 | 436 | 436 |



Water flow rate and pressure drop calculations for different water temperatures.

To calculate water flow rate and coil pressure drop, use our coil calculation programme. Then calculate the new water drop (valve) using the following formula:

$$\text{New Water Pressure Drop (valve)} = \text{82/71 Water Pressure Drop (valve)} \times \left(\frac{\text{New Water Flow Rate}}{\text{82/71 Water Flow Rate}} \right)^2$$

Example:

PHV1500W at 85/65°C, EAT = 20°C
 82/71 Water flow rate = 23.4 l/min
 (from water flow rate and pressure drop table below)
New water flow rate = 11.4 l/min
 (from Thermoscreens coil calculation programme)
New water pressure drop (coil) = 0.6 kPa
 (from Thermoscreens coil calculation programme)

Therefore:

New water pressure drop (valve) =
 $7.0 \times \left(\frac{11.4}{23.4} \right)^2 = 1.7 \text{ kPa}$

Conversion factors:

1 kPa = 0.102m Water column
 10 l per minute = 0.6 m³/h

Water flow rate and pressure drop.

| PHV Series | 2 row coil (based on 82/71°C) | | | 3 row coil (based on 60/40°C) | | |
|------------------------|-------------------------------|-------------------------------------|--------------------------------------|-------------------------------|-------------------------------------|--------------------------------------|
| | Water flow rate (l/min) | Water pressure drop (coil) ΔP (kPa) | Water pressure drop (valve) ΔP (kPa) | Water flow rate (l/min) | Water pressure drop (coil) ΔP (kPa) | Water pressure drop (valve) ΔP (kPa) |
| PHV1000W/ PHV1000WR | 15.6 | 1.0 | 4.0 | 8.6 | 7.2 | 2.5 |
| PHV1500W/ PHV1500WR | 23.4 | 2.5 | 7.0 | 12.9 | 6.5 | 3.5 |
| PHV2000W/ PHV2000WR | 31.2 | 4.7 | 10.0 | 17.1 | 13.8 | 4.5 |

Accessories.

| Description | Part number |
|------------------------------|-------------|
| Master and slave lead: 6m | T5951110 |
| Ecopower extension lead: 10m | T5951112 |
| Ecopower extension lead: 15m | T5951113 |
| Ecopower extension lead: 30m | T5951114 |
| Extension lead coupler | T5951030 |
| Filters (Water/Ambient) | T7402510 |
| Joining kit | T7308200 |

A 3 port motorised valve is supplied loose with water heated PHV series air curtains which is fitted into the pipework during installation.

Thermoscreens



Your environment is our expertise.

Thermoscreens were one of the pioneers of modern air curtain technology, and we remain at the forefront of its evolution today. Our sales team work hand-in-hand with an international network of distributors, providing solutions to customers of all types and sizes, in more than 50 countries. Across the globe, our name is synonymous with the highest quality standards; our products renowned for their energy efficiency, reliability and ease of use.

