

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

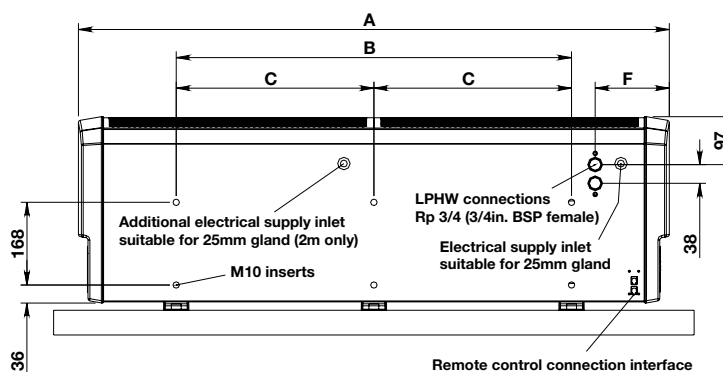
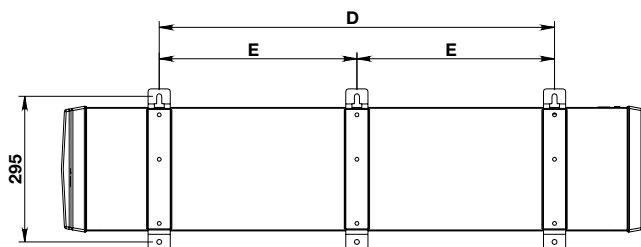
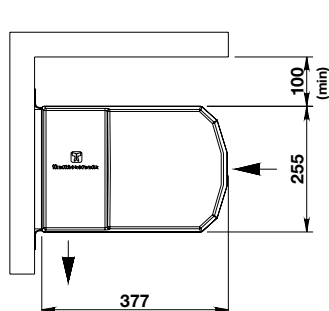
PHV1000W	1196x377x255	230V~1P&N	1.3	6/12	11	2630	35	59	57	56
PHV1500W	1746x377x255	230V~1P&N	1.8	9/18	11	3670	47	60	57	53
PHV2000W	2296x377x255	230V~1P&N	2.7	12/24	11	5260	64	61	59	58

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

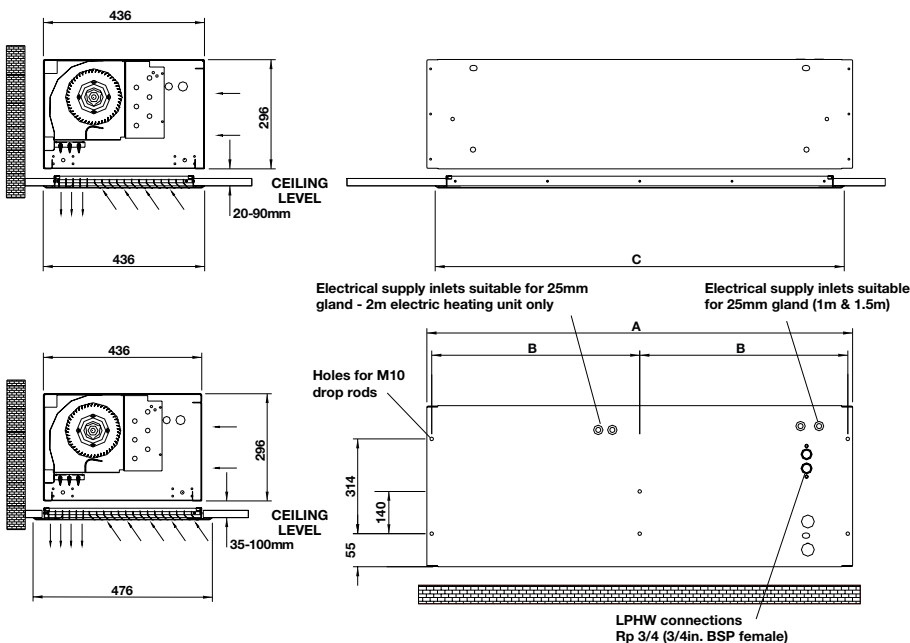


	PHV1000	PHV1500	PHV2000
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A (mm)	1196	1746	2296
B (mm)	800	1400	1896
C (mm)	-	700	948
D (mm)	800	1300	1824
E (mm)	-	650	912
F (mm)	226	271	228

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.

