

PHV Series Vertical.

An upright solution for commercial and retail applications.

Available in heights up to 3m, Thermoscreens PHV vertical air curtains are designed for applications that are not suitable for a traditional horizontal air curtain. Each unit has a coverage width of 2m, giving a total coverage of 4m when two units are paired together on either side of the doorway.

Sizes (Height)

1.5m, 2m, 2.5m (Stacked) and 3m (Stacked)

Vertical Coverage

Single unit - 2m
Two units parallel - 4m

Colour

Standard RAL 9016 (White)
RAL colour matching available

Warranty

2 years

Key features.



Water



Electric



Ambient



ErP compliant



Custom Paint

- For applications that are not suitable for a traditional horizontal air curtain
- Ambient, water heated or electric heated
- Surface mounted
- Ecopower energy saving controls (water heated and electric heated units)
- ErP compliant and BMS ready
- Cross Flow technology maximises coverage
- Heat output up to 24kW (water heated and electric heated units)
- 82/71 water coils (water heated units)
- Water heated units supplied with a motorised three-port valve
- Downrated single phase output (electric units)
- Supplied with wall brackets as standard



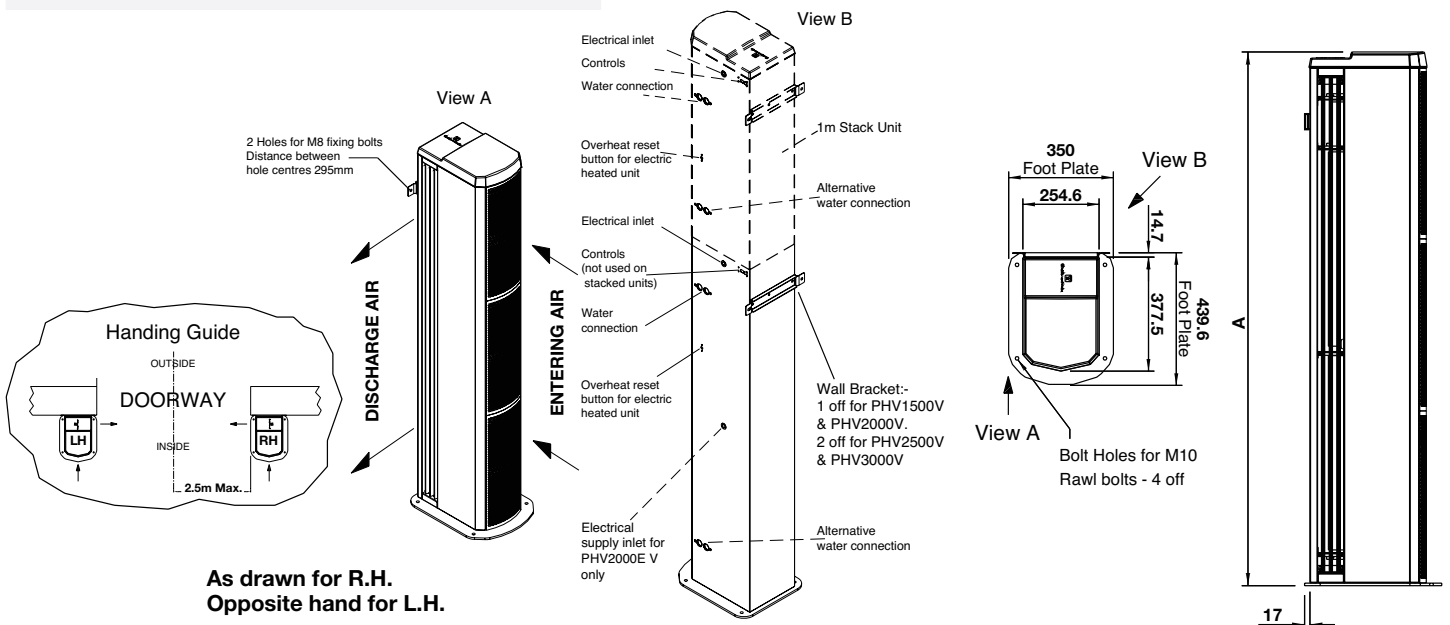
PHV Series | Vertical

Model	Dimensions (L x W x D) (mm)	Supply (50Hz)	Loading (A) per phase	Heat output (kW)	Max air volume (m ³ /h)	Weight (kg)	Noise output dB(A) @3m		
							H	M	L
Electric									
PHV1500E V	1707x439x350	400V~3P&N	27.9	9/18	3325	66	60	57	53
PHV2000E V	2257x439x350	400V~3P&N	37.5	12/24	3780	85	61	59	58
PHV2500E V Stacked Unit	2809x439x350	400V~3P&N	18.7 top 27.9 bottom	15/30	5195	109	62	60	59
PHV3000E V Stacked Unit	3359x439x350	400V~3P&N	18.7 top 37.5 bottom	18/36	5650	128	63	61	60
Water 82/71									
PHV1500W V	1707x439x350	230V~1P&N	1.8	9/18	3040	68	60	57	53
PHV2000W V	2257x439x350	230V~1P&N	2.7	12/24	3455	87	61	59	58
PHV2500W V Stacked Unit	2809x439x350	230V~1P&N	1.3 top 1.8 bottom	15/30	4750	114	62	60	59
PHV3000W V Stacked Unit	3359x439x350	230V~1P&N	1.3 top 2.7 bottom	18/36	5165	133	63	61	60
Ambient									
PHV1500A V	1707x439x350	230V~1P&N	1.8	-	3645	60	60	57	53
PHV2000A V	2257x439x350	230V~1P&N	2.7	-	4145	77	61	59	58
PHV2500A V Stacked Unit	2809x439x350	230V~1P&N	1.3 top 1.8 bottom	-	5695	99	62	60	59
PHV3000A V Stacked Unit	3359x439x350	230V~1P&N	1.3 top 2.7 bottom	-	3195	116	63	61	60

PHV2500V and PHV3000V units consist of 2 air curtains in a stack. Each separate air curtain in the stack needs its own electrical power supply to the electrical terminal block inside the unit, Control cables can be wired with one remote control to operate both units.

PHV1500V PHV2000V PHV2500V PHV3000V

A (mm)	1707	2257	2809	3359
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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:

PHV1000W at 85/65°C, EAT = 20°C
82/71 Water flow rate = 15.6 l/min
(from water flow rate and pressure drop table below)

New water flow rate = 8.0 l/min
(from Thermoscreens coil calculation programme)

New water pressure drop (coil) = 0.3 kPa
(from Thermoscreens coil calculation programme)

Therefore:

New water pressure drop (valve) =

$$5.5 \times \left(\frac{8}{15.6} \right)^2 = 0.3 \text{ kPa}$$

Conversion factors:

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

Water flow rate and pressure drop.

PHV Series Vertical	2 row coil (based on 82/71°C)		
	Water flow rate (l/min)	Water pressure drop (coil) ΔP (kPa)	Water pressure drop (valve) ΔP (kPa)
PHV1000WV	15.6	1.0	5.5
PHV1500WV	23.4	2.5	7.0
PHV2000WV	31.2	4.7	10.0

A 3- port motorised valve is supplied loose with water heated PHV vertical series air curtains to be fitted into the pipework during installation. PHV2500WV and PHV3000WV units consist of 2 air curtain units in a stack. Each separate air curtain unit needs its own flow/return pipework with control valve to be installed on site external of the unit. Use the data from the above table for each unit in the stack.

PHV2500WV = PHV1500WV + PHV1000WV
PHV 3000WV = PHV2000WV + PHV1000WV

Accessories.

Description	Part no.
Master and slave lead: 3M + coupler	T5951110
6M Extension cable + coupler	T5951111
10M Extension cable + coupler	T5951112
15M Extension cable + coupler	T5951113
30M Extension cable + coupler	T5951114
Extension lead coupler	T5951030
Joining kit	T7308220

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.

