



# **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 9010 (White) High polished or satin brushed stainless steel finishes RAL colour matching available

#### Warranty

2 years

## Key features.



- 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

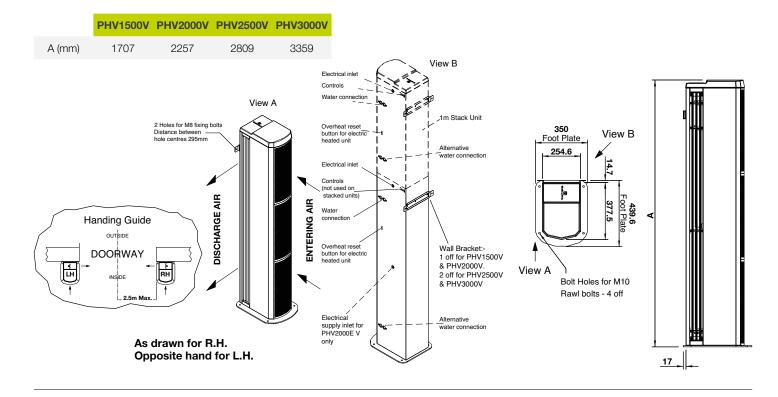


# **PHV Series Vertical.**



PHV Series   Vertical									
Model	<b>Dimensions</b> (L × W × D) (mm)	<b>Supply</b> (50Hz)	Loading (A) per phase	Heat output (KW)	<b>Max air volume</b> (m³/h)	Weight (kg)		se out 3(A) @3 M	
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	3040	68	60	57	53
PHV2000W V	2257x439x350	230V~1P&N	2.7	12	3455	87	61	59	58
PHV2500W V Stacked Unit	2809x439x350	230V~1P&N	1.3 top 1.8 bottom	15	4750	114	62	60	59
PHV3000W V Stacked Unit	3359x439x350	230V~1P&N	1.3 top 2.7 bottom	18	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.



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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:

New Water82/71 WaterPressure=Pressurex $\begin{pmatrix} New Water Flow Rate \\ 82/71 Water Flow Rate \end{pmatrix}$ Drop (valve)Drop (valve)x $\begin{pmatrix} New Water Flow Rate \\ 82/71 Water Flow Rate \end{pmatrix}$ 

### 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) =

$$1.0 \times \left(\frac{8}{15.6}\right)^2 = 0.3 \text{ kPa}$$

**Conversion factors:** 1 kPa = 0.102m Water column 10 l per minute = 0.6 m<sup>3</sup>/h

### Water flow rate and pressure drop.

	2 row coil (based on 82/71°C)						
PHV Series Vertical	Water flow rate (l/min)	Water pressure drop (coil) ∆P (kPa)	Water pressure drop (valve) ∆P (kPa)				
PHV1000WV	15.6	1.0	4.0				
PHV1500WV	23.4	2.5	7.0				
PHV2000WV	31.2	4.7	10.0				

## Accessories.

Description	Part number		
Master and slave lead: 6m	T5951001		
Ecopower extension lead: 10m	T5951050		
Ecopower extension lead: 15m	T5951060		
Ecopower extension lead: 30m	T5951020		
Extension lead coupler	T5951030		
Joining kit	T7308200		

A 3- port motorised valve is supplied loose with water heated PHV vertical series air curtains to be fitted into the pipework during installation if required by the customer.



## 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.

