HP Range

Where high velocity is required HP offers a perfect solution

thermoscreens®

With heat output of up to 24 kW and an air velocity of 8m per second, the HP is the perfect solution for areas where a more powerful air curtain is required.

HP can be mounted up to 3m high and is available in 1, 1.5 and 2m widths. Units can be joined together to cover wider openings and Ecopower will allow up to eight units to be driven from a single control unit.

HP is available as ambient, electric or water. Both electrical and water units are supplied with an Ecopower control.

Water heated versions are available as either 2 row coils for water temperature greater than 70°C or 3 row coils for water temperatures of less than 70°C. All water heated versions are supplied with a motorised three port valve as standard.

The HP's strong and robust design is finished in RAL9010 paint as standard but can be supplied in any RAL colour to match your specification.

Key Features

- 2 year warranty
- Ecopower controller supplied as standard (heated versions)
- Available in 1, 1.5 and 2m widths
- RAL 9010 finish available as standard
- Colour match service available on request
- Filters as standard on ambient and water heated versions
- 2 and 3 row heating coil options to cover a wide range of water temperatures
- LPHW heated version supplied with a motorised three port valve
- Wall brackets supplied as standard
- Fixings provided for ceiling hanging (drop rods not supplied)
- Joining kits available to join multiple surface mounted units
- Electrical units can be downrated from three phase to single phase operation with reduced heat output (available on request)

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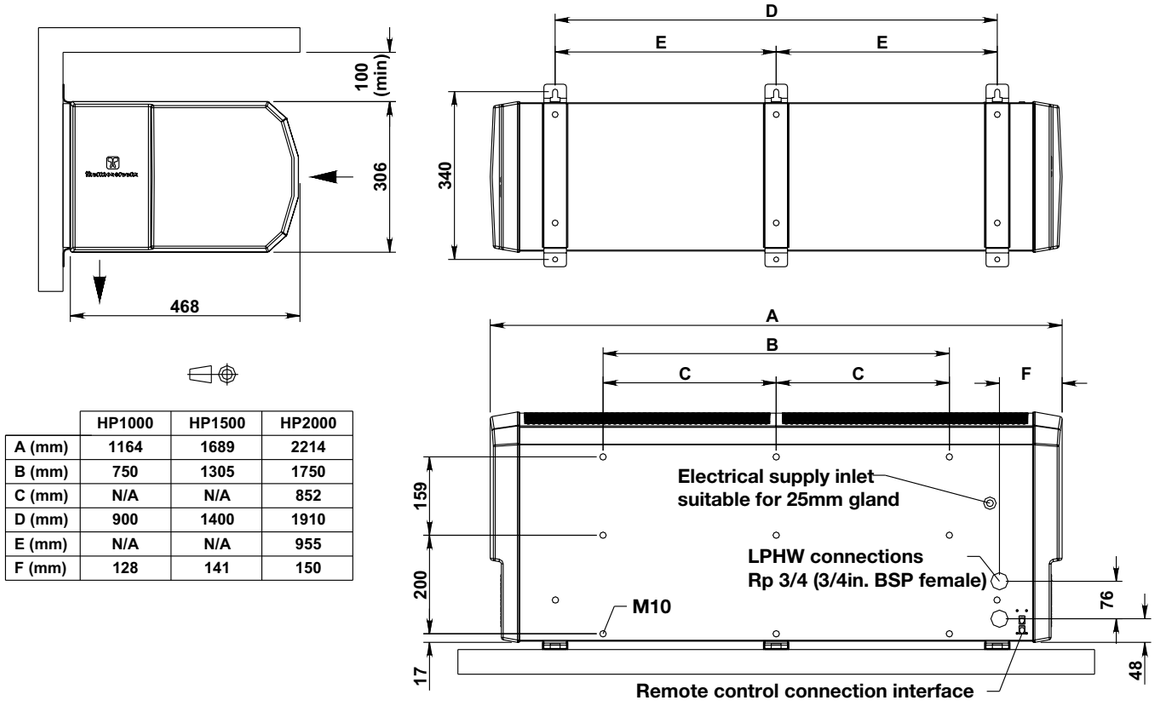
Surface Mounted

Model	Dimensions (L x D x H) (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										
HP1000E	1164 x 468 x 306		18.5	6/12		2000	37	57	54	50
HP1500E12	1689 x 468 x 306	400V~3P&N	18.9	6/12	8.0	3000	53	58	56	54
HP1500E18	1689 x 468 x 306		27.9	9/18		3000	53	58	56	54
HP2000E	2214 x 468 x 306		37.0	24		4000	65	59	57	55
Water 2 row 82/71										
HP1000W	1164 x 468 x 306		1.1	12		1870	38	57	54	50
HP1500W	1689 x 468 x 306	230V~1P&N	1.7	18	7.5	2800	54	58	56	54
HP2000W	2214 x 468 x 306		2.0	24		3750	65	59	57	55
Water 3 row 60/40										
HP1000W	1164 x 468 x 306		1.1	12		1680	38	57	54	50
HP1500W	1689 x 468 x 306	230V~1P&N	1.7	18	7.0	2520	54	58	56	54
HP2000W	2214 x 468 x 306		2.0	24		3375	65	59	57	55
Ambient										
HP1000A	1164 x 468 x 306		1.1			2000	36	57	54	50
HP1500A	1689 x 468 x 306	230V~1P&N	1.7	-	8.0	3000	52	58	56	54
HP2000A	2214 x 468 x 306		2.0			4000	63	59	57	55

Surface Mounted



	HP1000	HP1500	HP2000
A (mm)	1164	1689	2214
B (mm)	750	1305	1750
C (mm)	N/A	N/A	852
D (mm)	900	1400	1910
E (mm)	N/A	N/A	955
F (mm)	128	141	150

Water flow rate and pressure drop

HP Range Surface	2 row coil (based on 82/71°C)			3 row coil (based on 60/40°C)		
	Water Flow (l/min)	Valve ΔP (kPa)	Coil ΔP (kPa)	Water Flow (l/min)	Valve ΔP (kPa)	Coil ΔP (kPa)
HP1000W	15.6	12.4	4.0	8.6	5.7	2.5
HP1500W	23.4	3.2	7.0	12.9	15.0	3.5
HP2000W	31.2	6.4	10.0	17.1	10.4	4.5

A control valve is supplied loose with HP series air curtains which can be fitted into the pipework during installation if required by the customer.

Water flow rate and pressure drop calculations for different water temperatures

To calculate water flow rate and pressure drop for coil and valve at different water temperatures than 82/71°C :-

For the new water temperatures use the Thermoscreens coil calculation programme to get the new water flow rate and the new water pressure drop (coil). Then calculate the *new* water pressure drop (valve) using the following formula:

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

Example: HP1500W at 85/65°C, EAT = 20°C
82/71 Water flow rate = 23.4 l/min (from water flow rate and pressure drop table above)
New water flow rate = 5.8 l/min (from Thermoscreens coil calculation programme)
New water pressure drop (coil) = 2.2 kPa (from Thermoscreens coil calculation programme)

Therefore:
New water pressure drop (valve) = $3.0 \times \left(\frac{5.8}{11.7}\right)^2 = 0.7$ kPa

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

Accessories

Description	Part Number
Master and slave lead: 3m	T5951001
Ecopower extension lead: 10m	T5951050
Ecopower extension lead: 15m	T5951060
Ecopower extension lead: 30m	T5951020
Extension lead coupler	T5951030
Filters (Water/Ambient)	T7402520
Joining kit	T7308210