

air curtains







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Established in the 1960s, Thermoscreens is a longestablished, leading air curtain manufacturer that exports to over 60 countries worldwide.

Thermoscreens air curtains increase energy efficiency and improve comfort in retail, commercial, architectural and industrial applications. They can be installed in any frequently used entrance, but typical applications include: High street stores, Shopping centres, Hospitals, Hotels, Banks, Factories, and Warehouses.

Thermoscreens offers heated, ambient and cold store products, which:

- · can be surface mounted, recessed or installed vertically
- are available in 1m, 1.5m and 2m lengths, which can be seamlessly joined together if required
- are available in brushed stainless steel or white, or powder painted in a range of colours to match colour themes or décor

As an industry innovator, Thermoscreens is actively responding to environmental issues. All products are designed with energy efficiency in mind, and the need to reduce energy consumption and CO2 emissions is being addressed through new innovations and revolutionary solutions. The introduction of Ecopower Air technology means end users can now benefit from further energy savings, as well as increased comfort. Ecopower Air technology offers superior climate separation across a doorway through enhanced air stream projection and air stream uniformity

Understanding its responsibility towards sustainability, Thermoscreens adheres strictly to the Environmental Management Systems BS EN ISO14001:2004.

Underpinning all of this is Thermoscreens' commitment to product quality, reliability, performance and delivery – evidenced by accreditation to the Quality Management Systems BS EN ISO9001:2008.

- Established Brand
- Advanced Engineering and Design
- Excellent Service
- Excellent Quality
- Outstanding Reliability
- Availability
- Competitive Solutions



WHY FIT AN AIR CURTAIN?

Comfort:

Air curtains help promote the perfect environment whether warm, cool or ambient.

Open Door Policy:

Air curtains promote open door trading in retail outlets and provides uninterrupted access for passing trade.

■ Energy Saving:

Air curtains over open doors promote significant energy savings.

■ Protection:

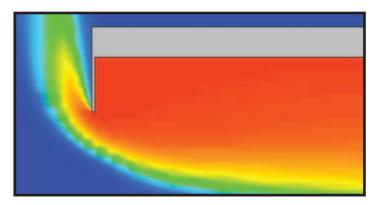
Air curtains help to ensure a clean and healthy environment.

■ Health and Safety:

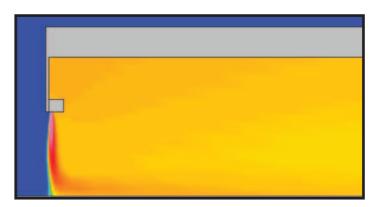
In refrigeration applications,
Thermoscreens cold store air curtains can significantly reduce the ingress of warm air when doors are required to be left open for access helping to retain the refrigerated air inside.

■ Ease of Installation:

Air curtains are not only easy to install but also easy to maintain throughout their serviceable life. A simple and cost effective solution for a comfortable environment.



With an open door, typically warm air escapes and cold air enters.



With an air curtain, warm air is retained and cold air entering is heated.

AIR CURTAIN SELECTION GUIDE

To ensure maximum **effectiveness** and **comfort**, it is important to choose the correct air curtain. An air curtain with too little velocity will not be able to stop cold draughts from entering the building whilst an air curtain that is too powerful which has been installed at the incorrect door height could be noisy and uncomfortable.

To select the appropriate air curtain the following factors should be taken into account:

- Type of building and the interior design of the premises
- Type of air curtain required
 - Surface mounted or recessed
 - Electrical, Water or Ambient

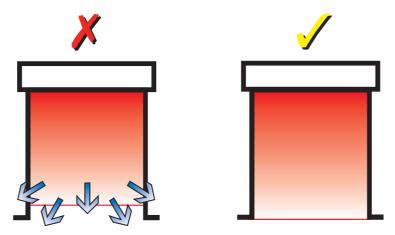
Surface Mounted



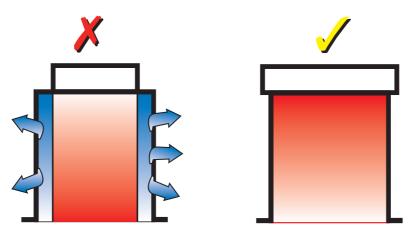
Recessed



- Voltage and power supply
- Installation height If an air curtain is to operate to maximum effectiveness, it is essential that the air curtain has sufficient air velocity to discharge over the whole height and width of the doorway.



• The width of the door - The air curtain should be wider than the width of the door opening. Overlapping the full opening, the air curtain controls the ingress of air and other pollutants maintaining a comfortable environment.



- Characteristics of the door (i.e. door way locations).
- Ensure the units are positioned as close to the door opening as possible and that there are no obstructions between the air curtain jet of air and the opening of the door.
- Characteristics of the building (i.e. door way locations, through draughts).

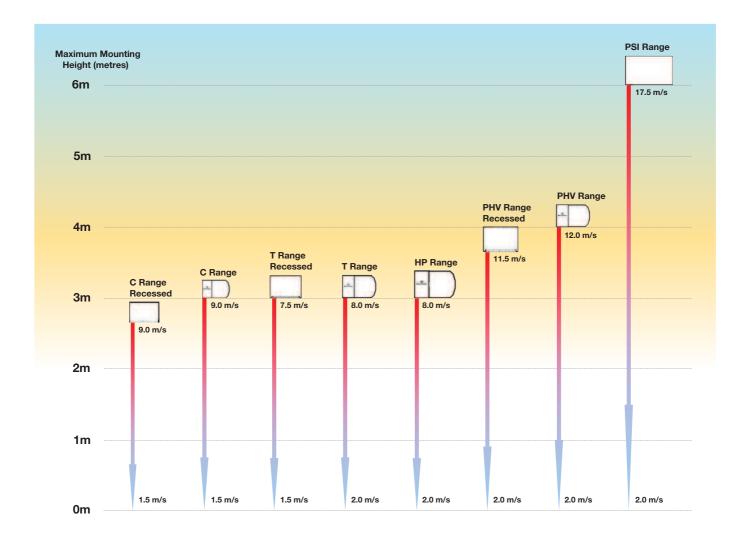


THERMOSCREENS SELECTION OVERVIEW

This information should be used as a <u>guideline only</u>. If you require more technical information or would like to verify that the unit you have selected suits the application, please contact the Thermoscreens Sales Office before purchasing your product.

| Models | Recommended Height | | Heating | | | unting Opt | tions Vertical | |
|------------|---|----------|--------------|----------|---|------------|-------------------|--|
| | | Electric | Water Ambier | | | Recessed | Vortiour | Suggested Applications |
| C Range | Up to 3m - surface mounted | 4 | | * | 1 | | | Entrance - Small to medium size buildings with a moderate |
| Onlange | Up to 2.75m - recessed | 7 | • | | | 1 | | pedestrian flow. Restaurants, retail and commercial buildings |
| T Range | Up to 3m - surface mounted and recessed | 4 | • | * | 1 | 1 | | Entrance - Medium sized buildings with a moderate to hig pedestrian flow. Banks theatres commercial buildings, shopping centres, hospitals and hotels. |
| PHV Range | Up to 4m - surface mounted | | | | 1 | | | Entrance - Medium to large size |
| | Up to 3.75m - recessed | 4 | • | * | | ✓ | 1 | buildings with a high pedestriar flow. Applicable for industrial doors, airports, shopping centre |
| | Maximum effective width vertical 2.5m | | | | | | | factories and warehouses. |
| HP Range | Up to 3m - surface mounted | 4 | • | * | ✓ | | | Entrance - Medium sized buildings with a high pedestriar flow. Commercial buildings, shopping malls and airports. |
| Designer C | Up to 2.75m - surface mounted | 4 | | * | 1 | | | Entrance - Small to medium siz buildings where design and appearance is important. |
| Range | Maximum effective width vertical 1.5m | 7 | | 3 | | | | Available in polished and brush stainless steel. |
| Designer | Up to 3.5m - surface mounted | 4 | | * | 1 | | / | Entrance - Medium to large size buildings where design and appearance is important. |
| PHV Range | Maximum effective width vertical 2.5m | 7 | | 3 | | | • | Available in polished and brush stainless steel. |
| PSI Range | Up to 6m | £ | • | * | 1 | | | Industrial applications. |
| TS Range | Up to 3.3m | | | * | 1 | | | Cold store applications. |
| Jet Range | Up to 2.3m | 4 | | | ✓ | | | Small openings, kiosks, fast for outlets, small boutiques. |
| T600/T800 | Up to 2.3m | 4 | | | | 1 | | Small openings, kiosks, fast foo |

AIR VELOCITY DISTRIBUTION CHART



- Air velocity ranges displayed show maximum flow rates. (Discharge air velocity is measured with a hot wire anemometer).
- Ambient and electric air curtains develop a higher airflow than units fitted with hot water heating coils due to lower flow resistance.
- Air velocity figures shown are for free flow conditions in still air. Velocities will be affected if there is wind and air pressure conditions at the doorway where the air curtain is installed.



ECOPOWER CONTROL



Thermoscreens' Ecopower Controller is designed to prevent entrance areas over heating whilst providing measurable energy savings.

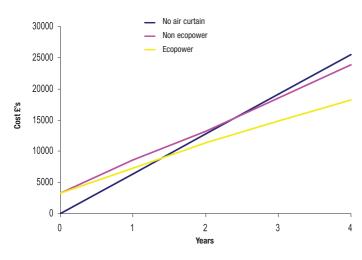
The easy-to-use controller can be set in 'auto mode' to ensure that consistent comfort levels are thermostatically maintained. Alternatively, the Ecopower Controller can be manually set for constant 50% or 100% heat output or zero heat output to provide a barrier of ambient air during warmer weather to assist the air conditioning within the environment.

■ The Benefits:

The Ecopower Controller maintains consistent temperature levels within the internal environment.

■ Saves Energy:

The Ecopower Controller ensures the air curtain operates at the optimum heat output, ensuring a controlled climate and thus saving energy and money. The Ecopower Control can provide an annual saving of up to £1,555.*



*Figures quoted are for reference purposes only

Non ecopower: £4,034Ecopower: £2,479

• Annual Saving: £1,555

■ Ideal for Multiple Installation:

The Ecopower Controller allows the control of fan speeds, heat output and temperature settings in multiple installations of up to 8 separate air curtains.

■ Easy to install:

The Ecopower Controller is quick and easy to install as it incorporates low voltage switch cabling, eliminating the need for mains rated conduit runs. In addition, the quick-fit plug-in connectors allow multiple units to be simply linked together using the optional

RJ lead.

The Ecopower Controller is fitted as standard on all models except for PSI, TS and Ambient.

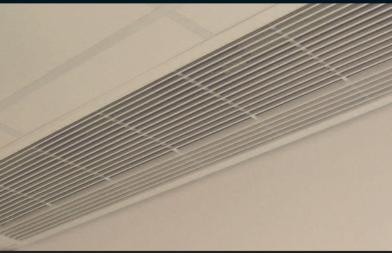
■ Control Options:

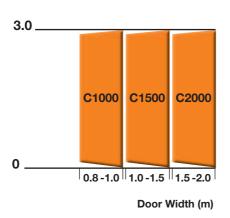
- BMS On/Off
- BMS Fault Signal
- Door Limit Switch
- Master Slave Single Temp Sensor
- Air Temperature Sensor

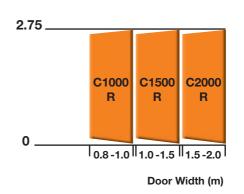
Recessed











C Range Surface / Recessed

- Available in surface mounted or recessed
- Available in Electric, Water or Ambient
- Supplied with Tangential fans
- Maximum mounting height on surface mounted models 3m
- Maximum mounting height on recessed models 2.75m
- Electric and Water units are supplied with Ecopower energy saving controller
- 3-Way valve supplied with water units
- Optional filters available on surface mounted water and ambient units
- Low inertia high efficiency electric heating coils in electric heated units



| C Range St | C Range Surface | | | | | | | | | | |
|------------|-----------------------------------|------------------|------------------------|------------------------------|---------------------------|------------------------------|----------------|------------|----------------------|----|--|
| Models | Dimensions (mm) (L x D x W) | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max. Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | * High, | *dB(A @3m Med, | - | |
| Ambient | | | | | | | | | | | |
| C1000A NT | 1137 x 275 x 198 | 230V~1P&N | - | 0.7 | 9.0 | 1250 | 15 | 55 | 53 | 50 | |
| C1500A NT | 1669 x 275 x 198 | 230V~1P&N | - | 0.9 | 9.0 | 1800 | 21 | 55 | 53 | 49 | |
| C2000A NT | 2200 x 275 x 198 | 230V~1P&N | - | 1.1 | 9.0 | 2500 | 31 | 56 | 54 | 50 | |
| Electric | | | | | | | | | | | |
| C1000E NT | 1137 x 275 x 198 | 400V~3P&N | 4.5/9 | *13.7 | 9.0 | 1250 | 18 | 55 | 53 | 50 | |
| C1500E NT | 1669 x 275 x 198 | 400V~3P&N | 6/12 | *18.3 | 9.0 | 1800 | 26 | 55 | 53 | 49 | |
| C2000E NT | 2200 x 275 x 198 | 400V~3P&N | 9/18 | *27.2 | 9.0 | 2500 | 37 | 56 | 54 | 50 | |
| LPHW 82/71 | | | | | | | | | | | |
| C1000W NT | 1137 x 275 x 198 | 230V~1P&N | 6 | 0.7 | 8.5 | 1180 | 16 | 55 | 53 | 50 | |
| C1500W NT | 1669 x 275 x 198 | 230V~1P&N | 9 | 0.9 | 8.5 | 1700 | 23 | 55 | 53 | 49 | |
| C2000W NT | 2200 x 275 x 198 | 230V~1P&N | 12 | 1.1 | 8.5 | 2360 | 33 | 56 | 54 | 50 | |

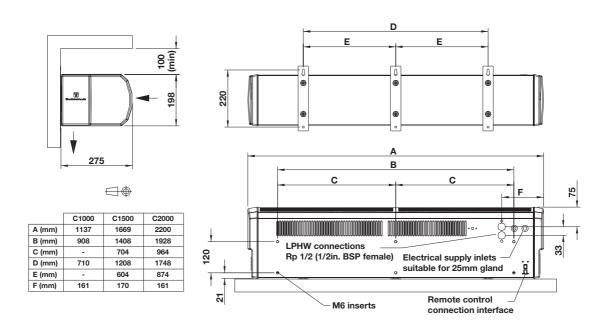
| C Range Re | ecessed | | | | | | | | | | |
|------------|-----------------------------------|------------------------------------|------------------|------------------------|------------------------------|---------------------------|------------------------------|----------------|------------|----------------------|----|
| Models | Dimensions (mm) (L x D x W) | Grille Size inc. Flange (mm) | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max. Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | * High, | *dB(A @3m Med, | • |
| Ambient | | | | | | | | | | | |
| C1000AR | 1200 x 301 x 206 | 1209 x 353 | 230V~1P&N | - | 0.7 | 9.0 | 1190 | 19 | 55 | 53 | 50 |
| C1500AR | 1600 x 301 x 206 | 1609 x 353 | 230V~1P&N | - | 0.9 | 9.0 | 1730 | 25 | 55 | 53 | 49 |
| C2000AR | 2100 x 301 x 206 | 2120 x 353 | 230V~1P&N | - | 1.1 | 9.0 | 2380 | 35 | 56 | 54 | 50 |
| Electric | | | | | | | | | | | |
| C1000E9R | 1200 x 301 x 206 | 1209 x 353 | 400V~3P&N | 4.5/9 | *13.7 | 9.0 | 1190 | 22 | 55 | 53 | 50 |
| C1500E12R | 1600 x 301 x 206 | 1609 x 353 | 400V~3P&N | 6/12 | *18.3 | 9.0 | 1730 | 30 | 55 | 53 | 49 |
| C2000E18R | 2100 x 301 x 206 | 2120 x 353 | 400V~3P&N | 9/18 | *27.2 | 9.0 | 2380 | 41 | 56 | 54 | 50 |
| LPHW 82/71 | | | | | | | | | | | |
| C1000W6R | 1200 x 301 x 206 | 1209 x 353 | 230V~1P&N | 6 | 0.7 | 8.5 | 1120 | 20 | 55 | 53 | 50 |
| C1500W9R | 1600 x 301 x 206 | 1609 x 353 | 230V~1P&N | 9 | 0.9 | 8.5 | 1630 | 27 | 55 | 53 | 49 |
| C2000W12R | 2100 x 301 x 206 | 2120 x 353 | 230V~1P&N | 12 | 1.1 | 8.5 | 2240 | 37 | 56 | 54 | 50 |

Dimension (L) = Dimension B (GA drawing) + 10mm clearance on each side

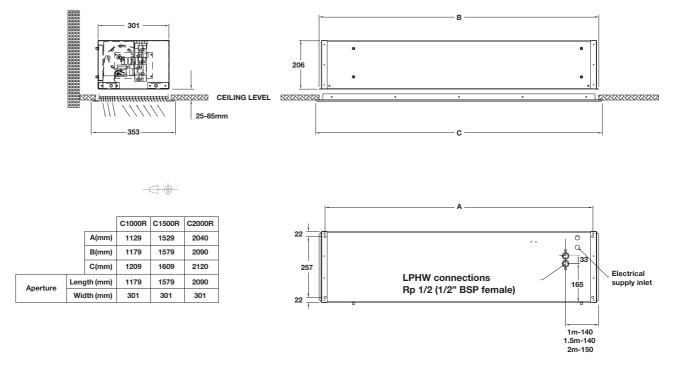
^{**} Sound pressure levels (dBA) at 3m, as given in our brochure, are for a single air curtain mounted at its maximum mounting height, operating in a room with average acoustic characteristics as defined in CIBSE Guide B5 (reverberation time 0.7s) and a room size equivalent to 8 air changes per hour (ac/h). Care needs to be taken when selecting air curtains for an installation as noise levels can be several dB higher if the mounting height is reduced, if the room is more "live" (i.e. hard surfaces, no furnishings or absorbent materials), if the room is smaller than 8 ac/h equivalent or a combination of these factors. Noise levels will also increase if more than one air curtain is installed at the same doorway (e.g. + 3dBA for 2 equal point sources: direct field).

GA DRAWING

C Range Surface



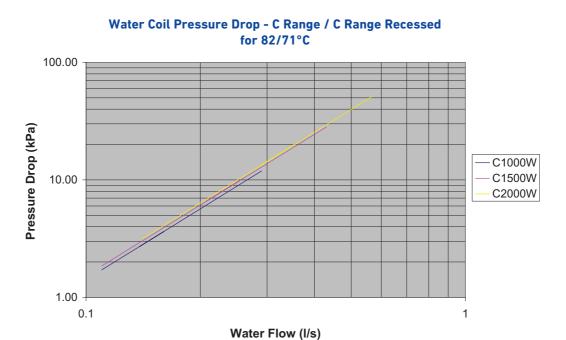
C Range Recessed





COIL PRESSURE DROP AND WATER FLOW INFORMATION

Water coil pressure C Range Surface / Recessed



Water flow C Range Surface / Recessed

| C Range | Normal Water Flow Rate (I/s) 82 / 71°C | Coil Water Pressure Drop (kPa) | | | | | |
|-----------|---|--------------------------------|--|--|--|--|--|
| C1000W NT | 0.14 | 2.77 | | | | | |
| C1500W NT | 0.21 | 6.74 | | | | | |
| C2000W NT | 0.29 | 13.40 | | | | | |

| C Range Recessed | Normal Water Flow Rate (I/s) 82 / 71°C | Coil Water Pressure (kPa) |
|------------------|---|---------------------------|
| C1000WR | 0.14 | 2.77 |
| C1500WR | 0.21 | 6.74 |
| C2000WR | 0.29 | 13.40 |

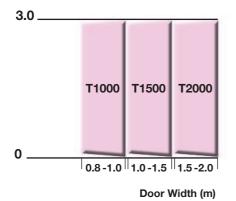
Heat output on water units based on LPHW at 82°C / 71°C and air entering temperature of 20°C

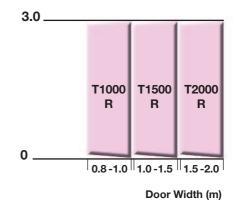
Recessed











T Range Surface / Recessed

- Available in Electric, Water or Ambient
- Available in surface mounted or recessed
- Maximum mounting height on surface mounted and recessed models 3m
- Supplied with Centrifugal fans
- Filter supplied as standard on surface mounted units
- Electric and Water units are supplied with Ecopower energy saving controller
- 3-Way valve supplied with water units
- 82/71°C and 60/40°C low grade water coils available on T range recessed



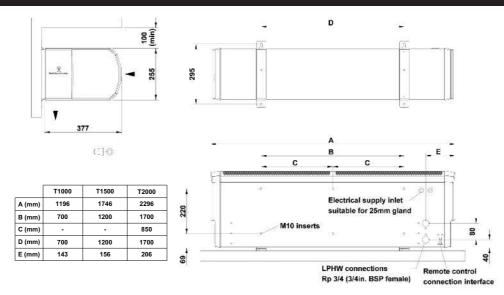
| T Range | Surface | | | | | | | | | |
|------------------|-----------------------------------|------------------|------------------------|------------------------------|---------------------------|------------------------------|----------------|----|----------------------|----|
| Models | Dimensions (mm) (L x D x W) | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max. Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | | dB(A) @3m Med, | |
| Ambient | | | | | | | | | | |
| T1000A NT | 1196 x 377 x 255 | 230V~1P&N | - | 1.1 | 8.0 | 1320 | 27 | 56 | 55 | 54 |
| T1500A NT | 1746 x 377 x 255 | 230V~1P&N | - | 1.5 | 8.0 | 1925 | 40 | 57 | 56 | 55 |
| T2000A NT | 2296 x 377 x 255 | 230V~1P&N | - | 2.0 | 8.0 | 2640 | 50 | 57 | 56 | 54 |
| Electric | | | | | | | | | | |
| T1000E NT | 1196 x 377 x 255 | 400V~3P&N | 6/9 | *14.1 | 8.0 | 1320 | 28 | 56 | 55 | 54 |
| T1500E NT | 1746 x 377 x 255 | 400V~3P&N | 6/12 | *18.9 | 8.0 | 1925 | 41 | 57 | 56 | 55 |
| T2000E NT | 2296 x 377 x 255 | 400V~3P&N | 12/18 | *28.1 | 8.0 | 2640 | 52 | 57 | 56 | 54 |
| LPHW 82/71 | | | | | | | | | | |
| T1000W NT | 1196 x 377 x 255 | 230V~1P&N | 9 | 1.1 | 7.8 | 1250 | 29 | 56 | 55 | 54 |
| T1500W NT | 1746 x 377 x 255 | 230V~1P&N | 12 | 1.5 | 7.8 | 1825 | 42 | 57 | 56 | 55 |
| T2000W NT | 2296 x 377 x 255 | 230V~1P&N | 18 | 2.0 | 7.8 | 2500 | 53 | 57 | 56 | 54 |

| T Range R | ecessed | | | | | | | | | | |
|------------|-----------------------------------|------------------------------------|------------------|------------------------|------------------------------|---------------------------|------------------------------|----------------|----|----------------------|----|
| Models | Dimensions (mm) (L x D x W) | Grille Size inc. Flange (mm) | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max. Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | | *dB(A @3m Med, | |
| Ambient | | | | | | | | | | | |
| T1000AR | 1150 x 436 x 296 | 1104 x 436 | 230V~1P&N | - | 1.1 | 7.5 | 2000 | 27 | 57 | 54 | 50 |
| T1500AR | 1650 x 436 x 296 | 1604 x 436 | 230V~1P&N | - | 1.7 | 7.5 | 3000 | 40 | 58 | 56 | 54 |
| T2000AR | 2240 x 436 x 296 | 2190 x 436 | 230V~1P&N | - | 2.0 | 7.5 | 4000 | 50 | 59 | 57 | 55 |
| Electric | | | | | | | | | | | |
| T1000E9R | 1150 x 436 x 296 | 1104 x 436 | 400V~3P&N | 6/9 | *14.1 | 7.5 | 2000 | 28 | 57 | 54 | 50 |
| T1000E12R | 1150 x 436 x 296 | 1104 x 436 | 400V~3P&N | 6/12 | *18.7 | 7.5 | 2000 | 28 | 57 | 54 | 50 |
| T1500E12R | 1650 x 436 x 296 | 1604 x 436 | 400V~3P&N | 6/12 | *18.9 | 7.5 | 3000 | 41 | 58 | 56 | 54 |
| T1500E18R | 1650 x 436 x 296 | 1604 x 436 | 400V~3P&N | 9/18 | *27.9 | 7.5 | 3000 | 41 | 58 | 56 | 54 |
| T2000E18R | 2240 x 436 x 296 | 2190 x 436 | 400V~3P&N | 12/18 | *28.1 | 7.5 | 4000 | 52 | 59 | 57 | 55 |
| T2000E24R | 2240 x 436 x 296 | 2190 x 436 | 400V~3P&N | 12/24 | *36.8 | 7.5 | 4000 | 52 | 59 | 57 | 55 |
| LPHW 82/71 | | | | | | | | | | | |
| T1000W12R | 1150 x 436 x 296 | 1104 x 436 | 230V~1P&N | 12 | 1.1 | 7.0 | 1950 | 29 | 57 | 54 | 50 |
| T1500W18R | 1650 x 436 x 296 | 1604 x 436 | 230V~1P&N | 18 | 1.7 | 7.0 | 2950 | 42 | 58 | 56 | 54 |
| T2000W24R | 2240 x 436 x 296 | 2190 x 436 | 230V~1P&N | 24 | 2.0 | 7.0 | 3950 | 53 | 59 | 57 | 55 |
| LPHW 60/40 | | | | | | | | | | | |
| T1000W12R | 1150 x 436 x 296 | 1104 x 436 | 230V~1P&N | 12 | 1.1 | 6.5 | 1755 | 29 | 57 | 54 | 50 |
| T1500W18R | 1650 x 436 x 296 | 1604 x 436 | 230V~1P&N | 18 | 1.7 | 6.5 | 2655 | 42 | 58 | 56 | 54 |
| T2000W24R | 2240 x 436 x 296 | 2190 x 436 | 230V~1P&N | 24 | 2.0 | 6.5 | 3555 | 53 | 59 | 57 | 55 |

^{**} Sound pressure levels (dBA) at 3m, as given in our brochure, are for a single air curtain mounted at its maximum mounting height, operating in a room with average acoustic characteristics as defined in CIBSE Guide B5 (reverberation time 0.7s) and a room size equivalent to 8 air changes per hour (ac/h). Care needs to be taken when selecting air curtains for an installation as noise levels can be several dB higher if the mounting height is reduced, if the room is more "live" (i.e. hard surfaces, no furnishings or absorbent materials), if the room is smaller than 8 ac/h equivalent or a combination of these factors. Noise levels will also increase if more than one air curtain is installed at the same doorway (e.g. + 3dBA for 2 equal point sources: direct field).

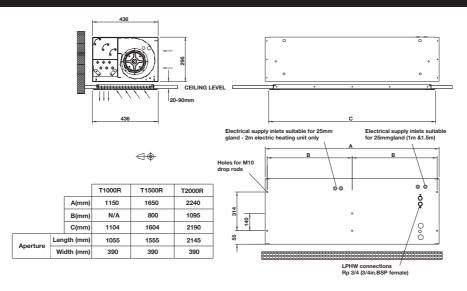
GA DRAWING

T Range Surface

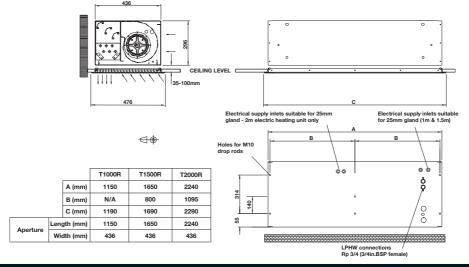


T Range Recessed

Standard Recessed Grille



Wider Recessed Grille

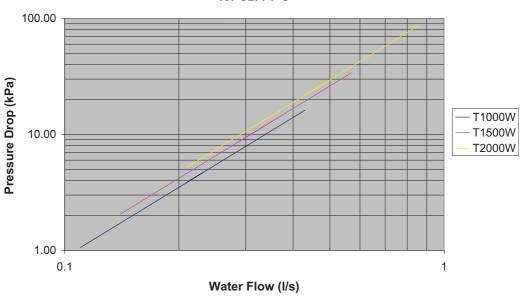




COIL PRESSURE DROP AND WATER FLOW INFORMATION

Water coil pressure T Range Surface / Recessed

Water Coil Pressure Drop - T Range / T Range Recessed for 82/71°C



Water flow T Range Surface / Recessed

| T Range | Water Flow Rate (I/s) 82/71°C | Coil Water Pressure Drop (kPa) |
|-----------|----------------------------------|--------------------------------|
| T1000W NT | 0.21 | 3.86 |
| T1500W NT | 0.29 | 8.81 |
| T2000W NT | 0.43 | 21.84 |

| T Range Recessed | Water Flow Rate (I/s) 82/71°C | Coil Water Pressure Drop (kPa) |
|------------------|----------------------------------|--------------------------------|
| T1000WR | 0.29 | 2.66 |
| T1500WR | 0.29 | 2.02 |
| T2000WR | 0.57 | 3.54 |

Heat output on water units based on LPHW at 82°C / 71°C and air entering temperature of 20°C

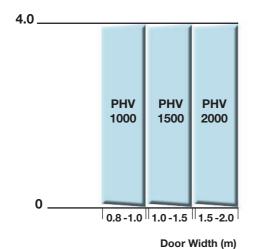
PHV RANGE Surface

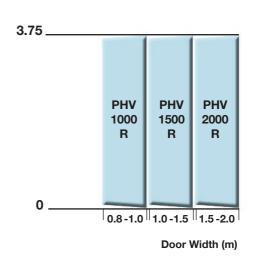
Recessed











PHV Range | Surface / Recessed

- Available in Electric, Water or Ambient
- Available in surface mounted or recessed units
- Maximum mounting height on surface mounted models 4m
- Maximum mounting height on recessed models 3.75m
- Supplied with Tangential fans
- Electric and Water units are supplied with Ecopower energy saving controller
- 3-Way valve supplied with water units
- 82/71°C and 60/40°C low-grade water coils available on PHV surface mounted and recessed



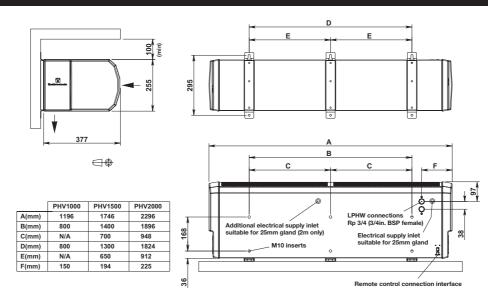
| PHV Range | Surface | | | | | | | | | | |
|-------------|-----------------------------------|------------------|------------------------|------------------------------|---------------------------|------------------------------|----------------|------------|----------------------|----|--|
| Models | Dimensions (mm) (L x D x W) | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max. Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | * High, | *dB(A @3m Med, | • | |
| Ambient | | | | | | | | | | | |
| PHV1000A NT | 1196 x 377 x 255 | 230V~1P&N | - | 1.3 | 12.0 | 2880 | 29 | 59 | 57 | 56 | |
| PHV1500A NT | 1746 x 377 x 255 | 230V~1P&N | - | 1.8 | 12.0 | 4020 | 43 | 60 | 57 | 53 | |
| PHV2000A NT | 2296 x 377 x 255 | 230V~1P&N | - | 2.7 | 12.0 | 5760 | 58 | 61 | 59 | 58 | |
| Electric | | | | | | | | | | | |
| PHV1000E NT | 1196 x 377 x 255 | 400V~3P&N | 6/12 | *18.7 | 12.0 | 2880 | 32 | 59 | 57 | 56 | |
| PHV1500E NT | 1746 x 377 x 255 | 400V~3P&N | 9/18 | *27.9 | 12.0 | 4020 | 45 | 60 | 57 | 53 | |
| PHV2000E NT | 2296 x 377 x 255 | 400V~3P&N | 12/24 | *37.5 | 12.0 | 5760 | 62 | 61 | 59 | 58 | |
| LPHW 82/71 | | | | | | | | | | | |
| PHV1000W NT | 1196 x 377 x 255 | 230V~1P&N | 12 | 1.3 | 11.0 | 2630 | 35 | 59 | 57 | 56 | |
| PHV1500W NT | 1746 x 377 x 255 | 230V~1P&N | 18 | 1.8 | 11.0 | 3670 | 47 | 60 | 57 | 53 | |
| PHV2000W NT | 2296 x 377 x 255 | 230V~1P&N | 24 | 2.7 | 11.0 | 5260 | 64 | 61 | 59 | 58 | |
| LPHW 60/40 | | | | | | | | | | | |
| PHV1000W NT | 1196 x 377 x 255 | 230V~1P&N | 12 | 1.3 | 10.5 | 2370 | 35 | 59 | 57 | 56 | |
| PHV1500W NT | 1746 x 377 x 255 | 230V~1P&N | 18 | 1.8 | 10.5 | 3300 | 47 | 60 | 57 | 53 | |
| PHV2000W NT | 2296 x 377 x 255 | 230V~1P&N | 24 | 2.7 | 10.5 | 4730 | 64 | 61 | 59 | 58 | |

| PHV Range | Recessed | | | | | | | | | | | |
|--------------|-----------------------------------|------------------------------------|------------------|------------------------|------------------------------|---------------------------|------------------------------|----------------|----|-----------------------|----|--|
| Models | Dimensions (mm) (L x D x W) | Grille Size inc. Flange (mm) | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max. Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | | *dB(A) @3m Med, | | |
| Ambient | | | | | | | | | | | | |
| PHV1000AR P2 | 1150 x 436 x 296 | 1104 x 436 | 230V~1P&N | - | 1.3 | 11.5 | 2750 | 33 | 59 | 57 | 56 | |
| PHV1500AR P2 | 1650 x 436 x 296 | 1604 x 436 | 230V~1P&N | - | 1.8 | 11.5 | 3840 | 47 | 60 | 57 | 53 | |
| PHV2000AR P2 | 2240 x 436 x 296 | 2190 x 436 | 230V~1P&N | - | 2.7 | 11.5 | 5500 | 63 | 61 | 59 | 58 | |
| Electric | | | | | | | | | | | | |
| PHV1000ER P2 | 1150 x 436 x 296 | 1104 x 436 | 400V~3P&N | 6/12 | *18.7 | 11.5 | 2750 | 37 | 59 | 57 | 56 | |
| PHV1500ER P2 | 1650 x 436 x 296 | 1604 x 436 | 400V~3P&N | 9/18 | *27.9 | 11.5 | 3840 | 53 | 60 | 57 | 53 | |
| PHV2000ER P2 | 2240 x 436 x 296 | 2190 x 436 | 400V~3P&N | 12/24 | *37.5 | 11.5 | 5500 | 71 | 61 | 59 | 58 | |
| LPHW 82/71 | | | | | | | | | | | | |
| PHV1000WR P2 | 1150 x 436 x 296 | 1104 x 436 | 230V~1P&N | 12 | 1.3 | 10.5 | 2500 | 40 | 59 | 57 | 56 | |
| PHV1500WR P2 | 1650 x 436 x 296 | 1604 x 436 | 230V~1P&N | 18 | 1.8 | 10.5 | 3500 | 55 | 60 | 57 | 53 | |
| PHV2000WR P2 | 2240 x 436 x 296 | 2190 x 436 | 230V~1P&N | 24 | 2.7 | 10.5 | 5010 | 73 | 61 | 59 | 58 | |
| LPHW 60/40 | | | | | | | | | | | | |
| PHV1000WR P2 | 1150 x 436 x 296 | 1104 x 436 | 230V~1P&N | 12 | 1.3 | 10.0 | 2250 | 40 | 59 | 57 | 56 | |
| PHV1500WR P2 | 1650 x 436 x 296 | 1604 x 436 | 230V~1P&N | 18 | 1.8 | 10.0 | 3150 | 55 | 60 | 57 | 53 | |
| PHV2000WR P2 | 2240 x 436 x 296 | 2190 x 436 | 230V~1P&N | 24 | 2.7 | 10.0 | 4510 | 73 | 61 | 59 | 58 | |

^{**} Sound pressure levels (dBA) at 3m, as given in our brochure, are for a single air curtain mounted at its maximum mounting height, operating in a room with average acoustic characteristics as defined in CIBSE Guide B5 (reverberation time 0.7s) and a room size equivalent to 8 air changes per hour (ac/h). Care needs to be taken when selecting air curtains for an installation as noise levels can be several dB higher if the mounting height is reduced, if the room is more "live" (i.e. hard surfaces, no furnishings or absorbent materials), if the room is smaller than 8 ac/h equivalent or a combination of these factors. Noise levels will also increase if more than one air curtain is installed at the same doorway (e.g. + 3dBA for 2 equal point sources: direct field).

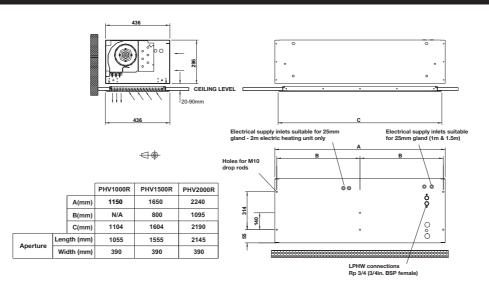
GA DRAWING

PHV Range Surface

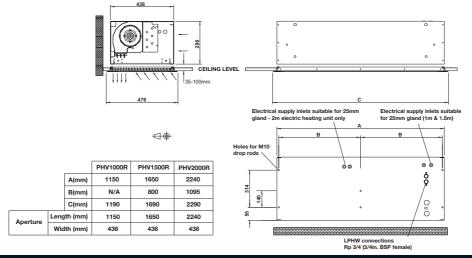


PHV Range Recessed

Standard Recessed Grille



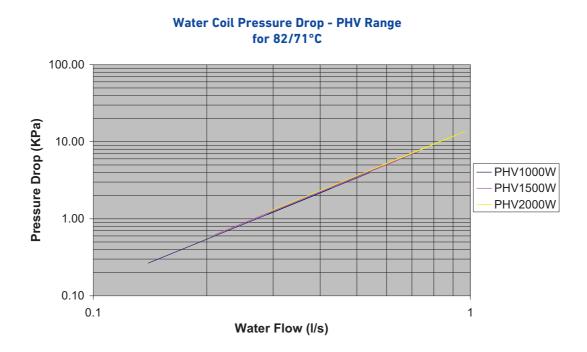
Wider Recessed Grille





COIL PRESSURE DROP AND WATER FLOW INFORMATION

Water coil pressure PHV Range Surface / Recessed



Water flow PHV Range Surface / Recessed

| PHV Range | Water Flow Rate (I/s) 82/71°C | Coil Water Pressure Drop (kPa) |
|-------------|----------------------------------|--------------------------------|
| PHV1000W NT | 0.29 | 1.14 |
| PHV1500W NT | 0.43 | 2.60 |
| PHV2000W NT | 0.57 | 4.72 |

| PHV Range Recessed | Water Flow Rate (I/s) 82/71°C | Coil Water Pressure Drop (kPa) |
|--------------------|----------------------------------|--------------------------------|
| PHV1000WR | 0.29 | 1.14 |
| PHV1500WR | 0.43 | 2.60 |
| PHV2000WR | 0.57 | 4.72 |

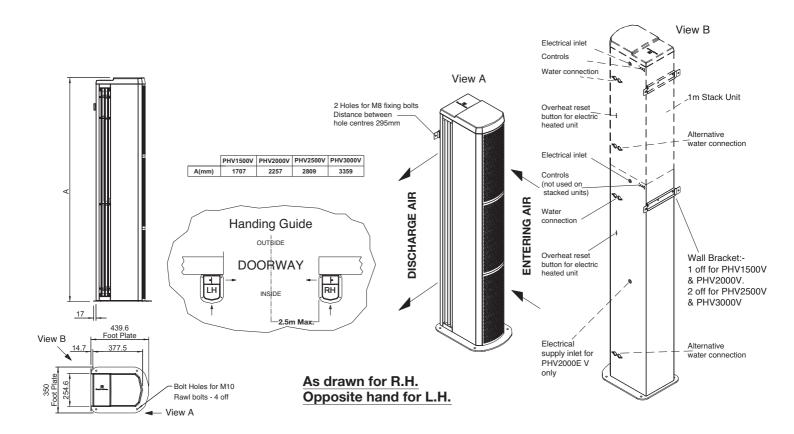
Heat output on water units based on LPHW at 82°C / 71°C and air entering temperature of 20°C

PHV VERTICAL RANGE





GA DRAWING



- Available in Electric, Water or Ambient
- Maximum effective width 2.5m
- Finish standard RAL 9010
- Tangential fans
- Electric and Water units are supplied with Ecopower energy saving control as standard
- 3-Way valve supplied with water units
- 82/71°C and 60/40°C low-grade water coils available
- Incorporates cross flow technology with turning vanes

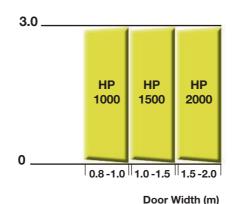
| PHV Vertical | l Range | | | | | | | | | |
|-------------------------------|-----------------------------------|---------------------------------------|------------------------|------------------------|----------------|------------------------------|----------------|----|---------------------|----|
| Models | Dimensions (mm) (L x D x H) | | Supply (50Hz) | Heat Output (kW) | U | Max. Air Volume (m³/h) | Weight (kg) | | *dB(A @3m Med | • |
| Ambient | | | | | | | | | | |
| PHV 1500A V | 1707 x 439 x 350 | | 230V~1P&N | | 1.8 | 3645 | 60 | 60 | 57 | 53 |
| PHV 2000A V | 2257 x 439 x 350 | | 230V~1P&N | | 2.7 | 4145 | 77 | 61 | 59 | 58 |
| PHV 2500A V (Stacked Unit) | 2809 x 439 x 350 | Top Air Curtain Bottom Air Curtain | 230V~1P&N 230V~1P&N | | 1.3 1.8 | 2050 | 99 | 62 | 60 | 59 |
| PHV 3000A V | | | 230V~1P&N | | | 3645 | | | | |
| (Stacked Unit) | 3359 x 439 x 350 | Top Air Curtain Bottom Air Curtain | 230V~1P&N | | 1.3 2.7 | 2050 4145 | 116 | 63 | 61 | 60 |
| Electric | | | | | | | | | | |
| PHV 1500E V | 1707 x 439 x 350 | | 400V~3P&N | 9/18 | *27.9 | 3325 | 66 | 60 | 57 | 53 |
| PHV 2000E V | 2257 x 439 x 350 | | 400V~3P&N | 12/24 | *37.5 | 3780 | 85 | 61 | 59 | 58 |
| PHV 2500E V (Stacked Unit) | 2809 x 439 x 350 | Top Air Curtain Bottom Air Curtain | 400V~3P&N 400V~3P&N | 6/12 9/18 | *18.7 *27.9 | 1870 3325 | 109 | 62 | 60 | 59 |
| PHV 3000E V (Stacked Unit) | 3359 x 439 x 350 | Top Air Curtain Bottom Air Curtain | 400V~3P&N 400V~3P&N | 6/12 12/24 | *18.7 *37.5 | 1870 3780 | 128 | 63 | 61 | 60 |
| LPHW 82/71 | | | | | | | | | | |
| PHV 1500W V | 1707 x 439 x 350 | | 230V~1P&N | 18 | 1.8 | 3040 | 68 | 60 | 57 | 53 |
| PHV 2000W V | 2257 x 439 x 350 | | 230V~1P&N | 24 | 2.7 | 3455 | 87 | 61 | 59 | 58 |
| PHV 2500W V (Stacked Unit) | 2809 x 439 x 350 | Top Air Curtain Bottom Air Curtain | 230V~1P&N 230V~1P&N | 12 18 | 1.3 1.8 | 1710 3040 | 114 | 62 | 60 | 59 |
| PHV 3000W V (Stacked Unit) | 3359 x 439 x 350 | Top Air Curtain | 230V~1P&N 230V~1P&N | 12 24 | 1.3 | 1710 3455 | 133 | 63 | 61 | 60 |
| LPHW 60/40 | | Bottom Air Curtain | 230V~ IPQIV | 24 | 2.1 | 3433 | | | | |
| PHV 1500W V | 1707 x 439 x 350 | | 230V~1P&N | 18 | 1.8 | 3040 | 68 | 60 | 57 | 53 |
| PHV 2000W V | 2257 x 439 x 350 | | 230V~1P&N | 24 | 2.7 | 3455 | 87 | 61 | 59 | 58 |
| PHV 2500W V | 2809 x 439 x 350 | Top Air Curtain | 230V~1P&N | 12 | 1.3 | 1710 | 114 | 62 | 60 | 59 |
| (Stacked Unit) | | Bottom Air Curtain | 230V~1P&N | 18 | 1.8 | 3040 | | | | |
| PHV 3000W V (Stacked Unit) | 3359 x 439 x 350 | Top Air Curtain Bottom Air Curtain | 230V~1P&N 230V~1P&N | 12 21 | 1.3 2.7 | 1710 3455 | 133 | 63 | 61 | 60 |

^{**} Sound pressure levels (dBA) at 3m, as given in our brochure, are for a single air curtain mounted at its maximum mounting height, operating in a room with average acoustic characteristics as defined in CIBSE Guide B5 (reverberation time 0.7s) and a room size equivalent to 8 air changes per hour (ac/h). Care needs to be taken when selecting air curtains for an installation as noise levels can be several dB higher if the mounting height is reduced, if the room is more "live" (i.e. hard surfaces, no furnishings or absorbent materials), if the room is smaller than 8 ac/h equivalent or a combination of these factors. Noise levels will also increase if more than one air curtain is installed at the same doorway (e.g. + 3dBA for 2 equal point sources: direct field).

HP RANGE







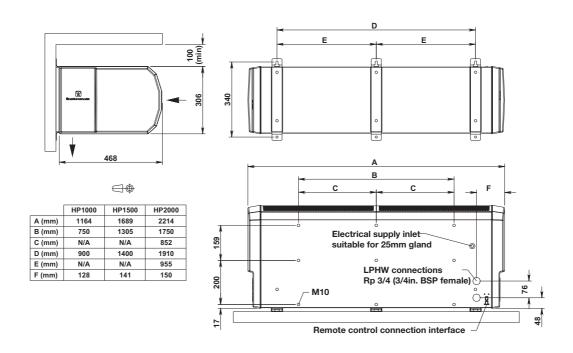
HP Range

- Available in Electric, Water or Ambient
- Available in surface mounted model
- Maximum mounting height 3m
- Supplied with Centrifugal fans
- Filter as standard
- Electric and Water units are supplied with Ecopower energy saving controller
- 3-Way valve with water units
- 82/71°C and 60/40°C low-grade water coils available



| HP Range | | | | | | | | | | |
|-------------------|-----------------------------------|------------------|------------------------|------------------------------|--------------------------|------------------------------|----------------|----|----------------------|----|
| Models | Dimensions (mm) (L x D x W) | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | | *dB(A @3m Med, | • |
| Ambient | | | | | | | | | | |
| HP1000A NT | 1164 x 468 x 306 | 230V~1P&N | - | 1.1 | 8.0 | 2000 | 36 | 57 | 54 | 50 |
| HP1500A NT | 1689 x 468 x 306 | 230V~1P&N | - | 1.7 | 8.0 | 3000 | 52 | 58 | 56 | 54 |
| HP2000A NT | 2214 x 468 x 306 | 230V~1P&N | - | 2.0 | 8.0 | 4000 | 63 | 59 | 57 | 55 |
| Electric | | | | | | | | | | |
| HP1000E NT | 1164 x 468 x 306 | 400V~3P&N | 6/12 | *18.5 | 8.0 | 2000 | 37 | 57 | 54 | 50 |
| HP1500E 12NT | 1689 x 468 x 306 | 400V~3P&N | 6/12 | *18.9 | 8.0 | 3000 | 53 | 58 | 56 | 54 |
| HP1500E 18NT | 1689 x 468 x 306 | 400V~3P&N | 9/18 | *27.9 | 8.0 | 3000 | 53 | 58 | 56 | 54 |
| HP2000E NT | 2214 x 468 x 306 | 400V~3P&N | 12/24 | *37.0 | 8.0 | 4000 | 65 | 59 | 57 | 55 |
| LPHW 82/71 | | | | | | | | | | |
| HP1000W NT | 1164 x 468 x 306 | 230V~1P&N | 12 | 1.1 | 7.5 | 1870 | 38 | 57 | 54 | 50 |
| HP1500W NT | 1689 x 468 x 306 | 230V~1P&N | 18 | 1.7 | 7.5 | 2800 | 54 | 58 | 56 | 54 |
| HP2000W NT | 2214 x 468 x 306 | 230V~1P&N | 24 | 2.0 | 7.5 | 3750 | 65 | 59 | 57 | 55 |
| LPHW 60/40 | | | | | | | | | | |
| HP1000W NT | 1164 x 468 x 306 | 230V~1P&N | 12 | 1.1 | 7.0 | 1680 | 38 | 57 | 54 | 50 |
| HP1500W NT | 1689 x 468 x 306 | 230V~1P&N | 18 | 1.7 | 7.0 | 2520 | 54 | 58 | 56 | 54 |
| HP2000W NT | 2214 x 468 x 306 | 230V~1P&N | 24 | 2.0 | 7.0 | 3375 | 65 | 59 | 57 | 55 |

GA DRAWING



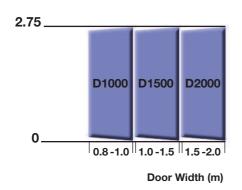
^{**} Sound pressure levels (dBA) at 3m, as given in our brochure, are for a single air curtain mounted at its maximum mounting height, operating in a room with average acoustic characteristics as defined in CIBSE Guide B5 (reverberation time 0.7s) and a room size equivalent to 8 air changes per hour (ac/h). Care needs to be taken when selecting air curtains for an installation as noise levels can be several dB higher if the mounting height is reduced, if the room is more "live" (i.e. hard surfaces, no furnishings or absorbent materials), if the room is smaller than 8 ac/h equivalent or a combination of these factors. Noise levels will also increase if more than one air curtain is installed at the same doorway (e.g. + 3dBA for 2 equal point sources: direct field).

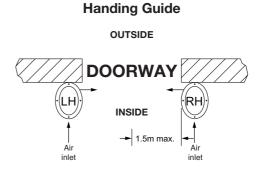
DESIGNER C RANGE







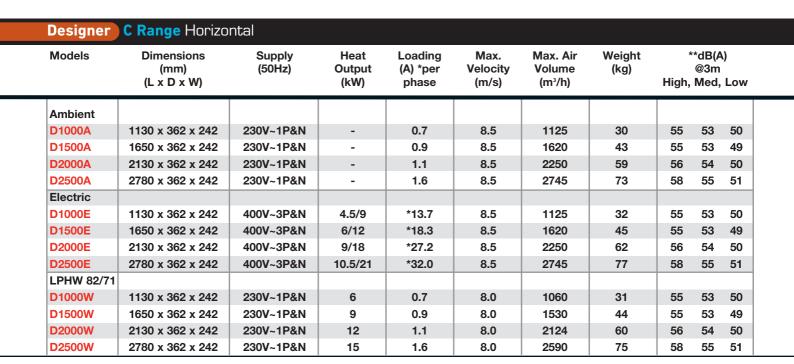




Designer C Range

- Suitable for vertical or horizontal applications
- **Available in Electric, Water or Ambient**
- Maximum mounting height horizontal unit 2.75m
- Maximum effective width vertical unit 1.5m
- Designed to harmonize with the architectural features of the building
- Manufactured in high grade polished stainless steel
- Ecopower controller for energy saving supplied as standard
- 3-Way valve supplied with water units
- **Supplied with Tangential fan**
- Incorporates cross flow technology with turning vanes



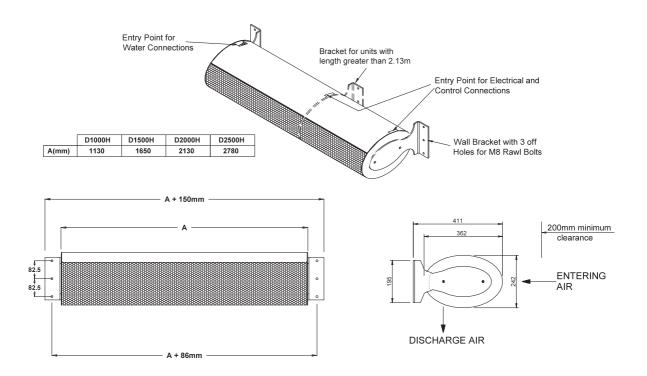


| Designer | C Range Vertica | I | | | | | | | | |
|------------|-----------------------------------|------------------|------------------------|------------------------------|--------------------------|------------------------------|----------------|----|----------------------|----|
| Models | Dimensions (mm) (L x D x W) | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | | *dB(A @3m Med, | • |
| Ambient | | | | | | | | | | |
| D1500A V | 1650 x 362 x 242 | 230V~1P&N | - | 0.9 | 8.5 | 1620 | 43 | 55 | 53 | 49 |
| D2000A V | 2130 x 362 x 242 | 230V~1P&N | - | 1.1 | 8.5 | 2250 | 59 | 56 | 54 | 50 |
| D2500A V | 2780 x 362 x 242 | 230V~1P&N | - | 1.6 | 8.5 | 2745 | 73 | 58 | 55 | 51 |
| Electric | | | | | | | | | | |
| D1500E V | 1650 x 362 x 242 | 400V~3P&N | 6/12 | *18.3 | 8.5 | 1620 | 45 | 55 | 53 | 49 |
| D2000E V | 2130 x 362 x 242 | 400V~3P&N | 9/18 | *27.2 | 8.5 | 2250 | 62 | 56 | 54 | 50 |
| D2500E V | 2780 x 362 x 242 | 400V~3P&N | 10.5/21 | *32.0 | 8.5 | 2745 | 77 | 58 | 55 | 51 |
| LPHW 82/71 | | | | | | | | | | |
| D1500W V | 1650 x 362 x 242 | 230V~1P&N | 9 | 0.9 | 8.0 | 1530 | 44 | 55 | 53 | 49 |
| D2000W V | 2130 x 362 x 242 | 230V~1P&N | 12 | 1.1 | 8.0 | 2124 | 60 | 56 | 54 | 50 |
| D2500W V | 2780 x 362 x 242 | 230V~1P&N | 15 | 1.6 | 8.0 | 2590 | 75 | 58 | 55 | 51 |

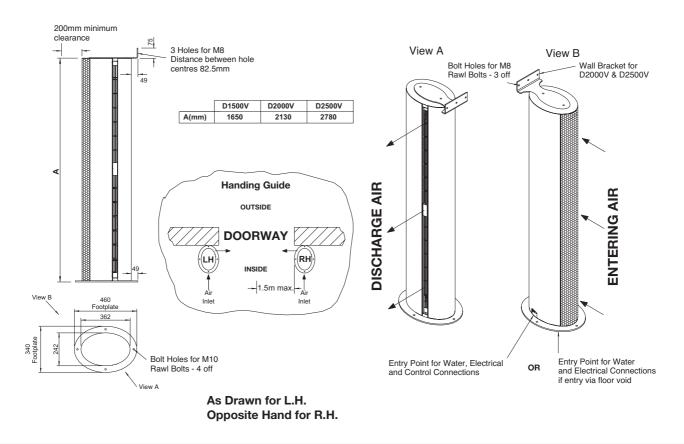
^{**} Sound pressure levels (dBA) at 3m, as given in our brochure, are for a single air curtain mounted at its maximum mounting height, operating in a room with average acoustic characteristics as defined in CIBSE Guide B5 (reverberation time 0.7s) and a room size equivalent to 8 air changes per hour (ac/h). Care needs to be taken when selecting air curtains for an installation as noise levels can be several dB higher if the mounting height is reduced, if the room is more "live" (i.e. hard surfaces, no furnishings or absorbent materials), if the room is smaller than 8 ac/h equivalent or a combination of these factors. Noise levels will also increase if more than one air curtain is installed at the same doorway (e.g. + 3dBA for 2 equal point sources: direct field).



Designer C Range Horizontal



Designer C Range Vertical





COIL PRESSURE DROP AND WATER FLOW INFORMATION



Water coil pressure Designer C Range

1.000.1

Water Coil Pressure Drop - Designer C Range for 82/71°C 100.00 Pressure Drop (KPa) D2000W duty point D1000W D2500W duty point D1500W 10.00 D2000W D1500W duty point D2500W D1000W duty point

0.3

Water Flow (I/s)

0.7

0.8 0.9 1.0

Water flow

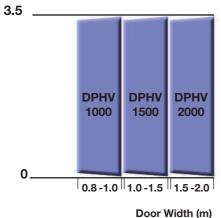
| Designer C Range | Water Flow Rate (I/s) 82/71°C | Coil Water Pressure Drop (kPa) |
|------------------|----------------------------------|--------------------------------|
| D1000W | 0.14 | 2.77 |
| D1500W | 0.21 | 6.74 |
| D2000W | 0.29 | 13.40 |
| D2500W | 0.35 | 15.20 |

Heat output on water units based on LPHW at 82°C / 71°C and air entering temperature of 20°C

DESIGNER PHV RANGE







DOORWAY INSIDE Air Inlet Inlet

Handing Guide

Designer PHV Range

- Suitable for vertical or horizontal applications
- Available in Electric, Water or Ambient
- Maximum mounting height horizontal unit 3.5m
- Maximum effective width vertical unit 2.5m
- Designed to harmonize with the architectural features of the building
- Manufactured in high grade polished stainless steel
- Ecopower controller for energy saving supplied as standard
- 3-Way valve supplied with water units
- Tangential fans
- Incorporates cross flow technology with turning vanes
- 82/71°C and 60/40°C low-grade water coils available



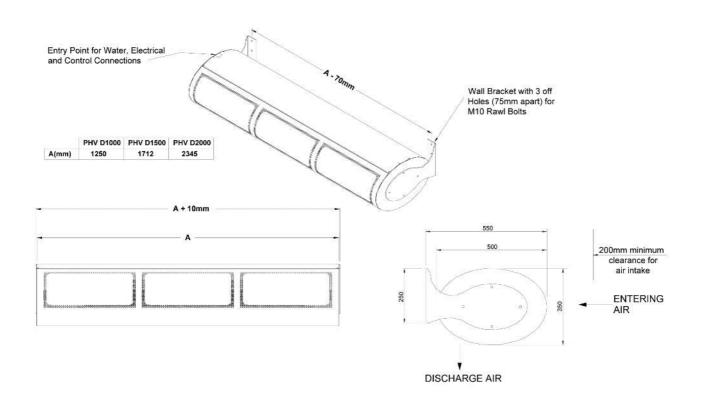
| Designer PHV Range Horizontal | | | | | | | | | | | |
|-------------------------------|-----------------------------------|------------------|------------------------|------------------------------|--------------------------|------------------------------|----------------|----|---------------------|----|--|
| Models | Dimensions (mm) (L x D x W) | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | | *dB(A @3m Med | • | |
| Ambient | | | | | | | | | | | |
| PHV D1000A | 1260 x 500 x 350 | 230V~1P&N | - | 1.5 | 11.0 | 2050 | 54 | 59 | 57 | 56 | |
| PHV D1500A | 1722 x 500 x 350 | 230V~1P&N | - | 2.0 | 11.0 | 3645 | 67 | 60 | 57 | 53 | |
| PHV D2000A | 2355 x 500 x 350 | 230V~1P&N | - | 2.9 | 11.0 | 4145 | 93 | 61 | 59 | 58 | |
| Electric | | | | | | | | | | | |
| PHV D1000E | 1260 x 500 x 350 | 400V~3P&N | 6/12 | *18.7 | 10.5 | 1870 | 57 | 59 | 57 | 56 | |
| PHV D1500E | 1722 x 500 x 350 | 400V~3P&N | 9/18 | *27.9 | 10.5 | 3325 | 71 | 60 | 57 | 53 | |
| PHV D2000E | 2355 x 500 x 350 | 400V~3P&N | 12/24 | *37.5 | 10.5 | 3780 | 99 | 61 | 59 | 58 | |
| LPHW | | | | | | | | | | | |
| PHV D1000W | 1260 x 500 x 350 | 230V~1P&N | 12 | 1.3 | 9.5 | 1710 | 61 | 59 | 57 | 56 | |
| PHV D1500W | 1722 x 500 x 350 | 230V~1P&N | 18 | 1.8 | 9.5 | 2730 | 82 | 60 | 57 | 53 | |
| PHV D2000W | 2355 x 500 x 350 | 230V~1P&N | 24 | 2.7 | 9.5 | 3455 | 107 | 61 | 59 | 58 | |

| De | esigner PH | V Range Vertica | al | | | | | | | | | |
|-----|-------------------------------|-----------------------------------|----------------|------------------------|------------------------|------------------------------|---------------------------|------------------------------|----------------|----|----------------------|----|
| M | /lodels | Dimensions (mm) (L x D x W) | Air Curtain | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max. Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | | *dB(A @3m Med, | |
| А | Ambient | | | | | | | | | | | |
| P | PHV D1000A V | 1260 x 500 x 350 | | 230V~1P&N | - | 1.5 | 11.0 | 2050 | 54 | 59 | 57 | 56 |
| P | PHV D1500A V | 1722 x 500 x 350 | | 230V~1P&N | - | 2.0 | 11.0 | 3645 | 67 | 60 | 57 | 53 |
| P | PHV D2000A V | 2355 x 500 x 350 | | 230V~1P&N | - | 2.9 | 11.0 | 4145 | 93 | 61 | 59 | 58 |
| 1.5 | PHV D2500A V Stacked Unit) | 2972 x 500 x 350 | Top Bottom | 230V~1P&N 230V~1P&N | - - | 1.5 2.0 | 11.0 11.0 | 2050 3645 | 121 | 62 | 60 | 59 |
| | PHV D3000A V Stacked Unit) | 3619 x 500 x 350 | Top Bottom | 230V~1P&N 230V~1P&N | - | 1.5 2.9 | 11.0 11.0 | 2050 4145 | 147 | 63 | 61 | 60 |
| E | lectric | | | | | | | | | | | |
| P | PHV D1000E V | 1260 x 500 x 350 | | 400V~3P&N | 6/12 | *18.7 | 10.5 | 1870 | 57 | 59 | 57 | 56 |
| P | PHV D1500E V | 1722 x 500 x 350 | | 400V~3P&N | 9/18 | *27.9 | 10.5 | 3325 | 71 | 60 | 57 | 53 |
| P | PHV D2000E V | 2355 x 500 x 350 | | 400V~3P&N | 12/24 | *37.5 | 10.5 | 3780 | 99 | 61 | 59 | 58 |
| 1 - | PHV D2500E V Stacked Unit) | 2972 x 500 x 350 | Top Bottom | 400V~3P&N 400V~3P&N | 6/12 9/18 | *18.7 *27.9 | 10.5 10.5 | 1870 3325 | 128 | 62 | 60 | 59 |
| | PHV D3000E V Stacked Unit) | 3619 x 500 x 350 | Top Bottom | 400V~3P&N 400V~3P&N | 6/12 12/24 | *18.7 *37.5 | 10.5 10.5 | 1870 3780 | 156 | 63 | 61 | 60 |
| v | Vater | | | | | | | | | | | |
| P | PHV D1000W V | 1260 x 500 x 350 | | 230V~1P&N | 12 | 1.3 | 9.5 | 1710 | 61 | 59 | 57 | 56 |
| Р | PHV D1500W V | 1722 x 500 x 350 | | 230V~1P&N | 18 | 1.8 | 9.5 | 3040 | 82 | 60 | 57 | 53 |
| P | PHV D2000W V | 2355 x 500 x 350 | | 230V~1P&N | 24 | 2.7 | 9.5 | 3455 | 107 | 61 | 59 | 58 |
| 1.5 | PHV D2500W V Stacked Unit) | 2972 x 500 x 350 | Top Bottom | 230V~1P&N 230V~1P&N | 12 18 | 1.3 1.8 | 9.5 9.5 | 1710 3040 | 143 | 62 | 60 | 59 |
| _ | PHV D3000W V Stacked Unit) | 3619 x 500 x 350 | Top Bottom | 230V~1P&N 230V~1P&N | 12 24 | 1.3 2.7 | 9.5 9.5 | 1710 3455 | 168 | 63 | 61 | 60 |

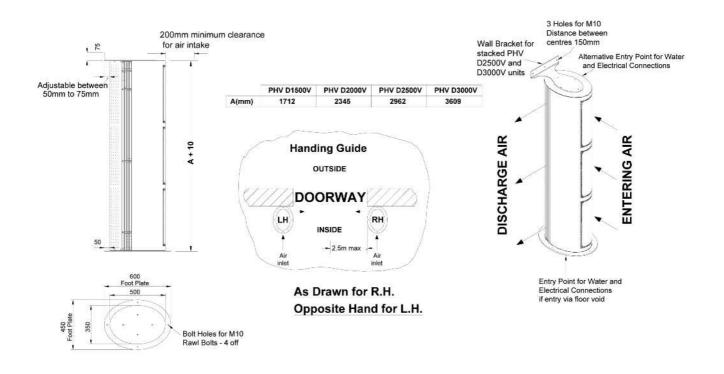
^{**} Sound pressure levels (dBA) at 3m, as given in our brochure, are for a single air curtain mounted at its maximum mounting height, operating in a room with average acoustic characteristics as defined in CIBSE Guide B5 (reverberation time 0.7s) and a room size equivalent to 8 air changes per hour (ac/h). Care needs to be taken when selecting air curtains for an installation as noise levels can be several dB higher if the mounting height is reduced, if the room is more "live" (i.e. hard surfaces, no furnishings or absorbent materials), if the room is smaller than 8 ac/h equivalent or a combination of these factors. Noise levels will also increase if more than one air curtain is installed at the same doorway (e.g. + 3dBA for 2 equal point sources: direct field).



Designer PHV Range Horizontal - Wall Mounted



Designer PHV Range Vertical



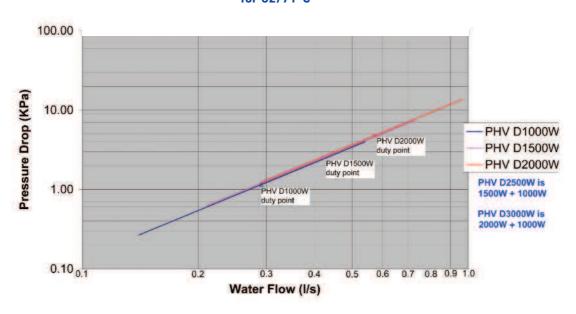


COIL PRESSURE DROP AND WATER FLOW INFORMATION



Water coil pressure Designer PHV Range

Water Coil Pressure Drop - Designer PHV Range for 82/71°C



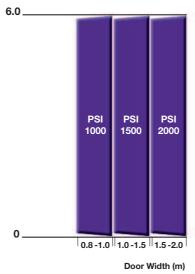
Water flow

| Designer | PHV Range | Water Flow Rate (I/s) 82/71°C | Coil Water Pressure Drop (kPa) |
|----------------|--------------------|----------------------------------|--------------------------------|
| PHV | D1000W | 0.30 | 6.60 |
| PHV D1500W | /, PHV D1500W V | 0.43 | 14.30 |
| PHV D2000W | /, PHV D2000W V | 0.57 | 28.60 |
| PHV 2500W V | Top Air Curtain | 0.30 | 6.60 |
| (Stacked Unit) | Bottom Air Curtain | 0.43 | 14.30 |
| PHV 3000W V | Top Air Curtain | 0.30 | 6.60 |
| (Stacked Unit) | Bottom Air Curtain | 0.57 | 28.60 |

Heat output on water units based on LPHW at 82°C / 71°C and air entering temperature of 20°C

PSI RANGE





PSI Range

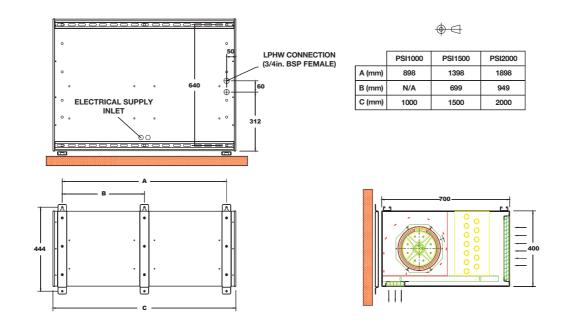
- Available in Electric, Water or Ambient
- Maximum mounting height 6m
- Supplied as surface mounted units
- Supplied with Centrifugal fans
- Supplied with a switch box controller
- Units are suitable for industrial application such as warehouses, factories and airports
- 82/71°C coils and 60/40 low-grade water coils available



| PSI Range |) | | | | | | | | | | |
|-----------|-----------------------------------|------------------|------------------------|------------------------------|---------------------------|------------------------------|----------------|----|-------------------------------|----|--|
| Models | Dimensions (mm) (L x D x W) | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max. Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | | **dB(<i>A</i> @3m Med, | • | |
| Ambient | | | | | | | | | | | |
| PSI1000A | 1000 x 700 x 400 | 230V~1P&N | - | 5.0 | 17.5 | 4020 | 58 | 72 | 69 | 66 | |
| PSI1500A | 1500 x 700 x 400 | 230V~1P&N | - | 7.5 | 17.5 | 6000 | 80 | 74 | 71 | 68 | |
| PSI2000A | 2000 x 700 x 400 | 230V~1P&N | - | 10.0 | 17.5 | 8040 | 110 | 75 | 72 | 69 | |
| Electric | | | | | | | | | | | |
| PSI1000E | 1000 x 700 x 400 | 400V~3P&N | 12/24 | *38.3 | 17.5 | 4020 | 63 | 72 | 69 | 66 | |
| PSI1500E | 1500 x 700 x 400 | 400V~3P&N | 18/36 | *57.5 | 17.5 | 6000 | 86 | 74 | 71 | 68 | |
| PSI2000E | 2000 x 700 x 400 | 400V~3P&N | 24/48 | *76.6 | 17.5 | 8040 | 110 | 75 | 72 | 69 | |
| LPHW | | | | | | | | | | | |
| PSI1000W | 1000 x 700 x 400 | 230V~1P&N | 24 | 5.0 | 16.0 | 3675 | 63 | 72 | 69 | 66 | |
| PSI1500W | 1500 x 700 x 400 | 230V~1P&N | 36 | 7.5 | 16.0 | 5485 | 86 | 74 | 71 | 68 | |
| PSI2000W | 2000 x 700 x 400 | 230V~1P&N | 48 | 10.0 | 16.0 | 7350 | 110 | 75 | 72 | 69 | |

GA DRAWING

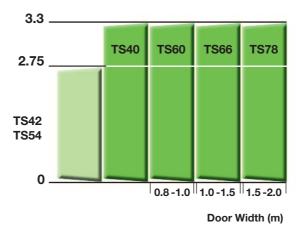
PSI Range



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TS RANGE COLD STORE





TS Range Cold Store

- Suitable for horizontal applications
- Maximum mounting height 3 phase units 3.3m
- Maximum mounting single phase units 2.75m
- Available in single phase or three phase
- Corrosion proof casing
- Centrifugal fan
- Units are specifically engineered for cold store and freezer room applications
- The air duct can be adjusted to direct the flow of air at the desired angle for optimum results
- Door Limit Switch supplied as standard with Single Phase and Three Phase TS units
- DOL Starter provided as an optional extra for 3 Phase TS units



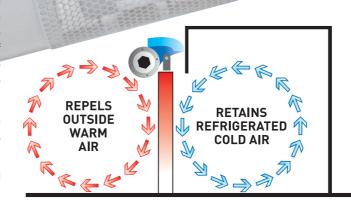
COLD STORE RANGE

When a chilled or frozen store door is opened an exchange of air takes place which results in large amounts of energy being lost. Warm air is exchanged for the cold air which causes inconsistency in internal temperatures. Moisture infiltration can create food safety issues in chilled stores and health and safety problems in frozen stores as the moisture turns to ice.

The TS range of air curtains create an effective barrier across the entrance of chilled and frozen stores preventing the loss of cold air and the infiltration of heat, resulting in substantial energy savings.

Features of TS Range:

- Suitable for protection of low temperature cold stores at -30°c and preparation rooms at 12°c.
- Air discharge is designed to provide an expanding air curtain of greater width than the diffuser. This unique feature provides extra protection at the side of the doorway and permits effective protection for openings wider than the unit.
- Units constructed from corrosion resistant plastics and all metal fittings are epoxy coated for long life.
- Modular design allows units to be fitted together to fit wider door openings.



TECHNICAL SPECIFICATION

| TS Range | | | | | | | |
|----------|-----------------------------------|------------------|------------------------------|--------------------------|------------------------------|----------------|----------------|
| Models | Dimensions (mm) (L x D x W) | Supply (50Hz) | Loading (A) *per Phase | Max Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | **dB(A) @3m |
| Ambient | | | | | | | |
| TS42 | 1080 x 280 x 275 | 230V~1P&N | 1.8 | 11.9 | 1011 | 16 | 71 |
| TS54 | 1380 x 280 x 265 | 230V~1P&N | 1.8 | 9.5 | 913 | 18 | 69 |
| TS40 | 1000 x 370 x 385 | 400V~3P&N | *1.8 | 15.8 | 1845 | 23 | 77 |
| TS60 | 1520 x 370 x 385 | 400V~3P&N | *1.8 | 10.0 | 1800 | 24 | 77 |
| TS66 | 1690 x 370 x 385 | 400V~3P&N | *1.8 | 11.3 | 1760 | 26 | 77 |
| TS78 | 1990 x 370 x 385 | 400V~3P&N | *1.8 | 11.1 | 1710 | 28 | 77 |

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AIR CURTAIN ACCESSORIES

Ambient Models:

Ambient NT units are supplied with a remote switch unit. The switch unit allows the air curtain to be powered on/off and to select one of the three fan speeds.



Part No.: T7263660

Door Limit Switch:

Provided as standard with Single Phase and Three Phase TS Cold Store units. The DLS can also be used



with Ambient units and C Electric NT units as an optional extra. The device will switch the unit on/off as the door opens/closes. Useful for places where the flow of people is less constant.

Part No.: T7260200

3 Way Mid Position Valve:

Valve comes as standard with all Ecopower LPHW units. It is designed to optimize energy consumption while maintaining a comfortable environment at a constant desired temperature.



Part No. : T7760111

■ End Caps:

Available for all NT Products



■ Joining Kits:

Available for C/T/PHV/HP units of the NT Range. To be used when making multiple parallel installations. This will provide the optical illusion of looking at a single long unit instead of multiple units mounted together.

Part No.: T7308220 - C NT

Part No. : T7308200 - T & PHV NT Part No. : T7308210 - HP NT

Extension Leads:

To be used for 'Master & Slave' installations or simply to extend the Ecopower Controller lead. Maximum recommended length of the extension leads is 30m.

Part No.: T5951001 - 3mtr (excludes coupler)
Part No.: T7263636 - 6mtr (excludes coupler)
Part No.: T5951050 - 10mtr (excludes coupler)
Part No.: T5951060 - 15mtr (excludes coupler)
Part No.: T5951020 - 30mtr (includes coupler)

Part No.: T5951030 - Coupler

■ Ecopower Controller:

The Ecopower Controller is fitted as standard on all models except for PSI, TS and Ambient models.

Part No.: T7263630





AIR CURTAIN EQUIPMENT SPECIFICATION

■ Surface mounted units (C,T,PHV,HP Range)

- The casing cabinet is constructed of corrosion resistant pre-finished 20 gauge sheet steel finished in white colour (RAL 9010).
- The discharge grille is produced from extruded tear drop profile section.
- Units can be painted to any RAL colour.
- Units are IP21 rated.

■ Recessed Units (T, PHV Range)

- The casing cabinet is constructed of corrosion resistant 20 gauge galvanised sheet steel.
 Decorative ceiling grille with separate discharge and air inlet sections produced from aluminium profiles available as standard in anodised aluminium grey or other RAL colours.
- · Units are IP 21 rated.

■ Recessed Unit (C Range)

- The casing cabinet is constructed of corrosion resistant 18 gauge galvanised sheet steel.
- Decorative ceiling grille with separate discharge and air inlet sections produced from aluminium profiles available as standard in anodised aluminium grey or white (RAL 9010).
- Units are IP 21 rated.

■ Designer Vertical Range

- The casing cabinet is constructed of corrosion resistant 20 gauge polished stainless steel with internal 16 gauge galvanised metal framework reinforcement.
- The discharge grille is produced from extruded teardrop profile section and fitted with turning vanes to generate good air velocity projection with high uniformity.
- Units can be painted to any RAL colour or supplied in brushed stainless steel.
- · Units are IP 21 rated.

■ PSI Industrial Range

- The casing cabinet is constructed of corrosion resistant pre-finished 20 gauge sheet steel finished in white colour (RAL 9010) with internal 16 gauge galvanised sheet steel reinforcement.
- The inlet and discharge grille are produced in a satin anodised finish.
- Units are IP 21 rated.

■ TS Cold Store Range

- The casing cabinet is constructed of corrosion resistant glass-reinforced plastic with painted metal parts.
- Units are IP 44 rated.

■ JET Over Door Heater

 The casing cabinet is constructed of corrosion resistant pre-finished 20 gauge sheet steel finished in white colour (RAL 9010).

■ T600ER and T800ER (Small T Recessed Over Door Heater)

 The casing cabinet is constructed of corrosion resistant 20 gauge galvanised sheet steel.

■ Fans and Motors

- PHV Fans are 150mm diameter forward curved metal bladed crossflow impellers.
- C Range fans are 100mm diameter forward curved metal bladed crossflow impellers.
- T and HP range fans are 146mm diameter forward curved centrifugal fans on a fan deck.
- Powered by 4-pole AC induction motors on resilient mountings, suitable for continuous heavy-duty operation, protected by an automatic reset thermal switch with sealed for life pre-lubricated sleeve bearings.
- The specific fan power of the air curtain shall be less than 0.55 W/l/s on high fan speed.

JET RANGE OVER DOOR HEATERS



- Electrically heated over door heater
- Maximum mounting height 2.3m
- Curved styling
- Available in 3, 4.5 and 6kw
- Full heat and half heat setting
- Bracket mounted, enabling angular adjustment of heat flow
- Supplied as RAL 9010
- Supplied with Tangential fan
- Ideal for small shops, kiosks and drive through windows

600 x 120 x 201

800 x 120 x 201

800 x 120 x 201

| Jet Range | | | | | | | | | |
|-----------|-----------------------------------|------------------|------------------------|----------------------------|--------------------------|------------------------------|----------------|----------------|--|
| Models | Dimensions (mm) (L x D x W) | Supply (50Hz) | Heat Output (kW) | Electrical Input (W) | Max Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | **dB(A) @3m | |

3030

4540

6055

6.0

6.5

8.0

200

290

370

4.5

5.5

5.5

46.5

49.5

56

1.5/3

2.25/4.5

3/6

230V~1P&N

230V~1P&N

230V~1P&N

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JET 3 JET 4.5

JET 6

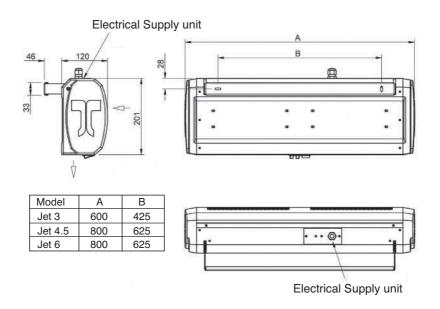




Figure 1: Mounting Bracket Alignment

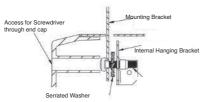
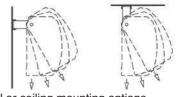


Figure 2: Cross section view & mounting bracket



Wall or ceiling mounting options

Typical Installation - Wall Mounting

- Use mounting bracket as template and mark two fixing holes on wall or ceiling.
- 2. Drill mounting holes and secure bracket into position.
- Hang the unit and secure fastening hardware.
- Open power connection plate.
- 5. Connect electrical supply.
- 6. Close power connection plate and secure cable gland.

A combination of units joined end to end will provide coverage on greater spans.

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T RANGE OVER DOOR HEATERS





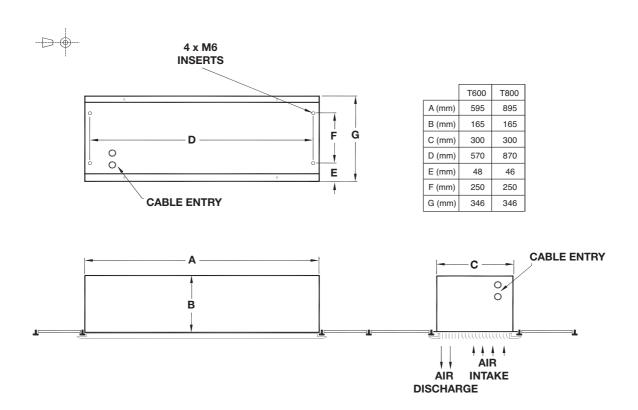
T Range

- Available in 3 or 4.5 kW
- Maximum mounting height 2.3m
- Recessed model with wall mounted controller and ceiling grille included
- Electrically heated over door heater
- Two heat settings
- Standard Grille RAL 9010

| T Range Over Door Heater | | | | | | | | | | |
|--------------------------|------------------------------------|------------------|------------------------|------------------------------|--------------------------|------------------------------|----------------|----------------|--|--|
| Models | Dimensions (mm) (L x D x W)) | Supply (50Hz) | Heat Output (kW) | Loading (A) *per phase | Max Velocity (m/s) | Max. Air Volume (m³/h) | Weight (kg) | **dB(A) @3m | | |
| Electric | | | | | | | | | | |
| T600ER | 595 x 347 x 162 | 230V~1P&N | 1.5/3 | *13.5 | 4.1 | 300 | 7.5 | 58 | | |
| T800ER | 895 x 347 x 162 | 230V~1P&N | 3/4.5 | *20.0 | 4.5 | 360 | 8.5 | 58 | | |

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EN 60335-2-30, 2004/108/EC Electromagnetic Compatibility (EMC),

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Low Voltage Directive, (72/23/EEC as amended by 93/68/EEC)

Pressure Equipment Directive (97/23/EC)

IP21 Rating CSA - Standard 22.2 UL 2021 / UL 1995, GOST R 23511-79, GOST R 50033-92





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