



Versatile, energy efficient
heating and cooling for
domestic and small
commercial applications



Why choose Smith's?

If you require energy efficiency and versatility in your heating and cooling, the Smith's range is the ideal solution



Commercial and domestic heating and cooling



Manufactured in the UK



Easy installation and ongoing maintenance



Network of sales representatives



Free advice and quotation service



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Since 1991, Smith's EP UK has been manufacturing and providing an extensive range of commercial and domestic heating and cooling solutions from our head office in the UK. Part of the global family-owned US-based business, the Swan Group, Smith's works closely with architects, consultants, heating contractors and installers to deliver, via our stockist network, high quality products with industry-leading warranties on time, with an aftercare and technical support service that is second to none.

We take an active, innovative approach to new product development and creating bespoke heating products to fulfil the creative requirements of a competitive and demanding customer base that spans the UK, Northern Europe and the US. We believe it is essential to be flexible in our partnerships, while remaining uncompromising on the high quality and care that goes into every product in our range. Smith's is an outward-looking, growing business and we are forging relationships with like-minded manufacturers across Europe to ensure that we can provide additional new and essential heating and cooling solutions in areas where we do not specialise and where our partners excel.

Our catalogue showcases our principal commercial and domestic products. At the same time, we have the ability and the will to work alongside clients at any point in the construction process, and collaborate to develop specific solutions for any and every need. We take great pride and go to great lengths to leave our customers not only satisfied but coming back again and again for solutions that are perfect for your project, each and every time.

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About Smith's

Founded in 1991 Smith's Environmental Products has grown to become the leading supplier of domestic and commercial heat emitters



Formed in 1991 Smith's Environmental Products has grown to become the leading supplier of domestic and light commercial fan-assisted hydronic heat emitters. The complete product range is manufactured in-house in its specialist facilities in the UK. The company is the UK's market leader and has significant shares of both the North American and European markets. Smith's Environmental Products is a member of The Swan Group.

In the early years we developed the Smith's Space Saver, the UK's number one plinth heater and the business quickly became established in heating and plumbing. Other fan convectors followed and the very first Caspian commercial fan convector was launched in 2007.

The business has grown from strength to strength and today we offer versatile heating and cooling solutions based on fan convector technology to all commercial specifiers from architects and consultants, to major building engineering services companies.

Manufacturing Facilities

Operating from 40,000 square feet of factory and office space near Chelmsford in Essex we manufacture our product range from raw materials through to finished product utilising computerised design and automated production techniques.

Quality and the environment

At Smith's we recognise that quality is about more than just the product, it's an approach that runs throughout the business and is centred on meeting and exceeding customers' expectations. Processes are constantly monitored and evaluated with a focus on continuous improvement. Manufacturing facilities are regularly appraised and meet the exacting standards of national approval boards such as UL, CSA and Kema.

In 2017 Smith's was assessed for the highly regarded ISO 9001 (2015) accreditation and passed the audit with no non-conformities and was accredited the new standard certification. It brings Smith's up to the latest standard and assuring our customers receive the best experience possible.

In 2018 Smith's was awarded the prestigious ISO 14001 accreditation. ISO 14001 is concerned with setting an environmental framework for the company to work within. This means that Smith's has management processes and systems to ensure that they manufacture products that meet the customer and regulatory requirements and are working within designated environmental parameters.

Both ISO 9001 (2015) and ISO 14001 accreditations are internationally recognised and demonstrate that Smith's is a responsible and forward-thinking organisation committed to achieving and maintaining the highest organisational standards.

Product performance testing

To ensure that our products meet the strictest requirements of our demanding customers we work closely with recognised test houses. We work with BSRIA to verify our products to demonstrate that they perform as they are designed to do. We also work with acoustic experts SRL Technical Services to ensure that the noise performance of our products achieve our customers' requirements. This gives our customers the reassurance that customers' can specify Smith's products with confidence.



Achilles Building Confidence Scheme

Smith's is a member of the Achilles Building Confidence Scheme. The scheme is designed to give confidence to suppliers in the construction industry that members have achieved the required standard in terms of production quality, health and safety standards, training and development, environmental procedures and processes as well as Corporate Social Responsibility. Membership of this scheme is a requirement of many of the major Main Contractors and suppliers in Construction Industry Supply Chain.

Working with Renewables

Renewable technology grows apace, with ground source and air source heat pumps offering a viable alternative to boilers as the principal heat generator in both domestic and commercial applications.

Inherent in the heat pump's design is that the smaller the temperature between the heat-source pump (air or ground) and the heat sink/emitter (under-floor heating, fan convector, radiator), the higher the energy efficiency of that heat pump. This higher efficiency means lower fuel bills and greater carbon savings.

Fan convectors can work very effectively at system temperatures as low as 40°C. This allows your chosen heat pump to work close to its maximum levels of efficiency, which means it will reduce the user's energy costs and energy consumption in the way it was intended. By contrast a standard radiator is designed to be efficient at higher temperatures, 45°C and above, which automatically reduces the heat pump's efficiency by more than 10%. In addition, the size of the radiator has to be increased significantly to cope with the lower system temperatures.



Our products are manufactured in the UK, including the heating/cooling coils, ensuring we can respond quickly to customer demands

ISO 9001 and 14001 accredited

Products are independently tested and verified by BSRIA and SRL Technical services

Compatible with renewable energy sources

Free parts and labour guarantee

Product ranges

Please see below for a summary of products suitable for commercial applications

Caspian Fan Convectors



Caspian Smart Control 8



Caspian UV 14



Caspian SL 15



Caspian FF 16



Caspian TT 17



Caspian EXT 18

Caspian Fan Convectors



Caspian UVC 19



Caspian LST 24



Caspian Skyline 26



Caspian Skyline E 28

Fan Coils



Aegean 235 30



Aegean 260 32

Fan Coils



Aegean 500 34

Radiant Panels



Sargasso A 36

Air Curtains



Ostro 38



S2 Series 43



PS Series 44



PS (W) 45

Unit Heater



Solano 46

Pedestal Radiators



Pedestal - Kiosk 48



Pedestal - Trafalgar 48



Pedestal - Tube 48

Fan Convectors



Ecovector High 50



Ecovector Low 52

Fan Convectors



Ecovector Vertical 53



Eco-Powerad 54



Sterling 55

Perimeter Heating



Sureline 56

Please see below for a summary of products suitable for residential/domestic applications

| Plinth Heating | | Fan Convectors | |
|---|----|--|----|
|  | 58 |  | 64 |
| Space Saver | 58 |  | 65 |
| | |  | 66 |
| | | Ecovector High | 64 |
| | | Ecovector Low | 65 |
| | | Ecovector Vertical | 66 |
| Fan Convectors | | Perimeter Heating | |
|  | 67 |  | 68 |
| Eco-Powerad | 67 |  | 70 |
| | | Spacemaker | 68 |
| | | Sureline | 70 |



Caspian® Smart Control

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial

The Smith's Smart Control has been developed to integrate several of the most commonly sought-after control features into one control unit and more



At the basic level it offers room temperature control and additionally offers a range of time controlling features too, making it perfect for buildings that serve a varied community demand.

The Smart Control can automatically control the fan speed of the Caspian fan convector, adjusting it in relation to the air temperature in the room providing a fast heat up period when required, and the quietest possible operation during occupied periods. There is a manual override facility too.



Smart Control features a summer mode where air circulation can be achieved without heat in summer months.



Heat mode



Cool mode

The control interface unit can be:



wall mounted (remote) for convenience, for example, where the heater is at high level



flush mounted in the product fascia



internally mounted (tamper-proof)





Thermostat Features

- Control of 2/4 pipe fan coils
- Multiple configurations
- Large LCD
- Maintain room temperature via built in temperature sensor, or external room temperature/return air temperature sensor
- Programming options: 5+2 (5 days same +2days same); individual day every week; all 7 days same
- ECO mode
- Fan speed Hi/Mi/Lo control (automatic or manual)
- Advanced fan control functions (fan start/stop, delay, fan continuously running in manual mode, or depending on heating/cooling demand)
- Auto Frost protection
- Configurable inputs (occupancy sensor or temperature)
- Installer settings
- Span or TPI temperature control algorithm
- Local or remote control by Smart Home App
- Wireless software update by UG600
- Dirty filter notification
- User settings are saved and restored after power break
- Button lock function



More advanced capabilities

It is possible to have master and slave Caspian fan convectors that integrate the entire range of EC Caspian products.

The thermostats can be used as standalone localised controls, or with the integration of our hub control multiple thermostats using our ZigBee platform and controlled via app over the internet. This level of control is cost effective and is far more economical than using a full BMS system. The control system with the app is very configurable to the needs of the building users and can integrate with many other smart features, like boiler receivers, door, and window sensors. A key advantage to many community buildings is the ability to control the buildings' services remotely and the app makes this all possible.

Smith's Smart Control can become a part of a much wider control system in a building. It is possible to integrate wireless relays to control other appliances like boilers, along with proximity sensors to control lighting.

The system can be expanded in many ways and the app can interact with other apps using IFTTT.

The only limit is your creativity and willingness to embrace new technologies.

Technical Support

It can be difficult to assess the requirements for a buildings control strategy, so Smith's Technical Support Team will help guide you through, with proposals for your project.

Where drawings can be provided, a desktop exercise can be undertaken to specify the required components, but we are happy to attend site too.

We have taken great care to ensure we have partnered with the best possible providers and have undertaken various site tests in public buildings.

Smith's can bring experience to your project and assist in conveying the many benefits to your customers.

Caspian® Smart Control

Applications
 Education
 Healthcare
 Places of worship
 Leisure and sport
 Office
 Hospitality
 Retail
 Showroom
 Industrial

The Smith's Smart Control has been developed to integrate several of the most commonly sought-after control features into one control unit and more

Heat output - EC (AC product also available)

| Model Reference | Fan Speed | Control Voltage VDC | 40°C MWT | 45°C MWT | 50°C MWT | 55°C MWT | 60°C MWT | 65°C MWT | 70°C MWT | 75°C MWT | 80°C MWT |
|-----------------|-----------|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| EC 60 | Low | 3.4 | 0.85 | 1.20 | 1.45 | 1.80 | 2.16 | 2.35 | 2.73 | 3.08 | 3.40 |
| | Mid | 4.9 | 1.02 | 1.53 | 1.92 | 2.37 | 2.76 | 3.18 | 3.58 | 4.05 | 4.38 |
| | High | 6.4 | 1.18 | 1.85 | 2.38 | 2.93 | 3.36 | 4.00 | 4.43 | 5.02 | 5.36 |
| EC 90 | Low | 3.2 | 1.68 | 2.23 | 3.01 | 3.49 | 4.05 | 4.45 | 5.12 | 5.49 | 6.03 |
| | Mid | 4.6 | 2.22 | 3.07 | 4.05 | 4.66 | 5.42 | 6.01 | 6.81 | 7.34 | 7.93 |
| | High | 6.1 | 2.75 | 3.90 | 5.08 | 5.82 | 6.78 | 7.56 | 8.49 | 9.19 | 9.83 |
| EC 120 | Low | 3.1 | 1.62 | 2.34 | 3.32 | 3.98 | 4.71 | 5.62 | 6.32 | 6.99 | 7.61 |
| | Mid | 4.3 | 2.31 | 3.25 | 4.27 | 5.15 | 6.07 | 7.02 | 7.91 | 8.74 | 9.60 |
| | High | 5.5 | 2.99 | 4.15 | 5.21 | 6.31 | 7.42 | 8.41 | 9.50 | 10.48 | 11.59 |
| EC 150 | Low | 2.8 | 2.95 | 3.72 | 4.49 | 5.27 | 6.045 | 6.79 | 7.54 | 8.29 | 9.04 |
| | Mid | 4.0 | 3.99 | 4.99 | 5.99 | 6.99 | 7.97 | 8.99 | 9.97 | 10.98 | 11.93 |
| | High | 5.1 | 5.02 | 6.26 | 7.49 | 8.71 | 9.90 | 11.19 | 12.39 | 13.67 | 14.82 |
| EC 180 | Low | 2.8 | 3.64 | 5.20 | 6.78 | 8.24 | 9.39 | 10.33 | 11.24 | 12.15 | 13.01 |
| | Mid | 3.9 | 4.51 | 6.18 | 7.85 | 9.51 | 10.95 | 12.36 | 13.70 | 15.07 | 16.40 |
| | High | 4.9 | 5.38 | 7.16 | 8.91 | 10.77 | 12.50 | 14.39 | 16.16 | 18.0 | 19.78 |

| Model Reference | Fan Speed | Air Volume (m³/h) | Air Volume (l/s) | Specific Fan Power w/l/s | Power Consumption (W) | NR in typical room* | Hydraulic Resistance (KPA) | Nominal Weight (KG) | Water Capacity (L) |
|-----------------|-----------|-------------------|------------------|--------------------------|-----------------------|---------------------|----------------------------|---------------------|--------------------|
| EC 60 | Low | 201.00 | 55.90 | 0.14 | 8.00 | 34.00 | 1.38 | 23.00 | 0.92 |
| | Mid | 290.50 | 80.75 | 0.26 | 21.00 | 41.50 | 1.69 | | |
| | High | 380.00 | 105.60 | 0.32 | 34.00 | 49.50 | 2.00 | | |
| EC 90 | Low | 297.00 | 80.75 | 0.20 | 16.00 | 34.00 | 4.70 | 36.00 | 1.50 |
| | Mid | 450.50 | 124.38 | 0.34 | 42.00 | 41.50 | 5.85 | | |
| | High | 604.00 | 168.00 | 0.40 | 68.00 | 49.97 | 7.00 | | |
| EC 120 | Low | 419.30 | 116.50 | 0.14 | 16.00 | 34.00 | 17.78 | 45.00 | 2.08 |
| | Mid | 549.65 | 152.68 | 0.26 | 40.00 | 42.00 | 20.59 | | |
| | High | 680.00 | 188.89 | 0.34 | 64.00 | 49.96 | 23.40 | | |
| EC 150 | Low | 459.80 | 127.72 | 0.17 | 22.00 | 34.70 | 22.23 | 60.00 | 2.58 |
| | Mid | 598.10 | 166.14 | 0.35 | 59.00 | 41.50 | 29.46 | | |
| | High | 736.40 | 205.56 | 0.47 | 96.00 | 49.38 | 36.69 | | |
| EC 180 | Low | 542.00 | 150.56 | 0.19 | 29.00 | 34.90 | 47.83 | 78.00 | 3.18 |
| | Mid | 690.00 | 191.67 | 0.40 | 78.50 | 41.50 | 60.76 | | |
| | High | 838.00 | 232.78 | 0.55 | 128.00 | 49.00 | 73.70 | | |

*A typical room is taken as a room with a volume of 173m³ and a reverberation time of 0.8 seconds at 500 Hz with one unit installed, situated against a wall or ceiling (radiating noise in a quartersphere). No allowance is made for attenuation provided by ceilings, enclosures or ductwork. Outputs based upon testing at EN442: 2014 using mean water temperature and an entering air temperature of 20°C with a 10°C temperature drop between flow and return.

Correction factors

| Mean Water Temp °C | | 45 - 80 | | | |
|-----------------------------|----|---------|------|------|------|
| Water Temperature drop °C | | 5 | 10 | 15 | 20 |
| Entering Air Temperature °C | 15 | 1.13 | 1.10 | 1.07 | 1.05 |
| | 18 | 1.08 | 1.05 | 1.02 | 0.99 |
| | 20 | 1.04 | 1.00 | 0.95 | 0.89 |
| | 25 | 0.93 | 0.91 | 0.89 | 0.86 |

Factors are approximate data based upon a standard coil.

How to calculate Mass Flow Rate (L/S)

$$M = H / CP \times (\text{Flow } ^\circ\text{C} - \text{Return } ^\circ\text{C})$$

M = Mass flow rate (L/S)

H = Output of product (W)

CP = Specific heat capacity [J/(kg·°C)].

Varies upon system temperature, approx. 4187 if fluid is water.

How to calculate Mean Water Temperature (ΔT)

$$\text{Mean water temperature } (\Delta T) = \left[\frac{\text{Flow temperature} + \text{Return temperature}}{2} \right] - \text{Ambient Temperature}$$

Ordering Guide

| Description | Product Codes |
|---|---------------|
| SL60 EC C/W FACIA MOUNTED SMART CONTROL | HPCA32008 |
| SL90 EC C/W FACIA MOUNTED SMART CONTROL | HPCA32009 |
| SL120 EC C/W FACIA MOUNTED SMART CONTROL | HPCA32010 |
| SL150 EC C/W FACIA MOUNTED SMART CONTROL | HPCA32011 |
| SL180 EC C/W FACIA MOUNTED SMART CONTROL | HPCA32012 |
| FF60 EC C/W FACIA MOUNTED SMART CONTROL | HPCA32013 |
| FF90 EC C/W FACIA MOUNTED SMART CONTROL | HPCA32014 |
| FF120 EC C/W FACIA MOUNTED SMART CONTROL | HPCA32015 |
| FF150 EC C/W FACIA MOUNTED SMART CONTROL | HPCA32016 |
| FF180 EC C/W FACIA MOUNTED SMART CONTROL | HPCA32017 |
| UV60 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32018 |
| UV90 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32019 |
| UV120 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32020 |
| UV150 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32021 |
| UV180 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32022 |
| SL60 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32023 |
| SL90 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32024 |
| SL120 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32025 |
| SL150 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32026 |
| SL180 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32027 |
| FF60 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32028 |
| FF90 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32029 |
| FF120 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32030 |
| FF150 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32031 |
| FF180 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32032 |
| EXT60 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32033 |
| EXT90 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32034 |
| EXT120 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32035 |
| EXT150 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32036 |
| EXT180 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32037 |
| TT60 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32059 |
| TT90 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32060 |
| TT120 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32061 |
| TT150 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32062 |
| TT180 EC C/W INTERNAL TAMPROOF SMART CONTROL | HPCA32063 |

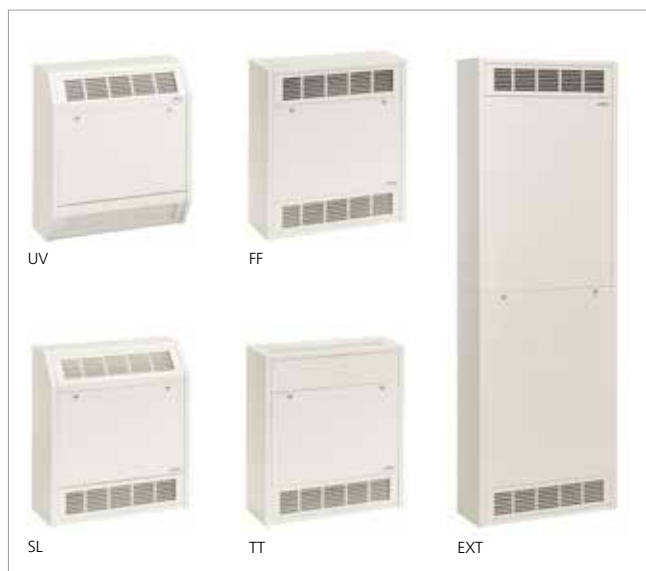
| Description | Product Codes |
|---|---------------|
| UV60 EC C/W REMOTE SMART CONTROL | HPCA32038 |
| UV90 EC C/W REMOTE SMART CONTROL | HPCA32039 |
| UV120 EC C/W REMOTE SMART CONTROL | HPCA32040 |
| UV150 EC C/W REMOTE SMART CONTROL | HPCA32041 |
| UV180 EC C/W REMOTE SMART CONTROL | HPCA32042 |
| SL60 EC C/W REMOTE SMART CONTROL | HPCA32043 |
| SL90 EC C/W REMOTE SMART CONTROL | HPCA32044 |
| SL120 EC C/W REMOTE SMART CONTROL | HPCA32045 |
| SL150 EC C/W REMOTE SMART CONTROL | HPCA32046 |
| SL180 EC C/W REMOTE SMART CONTROL | HPCA32047 |
| FF60 EC C/W REMOTE SMART CONTROL | HPCA32048 |
| FF90 EC C/W REMOTE SMART CONTROL | HPCA32049 |
| FF120 EC C/W REMOTE SMART CONTROL | HPCA32050 |
| FF150 EC C/W REMOTE SMART CONTROL | HPCA32051 |
| FF180 EC C/W REMOTE SMART CONTROL | HPCA32052 |
| EXT60 EC C/W REMOTE SMART CONTROL | HPCA32053 |
| EXT90 EC C/W REMOTE SMART CONTROL | HPCA32054 |
| EXT120 EC C/W REMOTE SMART CONTROL | HPCA32055 |
| EXT150 EC C/W REMOTE SMART CONTROL | HPCA32056 |
| EXT180 EC C/W REMOTE SMART CONTROL | HPCA32057 |
| TT60 EC C/W REMOTE SMART CONTROL | HPCA32064 |
| TT90 EC C/W REMOTE SMART CONTROL | HPCA32065 |
| TT120 EC C/W REMOTE SMART CONTROL | HPCA32066 |
| TT150 EC C/W REMOTE SMART CONTROL | HPCA32067 |
| TT180 EC C/W REMOTE SMART CONTROL | HPCA32068 |
| CT60 EC C/W REMOTE SMART CONTROL | HPCA32058 |
| SMITHS HUB FOR CASPIAN SMART CONTROL UG600 | HACA33130 |
| SMITHS COMBINED SMART PLUG & REPEATER SP600 | HACA33133 |
| SMITHS REPEATER FOR CASPIAN SMART CONTROLS RE600 | HACA33134 |
| SMITHS SMART BUTTON FOR CASPIAN SMART CONTROLS B600 | HACA33135 |
| SMITHS SMART WINDOW DOOR SENSOR SLIM OS600 | HACA33136 |
| SMITHS SMART WINDOW DOOR SENSOR SLIM SW600 | HACA33137 |
| SMITHS BOILER RECEIVER RX10RF | HACA33138 |
| SMITHS SMART RELAY SR600 | HPCA33139 |

Caspian® Commercial

Fan convectors suitable for all kinds of commercial applications, from schools and churches to office developments, with the ability to rapidly heat large areas quicker than other heat emitters

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial



Caspian fan convectors are both a practical and high quality heating solution for any commercial project

Incorporating the latest EC motor technology, which can result in running-cost savings as high as 70%, and with variable speed control as standard, the Caspian delivers heat quickly and quietly. AC motor models are available on request

Caspian are compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

The airflow can be reversed so that the warm air is discharged from the lower vent

Now available with Smart Control (see page 8)

Available with anti-bacterial paint (see page 29)

Motor

EC (BMS compliant) or AC.

Finish

Casing: zinc-coated steel 1.2mm .

Polyester powder-coated: white RAL 9010.

Available to special order in any colour and with anti-microbial or anti-bacterial paint (see page 29).

Filter

Class G2, 100% polyester, non-washable.

Installation

Suitable for two-pipe central heating systems.

Maximum installation height for high or ceiling mounting - 4m to underside.

Pipework access holes on the rear and underside.

Key operated front access panels.

Bleed valve accessible on removal of front casing.

Unit must be earthed.

Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.

Controls

See accessories tables: UV p14, SL p15, FF P16, TT p17 and EXT p18.

Accessories

See matrix on page 74.

Heat output - EC (AC product also available)

| Model Reference | Fan Speed | Control Voltage VDC | 40°C MWT | 45°C MWT | 50°C MWT | 55°C MWT | 60°C MWT | 65°C MWT | 70°C MWT | 75°C MWT | 80°C MWT |
|-----------------|-----------|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| EC 60 | Low | 3.4 | 0.85 | 1.20 | 1.45 | 1.80 | 2.16 | 2.35 | 2.73 | 3.08 | 3.40 |
| | Mid | 4.9 | 1.02 | 1.53 | 1.92 | 2.37 | 2.76 | 3.18 | 3.58 | 4.05 | 4.38 |
| | High | 6.4 | 1.18 | 1.85 | 2.38 | 2.93 | 3.36 | 4.00 | 4.43 | 5.02 | 5.36 |
| EC 90 | Low | 3.2 | 1.68 | 2.23 | 3.01 | 3.49 | 4.05 | 4.45 | 5.12 | 5.49 | 6.03 |
| | Mid | 4.6 | 2.22 | 3.07 | 4.05 | 4.66 | 5.42 | 6.01 | 6.81 | 7.34 | 7.93 |
| | High | 6.1 | 2.75 | 3.90 | 5.08 | 5.82 | 6.78 | 7.56 | 8.49 | 9.19 | 9.83 |
| EC 120 | Low | 3.1 | 1.62 | 2.34 | 3.32 | 3.98 | 4.71 | 5.62 | 6.32 | 6.99 | 7.61 |
| | Mid | 4.3 | 2.31 | 3.25 | 4.27 | 5.15 | 6.07 | 7.02 | 7.91 | 8.74 | 9.60 |
| | High | 5.5 | 2.99 | 4.15 | 5.21 | 6.31 | 7.42 | 8.41 | 9.50 | 10.48 | 11.59 |
| EC 150 | Low | 2.8 | 2.95 | 3.72 | 4.49 | 5.27 | 6.045 | 6.79 | 7.54 | 8.29 | 9.04 |
| | Mid | 4.0 | 3.99 | 4.99 | 5.99 | 6.99 | 7.97 | 8.99 | 9.97 | 10.98 | 11.93 |
| | High | 5.1 | 5.02 | 6.26 | 7.49 | 8.71 | 9.90 | 11.19 | 12.39 | 13.67 | 14.82 |
| EC 180 | Low | 2.8 | 3.64 | 5.20 | 6.78 | 8.24 | 9.39 | 10.33 | 11.24 | 12.15 | 13.01 |
| | Mid | 3.9 | 4.51 | 6.18 | 7.85 | 9.51 | 10.95 | 12.36 | 13.70 | 15.07 | 16.40 |
| | High | 4.9 | 5.38 | 7.16 | 8.91 | 10.77 | 12.50 | 14.39 | 16.16 | 18.0 | 19.78 |

| Model Reference | Fan Speed | Air Volume (m³/h) | Air Volume (l/s) | Specific Fan Power w/l/s | Power Consumption (W) | NR in typical room* | Hydraulic Resistance (KPA) | Nominal Weight (KG) | Water Capacity (L) |
|-----------------|-----------|-------------------|------------------|--------------------------|-----------------------|---------------------|----------------------------|---------------------|--------------------|
| EC 60 | Low | 201.00 | 55.90 | 0.14 | 8.00 | 34.00 | 1.38 | 23.00 | 0.92 |
| | Mid | 290.50 | 80.75 | 0.26 | 21.00 | 41.50 | 1.69 | | |
| | High | 380.00 | 105.60 | 0.32 | 34.00 | 49.50 | 2.00 | | |
| EC 90 | Low | 297.00 | 80.75 | 0.20 | 16.00 | 34.00 | 4.70 | 36.00 | 1.50 |
| | Mid | 450.50 | 124.38 | 0.34 | 42.00 | 41.50 | 5.85 | | |
| | High | 604.00 | 168.00 | 0.40 | 68.00 | 49.97 | 7.00 | | |
| EC 120 | Low | 419.30 | 116.50 | 0.14 | 16.00 | 34.00 | 17.78 | 45.00 | 2.08 |
| | Mid | 549.65 | 152.68 | 0.26 | 40.00 | 42.00 | 20.59 | | |
| | High | 680.00 | 188.89 | 0.34 | 64.00 | 49.96 | 23.40 | | |
| EC 150 | Low | 459.80 | 127.72 | 0.17 | 22.00 | 34.70 | 22.23 | 60.00 | 2.58 |
| | Mid | 598.10 | 166.14 | 0.35 | 59.00 | 41.50 | 29.46 | | |
| | High | 736.40 | 205.56 | 0.47 | 96.00 | 49.38 | 36.69 | | |
| EC 180 | Low | 542.00 | 150.56 | 0.19 | 29.00 | 34.90 | 47.83 | 78.00 | 3.18 |
| | Mid | 690.00 | 191.67 | 0.40 | 78.50 | 41.50 | 60.76 | | |
| | High | 838.00 | 232.78 | 0.55 | 128.00 | 49.00 | 73.70 | | |

*a typical room is taken as a room with a volume of 173m³ and a reverberation time of 0.8 seconds at 500 Hz with one unit installed, situated against a wall or ceiling (radiating noise in a quartersphere). No allowance is made for attenuation provided by ceilings, enclosures or ductwork. Outputs based upon testing at EN442: 2014 using mean water temperature and an entering air temperature of 20°C with a 10°C temperature drop between flow and return.

Correction factors

| Mean Water Temp °C | | 45 - 80 | | | |
|-----------------------------|----|---------|------|------|------|
| Water Temperature drop °C | | 5 | 10 | 15 | 20 |
| Entering Air Temperature °C | 15 | 1.13 | 1.10 | 1.07 | 1.05 |
| | 18 | 1.08 | 1.05 | 1.02 | 0.99 |
| | 20 | 1.04 | 1.00 | 0.95 | 0.89 |
| | 25 | 0.93 | 0.91 | 0.89 | 0.86 |

Factors are approximate data based upon a standard coil.

How to calculate Mass Flow Rate (L/S)

$$M = H / CP \times (\text{Flow } ^\circ\text{C} - \text{Return } ^\circ\text{C})$$

M = Mass flow rate (L/S)

H = Output of product (W)

CP = Specific heat capacity [J/(kg·°C)].

Varies upon system temperature, approx. 4187 if fluid is water.

How to calculate Mean Water Temperature (ΔT)

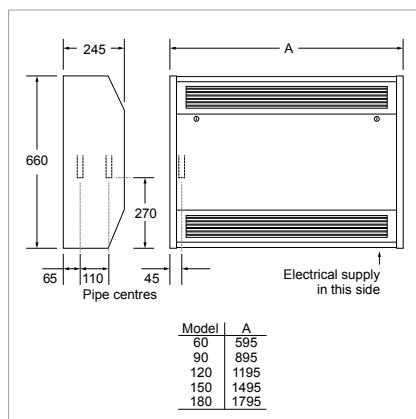
$$\text{Mean water temperature } (\Delta T) = \left[\frac{\text{Flow temperature} + \text{Return temperature}}{2} \right] - \text{Ambient Temperature}$$

Caspian® UV

One heating solution, suitable for high, low or ceiling mounted applications

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial



Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|-------------------|----------------|---------------|
| AC Codes | | |
| CASPIAN UV 60 AC | 23 | HPCA21001 |
| CASPIAN UV 90 AC | 36 | HPCA21002 |
| CASPIAN UV 120 AC | 45 | HPCA21003 |
| CASPIAN UV 150 AC | 60 | HPCA21004 |
| CASPIAN UV 180 AC | 78 | HPCA21005 |
| EC Codes | | |
| CASPIAN UV 60 EC | 23 | HPCA20001 |
| CASPIAN UV 90 EC | 36 | HPCA20002 |
| CASPIAN UV 120 EC | 45 | HPCA20003 |
| CASPIAN UV 150 EC | 60 | HPCA20004 |
| CASPIAN UV 180 EC | 78 | HPCA20005 |

Specification

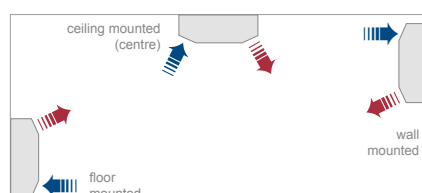
To specify state:

Fan Convactor with EC motor (or AC), in 1.2mm zinc coated steel, 660mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller. As Smith's Caspian UV 60, 90, 120, 150, 180.

| Accessories | Product Codes |
|---|---------------|
| CASPIAN UV/LST 60 PLINTH WHITE (150MM) | HACA33006 |
| CASPIAN UV/LST 90 PLINTH WHITE (150MM) | HACA33007 |
| CASPIAN UV/LST 120 PLINTH WHITE (150MM) | HACA33008 |
| CASPIAN UV/LST 150 PLINTH WHITE (150MM) | HACA33009 |
| CASPIAN UV/LST 180 PLINTH WHITE (150MM) | HACA33010 |
| CASPIAN UV/LST 60 PLINTH BLACK (150MM) | HACA33097 |
| CASPIAN UV/LST 90 PLINTH BLACK (150MM) | HACA33098 |
| CASPIAN UV/LST 120 PLINTH BLACK (150MM) | HACA33099 |
| CASPIAN UV/LST 150 PLINTH BLACK (150MM) | HACA33100 |
| CASPIAN UV/LST 180 PLINTH BLACK (150MM) | HACA33101 |
| CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC) | HACA33001 |
| CASPIAN THERMOSTAT (T1) (EC LOW LEVEL) | HACA33002 |
| CASPIAN THERMOSTAT (T2) (AC LOW LEVEL) | HACA33036 |
| CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL) | HACA33003 |
| CASPIAN EXTERNAL CONTROL HARNESS (EC) | HACA33004 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC) | HACA33005 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC) | HACA33037 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC) | HACA33117 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC) | HACA33118 |
| ROOM THERMOSTAT HARD WIRED | HAGA95001 |
| ROOM THERMOSTAT HARD WIRED SIEMENS | HACA33104 |
| ROOM THERMOSTAT RF SIEMENS | HACA33074 |
| ROOM THERMOSTAT TAMPER PROOF SIEMENS | HAGA95004 |
| FLEXIBLE HOSES 22MM PAIR | HAGA95003 |

100mm plinth also available, please contact us for further information

Mounting options



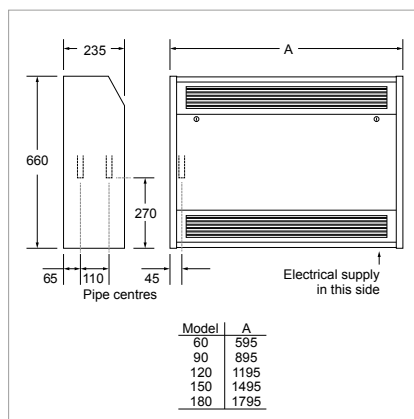
Caspian® SL

Warm air is discharged at an upward 45° angle to avoid causing discomfort to people sitting adjacent to appliance and with chamfered profile to avoid sharp corners

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial

COMMERCIAL



Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|-----------------|----------------|---------------|
| AC Codes | | |
| CASPIAN SL 60 | 23 | HPCA31601 |
| CASPIAN SL 90 | 36 | HPCA31602 |
| CASPIAN SL 120 | 45 | HPCA31603 |
| CASPIAN SL 150 | 60 | HPCA31604 |
| CASPIAN SL 180 | 78 | HPCA31605 |
| EC Codes | | |
| CASPIAN SL 60 | 23 | HPCA31501 |
| CASPIAN SL 90 | 36 | HPCA31502 |
| CASPIAN SL 120 | 45 | HPCA31503 |
| CASPIAN SL 150 | 60 | HPCA31504 |
| CASPIAN SL 180 | 78 | HPCA31505 |

Specification

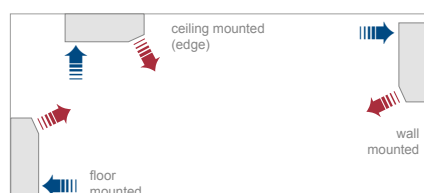
To specify state:

Fan Convactor with EC motor (or AC), in 1.2mm zinc coated steel, 660mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller. As Smith's Caspian SL 60, 90, 120, 150, 180.

| Accessories | Product Codes |
|---|---------------|
| CASPIAN FF/EXT/SL/TT 60 PLINTH WHITE (150MM) | HACA33092 |
| CASPIAN FF/EXT/SL/TT 90 PLINTH WHITE (150MM) | HACA33093 |
| CASPIAN FF/EXT/SL/TT 120 PLINTH WHITE (150MM) | HACA33094 |
| CASPIAN FF/EXT/SL/TT 150 PLINTH WHITE (150MM) | HACA33095 |
| CASPIAN FF/EXT/SL/TT 180 PLINTH WHITE (150MM) | HACA33096 |
| CASPIAN FF/EXT/SL/TT 60 PLINTH BLACK (150MM) | HACA33082 |
| CASPIAN FF/EXT/SL/TT 90 PLINTH BLACK (150MM) | HACA33083 |
| CASPIAN FF/EXT/SL/TT 120 PLINTH BLACK (150MM) | HACA33084 |
| CASPIAN FF/EXT/SL/TT 150 PLINTH BLACK (150MM) | HACA33085 |
| CASPIAN FF/EXT/SL/TT 180 PLINTH BLACK (150MM) | HACA33086 |
| CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC) | HACA33001 |
| CASPIAN THERMOSTAT (T1) (EC LOW LEVEL) | HACA33002 |
| CASPIAN THERMOSTAT (T2) (AC LOW LEVEL) | HACA33036 |
| CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL) | HACA33003 |
| CASPIAN EXTERNAL CONTROL HARNESS (EC) | HACA33004 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC) | HACA33005 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC) | HACA33037 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC) | HACA33117 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC) | HACA33118 |
| ROOM THERMOSTAT HARD WIRED | HAGA95001 |
| ROOM THERMOSTAT HARD WIRED SIEMENS | HACA33104 |
| ROOM THERMOSTAT RF SIEMENS | HACA33074 |
| ROOM THERMOSTAT TAMPER PROOF SIEMENS | HAGA95004 |
| FLEXIBLE HOSES 22MM PAIR | HAGA95003 |

100mm plinth also available, please contact us for further information

Mounting options

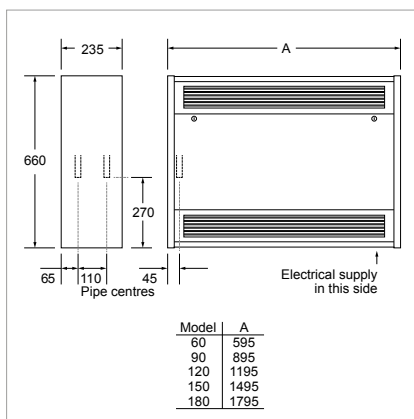


Caspian® FF

Can be installed in an adjacent room, or storage cupboard, with the warm air outlets positioned at the rear of the appliance and ducted into the adjacent room such as a sports hall or even a narrow corridor, permitting an obstruction free wall space

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial



Ordering guide

| Model | Packed Wt (kg) | AC Codes | EC Codes |
|--------------------|----------------|-----------|-----------|
| CASPIAN FF 60 | 24 | HPCA23001 | HPCA22001 |
| CASPIAN FF 90 | 39 | HPCA23002 | HPCA22002 |
| CASPIAN FF 120 | 46 | HPCA23003 | HPCA22003 |
| CASPIAN FF 150 | 61 | HPCA23004 | HPCA22004 |
| CASPIAN FF 180 | 76 | HPCA23005 | HPCA22005 |
| Rear Outlet | | | |
| CASPIAN FF 60 | 24 | HPCA23006 | HPCA22006 |
| CASPIAN FF 90 | 39 | HPCA23007 | HPCA22007 |
| CASPIAN FF 120 | 46 | HPCA23008 | HPCA22008 |
| CASPIAN FF 150 | 61 | HPCA23009 | HPCA22009 |
| CASPIAN FF 180 | 76 | HPCA23010 | HPCA22010 |

Specification

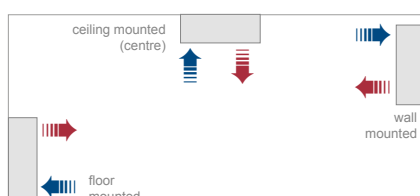
To specify state:

Fan Convactor with EC motor (or AC), in 1.2mm zinc coated steel, 660mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller. As Smith's Caspian FF 60, 90, 120, 150, 180.

| Accessories | Product Codes |
|---|---------------|
| CASPIAN FF/EXT/SL/TT 60 PLINTH WHITE (150MM) | HACA33092 |
| CASPIAN FF/EXT/SL/TT 90 PLINTH WHITE (150MM) | HACA33093 |
| CASPIAN FF/EXT/SL/TT 120 PLINTH WHITE (150MM) | HACA33094 |
| CASPIAN FF/EXT/SL/TT 150 PLINTH WHITE (150MM) | HACA33095 |
| CASPIAN FF/EXT/SL/TT 180 PLINTH WHITE (150MM) | HACA33096 |
| CASPIAN FF/EXT/SL/TT 60 PLINTH BLACK (150MM) | HACA33082 |
| CASPIAN FF/EXT/SL/TT 90 PLINTH BLACK (150MM) | HACA33083 |
| CASPIAN FF/EXT/SL/TT 120 PLINTH BLACK (150MM) | HACA33084 |
| CASPIAN FF/EXT/SL/TT 150 PLINTH BLACK (150MM) | HACA33085 |
| CASPIAN FF/EXT/SL/TT 180 PLINTH BLACK (150MM) | HACA33086 |
| CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC) | HACA33001 |
| CASPIAN THERMOSTAT (T1) (EC LOW LEVEL) | HACA33002 |
| CASPIAN THERMOSTAT (T2) (AC LOW LEVEL) | HACA33036 |
| CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL) | HACA33003 |
| CASPIAN EXTERNAL CONTROL HARNESS (EC) | HACA33004 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC) | HACA33005 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC) | HACA33037 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC) | HACA33117 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC) | HACA33118 |
| ROOM THERMOSTAT HARD WIRED | HAGA95001 |
| ROOM THERMOSTAT HARD WIRED SIEMENS | HACA33104 |
| ROOM THERMOSTAT RF SIEMENS | HACA33074 |
| ROOM THERMOSTAT TAMPER PROOF SIEMENS | HAGA95004 |
| FLEXIBLE HOSES 22MM PAIR | HAGA95003 |

100mm plinth also available, please contact us for further information

Mounting options



Rear outlet



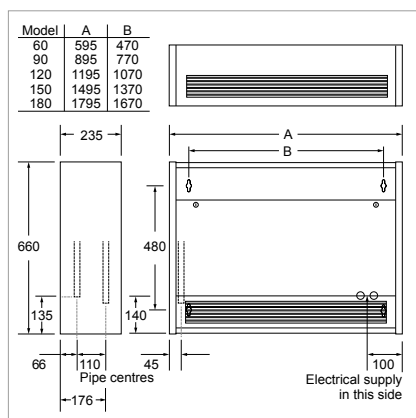
Caspian® TT

Warm air is discharged from the upper surface to avoid causing discomfort to people sitting adjacent to the appliance

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial

COMMERCIAL



Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|-------------------|----------------|---------------|
| AC Codes | | |
| CASPIAN TT 60 AC | 24 | HPCA16000 |
| CASPIAN TT 90 AC | 39 | HPCA16001 |
| CASPIAN TT 120 AC | 46 | HPCA16002 |
| CASPIAN TT 150 AC | 61 | HPCA16003 |
| CASPIAN TT 180 AC | 76 | HPCA16004 |
| EC Codes | | |
| CASPIAN TT 60 EC | 24 | HPCA15000 |
| CASPIAN TT 90 EC | 39 | HPCA15001 |
| CASPIAN TT 120 EC | 46 | HPCA15002 |
| CASPIAN TT 150 EC | 61 | HPCA15003 |
| CASPIAN TT 180 EC | 76 | HPCA15004 |

Specification

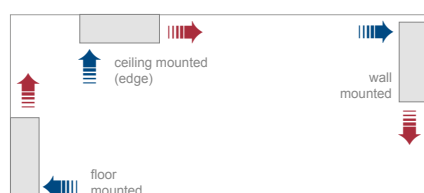
To specify state:

Fan Convactor with EC motor (or AC), in 1.2mm zinc coated steel, 660mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller. As Smith's Caspian TT 60, 90, 120, 150, 180.

| Accessories | Product Codes |
|---|---------------|
| CASPIAN FF/EXT/SL/TT 60 PLINTH WHITE (150MM) | HACA33092 |
| CASPIAN FF/EXT/SL/TT 90 PLINTH WHITE (150MM) | HACA33093 |
| CASPIAN FF/EXT/SL/TT 120 PLINTH WHITE (150MM) | HACA33094 |
| CASPIAN FF/EXT/SL/TT 150 PLINTH WHITE (150MM) | HACA33095 |
| CASPIAN FF/EXT/SL/TT 180 PLINTH WHITE (150MM) | HACA33096 |
| CASPIAN FF/EXT/SL/TT 60 PLINTH BLACK (150MM) | HACA33082 |
| CASPIAN FF/EXT/SL/TT 90 PLINTH BLACK (150MM) | HACA33083 |
| CASPIAN FF/EXT/SL/TT 120 PLINTH BLACK (150MM) | HACA33084 |
| CASPIAN FF/EXT/SL/TT 150 PLINTH BLACK (150MM) | HACA33085 |
| CASPIAN FF/EXT/SL/TT 180 PLINTH BLACK (150MM) | HACA33086 |
| CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC) | HACA33001 |
| CASPIAN THERMOSTAT (T1) (EC LOW LEVEL) | HACA33002 |
| CASPIAN THERMOSTAT (T2) (AC LOW LEVEL) | HACA33036 |
| CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL) | HACA33003 |
| CASPIAN EXTERNAL CONTROL HARNESS (EC) | HACA33004 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC) | HACA33005 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC) | HACA33037 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC) | HACA33117 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC) | HACA33118 |
| ROOM THERMOSTAT HARD WIRED | HAGA95001 |
| ROOM THERMOSTAT HARD WIRED SIEMENS | HACA33104 |
| ROOM THERMOSTAT RF SIEMENS | HACA33074 |
| ROOM THERMOSTAT TAMPER PROOF SIEMENS | HAGA95004 |
| FLEXIBLE HOSES 22MM PAIR | HAGA95003 |

100mm plinth also available, please contact us for further information

Mounting options

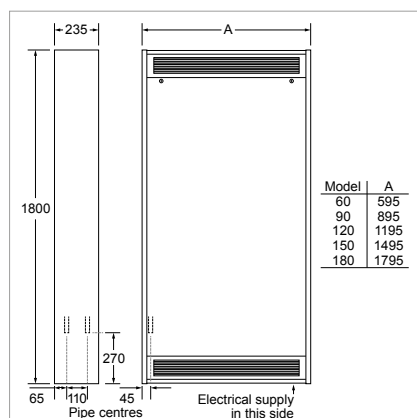


Caspian® EXT

Warm air is delivered at 1.7m from the base/floor level and the heater can be installed as a freestanding appliance

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial



Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|--------------------|----------------|---------------|
| AC Codes | | |
| CASPIAN EXT 60 AC | 30 | HPCA25001 |
| CASPIAN EXT 90 AC | 49 | HPCA25002 |
| CASPIAN EXT 120 AC | 58 | HPCA25003 |
| CASPIAN EXT 150 AC | 76 | HPCA25004 |
| CASPIAN EXT 180 AC | 95 | HPCA25005 |
| EC Codes | | |
| CASPIAN EXT 60 EC | 30 | HPCA24001 |
| CASPIAN EXT 90 EC | 49 | HPCA24002 |
| CASPIAN EXT 120 EC | 58 | HPCA24003 |
| CASPIAN EXT 150 EC | 76 | HPCA24004 |
| CASPIAN EXT 180 EC | 95 | HPCA24005 |

Specification

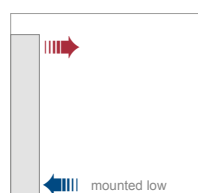
To specify state:

Fan Convactor with EC motor (or AC), in 1.2mm zinc coated steel, 1800mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller. As Smith's Caspian EXT 60, 90, 120, 150, 180.

| Accessories | Product Codes |
|---|---------------|
| CASPIAN FF/EXT/SL/TT 60 PLINTH WHITE (150MM) | HACA33092 |
| CASPIAN FF/EXT/SL/TT 90 PLINTH WHITE (150MM) | HACA33093 |
| CASPIAN FF/EXT/SL/TT 120 PLINTH WHITE (150MM) | HACA33094 |
| CASPIAN FF/EXT/SL/TT 150 PLINTH WHITE (150MM) | HACA33095 |
| CASPIAN FF/EXT/SL/TT 180 PLINTH WHITE (150MM) | HACA33096 |
| CASPIAN FF/EXT/SL/TT 60 PLINTH BLACK (150MM) | HACA33082 |
| CASPIAN FF/EXT/SL/TT 90 PLINTH BLACK (150MM) | HACA33083 |
| CASPIAN FF/EXT/SL/TT 120 PLINTH BLACK (150MM) | HACA33084 |
| CASPIAN FF/EXT/SL/TT 150 PLINTH BLACK (150MM) | HACA33085 |
| CASPIAN FF/EXT/SL/TT 180 PLINTH BLACK (150MM) | HACA33086 |
| CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC) | HACA33001 |
| CASPIAN THERMOSTAT (T1) (EC LOW LEVEL) | HACA33002 |
| CASPIAN THERMOSTAT (T2) (AC LOW LEVEL) | HACA33036 |
| CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL) | HACA33003 |
| CASPIAN EXTERNAL CONTROL HARNESS (EC) | HACA33004 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC) | HACA33005 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC) | HACA33037 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC) | HACA33117 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC) | HACA33118 |
| ROOM THERMOSTAT HARD WIRED | HAGA95001 |
| ROOM THERMOSTAT HARD WIRED SIEMENS | HACA33104 |
| ROOM THERMOSTAT RF SIEMENS | HACA33074 |
| ROOM THERMOSTAT TAMPER PROOF SIEMENS | HAGA95004 |
| FLEXIBLE HOSES 22MM PAIR | HAGA95003 |

100mm plinth also available, please contact us for further information

Mounting option



Rear outlet



Caspian® UVC

The Caspian UVC fan convector was developed for recessed or concealed heating projects and is suitable for high, low or ceiling concealed installations, can even be turned upside down

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial

COMMERCIAL



Compatible with all types of wet central heating systems and any commercial or domestic air source heat pump project, the Caspian UVC has four different main accessories. They function together in any combination to create the recessed or concealed heating solution required, depending on the project specification

AC motor models are available on request

Caspian UVC is compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Now available with Smart Control (see page 8)

Motor

EC (BMS compliant) or AC.

Finish

Casing: galvanised steel 1.2mm.

Filter

Class G2, 100% polyester, non-washable.

Installation

Suitable for two-pipe central heating systems.

Unit must be earthed.

Maximum installation height 4m to underside.

Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.

Controls

See accessories table p23.

Accessories

White powder-coated steel inlet/outlet grille.

Anodised aluminium air inlet/outlet grille.

90°C cranked air inlet/outlet duct.

1m adjustable straight air inlet/outlet extension duct.

Circular spigot air inlet/outlet duct.

See matrix on page 66 for other accessories.

Specification

To specify state:

A concealed fan convector for universal mounting with variable heat output controller.

As Smith's Caspian UVC 60, 90, 120, 150, 180.

Caspian® UVC

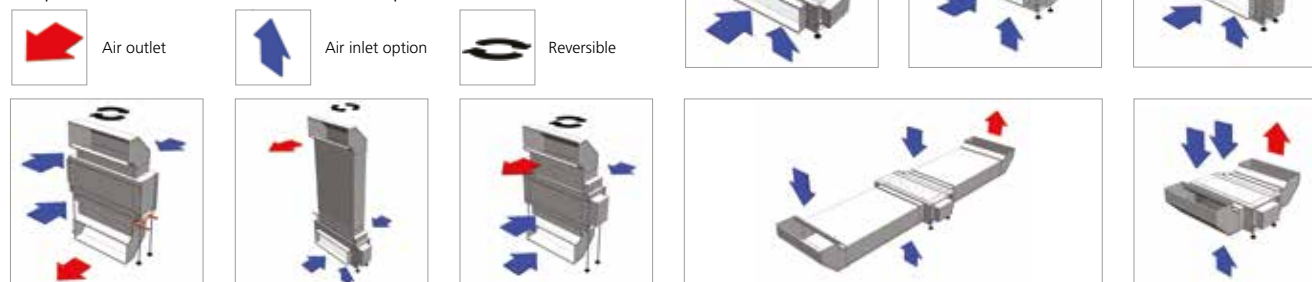
Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial

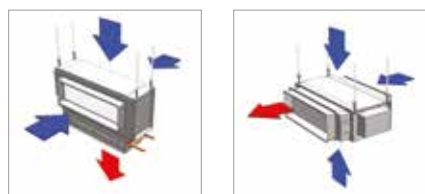
The Caspian UVC fan convector was developed for recessed or concealed heating projects and is suitable for high, low or ceiling concealed installations, can even be turned upside down

Floor mounted application

The Caspian UVC can be installed either on or behind walls at high and low level, in ceiling voids and on or under floors. Detailed below are a number of application options than can be achieved with the Caspian UVC and Accessories. If in doubt please contact us.



Suspended with ducts application



Suspended with spigots application



Heat output - EC (AC product also available)

| Model Reference | Fan Speed | Control Voltage VDC | 40°C MWT | 45°C MWT | 50°C MWT | 55°C MWT | 60°C MWT | 65°C MWT | 70°C MWT | 75°C MWT | 80°C MWT |
|-----------------|-----------|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| EC 60 | Low | 3.4 | 0.85 | 1.20 | 1.45 | 1.80 | 2.16 | 2.35 | 2.73 | 3.08 | 3.40 |
| | Mid | 4.9 | 1.02 | 1.53 | 1.92 | 2.37 | 2.76 | 3.18 | 3.58 | 4.05 | 4.38 |
| | High | 6.4 | 1.18 | 1.85 | 2.38 | 2.93 | 3.36 | 4.00 | 4.43 | 5.02 | 5.36 |
| EC 90 | Low | 3.2 | 1.68 | 2.23 | 3.01 | 3.49 | 4.05 | 4.45 | 5.12 | 5.49 | 6.03 |
| | Mid | 4.6 | 2.22 | 3.07 | 4.05 | 4.66 | 5.42 | 6.01 | 6.81 | 7.34 | 7.93 |
| | High | 6.1 | 2.75 | 3.90 | 5.08 | 5.82 | 6.78 | 7.56 | 8.49 | 9.19 | 9.83 |
| EC 120 | Low | 3.1 | 1.62 | 2.34 | 3.32 | 3.98 | 4.71 | 5.62 | 6.32 | 6.99 | 7.61 |
| | Mid | 4.3 | 2.31 | 3.25 | 4.27 | 5.15 | 6.07 | 7.02 | 7.91 | 8.74 | 9.60 |
| | High | 5.5 | 2.99 | 4.15 | 5.21 | 6.31 | 7.42 | 8.41 | 9.50 | 10.48 | 11.59 |
| EC 150 | Low | 2.8 | 2.95 | 3.72 | 4.49 | 5.27 | 6.045 | 6.79 | 7.54 | 8.29 | 9.04 |
| | Mid | 4.0 | 3.99 | 4.99 | 5.99 | 6.99 | 7.97 | 8.99 | 9.97 | 10.98 | 11.93 |
| | High | 5.1 | 5.02 | 6.26 | 7.49 | 8.71 | 9.90 | 11.19 | 12.39 | 13.67 | 14.82 |
| EC 180 | Low | 2.8 | 3.64 | 5.20 | 6.78 | 8.24 | 9.39 | 10.33 | 11.24 | 12.15 | 13.01 |
| | Mid | 3.9 | 4.51 | 6.18 | 7.85 | 9.51 | 10.95 | 12.36 | 13.70 | 15.07 | 16.40 |
| | High | 4.9 | 5.38 | 7.16 | 8.91 | 10.77 | 12.50 | 14.39 | 16.16 | 18.0 | 19.78 |

| Model Reference | Fan Speed | Air Volume (m³/h) | Air Volume (l/s) | Specific Fan Power w/l/s | Power Consumption (W) | NR in typical room* | Hydraulic Resistance (KPA) | Nominal Weight (KG) | Water Capacity (L) |
|-----------------|-----------|-------------------|------------------|--------------------------|-----------------------|---------------------|----------------------------|---------------------|--------------------|
| EC 60 | Low | 201.00 | 55.90 | 0.14 | 8.00 | 34.00 | 1.38 | 23.00 | 0.92 |
| | Mid | 290.50 | 80.75 | 0.26 | 21.00 | 41.50 | 1.69 | | |
| | High | 380.00 | 105.60 | 0.32 | 34.00 | 49.50 | 2.00 | | |
| EC 90 | Low | 297.00 | 80.75 | 0.20 | 16.00 | 34.00 | 4.70 | 36.00 | 1.50 |
| | Mid | 450.50 | 124.38 | 0.34 | 42.00 | 41.50 | 5.85 | | |
| | High | 604.00 | 168.00 | 0.40 | 68.00 | 49.97 | 7.00 | | |
| EC 120 | Low | 419.30 | 116.50 | 0.14 | 16.00 | 34.00 | 17.78 | 45.00 | 2.08 |
| | Mid | 549.65 | 152.68 | 0.26 | 40.00 | 42.00 | 20.59 | | |
| | High | 680.00 | 188.89 | 0.34 | 64.00 | 49.96 | 23.40 | | |
| EC 150 | Low | 459.80 | 127.72 | 0.17 | 22.00 | 34.70 | 22.23 | 60.00 | 2.58 |
| | Mid | 598.10 | 166.14 | 0.35 | 59.00 | 41.50 | 29.46 | | |
| | High | 736.40 | 205.56 | 0.47 | 96.00 | 49.38 | 36.69 | | |
| EC 180 | Low | 542.00 | 150.56 | 0.19 | 29.00 | 34.90 | 47.83 | 78.00 | 3.18 |
| | Mid | 690.00 | 191.67 | 0.40 | 78.50 | 41.50 | 60.76 | | |
| | High | 838.00 | 232.78 | 0.55 | 128.00 | 49.00 | 73.70 | | |

*a typical room is taken as a room with a volume of 173m³ and a reverberation time of 0.8 seconds at 500 Hz with one unit installed, situated against a wall or ceiling (radiating noise in a quartersphere). No allowance is made for attenuation provided by ceilings, enclosures or ductwork. Outputs based upon testing at EN442: 2014 using mean water temperature and an entering air temperature of 20°C with a 10°C temperature drop between flow and return.

Correction factors

| Mean Water Temp °C | | 45 - 80 | | | |
|-----------------------------|----|---------|------|------|------|
| Water Temperature drop °C | | 5 | 10 | 15 | 20 |
| Entering Air Temperature °C | 15 | 1.13 | 1.10 | 1.07 | 1.05 |
| | 18 | 1.08 | 1.05 | 1.02 | 0.99 |
| | 20 | 1.04 | 1.00 | 0.95 | 0.89 |
| | 25 | 0.93 | 0.91 | 0.89 | 0.86 |

Factors are approximate data based upon a standard coil.

How to calculate Mass Flow Rate (L/S)

$$M = H / CP \times (\text{Flow } ^\circ\text{C} - \text{Return } ^\circ\text{C})$$

M = Mass flow rate (L/S)

H = Output of product (W)

CP = Specific heat capacity [J/(kg·°C)].

Varies upon system temperature, approx. 4187 if fluid is water.

How to calculate Mean Water Temperature (ΔT)

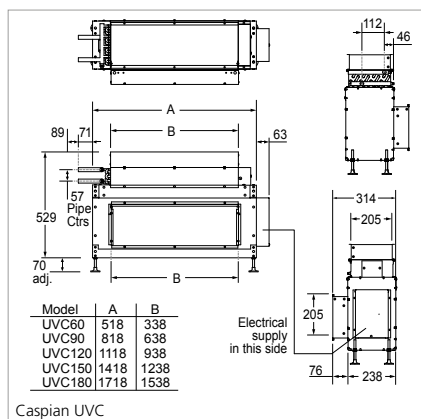
$$\text{Mean water temperature } (\Delta T) = \left[\frac{\text{Flow temperature} + \text{Return temperature}}{2} \right] - \text{Ambient Temperature}$$

Caspian® UVC

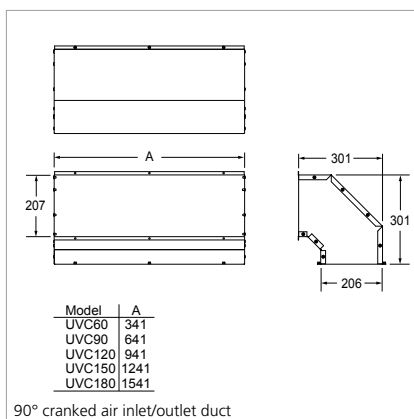
The Caspian UVC fan convector was developed for recessed or concealed heating projects and is suitable for high, low or ceiling concealed installations, can even be turned upside down

Applications

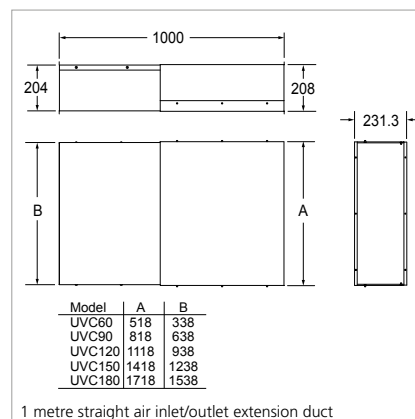
Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial



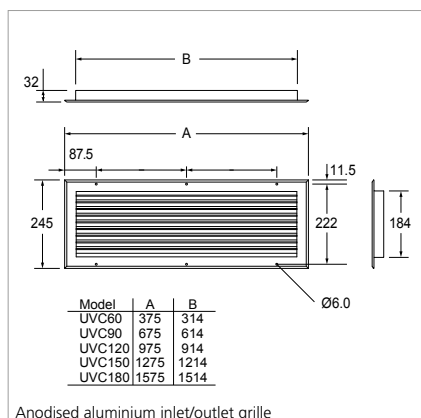
Caspian UVC



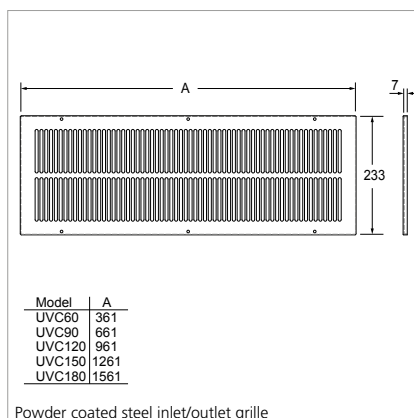
90° cranked air inlet/outlet duct



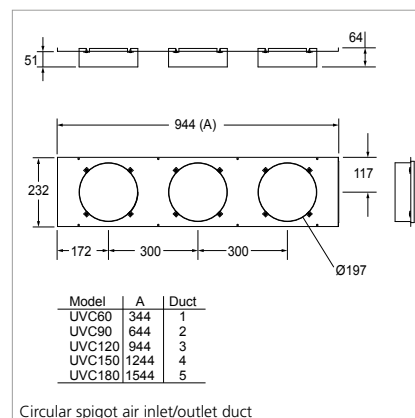
1 metre straight air inlet/outlet extension duct



Anodised aluminium inlet/outlet grille



Powder coated steel inlet/outlet grille



Circular spigot air inlet/outlet duct

Accessories



90° cranked air inlet/outlet



1m adjustable straight air inlet/outlet extension duct



Anodised aluminium inlet/outlet grille



Powder-coated steel inlet/outlet grille



Circular spigot inlet/outlet

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|--------------------|----------------|---------------|
| AC Codes | | |
| CASPIAN UVC 60 AC | 23 | HPCA27001 |
| CASPIAN UVC 90 AC | 36 | HPCA27002 |
| CASPIAN UVC 120 AC | 45 | HPCA27003 |
| CASPIAN UVC 150 AC | 60 | HPCA27004 |
| CASPIAN UVC 180 AC | 78 | HPCA27005 |
| EC Codes | | |
| CASPIAN UVC 60 EC | 23 | HPCA26001 |
| CASPIAN UVC 90 EC | 36 | HPCA26002 |
| CASPIAN UVC 120 EC | 45 | HPCA26003 |
| CASPIAN UVC 150 EC | 60 | HPCA26004 |
| CASPIAN UVC 180 EC | 78 | HPCA26005 |

| Accessories | Product Codes |
|---|---------------|
| CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC) | HACA33001 |
| CASPIAN THERMOSTAT (T1 (EC LOW LEVEL) | HACA33002 |
| CASPIAN THERMOSTAT (T2) (AC LOW LEVEL) | HACA33036 |
| CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL) | HACA33003 |
| CASPIAN EXTERNAL CONTROL HARNESS (EC) | HACA33004 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC) | HACA33005 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC) | HACA33037 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC) | HACA33117 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC) | HACA33118 |
| ROOM THERMOSTAT HARD WIRED | HAGA95001 |
| ROOM THERMOSTAT HARD WIRED SIEMENS | HACA33104 |
| ROOM THERMOSTAT RF SIEMENS | HACA33074 |
| ROOM THERMOSTAT TAMPER PROOF SIEMENS | HAGA95004 |
| FLEXIBLE HOSES 22MM PAIR | HAGA95003 |
| CASPIAN UVC 60 90° CRANKED AIR INLET/OUTLET DUCT | HACA33011 |
| CASPIAN UVC 90 90° CRANKED AIR INLET/OUTLET DUCT | HACA33012 |
| CASPIAN UVC 120 90° CRANKED AIR INLET/OUTLET DUCT | HACA33013 |
| CASPIAN UVC 150 90° CRANKED AIR INLET/OUTLET DUCT | HACA33014 |
| CASPIAN UVC 180 90° CRANKED AIR INLET/OUTLET DUCT | HACA33015 |
| CASPIAN UVC 60 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT | HACA33016 |
| CASPIAN UVC 90 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT | HACA33017 |
| CASPIAN UVC 120 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT | HACA33018 |
| CASPIAN UVC 150 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT | HACA33019 |
| CASPIAN UVC 180 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT | HACA33020 |
| CASPIAN UVC 60 CIRCULAR SPIGOT (200MM X 2) AIR INLET/OUTLET DUCT | HACA33021 |
| CASPIAN UVC 90 CIRCULAR SPIGOT (200MM X 2) AIR INLET/OUTLET DUCT | HACA33022 |
| CASPIAN UVC 120 CIRCULAR SPIGOT (200MM X 3) AIR INLET/OUTLET DUCT | HACA33023 |
| CASPIAN UVC 150 CIRCULAR SPIGOT (200MM X 4) AIR INLET/OUTLET DUCT | HACA33024 |
| CASPIAN UVC 180 CIRCULAR SPIGOT (200MM X 5) AIR INLET/OUTLET DUCT | HACA33025 |
| CASPIAN UVC 60 INLET/OUTLET GRILLE POWDER-COATED WHITE | HACA33026 |
| CASPIAN UVC 90 INLET/OUTLET GRILLE POWDER-COATED WHITE | HACA33027 |
| CASPIAN UVC 120 INLET/OUTLET GRILLE POWDER-COATED WHITE | HACA33028 |
| CASPIAN UVC 150 INLET/OUTLET GRILLE POWDER-COATED WHITE | HACA33029 |
| CASPIAN UVC 180 INLET/OUTLET GRILLE POWDER-COATED WHITE | HACA33030 |
| CASPIAN UVC 60 INLET/OUTLET GRILLE ANODISED ALUMINIUM | HACA33031 |
| CASPIAN UVC 90 INLET/OUTLET GRILLE ANODISED ALUMINIUM | HACA33032 |
| CASPIAN UVC 120 INLET/OUTLET GRILLE ANODISED ALUMINIUM | HACA33033 |
| CASPIAN UVC 150 INLET/OUTLET GRILLE ANODISED ALUMINIUM | HACA33034 |
| CASPIAN UVC 180 INLET/OUTLET GRILLE ANODISED ALUMINIUM | HACA33035 |

Caspian® LST

Caspian LST (low surface temperature) is ideal for applications where the surface temperature of is important such as schools and certain healthcare applications

Applications

Education
Healthcare
Office
Hospitality



Caspian LST (low surface temperature) fully complies with the NHS Estates Health Guidance Notes, "Safe hot water and surface temperatures" (formally known as DN4) and has been independently verified by BSRIA

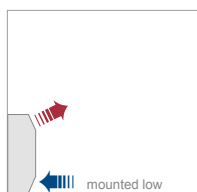
Using EC technology and meeting the DN4 legislation 100% of the time, this hydronic fan convector provides complete peace of mind for specifiers choosing the Caspian

Any building registered under the Registered Homes Act 1984, including hospitals, clinics, surgeries and other health care premises, requires heat emitters whose maximum surface temperature must not exceed 43°C. This also extends to social services personal care properties, and may also apply to any property where occupants may be at risk of burns to their skin if they came into prolonged (10 seconds or more) contact with a standard heat emitter

As well as healthcare applications Caspian LST is the ideal choice for schools and nurseries where the risk of children coming into contact with higher surface temperature heat emitters can be avoided

Caspian LST range is patented (UK Patent No. 2,555,566)

Mounting option



Motor

EC (BMS compliant).

Finish

Casing: zinc-coated steel 1.2mm.

Polyester powder-coated: white RAL 9010.

Available to special order in any colour and with anti-microbial or anti-bacterial paint (see page 29).

Filter

Class G2, 100% polyester, non-washable.

Installation

Suitable for two-pipe central heating systems.

Pipework access holes on the rear and underside.

Key operated front access panels.

Bleed valve accessible on removal of front casing.

Unit must be earthed.

Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.

Regulate the flow to achieve maximum performance.

Controls

Variable heat output controller (mounted within the products).

Accessories

See matrix on page 74.

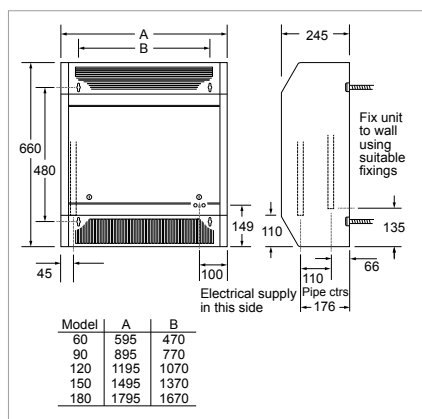
Specification

To specify state:

Low Surface Temperature Fan Convactor with EC motor, in 1.2mm zinc coated steel, polyester powder coated in white RAL 9010.

Dimensions at 660mm high and 595mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller.

As Smith's Caspian LST 60, 90, 120, 150, 180.



Heat output For other heat output data please download the data sheet from our website

| Model | Heat Output at 75° | | | Heat Output at 50° | | | Pressure Drop | | |
|-----------------|--------------------|-------------|-----------|--------------------|-------------|-----------|---------------|--------------|-----------|
| | Low (kW) | Medium (kW) | High (kW) | Low (kW) | Medium (kW) | High (kW) | High (kPa) | Medium (kPa) | Low (kPa) |
| CASPIAN LST 60 | 0.9 | 1.4 | 1.9 | 0.6 | 0.7 | 0.8 | 1.5 | 1.1 | 0.9 |
| CASPIAN LST 90 | 2.8 | 3.2 | 3.7 | 1.6 | 2.0 | 2.3 | 3.9 | 2.3 | 1.6 |
| CASPIAN LST 120 | 4.7 | 5.1 | 5.5 | 2.8 | 3.2 | 3.7 | 7.3 | 5.5 | 5.3 |
| CASPIAN LST 150 | 6.0 | 6.5 | 7.0 | 4.2 | 4.7 | 5.2 | 8.6 | 6.8 | 6.2 |
| CASPIAN LST 180 | 7.5 | 8.0 | 8.5 | 5.7 | 6.2 | 6.7 | 11.3 | 8.6 | 7.9 |

| Model | Flow & return connections | | Total Power Consumption | | | | Sound Levels | | | Casting colour | Fan only |
|-----------------|---------------------------|--------|-------------------------|-------------|----------------|--------------|-------------------------|------------|--------------|----------------|----------|
| | Flow | return | Fused spur | Low (Watts) | Medium (Watts) | High (Watts) | Water Capacity (Litres) | High (dBA) | Medium (dBA) | Low (dBA) | |
| CASPIAN LST 60 | 22mm | 3A | 26 | 41 | 55 | 0.92 | 50 | 43 | 35 | white | • |
| CASPIAN LST 90 | 22mm | 3A | 33 | 59 | 85 | 1.50 | 53 | 45 | 37 | white | • |
| CASPIAN LST 120 | 22mm | 3A | 33 | 79 | 125 | 2.08 | 57 | 48 | 38 | white | • |
| CASPIAN LST 150 | 22mm | 3A | 50 | 119 | 188 | 2.58 | 59 | 47 | 36 | white | • |
| CASPIAN LST 180 | 22mm | 3A | 66 | 158 | 250 | 3.18 | 59 | 47 | 36 | white | • |

Heat output testing based on BS EN442 using mean water temperature, 20°C entering air temperature, 10° temperature drop.
Sound levels measured at 3m in front of the floor mounted model.

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|--------------------|----------------|---------------|
| CASPIAN LST 60 EC | 24 | HPCA28001 |
| CASPIAN LST 90 EC | 37 | HPCA28002 |
| CASPIAN LST 120 EC | 46 | HPCA28003 |
| CASPIAN LST 150 EC | 60 | HPCA28004 |
| CASPIAN LST 180 EC | 78 | HPCA28005 |

| Accessories | Product Codes |
|---|---------------|
| CASPIAN UV/LST 60 PLINTH WHITE (150MM) | HACA33006 |
| CASPIAN UV/LST 90 PLINTH WHITE (150MM) | HACA33007 |
| CASPIAN UV/LST 120 PLINTH WHITE (150MM) | HACA33008 |
| CASPIAN UV/LST 150 PLINTH WHITE (150MM) | HACA33009 |
| CASPIAN UV/LST 180 PLINTH WHITE (150MM) | HACA33010 |
| CASPIAN UV/LST 60 PLINTH BLACK (150MM) | HACA33097 |
| CASPIAN UV/LST 90 PLINTH BLACK (150MM) | HACA33098 |
| CASPIAN UV/LST 120 PLINTH BLACK (150MM) | HACA33099 |
| CASPIAN UV/LST 150 PLINTH BLACK (150MM) | HACA33100 |
| CASPIAN UV/LST 180 PLINTH BLACK (150MM) | HACA33101 |
| FLEXIBLE HOSES 22MM PAIR | HAGA95003 |

100mm plinth also available, please contact us for further information

Caspian Skyline®

Caspian Skyline CT60 fits into a 600mm x 600mm ceiling tile, providing easy access for both installation and maintenance. It's suitable for projects in schools, retail or food units or where the heating needs to complement the rest of the premise

Applications

Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Showroom



The Caspian Skyline has been developed to provide a more easily installed ceiling tile fan convector to complement the Smith's range of Caspian commercial fan convectors and may be used alone or in tandem with other Smith's products

Plumbing easily into any wet central heating system, the Caspian Skyline will also work effectively and efficiently with renewable heat sources, such as air or ground source heat pumps

Now available with Smart Control (see page 8)

Motor

EC (BMS compliant) or AC.

Finish

Casing: galvanised steel 1.2mm.

Grille: Eggcrate core, white RAL 9010 complete with touch catches.

Filter

Class G2, 100% polyester, non-washable.

Installation

Suitable for two-pipe central heating systems.

Maximum installation height – 4m to underside.

Unit must be earthed.

Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.

Controls

See accessories table on page 27.

Accessories

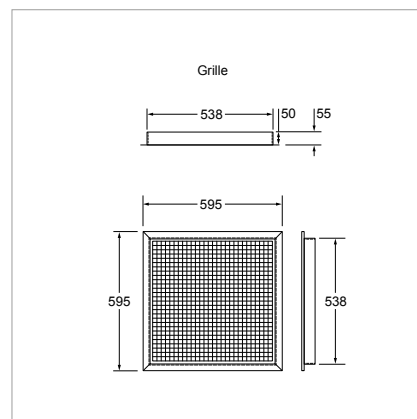
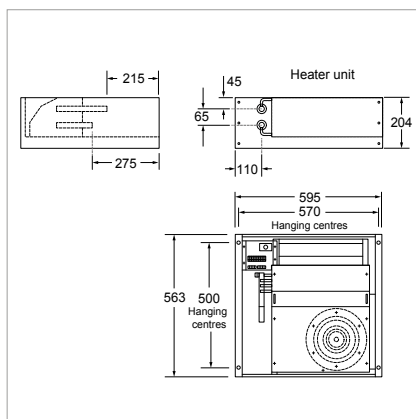
See matrix on page 74.

Specification

To specify state:

Ceiling mounted Fan Convector with EC (or AC) motor, in 1.2mm galvanised steel, egg crate core grille in white RAL 9010. To fit a standard 600mm x 600mm ceiling grid. With variable heat output controller.

As Smith's Caspian Skyline CT60.



Heat output For other heat output data please download the data sheet from our website

| Model | Heat Output at 75° | | | Heat Output at 45° | | |
|----------------------|--------------------|-------------|-----------|--------------------|-------------|-----------|
| | Low (kW) | Medium (kW) | High (kW) | Low (kW) | Medium (kW) | High (kW) |
| CASPIAN SKYLINE CT60 | 2.7 | 3.7 | 4.6 | 0.5 | 0.9 | 1.3 |

| Model | Flow & return connections | Fused spur | Total Power Consumption | | | | Sound Levels | | | Grille colour |
|----------------------|---------------------------|------------|-------------------------|----------------|--------------|-------------------------|--------------|--------------|-----------|---------------|
| | | | Low (Watts) | Medium (Watts) | High (Watts) | Water Capacity (Litres) | High (dBA) | Medium (dBA) | Low (dBA) | |
| CASPIAN SKYLINE CT60 | 22mm | 3A | 8 | 24 | 40 | 0.75 | 48 | 40 | 34 | white |

Heat output testing based on BS EN442 using mean water temperature, 18°C entering air temperature, 10° temperature drop.
Sound levels measured at 3m.

Correction factors

| EAT°C | Mean water temperature °C |
|-------|---------------------------|
| | 80 to 40 |
| 15 | 1.10 |
| 21 | 0.93 |

| | Temperature drop °C | | | |
|--------|---------------------|------|------|------|
| | 20 | 15 | 10 | 5 |
| Factor | 0.89 | 0.95 | 1.00 | 1.04 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|-------------------------|----------------|---------------|
| AC Codes | | |
| CASPIAN SKYLINE CT60 AC | 20 | HPCA30001 |
| EC Codes | | |
| CASPIAN SKYLINE CT60 EC | 20 | HPCA29001 |

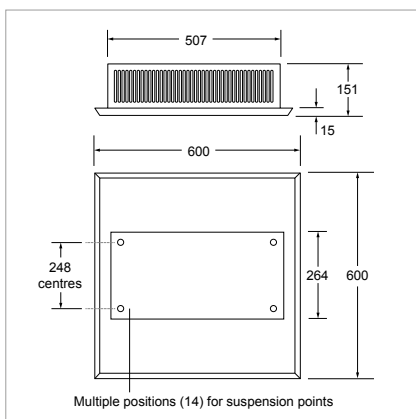
| Accessories | Product Codes |
|---|---------------|
| CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC) | HACA33001 |
| CASPIAN EXTERNAL CONTROL HARNESS (EC) | HACA33004 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC) | HACA33037 |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC) | HACA33118 |
| ROOM THERMOSTAT HARD WIRED | HAGA95001 |
| ROOM THERMOSTAT HARD WIRED SIEMENS | HACA33104 |
| ROOM THERMOSTAT RF SIEMENS | HACA33074 |
| ROOM THERMOSTAT TAMPER PROOF SIEMENS | HAGA95004 |
| FLEXIBLE HOSES 22MM PAIR | HAGA95003 |

Caspian Skyline® E

The electric Skyline fits neatly into existing ceiling space - replacing a 600mm x 600mm ceiling tile and because it is ceiling mounted, it saves valuable wall space - particularly important in retail units

Applications

Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Industrial



It is unobtrusive and effective

This high output fan convector effectively heats large areas

Supplied as standard in white but can be supplied in any colour

Motor

AC only .

Finish

Outer casing 0.9mm zinc-coated steel.
Polyester powder-coated.
Polyester powder-coated RAL 9010.

Installation

Maximum installation height 3.2m (10'6") to underside.

Minimum 150mm void space required for recessed installation.

Not suitable for bathrooms and other high humidity areas.

Two air inlet options: room only, room and void.

Maximum flexibility in installation: only 600mm - side clearance required.

Facility for connection to 6mm threaded rod or chains (rods and chains - not supplied).

20 amp fused spur required.

Unit must be earthed.

Supplied with remote wireless controller.

Control

Overheat protection: thermal cut-out.

Manual reset procedure: switch power off at mains, wait 5 minutes, switch power on.

Battery powered wireless controller with On/Off function, thermostat control, setback temperature and run back timer.

Accessories

Surface mounting kit - 135mm.

Provides a complete foursided trim when fitted to a solid ceiling.

Ceiling tile spacer (85mm).

Specification

To specify state:

Ceiling mounted heat emitter at 4kW in white 600x600mm.

As Smith's Skyline.

Heat output

| Model | Heat Output (kW) |
|---------------|------------------|
| SKYLINE E 4KW | 4.0 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|--------------------------------------|----------------|---------------|
| SKYLINE E 4KW | 9 | HPSK40003 |
| Accessories | | |
| SKYLINE SURFACE MOUNTING KIT (135MM) | | HASK40102 |
| SKYLINE CEILING TILE SPACER (85MM) | | HASK40103 |

| Model | Mains cable | Fused spur | Total Power Consumption (kW) | Sound Levels (dBA) | Casting colour | Fan-only |
|---------------|-------------|------------|------------------------------|--------------------|----------------|----------|
| SKYLINE E 4KW | 1.5m | 20A | 4.1 | 40 | white | n/a |

Smith's Antibacterial paint

We have developed a paint finish that has antibacterial properties for use on Caspian Fan Convectors (except UVC and Skyline)

Containing the proven Biocote® Antimicrobial Technology, which repeatedly demonstrates broad spectrum antibacterial performance, Smith's antibacterial paint provides additional protection in environments where minimising the risk and transmission of infection is crucial.

It can be applied to products that are located in areas where there is a need to maintain a low level of microbes such as hospitals, health centres and care homes, and where there is high level of human traffic such as schools.

The powder used to make the antibacterial paint, Interpon 610 AM, has been tested for antimicrobial efficacy in accordance with ISO 22196:2011 and exhibited a minimum of 95% and up to 99.99% reduction in the population of E. Coli and MRSA. Using Silver ion technology Biocote® has been proven to be effective against a wide range of the most common bacteria.

- Provides an additional level of antimicrobial growth on the surface of the fan convectors
- Help prevent odours, stains and material deterioration
- Provides 24-hour protection, 7-days a week
- Be easier to keep hygienically clean

Efficacy of Biocote®

A study conducted soon after the H1N1 viral pandemic of 2009 investigated the conversion rate of an H1N1 virus from an infectious to non-infectious form because of its exposure to Biocote® protected products.

A variety of surfaces had the virus added to them and were left to grow over night. Half contained the Biocote® Antimicrobial Additives, and the other half did not. Having been left for a sufficient amount of time for the virus to grow all of the surfaces were assessed for the presence of the virus. On all the materials, the Biocote® protected surfaces were less contaminated with the virus with up to a 99.99% reduction in the virus.

Where should Caspian fan convectors with antibacterial paint be used?

- Schools
- Hospitals
- Care homes
- Health centres
- Dentists surgeries and waiting rooms
- Public buildings including Libraries, Museums and Village Halls

Support

If you require advice on the antibacterial paint please contact our Technical Team: 01245 324560 | technical.sales@smithsep.co.uk



Aegean® SFC 235H

A range of fan coil units suitable for all kinds of commercial applications, from restaurants and hotels to office developments, with the ability to rapidly heat and cool large areas with much greater efficiency than other similar heating and cooling systems

Applications

Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial



EC motor (BMS compatible for easy integration)

Low sound levels

Fully attenuated discharge plenum

Positive fall drain tray

Designed and made in the UK



Finish

Chassis manufactured from 1.2mm hot dipped galvanised steel. All flanges formed inward facing to prevent exposure to bare metal edges.

Installation

Flow and return connections 15mm.

Designed for system pressures up to 10 bar.

Fan coils are 4-pipe coils (heating and cooling circuit).

Customised requirements

All leading manufacturers controls factory fitted.

Acoustically lined inlet plenum.

Concealed/hidden applications (underfloor, behind false walls and ceilings).

Bespoke options.

Specification

To specify state:

Horizontal Fan Coil Unit 235mm high with EC motor.

As Smith's Aegean SFC23510 (or SFC23520, SFC23525, SFC23530, SFC23540, SFC23550, SFC23555, SFC23560).

Ordering information

Aegean is a highly configurable bespoke product.

Please contact us to discuss your requirements.

Performance data

| SIZE | NR | Nominal fan speed (%) | ESP Pa | Airflow l/s | SFP W/l/s | Total cooling 5.5/11°C | Sensible cooling 5.5/11°C | Total cooling 6/12°C | Sensible cooling 6/12°C | LPHW heating 82/71°C | LPHW heating 60/50°C |
|------|----|-----------------------|--------|-------------|-----------|------------------------|---------------------------|----------------------|-------------------------|----------------------|----------------------|
| 10 | 35 | 47 | 30 | 65 | 0.30 | 1.43 | 1.05 | 1.30 | 0.99 | 1.62 | 0.93 |
| 20 | 35 | 48 | 30 | 95 | 0.28 | 2.07 | 1.52 | 1.83 | 1.41 | 3.54 | 2.43 |
| 25 | 35 | 47 | 30 | 121 | 0.26 | 2.78 | 2.02 | 2.55 | 1.91 | 2.86 | 1.69 |
| 30 | 35 | 49 | 30 | 154 | 0.24 | 3.07 | 2.33 | 2.56 | 2.06 | 3.52 | 2.08 |
| 40 | 35 | 47 | 30 | 174 | 0.22 | 3.70 | 2.75 | 3.29 | 2.54 | 4.04 | 2.41 |
| 50 | 35 | 47 | 30 | 185 | 0.23 | 4.29 | 3.11 | 3.92 | 2.92 | 4.43 | 2.60 |
| 55 | 35 | 43 | 30 | 190 | 0.27 | 4.79 | 3.39 | 4.45 | 3.22 | 4.82 | 2.84 |
| 60 | 35 | 35 | 30 | 163 | 0.27 | 4.12 | 2.91 | 3.84 | 2.78 | 4.39 | 2.60 |

Summer Condition: 23°C EAT, 50% RH (5.5/11°C, 6/12°C)

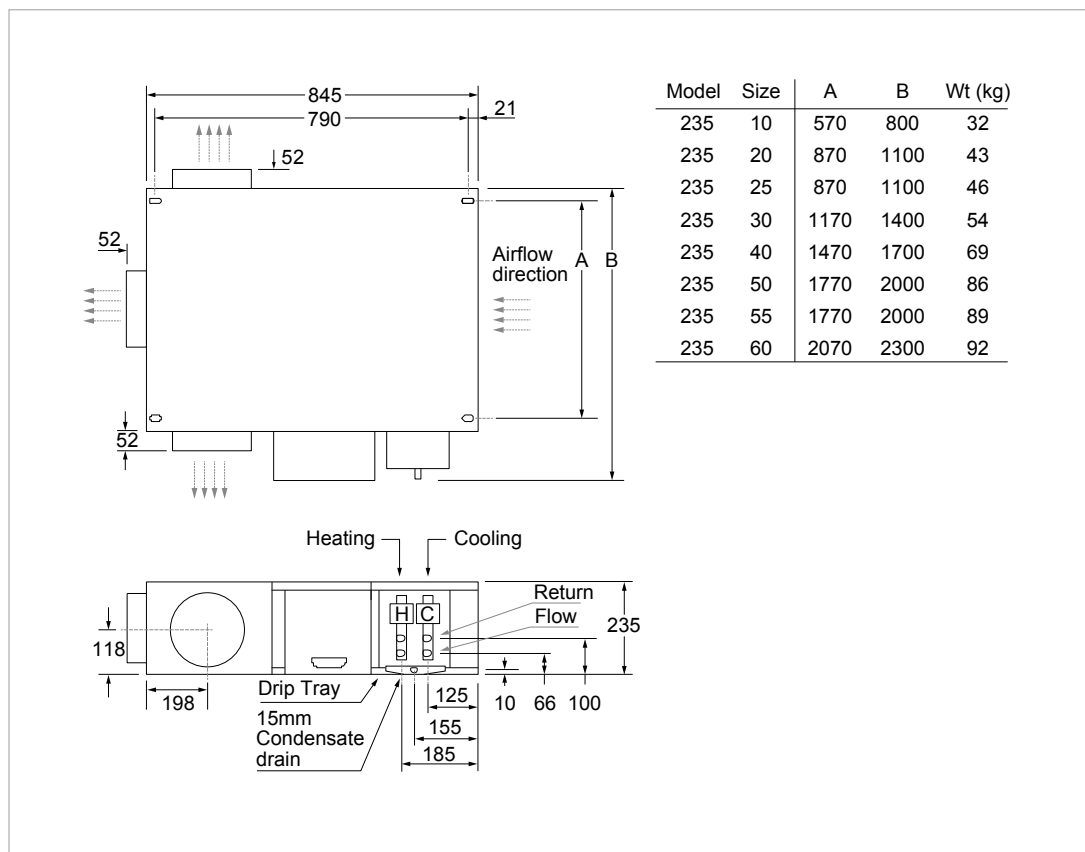
Winter Condition: 21°C EAT (82/71°C, 60/50°C)

Performance data verification

Heating and cooling performance has been tested and independently verified by BSRIA to BS EN 1397: 2015. Full set up and details available on request.

Acoustic data has been measured and independently verified by SRL Technical Services to BS EN 16583:2015. Please ask us for our acoustic information pack for more details, including laboratory measured sound power data.

Dimensions



Aegean® SFC 260H

A range of fan coil units suitable for all kinds of commercial applications, from restaurants and hotels to office developments, with the ability to rapidly heat and cool large areas with much greater efficiency than other similar heating and cooling systems

Applications

Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial



EC motor (BMS compatible for easy integration)

Low sound levels

Fully attenuated discharge plenum

Positive fall drain tray

Designed and made in the UK



Finish

Chassis manufactured from 1.2mm hot dipped galvanised steel. All flanges formed inward facing to prevent exposure to bare metal edges.

Installation

Flow and return connections 15mm.

Designed for system pressures up to 10 bar.

Fan coils are 4-pipe coils (heating and cooling circuit).

Customised requirements

All leading manufacturers controls factory fitted.

Acoustically lined inlet plenum.

Concealed/hidden applications (underfloor, behind false walls and ceilings).

Bespoke options.

Specification

To specify state:

Horizontal Fan Coil Unit 260mm high with EC motor.

As Smith's Aegean SFC26010 (or SFC26020, SFC26025, SFC26030, SFC26040, SFC26050, SFC26055, SFC26060).

Ordering information

Aegean is a highly configurable bespoke product.

Please contact us to discuss your requirements.

Performance data

| | | Nominal fan speed | ESP | Airflow | SFP | Total cooling | Sensible cooling | Total cooling | Sensible cooling | LPHW heating | LPHW heating |
|------|----|-------------------|-----|---------|--------|---------------|------------------|---------------|------------------|--------------|--------------|
| SIZE | NR | (%) | Pa | l/s | W/l/s) | 5.5/11°C | 5.5/11°C | 6/12°C | 6/12°C | 82/71°C | 60/50°C |
| 10 | 35 | 41 | 30 | 80 | 0.21 | 0.98 | 0.83 | 0.88 | 0.76 | 1.39 | 0.76 |
| 20 | 35 | 37 | 30 | 99 | 0.21 | 1.51 | 1.24 | 1.33 | 1.13 | 4.62 | 3.18 |
| 25 | 35 | 32 | 30 | 109 | 0.21 | 1.96 | 1.53 | 1.77 | 1.43 | 2.28 | 1.32 |
| 30 | 35 | 30 | 30 | 124 | 0.21 | 2.27 | 1.76 | 2.02 | 1.62 | 2.82 | 1.66 |
| 40 | 35 | 33 | 30 | 194 | 0.22 | 3.50 | 2.74 | 3.11 | 2.52 | 3.80 | 2.26 |
| 50 | 35 | 33 | 30 | 175 | 0.21 | 3.41 | 2.60 | 3.05 | 2.41 | 3.84 | 2.24 |
| 55 | 35 | 30 | 30 | 189 | 0.21 | 4.13 | 3.04 | 3.61 | 2.78 | 4.84 | 2.86 |
| 60 | 35 | 27 | 30 | 184 | 0.21 | 4.39 | 3.15 | 3.96 | 2.94 | 5.28 | 3.15 |

Summer Condition: 23°C EAT, 50% RH (5.5/11°C, 6/12°C)

Winter Condition: 21°C EAT (82/71°C, 60/50°C)

Performance data verification

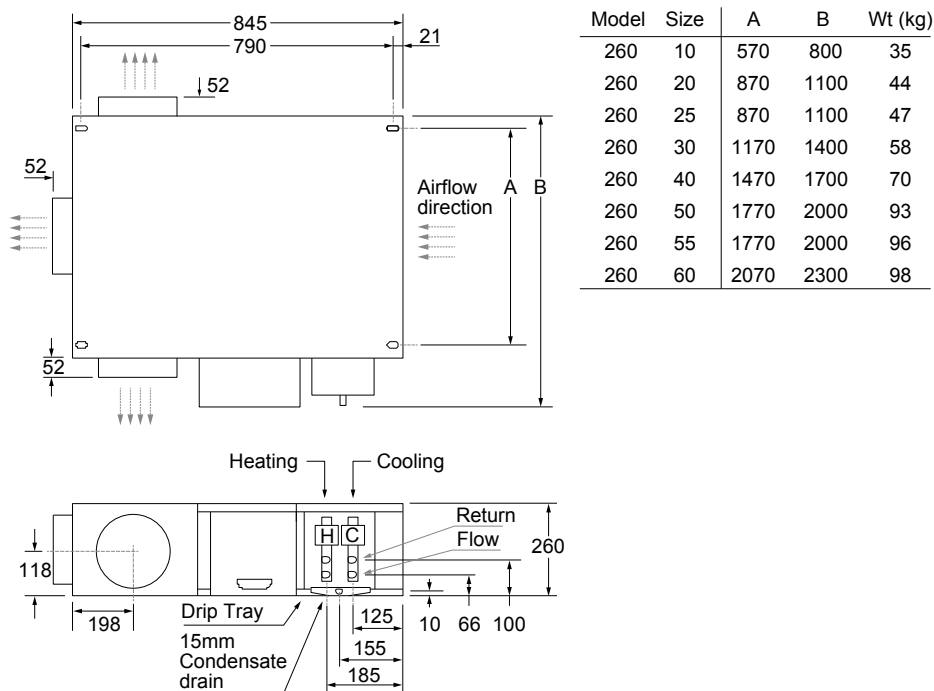
Heating and cooling performance has been tested and independently verified by BSRIA to BS EN 1397: 2015.

Full set up and details available on request.

Acoustic data has been measured and independently verified by SRL Technical Services to BS EN 16583:2015.

Please ask us for our acoustic information pack for more details, including laboratory measured sound power data.

Dimensions



Aegean® SVFC 500

A range of fan coil units suitable for all kinds of commercial applications, from restaurants and hotels to office developments, with the ability to rapidly heat and cool large areas with much greater efficiency than other similar heating and cooling systems

Applications

Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial



EC motor (BMS compatible for easy integration)

Low sound levels

Fully attenuated discharge plenum

Positive fall drain tray

Designed and made in the UK



Finish

Chassis manufactured from 1.2mm hot dipped galvanised steel. All flanges formed inward facing to prevent exposure to bare metal edges.

Installation

Flow and return connections 15mm.

Designed for system pressures up to 10 bar.

Fan coils are 4-pipe coils (heating and cooling circuit).

Customised requirements

All leading manufacturers controls factory fitted.

Acoustically lined inlet plenum.

Concealed/hidden applications (underfloor, behind false walls and ceilings).

Bespoke options.

Specification

To specify state:

Vertical Fan Coil Unit 500mm high with EC motor.

As Smith's Aegean SVFC50010 (or SVFC50020, SVFC50025, SVFC50030, SVFC50040, SVFC50050, SVFC50055, SVFC50060).

Ordering information

Aegean is a highly configurable bespoke product.

Please contact us to discuss your requirements.

Performance data

| SIZE | NR | Nominal fan speed (%) | ESP Pa | Airflow l/s | SFP W/l/s | Total cooling 5.5/11°C | Sensible cooling 5.5/11°C | Total cooling 6/12°C | Sensible cooling 6/12°C | LPHW heating 82/71°C | LPHW heating 60/50°C |
|------|----|-----------------------|--------|-------------|-----------|------------------------|---------------------------|----------------------|-------------------------|----------------------|----------------------|
| 10 | 35 | 56 | 30 | 119 | 0.12 | 1.56 | 1.33 | 1.40 | 1.22 | 1.45 | 0.76 |
| 20 | 35 | 49 | 30 | 120 | 0.16 | 1.97 | 1.59 | 1.77 | 1.48 | 5.30 | 3.73 |
| 25 | 35 | 43 | 30 | 121 | 0.20 | 2.00 | 1.61 | 1.80 | 1.50 | 2.78 | 1.62 |
| 30 | 35 | 36 | 30 | 116 | 0.24 | 1.53 | 1.30 | 1.42 | 1.23 | 3.06 | 1.81 |
| 40 | 35 | 34 | 30 | 118 | 0.28 | 1.68 | 1.40 | 1.56 | 1.33 | 3.46 | 2.07 |
| 50 | 35 | 34 | 30 | 161 | 0.27 | 2.25 | 1.89 | 2.08 | 1.78 | 5.63 | 3.37 |
| 55 | 35 | 34 | 30 | 184 | 0.24 | 2.96 | 2.40 | 2.41 | 2.05 | 6.00 | 3.58 |
| 60 | 35 | 38 | 30 | 228 | 0.24 | 4.01 | 3.16 | 3.52 | 2.89 | 6.41 | 3.82 |

Summer Condition: 23°C EAT, 50% RH (5.5/11°C, 6/12°C)

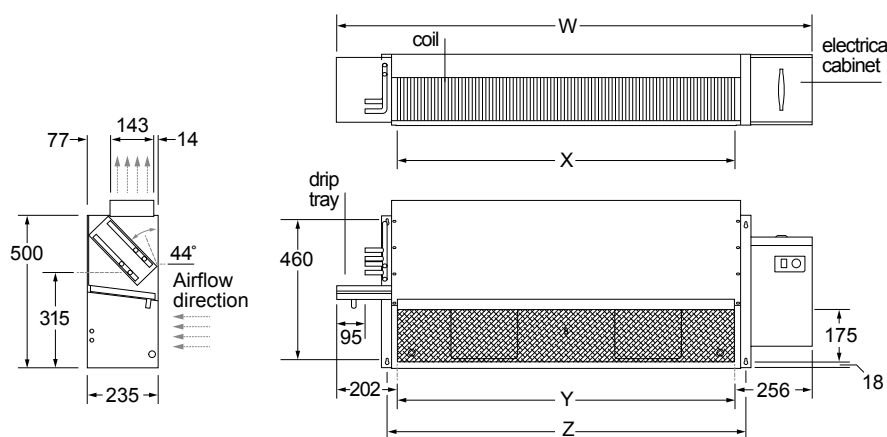
Winter Condition: 21°C EAT (82/71°C, 60/50°C)

Performance data verification

Heating and cooling performance has been tested and independently verified by BSRIA to BS EN 1397: 2015. Full set up and details available on request.

Acoustic data has been measured and independently verified by SRL Technical Services to BS EN 16583:2015. Please ask us for our acoustic information pack for more details, including laboratory measured sound power data.

Dimensions



| Unit size | W | X | Y | Z | Wt(kg) |
|-----------|------|------|------|------|--------|
| 50010 | 970 | 510 | 512 | 583 | 30 |
| 50020 | 1270 | 810 | 812 | 883 | 36 |
| 50025 | 1270 | 810 | 812 | 883 | 40 |
| 50030 | 1570 | 1110 | 1112 | 1183 | 47 |
| 50040 | 1870 | 1410 | 1412 | 1483 | 58 |
| 50050 | 2170 | 1710 | 1712 | 1783 | 66 |
| 50055 | 2170 | 1710 | 1712 | 1783 | 77 |
| 50060 | 2470 | 2010 | 2012 | 2083 | 80 |

Sargasso® A

An economical alternative to traditional wall mounted radiators, convection heaters and electrical infrared heaters

Applications

Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial



Suitable for use in both Standard T-Grid and Micro T system ceilings

Each panel individually packaged for protection

Loop panel width 595mm; available in lengths 595mm, 1195mm, 1795mm, 2395mm and 2995mm.

Panel performance supported by independent test certification to EN 14037

For bespoke specifications, including cooling capability please contact us to discuss your requirements

Benefits

- Create a more comfortable environment for occupants by creating an even temperature distribution across the room
- Save energy and money by achieving a higher perceived temperature than the actual room temperature
- Works well with lower temperature heating systems
- Provide an efficient solution offering a short heating and cooling time
- Installed within a ceiling or high on a wall they maximise wall and floor space
- Silent operation
- No dust/bacteria dispersal offering a hygienic solution
- Maintenance free
- Easy to clean so lower cleaning costs
- Can be integrated in plasterboard

Finish

Material: 2mm high-grade aluminium extrusion, lightweight, robust, optimum response time.

Finish: RAL 9016 white powder coat.

Insulation: Rigid non-fibrous, foil-faced insulation to EN13165 fire rating A2.

Installation

Suitable for use in Micro T system and standard T-Grid system ceilings. Please note that Sargasso is compatible with regular ceiling profiles, but not compatible with Tegular or Microlook ceilings.

Suspension:

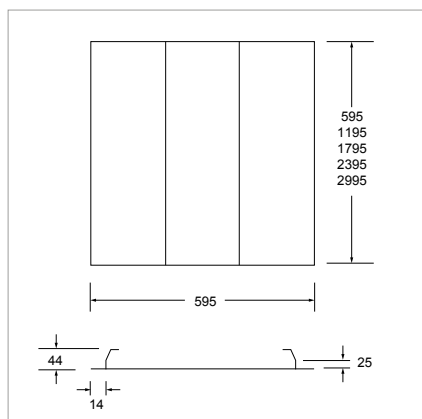
Suitable for installation from drop rods (not supplied). Panels less than 1200mm will require 4 fixing locations, longer than 1200mm will require 6 fixing locations.

Specification

To specify state:

Radiant Panel in white (RAL 9016) at 600mm wide x 600mm (or 1200mm, 1800mm, 2400mm, 3000mm) long.

As Smith's Sargasso A



Heat output (Watts)

| Model | Output at ΔT °C | | | | | | | | Hangers required |
|------------|-------------------------|-----|-----|-----|-----|------|------|------|------------------|
| | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | |
| 600 x 600 | 105 | 126 | 148 | 170 | 194 | 217 | 242 | 266 | 4 |
| 600 x 1200 | 210 | 252 | 296 | 340 | 388 | 434 | 484 | 532 | 4 |
| 600 x 1800 | 315 | 378 | 444 | 510 | 582 | 651 | 726 | 798 | 6 |
| 600 x 2400 | 420 | 504 | 592 | 680 | 776 | 868 | 968 | 1064 | 6 |
| 600 x 3000 | 525 | 530 | 740 | 850 | 970 | 1086 | 1210 | 1330 | 6 |

Heat output testing based on EN14037

Ordering guide

| Description | Width (mm) | Length (mm) | Operating weight including water (kg) | Kg/m ² | Product Codes |
|------------------------------|------------|-------------|---------------------------------------|-------------------|---------------|
| Sargasso A | | | | | |
| SARGASSO A 600MM LOOP PANEL | 595 | 595 | 4.6 | 12.7 | HPAE350000 |
| SARGASSO A 1200MM LOOP PANEL | 595 | 1195 | 9.1 | 12.7 | HPAE350001 |
| SARGASSO A 1800MM LOOP PANEL | 595 | 1795 | 13.7 | 12.7 | HPAE350002 |
| SARGASSO A 2400MM LOOP PANEL | 595 | 2395 | 18.3 | 12.7 | HPAE350003 |
| SARGASSO A 3000MM LOOP PANEL | 595 | 2995 | 22.9 | 12.7 | HPAE350004 |

Ostro®

Applications

Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Showroom

A range of commercial air curtains designed for use in the entrances of shops, offices, leisure facilities, hotels, schools, hospitals and most other public buildings



Ostro is available in 3 versions – W hydronic, E Electric and C Ambient

Ostro air curtains are designed for use in regions with moderate or cold climates in spaces where the temperature range is -10°C to +40°C, in conditions that are free from external contaminants such as pollen and hydrometeor (horizontal precipitation)

In winter Ostro air curtains protect against heat loss in rooms by directing a warm air stream across doorways preventing cold air from entering the heated space. In summer, the air curtains can be used as cooling devices to prevent the entry of hot air and pollutants from the outside

Available in hydronic versions (Ostro W) and electric versions (Ostro E), and ambient versions (Ostro C) without a heater for applications with entrances where no additional comfort heat is required

There are 3 sizes, 1084mm, 1554mm and 2024mm available in all 3 versions

Ostro W (hydronic)

- Heat outputs from 10 - 40kW (inlet temperature of 0°C and inlet/outlet temperature of 90/70°C)
- 3 fan speeds the hydronic version is fully controllable
- Air throughput from 1200 – 4800m³/h
- Low noise levels – 61dB at maximum fan speed
- Maximum mounting height 4m

Ostro E (electric)

- Heat output up to 14kW
- Air throughput from 1200 – 4800m³/h
- Low noise levels – 61dB at maximum fan speed
- Featuring a new type of PTC electric coil which minimises the voltage on the surface of the coil.
- Large heat exchanger surface area
- Fully automatic heat control dependent on airflow
- Auto shut-off if the airflow is compromised preventing overheating
- Low energy consumption
- Maximum mounting height 4m

Ostro C (ambient)

- Air throughput from 1250 – 5000m³/h
- Low noise levels – 61dB at maximum fan speed
- Low energy consumption
- Maximum mounting height 4m

Controls



Panel COMFORT

Control of up to two Ostro Air Curtains. The COMFORT control panel is managed using the COMFORT control panel, which allows adjustment of the airflow and air temperature.

Magnetic door switch

A magnetic door switch is available to manage Ostro Air Curtain in conjunction with the operation of the doorway.

BMS communication module

Ostro Air Curtains are compatible with BMS via a communication module, available as an accessory.

Finish

Materials: EPP and steel.

End caps: grey finish. Steel main body: white finish.

Installation

Ostro can be mounted vertically or horizontally and side by side in tandem for larger doorways. To enable the correct method of installing Ostro Air Curtain mounting brackets are available as accessories. These are available as horizontal mounting kits and vertical mounting kits.

Specification

To specify state:

Universally mounted hydronic air curtain with 3 fan speeds and temperature control with heat output of 16kW, or 29kW or 40kW. As Smith's Ostro 100W, or Smith's Ostro 150W, or Smith's Ostro 200W

Universally mounted electric air curtain with 3 fan speeds and temperature control with heat output of 7kW, or 11kW or 14kW. As Smith's Ostro 100E, or Smith's Ostro 150E, or Smith's Ostro 200E

Universally mounted ambient air curtain with 3 fan speeds. As Smith's Ostro 100C, or Smith's Ostro 150C, or Smith's Ostro 200C

Technical data

| | | Ostro W with water heater | | | Ostro E with electric heater | | |
|--|-------------------|---------------------------|----------------|----------------|------------------------------|----------------|----------------|
| | | 100W | 150W | 200W | 100E | 150E | 200E |
| Length of unit | m | 1 | 1.5 | 2 | 1 | 1.5 | 2 |
| Max. installation height | m | 4 | 4 | 4 | 4 | 4 | 4 |
| Max air output | m ³ /h | 1200/1550/2000 | 2200/3000/3600 | 2900/4000/4800 | 1200/1550/2000 | 2200/3000/3600 | 2900/4000/4800 |
| Heat output | kW | 10-16 | 20-29 | 25-40 | 4-7 | 6.5-11 | 8.5-14 |
| Max working pressure | MPa | 1.6 | 1.6 | 1.6 | - | - | - |
| Diameter of male connectors | inches | 1/2" | 1/2" | 1/2" | - | - | - |
| Motor power supply, consumption | V/Hz A | 230/50 1.95A | 230/50 2.6A | 230/50 2.6A | 230/50 1.95A | 230/50 2.6A | 230/50 2.6A |
| Motor power | W | 51/106/220 | 75/162/320 | 75/162/320 | 51/106/220 | 75/162/320 | 75/162/320 |
| Electric heating power supply, consumption | V/Hz A | - | - | - | 400/50 11.0A | 400/50 16.6A | 400/50 22.4A |
| Weight filled with water/without water | kg | 18.0/16.5 | 22.6/20.5 | 31.0/28.0 | 17 | 21.5 | 29 |
| Volume level I/II/III* | dB (A) | 44/49/59 | 45/49/61 | 46/49/61 | 44/49/59 | 45/49/61 | 46/49/61 |
| Protection class IP | - | IP21 | IP21 | IP21 | IP21 | IP21 | IP21 |

| | | Ostro C without heater | | |
|--|-------------------|------------------------|----------------|----------------|
| | | 100C | 150C | 200C |
| Length of unit | m | 1 | 1.5 | 2 |
| Max. installation height | m | 4 | 4 | 4 |
| Max air output | m ³ /h | 1250/1600/2100 | 2250/3100/3700 | 3000/4200/5000 |
| Heat output | kW | - | - | - |
| Max working pressure | MPa | - | - | - |
| Diameter of male connectors | inches | - | - | - |
| Motor power supply, consumption | V/Hz A | 230/50 1.95A | 230/50 2.6A | 230/50 2.6A |
| Motor power | W | 51/106/220 | 75/162/320 | 75/162/320 |
| Electric heating power supply, consumption | V/Hz A | - | - | - |
| Weight filled with water/without water | kg | 15 | 18.5 | 25 |
| Volume level I/II/III* | dB (A) | 45/50/60 | 46/50/61 | 47/50/61 |
| Protection class IP | - | IP21 | IP21 | IP21 |

* Noise level measured in distance of 3m in an open space

Ostro®

A range of commercial air curtains designed for use in the entrances of shops, offices, leisure facilities, hotels, schools, hospitals and most other public buildings

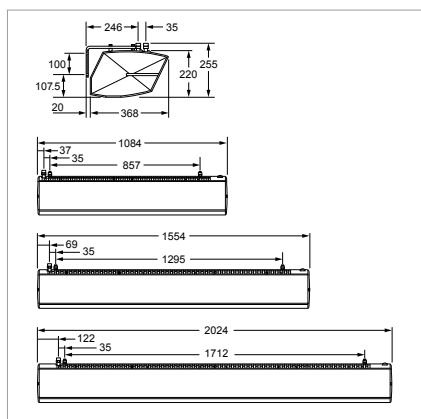
Applications
Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Showroom

Technical data For other heat output data please download the data sheet from our website

| inlet/outlet water temperature | water 70/50 °C | | | | | water 80/60 °C | | | | | water 70/50 °C | | | | | water 80/60 °C | | | | |
|--------------------------------|------------------------------|------|------|------|------|----------------|------|------|------|------|------------------------------|------|------|------|------|----------------|------|------|------|------|
| inlet air temperature (°C) | 0 | 5 | 10 | 15 | 20 | 0 | 5 | 10 | 15 | 20 | 0 | 5 | 10 | 15 | 20 | 0 | 5 | 10 | 15 | 20 |
| | OSTRO 100W | | | | | | | | | | OSTRO 150W | | | | | | | | | |
| | III max air flow - 2000 m³/h | | | | | | | | | | III max air flow - 3600 m³/h | | | | | | | | | |
| heat output (kW) | 11.3 | 10.3 | 9.2 | 8.1 | 7.1 | 13.7 | 12.6 | 11.5 | 10.5 | 9.4 | 21.3 | 19.5 | 17.7 | 15.9 | 14.1 | 25.1 | 23.3 | 21.6 | 19.7 | 18.0 |
| outlet air temperature (°C) | 18.4 | 21.8 | 25.2 | 28.7 | 32.1 | 21.9 | 25.3 | 28.7 | 32.1 | 35.5 | 18.3 | 21.8 | 25.3 | 28.9 | 32.4 | 21.5 | 25.0 | 28.6 | 32.0 | 35.6 |
| water flow (m³/h) | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.8 | 0.7 | 0.7 | 0.6 | 0.5 | 1.0 | 0.9 | 0.8 | 0.7 | 0.7 |
| pressure drop (kPa) | 4.0 | 3.0 | 2.0 | 2.0 | 1.0 | 5.0 | 5.0 | 4.0 | 3.0 | 2.0 | 12.0 | 10.0 | 8.0 | 6.0 | 5.0 | 17.0 | 14.0 | 12.0 | 10.0 | 8.0 |
| | III max air flow - 1550 m³/h | | | | | | | | | | III max air flow - 3000 m³/h | | | | | | | | | |
| heat output (kW) | 10.0 | 9.1 | 8.2 | 7.2 | 6.3 | 12.0 | 11.1 | 10.2 | 9.2 | 8.3 | 19.6 | 17.9 | 16.3 | 14.7 | 13.1 | 23.1 | 21.4 | 19.8 | 18.2 | 16.6 |
| outlet air temperature (°C) | 20.3 | 23.5 | 26.8 | 30.0 | 33.3 | 24.2 | 27.4 | 30.6 | 33.9 | 37.1 | 19.7 | 23.1 | 26.5 | 29.9 | 33.2 | 23.2 | 26.5 | 29.9 | 33.3 | 36.7 |
| water flow (m³/h) | 0.4 | 0.4 | 0.3 | 0.3 | 0.2 | 0.5 | 0.4 | 0.4 | 0.4 | 0.3 | 0.7 | 0.7 | 0.6 | 0.5 | 0.5 | 0.9 | 0.8 | 0.8 | 0.7 | 0.6 |
| pressure drop (kPa) | 3.0 | 2.0 | 2.0 | 1.0 | 1.0 | 4.0 | 3.0 | 3.0 | 2.0 | 2.0 | 10.0 | 8.0 | 6.0 | 5.0 | 4.0 | 14.0 | 12.0 | 10.0 | 8.0 | 7.0 |
| | III max air flow - 1200 m³/h | | | | | | | | | | III max air flow - 2200 m³/h | | | | | | | | | |
| heat output (kW) | 8.8 | 8.0 | 7.2 | 6.4 | 5.6 | 10.5 | 9.7 | 8.9 | 8.1 | 7.3 | 16.9 | 15.5 | 14.2 | 12.9 | 11.5 | 19.8 | 18.4 | 17.1 | 15.7 | 14.4 |
| outlet air temperature (°C) | 22.3 | 25.3 | 28.4 | 31.5 | 34.5 | 26.6 | 29.6 | 32.7 | 35.7 | 38.8 | 22.1 | 25.3 | 28.5 | 31.6 | 34.8 | 26.1 | 29.2 | 32.4 | 35.6 | 38.7 |
| water flow (m³/h) | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.6 | 0.6 | 0.5 | 0.4 | 0.4 | 0.8 | 0.7 | 0.6 | 0.6 | 0.5 |
| pressure drop (kPa) | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 2.0 | 2.0 | 1.0 | 7.0 | 6.0 | 5.0 | 4.0 | 3.0 | 10.0 | 8.0 | 7.0 | 6.0 | 5.0 |

| inlet/outlet water temperature | water 70/50 °C | | | | | water 80/60 °C | | | | |
|--------------------------------|------------------------------|------|------|------|------|----------------|------|------|------|------|
| inlet air temperature (°C) | 0 | 5 | 10 | 15 | 20 | 0 | 5 | 10 | 15 | 20 |
| | OSTRO 200W | | | | | | | | | |
| | III max air flow - 4800 m³/h | | | | | | | | | |
| heat output (kW) | 29.8 | 27.4 | 25.0 | 22.6 | 20.2 | 34.9 | 32.5 | 30.1 | 27.7 | 25.3 |
| outlet air temperature (°C) | 18.9 | 22.4 | 25.9 | 29.4 | 32.9 | 22.1 | 25.6 | 29.1 | 32.6 | 36.1 |
| water flow (m³/h) | 1.1 | 1.0 | 0.9 | 0.8 | 0.7 | 1.4 | 1.2 | 1.1 | 1.0 | 0.9 |
| pressure drop (kPa) | 22.0 | 19.0 | 15.0 | 12.0 | 9.0 | 32.0 | 27.0 | 23.0 | 19.0 | 15.0 |
| | III max air flow - 4000 m³/h | | | | | | | | | |
| heat output (kW) | 27.5 | 25.3 | 23.1 | 20.9 | 18.8 | 32.1 | 29.9 | 27.7 | 25.5 | 23.4 |
| outlet air temperature (°C) | 20.3 | 23.7 | 27.0 | 30.4 | 33.8 | 23.7 | 27.1 | 30.5 | 33.8 | 37.2 |
| water flow (m³/h) | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 | 1.2 | 1.1 | 1.0 | 0.9 | 0.8 |
| pressure drop (kPa) | 19.0 | 16.0 | 13.0 | 10.0 | 8.0 | 26.0 | 22.0 | 19.0 | 16.0 | 13.0 |
| | III max air flow - 2900 m³/h | | | | | | | | | |
| heat output (kW) | 23.6 | 21.8 | 20.0 | 18.2 | 16.4 | 27.4 | 25.6 | 23.8 | 22.0 | 20.2 |
| outlet air temperature (°C) | 22.9 | 26.0 | 29.2 | 32.3 | 35.5 | 26.8 | 29.9 | 33.1 | 36.2 | 39.4 |
| water flow (m³/h) | 0.8 | 0.8 | 0.7 | 0.6 | 0.5 | 1.0 | 0.9 | 0.9 | 0.7 | 0.7 |
| pressure drop (kPa) | 13.0 | 11.0 | 9.0 | 7.0 | 5.0 | 18.0 | 16.0 | 13.0 | 11.0 | 9.0 |

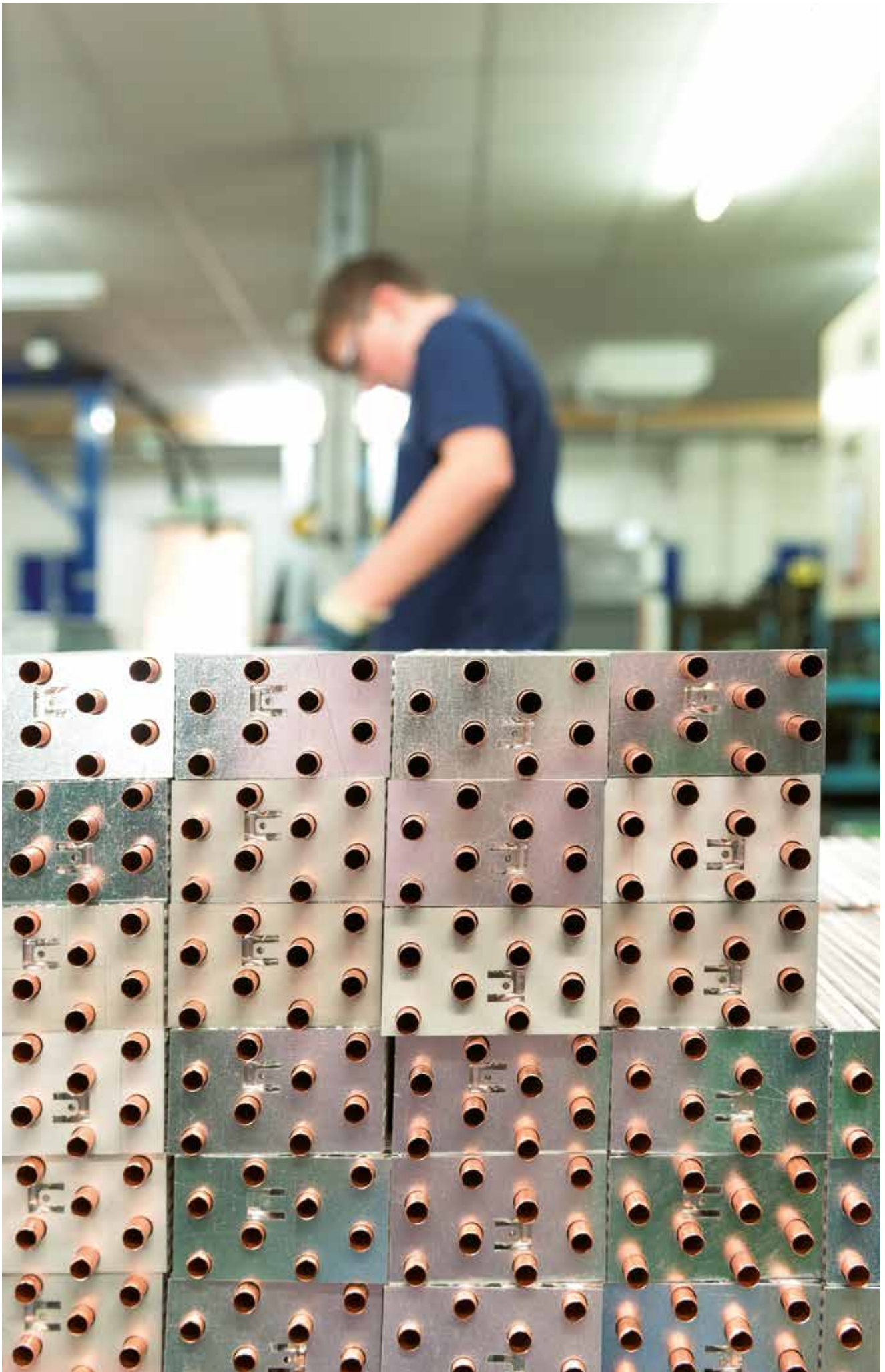
| | 100E | | | | | 150E | | | | | 200E | | | | |
|--|------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|
| inlet air temperature | 0 | 5 | 10 | 15 | 20 | 0 | 5 | 10 | 15 | 20 | 0 | 5 | 10 | 15 | 20 |
| OSTRO 100, 150 and 200 Electric | | | | | | | | | | | | | | | |
| heat output (kW) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 |
| outlet air temperature (°C) | 12 | 17 | 22 | 27 | 32 | 13 | 18 | 23 | 28 | 33 | 14 | 19 | 24 | 29 | 34 |



Ordering guide

| Model | Wt (kg) | Product Codes |
|-------------------------------|-------------|---------------|
| Ostro W Hydronic | | |
| OSTRO 100W WATER EXCHANGER | 18.0 / 16.5 | HPAC310014 |
| OSTRO 150W WATER EXCHANGER | 22.6 / 20.5 | HPAC310015 |
| OSTRO 200W WATER EXCHANGER | 31.0 / 28.0 | HPAC310016 |
| Ostro E Electric | | |
| OSTRO 100E ELECTRIC EXCHANGER | 17.0 | HPAC310017 |
| OSTRO 150E ELECTRIC EXCHANGER | 21.5 | HPAC310018 |
| OSTRO 200E ELECTRIC EXCHANGER | 29.0 | HPAC310019 |
| Ostro C Ambient | | |
| OSTRO 100C WITHOUT EXCHANGER | 15.0 | HPAC310020 |
| OSTRO 150C WITHOUT EXCHANGER | 18.5 | HPAC310021 |
| OSTRO 200C WITHOUT EXCHANGER | 25.0 | HPAC310022 |

| Accessories | Product Codes |
|---|---------------|
| OSTRO HORIZONTAL HOLDER SET | HPAC310023 |
| OSTRO VERTICAL HOLDER SET | HPAC310024 |
| 1/2" STRAIGHT VALVE | HPUH310026 |
| ACTUATOR TS LITE M30X1,5 | HPUH310027 |
| Controls | |
| TR-110L PANEL COMFORT - speed regulation & thermostat | HPUH310009 |
| OSTRO DOOR SWITCH | HPUH310025 |
| OSTRO AIR CURTAIN BMS MODULE | HPUH310028 |



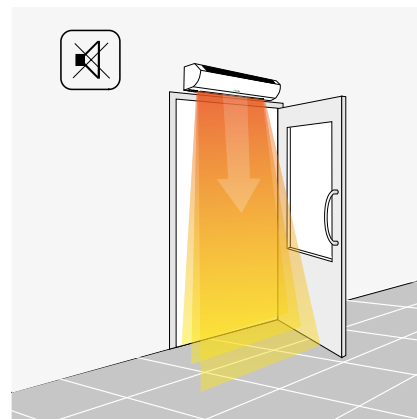
Air Curtains - S2 Series

Smith's S2 series of electric air curtains are ideal for smaller commercial spaces such as pavilions, small retail outlets, mini markets and pick-up windows

Applications

Office
Hospitality
Retail
Showroom

COMMERCIAL



These stylish units deliver energy efficient and quiet protection against cold air from outside

Innovative noise reduction system

Shock-absorbing dampers to minimise noise

Stitch-elements ensure fast heating and high temperature difference

Operation mode without heating for protection against outside heat, dust and insects in summer

Convenient and aesthetic connection to the terminals inside the housing (3kW model includes a power cord with plug)

Built-in thermostat protects against overheating

Finish

White finish.

Installation

Installed horizontally above doorway.
Installation height of 2.5m.

Controls

Controls on the body of the air curtain.
Remote control with thermostat (E10 only).

Specification

To specify state:

Horizontally mounted electric Air Curtain at 5.5kW or 9.8kW output in white finish.

As Smith's Air Curtain S2 5.5kW or 9.8kW.

| Heating power, kW | S2 E5 Electric 5.5 / 2.7 / 0 | S2 E10 Electric 9.8 / 4.9 / 0 |
|--------------------------------|---------------------------------|----------------------------------|
| Capacity, m³/h | 450 | 1 050 |
| Maximum installation height, m | 2.5 | 2.5 |
| Supply voltage, V | 230 | 415 (3 phase) |
| Air temperature increase, °C | 34 °C | 26 °C |
| Device dimensions (W×H×D), mm | 800×150×155 | 1570×150×155 |
| Package dimensions (W×H×D), mm | 860×165×185 | 1655×165×185 |
| Product colour | White | White |

Ordering guide

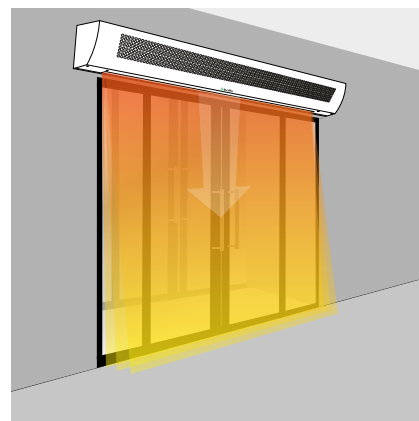
| Description | Net Wt (Kg) | Product Codes |
|--------------------|-------------|---------------|
| Electric | | |
| AIR CURTAIN S2 E5 | 6.8 | HPAC64106 |
| AIR CURTAIN S2 E10 | 12.6 | HPAC64108 |

Air Curtains - PS Series

The PS series are high performance, high efficiency air curtains for larger commercial spaces such as production premises, workshops, warehouses, logistics centres and sports facilities

Applications

Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Industrial



These air curtains can be mounted horizontally and vertically and feature two performance modes, 70% or 100% in order to best adapt their performance mode to the weather conditions

Solid nozzle has no blind zones and provides reliable protection

High-efficiency fans

Precise balancing almost excludes vibration and ambient noise during operation of curtains

Work chamber of special design generates stabilized laminar air flow

Minimisation of turbulent flows in curtains ensures formation of solid closing flow, effectively protecting opening, at nozzle outlet

Capillary protection thermostat ensures timely shutdown of curtain in case of overheating, and manual restart function excludes repeated overheating

Anti-corrosive treatment and strong polymer coating of casing

Operation mode without heating for protection from outdoor heat, dust and insects in summer

Finish

Anti-corrosive treatment and strong polymer coating of casing.
White finish.

Installation

Installed universally (horizontally to vertically).
Installation height up to 4.5m.

Controls

Remote control with thermostat.

Specification

To specify state:

Universally mounted electric Air Curtain constructed in anti-corrosive material with remote control and thermostat at 13.1kW, 19.7kW or 26.2kW.

As Smith's Air Curtain PS Series 13.1kW, 19.7kW or 26.2kW

| Heating power, kW | PS E13 Electric 13.1 / 6.6 / 0 | PS E20 Electric 19.7 / 9.8 / 0 | PS E26 Electric 26.2 / 13.1 / 0 |
|--------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| Capacity, m³/h | 2500 / 1800 | 4000 / 2700 | 5000 / 3500 |
| Maximum installation height, m | 4.5 | 4.5 | 4.5 |
| Supply voltage, V | 415 (3 phase) | 415 (3 phase) | 415 (3 phase) |
| Air temperature increase, °C | 15 / 20 °C | 15 / 20 °C | 15 / 21 °C |
| Device dimensions (WxHxD), mm | 1120x285x295 | 1530x285x295 | 2020x285x295 |
| Package dimensions (WxHxD), mm | 1140x325x385 | 1540x325x385 | 2060x325x385 |

Ordering guide

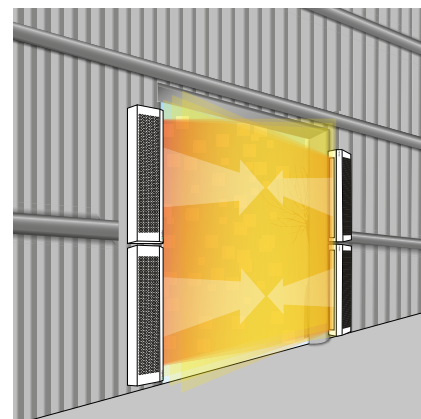
| Description | Net Wt (Kg) | Product Codes |
|--------------------|-------------|---------------|
| Electric | | |
| AIR CURTAIN PS E13 | 22.6 | HPAC64101 |
| AIR CURTAIN PS E20 | 27.9 | HPAC64102 |
| AIR CURTAIN PS E26 | 40.2 | HPAC64103 |

Air Curtains - PS (W) Series

The PS(W) series are high performance, high efficiency air curtains for larger commercial spaces such as production premises, workshops, warehouses, logistics centres and sports facilities

Applications

Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Industrial



These air curtains can be mounted horizontally and vertically and feature two performance modes, 70% or 100% in order to best adapt their performance mode to the weather conditions

In the summer, these air curtains can be operated without heating to protect against outside heat, dust and insects

Reliable copper-aluminium heat exchanger with working pressure up to 16 bar at 150 °C

Corrugated finning increases the heat exchange area and enhances the heating efficiency

High-performance aluminium fans

Precise balancing practically eliminates vibration and extraneous noise during operation of the air curtains

Working chamber of special structure developed jointly with the Punker company (Germany) creates a stabilized laminar air flow

Minimisation of turbulent flows in the air curtains ensures the formation of a dense shearing flow at the nozzle exit which protects the opening

Universal connection to the heating system - pipes are output on the left or right side of the housing

Finish

Anti-corrosive treatment and strong polymer coating of casing.
White finish.

Installation

Installed universally (horizontally to vertically).
Installation height up to 4.5m.

Controls

Remote control with thermostat.

Specification

To specify state:

Universally mounted hydronic Air Curtain with a copper heat exchanger with remote control and thermostat at 18.1kW, 18.4kW, 27.7kW, 29.2kW or 36.6kW.

As Smith's Air Curtain PS (W) Series 18.1kW, 18.4kW, 27.7kW, 29.2kW or 36.6kW.

| | PS (W) W28 - 3.5 Water | PS (W) W18 - 4.5 Water | PS (W) W29 - 4.5 Water | PS (W) W37 - 4.5 Water |
|--------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Heating power, kW | 27.7 / 25.2 / 22.4 | 18.1 / 16.5 / 14.7 | 29.2 / 26.6 / 23.7 | 36.6 / 33.3 / 29.6 |
| Capacity, m³/h | 3200 / 2700 / 2300 | 2500 / 2100 / 1700 | 4000 / 3200 / 2600 | 5000 / 4200 / 2400 |
| Maximum installation height, m | 3.5 | 4.5 | 4.5 | 4.5 |
| Supply voltage, V | 230 | 230 | 230 | 230 |
| Air temperature increase, °C | 27 / 29.2 / 31.9 °C | 23.2 / 25.2 / 27.8 °C | 23.5 / 25.4 / 28 °C | 23.4 / 25.4 / 28 °C |
| Device dimensions (WxHxD), mm | 1900x260x240 | 1100x300x290 | 1510x300x290 | 1960x300x290 |
| Package dimensions (WxHxD), mm | 1940x330x280 | 1140x385x325 | 1540x385x325 | 2060x385x325 |

Ordering guide

| Description | Net Wt (Kg) | Product Codes |
|------------------------------|-------------|---------------|
| Water | | |
| AIR CURTAIN PS (W) W28 - 3.5 | 30 | HPAC64203 |
| AIR CURTAIN PS (W) W18 - 4.5 | 23.7 | HPAC64204 |
| AIR CURTAIN PS (W) W29 - 4.5 | 31 | HPAC64205 |
| AIR CURTAIN PS (W) W37 - 4.5 | 43 | HPAC64206 |

Solano®

A modern and lightweight hydronic fan-assisted unit heater to heat open areas such as production and warehouses, car showrooms, service stations, sports halls and agricultural facilities

Applications
Industrial
Workshops
Retail
Showrooms
Leisure and sport



Lightweight for easy installation <15kg

High performance heat output up to 70kW*

Air volumes up to 4100 m³/h

3 speed fan

Attractive design

Finish

Expanded Polypropylene (EPP) - Silver grey.

Installation

Suitable for wall or ceiling mounting.
Bracket design aids installation at also 30° and 60°.

Specification

To specify state:
Lightweight hydronic fan-assisted unit heater at 10-30kW, 30-50kW, 50-70kW.
As Smith's Solano.

Technical data

| | | HEATER R1 | HEATER R2 | HEATER R3 | HEATER MIX |
|----------------------------------|-----------|-------------|-------------|-------------|------------|
| heat output range | kW | 10-30 | 30-50 | 50-70 | - |
| max air output | m³/h | 4 100 | 3 500 | 3 400 | 5 600 |
| no of unit rows | - | 1 | 2 | 3 | - |
| air temperature increase* | °C | 14 | 29 | 29 | - |
| max working pressure | Mpa | 1.6 | 1.6 | 1.6 | - |
| max airflow range | m | 27 | 25 | 24 | 15 ** |
| diameter of connection nozzles | inches | 3/4" | 3/4" | 3/4" | - |
| power supply | V/Hz A | 230/50 | 1.15 A | 230/50 | 1.16 A |
| motor power | kW | 0.25 | 0.25 | 0.36 | 0.36 |
| motor speed | rpm | 1350 | 1350 | 1400 | 1400 |
| protection class IP | - | IP54 | IP54 | IP54 | IP54 |
| sound level | dB (A)*** | 59.4 | 59.4 | 60.5 | 60.5 |
| weight without water/ with water | kg | 10.8 / 11.9 | 12.7 / 14.8 | 14.5 / 16.9 | 9.2 |

* for temperatures of 90/70 and inlet temperature of 0°C

** maximum height of assembly for vertical airflow, max working range of up to 380m².

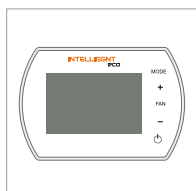
Horizontal range of isothermal stream at velocity of 0.5 m/s

*** measured in distance of 5m

Controls



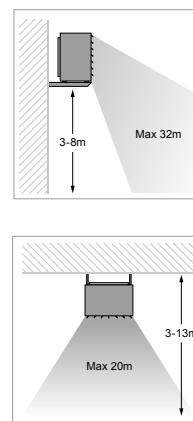
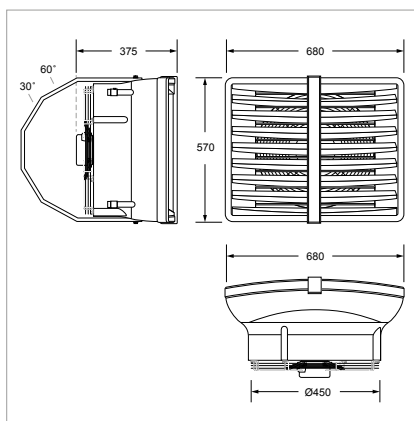
- Panel COMFORT**
- Manual temperature regulation
 - Fan speed change
 - Ventilation in summer season
 - Control up to 3 pcs of HEATER



- Panel INTELLIGENT**
- Weekly thermostat
 - Automatic change of fan speed depending on room temperature
 - BMS communication
 - Control up to 2 pcs of HEATER



- Splitter MULTI 6**
- Control up to 6 pcs of HEATER



Heat output For other heat output data please download the data sheet from our website

| inlet/outlet water temperature | | water 70/50 °C | | | | | water 80/60 °C | | | | | water 90/70 °C | | | | |
|--------------------------------|------|------------------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| inlet air temperature | °C | 0 | 5 | 10 | 15 | 20 | 0 | 5 | 10 | 15 | 20 | 0 | 5 | 10 | 15 | 20 |
| Heater R1 | | Air flow 4100 m³/h (speed 3) | | | | | | | | | | | | | | |
| heat output | kW | 14.66 | 13.20 | 11.74 | 10.28 | 8.82 | 17.74 | 16.27 | 14.80 | 13.35 | 11.89 | 20.77 | 19.30 | 17.83 | 16.37 | 14.91 |
| outlet air temperature | °C | 9.90 | 14.10 | 18.20 | 22.30 | 26.30 | 12.00 | 16.20 | 20.30 | 24.50 | 28.60 | 14.00 | 18.20 | 22.40 | 26.60 | 30.70 |
| water flow | m³/h | 0.64 | 0.58 | 0.51 | 0.45 | 0.39 | 0.78 | 0.71 | 0.65 | 0.59 | 0.52 | 0.92 | 0.85 | 0.79 | 0.72 | 0.66 |
| pressure drop | kPa | 10.35 | 8.56 | 6.92 | 5.45 | 4.13 | 14.26 | 12.18 | 10.27 | 8.52 | 6.92 | 18.57 | 16.25 | 14.08 | 12.06 | 10.18 |
| Heater R2 | | Air flow 3500 m³/h (speed 3) | | | | | | | | | | | | | | |
| heat output | kW | 26.20 | 23.65 | 21.11 | 18.59 | 16.08 | 31.39 | 28.82 | 26.28 | 23.76 | 21.24 | 36.53 | 33.94 | 31.38 | 28.84 | 26.32 |
| outlet air temperature | °C | 20.70 | 24.00 | 27.30 | 30.40 | 33.60 | 24.80 | 28.20 | 31.50 | 34.70 | 37.90 | 28.90 | 32.30 | 35.70 | 39.00 | 42.20 |
| water flow | m³/h | 1.15 | 1.03 | 0.92 | 0.81 | 0.70 | 1.38 | 1.27 | 1.15 | 1.04 | 0.93 | 1.61 | 1.50 | 1.39 | 1.27 | 1.16 |
| pressure drop | kPa | 10.53 | 8.76 | 7.15 | 5.69 | 4.39 | 14.19 | 12.18 | 10.32 | 8.61 | 7.04 | 18.22 | 15.96 | 13.86 | 11.91 | 10.10 |
| Heater R3 | | Air flow 3400 m³/h (speed 3) | | | | | | | | | | | | | | |
| heat output | kW | 37.8 | 34.5 | 31.1 | 27.7 | 24.3 | 45.1 | 41.8 | 38.4 | 35.1 | 31.7 | 52.3 | 49.0 | 45.7 | 42.4 | 39.1 |
| outlet air temperature | °C | 29.0 | 31.5 | 34.0 | 36.4 | 38.8 | 34.5 | 37.1 | 39.6 | 42.1 | 44.5 | 40.0 | 42.6 | 45.2 | 47.7 | 50.1 |
| water flow | m³/h | 1.7 | 1.5 | 1.4 | 1.2 | 1.1 | 2.0 | 1.8 | 1.7 | 1.5 | 1.4 | 2.3 | 2.2 | 2.2 | 1.9 | 1.7 |
| pressure drop | kPa | 13.6 | 11.5 | 9.6 | 7.8 | 6.2 | 18.3 | 15.9 | 13.7 | 11.6 | 9.7 | 23.4 | 20.8 | 18.3 | 16.0 | 13.8 |

Ordering guide

| Model | Wt (kg) | Product Codes |
|----------------------|-------------|---------------|
| HEATER R1 (10-30 kW) | 10.8 / 11.9 | HPUH310011 |
| HEATER R2 (30-50 kW) | 12.7 / 14.8 | HPUH310012 |
| HEATER R3 (50-70 kW) | 14.5 / 16.9 | HPUH310013 |
| HEATER MIX | 9.2 | HPUH310004 |

| Accessories | Product Codes |
|--------------------------|---------------|
| SOLANO PANEL INTELLIGENT | HPUH310008 |
| SOLANO PANEL COMFORT | HPUH310009 |
| SOLANO SPLITTER MULTI 6 | HPUH310010 |

Pedestal

A new range of freestanding natural convector pedestal heaters, Kiosk, Trafalgar and Tube in a variety of shapes, lengths and finishes

Applications

Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Showroom



Perfect for beneath large windows, Smith's freestanding pedestal heaters help to minimise the problem of downward cold airflow with commonly associated with glazed façades

Fitting into the smallest of spaces Smith's range of freestanding pedestal heaters provide a stylish solution without the need for wall hung heaters

Lengths from 0.5m to 2m

Perfect for where sub-floor trench heating is not possible

Heat source: boiler or heat pump

Finish

Outer casing: 1.2mm zintec. Polyester powder coated.
Paint specification: textured white BS 4800 00A01 18% gloss.

Installation

Flow and return connections 22mm copper.
Designed for system pressures up to 10 bar.
Suitable for two pipe central heating systems only.

Customised requirements

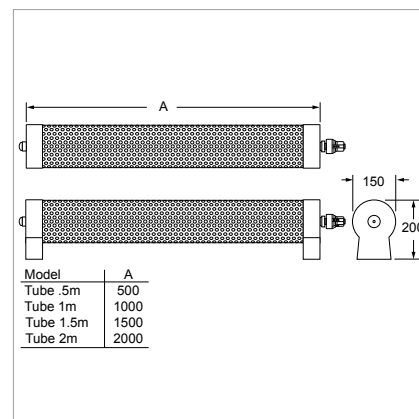
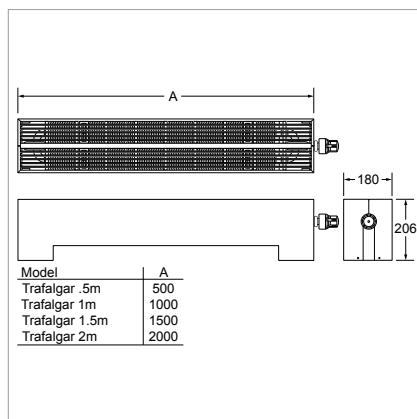
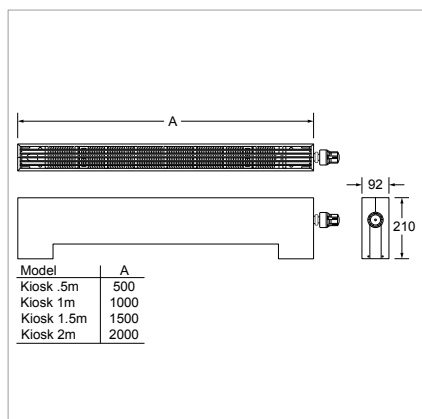
Any colour finishes are available on request.
Price and availability will be confirmed at the time of order.

Controls

Supplied with TRV and lockshield valve.

Specification

To specify state:
Low height freestanding pedestal heater in linear form with rectangular profile, large rectangular profile or circular profile.
As Smith's Kiosk, Trafalgar or Tube.



Heat output

| Product length | ΔT °C | | | | | |
|------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 20 ΔT | 30 ΔT | 40 ΔT | 50 ΔT | 60 ΔT | 70 ΔT |
| Kiosk | | | | | | |
| 0.5m | 22 | 39 | 60 | 83 | 109 | 136 |
| 1.0m | 73 | 133 | 202 | 281 | 367 | 459 |
| 1.5m | 125 | 226 | 345 | 479 | 626 | 783 |
| 2.0m | 176 | 320 | 487 | 677 | 884 | 1106 |
| Trafalgar | | | | | | |
| 0.5m | 39 | 72 | 110 | 154 | 201 | 253 |
| 1.0m | 133 | 243 | 373 | 519 | 681 | 856 |
| 1.5m | 226 | 414 | 635 | 885 | 1160 | 1459 |
| 2.0m | 320 | 585 | 898 | 1250 | 1640 | 2062 |
| Tube | | | | | | |
| 0.5m | 36 | 64 | 96 | 132 | 170 | 212 |
| 1.0m | 88 | 157 | 237 | 325 | 421 | 524 |
| 1.5m | 141 | 251 | 378 | 519 | 671 | 836 |
| 2.0m | 193 | 344 | 519 | 712 | 922 | 1148 |

Entering ambient air temperature of 20°C
Outputs in Watts. In accordance with EN442 - BSRIA verified

How to calculate Mass Flow Rate (L/S)

$$M = H / CP \times (\text{Flow } ^\circ\text{C} - \text{Return } ^\circ\text{C})$$

M = Mass flow rate (L/S)

H = Output of product (W)

CP = Specific heat capacity [J/(kg·°C)]. Varies upon system temperature, Approx. 4187 if fluid is water.

How to calculate Mean Water Temperature (ΔT)

$$\text{Mean water temperature } (\Delta T) = \left[\frac{\text{Flow temperature} + \text{Return temperature}}{2} \right] - \text{Ambient Temperature}$$

Ordering guide Listed below are the Pedestal in white complete with TRV.

| Description | Wt (kg) | Product Codes |
|-------------------------|---------|---------------|
| Kiosk | | |
| PEDESTAL KIOSK 500 | 5 | HPKI100025 |
| PEDESTAL KIOSK 1000 | 10 | HPKI100028 |
| PEDESTAL KIOSK 1500 | 15 | HPKI100031 |
| PEDESTAL KIOSK 2000 | 20 | HPKI100034 |
| Trafalgar | | |
| PEDESTAL TRAFALGAR 500 | 8 | HPTR110025 |
| PEDESTAL TRAFALGAR 1000 | 16 | HPTR110028 |
| PEDESTAL TRAFALGAR 1500 | 24 | HPTR110031 |
| PEDESTAL TRAFALGAR 2000 | 32 | HPTR110034 |
| Tube | | |
| PEDESTAL TUBE 500 WHT | 5 | HPTU110001 |
| PEDESTAL TUBE 1000 WHT | 10 | HPTU110004 |
| PEDESTAL TUBE 1500 WHT | 15 | HPTU110007 |
| PEDESTAL TUBE 2000 WHT | 20 | HPTU110010 |

Ecovector® High

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial
Residential

The Ecovector Hydronic fan convectors provide effective and dependable heating for both small and large commercial areas, fitted unobtrusively above head height



They work particularly well in shops and libraries, where lower wall space is limited

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps



Motor

AC only.

Finish

Front casing: zinc-coated steel.
Polyester powder-coated RAL 9010.
Side panels: polymer eggshell white.

Installation

Maximum installation height 2.1m (6'11") to underside.
No top or side clearance required.
Unit must be earthed (except model 1000-12V).
Suitable for two-pipe central heating systems.
Patress box not supplied for transformer (model 1000-12V).

Commissioning

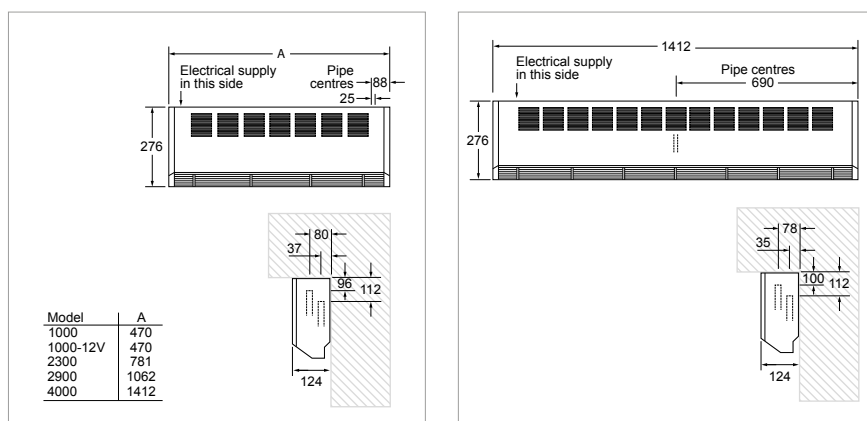
Check water is hot enough to activate the low temperature cut-out thermostat. The inclusion of an automatic air vent at the highest point is recommended to avoid possible air locks.

Controls

Two rocker switches - normal/off/boost, heating/fan-only.
Low temperature cut out thermostat, set to energise fan at approximately 35°C.

Specification

To specify state:
High level hydronic fan convector in white.
As Smith's Ecovector High 1000, 2300, 2900, 4000, 1000-12V.



Heat Output For other heat output data please visit our website

| Model | Heat Output at 75° | | Heat Output at 45° | |
|--------------------|--------------------|------------|--------------------|------------|
| | Normal (kW) | Boost (kW) | Normal (kW) | Boost (kW) |
| ECOVECTOR 1000 | 1.0 | 1.2 | 0.5 | 0.6 |
| ECOVECTOR 2300 | 2.1 | 2.8 | 1.1 | 1.4 |
| ECOVECTOR 2900 | 2.7 | 4.0 | 1.4 | 2.0 |
| ECOVECTOR 4000 | 3.7 | 4.8 | 1.8 | 2.5 |
| ECOVECTOR 1000-12V | 1.0 | 1.2 | 0.5 | 0.5 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|--------------------------------------|----------------|---------------|
| ECOVECTOR HL 1000 AC | 7 | HPEV50011 |
| ECOVECTOR HL 2300 AC | 11 | HPEV50012 |
| ECOVECTOR HL 2900 AC | 15 | HPEV50013 |
| ECOVECTOR HL 4000 AC | 18 | HPEV50014 |
| ECOVECTOR HL 1000-12V AC | 8 | HPEV50015 |
| Accessories | | |
| ROOM THERMOSTAT HARD WIRED | | HAGA95001 |
| ROOM THERMOSTAT HARD WIRED SIEMENS | | HACA33104 |
| ROOM THERMOSTAT RF SIEMENS | | HACA33074 |
| ROOM THERMOSTAT TAMPER PROOF SIEMENS | | HAGA95004 |

| Model | Flow & return connections | Mains cable | Transformer | Fused spur | Total Power Consumption | | Water Capacity (Litres) | Sound Levels | | Casting colour | Fan-only |
|--------------------|---------------------------|-------------|-------------|------------|-------------------------|---------------|-------------------------|--------------|-------------|----------------|----------|
| | | | | | Normal (Watts) | Boost (Watts) | | Normal (dBA) | Boost (dBA) | | |
| ECOVECTOR 1000 | 15mm | 1.5m | n/a | 3A | 20 | 25 | 0.28 | 32 | 40 | white | • |
| ECOVECTOR 2300 | 15mm | 1.5m | n/a | 3A | 20 | 32 | 0.32 | 34 | 50 | white | • |
| ECOVECTOR 2900 | 15mm | 1.5m | n/a | 3A | 33 | 50 | 0.52 | 37 | 51 | white | • |
| ECOVECTOR 4000 | 22mm | 1.5m | n/a | 3A | 40 | 60 | 1.04 | 39 | 52 | white | • |
| ECOVECTOR 1000-12V | 15mm | 0.45m | • | 3A | 20 | 25 | 0.28 | 32 | 39 | white | • |

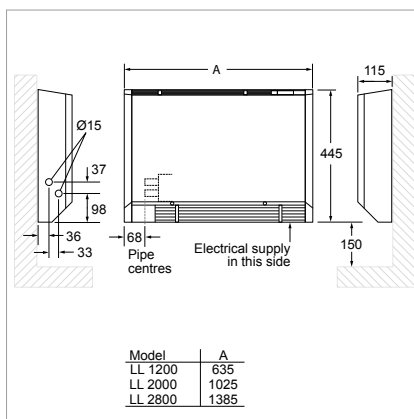
Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate. Sound levels measured at 1.5m.

Ecovector® Low

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial
Residential

Ecovector Low Level fan convectors provide warmth from the floor upwards and are more energy efficient and effective than radiators



The Ecovector can heat up a room more quickly than radiators, thereby reducing the amount of time your boiler or heat pump is running - making it extremely efficient and cost effective

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Ideal for new and existing developments, due to ease of installation, the Ecovector is available in a range of models to suit varying room sizes and heat output requirements

Motor

AC only.

Finish

Front casing: zinc-coated steel.
Polyester powder-coated RAL 9010.
Side panels: polymer eggshell white.

Installation

Mounting bracket supplied.
Unit must be earthed.
Suitable for two-pipe central heating systems.
Minimum height above floor level 150mm.
Maximum height above floor level 500mm.

Commissioning

Check water is hot enough to activate the selectable low temperature cut-out thermostat.

Control

Rocker switch - normal/off/boost.
Built-in room thermostat.
Low temperature cut-out thermostat set to energise fan at approximately 35°C.

Specification

To specify state:
Low level hydronic fan convector in white.
As Smith's Ecovector Low LL1200, LL2000, LL2800.

Heat Output For other heat output data please visit our website

| Model | Heat Output at 75° | | Heat Output at 45° | |
|-------------------|--------------------|------------|--------------------|------------|
| | Normal (kW) | Boost (kW) | Normal (kW) | Boost (kW) |
| ECOVECTOR LL 1200 | 1.1 | 1.4 | 0.5 | 0.6 |
| ECOVECTOR LL 2000 | 1.9 | 2.4 | 0.9 | 1.1 |
| ECOVECTOR LL 2800 | 2.6 | 3.2 | 1.2 | 1.5 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|----------------------|----------------|---------------|
| ECOVECTOR LL 1200 AC | 12 | HPEV50001 |
| ECOVECTOR LL 2000 AC | 17 | HPEV50002 |
| ECOVECTOR LL 2800 AC | 24 | HPEV50003 |

| Model | Flow & return connections | Mains cable | Transformer | Fused spur | Total Power Consumption | | Water Capacity (Litres) | Sound Levels | | Casting colour | Fan-only |
|-------------------|---------------------------|-------------|-------------|------------|-------------------------|---------------|-------------------------|--------------|-------------|----------------|----------|
| | | | | | Normal (Watts) | Boost (Watts) | | Normal (dBA) | Boost (dBA) | | |
| ECOVECTOR LL 1200 | 15mm | 1.5m | n/a | 3A | 17 | 21 | 0.29 | 32 | 38 | white | n/a |
| ECOVECTOR LL 2000 | 15mm | 1.5m | n/a | 3A | 26 | 55 | 0.58 | 35 | 40 | white | n/a |
| ECOVECTOR LL 2800 | 15mm | 1.5m | n/a | 3A | 43 | 76 | 0.83 | 37 | 42 | white | n/a |

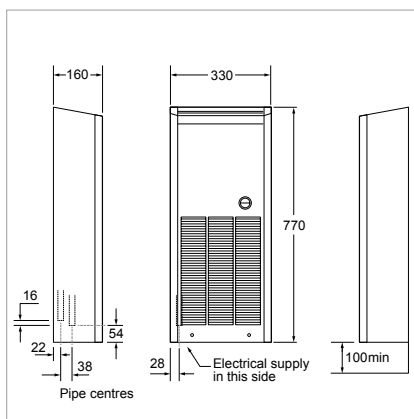
Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate. Sound levels measured at 1.5m.

Ecovector® Vertical

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial
Residential

Ideal for hallways, corridors, alcoves and other places where space is limited. Ecovector can heat up a room more quickly than radiators, thereby reducing the amount of time your boiler or heat pump is running - making it extremely efficient and cost effective



Ideal for new and existing building developments

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Motor

AC only.

Finish

Front casing and side panels: zinc-coated steel.
Polyester powder-coated RAL 9010.

Installation

Mounting bracket supplied.
Unit must be earthed.
Suitable for two-pipe central heating systems.
Minimum height above floor level 150mm.
Maximum height above floor level 500mm.

Commissioning

Check water is hot enough to activate the selectable low temperature cut-out thermostat.

Controls

Rocker switch - normal/off/boost.
Low temperature cut-out thermostat set to energise fan at approximately 35°C.
Wireless wall mounted thermostat included with this product.

Specification

To specify state:
Vertical floor mounted hydronic fan convector in white.
As Smith's Ecovector Vertical.

Heat Output For other heat output data please visit our website

| Model | Heat Output at 75° | | Heat Output at 45° | |
|-------------------|--------------------|------------|--------------------|------------|
| | Normal (kW) | Boost (kW) | Normal (kW) | Boost (kW) |
| Ecovector VE 2500 | 2.3 | 2.4 | 1.1 | 1.1 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|----------------------|----------------|---------------|
| ECOVECTOR VE 2500 AC | 15 | HPEV50021 |

| Model | Flow & return connections | Mains cable | Trans-former | Fused spur | Total Power Consumption | | Water Capacity (Litres) | Sound Levels | | Casting colour | Fan-only |
|-------------------|---------------------------|-------------|--------------|------------|-------------------------|---------------|-------------------------|--------------|-------------|----------------|----------|
| | | | | | Normal (Watts) | Boost (Watts) | | Normal (dBA) | Boost (dBA) | | |
| Ecovector VE 2500 | 15mm | 1.5m | n/a | 3A | 28 | 36 | 0.75 | 36 | 39 | white | n/a |

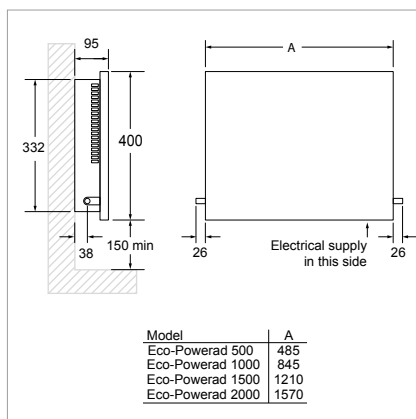
Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate. Sound levels measured at 1.5m.

Eco-Powerad®

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Residential

The Eco-Powerad is the fan convector of the future - energy efficient, responsive and suitable for installation within most wet central heating systems, driven by either boilers or low temperature renewable technology



Compact, with smooth lines to achieve visual simplicity, the Eco-Powerad also features low surface temperature casing for complete safety and possesses a very low operating sound - between 28 and 32 decibels

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Supplied as standard in white but casing can be supplied in any colour

Motor

AC only.

Finish

Front casing: zinc coated steel.
Polyester powder-coated RAL 9010.

Installation

Mounting bracket supplied.
Unit must be earthed.
Suitable for two-pipe central heating systems.
Minimum height above floor level 150mm.
Maximum height above floor level 500mm.

Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.
Ensure system is balanced for even heat distribution.

Control

Low temperature cut-out thermostat, set to energise fan at approximately 35°C.
Suitable for thermostatic radiator valves (TRV) - not supplied.
Rocker switch - normal/low.

Specification

To specify state:
Wall mounted hydronic heat emitter with fan and low temperature cut-out.
As Smith's Eco-Powerad 500, 1000, 1500, 2000.

Heat Output For other heat output data please visit our website

| Model | Heat Output at 75° (kW) | Heat Output at 45° (kW) |
|------------------|-------------------------|-------------------------|
| ECO-POWERAD 500 | 0.8 | 0.4 |
| ECO-POWERAD 1000 | 2.1 | 0.8 |
| ECO-POWERAD 1500 | 2.4 | 1.2 |
| ECO-POWERAD 2000 | 3.5 | 1.7 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|------------------------|----------------|---------------|
| ECO-POWERAD LL 500 AC | 6 | HPEP52001 |
| ECO-POWERAD LL 1000 AC | 10 | HPEP52002 |
| ECO-POWERAD LL 1500 AC | 14 | HPEP52003 |
| ECO-POWERAD LL 2000 AC | 18 | HPEP52004 |

| Model | Flow & return connections | Mains cable | Transformer | Fused spur | Total Power Consumption (Watts) | Water Capacity (Litres) | Sound Levels (dBA) | Casting colour |
|------------------|---------------------------|-------------|-------------|------------|---------------------------------|-------------------------|--------------------|----------------|
| ECO-POWERAD 500 | 15mm | 2m | n/a | 3A | 15 | 0.17 | 28 | white |
| ECO-POWERAD 1000 | 15mm | 2m | n/a | 3A | 18 | 0.28 | 30 | white |
| ECO-POWERAD 1500 | 15mm | 2m | n/a | 3A | 33 | 0.44 | 31 | white |
| ECO-POWERAD 2000 | 15mm | 2m | n/a | 3A | 36 | 0.55 | 32 | white |

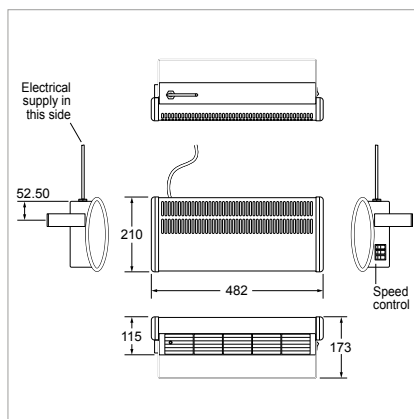
Outputs based on exiting water temperature. Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate. Sound levels measured at 1.5m.

Sterling

The Sterling fan-assisted electric heater is a great low cost solution providing effective and dependable heating for both small and large commercial areas, fitted unobtrusively above head height

Applications

Education
Healthcare
Places of worship
Leisure and sport
Office
Hospitality
Retail
Showroom
Industrial
Residential



It has been designed for rooms with limited lower wall space, such as shops and libraries

Motor

AC only.

Finish

Outer casing 0.9mm zinc-coated steel.
Polyester powder-coated white.
Side panels: Polymer - white.

Installation

Recommended installation height 2.3m (7ft 6") to underside.
Not suitable for bathrooms and other high humidity areas.
Angled mounting (optional).
13 amp fused spur required.
Unit must be earthed.

Controls

Rocker switches for fan and element - fan only 1kW/2kW/3kW.
Wireless temperature control featuring comfort, set back and run back timer (battery operated) supplied.
Overheat protection: thermal cut-out.
Manual reset procedure: switch power off at mains, wait 20 minutes, switch power on.

Specification

To specify state:
3-speed electric fan-assisted heater in white polyester coated 0.9mm zinc-coated steel body with built in room thermostat.
As Smith's Sterling.

Heat output

| Model | Heat Output (kW) |
|--------------|------------------|
| STERLING 3EL | 1kW/2kW/3kW |

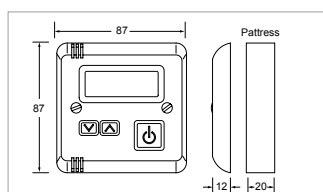
Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|--------------|----------------|---------------|
| STERLING 3EL | 4 | HPST51012 |

| Model | Fused spur | Total Power Consumption (kW) | Sound Levels (dBA) | Casting colour | Fan-only |
|--------------|------------|------------------------------|--------------------|----------------|----------|
| STERLING 3EL | 13A | 1kW/2kW/3kW | 39 | white | • |

Sound levels measured at 1.5m with the product installed at 2.2m high

Wireless controller



Sureline®

Provides gentle, discreet and efficient low-level warmth and is the ideal heating solution for areas where wall space is limited - rooms such as loft conversions and new-builds

Applications

Education
Healthcare
Leisure and sport
Office
Hospitality
Retail
Showroom
Residential



Simple to install along the skirting in any room, Sureline is an efficient natural convector that provides discreet heating

Supplied as standard in white but casing can be supplied in any colour



Finish

Outer casing 0.7mm zinc coated steel.

Polyester powder-coated RAL 9010.

Each length includes casing, element, backplate and joining strip.

Casing only includes casing, backplate and joining strip.

Installation

Minimum clearance above floor 50mm.

Flow and return connections 22mm copper.

Designed for system pressures up to 10 bar.

Suitable for two-pipe central heating systems only.

Attachments

Casing only (1000mm)

LH valve box/end cap kit

RH valve box/end cap kit

Centre valve cover

90° internal cover

90° external cover

135° internal cover

135° external cover

Finger guard 500 (500mm)

Finger guard 1000 (1000mm)

Element (1000mm)

Customised requirements

We are able to offer casings painted in any colour.

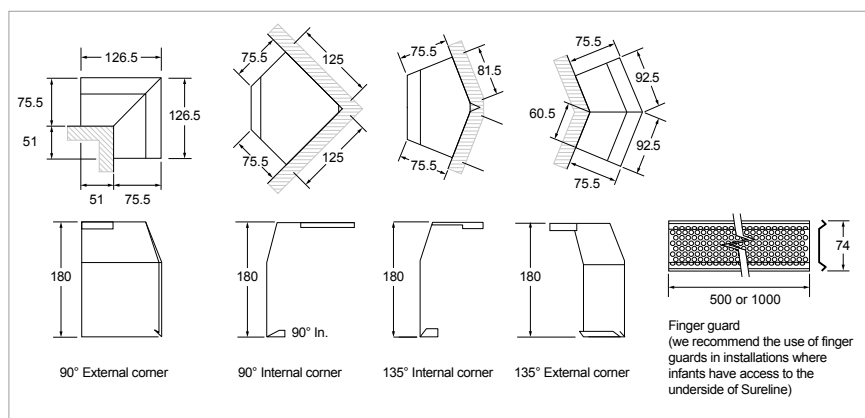
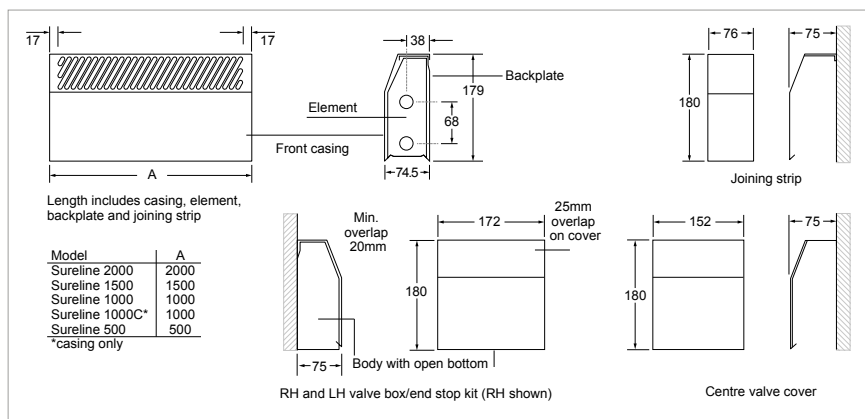
Price and availability will be confirmed at the time of order.

Specification

To specify state:

Skirting level perimeter hydronic heat emitter in white.

As Smith's Sureline 500, 1000, 1500, 2000.



Heat Output For other heat output data please download the data sheet from our website

| | Flow Rate L/h (G/h) | Btu/h/m @ average water temperature | | | | | | W/m @ average water temperature | | | | | |
|----------------------------|------------------------|-------------------------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|
| | | 50°C | 55°C | 60°C | 65°C | 70°C | 75°C | 50°C | 55°C | 60°C | 65°C | 70°C | 75°C |
| Two supplies - Parallel | 920 (200) | 1310 | 1570 | 1820 | 2070 | 2300 | 2560 | 380 | 460 | 530 | 610 | 670 | 750 |
| Bottom supply - Top return | 920 (200) | 1030 | 1250 | 1460 | 1710 | 1920 | 2140 | 300 | 370 | 430 | 500 | 560 | 630 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|---------------|----------------|---------------|
| SURELINE 500 | 5 | HPSL30001 |
| SURELINE 1000 | 7 | HPSL30002 |
| SURELINE 1500 | 10 | HPSL30003 |
| SURELINE 2000 | 14 | HPSL30004 |

| Attachments | Product Codes |
|---|---------------|
| SURELINE CASING 1000MM | HASL30101 |
| SURELINE LEFT HAND VALVE COVER/END CAP | HASL30102 |
| SURELINE RIGHT HAND VALVE COVER/END CAP | HASL30103 |
| SURELINE CENTRE VALVE COVER | HASL30104 |
| SURELINE 90° INTERNAL CORNER | HASL30105 |
| SURELINE 90° EXTERNAL CORNER | HASL30106 |
| SURELINE 135° INTERNAL CORNER | HASL30107 |
| SURELINE 135° EXTERNAL CORNER | HASL30108 |
| SURELINE FINGER GUARD 500MM | HASL30109 |
| SURELINE FINGER GUARD 1000MM | HASL30110 |
| SURELINE ELEMENT 1000MM | HASL30111 |

Space Saver

A highly energy efficient fan convector that fits neatly into the plinth of a kitchen unit and eliminates the need for conventional radiators

Applications

Kitchen
Utility
Bathroom



Makes room for extra kitchen storage, work space, or additional appliances

More affordable than underfloor heating

Get the flooring you want

Discreet heating

Easy to use

Suitable for plinth heights from 80mm upwards

Contemporary design with a wide choice of grille colours to suit interior decoration

Two heat outputs and fan only option for instant heat and cool air circulation

Low voltage bathroom model available for high humidity areas

Free five years parts and labour warranty

To see which Space Saver plinth heater is most suitable to heat your kitchen, use the Heat Loss Calculator on our website:
<https://smithsep.co.uk/heat-loss-calculator/>

Easy to use

Smith's Space Saver comes on and off with your central heating, just like the rest of your radiators do. It uses the same water that your radiator uses, just a lot less and it has a tiny energy efficient electric fan that pushes out the heat into the room.

How many do I need?

As a rule of thumb, for every radiator you remove, install one Space Saver. If you need further help, go to our website to read our installation guides, email us or give us call.

Is it quiet?

The sound is very similar to that of your fridge and we think you won't notice it as you go about your daily life in your kitchen, boiling kettles, running taps, chatting with friends.

Is it expensive to run?

Not at all. Because the heat comes from your boiler (hydronic version) the only extra is the running cost of the fan - it costs 1p a day to use a Space Saver in your kitchen.

Which Space Saver do I need?

To see which Space Saver plinth heater is most suitable to heat your kitchen, use the Heat Loss Calculator on our website:
<https://smithsep.co.uk/heat-loss-calculator/>

Can I find out more?

Just visit our website for more information and a list of stockists. Any questions, please contact us directly.

How a Smith's Space Saver works

Hydronic:

Hot water from your central heating system passes through a heat exchanger transferring its heat to the aluminium fins. Cooler air is drawn in by the fan and heated as it passes through the heat exchanger before being expelled gently back into the room. This not only gives a more even temperature spread, but will heat up a room quicker than a traditional panel radiator.

Hydronic Low Voltage:

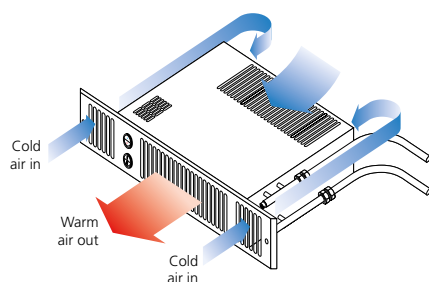
Functions in exactly the same way as a hydronic models but uses a transformer to ensure the product is safe to operate with wet hands.

Hydronic/Electric:

Like a hydronic model but also includes an electric element so you can still use the product when the central heating system is switched off.

Electric:

Plugs into a standard electrical socket when there isn't access to the central heating system. Electric heaters cost 15p per kWh to run.



Alternative grille finishes

Most Space Saver models are supplied with a detachable Stainless Steel fascia grille. Alternative colours are shown below.



Brown



Black



Chrome



White

Grilles shown are for colour reference only and switch configuration varies by product

Outputs For other heat output data please download the data sheet from our website

| Model | Heat Output | | Sound levels | | Fascia grille finish | Fan-only | Minimum plinth height (mm) |
|-----------------------------|-------------|------------|--------------|-------------|----------------------|----------|----------------------------|
| | Normal (kW) | Boost (kW) | Normal (dBA) | Boost (dBA) | | | |
| Hydronic | | | | | | | |
| SS80 | 0.8 | 1.1 | 32 | 40 | Stainless Steel | • | 80 |
| SS3 | 1.1 | 1.4 | 26 | 39 | Stainless Steel | • | 100 |
| SS5 | 1.3 | 1.7 | 27 | 43 | Stainless Steel | • | 100 |
| SS7 | 1.6 | 1.9 | 30 | 44 | Stainless Steel | • | 100 |
| SS9 | 2.2 | 2.4 | 41 | 46 | Stainless Steel | • | 120 |
| Hydronic Low Voltage | | | | | | | |
| SS5 12V | 1.3 | 1.7 | 31 | 39 | Stainless Steel | • | 100 |
| Hydronic/Electric (Dual) | | | | | | | |
| SS5 Dual (in hydronic mode) | 1.3 | 1.7 | 27 | 43 | Stainless Steel | • | 100 |
| SS5 Dual (in electric mode) | 1.0 | - | 27 | 43 | | | 100 |
| Electric | | | | | | | |
| SS3E | 1kW/2kW/3kW | | 42 | | Brushed Steel | • | 100 |
| SS2E | 1kW/2kW | | 42 | | Brushed Steel | • | 100 |
| SS80E | 0.6kW/1.2kW | | 42 | | Stainless Steel | • | 80 |

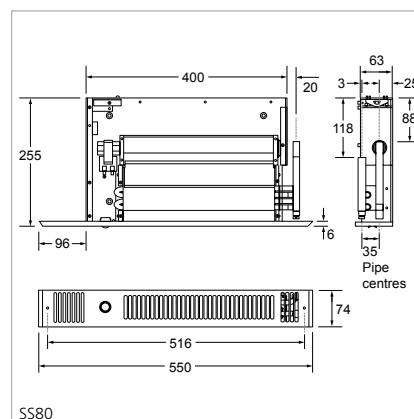
Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate.

Fan-only option operational only when central heating system is switched off.

Dual models include an electric element which in electric heating mode will emit 1kW of heat. Sound levels measured at 1.5m.

Space Saver - Hydronic

A highly energy efficient fan convector that fits neatly into the plinth of a kitchen unit and eliminates the need for conventional radiators



Makes room for extra kitchen storage, work space, or additional appliances

More affordable than underfloor heating

Get the flooring you want

Discreet heating

Easy to use

Suitable for plinth heights from 80mm upwards

Contemporary design with a wide choice of grille colours to suit interior decoration

Two heat outputs and fan only option for instant heat and cool air circulation

Low voltage bathroom model available for high humidity areas

Free five years parts and labour warranty

Motor

AC.

Finish

Fascia grille: Stainless Steel.

See under attachments for other fascia grille colours.

Installation

Correct fascia grille opening must be cut to allow sufficient air intake.

20mm clearance above unit required.

Model secured to plinth by two screws through fascia grille.

Unit must be earthed (not 12 volt SELV).

Suitable for two-pipe central heating systems only.

SS80 supplied with detachable cable.

SS80 models have easy fit thermostat facility.

Commissioning

Check water temperature is hot enough to activate low temperature cut-out thermostat. (LTC). Vent screw accessible through fascia grille.

Controls

Single rocker switch - low/off/normal.

SS80: Low temperature cut-out thermostat set to energise fan at approximately 35°C.

SS5/Dual: Wireless temperature control

featuring comfort, setback and run back

timer (battery operated) supplied, three

rocker switches, heating/off/fan-only,

hydronic/electric, normal/boost.

Low temperature cut-out thermostat set to

energise fan at approximately 35°C.

All other models: two rocker switches

-normal/off/boost, heating/fan-only.

Low temperature cut-out thermostat set to

energise fan at approximately 35°C.

Accessories

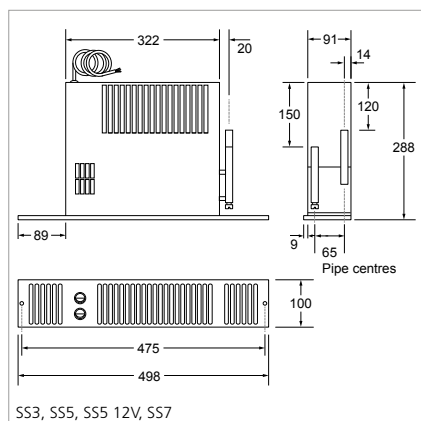
Wall-mounted room thermostat.

Wall mounted control switch (white) to suit

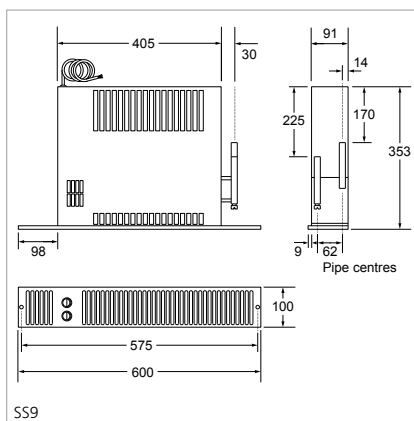
SS3, SS5, SS5/12V, SS7, SS9.

Grilles: brown (RAL 8016), black (RAL 9005),

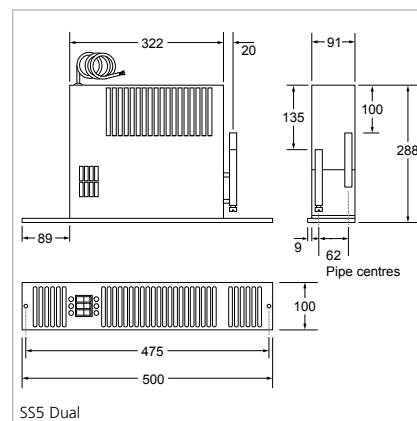
white (RAL 9010) and chrome.



SS3, SS5, SS5 12V, SS7



SS9



SS5 Dual

Outputs For other outputs, please see page 59

| Model | Flow & return connections | Mains cable | Transformer | Flexible hoses | Fused spur | Output | | Water Capacity (Litres) |
|----------|---------------------------|-------------|-------------|----------------|------------|-----------------------|-----------------------|-------------------------|
| | | | | | | Normal (W) | Boost (W) | |
| SS3 | 15mm | 2m | n/a | n/a | 3A | 18 | 25 | 0.36 |
| SS5 | 15mm | 2m | n/a | • | 3A | 18 | 25 | 0.36 |
| SS7 | 15mm | 2m | n/a | • | 3A | 21 | 30 | 0.38 |
| SS9 | 15mm | 2m | n/a | • | 3A | 24 | 35 | 0.53 |
| SS80 | 15mm | 2m | n/a | • | 3A | 5 | 10 | 0.35 |
| SS5 12V | 15mm | 0.45m | • | • | 3A | 21 | 30 | 0.36 |
| SS5 Dual | 15mm | 2m | n/a | • | 3A | 18 (electric mode) | 25 (electric mode) | 0.36 |

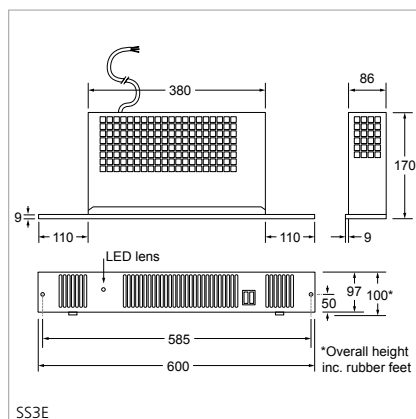
Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|---|----------------|---------------|
| Hydronic - with stainless steel grilles | | |
| SPACE SAVER SS3 | 5 | HPSS10001 |
| SPACE SAVER SS5 | 6 | HPSS10002 |
| SPACE SAVER SS7 | 6 | HPSS10003 |
| SPACE SAVER SS9 | 7 | HPSS10004 |
| SPACE SAVER SS80 | 5 | HPSS10009 |
| SPACE SAVER SS5/12V | 6 | HPSS10005 |
| Hydronic/Electric - with stainless steel grilles | | |
| SPACE SAVER SS5/Dual | 6 | HPSS10076 |

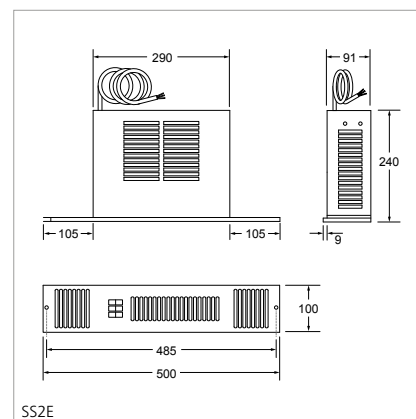
| Accessories | Colour | Product Codes |
|--|--------|---------------|
| SPACE SAVER SS3 / SS5 / SS5 12V / SS7 GRILLE | BROWN | HASS10101 |
| SPACE SAVER SS3 / SS5 / SS5 12V / SS7 GRILLE | BLACK | HASS10102 |
| SPACE SAVER SS3 / SS5 / SS5 12V / SS7 GRILLE | WHITE | HASS10103 |
| SPACE SAVER SS3 / SS5 / SS5 12V / SS7 GRILLE | CHROME | HASS10104 |
| SPACE SAVER SS9 GRILLE | BROWN | HASS10111 |
| SPACE SAVER SS9 GRILLE | BLACK | HASS10112 |
| SPACE SAVER SS9 GRILLE | WHITE | HASS10113 |
| SPACE SAVER SS9 GRILLE | CHROME | HASS10114 |
| SPACE SAVER SS5 DUAL GRILLE | BROWN | HASS10121 |
| SPACE SAVER SS5 DUAL GRILLE | BLACK | HASS10122 |
| SPACE SAVER SS5 DUAL GRILLE | WHITE | HASS10123 |
| SPACE SAVER SS5 DUAL GRILLE | CHROME | HASS10124 |
| SPACE SAVER SS80 GRILLE | BROWN | HASS10141 |
| SPACE SAVER SS80 GRILLE | BLACK | HASS10142 |
| SPACE SAVER SS80 GRILLE | WHITE | HASS10143 |
| SPACE SAVER SS80 GRILLE | CHROME | HASS10165 |
| ROOM THERMOSTAT HARD WIRED | | HAGA95001 |
| SPACE SAVER WALL MOUNTED CONTROL SWITCH SS3, SS5, SS7, SS9 | | HASS10162 |
| FLEXIBLE HOSES 15MM PAIR | | HAGA95002 |

Space Saver - Electric

A highly energy efficient fan convector that fits neatly into the plinth of a kitchen unit and eliminates the need for conventional radiators



SS3E



SS2E

Makes room for extra kitchen storage, work space, or additional appliances

More affordable than underfloor heating

Get the flooring you want

Discreet heating

Easy to use

Suitable for plinth heights from 80mm upwards

Contemporary design with a wide choice of grille colours to suit interior decoration

Two heat outputs and fan only option for instant heat and cool air circulation

Free five years parts and labour warranty

Motor

AC.

Finish

Fascia grille: Stainless Steel or White RAL 9010 (SS2E, SS3E).

See under attachments for other fascia grille colours.

Installation

Correct fascia grille opening must be cut to allow sufficient air intake.

SS2E and SS3E - 20mm clearance above unit required.

SS80E - 10mm clearance above unit required.

Model secured to plinth by two screws through fascia grille.

Unit must be earthed.

Controls

Wireless temperature control featuring comfort, set back and run back timer (battery operated) supplied.

Overheat protection: thermal cut-out.

Manual reset procedure: switch power off at unit or mains, wait 5 minutes, switch power on.

SS2E: three rocker switches On/off, 1kW, 2kW.

SS3E: two rockers switches 1kW, 2kW, 3kW.

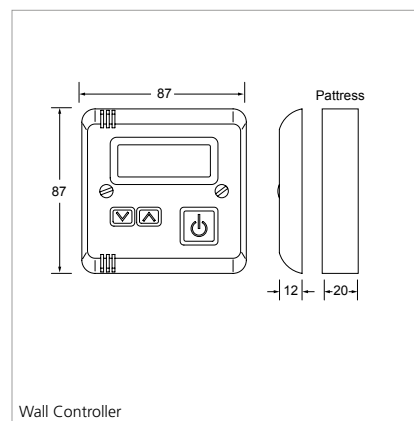
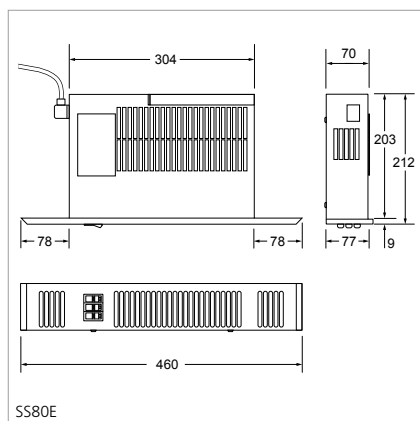
SS80E: three rocker switches On/off, 0.6kW, 1.2kW.

Accessories

Grilles SS2E: brown (RAL 8016), black (RAL 9005) white (RAL 9010), chrome.

Alternative grilles for SS2E fit over the supplied grille.

Grilles SS80E: brown (RAL 8016), black (RAL 9005), white (RAL 9010).



Outputs For other outputs, please see page 59

| Model | Mains cable | Fused spur | Output (kW) |
|-------|-------------|------------|-------------|
| SS2E | 2m | 10A | 1kW/2kW |
| SS3E | 2m | 13A | 1kW/2kW/3kW |
| SS80E | 2m | 10A | 0.6kW/1.2kW |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|--|----------------|---------------|
| Electric | | |
| SPACE SAVER SS2E (STAINLESS STEEL GRILLE) | 4 | HPSS10070 |
| SPACE SAVER SS2E (WHITE GRILLE) | 4 | HPSS10079 |
| SPACE SAVER SS3E (STAINLESS STEEL GRILLE) | 5 | HPSS10075 |
| SPACE SAVER SS3E (WHITE GRILLE) | 5 | HPSS10084 |
| SPACE SAVER SS80E (STAINLESS STEEL GRILLE) | 4 | HPSS10073 |
| Attachments | | |
| | Colour | |
| SPACE SAVER SS2E GRILLE | BROWN | HASS10131 |
| SPACE SAVER SS2E GRILLE | BLACK | HASS10132 |
| SPACE SAVER SS2E GRILLE | WHITE | HASS10133 |
| SPACE SAVER SS2E GRILLE | CHROME | HASS10134 |
| SPACE SAVER SS80E GRILLE | BROWN | HASS10151 |
| SPACE SAVER SS80E GRILLE | BLACK | HASS10152 |
| SPACE SAVER SS80E GRILLE | WHITE | HASS10153 |
| SPACE SAVER SS80E GRILLE | CHROME | HASS10164 |
| Accessories | | |
| SPACE SAVER WALL MOUNTED CONTROL SWITCH SS2E | | HASS10161 |
| FLEXIBLE HOSES 15MM PAIR | | HAGA95002 |

Ecovector® High

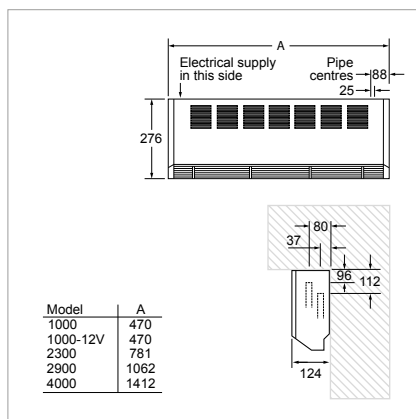
Applications
Bathroom
Conservatory

The Ecovector Hydronic Low Voltage fan convectors provide effective and dependable heating for both small and large commercial areas, fitted unobtrusively above head height



They work particularly well in shops and libraries, where lower wall space is limited

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps



Motor

AC only.

Finish

Front casing: zinc-coated steel.
Polyester powder-coated RAL 9010.
Side panels: polymer eggshell white.

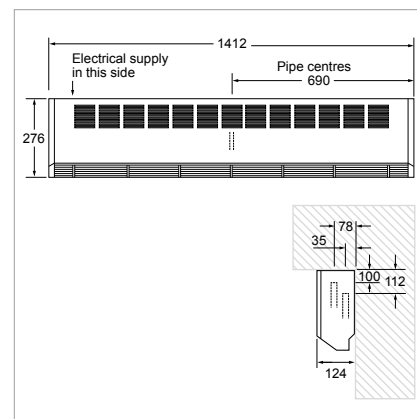
Installation

Maximum installation height 2.1m (6'11") to underside.

No top or side clearance required.

Unit must be earthed (except model 1000-12V).

Suitable for two-pipe central heating systems.
Patress box not supplied for transformer (model 1000-12V).



Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.

The inclusion of an automatic air vent at the highest point is recommended to avoid possible air locks.

Controls

Two rocker switches - normal/off/boost, heating/fan-only.

Low temperature cut out thermostat, set to energise fan at approximately 35°C.

Accessories

See matrix on page 74.

Heat Output For other heat output data please visit our website

| Model | Heat Output at 75° | | Heat Output at 45° | |
|--------------------|--------------------|------------|--------------------|------------|
| | Normal (kW) | Boost (kW) | Normal (kW) | Boost (kW) |
| ECOVECTOR 1000 | 1.0 | 1.2 | 0.5 | 0.6 |
| ECOVECTOR 2300 | 2.1 | 2.8 | 1.1 | 1.4 |
| ECOVECTOR 2900 | 2.7 | 4.0 | 1.4 | 2.0 |
| ECOVECTOR 4000 | 3.7 | 4.8 | 1.8 | 2.5 |
| ECOVECTOR 1000-12V | 1.0 | 1.2 | 0.5 | 0.5 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|--------------------------------------|----------------|---------------|
| ECOVECTOR HL 1000 AC | 7 | HPEV50011 |
| ECOVECTOR HL 2300 AC | 11 | HPEV50012 |
| ECOVECTOR HL 2900 AC | 15 | HPEV50013 |
| ECOVECTOR HL 4000 AC | 18 | HPEV50014 |
| ECOVECTOR HL 1000-12V AC | 8 | HPEV50015 |
| Accessories | | |
| ROOM THERMOSTAT HARD WIRED | | HAGA95001 |
| ROOM THERMOSTAT HARD WIRED SIEMENS | | HACA33104 |
| ROOM THERMOSTAT RF SIEMENS | | HACA33074 |
| ROOM THERMOSTAT TAMPER PROOF SIEMENS | | HAGA95004 |

| Model | Flow & return connections | Mains cable | Trans-former | Fused spur | Total Power Consumption | | Water Capacity (Litres) | Sound Levels | | Casting colour | Fan-only |
|--------------------|---------------------------|-------------|--------------|------------|-------------------------|---------------|-------------------------|--------------|-------------|----------------|----------|
| | | | | | Normal (Watts) | Boost (Watts) | | Normal (dBA) | Boost (dBA) | | |
| ECOVECTOR 1000 | 15mm | 1.5m | n/a | 3A | 20 | 25 | 0.28 | 32 | 40 | white | • |
| ECOVECTOR 2300 | 15mm | 1.5m | n/a | 3A | 20 | 32 | 0.32 | 34 | 50 | white | • |
| ECOVECTOR 2900 | 15mm | 1.5m | n/a | 3A | 33 | 50 | 0.52 | 37 | 51 | white | • |
| ECOVECTOR 4000 | 22mm | 1.5m | n/a | 3A | 40 | 60 | 1.04 | 39 | 52 | white | • |
| ECOVECTOR 1000-12V | 15mm | 0.45m | • | 3A | 20 | 25 | 0.28 | 32 | 39 | white | • |

Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate.

Fan-only option operational only when central heating system is switched off.

Sound levels measured at 1.5m.

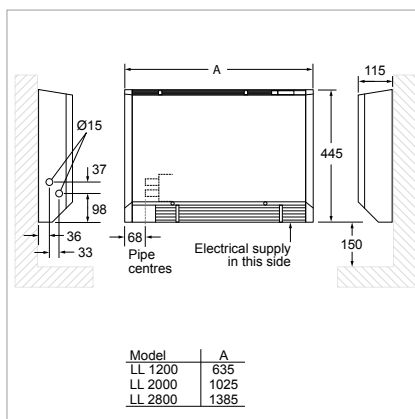
Ecovector® Low

Ecovector Low Level fan convectors provide warmth from the floor upwards and are more energy efficient and effective than radiators

Applications

Bathroom
Bedroom
Kitchen
Utility
Conservatory

RESIDENTIAL/DOMESTIC



The Ecovector can heat up a room more quickly than radiators, thereby reducing the amount of time your boiler or heat pump is running - making it extremely efficient and cost effective

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Ideal for new and existing developments, due to ease of installation, the Ecovector is available in a range of models to suit varying room sizes and heat output requirements

Motor

AC only.

Finish

Front casing: zinc-coated steel.
Polyester powder-coated RAL 9010.
Side panels: polymer eggshell white.

Installation

Mounting bracket supplied.
Unit must be earthed.
Suitable for two-pipe central heating systems.
Minimum height above floor level 150mm.
Maximum height above floor level 500mm.

Commissioning

Check water is hot enough to activate the selectable low temperature cut-out thermostat.

Control

Rocker switch - normal/off/boost.
Built-in room thermostat.
Low temperature cut-out thermostat set to energise fan at approximately 35°C.

Heat Output For other heat output data please visit our website

| Model | Heat Output at 75° | | Heat Output at 45° | |
|-------------------|--------------------|------------|--------------------|------------|
| | Normal (kW) | Boost (kW) | Normal (kW) | Boost (kW) |
| ECOVECTOR LL 1200 | 1.1 | 1.4 | 0.5 | 0.6 |
| ECOVECTOR LL 2000 | 1.9 | 2.4 | 0.9 | 1.1 |
| ECOVECTOR LL 2800 | 2.6 | 3.2 | 1.2 | 1.5 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|----------------------|----------------|---------------|
| ECOVECTOR LL 1200 AC | 12 | HPEV50001 |
| ECOVECTOR LL 2000 AC | 17 | HPEV50002 |
| ECOVECTOR LL 2800 AC | 24 | HPEV50003 |

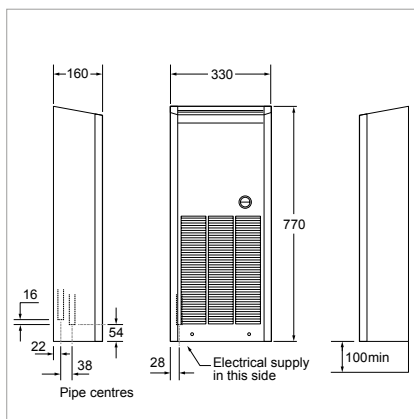
| Model | Flow & return connections | Mains cable | Trans-former | Fused spur | Total Power Consumption | | Water Capacity (Litres) | Sound Levels | | Casting colour | Fan-only |
|-------------------|---------------------------|-------------|--------------|------------|-------------------------|---------------|-------------------------|--------------|-------------|----------------|----------|
| | | | | | Normal (Watts) | Boost (Watts) | | Normal (dBA) | Boost (dBA) | | |
| ECOVECTOR LL 1200 | 15mm | 1.5m | n/a | 3A | 17 | 21 | 0.29 | 32 | 38 | white | n/a |
| ECOVECTOR LL 2000 | 15mm | 1.5m | n/a | 3A | 26 | 55 | 0.58 | 35 | 40 | white | n/a |
| ECOVECTOR LL 2800 | 15mm | 1.5m | n/a | 3A | 43 | 76 | 0.83 | 37 | 42 | white | n/a |

Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate.
Sound levels measured at 1.5m.

Ecovector® Vertical

Applications
Hall/landing
Study

Ideal for hallways, corridors, alcoves and other places where space is limited. Ecovector can heat up a room more quickly than radiators, thereby reducing the amount of time your boiler or heat pump is running - making it extremely efficient and cost effective



Ideal for new and existing building developments

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Motor

AC only.

Finish

Front casing and side panels: zinc-coated steel.
Polyester powder-coated RAL 9010.

Installation

Mounting bracket supplied.
Unit must be earthed.
Suitable for two-pipe central heating systems.
Minimum height above floor level 150mm.
Maximum height above floor level 500mm.

Commissioning

Check water is hot enough to activate the selectable low temperature cut-out thermostat.

Controls

Rocker switch - normal/off/boost.
Low temperature cut-out thermostat set to energise fan at approximately 35°C.
Wireless wall mounted thermostat included with this product.

Heat Output For other heat output data please visit our website

| Model | Heat Output at 75° | | Heat Output at 45° | |
|-------------------|--------------------|------------|--------------------|------------|
| | Normal (kW) | Boost (kW) | Normal (kW) | Boost (kW) |
| Ecovector VE 2500 | 2.3 | 2.4 | 1.1 | 1.1 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|----------------------|----------------|---------------|
| ECOVECTOR VE 2500 AC | 15 | HPEV50021 |

| Model | Flow & return connections | Mains cable | Trans-former | Fused spur | Total Power Consumption | | Water Capacity (Litres) | Sound Levels | | Casting colour | Fan-only |
|-------------------|---------------------------|-------------|--------------|------------|-------------------------|---------------|-------------------------|--------------|-------------|----------------|----------|
| | | | | | Normal (Watts) | Boost (Watts) | | Normal (dBA) | Boost (dBA) | | |
| Ecovector VE 2500 | 15mm | 1.5m | n/a | 3A | 28 | 36 | 0.75 | 36 | 39 | white | n/a |

Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate.

Fan-only option operational only when central heating system is switched off.

Sound levels measured at 1.5m.

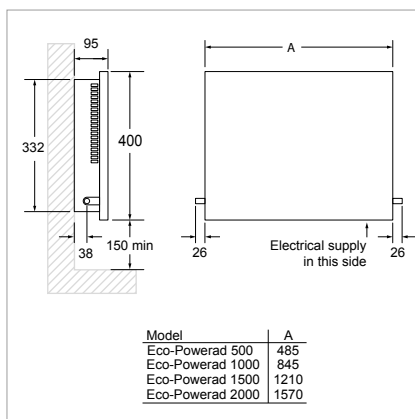
Eco-Powerad®

The Eco-Powerad is the fan convector of the future - energy efficient, responsive and suitable for installation within most wet central heating systems, driven by either boilers or low temperature renewable technology

Applications

Bathroom
Bedroom
Study
Living/dining room
Kitchen
Utility
Conservatory

RESIDENTIAL/DOMESTIC



Compact, with smooth lines to achieve visual simplicity, the Eco-Powerad also features low surface temperature casing for complete safety and possesses a very low operating sound - between 28 and 32 decibels

Compatible with most types of wet central heating systems, functioning equally efficiently with conventional boilers, biomass technology or ground or air source heat pumps

Supplied as standard in white but casing can be supplied in any colour

Motor

AC only.

Finish

Front casing: zinc coated steel.
Polyester powder-coated RAL 9010.

Installation

Mounting bracket supplied.
Unit must be earthed.
Suitable for two-pipe central heating systems.
Minimum height above floor level 150mm.
Maximum height above floor level 500mm.

Commissioning

Check water is hot enough to activate the low temperature cut-out thermostat.
Ensure system is balanced for even heat distribution.

Control

Low temperature cut-out thermostat, set to energise fan at approximately 35°C.
Suitable for thermostatic radiator valves (TRV) - not supplied.
Rocker switch - normal/low.

Heat Output For other heat output data please visit our website

| Model | Heat Output at 75° (kW) | Heat Output at 45° (kW) |
|------------------|-------------------------|-------------------------|
| ECO-POWERAD 500 | 0.8 | 0.4 |
| ECO-POWERAD 1000 | 2.1 | 0.8 |
| ECO-POWERAD 1500 | 2.4 | 1.2 |
| ECO-POWERAD 2000 | 3.5 | 1.7 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|------------------------|----------------|---------------|
| ECO-POWERAD LL 500 AC | 6 | HPEP52001 |
| ECO-POWERAD LL 1000 AC | 10 | HPEP52002 |
| ECO-POWERAD LL 1500 AC | 14 | HPEP52003 |
| ECO-POWERAD LL 2000 AC | 18 | HPEP52004 |

| Model | Flow & return connections | Mains cable | Transformer | Fused spur | Total Power Consumption (Watts) | Water Capacity (Litres) | Sound Levels (dBA) | Casting colour |
|------------------|---------------------------|-------------|-------------|------------|---------------------------------|-------------------------|--------------------|----------------|
| ECO-POWERAD 500 | 15mm | 2m | n/a | 3A | 15 | 0.17 | 28 | white |
| ECO-POWERAD 1000 | 15mm | 2m | n/a | 3A | 18 | 0.28 | 30 | white |
| ECO-POWERAD 1500 | 15mm | 2m | n/a | 3A | 33 | 0.44 | 31 | white |
| ECO-POWERAD 2000 | 15mm | 2m | n/a | 3A | 36 | 0.55 | 32 | white |

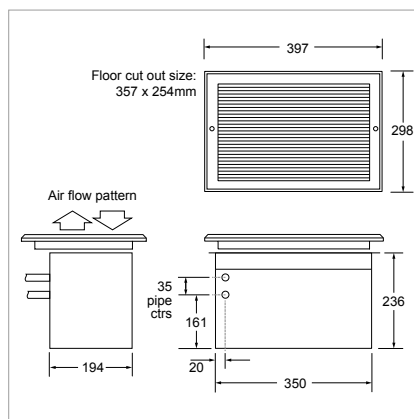
Outputs based on exiting water temperature. Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate.
At inlet water temperatures of 75°C and below, all Eco-Powerad models are classified as LST (low surface temperature) appliances.
Sound levels measured at 1.5m.

Spacemaker

A fan convector that installs flush with the floor, providing efficient and effective heat at low level

Applications

Hall
Kitchen
Utility
Conservatory



Perfect for places in the home where space is particularly limited

Ideal for spaces such as entrance halls, lobbies, circulation areas and applications where wall space is limited

Motor

AC only.

Finish

Anodised aluminium grille with removable centre section.

Installation

Installs between floor joists or purpose made trenches in concrete floors.

Air intake and discharge through grille.

Unit must be earthed.

Suitable for two-pipe central heating systems only.

Commissioning

Check water temperature is hot enough to activate low temperature cut-out (LTC). Vent screw accessible through grille.

Controls

Rocker switch - normal/off/boost, below grille
Low temperature cut-out thermostat set to energise fan at approx. 35°C.

Heat Output For other heat output data please visit our website

| Model | Heat Output at 75° | | Heat Output at 45° | |
|-----------------|--------------------|------------|--------------------|------------|
| | Normal (kW) | Boost (kW) | Normal (kW) | Boost (kW) |
| SPACEMAKER SST8 | 1.5 | 2.1 | 0.7 | 1.0 |

Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|--------------------|----------------|---------------|
| SPACEMAKER SST8 AC | 7 | HPSM12001 |

| Model | Flow & return connections | Mains cable | Trans-former | Fused spur | Total Power Consumption | | Water Capacity (Litres) | Sound Levels | | Casting colour | Fan-only |
|-----------------|---------------------------|-------------|--------------|------------|-------------------------|---------------|-------------------------|--------------|-------------|--------------------|----------|
| | | | | | Normal (Watts) | Boost (Watts) | | Normal (dBA) | Boost (dBA) | | |
| SPACEMAKER SST8 | 15mm | 1.5m | n/a | 3A | 20 | 30 | 0.27 | 32 | 39 | Anodised aluminium | n/a |

Heat outputs tested in accordance with BS4856 using entering water temperature and 340 l/h (75gph) flow rate. Sound levels measured at 1.5m.



Sureline®

Applications
Study
Conservatory

Provides gentle, discreet and efficient low-level warmth and is the ideal heating solution for areas where wall space is limited - rooms such as loft conversions and new-builds



Simple to install along the skirting in any room, Sureline is an efficient natural convector that provides discreet heating

Supplied as standard in white but casing can be supplied in any colour



Finish

Outer casing 0.7mm zinc coated steel.

Polyester powder-coated RAL 9010.

Each length includes casing, element, backplate and joining strip.

Casing only includes casing, backplate and joining strip.

Installation

Minimum clearance above floor 50mm.

Flow and return connections 22mm copper.

Designed for system pressures up to 10 bar.

Suitable for two-pipe central heating systems only.

Attachments

Casing only (1000mm)

LH valve box/end cap kit

RH valve box/end cap kit

Centre valve cover

90° internal cover

90° external cover

135° internal cover

135° external cover

Finger guard 500 (500mm)

Finger guard 1000 (1000mm)

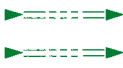

Element (1000mm)

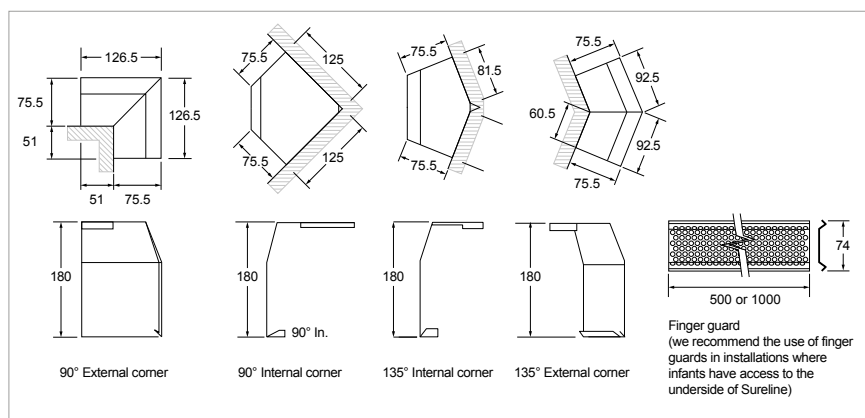
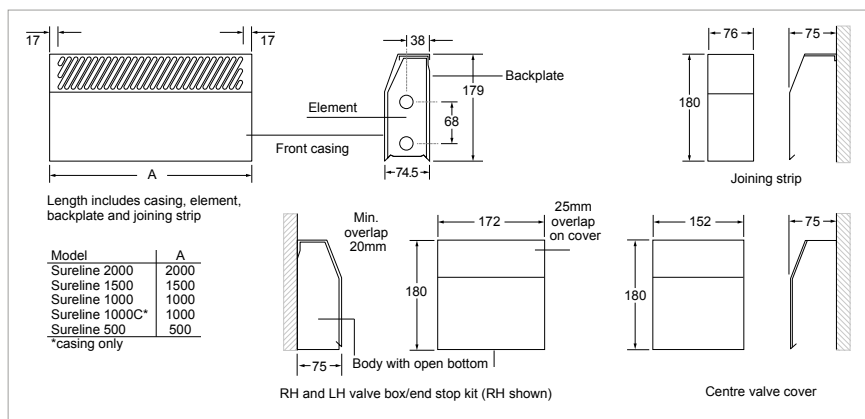
Customised requirements

We are able to offer casings painted in any colour.

Price and availability will be confirmed at the time of order.

Heat Output For other heat output data please download the data sheet from our website

| | Flow Rate L/h (G/h) | Btu/h/m @ average water temperature | | | | | | W/m @ average water temperature | | | | | |
|--|------------------------|-------------------------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|
| | | 50°C | 55°C | 60°C | 65°C | 70°C | 75°C | 50°C | 55°C | 60°C | 65°C | 70°C | 75°C |
|  Two supplies - Parallel | 920 (200) | 1310 | 1570 | 1820 | 2070 | 2300 | 2560 | 380 | 460 | 530 | 610 | 670 | 750 |
|  Bottom supply - Top return | 920 (200) | 1030 | 1250 | 1460 | 1710 | 1920 | 2140 | 300 | 370 | 430 | 500 | 560 | 630 |



Ordering guide

| Model | Packed Wt (kg) | Product Codes |
|---------------|----------------|---------------|
| SURELINE 500 | 5 | HPSL30001 |
| SURELINE 1000 | 7 | HPSL30002 |
| SURELINE 1500 | 10 | HPSL30003 |
| SURELINE 2000 | 14 | HPSL30004 |

| Attachments | Product Codes |
|---|---------------|
| SURELINE CASING 1000MM | HASL30101 |
| SURELINE LEFT HAND VALVE COVER/END CAP | HASL30102 |
| SURELINE RIGHT HAND VALVE COVER/END CAP | HASL30103 |
| SURELINE CENTRE VALVE COVER | HASL30104 |
| SURELINE 90° INTERNAL CORNER | HASL30105 |
| SURELINE 90° EXTERNAL CORNER | HASL30106 |
| SURELINE 135° INTERNAL CORNER | HASL30107 |
| SURELINE 135° EXTERNAL CORNER | HASL30108 |
| SURELINE FINGER GUARD 500MM | HASL30109 |
| SURELINE FINGER GUARD 1000MM | HASL30110 |
| SURELINE ELEMENT 1000MM | HASL30111 |



Accessories

Glossary

Remote (Wired) Room Thermostat

This accessory measures room temperature and switches off the heater when the set temperature is reached. This thermostat is hard wired and connects directly into either the heater's terminal block or power supply.

Remote (Wired) Room Thermostat Siemens

This accessory measures room temperature and switches off the heater when the set temperature is reached. This thermostat is hard wired and connects directly into either the heater's terminal block or power supply.

Remote (Wireless) Room Thermostat Siemens RF

This thermostat has two parts, a base station and a wall mounted user control. The base station is usually factory fitted into a unit, with the user control packaged separately, but within the products transportation box. The controller is operated by battery and should be positioned appropriately by the installer.

Remote (Wired) Room Thermostat Siemens Tamper Proof

This accessory measures room temperature and switches off the heater when the set temperature is reached. This thermostat is hard wired and connects directly into either the heater's terminal block or power supply. The thermostat has a secure cover that deters unwanted adjustment of the room temperature set point.

Remote (Wired) Room Thermostat Siemens Speed and Temperature Control (EC only)

This accessory measures room temperature and switches off the heater when the set temperature is reached. Additionally, it has the ability to control the fan speed on our EC products. This thermostat is hard wired and connects directly into either the heater's terminal block. Normally, the thermostat would be ordered as part of a package that includes an EC Caspian heater and is prepared for use in our factory.

Wall mounted control switch

Allows the product to be controlled from a switch mounted on the wall rather than the product. Linking to the heater is made by replacing the existing switch connections with the connections on the control switch.

Flexible hoses

Flexible connections are a convenient way of connecting a heater into your system. They will provide an easy to achieve connection from your first-fix pipe work. In addition they will provide for a level of expansion and contraction in rigid pipe work and mitigating possible sound and vibration transmission.

Adjustable low temperature cut-out (LTC)

This cut out device allows the user to set the water temperature (between 30°C and 90°C) at which the product will start to emit heat. It is more accurate than the standard fitted LTC (set at 35°C) and enables more flexible use with both low system temperature heat pumps and higher system temperature boilers including biomass that can produce 80°C flow temperatures.

Plinth

The optional plinth creates an attractive floor standing unit and also conceals the pipe work from view. This can also be invaluable where it is necessary to prevent contact with heating pipes by vulnerable groups. A plinth can also add an additional level of protection from the ingress of dust on hard flooring surfaces.

Caspian EC linking kit (EC only)

The linking kit allows for the creation of master and slave units (up to four units), by allowing a 0-10 V signal to be transmitted through its cabling. This allows one fan speed controller, or room thermostat to control multiple units. It can also be used to control multiple units by means of a BMS.

External control harness (EC only)

This accessory is generally used to permit a remote manual speed adjustment on an EC variant Caspian. It is possible to provide speed control to a master unit and to then utilise the EC linking kit to link to any slave units.

Proportional Heat Output Controller (PHOC)

This accessory controls the fan speed and hence the heat output of the unit. These controls are available in integral (low level units) and in a remote format (high level units). PHOC's are available in two standard temperature settings, either 15 - 25°C , or 11 - 21°C. When the room temperature is at or below the lowest set point (11°C or 15°C) the fan speed will run at its maximum speed to give fastest heat up time. As the room temperature increases towards the upper set point (21°C or 25°C), the fan speed modulates downwards towards a minimum level.

Thermostat T1

This is a factory fitted air thermostat suited to both AC and EC products installed at low level. This control provides a tamperproof room temperature control and is ideal for use in public buildings.

Thermostat T2 (AC only)

A T2 thermostat is used to control the fan speed on low level AC products only. The objective in using this control is to facilitate a faster heat up period in a room. An installer or commissioning engineer can determine the temperature set point at which the fan speed is changed from high to low. A typical set point would be 16°C, where temperatures below this level would trigger a higher fan speed.

Thermostat and Auto-Speed control (T1/T2)

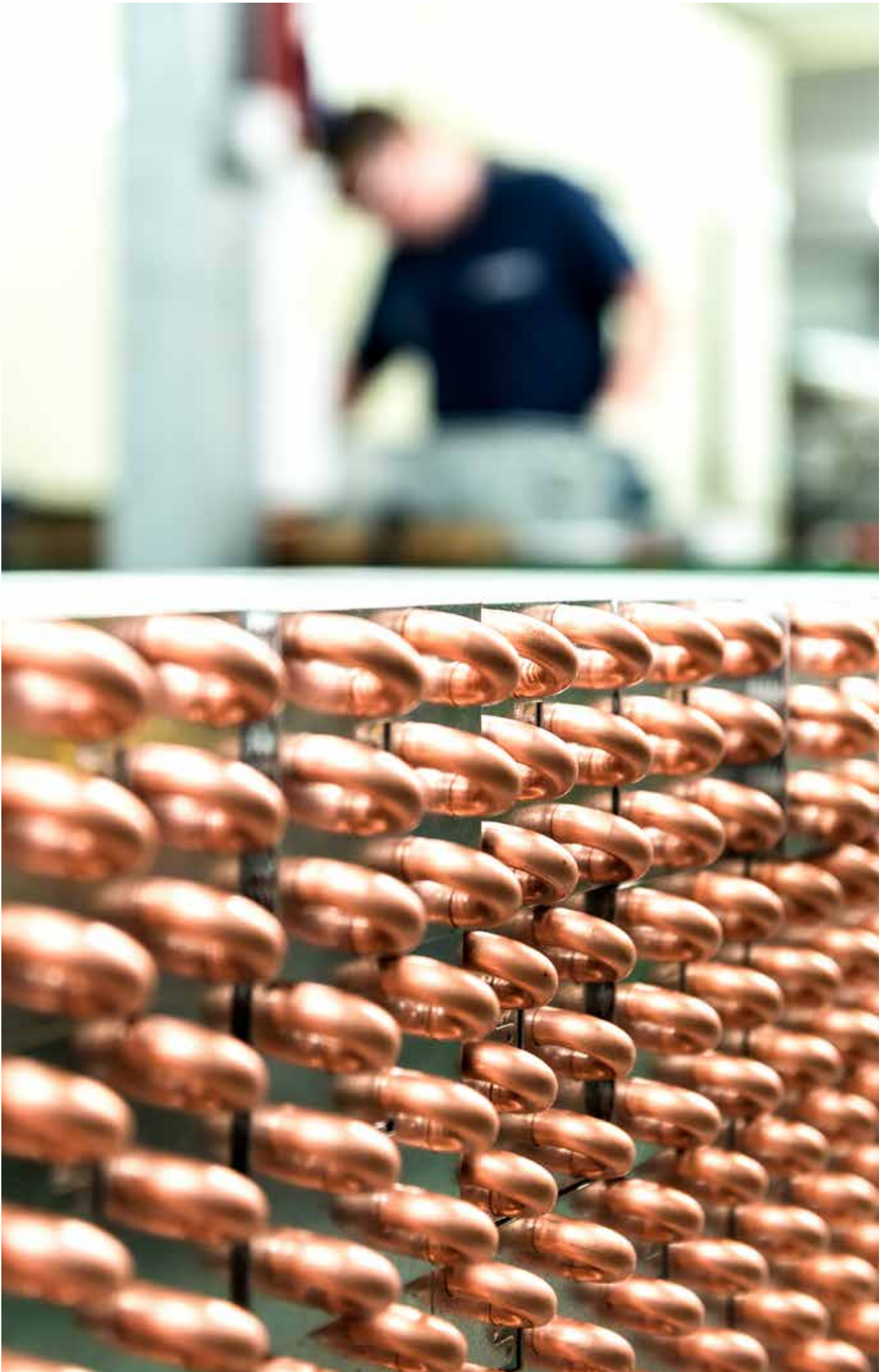
This accessory serves two purposes. Firstly, it becomes an integral room thermostat for the unit providing localised control and secondly, the heat output will be changed according to the temperature in the room. For example, the fan may work on full power up to 18°C and above this temperature move to a lower fan speed. Normally the fan speeds used will be medium and low.

Accessories Matrix

Easy guide to accessories

| Control | Model Ref | Product Codes | Products | | | | | | | | | |
|---|---------------|---------------|---------------------|----|-------------|----|-------------|----|-------------|-----------------|----|-----------|
| | | | Caspian SL/FF/UV/TT | | Caspian EXT | | Caspian UVC | | Caspian LST | Caspian Skyline | | Ecovector |
| | | | EC | AC | EC | AC | EC | AC | EC | EC | AC | |
| CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT (EC AND AC) | ALTC3 | HACA33001 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| CASPIAN THERMOSTAT (T1) (EC LOW LEVEL) | TCAS T1 | HACA33002 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| CASPIAN THERMOSTAT (T2) (AC LOW LEVEL) | TCAS T2 | HACA33036 | | ✓ | | ✓ | | ✓ | | | | |
| CASPIAN THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) (AC LOW LEVEL) | TCAS T1-T2 | HACA33003 | | ✓ | | ✓ | | ✓ | | | | |
| CASPIAN EXTERNAL CONTROL HARNESS (EC) | EXTCH | HHCA33004 | ✓ | | ✓ | | ✓ | | | ✓ | | |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C INTEGRAL (EC) | PHOC 15-25 | HACA33005 | ✓ | | ✓ | | ✓ | | | | | |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25°C REMOTE SENSOR (EC) | PHOC 15-25 RS | HACA33037 | ✓ | | ✓ | | ✓ | | | ✓ | | |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C INTEGRAL (EC) | PHOC 11-21 | HACA33117 | ✓ | | ✓ | | ✓ | | | | | |
| CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21°C REMOTE SENSOR (EC) | PHOC 11-21 RS | HACA33118 | ✓ | | ✓ | | ✓ | | | ✓ | | |
| ROOM THERMOSTAT HARD WIRED | 08-0826 | HAGA95001 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| ROOM THERMOSTAT HARD WIRED SIEMENS | | HACA33104 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| ROOM THERMOSTAT RF SIEMENS | RDD 100.1 RFS | HACA33074 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| ROOM THERMOSTAT TAMPER PROOF SIEMENS | RAA11 | HAGA95004 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| FLEXIBLE HOSES 22MM PAIR | CAS22FH | HAGA95003 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| INTEGRAL, SURFACE MOUNTED AND REMOTE SWITCHING OPTIONS | | * | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| FACTORY FITTED CONTROLS AS STANDARD | | * | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| BESPOKE RAL PAINT FINISHES | | * | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| ANTIBACTERIAL AND ANTIMICROBIAL PAINT FINISHES (SEE PAGE 29) | | * | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |

Note: * Please contact Smith's for further information



Happy to help

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April 2021 | Version 10