

# Caspian® UVC

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**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**

Compatible with two pipe 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

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

Available with [Smart Control](#)



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 **Smith's**  
A Swan Group Company

## Product Information

### Motor

EC (BMS compliant).

### 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.

Access should be provided for servicing.

### Commissioning

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

### Controls

See accessories table.

### 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.

### 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.

## Floor Mounted Applications

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 that can be achieved with the Caspian UVC and Accessories. If in doubt please contact us.



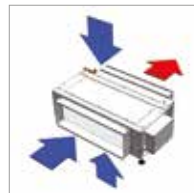
Air outlet



Air inlet option

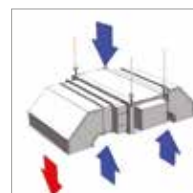
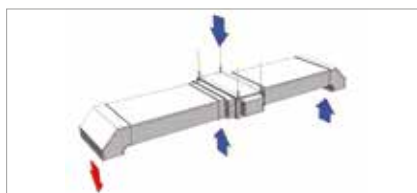
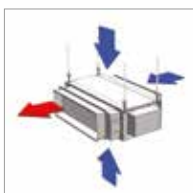


Reversible



Suspended with ducts application

Suspended with spigots application



## Technical Data

### Heat output - EC

| 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       | 3.8                 | 0.85     | 1.20     | 1.55     | 1.96     | 2.37     | 2.78     | 3.19     | 3.61     | 4.02     |
|                 | Mid       | 4.9                 | 1.13     | 1.62     | 2.10     | 2.58     | 3.06     | 3.55     | 4.03     | 4.51     | 5.00     |
|                 | High      | 6.4                 | 1.47     | 2.05     | 2.63     | 3.21     | 3.79     | 4.36     | 4.94     | 5.52     | 6.10     |
| EC 90           | Low       | 3.2                 | 1.98     | 2.55     | 3.11     | 3.67     | 4.24     | 4.80     | 5.37     | 5.93     | 6.50     |
|                 | Mid       | 4.6                 | 2.80     | 3.58     | 4.36     | 5.14     | 5.91     | 6.69     | 7.47     | 8.25     | 9.03     |
|                 | High      | 6.1                 | 3.68     | 4.65     | 5.62     | 6.59     | 7.55     | 8.52     | 9.49     | 10.46    | 11.42    |
| EC 120          | Low       | 3.1                 | 3.03     | 3.61     | 4.19     | 4.78     | 5.36     | 5.94     | 6.53     | 7.11     | 7.69     |
|                 | Mid       | 4.3                 | 3.91     | 4.87     | 5.82     | 6.78     | 7.74     | 8.70     | 9.65     | 10.61    | 11.57    |
|                 | High      | 5.5                 | 4.84     | 6.00     | 7.17     | 8.33     | 9.49     | 10.66    | 11.82    | 12.99    | 14.15    |
| EC 150          | Low       | 2.9                 | 3.59     | 4.57     | 5.55     | 6.53     | 7.51     | 8.49     | 9.47     | 10.45    | 11.44    |
|                 | Mid       | 4.0                 | 4.77     | 6.10     | 7.43     | 8.76     | 10.08    | 11.41    | 12.74    | 14.07    | 15.39    |
|                 | High      | 5.1                 | 6.47     | 7.71     | 8.96     | 10.21    | 11.45    | 12.70    | 13.94    | 15.19    | 16.43    |
| EC 180          | Low       | 2.8                 | 4.69     | 5.92     | 7.15     | 8.39     | 9.62     | 10.85    | 12.08    | 13.31    | 14.55    |
|                 | Mid       | 3.9                 | 4.93     | 7.15     | 9.38     | 11.60    | 13.82    | 16.05    | 18.27    | 20.49    | 22.72    |
|                 | High      | 4.9                 | 7.90     | 9.74     | 11.58    | 13.42    | 15.27    | 17.11    | 18.95    | 20.79    | 22.63    |

| 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

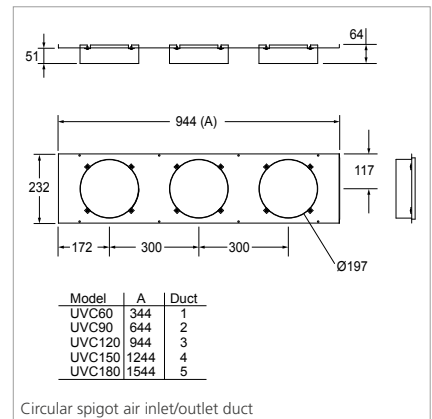
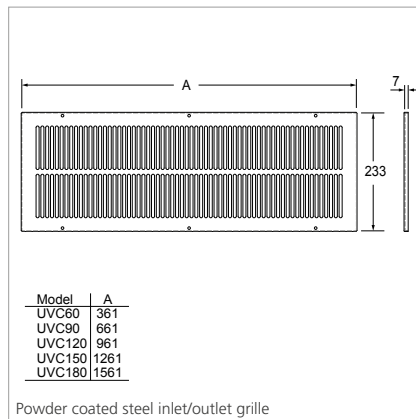
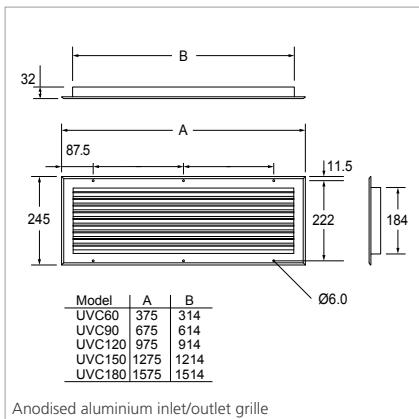
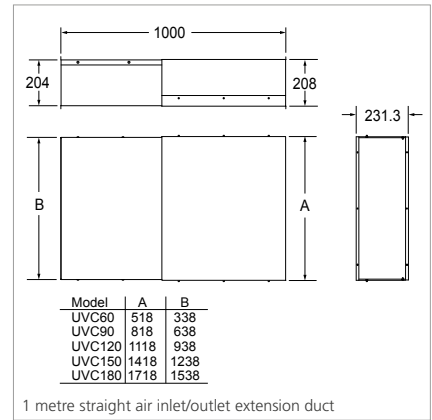
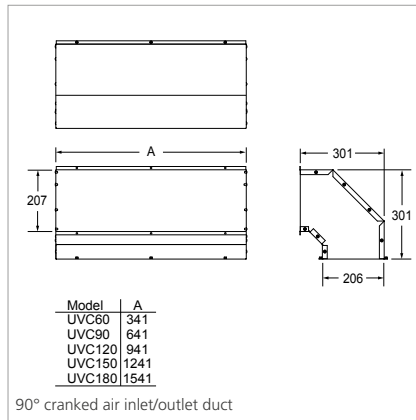
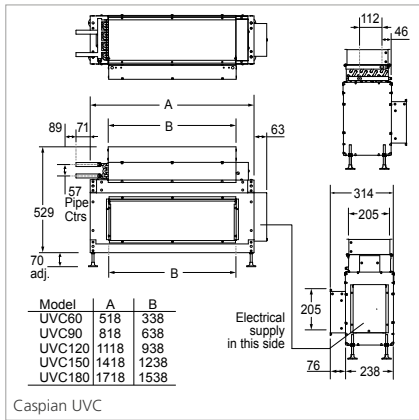
| Mean Water Temp °C          | 45 - 80 |      |      |      |      |
|-----------------------------|---------|------|------|------|------|
| Water Temperature drop °C   | 5       | 10   | 15   | 20   |      |
| Entering Air Temperature °C | 15      | 1.13 | 1.10 | 1.07 | 1.05 |
|                             | 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 |

### How to calculate Mean Water Temperature

$$\text{Mean water temperature } (\Delta T) = \frac{\text{Flow temperature} + \text{Return temperature}}{2}$$

Factors are approximate data based upon a standard coil.

## Dimensions



## 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 grille

## Ordering Guide

| Model              | Packed Wt (kg) | Product Codes | Accessories  | Product Codes |
|--------------------|----------------|---------------|--|---------------|
| CASPIAN UVC 60 EC  | 23             | HPCA26001     | CASPIAN UVC 60 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT          | HACA33016     |
| CASPIAN UVC 90 EC  | 36             | HPCA26002     | CASPIAN UVC 90 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT          | HACA33017     |
| CASPIAN UVC 120 EC | 45             | HPCA26003     | CASPIAN UVC 120 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT         | HACA33018     |
| CASPIAN UVC 150 EC | 60             | HPCA26004     | CASPIAN UVC 150 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT         | HACA33019     |
| CASPIAN UVC 180 EC | 78             | HPCA26005     | CASPIAN UVC 180 1M ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT         | HACA33020     |
|                    |                |               | 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 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 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 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     |
|                    |                |               | FLEXIBLE HOSES 22MM PAIR   | HAGA95003     |
|                    |                |               | ROOM THERMOSTAT HARD WIRED   | HAGA95001     |
|                    |                |               | ROOM THERMOSTAT TAMPER PROOF   | HAGA95004     |
|                    |                |               | CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25° INTEGRAL (EC)              | HACA33005     |
|                    |                |               | CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25° REMOTE SENSOR (EC)         | HACA33037     |
|                    |                |               | CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21° INTEGRAL (EC)              | HACA33117     |
|                    |                |               | CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 11°-21° REMOTE SENSOR (EC)         | HACA33118     |
|                    |                |               | BLANK CONFIGURABLE PROPORTIONAL HEAT OUTPUT CONTROLLER (PROGRAMMED AT FACTORY) | HACA33126     |
|                    |                |               | CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT                                     | HACA33001     |
|                    |                |               | CASPIAN EXTERNAL CONTROL HARNESS (EC)  | HACA33004     |
|                    |                |               | CASPIAN EC LINKING KIT (MASTER/SLAVE)  | HACA33068     |
|                    |                |               | CASPIAN REMOTE SWITCHING ON/OFF RELAY (24V AC COIL)                            | HACA33127     |
|                    |                |               | CASPIAN EC THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) C/W CIRCUIT               | HACA33039     |
|                    |                |               | CASPIAN THERMOSTAT (T1) (EC LOW LEVEL)   | HACA33002     |
|                    |                |               | CASPIAN EC AUTO-SPEED CONTROL (T2) C/W CIRCUIT BOARD                           | HACA33038     |