Smith's
A Swan Group Company



A range of fan convectors suitable for all kinds of commercial applications

Caspian® Range



CASPIAN® RANGE

Fan convectors provide a versatile, energy efficient alternative to radiators and underfloor heating; and are just as easy to install

They are compatible with every type of heat generator; they can be paired with everything from condensing gas and oil powered boilers to renewable technology like ground or air source heat pumps. In fact, fan convectors are especially compatible with ground source and air source heat pumps because they can work with flow temperatures as low as 40°C.

Using forced convection, fan convectors ensure that rooms heat up more quickly, delivering a more even temperature spread, than heat emitters using natural convection. They can be installed and positioned to suit each room's size and shape, rather than having to obey the installation rules that govern radiators.

This ability to deliver heat effectively and efficiently makes them attractive when renovating buildings or specifying heating for new build projects. Unlike radiators, which can be bulky and hot to touch, fan convectors are compact, lightweight, and have very low surface temperatures. They are completely safe; ideal for rooms or buildings regularly used by children, the elderly or other vulnerable groups.

Finally, fan convectors only use 5% of the water content of an equivalent output radiator, ensuring they are far more responsive to people's personal temperature preferences, as well as ever-changing daily weather patterns. In short, as part of a commercial heating system, fan convectors play an important role in providing versatility, more-instant heat, better use of space and greater control for end-users in the commercial market.

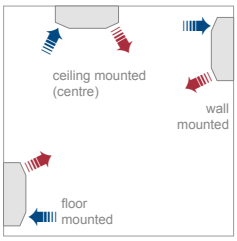
NEW! The Smith's Smart Control has been developed to integrate several of the most commonly sought-after control features into one control unit and more (see page 4).

A quick overview of the Caspian range and mounting options available for all of your application needs

Caspian Commercial Range

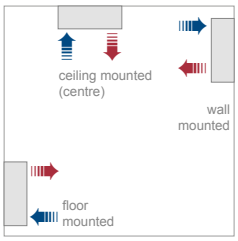


CASPIAN UV p10



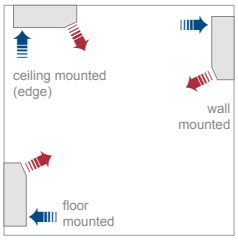


CASPIAN FF p11



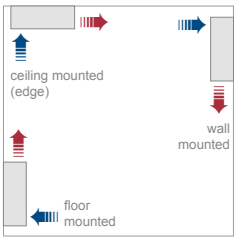


CASPIAN SL p12



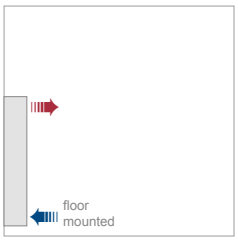


CASPIAN TT p13





CASPIAN EXT p14



Caspian Smart Control

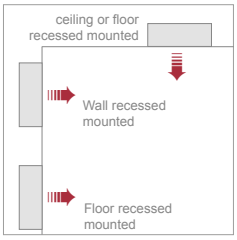


CASPIAN SMART CONTROL p4

Caspian Concealed



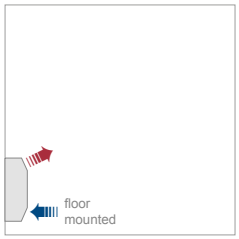
CASPIAN UVC p18



Caspian Low Surface Temperature



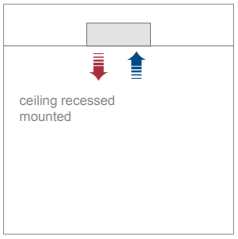
CASPIAN LST p22



Caspian Skyline Ceiling Recessed



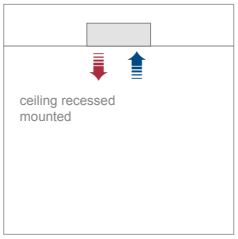
CASPIAN SKYLINE p24
CASPIAN CTFF p26



Caspian Skyline E Ceiling Recessed



CASPIAN SKYLINE E p28



CASPIAN® - SMART CONTROLS

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.

Suitable for schools, churches, village halls, community centres, offices, medical practices, retail outlets, restaurants, hotels and sports centres.

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 Smith's Smart hub
- 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 CONTROLS

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

Ordering Guide

Description	Product Codes
SMART CASPIAN SL60 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32008
SMART CASPIAN SL75 EC C/W FACIA MOUNTED SMART CONTROL	HPCA26306
SMART CASPIAN SL90 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32009
SMART CASPIAN SL120 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32010
SMART CASPIAN SL150 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32011
SMART CASPIAN SL180 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32012
SMART CASPIAN FF60 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32013
SMART CASPIAN FF75 EC C/W FACIA MOUNTED SMART CONTROL	HPCA26300
SMART CASPIAN FF90 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32014
SMART CASPIAN FF120 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32015
SMART CASPIAN FF150 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32016
SMART CASPIAN FF180 EC C/W FACIA MOUNTED SMART CONTROL	HPCA32017
SMART CASPIAN UV60 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32018
SMART CASPIAN UV75 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA26311
SMART CASPIAN UV90 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32019
SMART CASPIAN UV120 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32020
SMART CASPIAN UV150 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32021
SMART CASPIAN UV180 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32022
SMART CASPIAN SL60 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32023
SMART CASPIAN SL75 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA26307
SMART CASPIAN SL90 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32024
SMART CASPIAN SL120 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32025
SMART CASPIAN SL150 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32026
SMART CASPIAN SL180 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32027
SMART CASPIAN FF60 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32028
SMART CASPIAN FF75 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA26301
SMART CASPIAN FF90 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32029
SMART CASPIAN FF120 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32030
SMART CASPIAN FF150 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32031
SMART CASPIAN FF180 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32032
SMART CASPIAN EXT60 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32033
SMART CASPIAN EXT75 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA26313
SMART CASPIAN EXT90 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32034
SMART CASPIAN EXT120 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32035
SMART CASPIAN EXT150 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32036
SMART CASPIAN EXT180 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32037
SMART CASPIAN TT60 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32059
SMART CASPIAN TT75 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA26309
SMART CASPIAN TT90 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32060

Description	Product Codes
SMART CASPIAN TT120 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32061
SMART CASPIAN TT150 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32062
SMART CASPIAN TT180 EC C/W INTERNAL TAMPERPROOF SMART CONTROL	HPCA32063
SMART CASPIAN UV60 EC C/W REMOTE SMART CONTROL	HPCA32038
SMART CASPIAN UV75 EC C/W REMOTE SMART CONTROL	HPCA26312
SMART CASPIAN UV90 EC C/W REMOTE SMART CONTROL	HPCA32039
SMART CASPIAN UV120 EC C/W REMOTE SMART CONTROL	HPCA32040
SMART CASPIAN UV150 EC C/W REMOTE SMART CONTROL	HPCA32041
SMART CASPIAN UV180 EC C/W REMOTE SMART CONTROL	HPCA32042
SMART CASPIAN SL60 EC C/W REMOTE SMART CONTROL	HPCA32043
SMART CASPIAN SL75 EC C/W REMOTE SMART CONTROL	HPCA26308
SMART CASPIAN SL90 EC C/W REMOTE SMART CONTROL	HPCA32044
SMART CASPIAN SL120 EC C/W REMOTE SMART CONTROL	HPCA32045
SMART CASPIAN SL150 EC C/W REMOTE SMART CONTROL	HPCA32046
SMART CASPIAN SL180 EC C/W REMOTE SMART CONTROL	HPCA32047
SMART CASPIAN FF60 EC C/W REMOTE SMART CONTROL	HPCA32048
SMART CASPIAN FF75 EC C/W REMOTE SMART CONTROL	HPCA26302
SMART CASPIAN FF90 EC C/W REMOTE SMART CONTROL	HPCA32049
SMART CASPIAN FF120 EC C/W REMOTE SMART CONTROL	HPCA32050
SMART CASPIAN FF150 EC C/W REMOTE SMART CONTROL	HPCA32051
SMART CASPIAN FF180 EC C/W REMOTE SMART CONTROL	HPCA32052
SMART CASPIAN EXT60 EC C/W REMOTE SMART CONTROL	HPCA32053
SMART CASPIAN EXT75 EC C/W REMOTE SMART CONTROL	HPCA26314
SMART CASPIAN EXT90 EC C/W REMOTE SMART CONTROL	HPCA32054
SMART CASPIAN EXT120 EC C/W REMOTE SMART CONTROL	HPCA32055
SMART CASPIAN EXT150 EC C/W REMOTE SMART CONTROL	HPCA32056
SMART CASPIAN EXT180 EC C/W REMOTE SMART CONTROL	HPCA32057
SMART CASPIAN TT60 EC C/W REMOTE SMART CONTROL	HPCA32064
SMART CASPIAN TT75 EC C/W REMOTE SMART CONTROL	HPCA26310
SMART CASPIAN TT90 EC C/W REMOTE SMART CONTROL	HPCA32065
SMART CASPIAN TT120 EC C/W REMOTE SMART CONTROL	HPCA32066
SMART CASPIAN TT150 EC C/W C/W REMOTE SMART CONTROL	HPCA32067
SMART CASPIAN TT180 EC C/W REMOTE SMART CONTROL	HPCA32068
SMART CASPIAN FF60 EC FASCIA MOUNTED SMART CONTROL REAR OUTLET	HPCA32069
SMART CASPIAN FF75 EC FASCIA MOUNTED SMART CONTROL REAR OUTLET	HPCA26303
SMART CASPIAN FF90 EC FASCIA MOUNTED SMART CONTROL REAR OUTLET	HPCA32070
SMART CASPIAN FF120 EC FASCIA MOUNTED SMART CONTROL REAR OUTLET	HPCA32071
SMART CASPIAN FF150 EC FASCIA MOUNTED SMART CONTROL REAR OUTLET	HPCA32072
SMART CASPIAN FF180 EC FASCIA MOUNTED SMART CONTROL REAR OUTLET	HPCA32073
SMART CASPIAN FF60 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA32074
SMART CASPIAN FF75 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA26304
SMART CASPIAN FF90 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA32075
SMART CASPIAN FF120 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA32076
SMART CASPIAN FF150 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA32077
SMART CASPIAN FF180 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA32078
SMART CASPIAN FF60 EC REMOTE SMART CONTROL REAR OUTLET	HPCA32079
SMART CASPIAN FF75 EC REMOTE SMART CONTROL REAR OUTLET	HPCA26305

Description	Product Codes
SMART CASPIAN FF90 EC REMOTE SMART CONTROL REAR OUTLET	HPCA32080
SMART CASPIAN FF120 EC REMOTE SMART CONTROL REAR OUTLET	HPCA32081
SMART CASPIAN FF150 EC REMOTE SMART CONTROL REAR OUTLET	HPCA32082
SMART CASPIAN FF180 EC REMOTE SMART CONTROL REAR OUTLET	HPCA32083
SMART CASPIAN EXT60 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA32084
SMART CASPIAN EXT75 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA26315
SMART CASPIAN EXT90 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA32085
SMART CASPIAN EXT120 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA32086
SMART CASPIAN EXT150 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA32087
SMART CASPIAN EXT180 EC INTERNAL TAMPERPROOF CONTROL REAR OUTLET	HPCA32088
SMART CASPIAN EXT60 EC REMOTE SMART CONTROL REAR OUTLET	HPCA32089
SMART CASPIAN EXT75 EC REMOTE SMART CONTROL REAR OUTLET	HPCA26316

Description	Product Codes
SMART CASPIAN EXT90 EC REMOTE SMART CONTROL REAR OUTLET	HPCA32090
SMART CASPIAN EXT120 EC REMOTE SMART CONTROL REAR OUTLET	HPCA32091
SMART CASPIAN EXT150 EC REMOTE SMART CONTROL REAR OUTLET	HPCA32092
SMART CASPIAN EXT180 EC REMOTE SMART CONTROL REAR OUTLET	HPCA32093
CASPIAN SKYLINE CT60 EC C/W REMOTE SMART CONTROL	HPCA32058
CASPIAN SKYLINE CTFF 60 C/W REMOTE SMART CONTROL	HPCA30005
CASPIAN SKYLINE CTFF 120 C/W REMOTE SMART CONTROL	HPCA30004
SMITHS HUB FOR CASPIAN SMART CONTROL	HACA33130
SMITHS COMBINED SMART PLUG & REPEATER	HACA33133
SMITHS REPEATER FOR CASPIAN SMART CONTROLS	HACA33134
SMITHS SMART BUTTON FOR CASPIAN SMART CONTROLS	HACA33135
SMITHS SMART WINDOW DOOR SENSOR	HACA33136
SMITHS SMART WINDOW DOOR SENSOR SLIM	HACA33137
SMITHS SMART BOILER RECEIVER	HACA33138
SMITHS SMART RELAY	HACA33139





CASPIAN® COMMERCIAL RANGE

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

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

It is possible to have master and slave Caspian fan convectors that integrate the entire range of EC Caspian products. Please contact either our sales team or technical team to ensure that this is correctly specified

Caspians 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. Please contact either our sales team or technical team to ensure that the correct inlet/discharge positioning is specified

Available with antibacterial paint (see page 17)

Now available with Smart Control (see page 4)

Applications
Education, healthcare, places of worship, leisure and sport office, hospitality, retail, showroom and industrial.

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 17).

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 table on page 16. Smart Control available (see page 4)

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
	Low	2.4	0.85	1.20	1.55	1.96	2.37	2.78	3.19	3.61	4.02
EC 60	Mid	3.7	1.13	1.62	2.10	2.58	3.06	3.55	4.03	4.51	5.00
	High	5.8	1.47	2.05	2.63	3.21	3.79	4.36	4.94	5.52	6.10
	Low	2.4	1.01	1.49	1.92	2.39	2.98	3.51	3.97	4.47	4.97
EC 75	Mid	3.7	1.50	2.00	2.38	2.98	3.57	4.16	4.75	5.34	5.94
	High	5.8	1.99	2.71	3.44	4.16	4.89	5.61	6.31	7.06	7.78
	Low	2.1	1.98	2.55	3.11	3.67	4.24	4.80	5.37	5.93	6.50
EC 90	Mid	3.5	2.80	3.58	4.36	5.14	5.91	6.69	7.47	8.25	9.03
	High	5.5	3.68	4.65	5.62	6.59	7.55	8.52	9.49	10.46	11.42
	Low	1.8	3.03	3.61	4.19	4.78	5.36	5.94	6.53	7.11	7.69
EC 120	Mid	3.3	3.91	4.87	5.82	6.78	7.74	8.70	9.65	10.61	11.57
	High	5.1	4.84	6.00	7.17	8.33	9.49	10.66	11.82	12.99	14.15
	Low	1.8	3.59	4.57	5.55	6.53	7.51	8.49	9.47	10.45	11.44
EC 150	Mid	2.6	4.77	6.10	7.43	8.76	10.08	11.41	12.74	14.07	15.39
	High	3.9	6.47	7.71	8.96	10.21	11.45	12.70	13.94	15.19	16.43
	Low	1.8	4.69	5.92	7.15	8.39	9.62	10.85	12.08	13.31	14.55
EC 180	Mid	2.7	4.93	7.15	9.38	11.60	13.82	16.05	18.27	20.49	22.72
	High	4.1	7.90	9.74	11.58	13.42	15.27	17.11	18.95	20.79	22.63

Model Reference	Fan Speed	Air Volume (m^3/h)	Air Volume (l/s)	Specific Fan Power w/ls	Power Consumption (W)	NR in typical room*	Hydraulic Resistance (KPA)	Nominal Weight (KG)	Water Capacity (L)
	Low	201.00	55.90	0.14	6.8	34.00	1.38		
EC 60	Mid	290.50	80.75	0.26	13.6	41.50	1.69	24.00	0.92
	High	380.00	105.60	0.32	27.3	49.50	2.00		
	Low	251.00	69.72	0.10	6.8	34.00	3.80		
EC 75	Mid	349.00	96.94	0.14	13.6	41.50	4.69	29.00	1.21
	High	475.00	131.94	0.21	27.3	49.97	5.82		
	Low	297.00	80.75	0.20	10.6	34.00	4.70		
EC 90	Mid	450.50	124.38	0.34	24.8	41.50	5.85	36.00	1.50
	High	604.00	168.00	0.40	50.6	49.97	7.00		
	Low	419.30	116.50	0.14	9.4	34.00	17.78		
EC 120	Mid	549.65	152.68	0.26	22.8	42.00	20.59	44.00	2.08
	High	680.00	188.89	0.34	45.2	49.96	23.40		
	Low	459.80	127.72	0.17	14.1	34.70	22.23		
EC 150	Mid	598.10	166.14	0.35	24.6	41.50	29.46	60.00	2.58
	High	736.40	205.56	0.47	43.2	49.38	36.69		
	Low	542.00	150.56	0.19	18.8	34.90	47.83		
EC 180	Mid	690.00	191.67	0.40	35.2	41.50	60.76	78.00	3.18
	High	838.00	232.78	0.55	62.4	49.00	73.70		

*a typical room is taken as a room with a volume of 173m^3 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 Mean Water Temperature

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





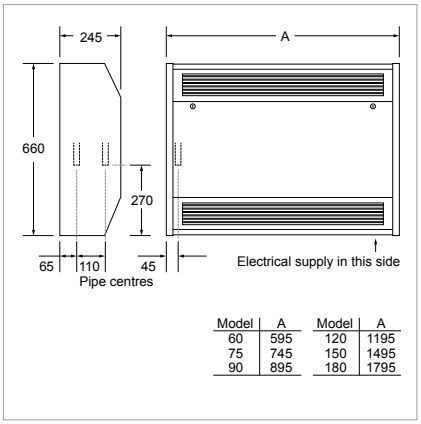
CASPIAN® UV

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

Specification
To specify state:
Fan Convector with EC motor, in 1.2mm zinc coated steel, 660mm high and 595mm, 745mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller.
As Smith's Caspian UV 60, 75, 90, 120, 150, 180.

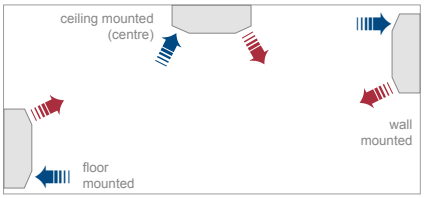
Ordering guide For accessories see page 16

Model	Packed Wt (kg)	Product Codes
CASPIAN UV 60 EC	24	HPCA20001
CASPIAN UV 75 EC	29	HPCA26203
CASPIAN UV 90 EC	36	HPCA20002
CASPIAN UV 120 EC	44	HPCA20003
CASPIAN UV 150 EC	60	HPCA20004
CASPIAN UV 180 EC	78	HPCA20005



Model	A	Model	A
60	595	120	1195
75	745	150	1495
90	895	180	1795

Mounting Options



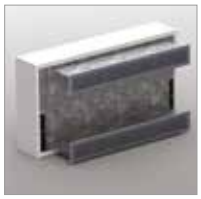




CASPIAN® FF

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

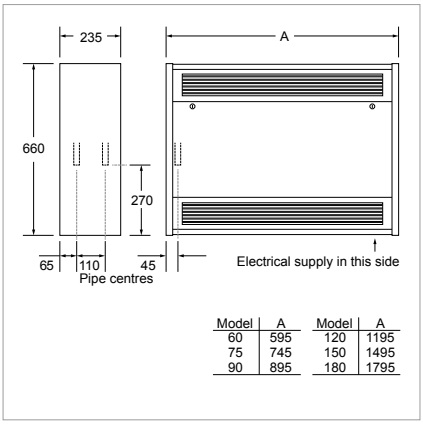
Rear outlet



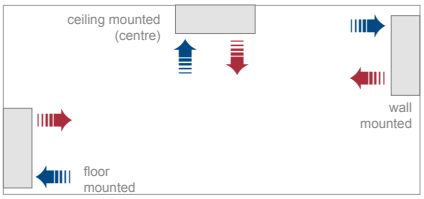
Specification
To specify state:
Fan Convector with EC motor, in 1.2mm zinc coated steel, 660mm high and 595mm, 745mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller.
As Smith's Caspian FF 60, 75, 90, 120, 150, 180.

Ordering guide For accessories see page 16

Model	Packed Wt (kg)	Product Codes
CASPIAN FF 60 EC	24	HPCA22001
CASPIAN FF 75 EC	29	HPCA26200
CASPIAN FF 90 EC	36	HPCA22002
CASPIAN FF 120 EC	44	HPCA22003
CASPIAN FF 150 EC	60	HPCA22004
CASPIAN FF 180 EC	78	HPCA22005
Rear Outlet		
CASPIAN FF 60 EC REAR OUTLET	24	HPCA22006
CASPIAN FF 75 EC REAR OUTLET	29	HPCA26204
CASPIAN FF 90 EC REAR OUTLET	36	HPCA22007
CASPIAN FF 120 EC REAR OUTLET	46	HPCA22008
CASPIAN FF 150 EC REAR OUTLET	61	HPCA22009
CASPIAN FF 180 EC REAR OUTLET	79	HPCA22010



Mounting Options







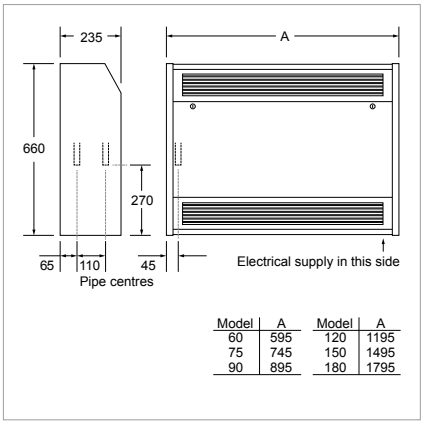
CASPIAN® SL

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

Specification
To specify state:
Fan Convector with EC motor, in 1.2mm zinc coated steel, 660mm high and 595mm, 745mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller.
As Smith's Caspian SL 60, 75, 90, 120, 150, 180.

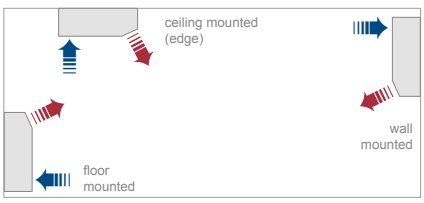
Ordering guide For accessories see page 16

Model	Packed Wt (kg)	Product Codes
CASPIAN SL 60 EC	24	HPCA31501
CASPIAN SL 75 EC	29	HPCA26201
CASPIAN SL 90 EC	36	HPCA31502
CASPIAN SL 120 EC	44	HPCA31503
CASPIAN SL 150 EC	60	HPCA31504
CASPIAN SL 180 EC	78	HPCA31505



Model	A	Model	A
60	595	120	1195
75	745	150	1495
90	895	180	1795

Mounting Options







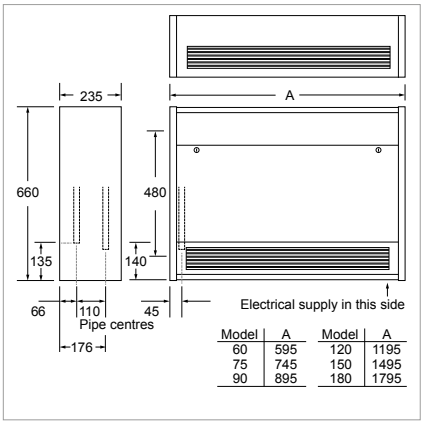
CASPIAN® TT

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

Specification
To specify state:
Fan Convector with EC motor, in 1.2mm zinc coated steel, 660mm high and 595mm, 745mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller.
As Smith's Caspian TT 60, 75, 90, 120, 150, 180.

Ordering guide For accessories see page 16

Model	Packed Wt (kg)	Product Codes
CASPIAN TT 60 EC	24	HPCA15000
CASPIAN TT 75 EC	29	HPCA26202
CASPIAN TT 90 EC	36	HPCA15001
CASPIAN TT 120 EC	44	HPCA15002
CASPIAN TT 150 EC	60	HPCA15003
CASPIAN TT 180 EC	78	HPCA15004



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

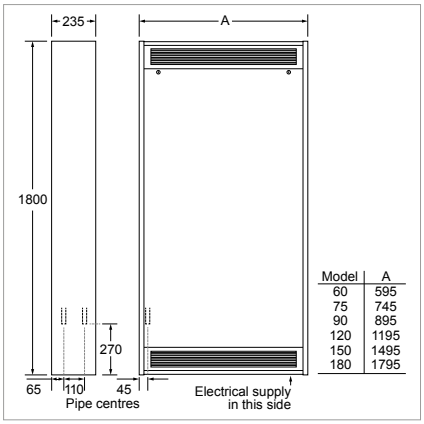
Rear outlet



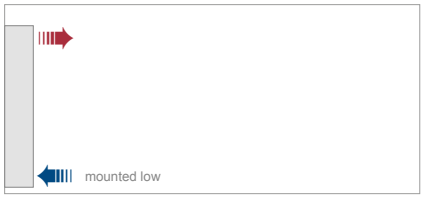
Specification
To specify state:
Fan Convector with EC motor, in 1.2mm zinc coated steel, 1800mm high and 595mm, 745mm, 895mm, 1195mm, 1495mm or 1795mm wide. With variable heat output controller.
As Smith's Caspian EXT 60, 75, 90, 120, 150, 180.

Ordering guide For accessories see page 16

Model	Packed Wt (kg)	Product Codes
CASPIAN EXT 60 EC	30	HPCA24001
CASPIAN EXT 75 EC	36	HPCA26205
CASPIAN EXT 90 EC	49	HPCA24002
CASPIAN EXT 120 EC	58	HPCA24003
CASPIAN EXT 150 EC	76	HPCA24004
CASPIAN EXT 180 EC	95	HPCA24005
Rear Outlet		
CASPIAN EXT 60 EC REAR OUTLET	30	HPCA24006
CASPIAN EXT 75 EC REAR OUTLET	37	HPCA26206
CASPIAN EXT 90 EC REAR OUTLET	49	HPCA24007
CASPIAN EXT 120 EC REAR OUTLET	58	HPCA24008
CASPIAN EXT 150 EC REAR OUTLET	76	HPCA24009
CASPIAN EXT 180 EC REAR OUTLET	95	HPCA24010



Mounting Options





ACCESSORIES

For caspian UV, FF, SL, TT and EXT

Description	Product Codes
Hoses	
FLEXIBLE HOSES 22MM PAIR	HAGA95003
Plinths	
CASPIAN 60 FF/EXT/SL/TT PLINTH BLACK (100MM)	HACA33077
CASPIAN 75 FF/EXT/SL/TT PLINTH BLACK (100MM)	HACA33172
CASPIAN 90 FF/EXT/SL/TT PLINTH BLACK (100MM)	HACA33078
CASPIAN 120 FF/EXT/SL/TT PLINTH BLACK (100MM)	HACA33079
CASPIAN 150 FF/EXT/SL/TT PLINTH BLACK (100MM)	HACA33080
CASPIAN 180 FF/EXT/SL/TT PLINTH BLACK (100MM)	HACA33081
CASPIAN 60 FF/EXT/SL/TT PLINTH WHITE (100MM)	HACA33087
CASPIAN 75 FF/EXT/SL/TT PLINTH WHITE (100MM)	HACA33174
CASPIAN 90 FF/EXT/SL/TT PLINTH WHITE (100MM)	HACA33088
CASPIAN 120 FF/EXT/SL/TT PLINTH WHITE (100MM)	HACA33089
CASPIAN 150 FF/EXT/SL/TT PLINTH WHITE (100MM)	HACA33090
CASPIAN 180 FF/EXT/SL/TT PLINTH WHITE (100MM)	HACA33091
CASPIAN 60 FF/EXT/SL/TT PLINTH BLACK (150MM)	HACA33082
CASPIAN 75 FF/EXT/SL/TT PLINTH BLACK (150MM)	HACA33173
CASPIAN 90 FF/EXT/SL/TT PLINTH BLACK (150MM)	HACA33083
CASPIAN 120 FF/EXT/SL/TT PLINTH BLACK (150MM)	HACA33084
CASPIAN 150 FF/EXT/SL/TT PLINTH BLACK (150MM)	HACA33085
CASPIAN 180 FF/EXT/SL/TT PLINTH BLACK (150MM)	HACA33086
CASPIAN 60 FF/EXT/SL/TT PLINTH WHITE (150MM)	HACA33092
CASPIAN 75 FF/EXT/SL/TT PLINTH WHITE (150MM)	HACA33175
CASPIAN 90 FF/EXT/SL/TT PLINTH WHITE (150MM)	HACA33093
CASPIAN 120 FF/EXT/SL/TT PLINTH WHITE (150MM)	HACA33094
CASPIAN 150 FF/EXT/SL/TT PLINTH WHITE (150MM)	HACA33095
CASPIAN 180 FF/EXT/SL/TT PLINTH WHITE (150MM)	HACA33096
CASPIAN 60 UV/LST PLINTH BLACK (100MM)	HACA33106
CASPIAN 75 UV/LST PLINTH BLACK (100MM)	HACA33168
CASPIAN 90 UV/LST PLINTH BLACK (100MM)	HACA33107
CASPIAN 120 UV/LST PLINTH BLACK (100MM)	HACA33108
CASPIAN 150 UV/LST PLINTH BLACK (100MM)	HACA33109
CASPIAN 180 UV/LST PLINTH BLACK (100MM)	HACA33110
CASPIAN 60 UV/LST PLINTH WHITE (100MM)	HACA33111
CASPIAN 75 UV/LST PLINTH WHITE (100MM)	HACA33170
CASPIAN 90 UV/LST 90 PLINTH WHITE (100MM)	HACA33112
CASPIAN 120 UV/LST PLINTH WHITE (100MM)	HACA33113
CASPIAN 150 UV/LST PLINTH WHITE (100MM)	HACA33114
CASPIAN 180 UV/LST PLINTH WHITE (100MM)	HACA33115
CASPIAN 60 UV/LST PLINTH BLACK (150MM)	HACA33097
CASPIAN 75 UV/LST PLINTH BLACK (150MM)	HACA33169
CASPIAN 90 UV/LST PLINTH BLACK (150MM)	HACA33098
CASPIAN 120 UV/LST PLINTH BLACK (150MM)	HACA33099
CASPIAN 150UV/LST PLINTH BLACK (150MM)	HACA33100
CASPIAN 180 UV/LST PLINTH BLACK (150MM)	HACA33101
CASPIAN 60 UV/LST PLINTH WHITE (150MM)	HACA33006
CASPIAN 75 UV/LST PLINTH WHITE (150MM)	HACA33171
CASPIAN 90 UV/LST PLINTH WHITE (150MM)	HACA33007
CASPIAN 120 UV/LST PLINTH WHITE (150MM)	HACA33008
CASPIAN 150 UV/LST PLINTH WHITE (150MM)	HACA33009
CASPIAN 180 UV/LST PLINTH WHITE (150MM)	HACA33010
Duct and grilles	
ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT (TO SUIT EXT & FF RO 60)	HACA33043
ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT (TO SUIT EXT & FF RO 75)	HACA33167
ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT (TO SUIT EXT & FF RO 90)	HACA33044
ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT (TO SUIT EXT & FF RO 120)	HACA33045
ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT (TO SUIT EXT & FF RO 150)	HACA33046
ADJUSTABLE STRAIGHT AIR INLET/OUTLET EXTENSION DUCT (TO SUIT EXT & FF RO 180)	HACA33047

Description	Product Codes
POWDER-COATED WHITE STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 60)	HACA33048
POWDER-COATED WHITE STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 75)	HACA33177
POWDER-COATED WHITE STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 90)	HACA33049
POWDER-COATED WHITE STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 120)	HACA33050
POWDER-COATED WHITE STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 150)	HACA33051
POWDER-COATED WHITE STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 180)	HACA33052
POWDER-COATED BLACK STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 60)	HACA33053
POWDER-COATED BLACK STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 75)	HACA33178
POWDER-COATED BLACK STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 90)	HACA33054
POWDER-COATED BLACK STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 120)	HACA33055
POWDER-COATED BLACK STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 150)	HACA33056
POWDER-COATED BLACK STEEL INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 180)	HACA33057
ANODISED ALUMINIUM INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 60)	HACA33058
ANODISED ALUMINIUM INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 75)	HACA33179
ANODISED ALUMINIUM INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 90)	HACA33059
ANODISED ALUMINIUM INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 120)	HACA33060
ANODISED ALUMINIUM INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 150)	HACA33061
ANODISED ALUMINIUM INLET/OUTLET GRILLE (TO SUIT FF & EXT RO 180)	HACA33062
PENCIL PROOF GRILLE INSERT (PAIR TO SUIT FF, SL & UV 60)	HACA33069
PENCIL PROOF GRILLE INSERT (PAIR TO SUIT FF, SL & UV 75)	HACA33176
PENCIL PROOF GRILLE INSERT (PAIR TO SUIT FF, SL & UV 90)	HACA33070
PENCIL PROOF GRILLE INSERT (PAIR TO SUIT FF, SL & UV 120)	HACA33071
PENCIL PROOF GRILLE INSERT (PAIR TO SUIT FF, SL & UV 150)	HACA33072
PENCIL PROOF GRILLE INSERT (PAIR TO SUIT FF, SL & UV 180)	HACA33073
Antibacterial paint	
ANTIMICROBIAL PAINT IN SMITHS STD RAL 9010	HAPF315001
Controllers	
ROOM THERMOSTAT HARD WIRED	HAGA95001
ROOM THERMOSTAT TAMPER PROOF	HACA95004
SLVTB INTEGRAL CIRCUIT BOARD 08-1040	HACA33131
SLVTB WALL MOUNTED THERMOSTAT 08-1056	HACA33132
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
CASPIAN SKYLINE CT60 PROPORTIONAL HEAT OUTPUT CONTROLLER 15-25 (REMOTE SENSOR)	HACA33125
CASPIAN SKYLINE CT60 PROPORTIONAL HEAT OUTPUT CONTROLLER 11-21 (REMOTE SENSOR)	HACA33123
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 THERMOSTAT (T1) (EC LOW LEVEL)	HACA33002
CASPIAN EC THERMOSTAT (T1) & AUTO-SPEED CONTROL (T2) C/W CIRCUIT BOARD	HACA33039
CASPIAN EC AUTO-SPEED CONTROL (T2) C/W CIRCUIT BOARD	HACA33038



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



CASPIAN® UVC

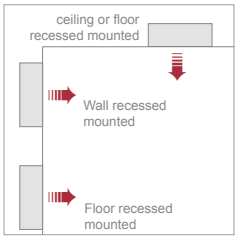
The Caspian UVC fan convector was developed for recessed or concealed heating projects and is suitable for high, low or ceiling concealed installations, can even be turned upside down

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

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 4)

Mounting Options



Applications
Education, healthcare, places of worship, leisure and sport, office, hospitality, retail, showroom and industrial.

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. Maximum installation height 4m to underside.

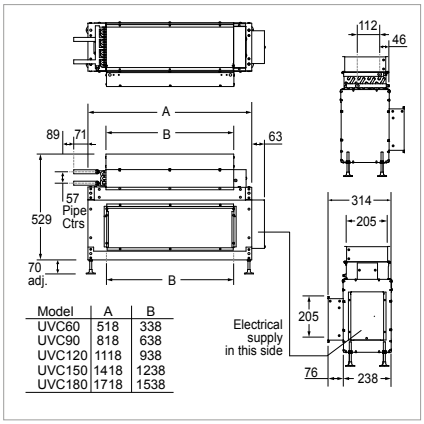
Commissioning
Check water is hot enough to activate the low temperature cut-out thermostat.

Controls
See accessories tables (page 21). Smart Control available (see page 4)

Attachments
90° cranked air inlet/outlet duct.
1m adjustable straight air inlet/outlet extension duct.
Circular spigot air inlet/outlet duct.
White powder-coated steel inlet/outlet grille.
Anodised aluminium air inlet/outlet grille.

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.





Model	A	B
UVC60	518	338
UVC90	818	638
UVC120	1118	938
UVC150	1418	1238
UVC180	1718	1538



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.


Air outlet


Air inlet option


Reversible



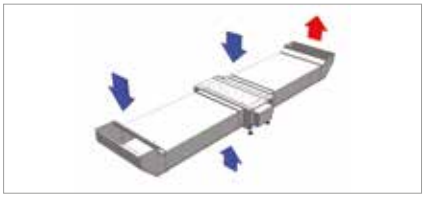










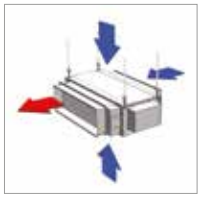


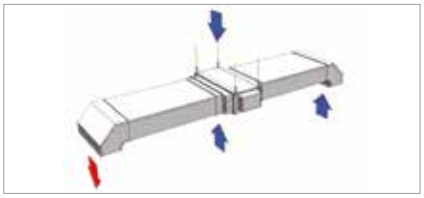


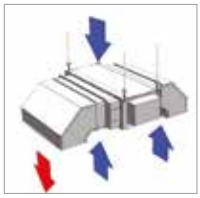
Suspended with ducts application

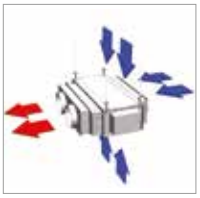
Suspended with spigots application







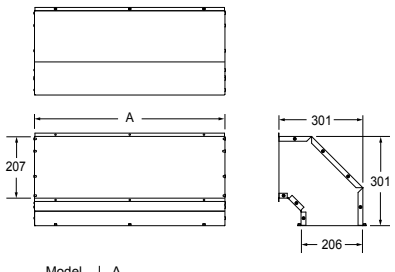




Heat output See page 9

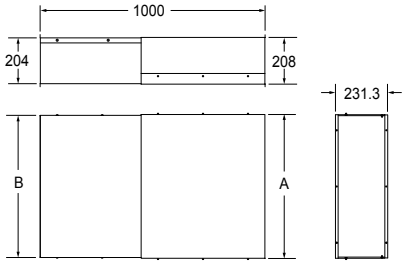
CASPIAN® UVC

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



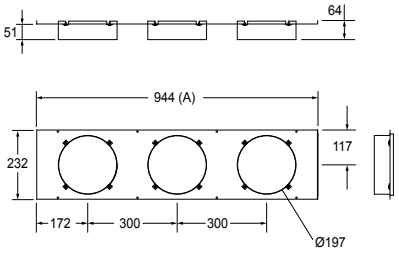
Model	A
UVC60	341
UVC90	641
UVC120	941
UVC150	1241
UVC180	1541

90° cranked air inlet/outlet duct



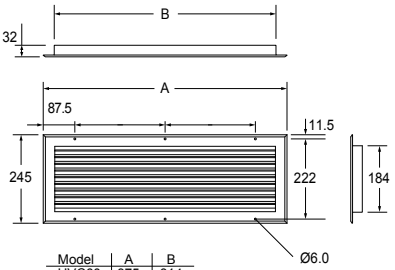
Model	A	B
UVC60	518	338
UVC90	818	638
UVC120	1118	938
UVC150	1418	1238
UVC180	1718	1538

1 metre straight air inlet/outlet extension duct



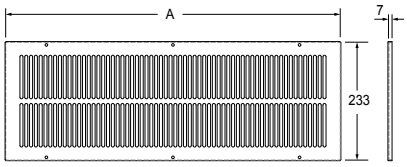
Model	A	Duct
UVC60	344	1
UVC90	644	2
UVC120	944	3
UVC150	1244	4
UVC180	1544	5

Circular spigot air inlet/outlet duct



Model	A	B
UVC60	375	314
UVC90	675	614
UVC120	975	914
UVC150	1275	1214
UVC180	1575	1514

Anodised aluminium inlet/outlet grille



Model	A
UVC60	361
UVC90	661
UVC120	961
UVC150	1261
UVC180	1561

Powder coated steel inlet/outlet grille

Ordering guide

Model	Packed Wt (kg)	Product Codes
CASPIAN UVC 60 EC	24	HPCA26001
CASPIAN UVC 90 EC	36	HPCA26002
CASPIAN UVC 120 EC	44	HPCA26003
CASPIAN UVC 150 EC	60	HPCA26004
CASPIAN UVC 180 EC	78	HPCA26005

Accessories	Product Codes
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 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 1) 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 BOARD	HACA33039
CASPIAN THERMOSTAT (T1) (EC LOW LEVEL)	HACA33002
CASPIAN EC AUTO-SPEED CONTROL (T2) C/W CIRCUIT BOARD	HACA33038



CASPIAN® LST

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

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

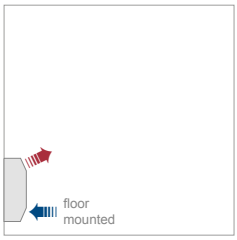
Using EC technology and meeting the DN4 legislation 100% of the time, this hydronic fan convector provides complete peace of mind for specifiers choosing the Caspian

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 Options



Applications
Education, healthcare, office and hospitality

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 17).

Filter
Class G2, 100% polyester, non-washable.

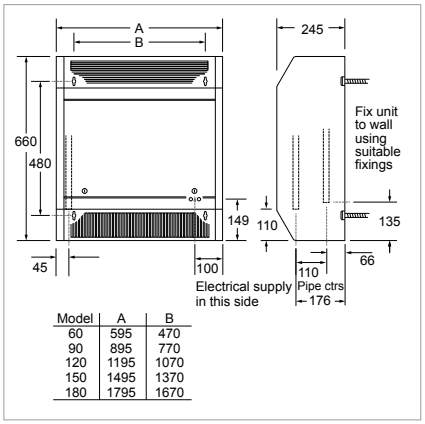
Installation
Suitable for two-pipe central heating systems.
Pipework access holes on the rear and underside.
Key operated front access panels.
Bleed valve accessible on removal of front casing.
Unit must be earthed.

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).

Specification
To specify state: Low Surface Temperature Fan Convector 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			Total Power Consumption				Sound Levels				
	Flow & return connections	Fused spur	Low (Watts)	Medium (Watts)	High (Watts)	Water Capacity (Litres)	High (dBA)	Medium (dBA)	Low (dBA)	Casting colour	Fan only
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	36	HPCA28002
CASPIAN LST 120 EC	44	HPCA28003
CASPIAN LST 150 EC	60	HPCA28004
CASPIAN LST 180 EC	78	HPCA28005

Plinths	Product Codes			
	100mm Black	100mm White	150mm Black	150mm White
CASPIAN UV/LST 60 PLINTH	HACA33106	HACA33111	HACA33097	HACA33006
CASPIAN UV/LST 90 PLINTH	HACA33107	HACA33112	HACA33098	HACA33007
CASPIAN UV/LST 120 PLINTH	HACA33108	HACA33113	HACA33099	HACA33008
CASPIAN UV/LST 150 PLINTH	HACA33109	HACA33114	HACA33100	HACA33009
CASPIAN UV/LST 180 PLINTH	HACA33110	HACA33115	HACA33101	HACA33010

Accessories	Product Codes
FLEXIBLE HOSES 22MM PAIR	HAGA95003
CASPIAN REMOTE SWITCHING ON/OFF RELAY (24V AC COIL)	HACA33127



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

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 4)

Applications
Education, healthcare, leisure and sport, office, hospitality, retail and showroom

Motor
EC (BMS compliant).

Finish
Casing: galvanised steel 1.2mm.
Grille: eggcrate core, white RAL 9010 complete with touch catches.

Filter
Class G2, 100% polyester, non-washable.

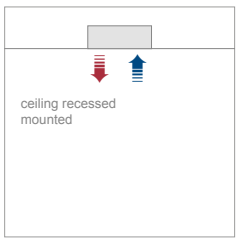
Installation
Suitable for two-pipe central heating systems.
Maximum installation height – 4m to underside.
Unit must be earthed.

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

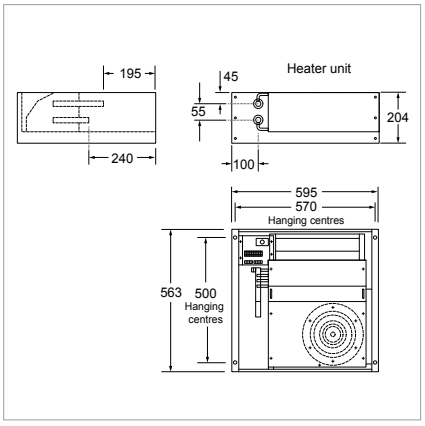
Controls
See accessories table.

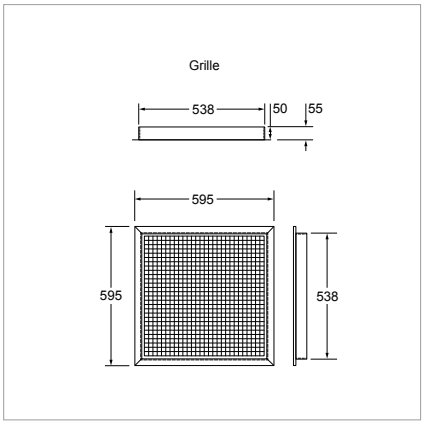
Specification
To specify state: Ceiling mounted Fan Convector with EC motor, in 1.2mm galvanised steel, egg crate core grille in white RAL 9010. To fit a standard 600mm x 600mm ceiling grid. With variable heat output controller. As Smith's Caspian Skyline CT60.

Mounting Options









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			Total Power Consumption				Sound Levels			
	Flow & return connections	Fused spur	Low (Watts)	Medium (Watts)	High (Watts)	Water Capacity (Litres)	High (dBA)	Medium (dBA)	Low (dBA)	Grille colour
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

	Mean water temperature °C
EAT°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
CASPIAN SKYLINE CT60 EC	20	HPCA29001

Accessories	Product Codes
CASPIAN ADJUSTABLE LOW TEMPERATURE CUT-OUT	HACA33001
CASPIAN EXTERNAL CONTROL HARNESS (EC)	HACA33004
CASPIAN SKYLINE CT60 PROPORTIONAL HEAT OUTPUT CONTROLLER 15-25 (REMOTE SENSOR)	HACA33125
CASPIAN SKYLINE CT60 PROPORTIONAL HEAT OUTPUT CONTROLLER 11-21 (REMOTE SENSOR)	HACA33123
ROOM THERMOSTAT HARD WIRED	HAGA95001
ROOM THERMOSTAT TAMPER PROOF	HAGA95004
FLEXIBLE HOSES 22MM PAIR	HAGA95003
CASPIAN REMOTE SWITCHING ON/OFF RELAY (24V AC COIL)	HACA33127
BLANK CONFIGURABLE PROPORTIONAL HEAT OUTPUT CONTROLLER (PROGRAMMED AT FACTORY)	HACA33126
CASPIAN EC LINKING KIT (MASTER/SLAVE)	HACA33068



CASPIAN® CTFF

Caspian CTFF fits into 600mm x 600mm or 600mm x 1200mm ceiling tile, providing easy access for both installation and maintenance

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

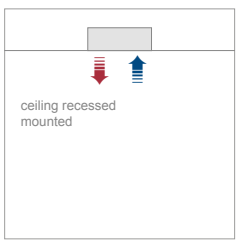
Incorporating the latest EC motor technology, which can result in running-cost savings as high as 70%, and with variable speed control as standard, the Caspian delivers heat quickly and quietly.

It is possible to have master and slave Caspian fan convectors that integrate the entire range of EC Caspian products. Please contact either our sales team or technical team to ensure that this is correctly specified

Caspians 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

Now available with Smart Control (see page 4)

Mounting Options



Applications
Education, healthcare, places of worship, leisure and sport office, hospitality, retail, showroom and industrial.

Motor
EC (BMS compliant)

Finish
Casing: zinc-coated steel 1.2mm.
Polyester powdercoated: white RAL 9010.
Available to special order in any colour.

Filter
Class G2, 100% polyester, non-washable.

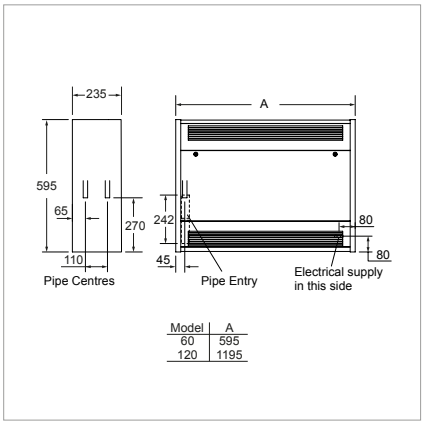
Installation
Suitable for two-pipe central heating systems.
Maximum installation height for high or ceiling mounting,
- 4m to underside.
Pipework access holes on the rear and underside.
Key operated front access panels.
Bleed valve accessible on removal of front casing.
Unit must be earthed.

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

Controls
See accessories table.

Specification
To specify state:
Fan Convector with EC motor, in 1.2mm zinc coated steel, 595mm x 595mm or 595mm x 1195mm. With variable heat output controller. As Smith's Caspian CTFF60/120







Heat output

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
	Low	2.4	0.85	1.20	1.45	1.80	2.16	2.35	2.73	3.08	3.40
EC 60	Mid	3.7	1.02	1.53	1.92	2.37	2.76	3.18	3.58	4.05	4.38
	High	5.8	1.18	1.85	2.38	2.93	3.36	4.00	4.43	5.02	5.36
	Low	1.8	1.62	2.34	3.32	3.98	4.71	5.62	6.32	6.99	7.61
EC 120	Mid	3.3	2.31	3.25	4.27	5.15	6.07	7.02	7.91	8.74	9.60
	High	5.1	2.99	4.15	5.21	6.31	7.42	8.41	9.50	10.48	11.59

Model Reference	Fan Speed	Air Volume (m^3/h)	Air Volume (l/s)	Specific Fan Power w/ls	Power Consumption (W)	NR in typical room*	Hydraulic Resistance (KPA)	Nominal Weight (KG)	Water Capacity (L)
	Low	201.00	55.90	0.14	8.00	34.00	1.38		
EC 60	Mid	290.50	80.75	0.26	21.00	41.50	1.69	24.00	0.92
	High	380.00	105.60	0.32	34.00	49.50	2.00		
	Low	419.30	116.50	0.14	16.00	34.00	17.78		
EC 120	Mid	549.65	152.68	0.26	40.00	42.00	20.59	44.00	2.08
	High	680.00	188.89	0.34	64.00	49.96	23.40		

*a typical room is taken as a room with a volume of $173m^3$ 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 Mean Water Temperature

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

Ordering guide

Model	Packed Wt (kg)	Product Code
CASPIAN CTFF60EC	24	HPCA29004
CASPIAN CTFF60 C/W REMOTE SMART CONTROL	24	HPCA30005
CASPIAN CTFF120EC	44	HPCA29003
CASPIAN CTFF120 C/W REMOTE SMART CONTROL	44	HPCA30004
Accessories		
FLEXIBLE HOSES 22MM PAIR		HAGA95003
ROOM THERMOSTAT HARD WIRED		HAGA95001
ROOM THERMOSTAT TAMPER PROOF		HAGA95004
CASPIAN PROPORTIONAL HEAT OUTPUT CONTROLLER 15°-25° REMOTE SENSOR (EC)		HACA33037
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 (EC AND AC)		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 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

It is unobtrusive and effective

This high output fan convector effectively heats large areas

Choice of punched steel or egg-crate grille options

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

Complete with programmable controller

Applications
Education, healthcare, leisure and sport, office, hospitality, retail and showroom.

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

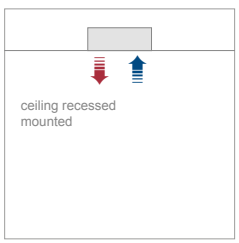
Installation
Maximum installation height 3.2m (10'6") to underside.
Minimum 150mm void space required for recessed installation.
Not suitable for bathrooms and other high humidity areas.
Two air inlet options: room only, room and void.
Maximum flexibility in installation: only 600mm - side clearance 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 operating switch.

Control
Overheat protection: thermal cut-out.
Manual reset procedure: switch power off at mains, wait 5 minutes, switch power on.
Wireless temperature control with on/off function featuring a programmable timer and frost protection (battery operated) supplied.

Accessories
Egg-crate grille accessory (remove standard grille).
Surface mounting kit - 135mm. Provides a complete foursided trim when fitted to a solid ceiling.
Ceiling tile spacer (85mm).

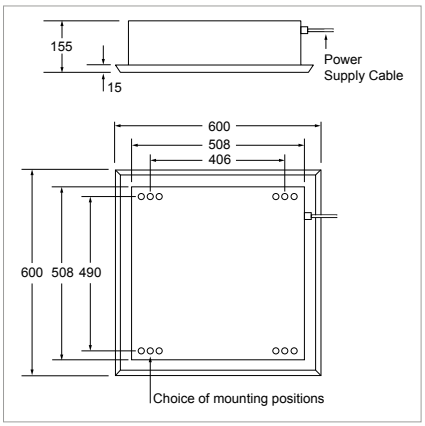
Specification
To specify state:
Ceiling mounted heat emitter at 4kW in white 600x600mm.
As Smith's Skyline.

Mounting Options









Heat output

Model	Heat Output (kW)	Mains cable	Fused spur	Total Power Consumption (kW)	Sound Levels (dBA)	Casting colour	Fan-only
SKYLINE E 4KW	4.0	1.5m	20A	4.1	40	white	n/a

Ordering guide

Model	Packed Wt (kg)	Product Codes
SKYLINE E 4KW	9	HPSK40003
Accessories		
SKYLINE E 4KW EGG CRATE GRILLE ACCESSORY		HASK40104
SKYLINE SURFACE MOUNTING KIT (135MM)		HASK40102
SKYLINE CEILING TILE SPACER (85MM)		HASK40103



THE BENEFITS OF WORKING WITH SMITH'S

Over 30 years of experience
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 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.

We have a dedicated R&D team who work closely with customers and suppliers alike to develop innovative heating and cooling solutions.

We continue to develop our product range to improve the performance and environmental credentials of our products.

UK manufacturer
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.

Shorter lead times
Manufacturing most of our products from raw materials means we are able to provide our customers with lead
times as short as 5 working days on the most commonly
used products.

5-year warranty
We provide a 5 year warranty as standard on most products including our Caspian range of products.

Extensive Testing and Certification
Smith's products undergo demanding tests for compliance, safety and performance. Our manufacturing facilities are regularly appraised and meet the exacting standards of national approval boards such as UL, CSA and Kema.

Our range of heating/cooling product meet all relevant standards and regulations, and come with a guarantee of quality and safety.

Our products are independently tested and verified by BSRIA and SRL Technical services.

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.

As part of our commitment to both quality and the environment we hold both ISO 9001(2015) and ISO 14001 certification.

Smith's is a member of the Achilles Building Confidence Scheme.

Technical and free quotation service
If you have a project please contact us, as our customer service is second to none and we are happy to offer any help and guidance that you might need.
technical.sales@smithsep.co.uk | +44 (0) 1245 324560





Smith's
A Swan Group Company

Happy to help
Smith's Environmental Products Ltd is one of the leading manufacturers of heating and cooling products in the UK. We are committed to achieving the highest standards and our faith is supported by a free parts and labour guarantee with every product (see our website for more information). Our customer service is second to none and we are happy to offer any help and guidance that you might need.

Stockists
All products are available nationally from Builders' Merchants, Plumbers' Merchants, Heating Equipment Distributors and Kitchen Equipment Distributors. In the event of difficulty, please contact us or visit our website SmithsEP.co.uk for details of your nearest stockist.

Information and advice
Full technical specifications and list prices are available to download from our website or in hard copy from our office. Also available on our website are price lists, individual product data sheets, installation & user guides, where to buy, who to contact and a media centre.

Alternatively contact our office 9.00am to 5.00pm Monday to Friday.

As part our commitment to continuous improvement Smith's Environmental Products may change the specifications of its products without prior notification or public announcement. All descriptions, illustrations, drawings and specifications in this publication present only general particulars and shall not form part of any contract. All dimensions are in mm unless otherwise stated. Please visit the website for the most up to date information.

To view the full product information download the datasheet at: www.SmithsEP.co.uk

For product information, customer services or sales support call us on **+44 (0) 1245 324900**

For the Republic of Ireland, contact MT Agencies on 01 864 3363

Sales: sales@smithsep.co.uk
General information: info@smithsep.co.uk

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THE SWAN GROUP EST 1932

ISO 14001
Certificate No. EM2001002

ISO 9001 Registered Firm
Certificate No: SP240400

International Accreditation Board
Registration No. 0044/1

Smith's, providing comfort for the **built environment**

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