

# Caspian EXT

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



## Features

- 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 80%, 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

## Applications

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

## Motor

EC (BMS compliant) or AC

## Finish

Casing: zinc-coated steel 1.2mm  
Polyester powdercoated: white RAL 9010  
Available to special order in any colour and with anti-microbial or anti-bacterial paint

## Filter

Class G3, 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

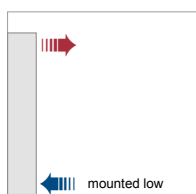
## Commissioning

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

## Controls

Variable heat output controller (mounted within the products)

## Mounting option



## Rear outlet



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## Heat output

Model	Heat Output at 80°			Heat Output at 75°			Heat Output at 70°			Heat Output at 65°			Heat Output at 60°		
	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)
Caspian 60	3.2	4.4	5.9	2.9	4.1	5.3	2.6	3.7	4.8	2.3	3.2	4.2	2.0	2.8	3.6
Caspian 90	5.2	7.8	10.3	4.8	7.2	9.6	4.4	6.7	8.9	3.9	6.0	8.0	3.5	5.3	7.1
Caspian 120	6.7	10.7	14.5	6.1	9.7	13.2	5.6	8.7	11.9	4.9	7.7	10.6	4.1	6.8	9.4
Caspian 150	14.8	15.4	16.2	13.7	14.2	15.2	12.5	13.1	14.0	11.3	11.9	12.8	9.9	10.8	11.6
Caspian 180	17.2	18.2	19.2	16.2	17.0	18.0	14.9	15.7	16.7	13.6	14.4	15.4	12.4	13.3	14.1

Model	Heat Output at 55°			Heat Output at 50°			Heat Output at 45°			Heat Output at 40°		
	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)	Low (kW)	Medium (kW)	High (kW)
Caspian 60	1.7	2.4	3.1	1.4	2.0	2.5	1.1	1.5	1.9	0.8	1.0	1.2
Caspian 90	3.0	4.6	6.2	2.6	3.9	5.3	2.0	3.1	4.1	1.5	2.2	2.9
Caspian 120	3.4	5.8	8.1	2.7	4.8	6.9	2.0	3.7	5.4	1.3	2.6	3.9
Caspian 150	8.8	9.7	10.4	7.5	8.2	9.0	6.2	6.9	7.5	4.8	5.4	6.1
Caspian 180	11.3	12.0	12.8	9.8	10.5	11.2	8.4	9.1	9.4	6.6	7.3	7.8

Heat output testing based on BS EN442 using mean water temperature, 18°C entering air temperature, 10° temperature drop

Model	Flow & return connections	Fused spur	Total Power Consumption				Sound Levels			Casting colour
			Low (Watts)	Medium (Watts)	High (Watts)	Water Capacity (Litres)	High (dBA)	Medium (dBA)	Low (dBA)	
Caspian 60	22mm	3A	8	24	40	0.92	50	42	33	white
Caspian 90	22mm	3A	15	43	70	1.50	53	42	34	white
Caspian 120	22mm	3A	13	62	110	2.08	58	46	35	white
Caspian 150	22mm	3A	20	144	177	2.58	59	47	36	white
Caspian 180	22mm	3A	26	124	220	3.18	59	48	38	white

Sound levels measured at 3m in front of the floor mounted model

## Correction factors

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

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

## 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)

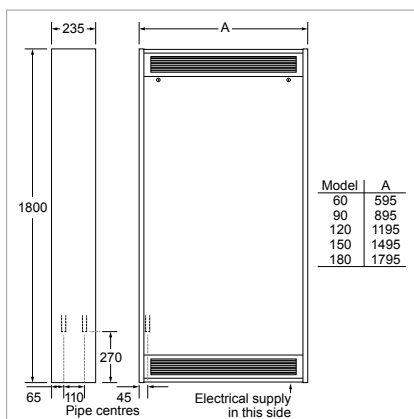
CP = Specific heat capacity [J/(kg·°C)]. Varies upon system temperature, Approx. 4187 if fluid is water.

## How to calculate Mean Water Temperature (ΔT)

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

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## Ordering guide

Model	Packed Wt (kg)	Product Codes
<b>AC Codes</b>		
Caspian EXT 60	30	HPCA25001
Caspian EXT 90	49	HPCA25002
Caspian EXT 120	58	HPCA25003
Caspian EXT 150	76	HPCA25004
Caspian EXT 180	95	HPCA25005
<b>EC Codes</b>		
Caspian EXT 60	30	HPCA24001
Caspian EXT 90	49	HPCA24002
Caspian EXT 120	58	HPCA24003
Caspian EXT 150	76	HPCA24004
Caspian EXT 180	95	HPCA24005

## Specification

To specify state:  
Fan Convector 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
Plinth to suit low level 60 models - 150mm high (White)	HACA33092
Plinth to suit low level 90 models - 150mm high (White)	HACA33093
Plinth to suit low level 120 models - 150mm high (White)	HACA33094
Plinth to suit low level 150 models - 150mm high (White)	HACA33095
Plinth to suit low level 180 models - 150mm high (White)	HACA33096
Plinth to suit low level 60 models - 150mm high (Black)	HACA33082
Plinth to suit low level 90 models - 150mm high (Black)	HACA33083
Plinth to suit low level 120 models - 150mm high (Black)	HACA33084
Plinth to suit low level 150 models - 150mm high (Black)	HACA33085
Plinth to suit low level 180 models - 150mm high (Black)	HACA33086
Adjustable low temperature cut-out (all Caspian models)	HACA33001
Thermostat T1 (low level models with AC or EC Motors)	HACA33002
Thermostat T2 (low level models with AC Motors)	HACA33036
Thermostat (T1) & auto-speed Control (T2) (Low level models with AC motors)	HACA33003
External Control Harness (models with EC motors)	HHCA33004
Caspian EC linking kit (Alt to EXTCH)	HACA33068
Proportional Heat Output Controller (models with EC motors) 15°-25°C (low level only)	HACA33005
Proportional Heat Output Controller (models with EC motors) Remote Sensor 15°-25°C	HACA33037
Proportional Heat Output Controller (models with EC motors) 11°-21°C (low level only)	HACA33075
Proportional Heat Output Controller (models with EC motors) Remote Sensor 11°-21°C	HACA33076
Remote (Wired) Room Thermostat	HAGA95001
Remote (Wired) Room Thermostat Siemens	HACA33077
Remote (Wireless) Room Thermostat Siemens RF	HACA33074
Remote (Wired) Room Thermostat Siemens Tamper Proof	HAGA95004
Remote (Wired) Room Thermostat Siemens Speed and Temperature Control (EC only)	HACA33078
22mm flexible hoses (pair)	HAGA95003

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

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