

# Caspian FF

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



## Features

- 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
- 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
- Caspian FF can be installed in a recess to allow a flush finish to wall. It 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
- Can be installed in a ceiling recess or as a freestanding appliance

## Applications

- Showrooms and shops
- Waiting room
- Changing room
- Place of worship
- Care home/Hospital
- Sports halls
- Entrance hall/Corridor
- Meeting room/Hall/Club
- Public house
- School/Nursery
- Library

## Motor

EC (BMS compliant) or AC (on request)

## 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  
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

## Controls

Variable heat output controller (mounted within the product)

## Accessories

Thermostat T1 (low level models with EC motors)  
Thermostat (T1) & auto-speed Control (T2) (Low Level models with AC motors)  
Plinth (150mm high) to suit each model, available in black or white - AC and EC  
Proportional heat output controller, integral and remote - EC only  
Standard room thermostat - AC and EC  
Tamper proof thermostat - AC and EC  
External control harness (for up to 4 products) - EC only  
Caspian EC linking kit - EC only  
Siemens RF thermostat - AC and EC  
Adjustable low temperature cut-out (30°C to 90°C)  
22mm flexible hoses (pair) - AC and EC

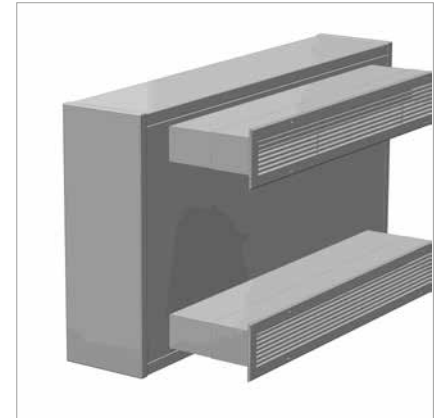
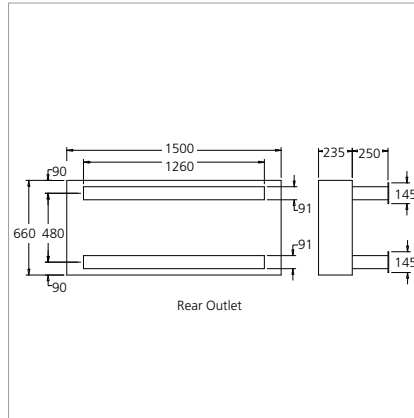
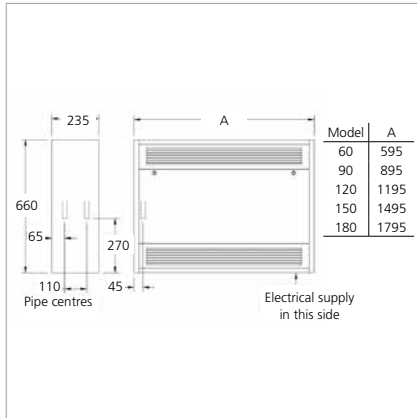
## Specification

To specify state:

Fan Convector 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

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Rear Outlet

## 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	4.5	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	9.6	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

## 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)

$$\text{Flowrate (L/S)} = \left[ \frac{\text{Total heat emitted from product (kW)}}{(\text{Flow temperature} - \text{Return temperature})} \right] \times 4.186 \text{ (Specific heat)}$$

### 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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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	2.54	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

## Ordering guide

For a full listing of products and accessories available please visit our website for the most up to date information

Model	Packed wt (kg)	AC Codes	EC Codes	Accessories	Product Codes
Caspian FF 60	24	HPCA23002	HPCA22001	Plinth to suit low level 60 models - 150mm high (Black or White)	HACA33006
Caspian FF 90	39	HPCA23003	HPCA22002	Plinth to suit low level 90 models - 150mm high (Black or White)	HACA33007
Caspian FF 120	46	HPCA23004	HPCA22003	Plinth to suit low level 120 models - 150mm high (Black or White)	HACA33008
Caspian FF 150	61	HPCA23005	HPCA22004	Plinth to suit low level 150 models - 150mm high (Black or White)	HACA33009
Caspian FF 180	76	HPCA23006	HPCA22005	Plinth to suit low level 180 models - 150mm high (Black or White)	HACA33010
<b>Rear Outlet</b>				Thermostat T1 (low level models with EC motors)	HACA33002
Caspian FF 60	24	HPCA23007	HPCA22006	Thermostat (T1) & auto-speed Control (T2) (Low Level models with AC motors)	HACA33003
Caspian FF 90	39	HPCA23008	HPCA22007	Proportional Heat Output Controller (models with EC motors) Integral	HACA33005
Caspian FF 120	46	HPCA23009	HPCA22008	Proportional Heat Output Controller (models with EC motors) Remote Sensor	HACA33037
Caspian FF 150	61	HPCA23010	HPCA22009	Remote Room Thermostat	HAGA95001
Caspian FF 180	76	HPCA23011	HPCA22010	Siemens Room Thermostat (Tamper Proof)	HAGA95004
				External Control Harness (models with EC motors)	HACA33004
				Caspian EC Linking Kit (EC Only)	HACA33068
				Siemens Room Thermostat (RF)	HACA33074
				Adjustable low temperature cut-out (all Caspian models)	HACA33001
				22mm flexible hoses (pair)	HAGA95003

## Accessories



External control harness (for up to 4 products)



Plinth (150mm high) in black or white



Adjustable low temperature cut out (30°C to 90°C)



Wall mounted room thermostat



22mm flexible hoses (pair)