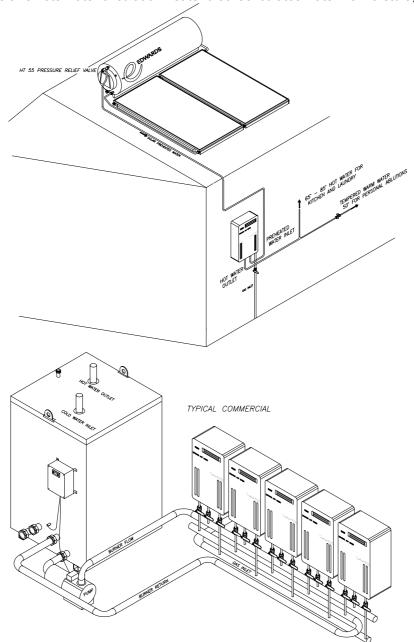


Comfort Series Technical Data

Stockcode 9090737 11/04

Edwards range of Comfort water heaters are a continuous supply heater that can be used in both residential and commercial applications. In residential use it operates as a gas instantaneous water heater supplying either warm or hot water to multiple outlets in the building. In commercial applications it operates as a remote water circulation heater that recirculates water from a storage tank.



HOW IT WORKS - The Comfort series is designed to heat water either circulated by a pump from a storage tank (commercial) or directly from a potable cold water supply (residential).

Residential:

When a hot water outlet is opened, the flow switch is activated. This causes the gas control to open and go through its firing sequence until a flame is established. The water flows through the heat exchanger and is heated to the temperature nominated by the consumer. The flame will modulate its intensity depending on the amount of flow through the heater to ensure an accurate temperature of $\pm 1^{\circ}\mathrm{C}$.

Commercial (400a external model only):

It can be connected to an Edwards SS, GXC or LEX series depending on the application. When the control box on the storage tank calls for heat, it activates the pump that creates the

flow through the Comfort heater. The same sequence as above allows the gas valve to "fire up" the burner. The burner heats the water flowing through the heat exchanger that returns back to the storage tank. This circulation continues until the tank temperature sensor is satisfied. The control box then turns the pump off so that the flow stops and the burner shuts down.

TYPE - A mains pressure, Low Nox gas instantaneous water heater and circulator operating with fan assisted combustion. It is suitable for direct or indirect connections and approved to Australian Standard AS3498 and AG102.

HEAT EXCHANGER - Multiple windings of copper tube and fins provide a large heating surface area. It is designed for water supply pressures between 150 – 1200kPa.

GAS CONTROLS – Fully AGA approved proportional gas valve and electronic controls with 3 safety shut-off solenoids. It has a low gas rating of 12.5% of the high rating.

Electronic ignition is a 100V AC igniter

CASING – Robust 0.8mm zinc anneal fully covered with heat resistant powder-coated paint.

WATER QUALITY - Acceptable range:

Refer to the standard warranty conditions available from an Edwards representative.

FLUING - Combustion by products are exhausted using a balanced flue. It must be installed in locations as detailed in AG601.

GAS BURNER – Compact, stainless steel ribbon burner that achieves a 5.3 star rating for efficiency.

SAFETY DEVICES - A flame rod monitors the burner flame and will prevent the flow of gas if there is no flame present.

A bi-metallic cut-off switch will shut down the gas controls if the temperature in the heat exchanger exceeds 98°C.

A thermistor will shut down the gas controls if the outlet temperature reaches 90°C.

If there is no water flow, a water flow switch will shut off the gas controls.

If the temperature outside the heat exchanger reaches 184°C one or more fusible links will shut down the gas controls.

A water pressure relief valve set to relieve at 1500kPa prevents excessive pressure build up damaging the heat exchanger. It automatically resets at 1000kPa.

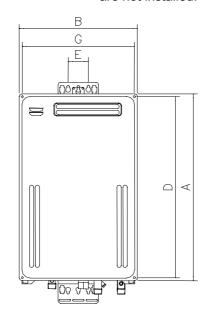
To prevent water from freezing in cold conditions, anti-frost sensors activate at 3.5°C and reset once the temperature reaches 11.5°C.

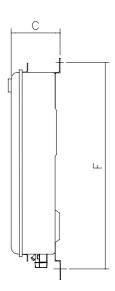
Temperature accuracy is kept within 1°C of what has been selected by a thermistor on the outlet. If this tolerance is exceeded the burner will shut down.

REMOTE CONTROLLERS – 12volt controllers operate the heater. They are designed for ensuite, bathroom or kitchen use. The unit can be set at 45, 60 or 75°C when remote controllers are not installed.

DIMENSIONS

	200a	300a	400a
Α	520	520	520
В	350	350	350
С	170	170	170
D	490	490	490
E	60	60	60
F	542	542	542
G	330	330	330





SPECIFICATIONS

	Comfort 200a	Comfort 300a	Comfort 400a Commercial only
Maximum Gas Input -MJ/h	160	188	195
Minimum Gas Input – MJ/h	21	21	21
Energy Output - kW	31	36	42
Inlet Pressure - kPa	1.13 min.	1.13 min.	1.13 min.
Nat. Gas	2.75 max.	2.75 max.	2.75 max.
Inlet Pressure – kPa LPG	2.75 min./max.	2.75 min./max.	2.75 min./max.
Water Supply Pressure - kPa	150* min.	150* min.	150* min.
	1200 max.	1200 max.	1200 max.
Dry Weight - kg	14	16	16
Gas Connection - mm	20 BSP MI	20 BSP MI	20 BSP MI
Water Connections	15 BSP MI	15 BSP MI	15 BSP MI
Ignition	Electronic	Electronic	Electronic
Outlet Temperature Tolerance – (°C)	3	3	3
Water Temperature Range – (°C with controller)	35-65	35-65	35-65
Maximum Flow Rate @ 25°C rise – I/m	18	21	24
Over-Temperature Lockout – (°C)	98/105	98/105	98/105
Combustion Lockout Temperature – (°C)	184	184	184
Anti-Frost Protection Temperature – (°C)	3.5	3.5	3.5
Remote Controller Électric Supply - V	12	12	12
Heater Electrical Supply - V	240 AC	240 AC	240 AC

NOTES:

- * The appliance will operate at reduced performance below 340kPa.
- For information relating to burner test point pressures and injector sizes refer to the appliance data plate located on the right hand side of the cabinet for each comfort model.
- For information relating to overall dimensions and connection points refer to diagrams.
- Before installing in areas over 1500 m above sea level, contact the manufacturer for instructions.

For more information call 132 949 (Australia only)



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