

Technical Data

The basic principle of a Heat Pump water heater is similar to a refrigerator working in reverse. When hot water is drawn off and cold water enters the tank, the thermostat activates a fan, a compressor and a circulator. The fan draws outside air in through the air inlet louvres at the top of the water heater and the pump circulates water from the bottom of the storage tank and through a heat exchanger. Heat is absorbed from the air by an evaporator and transferred into the water through the heat exchanger.

The resulting cold air is then discharged through the air outlet louvres back to atmosphere and the heated water is circulated back into the top of the storage tank. This process continues while ever heating is required until the water in the storage tank reaches a temperature of 60°C.

Even on cold days, heat is drawn from the surrounding air. The heat pump will operate at temperatures between a minimum of 5°C and maximum of 55°C. The booster heating unit will operate when the air temperature is below 5°C if heating is required. The efficiency of the water heater increases as the surrounding air temperature increases.



Automatic safety controls are fitted to the water heater to provide safe and efficient operation.

The Edwards air sourced heat pump water heater has a vitreous enamel lined steel cylinder and is designed to be installed outdoors. The water heater's evaporator absorbs heat from the surrounding air and transfers this heat into the water. The water heater's principal of operation and sound level are similar to that of a domestic air conditioner.

FEATURES INCLUDE:

- Highly efficient refrigeration technology extracts heat energy from surrounding air
- No solar collectors required – ideal where roof space is limited or orientation is not suitable for collectors.
- Ground mounted cylinder ensures easy installation and provides flexibility in location.
- Storage capacity of 310 litres at full mains pressure
- Powerful 1200W compressor – faster recovery
- Automatic Electric booster operates only when ambient temperature is below 5°C.

BENEFITS INCLUDE:

- Hot water available in all weather conditions
- Reduced energy consumption for water heating
- Up to 291%* more efficient than a conventional electric water heater
- Eligible for environmental incentives
- Reduction in fossil fuel consumption helps the environment and reduces CO₂ emissions
- Edwards 5/3/2/1 warranty[†]

SPECIFICATIONS

Storage Tank		
Model		EHP310
Installation location		outdoor
Storage capacity	litres / US Gal	310 / 82
Electric boost capacity	litres / US Gal	220 / 58
Height	m / in	1.865 / 73.5
Width	m / in	0.670 / 26.4
Depth	m / in	0.680 / 27.2
Weight	empty kg / lbs	135 / 298
Weight	full kg / lbs	445 / 981
Temperature setting	°C / °F	60 / 140
Sound rating @ 1.5 m	dB(A)	51
Rated power input	watts	1300
Refrigerant type		R134a

Water Supply		
TPR valve setting	kPa / psi	1000 / 145
ECV* setting	kPa / psi	850 / 123
Max. supply pressure		
with ECV	kPa / psi	680 / 99
without ECV	kPa / psi	800 / 116
Min. supply pressure	kPa / psi	200 / 29
Water connections	cold	RP3/4/20
(left hand)	hot	RP3/4/20
TPR valve connection		RP1/2/15

* Expansion Control Valve (ECV) is not supplied.

Electric Boost Specifications					
Heating unit type		Copper sheath immersion element			
Supply voltage		220 V – 250 V			
Hourly recovery rate @ temperature rise of:					
Rating	Current	40°C	50°C	60°C	
kW	Amps	litres/hr	litres/hr	litres/hr	
2.4	10	52	41	34	
3.6	15	77	62	52	

Sizing Guide	
Climate	No of People
Tropical climate	4 – 7
Temperate climate	3 – 6
Cool climate	3 – 5

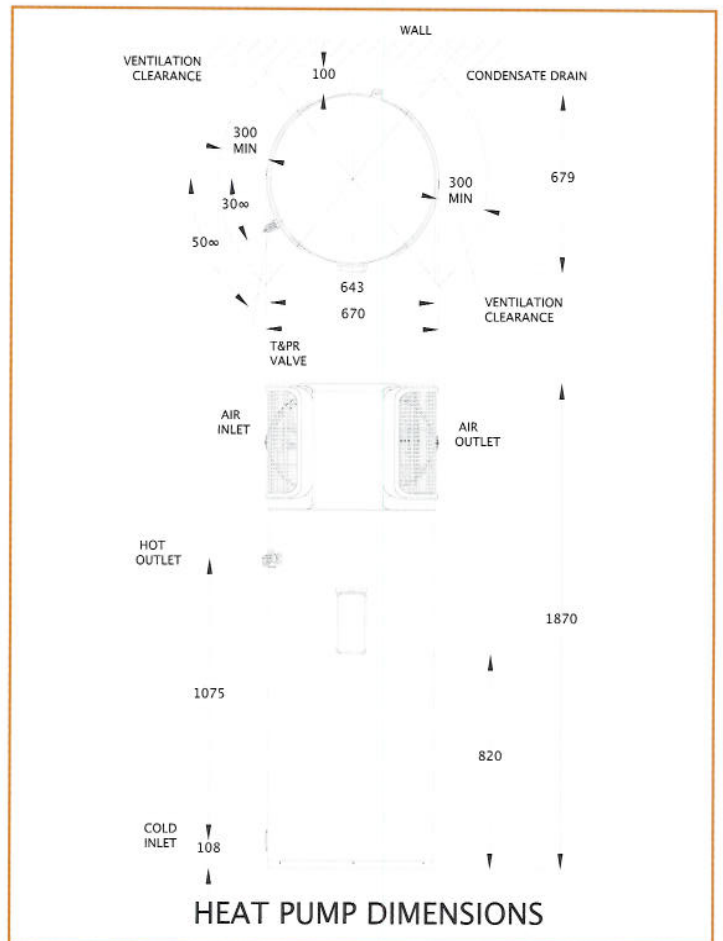
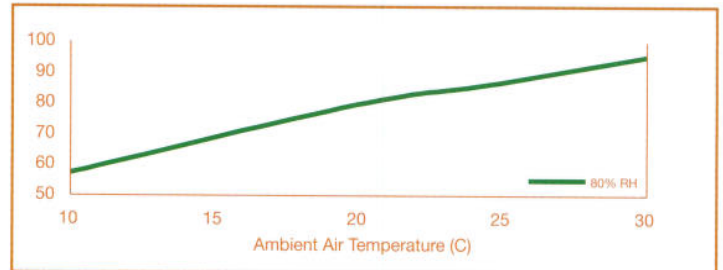
* Efficiency of 291% can be achieved in an ambient air temperature of 28°C and relative humidity of 80%.

Warranty details: 5/3/2/1, 5 year cylinder, 3 year labour on cylinder, 2 year compressor, 1 year parts including labour; applies to a single family dwelling only. All other applications have a 3/1/1, 3 years cylinder, 1 year collectors, 1 year parts and labour.

Your local distributor:

Heat Pump - Performance Specifications						
Relative humidity	40%		60%		80%	
Ambient air temperature	litres/hr	COP	litres/hr	COP	litres/hr	COP
10°C (53°F)					55	2.44
20°C (68°F)			71	3.08	73	3.19
30°C (86°F)	86	3.74	88	3.80	92	3.91

Hourly recovery rate is at 45°C temperature rise



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