

RENEWABLE HOT WATER



HEAT PUMP

SOLAHART ATMOS® FROST 270QDR



Solahart Atmos®-Frost is an energy-efficient heat pump water heater. It's a smart choice for people looking for an energy-efficient alternative to a gas or electric water heater but are unable to go solar. And because it's frost-tolerant, it can be installed in almost any location in Australia.

Atmos-Frost uses heat from the ambient air, not the direct sun, to heat your water and is a reliable, efficient way to reduce water heating energy consumption and cut greenhouse emissions.

- No need for solar collectors
- Suitable for cold climates and harsh water conditions
- Includes backup element for the coldest nights
- Vitreous Enamel-lined tank
- 10-year cylinder warranty
- Suitable for households of up-to 6 people

HEMS Compatible

Use the excess solar power produced from your solar panels to run your heat pump, with a Solahart Home Energy Management System (HEMS).

HOW ATMOS FROST WORKS

Solahart Atmos-Frost is an integrated heat pump with 270-litre storage capacity and an advanced wrap-around micro-channel heat exchanger for more efficient water heating. This technology also makes the heat pump suitable for harsh water areas as the heat exchanger is not in contact with the water. Designed to work in all Australian climates, it comes with a boost mode to ensure you always have hot water in very cold conditions, and a de-icing function to improve performance in frost conditions.



①

Heat is absorbed into the refrigeration system from the outside air and drawn in across the evaporator.

②

Heat from the refrigeration process is transferred to the water via a microchannel heat exchanger.

③

This process continues until the water reaches the set temperature.

WHY ATMOS FROST IS A SMART CHOICE

Solahart Atmos-Frost has been designed and tested to withstand the harsh Australian conditions with multiple inbuilt protective features.



High Efficiency

4.5 average Coefficient Of Performance⁽³⁾ (COP) making it a highly efficient water heater.



Works day & night

A heat pump draws heat from the surrounding air to heat the water.



Eligible for STCS[^]

Small-Scale Technology Certificates (STCs), help you reduce the up-front cost of your purchase.*



HEMS Compatible

Use the excess solar power produced from your solar panels to run your heat pump, with a Solahart Home Energy Management System (HEMS).[†]



73% Energy Efficiency

You could save up to 73% on your water heating energy consumption compared to an electric water heater in Zone 3.⁽⁴⁾

TECHNICAL SPECS

MODEL	ATMOS-FROST 270QDR
Product number - with black anode (magnesium)	270QDR24
Product number - with blue anode (aluminium)	270QDR24/B
Storage Capacity	270 L / 71.3 US Gal
Boost Capacity	195 L / 51.5 US Gal
Rated Heat Pump Power Input	985 W
Element Rating	2.4 kW
Max. rated power input @ 240 V	3600 W
Electrical Circuit	15 Amps
Average COP ⁽¹⁾ @ 19°C ambient air temperature & from 8°C to 60°C water temperature	4.5
Noise Level @ 1 metre ⁽⁵⁾	48 dB(A)
Temperature Setting	60°C / 140°F
Power Supply ⁽³⁾	220 - 240 V / 50 Hz
Minimum power connection ⁽⁶⁾	16 or 24 hrs/day
IP rating	IP24
Solahart Warranty ^(1,2)	10/3/2
Heater Weight - Cartoned	145 kg / 320 lbs
Heater Weight - Full	405 kg / 893 lbs
Refrigerant	R513a
Refrigerant circuit pressure	2600 kPa
Water Connections and Pressure Settings	
Inlet	Rp 3/4
Outlet	Rp 3/4
Temp Press Relief (TPR) Valve Setting	1000 kPa
Expansion Control Valve (ECV) Setting	850 kPa
Maximum Mains Supply Pressure	
With Expansion Control Valve ⁽⁷⁾	680 kPa
Without Expansion Control Valve	800 kPa
Electric Boost Specifications	
Heating unit type	Copper sheath immersion element
Supply Voltage	240 V

*Additional incentives may be available in some states.

†HEMS provided by Combined Energy Technologies (CET) ABN: 15 616 324 362. For more information on HEMS contact your Solahart Dealer or CET contact@combined.energy.

(1) Harsh water regions - the Solahart Warranty may not apply to the water heater if it is connected to a water supply with: a Total Dissolved Solids content > 2500mg/L, or is corrosive with a Saturation Index < -1.0.

(2) Solahart Warranty Details: 10/3/2 warranty; 10-year cylinder supply, 3-year labour on cylinder, 2-year parts including labour. Applies to a single family domestic dwelling only. All other applications have a 3/1/1 warranty; 3-year cylinder supply, 1-year cylinder labour, 1-year parts including labour.

(3) An average Coefficient of Performance (COP) of 4.5 was measured under test conditions with an ambient air temperature of 19°C/15°C (Dry Bulb/Wet Bulb), Relative Humidity of 62%, heating of the water from 8°C to 60°C during water heater operation and a power supply of 240 V-50 Hz. The Heat Pump average heating capacity of 4.0 kW and its water heating capacity of 77 litres / hour heated through a 45°C temperature rise were calculated under these conditions from the results of this test. Note that the actual COP of the product at any given time will be impacted by a number of factors, including the ambient air and cold-water inlet temperatures at the place of installation and time of day / season of operation.

(4) Energy savings of up to 73% shown are based on Australian Government approved TRNSYS simulation modelling of a Solahart 270QDR heat pump using a medium load in zone 3 and apply when replacing an electric water heater of a similar size. Savings and incentives will vary depending upon your location and type of water heater being replaced. The impact on an electricity account will depend on the tariff arrangement of the water heater being replaced and where you live. Before purchase consult your energy provider for more information on cost comparisons.

(5) Noise Level - A Noise Level (LA90) of 48 dB(A) was measured at 1m from the water heater. The noise level when installed may be higher due to sound reflections from adjacent walls and structures.

(6) The 270QDR Solahart Atmos-Frost Heat Pump water heater is recommended for connection to a 24 hour continuous tariff power supply. Depending upon the size of the household and their hot water requirements and if the Electricity Retailer permits, an extended off-peak (overnight and day) or Extended time controlled power supply connection of 16 hours per day may also be suitable.

(7) Expansion Control Valve (ECV) is not supplied.

Solahart Australia 1300 769 475 | solahart.com.au

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