

# Heat Pump 310HAV

## Description

The Solahart 310HAV is a smart, energy efficient alternative for areas where a traditional solar water heater may not be suitable. It uses one of the most abundant renewable energy sources, heat from the air, to provide hot water for your family.

Rather than using roof mounted collectors, efficient heat pump technology extracts energy from the surrounding air. Ambient warmth is used to convert the refrigerant within the sealed system into a gas. The gas is then compressed to generate even more heat, which then heats the water in the tank. What's more this process can work day or night, in sunshine and rain, all year round.

The Solahart 310HAV also uses an advanced design to provide single pass true top down heating. The flow of the water through the



heat exchanger is controlled to ensure the water is heated to 60°C in a single pass and deposited at the top of the storage cylinder for immediate use. This ensures a faster supply of useable hot water.

The larger compressor gives quicker recovery providing hot water faster. The ceramic lined tank has a protective sacrificial anode. It is also equipped with an electric booster designed to operate only in very cold conditions.

## Key Benefits

- **Uses heat pump technology to extract heat from the air, day or night**
- **Ideal for installations not suitable for traditional solar water heaters**
- **Integrated electric booster heats in very cold weather conditions**
- **True top down heating for quick recovery**
- **Uses less energy than a conventional electric water heater\***
- **Sleek, modern design**

## Key Features

- **Can save up to 60% to 65% of water heating energy consumption\***
- **Hot water regardless of the weather**
- **Can qualify for valuable environmental incentives\***
- **Reduced energy use can save up to 1.7 to 2.9 tonnes of CO<sub>2</sub> emissions per annum\***
- **Peace of mind with 5/3/2/1 year warranty†**

\* Energy savings of up to 60% to 65% shown are based on Australian Government approved TRNSYS simulation modelling using a medium load, and apply when replacing an electric water heater with a Solahart heat pump water heater. 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. The Solahart 310HAV Heat Pump water heater is recommended for connection to a minimum 16 hour per day power supply. Before purchase consult your energy provider for more information on cost comparisons. Refer to [solahart.com.au](http://solahart.com.au) for further information.

† Solahart Warranty Details: 5/3/2/1 warranty; 5 year cylinder supply, 3 year labour on cylinder, 2 year sealed system including labour, 1 year parts including labour: applies to a single family domestic dwelling only. All other applications have a 3/1/1/1 warranty; 3 year cylinder supply, 1 year sealed system, 1 year parts, 1 year labour warranty.

The Solahart Warranty may not apply to the water heater if it is connected to a water supply with: a Chloride content > 250 mg/L; or a pH < 6; or is scaling with a Saturation Index > +0.4; or is corrosive with a Saturation Index < -1.0.

In Australia, an amended warranty period may apply where a government rebate has been received for the solar water heater. Phone 1300 769 475 for details.

# 310HAV Air Sourced Heat Pump

This system is designed for outdoor installation only.  
The HAV system is suitable for frost regions. It is not suitable for scaling or corrosive water areas.

HAV System		
Model		310HAV
Installation location		outdoor
Storage capacity	litres	310
	US gal	82
Electric boost capacity	litres	220
	US gal	58
Weight empty	kg	135
	lbs	298
Weight full	kg	445
	lbs	981
Temperature setting	°C	60
	°F	140
Power supply*	Volts	240
Minimum power connection	hours/day	16
Rated power input	Watts	1300
Refrigerant type		R134a
Height	m	1.870
	in	73.6
Width	m	0.670
	in	26.4
Depth	m	0.680
	in	26.8

\* The water heater will only operate on an electricity supply with a sine wave of 50Hz. Devices generating a square wave or a lower frequency cannot be used to supply power to the water heater.

Water Supply				
TPR valve setting	kPa	1000	psi	145
ECV* setting	kPa	850	psi	125
Max. supply pressure	kPa	680	psi	100
			without ECV	psi
Min. supply pressure	kPa	200	psi	29
Water connections (left hand)	cold	RP ¾ / 20		
	hot	RP ¾ / 20		
TPR valve connection		RP ½ / 15		

\* Expansion Control Valve (ECV) is not supplied.

**Energy Tip:** When installing your heat pump water heater, install minimum 3 star rated shower roses and flow restrictors to your taps if you don't already have them. This will not only save water but make your energy savings go further.

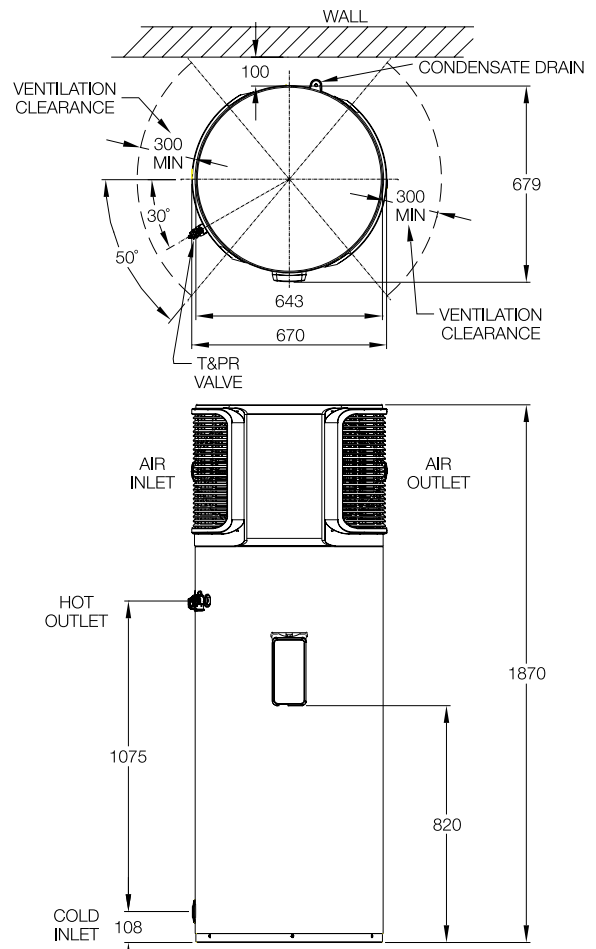
## Heat Pump Performance Specifications

Ambient air temperature	Relative humidity	Recovery rate @ 45°C rise litres/hour	Coefficient of performance COP
20°C	60%	71	3.1
30°C	60%	88	3.8

## Electric Boost Specifications

Heating unit type		Copper sheath immersion element		
Supply voltage		240V		
Hourly recovery rate @ temperature rise of:				
Rating kW	Current Amps	30°C litres/hour	40°C litres/hour	50°C litres/hour
2.4	10	68	52	41
3.6	15	103	77	62

## Dimensions



**Note:** Technical data is subject to change.