

**SAVE UP TO 80% ON  
HOT WATER COSTS**



**WI-FI  
CONTROL**

**ALL-IN-ONE  
HOT WATER HEAT PUMP**

220L, 270L, 320L WITH OPTIONAL E-HEATER



# Emerald. Designing a sustainable, safer future.

Designed by Emerald, an Australian company with 17 years of manufacturing experience, this heat pump combines efficiency, reliability and Wi-Fi.

Ideal for both residential and commercial use, it delivers peak performance in any setting.



“ At Emerald, we want our customers to gain the most out of technology. We focus our energies on creating products that are technologically superior, last longer and perform better. ”

STUART EDGLEY EMERALD MANAGING DIRECTOR

*Stuart Edgley*

# The energy-saving, stylish, all-in-one heat pump.

## Why choose an Emerald hot water heat pump?

Emerald's All-One Heat Pump is renowned for its outstanding energy efficiency, reliability, and the money-saving benefits of its built-in Wi-Fi.

Designed to minimise its environmental impact, it utilises R290, a natural and non-toxic refrigerant with minimal environmental harm. R290 has zero Ozone Depletion Potential (ODP) and an extremely low Global Warming Potential (GWP) of 3.

In addition to its eco-friendly features, this heat pump comes with smart controls and an integrated electric backup system, making it a versatile choice anywhere in Australia.



## Features.

### PREMIUM TECHNOLOGY

Built using premium materials and DC technology to ensure exceptional performance, delivering efficiency and reliability.

### QUIET OPERATION

The DC technology combined with premium components results in quieter operation.

### LOW GLOBAL WARMING POTENTIAL (GWP 3)

Uses R290, the preferred refrigerant due to its low Global Warming Potential compared to traditional refrigerants.

### BUILT TO LAST

Manufactured using materials that prioritise outstanding performance and durability.

### MODERN COMPACT DESIGN

Designed with a contemporary, compact style to seamlessly blend into modern home design.

### WI-FI APP CONTROLS AND MONITORING

Adjust your heat pump's settings and track its performance in real-time via Wi-Fi.



# What makes heat pumps so incredibly efficient?

## Save up to 80% on your hot water bills.

Hot water heating systems are often the most significant contributor to household energy costs, amounting to approximately 25-30% of the total energy consumption.

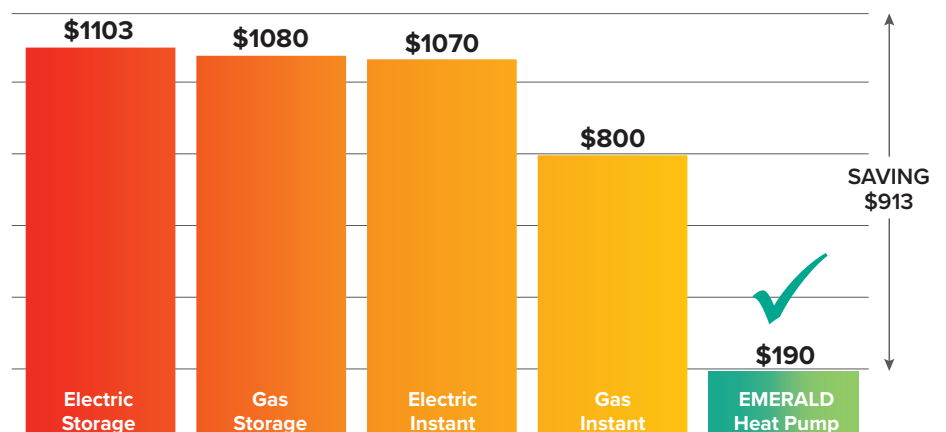
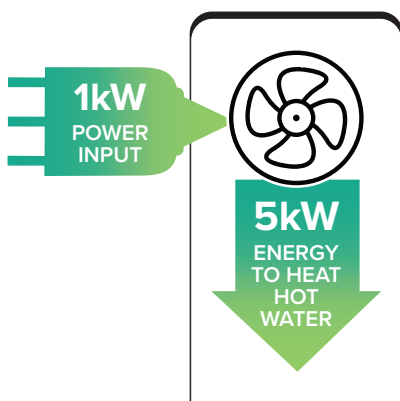
Whether replacing an existing system or installing one, opting for an Emerald hot water heat pump guarantees both comfort and energy efficiency for your home.

## How heat pumps work.

Hot water heat pumps operate by extracting heat from the air and transferring it to the water in the tank. This process is similar to how a refrigerator works but in reverse. The heat pump contains a refrigerant that evaporates at low temperatures, absorbing heat from the air. This vapor is then compressed, raising its temperature, and the heat is transferred to the water.

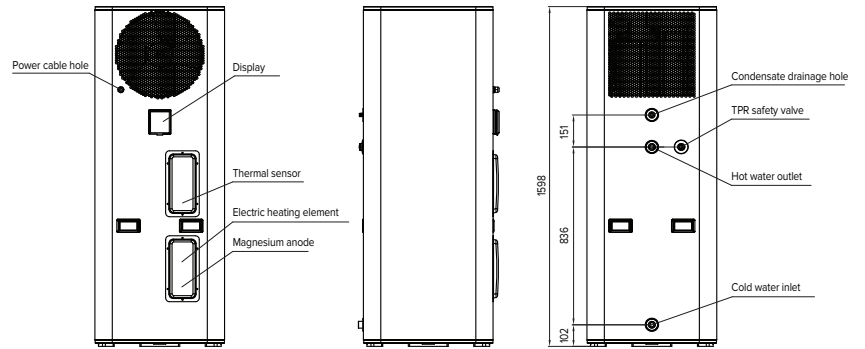
## Hot water out of thin air.

Heat pumps extract thermal energy from the surrounding air. From 1kW of power input they can output 5kW to heat water.



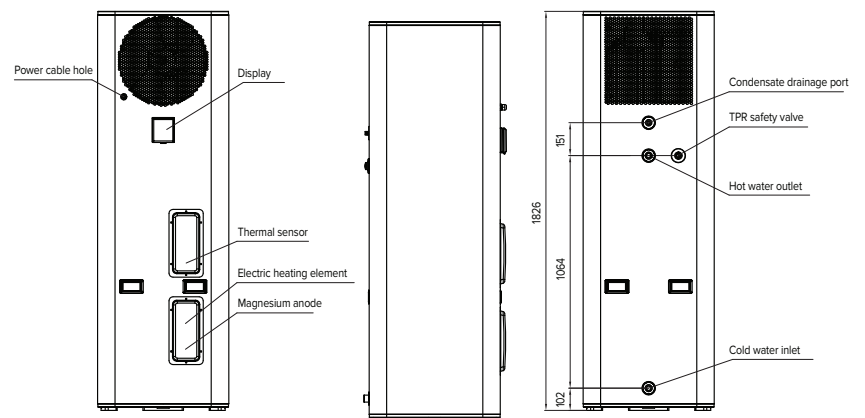
\*Average annual Australian household hot water cost estimates based on daily use of 150-200L for 4 people

# A size to suit every household's hot water needs.



EE-HWS-A1-220E(-1)

(The electric heating element is not included in EE-HWS-A1-220)

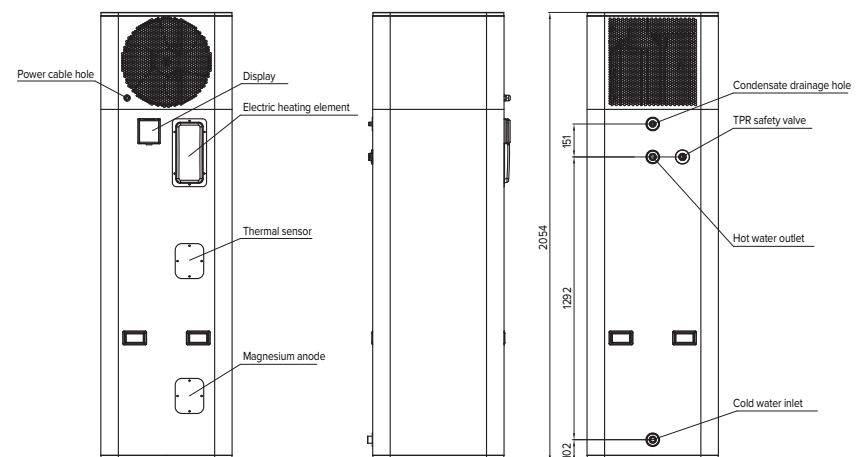


EE-HWS-A1-270E(-1)

(The electric heating element is not included in EE-HWS-A1-270)

We offer three heat pump models with various litre capacities: 220L, 270L, and 320L, all featuring an optional built-in electric heater.

The back-up heater offers faster heating, guaranteeing a continuous supply of hot water - even in extreme weather conditions!



EE-HWS-A1-320E(-1)

(The electric heating element is not included in EE-HWS-A1-320)

# Convenient, smart control with the Emerald app



The Emerald app provides you with convenient control and monitoring capabilities for your heat pump hot water system.

## Monitor electricity consumption

View information on your heat pump hot water systems electricity usage.

## Real-time hot water temperature

Check the current temperature of the hot water and monitor the water level to ensure you have up-to-date information about your hot water status at all times.

## Control anywhere, anytime

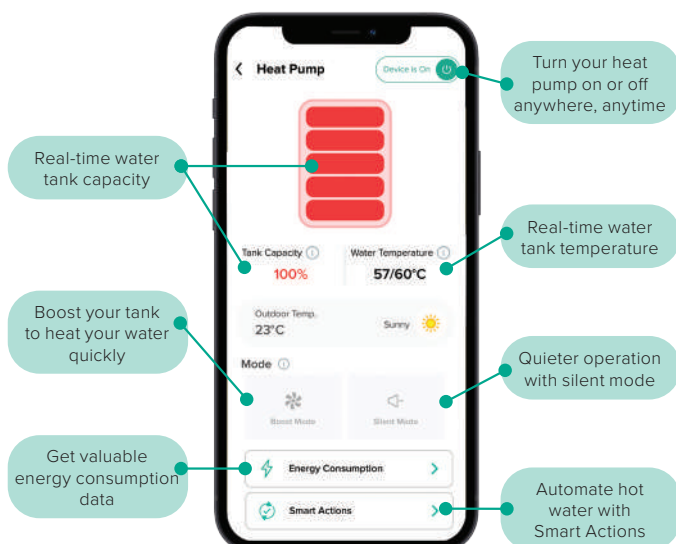
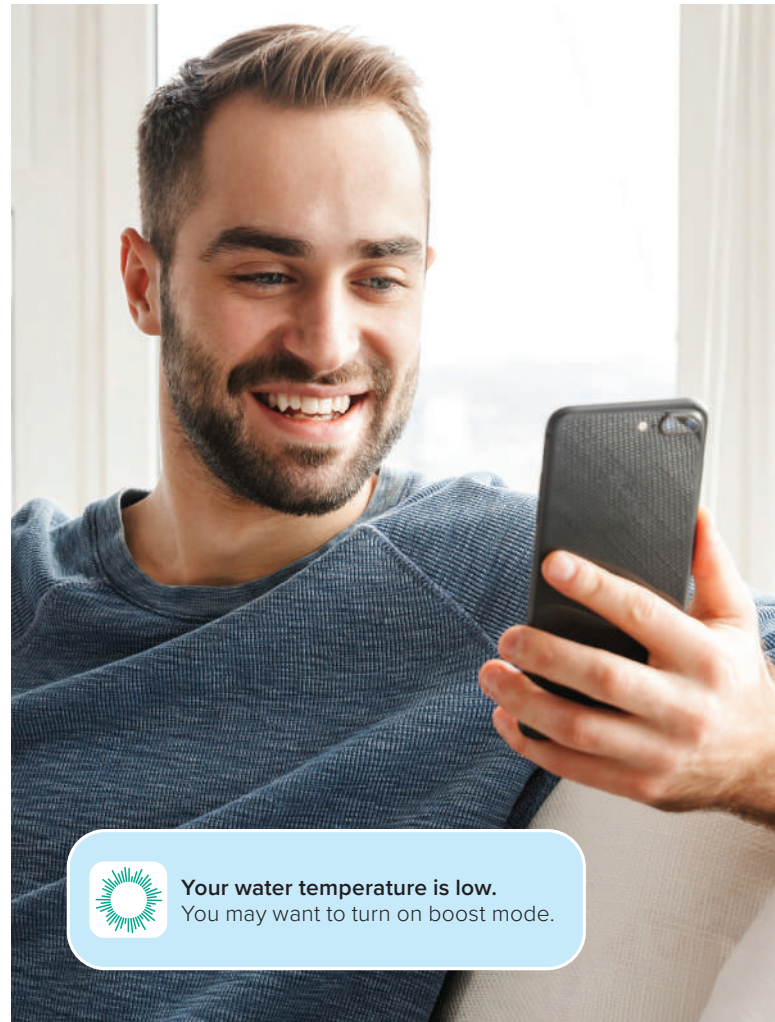
Enjoy the flexibility of controlling your heat pump, allowing you to turn it on or off from anywhere via your mobile phone.

## Boost your hot water

Activate the Boost feature to speed up the heating process of your hot water tank when you need it to be ready quickly.

## Run your heat pump in Silent Mode

Opt for a quieter operation by activating Silent Mode.



## Smart Actions to help save more

### What are Smart Actions?

Smart Actions is a feature designed to automate temperature control. It allows you to set specific rules for your heat pump, enabling it to adjust temperature settings based on your preferences.

### How do Smart Actions work?

Smart Actions will maintain your preferred temperature while saving you energy and money according to your preferences.



# Government certificate rebates

## Australian energy saving schemes

Australian federal, state and territory governments have established energy-efficiency schemes and programs to incentivise the adoption of smart technology solutions, such as hot water heat pumps, to help reduce energy usage and the carbon footprint of businesses and households across the country.

Emerald works closely with government agencies to ensure our products are at the forefront of energy-efficient technology, and aligned to and approved by energy-efficiency schemes across Australia such as VEU, ESS and REPS.

### Federal Small-Scale Technology Certificates (STCs)

Air Source Heat Pumps qualify for Small-Scale Technology Certificates (STCs) that encourage heat pump water heater installation. STCs can be traded on the Australian market based on their value, which is determined by the efficiency of the unit and the temperature zone in Australia. Each STC represents 1MWh of energy saved over ten years.

### State Grants

#### Victoria

Victorian residents can enjoy extra rebates when upgrading outdated hot water systems to Heat Pumps. In addition to Federal STC grants, eligible installations qualify for Victorian Energy Efficiency Certificates (VEECs).

#### New South Wales

New South Wales residents can take advantage of extra rebates when upgrading outdated hot water systems to Heat Pumps. In addition to Federal STC grants, eligible installations qualify for Energy Savings Schemes (ESSs).

### Peak Demand Reduction Scheme (PRCs)

A Peak Reduction Certificate is a tradeable certificate created when an Accredited Certificate Provider undertakes activities that provide the capacity to reduce electricity usage during peak demand periods.

Emerald Heat Pumps are accepted under Australian government energy-efficiency schemes.



# SPECIFICATIONS

EE Model (Residential)	EE-HWS-A1-220E	EE-HWS-A1-220	EE-HWS-A1-270E	EE-HWS-A1-270	EE-HWS-A1-320E	EE-HWS-A1-320	
EE Model (Commercial)	EE-HWS-A1-220E-1(-2)	EE-HWS-A1-220-1	EE-HWS-A1-270E-1(-2)	EE-HWS-A1-270-1	EE-HWS-A1-320E-1	EE-HWS-A1-320-1	
Power supply	220V ~ 240V/50HZ/60HZ/1Phase						
Water Tank Volume	220L		270L		320L		
Optional Running Modes	Standard / Silent / Booster / E-Heater	Standard / Silent / Booster	Standard / Silent / Booster / E-Heater	Standard / Silent / Booster	Standard / Silent / Booster / E-Heater	Standard / Silent / Booster	
Electric Heating Element	1.6KW	N/A	1.6KW	N/A	1.6KW	N/A	
Heating Capacity	Standard mode (Heat pump only)	2.7kW		2.7kW		2.7kW	
Rated Input Power		0.56kW		0.58kW		0.53kW	
COP		4.9		4.8		5.2	
Recharge Rate Per Hour		58L/h		58L/h		58L/h	
Sound Level		49dB(A)		49dB(A)		49dB(A)	
Heating Capacity	*Silent mode (Heat pump only)	1.8kW		1.8kW		1.8kW	
Rated Input Power		0.44kW		0.44kW		0.41kW	
COP		4.6		4.6		4.4	
Recharge Rate Per Hour		43L/h		43L/h		43L/h	
Sound Level		45dB(A)		45dB(A)		45dB(A)	
Heating Capacity	*Booster mode (Heat pump + Electric heater)	5.2kW	3.6kW	5.2kW	3.6kW	4.4kW	4.4kW
Rated Input Power		2.4kW	0.8kW	2.4kW	0.8kW	2.4kW	0.8kW
COP		4.5	4.5	4.5	4.5	4.4	4.4
Recharge Rate Per Hour		112L/h	78L/h	112L/h	78L/h	112L/h	78L/h
Heating Capacity	*E-Heater mode (Electric heater only)	1.6kW	N/A	1.6kW	1.6kW	1.6kW	1.6kW
Rated Input Power		1.6kW	N/A	1.6kW	1.6kW	1.6kW	1.6kW
COP		N/A	N/A	N/A	N/A	N/A	N/A
Recharge Rate Per Hour		N/A	N/A	N/A	N/A	N/A	N/A
Max Current (under booster mode)	14A	5A	14A	5A	14A	5A	
Refrigerant	R290 (400g)				R290 (450g)		
Compressor	Highly (Hitachi JV) / DC Inverter / Rotary						
Fan Motor	DC Inverter						
Fan Type	Axial						
Expansion Valve	EEV						
Defrost	4-way valve						
Inner Tank	Enamel / 2.5mm tank wall / 3.0mm dome						
Inner Tank Design	Concave						
Tank Insulation	Polyurethane / 35mm-157mm						
Tank Protection	2 x Magnesium anodes						
Heat Exchanger	Microchannel						
Outer Casing	Galvanized painted sheet / White						
TPR valve	AVG / 850kPa						
Rated Outlet Water Temperature	60°C						
Max Outlet Water Temperature	70°C						
Working range with element	-15°C - 43°C						
Working range without element	-7°C - 43°C						
IP Class	IPX4						
Electric Shock Proof	I						
Unpacked Dimension	600*600*1598mm	600*600*1598mm	600*600*1826mm	600*600*1826mm	600*600*2050mm	600*600*2050mm	
Packed Dimension (outdoor unit)	670*670*1730mm	670*670*1730mm	670*670*1956mm	670*670*1956mm	670*670*2170mm	670*670*2170mm	
Net Weight (outdoor unit)	118kg	118kg	132kg	132kg	146kg	146kg	
Gross Weight (outdoor unit)	126kg	126kg	141kg	141kg	154kg	154kg	

\*As per the AS/NZS 4234 modeling Standards the modes (Silent, Booster, E-heater) are one-shot functions that will reset to Standard mode.

\*Above test results are given based on the test condition ambient 20°C/15°C, Water from 15°C-55°C.

\*Sound tested at 1m distance in a hemi-anechoic chamber.

The information contained within this brochure is accurate as of the time of publish. Please note that the Emerald app undergoes regular updates to enhance functionality and introduce new features, which may result in changes to the details provided herein.