

# SMART ENERGY PRODUCTS

## HEAT PUMPS - ALL-IN-ONE



RESIDENTIAL: EE-HWS-A1-220  
COMMERCIAL: EE-HWS-A1-220-1

EE-HWS-A1-220E  
EE-HWS-A1-220E-1  
(with backup electric heater)

EE-HWS-A1-270  
EE-HWS-A1-270-1

EE-HWS-A1-270E  
EE-HWS-A1-270E-1  
(with backup electric heater)

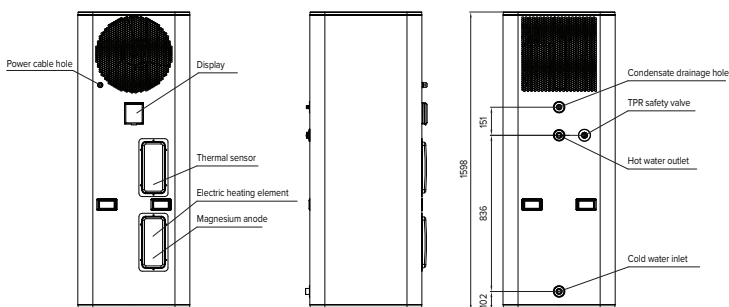
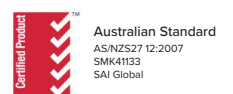
## EMERALD ALL-IN-ONE HEAT PUMP 220L, 270L WITH OPTIONAL HEATER

The Emerald all-in-one heat pump is perfect for residential and commercial use and is designed for optimum performance in both settings. Additionally, it is available with an optional built-in electric heater to boost the hot water supply when necessary. The DC inverter technology used in this heat pump is highly efficient, resulting in longer component life and lower noise production.

This heat pump has a low Global Warming Potential (GWP) and can deliver a high certificate yield when used commercially. With the inclusion of a Wi-Fi chip, the Emerald all-in-one heat pump can be connected to the Emerald EMS app for easy smart control via a mobile phone.

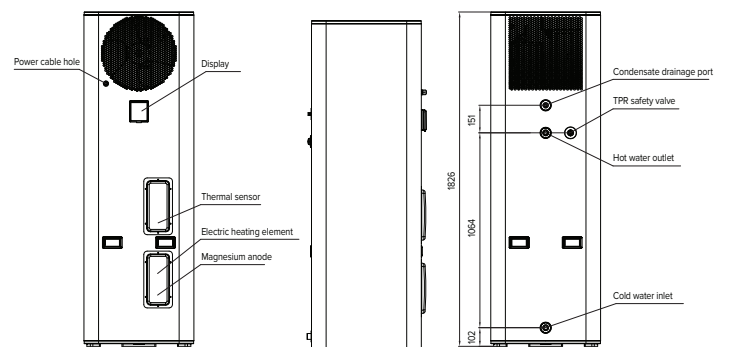
### FEATURES

- High efficiency DC inverter technology
- Wi-Fi enabled for connection to the Emerald EMS app for smart control and easy troubleshooting
- Silent mode
- Holiday mode
- R290 hydrocarbon which is an energy-efficient refrigerant with a low Global Warming Potential (GWP)
- Stylish design
- Optional built-in electric heater as backup



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)

# SMART ENERGY PRODUCTS

## HEAT PUMPS - ALL-IN-ONE

### AUSTRALIAN ENERGY SAVING SCHEMES

Australian federal, state and territory governments have established energy-efficiency schemes to incentivise the adoption of smart technology solutions 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 the benchmarks set by the energy-efficiency schemes across Australia. Our hot water heat pumps are approved for installation within the following government schemes.

### HIGH SMALL-SCALE TECHNOLOGY CERTIFICATES (STC)

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.

### PEAK DEMAND REDUCTION SCHEME (PRC)

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.

Heat Pump	All-in-one	All-in-one	All-in-one	All-in-one
Size	220	270	220E	270E
Model No	EE-HWS-A1-220 EE-HWS-A1-220-1	EE-HWS-A1-270 EE-HWS-A1-270-1	EE-HWS-A1-220E EE-HWS-A1-220E-1	EE-HWS-A1-270E EE-HWS-A1-270E-1

CERTIFICATE VALUES																				
Residential Certificates	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5
STCs	22	21	26	28	28	21	20	25	27	27	22	21	26	28	28	21	20	25	27	27
ESCs (D17)			45.91		43.89			44.65		42.52			45.91		43.89			44.65		42.52
VEECs (1D)				19	19				19	18				19	19				19	18

Commercial Certificates (-1)	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5
STCs	20	20	24	26	25	20	19	24	25	24	20	20	24	26	25	20	19	24	25	24
ESCs (F16)			110.74		82.91			113.32		79.04			110.74		82.91			113.32		79.04
VEECs (44B)				53	46				51	43				53	46				51	43



\*All certificates have been calculated for the dates between the 1st Feb 2023 – 31st Jan 2024.

\*VEEC's & ESC's Commercial certificates have been calculated when installing a new water tank and replacing an electric resistance boiler/ heater of a 3.0 kW capacity or greater in a metro area. For residential installations, the existing system size is not required for the calculations.



# SPECIFICATIONS

EE Model (Residential)	EE-HWS-A1-220E	EE-HWS-A1-220	EE-HWS-A1-270E	EE-HWS-A1-270	
EE Model (Commercial)	EE-HWS-A1-220E-1	EE-HWS-A1-220-1	EE-HWS-A1-270E-1	EE-HWS-A1-270-1	
Power supply	220V ~ 240V/50HZ/60HZ/1Phase				
Water Tank Volume	220L		270L		
Optional Running Modes	Standard / Silent / Booster / E-Heater	Standard / Silent / Booster	Standard / Silent / Booster / E-Heater	Standard / Silent / Booster	
Electric Heating Element	1.6kW	N/A	1.64kW	N/A	
Heating Capacity	Standard mode (Heat pump only)	2.8kW		2.8kW	
Rated Input Power		0.56kW		0.58kW	
COP		4.94		4.82	
Recharge Rate Per Hour		58L/h		58L/h	
Noise Level		51dBA		51dBA	
Heating Capacity	*Silent mode (Heat pump only)	2.0kW		2.0kW	
Rated Input Power		0.44kW		0.44kW	
COP		4.6		4.6	
Recharge Rate Per Hour		43L/h		43L/h	
Noise Level		45dBA		45dBA	
Heating Capacity	*Booster mode (Heat pump + Electric heater)	5.2kW	3.6kW	5.2kW	3.6kW
Rated Input Power		2.4kW	0.8kW	2.4kW	0.8kW
COP		4.5	4.5	4.5	4.5
Recharge Rate Per Hour		112L/h	78L/h	112L/h	112L/h
Noise Level		56dBA	56dBA	56dBA	56dBA
Heating Capacity	*E-Heater mode (Electric heater only)	1.6kW	N/A	1.6kW	1.6kW
Rated Input Power		1.6kW	N/A	1.6kW	1.6kW
COP		N/A	N/A	N/A	N/A
Recharge Rate Per Hour		N/A	N/A	N/A	N/A
Noise Level		52dBA	52dBA	52dBA	52dBA
Max Current (under booster mode)	14A	5A	14A	5A	
Refrigerant	R290 (400g)				
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	55°C - 63°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	600mm*600mm*1598mm	600mm*600mm*1598mm	600mm*600mm*1826mm	600mm*600mm*1826mm	
Packed Dimension (outdoor unit)	670mm*670mm*1730mm	670mm*670mm*1730mm	670mm*670mm*1956mm	670mm*670mm*1956mm	
Net Weight (outdoor unit)	118kg	118kg	136kg	136kg	
Gross Weight (outdoor unit)	126kg	126kg	145kg	145kg	

\*As per the AS/NZS 4234 modelling 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