SMART ENERGY PRODUCTS
HEAT PUMPS - REFRIGERANT CYCLING

EE-HWS-RCHP-200
EE-HWS-RCHP-200-1

EE-HWS-RCHP-200E
EE-HWS-RCHP-200E-1
(with backup electric heater)

EE-HWS-RCHP-300
EE-HWS-RCHP-300-1

EE-HWS-RCHP-300E
EE-HWS-RCHP-300E-1
(with backup electric heater)

EMERALD HEAT PUMP AND TANK
200L, 300L AND OPTIONAL HEATER

Emerald Energy's hot water heat pumps provide energy-efficient hot water all year round. Our refrigerant cycling heat pumps are available with an optional built-in electric heater to boost hot water supply when needed.

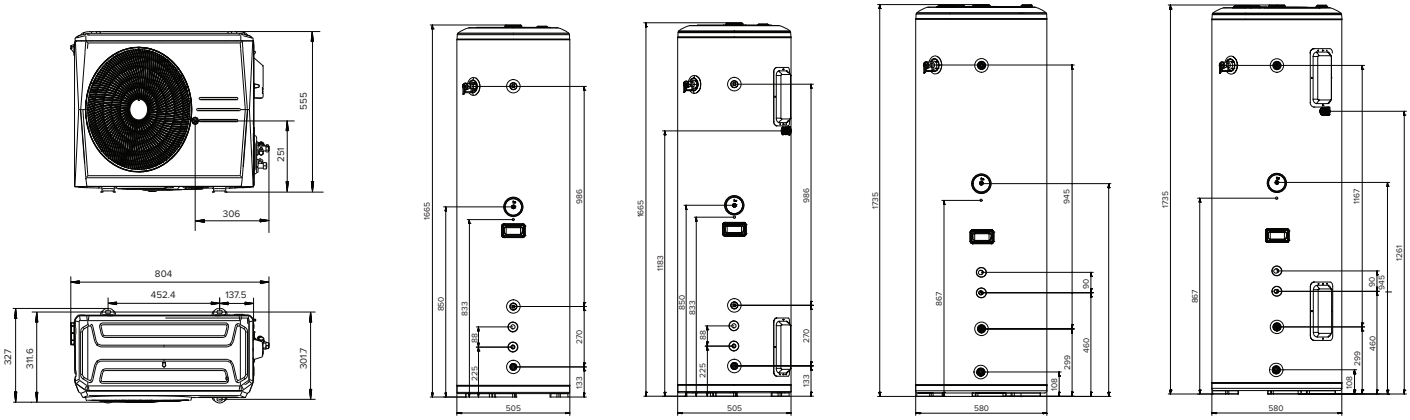
The refrigerant cycling heat pump's heat exchanger is in the water tank resulting in less energy use due to heat loss. It can also operate under lower outdoor temperature conditions.

FEATURES

- Optional built-in electric heater as backup
- R134a refrigerant
- Max. water output temperature: 60°C
- Automatic startup and shutdown
- Four-way valve for automatic defrosting
- Anti-Legionella function
- Blue diamond enamel tank

Water Mark
AS 3498 Lic WMK 26654

Australian Standard
AS/NZS27 12:2007
SMK41133
SAI Global



EE-HWS-RCHP-200
EE-HWS-RCHP-200-1
EE-HWS-RCHP-200E
EE-HWS-RCHP-200E-1

EE-HWS-RCHP-300
EE-HWS-RCHP-300-1
EE-HWS-RCHP-300E
EE-HWS-RCHP-300E-1

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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 Planet 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 these government schemes.

HIGH SMALL-SCALE TECHNOLOGY CERTIFICATES (STCS)

Air source Heat Pumps are eligible for Small-Scale Technology Certificates (STCs) to encourage the installation of heat pump water heaters.

STC certificates can be traded in the Australian market - the higher the STC value the more money can be exchanged. 1 STC means 1MWh can be saved in 10 years. The higher the STC value, the more efficient the unit. The STC values are determined by the by Australia's different temperature zones.

Heat Pump	Split System	Split System	Split System	Split System
Size	200E	300E	200	300
Model No	EE-HWS-RCHP-200E EE-HWS-RCHP-200E-1	EE-HWS-RCHP-300E EE-HWS-RCHP-300E-1	EE-HWS-RCHP-200 EE-HWS-RCHP-200-1	EE-HWS-RCHP-300 EE-HWS-RCHP-300-1

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*	22*	26*	28*	28*	21*	21*	25*	28*	27*	22*	22*	26*	28*	28*	21*	21*	25*	28*	27*
ESCs (D17)			46.17		44.89			45.25		43.57			46.17		44.89			45.25		43.57
VEECs (1D)				20	20				19	19				20	20				19	19

Commercial Certificates (-1)	**Z1**	**Z2**	**Z3**	**Z4**	**Z5**	**Z1**	**Z2**	**Z3**	**Z4**	**Z5**	**Z1**	**Z2**	**Z3**	**Z4**	**Z5**	**Z1**	**Z2**	**Z3**	**Z4**	**Z5**
STCs	21*	21*	25*	28*	28*	20*	20*	24*	26*	26*	21*	21*	25*	28*	28*	20*	20*	24*	26*	26*
ESCs (F16)			128.47		91.84			118.88		82.30			128.47		91.84			118.88		82.30
VEECs (44B)				59	49				53	44				59	49				53	44

*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 included in the calculations

*STC certificates have been submitted to the CER and are waiting for final approval

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HIGH WATER TEMPERATURE AND LARGE WATER TANK DESIGN

200L and 300L big volume design ensure multi-point simultaneous use during peak water consumption.

BLUE DIAMOND ENAMEL TANK

Blue Diamond enamel technology ensures the surface is clean and smooth and reduces dirt from adhering - keeping the tank cleaner and more hygienic over time.

ANTI-LEGIONELLA FUNCTION

Disinfection temperature 60~75°C

Unit without electric heater:
maximum disinfection temperature 65°C

Unit with electric heater:
maximum disinfection temperature 75°C

Two disinfection modes available:
Periodicity automatically disinfect
Manually disinfect

SPLIT SYSTEM DESIGN

Due to the split system design, the water tank and outer unit are separate units and connect by two refrigerant pipes.

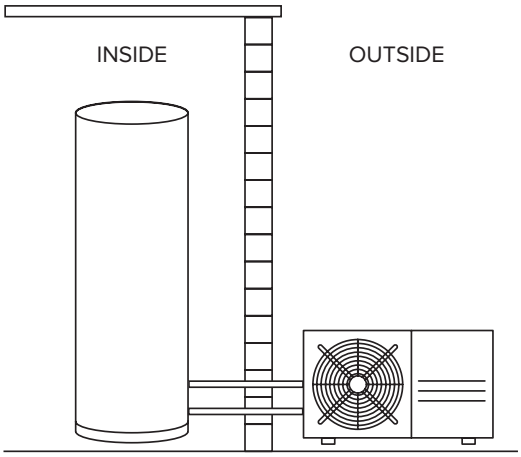
The standard refrigerant piping length supplied is 1m. This will suit most applications, particularly residential installations.

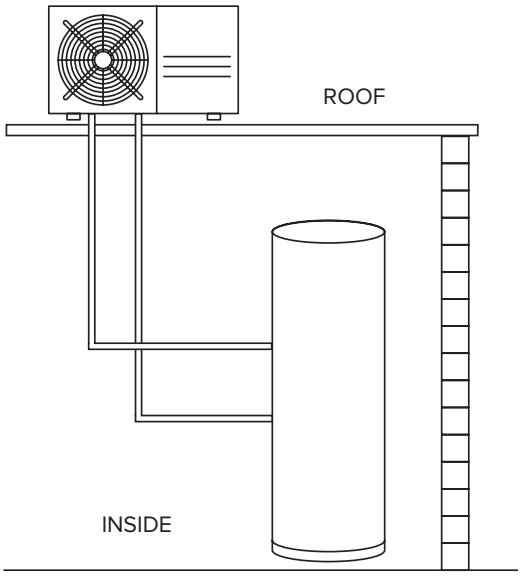
For commercial applications the water tank and outer unit may require greater distances apart. The refrigerant piping lengths can be increased. See below requirments:

Max. piping length: 20m

Max. piping difference in height: 10m

If the piping length were less than 10m, no additional refrigerant charge is required. If the piping length exceeds 10m, then an additional refrigerant charge of 20g/m is required.





The Outer Unit is required to be installed outdoors.
The Water Tank can be installed indoors or outdoors.

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SPECIFICATIONS

	MODEL NUMBER			EE-HWS-RCHP-200 EE-HWS-RCHP-200-1	EE-HWS-RCHP-200E EE-HWS-RCHP-200E-1	EE-HWS-RCHP-300 EE-HWS-RCHP-300-1	EE-HWS-RCHP-300E EE-HWS-RCHP-300E-1
GENERAL	Ambient temperature		°C	-15~46			
	Leaving water temperature		°C	20~63			
	Heating	Capacity	W	2600			
		Input	W	1000			
		STC values		33(Zone3) / 36(Zone4)	33(Zone3) / 36(Zone4)	32(Zone3) / 35(Zone4)	32(Zone3) / 35(Zone4)
	Hot water yield		m^3/h	0.044[1] / 0.056[2]			
	Refrigerant piping	Refrigerant piping	mm(inch)	Ø6.35 / Ø1/4'			
		Gas side	mm(inch)	Ø9.52 / Ø3/8'			
		Max. height difference	m	10			
		Max. refrigerant pipe length	m	20			
	Design pressure		MPa	3			
OUTDOOR UNIT	Outdoor unit power supply		V/N/Hz	220-240/1/50			
	Max. current		A	4.4	13.5	4.4	13.5
	Compressor		Type	Rotary			
	Fan	Type		AC			
		Air flow (H/L)	m^3/h	1250/769			
	Air side heat exchanger		Type	Hydraulic aluminum fin + Inner grooved copper tube			
	Throttle		Type	Electric expansion valve			
	Outdoor sound pressure level		dB(A)	54			
	Dimension	Unit dimension (L*W*H)	mm	804*327*555			
		Packing dimension (L*W*H)	mm	845*390*610			
		Net weight	kg	29			
		Gross weight	kg	32			
	Refrigerant	Type		R134a			
		Charged volume	g	900			
INDOOR UNIT	Tank volume		L	200	200	300	300
	Electric heater	Capacity	kW	/	2	/	2
		Power supply	V/N/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
	Dimension	Unit dimension(W*D*H)	mm	505*505*1665	505*505*1665	580*580*1735	580*580*1735
		Packing dimension(W*D*H)	mm	1775*635*590	1775*635*590	1835*690*670	1835*690*670
		Net weight	kg	73	73	96	96
		Gross weight	kg	83	83	108	108

1. Ambient temperature 19/15°C(DB/WB), Initial water temperature 9°C, Terminative water temp. 60°C.
2. Ambient temperature 19/15°C(DB/WB), Initial water temp. 15°C, Terminative water temp. 55°C.