MAYEKAWA

Natural refrigerant CO_2 heat pump water heater

Industrial Commercial

Eco Cute

unimo®

"unimo" hot water for any purpose.

The 14th Ozone layer protection global warming prevention award
Excellent Award

Mayekawa Eco Cute has been improved.

The world biggest heating capacity with the industry's highest COP (4.2)

Hot water supply at 90℃ all year around

Holding temperature at 65℃

Efficiently supplying a large amount of high temperature water covering a wide array of uses.

【Applications】

For large volume supply
(Hospitals, Golf courses, Hotels etc.)

For high temperature large volume supply
(Central kitchen, Food processing plant etc.)

Compact and powerful

- **35 tons of hot water supply per 24 hours**
  Constant 90℃ hot water covers wide range of usage and save tank space.
- **Minimized space**
  Minimized maintenance space achieves adjacent set up.
- **Simple design**
  Bolt less design protects rust and maintain beautiful appearance.

Features

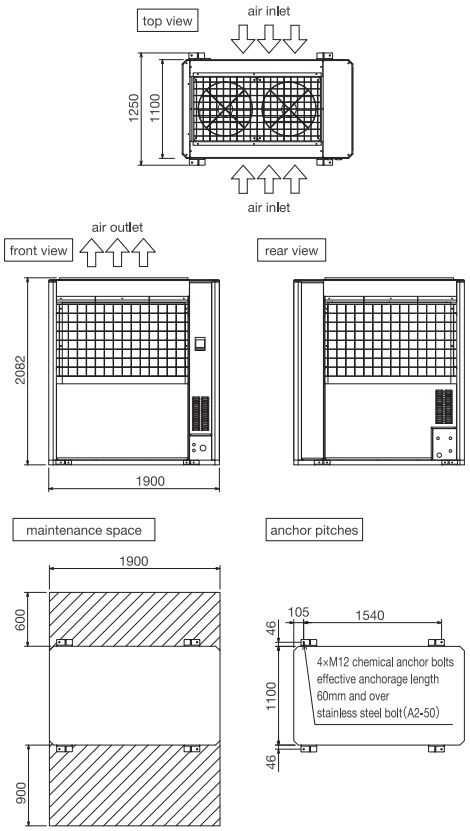
- **3 modes**
  3 modes that can be used in any environment: 1. power mode 2. standard mode 3. energy-savings mode.
- **Smart control — no shortage of hot water, low cost operation —**
  "unimo" overall operating conditions within each device, as a part of total control management, automatically chooses the best operation mode.
  On-demand management, Prediction control, Best hot water volume control, etc.
- **unimo remote control panel — simple operation —**
  Using the smart control remotely, there is no need to worry about the hot water shortage.

unimo Specifications

Type		Heat pump type water heater						
Model		HE-HWA-2HTC						
Power supply		3-phase 400V AC 50Hz/60Hz						
Performance	Ambient temp.	16℃		25℃ *4		7℃ *5		
	Operation mode *1	Energy-saving /normal	power	Energy-saving /normal	power	Energy-saving /normal	power	
Hot water temp. (65℃)	Heating capacity (kW)	74.0	81.4	83.3	92.3	58.8	77.4	
	Absorbed power (kW)	17.7	20.0	18.8	21.6	16.1	25.1	
	COP	4.2	4.1	4.4	4.3	3.7	3.1	
Hot water temp. (90℃)	Heating capacity (kW)	72.0	78.5	81.8	90.2	59.8	73.9	
	Absorbed power (kW)	21.3	23.5	23.2	25.7	19.0	27.5	
	COP	3.4	3.3	3.5	3.5	3.1	2.7	
Keep temp. (ring back) capacitys *2	Heating capacity (kW)	41.3	45.7	47.9	52.2	29.8	46.1	
	Absorbed power (kW)	22.8	25.4	23.7	26.3	20.0	31.7	
	COP	1.8	1.8	2.0	2.0	1.5	1.5	
Maximum current	(A)	120						
Outer dimensions	(mm)	W1,250 x L1,900 x H2,082						
Weight	(kg)	1,344(net) 1,359(operating)						
Design pressure	(MPa)	High pressure 15.0 MPa, Low pressure 6.4MPa						
Japan legal refrigeration tons	(TR)	9.8(notification required by KHK, no qualified person requirement)						
Compressor	Motor	25kW x 4P						
	Start-up method	Inverter						
Gas cooler		copper tube coil						
Pump (50Hz/60Hz)	(W)	250/430						
Air cooled heat exchanger	Material	Copper tube Aluminium plate fin						
Fan	(kW/unit)	0.75 x 2 unit						
Defrosting system		Hot gas defrost						
External connection	Water inlet 1	Rc 3/4 (20A tap female, SUS316) for tank						
	Water inlet 2	Rc 3/4 (20A tap female, SUS316) for keep warm						
	Hot water outlet	Rc 3/4 (20A tap female, SUS316)						
	Drainage	Rc1-1/2(40A tap female, SUS316)						
Refrigerant & Volume		R744 (CO_2), 20kg						
Protection equipment		Protection for high pressure, low pressure, oil pressure, compressor overload, fan overload						
		Inlet overload, discharge temperature, differential pressure						
Usage range	Inlet water temperature (℃)	5 to 65						
	Max. inlet water flow rate (L/min)	33						
	Inlet water pressure (MPa)	0.15-0.49(in the case of a sealed tank, below design pressure of the tank)						
	Hot water temperature (℃)	65 or 90						
	Ambient temperature (℃)	-10 to +43						
Color	Panels	Munsell N8.0 approximating color						
	Unit base	Munsell N1.0 approximating color						
Noise	intermediary *3	62						
	Winter *5	66						

Options	control panel for hot water supply system, snow protection hood, weather cover, anti-salt protection, vibration isolator, tank level sensor, tank thermistor
Remarks	*1 Operation mode is set to Energy-saving/normal when shipped. *2 Where inlet water temperature 60℃ and supply water temperature 90℃. *3 Where ambient temperature DB 16℃/WB12℃ and inlet water temperature 17℃. *4 Where ambient temperature DB 25℃/WB 21℃ and inlet water temperature 24℃. *5 Where ambient temperature DB 7℃/WB6℃ and inlet water temperature 9℃. *Actual hot water temperature varies in the range of ±3℃ against the target temperature depending on ambient temperature and inlet water temperature. If the inlet water temperature exceeds 30℃, supply water temperature may automatically change from 65℃ to 90℃ in order to protect equipment.

unimo Overview Drawings



※Subject change without notice

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