



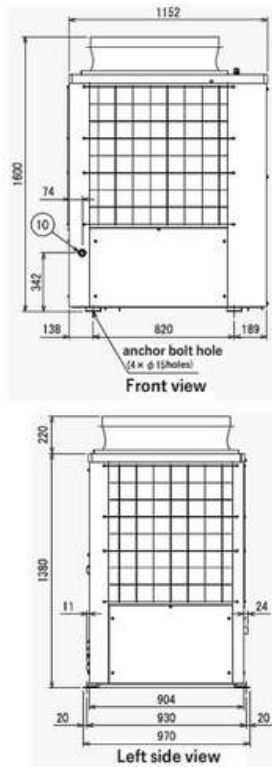
CO2 Heat Pump

Industrial-use Eco-Cute

CO2 Heat pump water heater :::Eco-Cute::: PTH-CHP35H



CHP-35H Specification table (380V)



Model	PTH-CHP35H	
Dimension	W 1,618mm×H 1,152mm×D 910mm	
Weight	Basic mass : 530 kg / Operating mass : 535 kg	
Installation	Outdoor	
Power	3Φ380V 50/60Hz	
Operating temp range	Ambient temperature	Standard : -5~43℃, Antifreeze : -15~43℃, Cold district : -20~43℃
	Supply water temperature	Standard : 5℃~50℃, Circ heating-HP independent(High temp supply water):5~63℃
	Output temperature	60~90℃
Output flow rate	70L/min	
Refrigerant design pressure	High pressure side 14.0MPa/Low pressure side 7.5 MPa	
Decompression valve (Customer prepare)	Standard tank : 170 kPa Others : Please consult	
Pressure relief valve	Standard tank : 190 kPa Others : Please consult	
Compressor	Model	Semi-hermetic reciprocating compressor
	Electric motor type	Inverter drive, 3 Φ induction motor
	Rated output	11.2 kW
	Refrigerating capacity	7.4 ton/day
Crankcase heater	140 W	
Fan	Propeller fan 300W x2 units	
Pump	Seal-less DC282V-140W (Pressure resistance 490 kPa)	
Heat exchanger	Air	Forced air-cooling cross fin
	Output hot water	Forced circulation double-tube
Protection devices	High pressure switch, High/Low pressure sensor, Compressor decompression valve, Compressor motor excessive temperature protection, Overcurrent relay(fan) , Overcurrent protection(compressor)	
Refrigerant/filling amount	CO ₂ (R744) / 7.0 kg	
Performance	Heating ability : 65 kW	
Piping connection	SW·Hw·Drain	Rc 3/4 (20A) female screw
	Air HEX Room drain	Rc 1 (25A) female screw
Accessories	Remote control	
Paint color	Ivory white (Japan reg. 2.5Y 8/1)	
Seismic strengthening	1.5 G	
Sound level	66.7 dB (regular season) /68.7dB (winter season)	

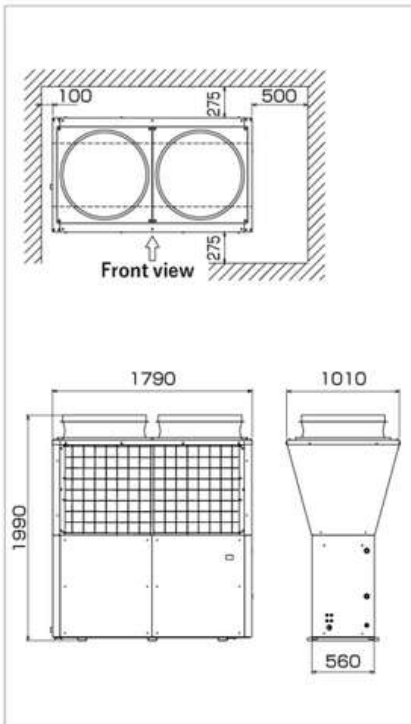
CO2 Heat pump water heater :::Eco-Cute::: PTH-CHP35H

CHP-35H Performance table (380V)

Ambient temperature DB/WB	℃	7/6	16/12	25/21	2/1	-7/-8	
65℃ Supply hot water	Heating ability	kW	36.5	35.5	35.0	31.5	30.0
	Storage capacity	L/h	560	636	765	451	430
	Supply water → Hot water	℃	9 → 65	17 → 65	24 → 65	5 → 65	5 → 65
	Power consumption	kW	9.67	8.95	8.13	12.3	13.0
	Annual heating efficiency		3.7				
	Annual heating efficiency in cold district		3.1				

Ambient temperature DB/WB	℃	7/6	16/12	25/21	2/1	-7/-8	
90℃ Supply hot water mode	Heating ability	kW	35.5	35.5	36.5	31.5	30.5
	Storage capacity	L/h	376	418	475	318	308
	Supply water → Hot water	℃	9 → 90	17 → 90	24 → 90	5 → 90	5 → 90
	Power consumption	kW	11.3	11.0	10.4	13.8	15.1

CHP-80Y2 Specification table (380V)



Model	PTH-CHP80Y2	
Dimension	W 1,790mm×H 1,990mm×D 1,010mm	
Weight	Basic mass : 680 kg / Operating mass : 700 kg	
Installation	Outdoor	
Power	3Φ 380V 50/60 Hz	
Operating temp range	Ambient temperature	Standard : -5~43℃, Antifreeze : -15~43℃, Cold district : -20~43℃
	Supply water temperature	Std : 5℃~50℃, Circ heating-HP independent(High temp supply water): 5~63℃
	Output temperature	60~90℃
Output flow rate	150 L/min	
Refrigerant design pressure	High pressure side 14.0 MPa/Low pressure side 7.5 MPa	
Decompression valve (Customer prepare)	Standard tank : 170 kPa Others : Please consult	
Pressure relief valve	Standard tank : 190 kPa Others : Please consult	
Compressor	Model	Semi-hermetic reciprocating compressor
	Electric motor type	Inverter drive, 3 Φ induction motor
	Rated output	15.8 kW
	Refrigerating capacity	9.6 ton/day
Crankcase heater	140W	
Fan	Propeller fan 300W x2 units	
Pump	Seal-less DC282V-140W (Pressure resistance 490 kPa)	
Heat exchanger	Air	Forced air-cooling cross fin
	Output hot water	Forced circulation double-tube
Protection devices	High pressure switch, High/Low pressure sensor, Compressor decompression valve, Overcurrent relay(fan) , Overcurrent protection(compressor)	
Refrigerant/filling amount	CO ₂ (R744) / 11.3 kg	
Performance	Heating ability : 65 kW	
Piping connection	SW-HW-Air HEX (room drain)	Rc 1 (25A) female screw
	Drain	Rc 3/4 (20A) female screw
Accessories	Remote control	
Paint color	Ivory white (Japan reg. 2.5Y 8/1)	
seismic strengthening	1.5 G	
Sound level	60dB (regula season) /61dB (winter season)	

CO2 Heat pump water heater :::Eco-Cute::: PTH-CHP80Y2

CHP-80Y2 Performance table (380V)

Ambient temperature DB/WB		℃	7/6	16/12	25/21	2/1	-7/-8
65℃ Supply hot water mode	Heating ability	kW	61.1	65.6	66.4	54.8	50.1
	Storage capacity	L/h	938	1,175	1,392	785	718
	Supply water → Hot water	℃	9 → 65	17 → 65	24 → 65	5 → 65	5 → 65
	Power consumption	kW	16.1	16.1	14.9	18.5	18.8
	Annual heating efficiency		3.9				
	Annual heating efficiency in cold district		3.4				

Ambient temperature DB/WB		℃	7/6	16/12	25/21	2/1	-7/-8
90℃ Supply hot water mode	Heating ability	kW	58.9	63.9	62.7	52.7	53.9
	Storage capacity	L/h	625	752	817	533	545
	Supply water → Hot water	℃	9 → 90	17 → 90	24 → 90	5 → 90	5 → 90
	Power consumption	kW	18.3	19.3	17.8	20.9	21.1