

Model Name			PUHZ-SHW140YHA(-BS)	PUHZ-SHW230YKA2
Power supply (phase, cycle, voltage)			3φ, 400V, 50Hz	3φ, 400V, 50Hz
	Max. current	A	13.0	26.0
Breaker size			16	32
Outer casing			Galvanized plate	Galvanized plate
External finish			Munsell 3Y 7.8/1.1	Munsell 3Y 7.8/1.1
Refrigerant control			Linear expansion valve	Linear expansion valve
Compressor			Hermetic scroll	Hermetic scroll
	Model		ANB33FJQMT	ANB66FJNMT
	Motor output	kW	2.5	4.7
	Start type		Inverter	Inverter
	Protection devices		HP switch LP switch Discharge thermo Comp. Surface thermo	HP switch LP switch Discharge thermo Comp. Surface thermo Over current detection
	Oil (Model)	L	1.40 (FVC68D)	1.70 (FV50S)
Crankcase heater			-	-
Heat exchanger	Air		Plate fin coil	Plate fin coil
	Water		-	-
Fan	Fan(drive) x No.		Propeller fan ×2	Propeller fan ×2
	Fan motor output	kW	0.074 ×2	0.150 ×2
	Air flow	m³/min(CFM)	100 (3,530)	140 (4,940)
Defrost method			Reverse cycle	Reverse cycle
Noise level (SPL)	Heating	dB(A)	52	59
	Cooling	dB(A)	51	58
Noise level (PWL)	Heating	dB(A)	70	75
Dimensions	Width	mm(in)	950 (37-3/8)	1050 (41-5/16)
	Depth	mm(in)	330+30 (13+1-3/16)	330+30 (13+1-3/16)
	Height	mm(in)	1350 (53-1/8)	1338 (52-11/16)
Weight		kg(lbs)	134 (296)	149 (328)
Refrigerant (GWP)			R410A (1975)	R410A (1975)
	Quantity	kg(lbs)	5.5 (12.1)	7.7 (17.0)
Pipe size O.D.	Liquid	mm(in)	9.52 (3/8)	12.7 (1/2)
	Gas	mm(in)	15.88 (5/8)	25.4 (1)
Connection method			Flared	Flared
Between the indoor & outdoor unit	Height difference	m	Max. 30	Max. 30
	Piping length	m	2 to 75	2 to 80
Guaranteed operating range (Outdoor)	Heating	°C	-28 (*1) to +21	-25 to +21
	DHW	°C	-28 (*1) to +35	-25 to +35
	Cooling *2	°C	-15 to +46	-5 to +46
Outlet water temp. (Max in heating, Min in cooling)	Heating	°C	+60	+60
	Cooling	°C	+5	+5
Nominal return water temperature range	Heating	°C	+10 to +59	+10 to +59
	Cooling	°C	+8 to +28	+8 to +28
Water flow rate range		L/min	17.9 to 40.1	28.7 to 65.9

*1 Service reference number from "R2" (before "R2" : -25°C)

*2 Optional air protection guide is required where ambient temperature is lower than -5°C.
The temperature is 10°C when the unit is connected with Cylinder unit or Hydrobox.
For more details, refer to "Cylinder unit / Hydrobox".

Model name			EHSE-YM9EC		EHSE-MEC		ERSE-YM9EC		ERSE-MEC	
Dimensions	Without package	Height	mm	950	950	950	950	950	950	
		Width	mm	600	600	600	600	600	600	
		Depth	mm	360	360	360	360	360	360	
	With package	Height	mm	1150	1150	1150	1150	1150	1150	
		Width	mm	690	690	690	690	690	690	
		Depth	mm	560	560	560	560	560	560	
Casing	Munsell	-	6.2PB 9/0.9	6.2PB 9/0.9	6.2PB 9/0.9	6.2PB 9/0.9	6.2PB 9/0.9	6.2PB 9/0.9		
	RAL code	-	260 90 05	260 90 05	260 90 05	260 90 05	260 90 05	260 90 05		
	Material	-	Pre-coated metal	Pre-coated metal	Pre-coated metal	Pre-coated metal	Pre-coated metal	Pre-coated metal		
Product weight (empty)			kg	62	60	63	61			
Product weight (full)			kg	72	70	73	71			
Gross weight			kg	77	75	78	76			
Water volume of heating circuit in the unit *1			L	10	10	10	10			
Type of Installation			-	Wall mounted	Wall mounted	Wall mounted	Wall mounted			
Electrical data	Control board *2 (Including 4 pumps)	Power supply	Ph	~/N	~/N	~/N	~/N			
			V	230	230	230	230			
			Hz	50	50	50	50			
		Input	kW	0.34	0.34	0.34	0.34			
			Current	A	2.56	2.56	2.56	2.56		
			Breaker	A	10	10	10	10		
	Booster heater	Power supply	Ph	3~	-	3~	-			
			V	400	-	400	-			
			Hz	50	-	50	-			
		Capacity	kW	3+6	-	3+6	-			
		Heater step	-	3	-	3	-			
		Current	A	13	-	13	-			
		Breaker	A	16	-	16	-			
		Immersion heater	Power supply	Ph	-	-	-	-		
	V			-	-	-	-			
	Hz			-	-	-	-			
	Capacity		kW	-	-	-	-			
	Current		A	-	-	-	-			
	Breaker		A	-	-	-	-			
			A	-	-	-	-			
Water circulation pump (Primary circuit)	Type	-	DC motor							
	Input (26/45/61.5 L/min)	Speed 1	W	31/37/38	31/37/38	31/37/38	31/37/38			
		Speed 2	W	51/63/68	51/63/68	51/63/68	51/63/68			
		Speed 3	W	75/94/105	75/94/105	75/94/105	75/94/105			
		Speed 4	W	106/134/153	106/134/153	106/134/153	106/134/153			
		Speed 5	W	148/180/180	148/180/180	148/180/180	148/180/180			
	Current (26/45/61.5 L/min)	Speed 1	A	0.3/0.3/0.3	0.3/0.3/0.3	0.3/0.3/0.3	0.3/0.3/0.3			
		Speed 2	A	0.4/0.5/0.5	0.4/0.5/0.5	0.4/0.5/0.5	0.4/0.5/0.5			
		Speed 3	A	0.6/0.7/0.8	0.6/0.7/0.8	0.6/0.7/0.8	0.6/0.7/0.8			
		Speed 4	A	0.9/1.1/1.2	0.9/1.1/1.2	0.9/1.1/1.2	0.9/1.1/1.2			
		Speed 5	A	1.2/1.4/1.4	1.2/1.4/1.4	1.2/1.4/1.4	1.2/1.4/1.4			
	Head difference	0L/min@Speed 5	m	12.7	12.7	12.7	12.7			
		45L/min@Speed 5	m	11	11	11	11			
		61.5L/min@Speed 5	m	9.5	9.5	9.5	9.5			
Water circulation pump (DHW circuit)	Input	Speed I	W	-	-	-	-			
		Speed II (Default setting)	W	-	-	-	-			
		Speed III	W	-	-	-	-			
	Current	Speed I	A	-	-	-	-			
		Speed II (Default setting)	A	-	-	-	-			
		Speed III	A	-	-	-	-			
	Flow rate	Speed I	L/min	-	-	-	-			
		Speed II (Default setting)	L/min	-	-	-	-			
		Speed III	L/min	-	-	-	-			
Flow rate	Primary circuit	Max.*3	L/min	61.5	61.5	61.5	61.5			
		Min.*4	L/min	5.0	5.0	5.0	5.0			
Heat exchanger	Refrigerant - Primary circuit water		-	Plate	Plate	Plate	Plate			
	Primary circuit water - Domestic hot water		-	-	-	-	-			
Domestic hot water tank	Volume		L	-	-	-	-			
	Material		-	-	-	-	-			
	Time to raise DHW tank temp 15 - 65°C *5		min	-	-	-	-			
	Time to reheat 70% of DHW tank to 65°C *5		min	-	-	-	-			
	Heat loss *6		kWh/24h	-	-	-	-			
Expansion vessel (Primary circuit)	Volume		L	-	-	-	-			
	Charge pressure		MPa	-	-	-	-			
Safety device	Primary circuit	Control thermistor	°C	1~80	1~80	1~80	1~80			
		Pressure relief valve	MPa	0.3	0.3	0.3	0.3			
		Flow sensor (Min. flow)	L/min	5.0	5.0	5.0	5.0			
		BH manual reset thermostat	°C	90	-	90	-			
		BH thermal Cut Off	°C	121	-	121	-			
	DHW tank	Control thermistor	°C	-	-	-	-			
		IH manual reset thermostat	°C	-	-	-	-			
		Temperature & pressure relief valve	°C	-	-	-	-			
			MPa	-	-	-	-			
Connections	Water	Primary circuit	-	G1-1/2B	G1-1/2B	G1-1/2B	G1-1/2B			
		DHW circuit	-	-	-	-	-			
	Refrigerant	Gas	mm	φ25.4(Brazing)	φ25.4(Brazing)	φ25.4(Brazing)	φ25.4(Brazing)			
		Liquid	mm	φ9.52	φ9.52	φ9.52	φ9.52			
Refrigerant *7			-	R410A	R410A	R410A	R410A			
Guaranteed operating range *8	Ambient	°C	0~35	0~35	0~35	0~35	0~35			
	%RH	≤80	≤80	≤80	≤80	≤80	≤80			
Operating range	Outdoor temperature	Heating	°C	See outdoor unit spec table						
		Cooling	°C	-	-	10~46 (*9)				
	Heating	Room temperature	°C	10~30	10~30	10~30	10~30	10~30		
		Flow temperature	°C	25~60	25~60	25~60	25~60	25~60		
	Cooling	Room temperature	°C	-	-	-	-	-		
		Flow temperature	°C	-	-	-	5~25	5~25		
DHW			°C	-	-	-	-			
Legionella prevention			°C	-	-	-	-			
Sound pressure level			dB(A)	30	30	30	30			
Sound power level			dB(A)	45	45	45	45			

*1 Volume of sanitary water circuit, primary DHW circuit (from 3-way valve to confluent point with Heating circuit), piping to Expansion vessel, and Expansion vessel is not included in this value.
 *2 When powered from independent source.
 *3 If the water flow rate exceeds maximum, the flow speed will be greater than 1.5 m/s, which could corrode the pipes.
 *4 If the water flow is less than the minimum, the flow error will be activated.
 *5 Tested under BS7206 conditions(Primary flow to cylinder coil 80-82 deg C). Conducted by WRc.

*6 Calculated from 24h temperature decay at top of the tank from 65degC (ambient temperature approx. 20degC). Tested by WRc.
 *7 Refrigerant of outdoor unit connected to cylinder unit.
 *8 The environment must be frost-free.
 *9 Cooling mode is not available in low outdoor temperature. If you use our system in cooling mode at the low ambient temperature (10°C or below), there are some risks of plate heat exchanger breaking by frozen water.