

OUTDOOR UNIT ZUBADAN (Heat Pump) Series(Y) PUHY-HP Y(S)HM-A(-BS)



► Specifications

Set name	PUHY-HP200YHM-A(-BS)	PUHY-HP250YHM-A(-BS)	PUHY-HP400YSHM-A(-BS)	PUHY-HP500YSHM-A(-BS)
Power source	3-phase 4-wire 380-400-415V 50/60Hz			
Cooling capacity (Nominal)	*1 kW 22.4	28.0	45.0	56.0
	*1 BTU/h 76,400	95,500	153,500	191,100
Power input	kW 6.40	9.06	12.86	18.16
Current input	A 10.8-10.2-9.8	15.2-14.5-14.0	21.7-20.6-19.8	30.6-29.1-28.0
COP	kW/kW 3.50	3.09	3.49	3.08
Temp. range of cooling	Indoor W.B. 15 ~ 24°C (59 ~ 75°F)			
	Outdoor D.B. - 5 ~ 43°C (23 ~ 109°F)			
Heating capacity (Nominal)	*2 kW 25.0	31.5	50.0	63.0
	*2 BTU/h 85,300	107,500	170,600	215,000
Power input	kW 6.52	8.94	13.35	18.04
Current input	A 11.0-10.4-10.0	15.0-14.3-13.8	22.5-21.4-20.6	30.4-28.9-27.8
COP	kW/kW 3.83	3.52	3.74	3.49
Temp. range of heating	Indoor D.B. 15 ~ 27°C (59 ~ 81°F)			
	Outdoor W.B. -25 ~ 15.5°C (-13 ~ 60°F)			
Indoor unit connectable	Total capacity Model/Quantity	50 ~ 130% of outdoor unit capacity		
		P15-P250 / 1-17	P15 ~ P250 / 1 ~ 21	P15 ~ P250 / 1 ~ 34
Sound pressure level (measured in anechoic room)	dB<A>	56	57	59
Diameter of liquid pipe	mm(in.)	ø12.7 (ø1/2) Braze	ø12.7 (ø1/2) Braze	ø15.88 (ø5/8) Braze
Diameter of gas pipe	mm(in.)	ø19.05 (ø3/4) Braze	ø22.2 (ø7/8) Braze	ø28.58 (ø1-1/8) Braze
Model	-			
External finish	Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>			
External dimension H x W x D	mm	1,710 (without legs 1,650) x 920 x 760	1,710 (without legs 1,650) x 920 x 760	1,710 (without legs 1,650) x 920 x 760
	in.	67-3/8 (without legs 65) x 36-1/4 x 29-15/16	67-3/8 (without legs 65) x 36-1/4 x 29-15/16	67-3/8 (without legs 65) x 36-1/4 x 29-15/16
Net weight	kg(lbs)	220 (486)	220 (486)	220 (486)
Heat exchanger	Salt-resistant cross fin & copper tube			
Compressor	Type	Inverter scroll hermetic compressor		
	Starting method	Inverter		
	Motor output	kW 5.3	6.7	5.3
	Air flow rate	m ³ /min 225	225	225
		L/s 3,750	3,750	3,750
		cfm 7,945	7,945	7,945
	Type x Quantity	Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Motor output	kW 0.92 x 1	0.92 x 1	0.92 x 1
	External static press.	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection		
	Compressor	Over-heat protection		
Refrigerant	Type x Original charge	R410A x 9.0kg (20 lbs)	R410A x 9.0kg (20 lbs)	R410A x 9.0kg (20 lbs)
Pipe between unit distributor	Liquid pipe	mm(in.) ø9.52 (ø3/8) Braze	ø9.52 (ø3/8) Braze	ø9.52 (ø3/8) Braze
	Gas pipe	mm(in.) ø19.05 (ø3/4) Braze	ø22.2 (ø7/8) Braze	ø22.2 (ø7/8) Braze
Optional parts	Joint : CMY-Y102S-G2 Header : CMY-Y104/108/1010-G		Outdoor Twinning kit : CMY-Y100VBK2 Joint : CMY-Y102S/L-G2, CMY-Y202-G2 Header : CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27°C DB/19°C WB (81°F DB/66°F WB)	35°C DB(95°F DB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°C DB(68°F DB)	7°C DB/6°C WB(45°F DB/43°F WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

*Nominal condition *1,*2 are subject to JIS B8615-1.

*Due to continuing improvement, above specification may be subject to change without notice.

Outdoor unit

HEAT SOURCE UNIT WY (Heat Pump) Series PQHY-P YHM-A



► Specifications

Model	PQHY-P200YHM-A	PQHY-P250YHM-A	PQHY-P300YHM-A
Power source	3-phase 4-wire 380-400-415V 50/60Hz		
Cooling capacity (Nominal)	*1 kW 22.4	28.0	33.5
	*1 BTU/h 76,400	95,500	114,300
Power input	kW 3.92	5.45	7.36
Current input	A 6.6-6.2-6.0	9.2-8.7-8.4	12.4-11.8-11.3
COP	kW / kW 5.71	5.13	4.55
Temp. range of cooling	Indoor W.B. 15.0~24.0°C(59~75°F)	15.0~24.0°C(59~75°F)	15.0~24.0°C(59~75°F)
	Circulating water °C 10.0~45.0°C(50~113°F)	10.0~45.0°C(50~113°F)	10.0~45.0°C(50~113°F)
Heating capacity (Nominal)	*2 kW 25.0	31.5	37.5
	*2 BTU/h 85,300	107,500	128,000
Power input	kW 4.12	5.80	8.15
Current input	A 6.9-6.6-6.3	9.7-9.3-8.9	13.7-13.0-12.5
COP	kW / kW 6.06	5.43	4.60
Temp. range of heating	Indoor D.B. 15.0~27.0°C(59~81°F)	15.0~27.0°C(59~81°F)	15.0~27.0°C(59~81°F)
	Circulating water °C 10.0~45.0°C(50~113°F)	10.0~45.0°C(50~113°F)	10.0~45.0°C(50~113°F)
Indoor unit connectable	Total capacity Model / Quantity	50~130 % of heat source unit capacity	
		P15-P250 / 1-17	P15-P250 / 1-26
Sound pressure level (measured in anechoic room)	dB <A>	47	49
Refrigerant piping diameter [O.D.]	Liquid pipe mm (in.) 9.52(3/8) Braze	9.52(3/8) Braze (12.7(1/2) Braze, total length >= 90m)	9.52(3/8) Braze (12.7(1/2) Braze, total length >= 40m)
Circulating water	Gas pipe mm (in.) 19.05(3/4) Braze	22.2(7/8) Braze	22.2(7/8) Braze
	Water flow rate m ³ / h 5.76	5.76	5.76
	L/min 96	96	96
	cfm 3.4	3.4	3.4
	Pressure drop kPa 17	17	17
	Operating volume range m ³ / h 4.5 ~ 7.2	4.5 ~ 7.2	4.5 ~ 7.2
Compressor	Type x Quantity	Inverter scroll hermetic compressor	
	Starting method	Inverter	
	Motor output	kW 4.6	6.3
	Case heater	kW 0.035(240 V)	0.035(240 V)
External finish	Acrylic painted steel plate		
External dimension HxWxD	mm	1,160(1,100 without legs) x 880 x 550	1,160(1,100 without legs) x 880 x 550
	in.	45-11/16(43-5/16 without legs) x 34-11/16 x 21-11/16	45-11/16(43-5/16 without legs) x 34-11/16 x 21-11/16
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15MPa (601 psi)	High pressure sensor, High pressure switch at 4.15MPa (601 psi)
	Inverter circuit (COMP.)	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)
Net weight	kg (lbs)	195(430)	195(430)
Heat exchanger		plate type	plate type
	Water volume in plate	L 5.0	5.0
	Water pressure Max. ★	MPa 1.0	1.0
Optional parts	Joint: CMY-Y102S-G2 Header: CMY-Y104/108/1010-G		Joint: CMY-Y102S-G2, CMY-Y102L-G2 Header: CMY-Y104/108/1010-G

★It will be 2.0MPa as standard from October 2010.

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°C DB/19°CWB. (81°FDB./66°FWB.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CDB. (68°FDB.)	20°C (68°F)		

*3 The ambient temperature of the heat source unit needs to be kept below 40°CDB.

*4 The ambient relative humidity of the heat source unit needs to be kept below 80%.

*5 The heat source Unit should not be installed at outdoor.

*6 Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*7 Be sure to provide interlocking for the unit operation and water circuit.

*Nominal condition *1,*2 are subject to JIS B8615-1.

*Due to continuing improvement, above specification may be subject to change without notice.

Outdoor Unit

OUTDOOR UNIT ZUBADAN (Heat Pump) Series(Y) PUHY-HP Y(S)HM-A(-BS)



► Specifications

Set name	PUHY-HP200YHM-A(-BS)	PUHY-HP250YHM-A(-BS)	PUHY-HP400YSHM-A(-BS)	PUHY-HP500YSHM-A(-BS)
Power source	3-phase 4-wire 380-400-415V 50/60Hz			
Cooling capacity (Nominal)	*1 kW 22.4	28.0	45.0	56.0
	*1 BTU/h 76,400	95,500	153,500	191,100
Power input	kW 6.40	9.06	12.86	18.16
Current input	A 10.8-10.2-9.8	15.2-14.5-14.0	21.7-20.6-19.8	30.6-29.1-28.0
COP	kW/kW 3.50	3.09	3.49	3.08
Temp. range of cooling	Indoor W.B. 15 ~ 24°C (59 ~ 75°F)			
	Outdoor D.B. - 5 ~ 43°C (23 ~ 109°F)			
Heating capacity (Nominal)	*2 kW 25.0	31.5	50.0	63.0
	*2 BTU/h 85,300	107,500	170,600	215,000
Power input	kW 6.52	8.94	13.35	18.04
Current input	A 11.0-10.4-10.0	15.0-14.3-13.8	22.5-21.4-20.6	30.4-28.9-27.8
COP	kW/kW 3.83	3.52	3.74	3.49
Temp. range of heating	Indoor D.B. 15 ~ 27°C (59 ~ 81°F)			
	Outdoor W.B. -25 ~ 15.5°C (-13 ~ 60°F)			
Indoor unit connectable	Total capacity Model/Quantity	50 ~ 130% of outdoor unit capacity		
		P15-P250 / 1-17	P15 ~ P250 / 1 ~ 21	P15 ~ P250 / 1 ~ 34
Sound pressure level (measured in anechoic room)	dB<A>	56	57	59
Diameter of liquid pipe	mm(in.)	ø12.7 (ø1/2) Braze	ø12.7 (ø1/2) Braze	ø15.88 (ø5/8) Braze
Diameter of gas pipe	mm(in.)	ø19.05 (ø3/4) Braze	ø22.2 (ø7/8) Braze	ø28.58 (ø1-1/8) Braze
Model	-			
External finish	Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>			
External dimension H x W x D	mm	1,710 (without legs 1,650) x 920 x 760	1,710 (without legs 1,650) x 920 x 760	1,710 (without legs 1,650) x 920 x 760
	in.	67-3/8 (without legs 65) x 36-1/4 x 29-15/16	67-3/8 (without legs 65) x 36-1/4 x 29-15/16	67-3/8 (without legs 65) x 36-1/4 x 29-15/16
Net weight	kg(lbs)	220 (486)	220 (486)	220 (486)
Heat exchanger	Salt-resistant cross fin & copper tube			
Compressor	Type	Inverter scroll hermetic compressor		
	Starting method	Inverter		
	Motor output	kW 5.3	6.7	5.3
		6.7	6.7	6.7
FAN	*3 Air flow rate	m³/min 225	225	225
		L/s 3,750	3,750	3,750
		cfm 7,945	7,945	7,945
	Type x Quantity	Propeller fan x 1		
	Motor output	kW 0.92 x 1	0.92 x 1	0.92 x 1
	External static press.	0 Pa (0 mmH ₂ O)		
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection		
	Compressor	Over-heat protection		
Refrigerant	Type x Original charge	R410A x 9.0kg (20 lbs)		
Pipe between unit distributor	Liquid pipe	mm(in.) ø9.52 (ø3/8) Flare	ø9.52 (ø3/8) Flare	ø9.52 (ø3/8) Flare
	Gas pipe	mm(in.) ø19.05 (ø3/4) Braze	ø19.05 (ø3/4) Braze	ø22.2 (ø7/8) Braze
Optional parts	Joint : CMY-Y102S-G2 Header : CMY-Y104/108/1010-G		Outdoor Twinning kit : CMY-Y100VBK2 Joint : CMY-Y102S/L-G2, CMY-Y202-G2 Header : CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27°C DB/19°C WB (81°F DB/66°F WB)	35°C DB(95°F DB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°C DB(68°F DB)	7°C DB/6°C WB(45°F DB/43°F WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

*Nominal condition *1,*2 are subject to JIS B8615-1.

*Due to continuing improvement, above specification may be subject to change without notice.

HEAT SOURCE UNIT WY (Heat Pump) Series PQHY-P YHM-A



► Specifications

Model	PQHY-P200YHM-A	PQHY-P250YHM-A	PQHY-P300YHM-A
Power source	3-phase 4-wire 380-400-415V 50/60Hz		
Cooling capacity (Nominal)	*1 kW 22.4	28.0	33.5
	*1 BTU/h 76,400	95,500	114,300
Power input	kW 3.92	5.45	7.36
Current input	A 6.6-6.2-6.0	9.2-8.7-8.4	12.4-11.8-11.3
COP	kW / kW 5.71	5.13	4.55
Temp. range of cooling	Indoor W.B. 15.0-24.0°C(59-75°F)	15.0-24.0°C(59-75°F)	15.0-24.0°C(59-75°F)
	Circulating water °C 10.0-45.0°C(50-113°F)	10.0-45.0°C(50-113°F)	10.0-45.0°C(50-113°F)
Heating capacity (Nominal)	*2 kW 25.0	31.5	37.5
	*2 BTU/h 85,300	107,500	128,000
Power input	kW 4.12	5.80	8.15
Current input	A 6.9-6.6-6.3	9.7-9.3-8.9	13.7-13.0-12.5
COP	kW / kW 6.06	5.43	4.60
Temp. range of heating	Indoor D.B. 15.0-27.0°C(59-81°F)	15.0-27.0°C(59-81°F)	15.0-27.0°C(59-81°F)
	Circulating water °C 10.0-45.0°C(50-113°F)	10.0-45.0°C(50-113°F)	10.0-45.0°C(50-113°F)
Indoor unit connectable	Total capacity Model / Quantity	50-130 % of heat source unit capacity	
		P15-P250 / 1-17	P15-P250 / 1-26
Sound pressure level (measured in anechoic room)	dB <A>	47	49
Refrigerant piping diameter [O.D.]	Liquid pipe mm (in.) 9.52(3/8) Braze	9.52(3/8) Braze (12.7(1/2) Braze, total length >= 90m)	9.52(3/8) Braze (12.7(1/2) Braze, total length >= 40m)
Circulating water	Gas pipe mm (in.) 19.05(3/4) Braze	22.2(7/8) Braze	22.2(7/8) Braze
	Water flow rate m³ / h 5.76	5.76	5.76
	L/min 96	96	96
	cfm 3.4	3.4	3.4
	Pressure drop kPa 17	17	17
	Operating volume range m³ / h 4.5 ~ 7.2	4.5 ~ 7.2	4.5 ~ 7.2
Compressor	Type x Quantity	Inverter scroll hermetic compressor	
	Starting method	Inverter	
	Motor output	kW 4.6	6.3
	Case heater	kW 0.035(240 V)	0.035(240 V)
External finish	Acrylic painted steel plate		
External dimension HxWxD	mm	1,160(1,100 without legs) x 880 x 550	1,160(1,100 without legs) x 880 x 550
	in.	45-11/16(43-5/16 without legs) x 34-11/16 x 21-11/16	45-11/16(43-5/16 without legs) x 34-11/16 x 21-11/16
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15MPa (601 psi)	
	Inverter circuit (COMP.)	Over-heat protection, Over-current protection	
	Compressor	Over-heat protection	
Refrigerant	Type x original charge	R410A x 5.0kg (12lbs)	
Net weight	kg (lbs)	195(430)	
Heat exchanger	plate type		
	Water volume in plate	L 5.0	5.0
	Water pressure Max. ★	MPa 1.0	1.0
Optional parts	Joint: CMY-Y102S-G2 Header: CMY-Y104/108/1010-G		Joint: CMY-Y102S-G2, CMY-Y102L-G2 Header: CMY-Y104/108/1010-G

★It will be 2.0MPa as standard from October 2010.

Notes:

*1,*2 Nominal conditions

	Indoor	Water temperature	Pipe length	Level difference
Cooling	27°C DB/19°CWB. (81°FDB./66°FWB.)	30°C (86°F)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°CDB. (68°FDB.)	20°C (68°F)		

*3 The ambient temperature of the heat source unit needs to be kept below 40°CDB.

*4 The ambient relative humidity of the heat source unit needs to be kept below 80%.

*5 The heat source Unit should not be installed at outdoor.

*6 Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.

*7 Be sure to provide interlocking for the unit operation and water circuit.

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