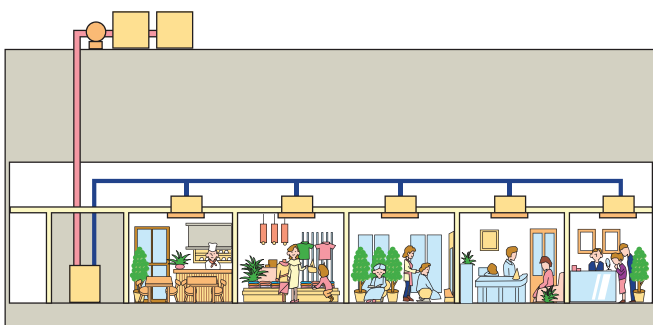




Water Cooled CITY MULTI Benefits

Water cooled systems are ideally suited for use in temperate and cooler climates since heat exchange with the outside air is not required.



Water cooled systems can be used even in buildings that are taller than 50m by running a main water pipe through each floor.

Any heat source system that can supply heat source water between 10°C~45°C can be used.

Simultaneous heating and cooling operation is available. (WR2 series)

It is suggested that Water-Cooled systems are used in the buildings in which there are heating and cooling needs as follows.

- Buildings that require all year cooling
Example,
 - Tenant buildings in which kitchens and offices exist together
 - Buildings in which equipment rooms and offices exist together
- Buildings in which there are large room temperature differences between sunny and unsunny rooms
- Hotels in which there are a lot of individual operation needs

Energy Saving Technology

What is Water-Cooled?

>A unique offering from Mitsubishi Electric

It is possible now to combine the features of VRF with a water circuit using CITY MULTI WR2/WY. In this case the heat is rejected to a water source rather than to the outside air.

The advantages of water cooled systems are that the water can be delivered at optimised temperatures and volumes, which allows even greater flexibility and increased COP.



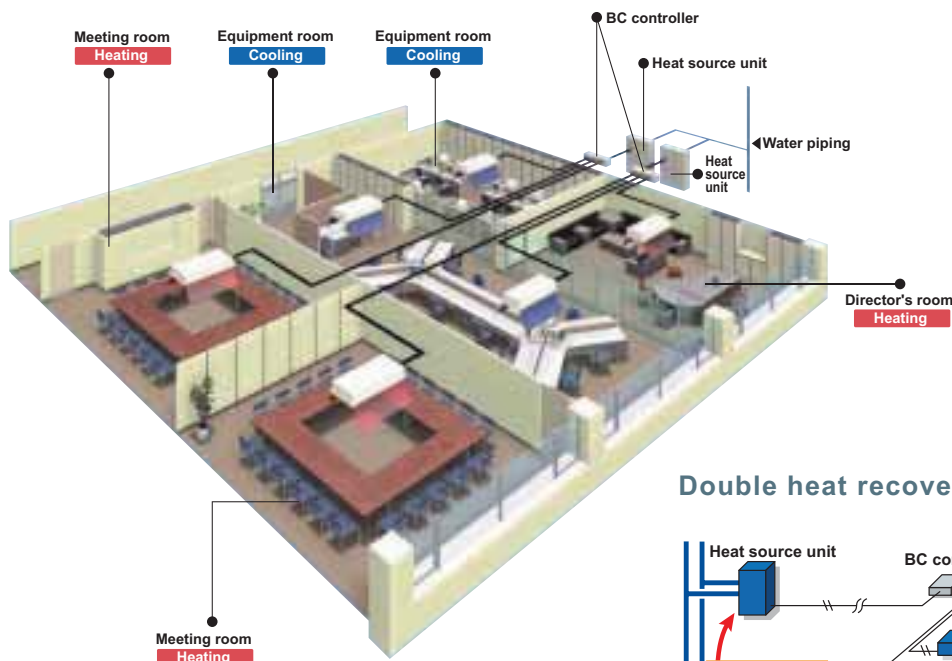
WR2(Heat recovery type)

Mitsubishi Electric now offers double heat recovery operation.

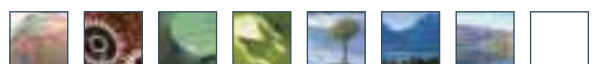
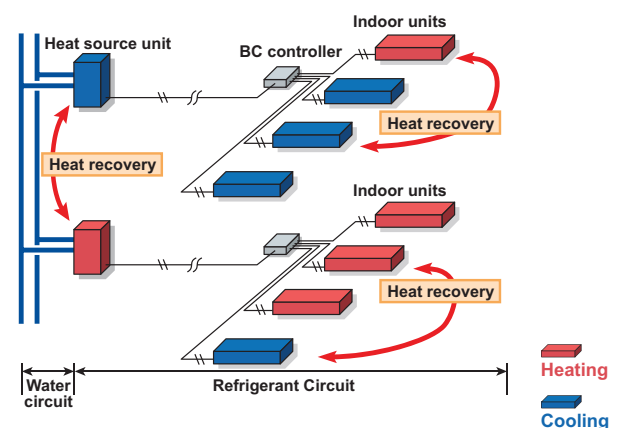
The first heat recovery is within the refrigerant system. Simultaneous cooling and heating operation is available with heat recovery performed between indoor units.

The second heat recovery is within the water loop, where heat recovery is performed between the PQRY units.

This double heat recovery operation substantially improves energy efficiency and makes the system the ideal solution to the requirements of modern office buildings, where some areas require cooling even in winter.



Double heat recovery (WR2)



Water Cooled Series



Cooling or Heating

WY series — PQHY-P YHM-A
PQHY-P YSHM-A

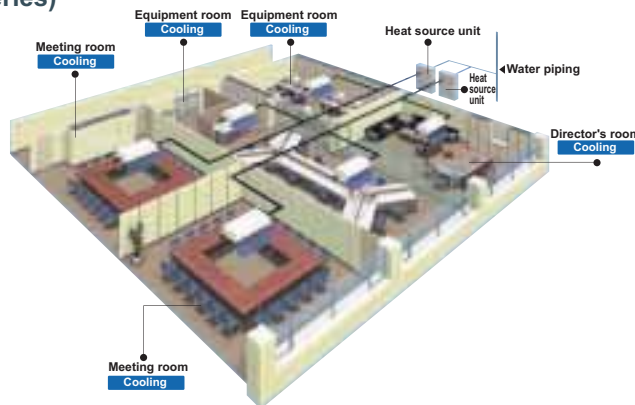
WR2 series — PQRy-P YHM-A
PQRy-P YSHM-A

[WY(Heat Pump) series]

Water energy source system allows switching between cooling and heating.

The WY-Series has all the benefits of the Y-Series using water source condensing units. Condensing units can be situated indoors allowing greater design flexibility and no limitation on building size. Depending on capacity, up to 17 to 50 indoor units can be connected to a single condensing unit with individualized and/or centralized control. The two-pipe system allows all CITY MULTI solutions to switch between cooling and heating while maintaining a constant indoor temperature.

Installation image (WY series)



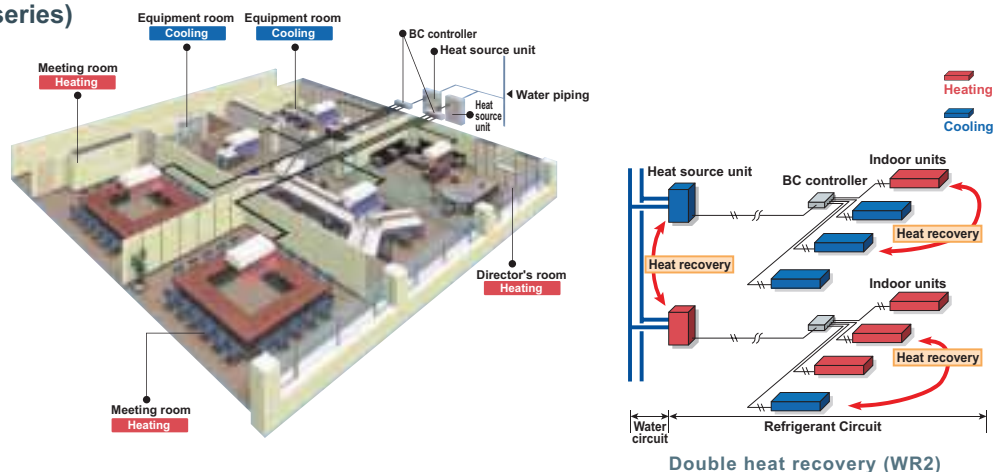
[WR2(Heat Recovery) series]

Advanced water heat source unit enjoying the benefits of R2 series

The CITY MULTI WR2 series provides all of the advantages of the R2 series with the added advantages of a water heat source system, making it suitable for wider range of applications in high rises, frigid climates, coastal areas, etc.

Not only does it produce heat recovery from the indoor units on the same 2-pipe refrigerant circuit, it also produces heat recovery via the water circuit between heat source units, making it a very economical system.

Installation image (WR2 series)

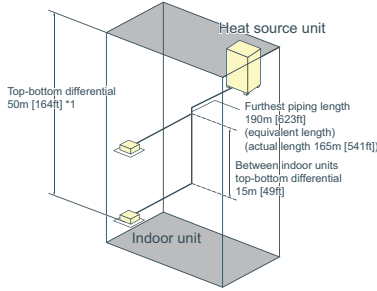


Outdoor unit

System Pipe Lengths

[8-36HP (WY series)]

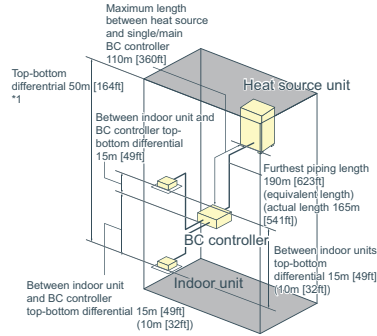
Refrigerant Piping Lengths		Maximum meters [Feet]
Total length (8-12HP)	300 [984]	
Total length (16-36HP)	500 [1,640]	
Maximum allowable length	165 (190equivalent)	
	[541 (623)]	
Farthest indoor from first branch	40 [131]	
Vertical differentials between units		Maximum meters [Feet]
Indoor/heat source (heat source higher)	50 [164]	
Indoor/heat source (heat source lower)	40 [131]	
Indoor/indoor	15 [49]	



*1 When the outdoor unit is installed below the indoor unit, top-bottom differential is 40m [131ft].

[8-24HP (WR2 series)]

Refrigerant Piping Lengths		Maximum meters [Feet]
Total length (8-12HP)	300-550 [984-1,804]	
Total length (16-24HP)	500-750 [1,640-2,460]	
Maximum allowable length	165 (190equivalent)	
	[541 (623)]	
Maximum length between heat source and single/main BC controller	110 [360]	
*Maximum total length is dependent upon the distance between the outdoor unit and the single/main BC Controller.		
Maximum length between single/main BC controller and indoor	40-60 [131-196]	
Vertical differentials between units		Maximum meters [Feet]
Indoor/ heat source (heat source higher)	50 [164]	
Indoor/ heat source (heat source lower)	40 [131]	
Indoor/BC controller (single/main)	15 [49]	
Indoor/indoor	15 (10) [49 (32)]	
Main BC Controller/Sub BC Controller	15 (10) [49 (32)]	



*1 When the outdoor unit is installed below the indoor unit, top-bottom differential is 40m [131ft].

COP comparison (energy efficiency)

The new water cooled outdoor unit offers a greater efficiency with a higher COP compared to our YGM conventional model.

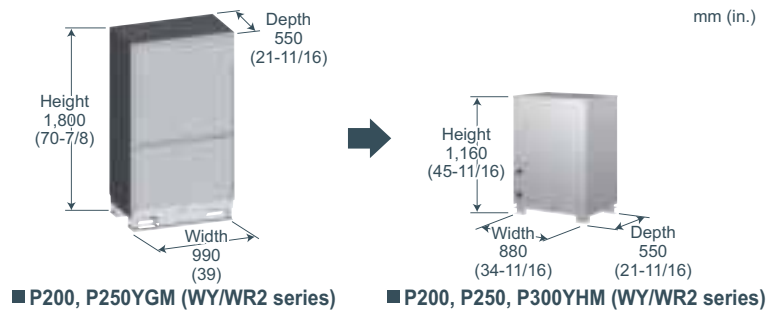
COP comparison

		HP	8	10	12	16	18	20	22	24	26	28	30	32	34	36	
PQHY	YGM	Cooling	4.68	4.71	-	3.96	-	3.72	-	-	-	-	-	-	-	-	-
		Heating	4.68	4.71	-	3.96	-	3.72	-	-	-	-	-	-	-	-	-
	YHM	Cooling	5.71	5.13	4.55	5.45	5.08	4.89	4.68	4.45	5.22	5.13	4.94	4.69	4.52	4.34	
		Heating	6.06	5.43	4.60	5.78	5.37	5.22	4.70	4.46	5.52	5.33	5.19	4.82	4.65	4.40	
PQRY	YGM	Cooling	4.68	4.71	-	3.96	-	3.72	-	-	-	-	-	-	-	-	-
		Heating	5.33	5.43	-	4.54	-	4.63	-	-	-	-	-	-	-	-	-
	YHM	Cooling	5.65	5.08	4.50	5.40	5.03	4.84	4.63	4.41	-	-	-	-	-	-	-
		Heating	6.06	5.43	4.60	5.78	5.37	5.22	4.70	4.46	-	-	-	-	-	-	-

Compact design

Downsized by approximately 57%*, the new models enable an effective use of space.

*8/10/12HP



Weight saving

The reduction in weight leads to easy transportation and installation.

Weight comparison

		HP	8	10	12	16	18	20	22	24	26	28	30	32	34	36
PQHY	YGM	272	275	-	452	-	456	-	-	-	-	-	-	-	-	-
	YHM	195	195	195	390	390	390	390	390	585	585	585	585	585	585	585
PQRY	YGM	263	266	-	440	-	444	-	-	-	-	-	-	-	-	-
	YHM	181	181	181	362	362	362	362	362	362	-	-	-	-	-	-



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	3-phase 4-wire 380-400-415V 50/60Hz	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
	EER	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)
	Circulating water	°C	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	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)
	Circulating water	°C	10.0~45.0°C(50~113°F)	10.0~45.0°C(50~113°F)
Indoor unit connectable	Total capacity	50~130 % of heat source unit capacity	50~130 % of heat source unit capacity	50~130 % of heat source unit capacity
	Model / Quantity	P15~P250 / 1~17	P15~P250 / 1~21	P15~P250 / 1~26
Sound pressure level (measured in anechoic room)	dB <A>	47	49	50
Refrigerant piping diameter [O.D.]	Liquid pipe	mm (in.)	9.52(3/8) Brazed	9.52(3/8) Brazed (12.7(1/2) Brazed, total length >= 90m)
	Gas pipe	mm (in.)	19.05(3/4) Brazed	22.2(7/8) Brazed
Circulating water	Water flow rate	m ³ / h	5.76	5.76
		L/min	96	96
		cfm	3.4	3.4
	Pressure drop	kPa	17	17
	Operating volume range	m ³ / h	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	7.4
	Case heater kW	0.035(240 V)	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	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	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)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)
Net weight	kg (lbs)	195(430)	195(430)	195(430)
Heat exchanger		plate type		
	Water volume in plate	L	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
Optional parts		Joint: CMY-Y102SS-G2 Header: CMY-Y104/108/1010-G	Joint: CMY-Y102SS-G2, CMY-Y102LS-G2 Header: CMY-Y104/108/1010-G	Joint: CMY-Y102SS-G2, CMY-Y102LS-G2 Header: CMY-Y104/108/1010-G

Notes:

*1,*2 Nominal conditions

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

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

*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.



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



► Specifications

Model		PQHY-P400YSHM-A		PQHY-P450YSHM-A		PQHY-P500YSHM-A		
Power source		3-phase 4-wire 380-400-415V 50/60Hz		3-phase 4-wire 380-400-415V 50/60Hz		3-phase 4-wire 380-400-415V 50/60Hz		
Cooling capacity (Nominal)	*1 kW	45.0		50.0		56.0		
	*1 BTU / h	153,500		170,600		191,100		
	Power input kW	8.25		9.84		11.45		
	Current input A	13.9-13.2-12.7		16.6-15.7-15.2		19.3-18.3-17.6		
Temp. range of cooling	EER kW / kW	5.45		5.08		4.89		
	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	50.0		56.0		63.0		
	*2 BTU / h	170,600		191,100		215,000		
	Power input kW	8.65		10.42		12.06		
	Current input A	14.6-13.8-13.3		17.5-16.7-16.1		20.3-19.3-18.6		
Temp. range of heating	COP kW / kW	5.78		5.37		5.22		
	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	50~130 % of heat source unit capacity		50~130 % of heat source unit capacity		50~130 % of heat source unit capacity		
	Model / Quantity	P15~P250 / 1~34		P15~P250 / 1~39		P15~P250 / 1~43		
Sound pressure level (measured in anechoic room)	dB <A>	50		51		52		
Refrigerant piping diameter [O.D.]	Liquid pipe mm (in.)	12.7(1/2) Brazed		15.88(5/8) Brazed		15.88(5/8) Brazed		
	Gas pipe mm (in.)	28.58(1-1/8) Brazed		28.58(1-1/8) Brazed		28.58(1-1/8) Brazed		
Set Model								
Model		PQHY-P200YHM-A		PQHY-P200YHM-A		PQHY-P250YHM-A		
Circulating water	Water flow rate	m ³ / h	5.76 + 5.76		5.76 + 5.76		5.76 + 5.76	
		L/min	96 + 96		96 + 96		96 + 96	
		cfm	3.4 + 3.4		3.4 + 3.4		3.4 + 3.4	
	Pressure drop	kPa	17	17	17	17	17	17
Operating volume range	m ³ / h	4.5 + 4.5 ~ 7.2 + 7.2		4.5 + 4.5 ~ 7.2 + 7.2		4.5 + 4.5 ~ 7.2 + 7.2		
Compressor	Type x Quantity	Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		
	Starting method	Inverter		Inverter		Inverter		
	Motor output kW	4.6		6.3		4.6		
	Case heater kW	0.035(240 V)		0.035(240 V)		0.035(240 V)		
External finish		Acrylic painted steel plate		Acrylic painted steel plate		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	1,160(1,100 without legs) x 880 x 550	1,160(1,100 without legs) x 880 x 550	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	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	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)		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		Over-heat protection, Over-current protection		
	Compressor	Over-heat protection		Over-heat protection		Over-heat protection		
Refrigerant	Type x original charge	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)	
Net weight	kg (lbs)	195(430)	195(430)	195(430)	195(430)	195(430)	195(430)	
Heat exchanger			plate type	plate type	plate type	plate type	plate type	
	Water volume in plate	L	5.0	5.0	5.0	5.0	5.0	
	Water pressure Max.	MPa	2.0	2.0	2.0	2.0	2.0	
Optional parts		Heat Source Twinning kit: CMY-Y100VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G		Heat Source Twinning kit: CMY-Y100VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G		Heat Source Twinning kit: CMY-Y100VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G		

Notes:

*1, *2 Nominal conditions

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

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

*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

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



► Specifications

Model			PQHY-P550YSHM-A	PQHY-P600YSHM-A		
Power source			3-phase 4-wire 380-400-415V 50/60Hz			
Cooling capacity (Nominal)	*1	kW	63.0			
	*1	BTU / h	215,000			
	Power input	kW	13.46			
	Current input	A	22.7-21.5-20.8			
	EER	kW / kW	4.68			
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C(59~75°F)			
	Circulating water	°C	10.0~45.0°C(50~113°F)			
Heating capacity (Nominal)	*2	kW	69.0			
	*2	BTU / h	235,400			
	Power input	kW	14.65			
	Current input	A	24.7-23.4-22.6			
	COP	kW / kW	4.70			
Temp. range of heating	Indoor	D.B.	15.0~27.0°C(59~81°F)			
	Circulating water	°C	10.0~45.0°C(50~113°F)			
Indoor unit connectable	Total capacity		50~130 % of heat source unit capacity			
	Model / Quantity		P15~P250 / 2~47			
Sound pressure level (measured in anechoic room)		dB <A>	52.5			
Refrigerant piping diameter [O.D.]	Liquid pipe	mm (in.)	15.88(5/8) Brazed			
	Gas pipe	mm (in.)	28.58(1-1/8) Brazed			
Set Model						
Model			PQHY-P300YHM-A	PQHY-P250YHM-A	PQHY-P300YHM-A	PQHY-P300YHM-A
Circulating water	Water flow rate	m ³ / h	5.76 + 5.76		5.76 + 5.76	
		L/min	96 + 96		96 + 96	
		cfm	3.4 + 3.4		3.4 + 3.4	
	Pressure drop	kPa	17	17	17	17
	Operating volume range	m ³ / h	4.5 + 4.5 ~ 7.2 + 7.2		4.5 + 4.5 ~ 7.2 + 7.2	
Compressor	Type x Quantity		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter		Inverter	
	Motor output	kW	7.4		7.4	
	Case heater	kW	0.035(240 V)		0.035(240 V)	
External finish			Acrylic painted steel plate		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	2.0		2.0	
Optional parts			Heat Source Twinning kit: CMY-Y100VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010-G		Heat Source Twinning kit: CMY-Y100VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2 Nominal conditions

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

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

*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.



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



► Specifications

Model			PQHY-P650YSHM-A			PQHY-P700YSHM-A		
Power source			3-phase 4-wire 380-400-415V 50/60Hz			3-phase 4-wire 380-400-415V 50/60Hz		
Cooling capacity (Nominal)	*1	kW	73.0			80.0		
	*1	BTU / h	249,100			273,000		
	Power input	kW	13.96			15.58		
	Current input	A	23.5-22.3-21.5			26.3-24.9-24.0		
	EER	kW / kW	5.22			5.13		
Temp. range of cooling	Indoor	W.B.	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)		
Heating capacity (Nominal)	*2	kW	81.5			88.0		
	*2	BTU / h	278,100			300,300		
	Power input	kW	14.74			16.51		
	Current input	A	24.8-23.6-22.7			27.8-26.4-25.5		
	COP	kW / kW	5.52			5.33		
Temp. range of heating	Indoor	D.B.	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)		
Indoor unit connectable	Total capacity		50~130 % of heat source unit capacity			50~130 % of heat source unit capacity		
	Model / Quantity		P15~P250 / 2~50			P15~P250 / 2~50		
Sound pressure level (measured in anechoic room)		dB <A>	53			53.5		
Refrigerant piping diameter [O.D.]	Liquid pipe	mm (in.)	19.05(3/4) Brazed			19.05(3/4) Brazed		
	Gas pipe	mm (in.)	34.93(1-3/8) Brazed			34.93(1-3/8) Brazed		
Set Model								
Model			PQHY-P250YHM-A		PQHY-P200YHM-A		PQHY-P200YHM-A	
Circulating water	Water flow rate	m ³ / h	5.76 + 5.76 + 5.76				5.76 + 5.76 + 5.76	
		L/min	96 + 96 + 96				96 + 96 + 96	
	cfm	3.4 + 3.4 + 3.4				3.4 + 3.4 + 3.4		
	Pressure drop	kPa	17	17	17	17	17	17
Operating volume range	m ³ / h	4.5 + 4.5 + 4.5 ~ 7.2 + 7.2 + 7.2				4.5 + 4.5 + 4.5 ~ 7.2 + 7.2 + 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor				Inverter scroll hermetic compressor	
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Motor output	kW	6.3	4.6	4.6	6.3	6.3	4.6
	Case heater	kW	0.035(240 V)	0.035(240 V)	0.035(240 V)	0.035(240 V)	0.035(240 V)	0.035(240 V)
External finish			Acrylic painted steel plate				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	1,160(1,100 without legs) x 880 x 550	1,160(1,100 without legs) x 880 x 550	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	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	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)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)
Net weight		kg (lbs)	195(430)	195(430)	195(430)	195(430)	195(430)	195(430)
Heat exchanger			plate type	plate type	plate type	plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0	2.0	2.0	2.0
Optional parts			Heat Source Twinning kit: CMY-Y300VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010-G			Heat Source Twinning kit: CMY-Y300VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010-G		

Notes:

*1, *2 Nominal conditions

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

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

*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

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



► Specifications

Model		PQHY-P750YSHM-A		PQHY-P800YSHM-A			
Power source		3-phase 4-wire 380-400-415V 50/60Hz		3-phase 4-wire 380-400-415V 50/60Hz			
Cooling capacity (Nominal)	*1 kW	85.0		90.0			
	*1 BTU / h	290,000		307,100			
	Power input kW	17.19		19.18			
	Current input A	29.0-27.5-26.5		32.3-30.7-29.6			
	EER kW / kW	4.94		4.69			
Temp. range of cooling	Indoor W.B.	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)			
Heating capacity (Nominal)	*2 kW	95.0		100.0			
	*2 BTU / h	324,100		341,200			
	Power input kW	18.27		20.74			
	Current input A	30.8-29.3-28.2		35.0-33.2-32.0			
	COP kW / kW	5.19		4.82			
Temp. range of heating	Indoor D.B.	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)			
Indoor unit connectable	Total capacity	50~130 % of heat source unit capacity		50~130 % of heat source unit capacity			
	Model / Quantity	P15~P250 / 2~50		P15~P250 / 2~50			
Sound pressure level (measured in anechoic room)	dB <A>	54		54			
Refrigerant piping diameter [O.D.]	Liquid pipe mm (in.)	19.05(3/4) Brazed		19.05(3/4) Brazed			
	Gas pipe mm (in.)	34.93(1-3/8) Brazed		34.93(1-3/8) Brazed			
Set Model							
Model		PQHY-P250YHM-A	PQHY-P250YHM-A	PQHY-P250YHM-A	PQHY-P300YHM-A	PQHY-P250YHM-A	PQHY-P250YHM-A
Circulating water	Water flow rate	m ³ / h	5.76 + 5.76 + 5.76			5.76 + 5.76 + 5.76	
		L/min	96 + 96 + 96			96 + 96 + 96	
		cfm	3.4 + 3.4 + 3.4			3.4 + 3.4 + 3.4	
	Pressure drop	kPa	17	17	17	17	17
Operating volume range	m ³ / h	4.5 + 4.5 + 4.5 ~ 7.2 + 7.2 + 7.2			4.5 + 4.5 + 4.5 ~ 7.2 + 7.2 + 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor			Inverter scroll hermetic compressor	
	Starting method		Inverter			Inverter	
	Motor output	kW	6.3	6.3	6.3	7.4	6.3
	Case heater	kW	0.035(240 V)	0.035(240 V)	0.035(240 V)	0.035(240 V)	0.035(240 V)
External finish		Acrylic painted steel plate			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	1,160(1,100 without legs) x 880 x 550	1,160(1,100 without legs) x 880 x 550	1,160(1,100 without legs) x 880 x 550	1,160(1,100 without legs) x 880 x 550
		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	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	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)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)
Net weight	kg (lbs)	195(430)	195(430)	195(430)	195(430)	195(430)	195(430)
Heat exchanger			plate type	plate type	plate type	plate type	plate type
	Water volume in plate	L	5.0	5.0	5.0	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0	2.0	2.0	2.0
Optional parts		Heat Source Twinning kit: CMY-Y300VBK2 Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-Y202S-G2,CMY-Y302S-G2 Header: CMY-Y104/108/1010-G			Heat Source Twinning kit: CMY-Y300VBK2 Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-Y202S-G2,CMY-Y302S-G2 Header: CMY-Y104/108/1010-G		

Notes:

*1,*2 Nominal conditions

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

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

*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.



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



► Specifications

Model			PQHY-P850YSHM-A			PQHY-P900YSHM-A								
Power source			3-phase 4-wire 380-400-415V 50/60Hz			3-phase 4-wire 380-400-415V 50/60Hz								
Cooling capacity (Nominal)	*1	kW	96.0			101.0								
	*1	BTU / h	327,600			344,600								
	Power input	kW	21.20			23.22								
	Current input	A	35.7-33.9-32.7			39.1-37.2-35.8								
	EER	kW / kW	4.52			4.34								
Temp. range of cooling	Indoor	W.B.	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)								
Heating capacity (Nominal)	*2	kW	108.0			113.0								
	*2	BTU / h	368,500			385,600								
	Power input	kW	23.21			25.67								
	Current input	A	39.1-37.2-35.8			43.3-41.1-39.6								
	COP	kW / kW	4.65			4.40								
Temp. range of heating	Indoor	D.B.	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)								
Indoor unit connectable	Total capacity		50~130 % of heat source unit capacity			50~130 % of heat source unit capacity								
	Model / Quantity		P15~P250 / 2~50			P15~P250 / 2~50								
Sound pressure level (measured in anechoic room)		dB <A>	54.5			55								
Refrigerant piping diameter [O.D.]	Liquid pipe	mm (in.)	19.05(3/4) Brazed			19.05(3/4) Brazed								
	Gas pipe	mm (in.)	41.28(1-5/8) Brazed			41.28(1-5/8) Brazed								
Set Model														
Model			PQHY-P300YHM-A		PQHY-P300YHM-A		PQHY-P250YHM-A		PQHY-P300YHM-A		PQHY-P300YHM-A		PQHY-P300YHM-A	
Circulating water	Water flow rate	m ³ / h	5.76 + 5.76 + 5.76				5.76 + 5.76 + 5.76							
		L/min	96 + 96 + 96				96 + 96 + 96							
	cfm	3.4 + 3.4 + 3.4				3.4 + 3.4 + 3.4								
	Pressure drop	kPa	17	17	17	17	17	17						
Operating volume range	m ³ / h	4.5 + 4.5 + 4.5 ~ 7.2 + 7.2 + 7.2				4.5 + 4.5 + 4.5 ~ 7.2 + 7.2 + 7.2								
Compressor	Type x Quantity		Inverter scroll hermetic compressor				Inverter scroll hermetic compressor							
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter						
	Motor output	kW	7.4	7.4	6.3	7.4	7.4	7.4						
	Case heater	kW	0.035(240 V)	0.035(240 V)	0.035(240 V)	0.035(240 V)	0.035(240 V)	0.035(240 V)						
External finish			Acrylic painted steel plate				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	1,160(1,100 without legs) x 880 x 550	1,160(1,100 without legs) x 880 x 550	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	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	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)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)	R410A x 5.0kg (12lbs)						
Net weight	kg (lbs)		195(430)	195(430)	195(430)	195(430)	195(430)	195(430)						
Heat exchanger	Type		plate type	plate type	plate type	plate type	plate type	plate type						
	Water volume in plate	L	5.0	5.0	5.0	5.0	5.0	5.0						
	Water pressure Max.	MPa	2.0	2.0	2.0	2.0	2.0	2.0						
Optional parts			Heat Source Twinning kit: CMY-Y300VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010-G				Heat Source Twinning kit: CMY-Y300VBK2 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010-G							

Notes:

*1, *2 Nominal conditions

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

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

*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