WY WR2 LINE

OUTDOOR UNITS - Water condensed Heat pump and Heat recovery PQH(R)Y-P Y(S)LM-A1

WEIGHT REDUCED UP TO -44% COMPARED TO PREVIOUS MODEL

WIDER LINEUP INTRODUCING 14HP SIZE

SINGLE MODULE UP TO SIZE 24HP FOR EASIER INSTALLATION AND LESS ENCUMBRANCE

HIGHER EFFICIENCY THAN PREVIOUS MODEL (UP TO +20% EER AND +34% COP)



NEW CASE IN SMALL AND LARGE VERSIONS

EVAPORATING TEMPERATURE CONTROL (ETC) FEATURE AVAILABLE

WATER FLOW AUTOMATIC CONTROL WITH 0-10V INPUT

FOR SIZES P700-P900 (28-36HP) REDUCED OCCUPIED SURFACE.

*1 Values referring to the model PQHY-P600 YSLM-A compared to the same size as the previous series
*2 Value referred to the model P400 compared with the same size as the previous model

New Small and Large case

New water condensed oudoor units WY and WR2 are available in two module types: Small and Large. Large module allows capacity up to 24HP (69 kW in Cooling and 76,5 kW in Heating) with just one module, reducing occupied surface in installation site up to 50% compared to previous model. For double module configuration room saving can be up to 33%.

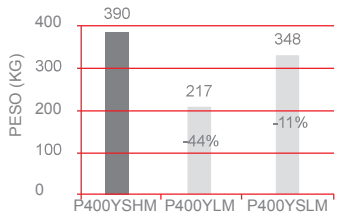
Weight reduction

A significant weight reduction compared to previous model, up to 44% with Large module, allows an easier installation and transportation of the unit.

Higher energy efficiency

New WY and WR2 model grants top of the class EER and COP performances. Energy efficiency has been improved for both single and double module, in Cooling and Heating, up to +34%. This type of systems are among the most effiencient in the world, thanks to high performances and constant temperature attributes of geothermal application.

WEIGHT REDUCTION



	PQHY		PQRY	
	Y(S)HM	Y(S)LM	Y(S)HM	Y(S)LM
P200	195	174	181	172
P250	195	174	181	172
P300	195	174	181	172
P350	-	217	-	216
P400	390	217*1	362	216*1
		348		344*2
P450	390	217*1	362	216*1
		348		344*2
P500	390	217*1	362	216*1
		348		344*2
P550	390	246*1	362	246*1
		348*2		344*2
P600	390	246*1	362	246*1
		348*2		344*2
P700	585	434	-	432
P750	585	434	-	432
P800	585	434	-	432
P850	585	434	-	432
P900	585	434	-	432

*1 Single module
*2 Double module

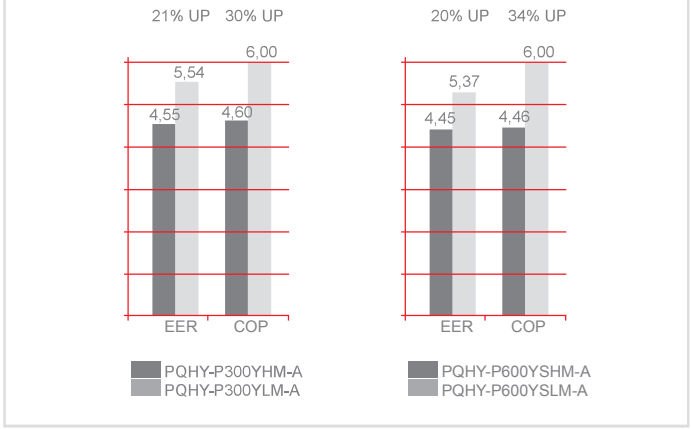
NEW CASE



Water flow rate control

New YLM water condensed outdoor units are equipper with an automatic flow rate control system, which allows reduction of pumping consumption when the system works in partial load conditions. Flow rate control is performed by a 0-10V signal, which controls the regulation valve by shutting or opening it (field supplied).
Thanks to factory setting water circulation pumping is performed even during temporary blackout.

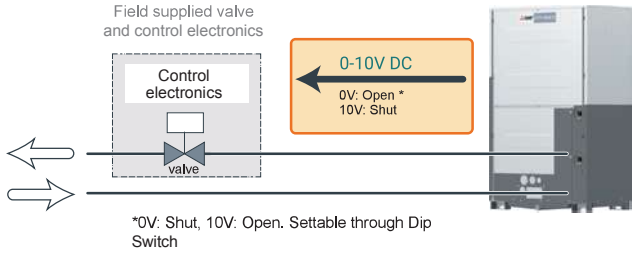
HIGHER ENERGY EFFICIENCY



Advantages

WY and WR2 lines VRF CITY MULTI systems have all the benefits of the Y series, using water evaporation condensing units. Water heat source condensing units offer the advantage of being installable inside the building, for even greater installation flexibility with practically no limitations for the dimensions of the infrastructure. Depending on the capacity of the outdoor unit, up to 26 indoor units can be connected to a single condensing unit, while up to 50 indoor units can be connected to a modular system with individual user and/or centralized control. The two-pipe system allows the system to transition from heating to cooling mode and vice versa, for superior comfort in all zones.

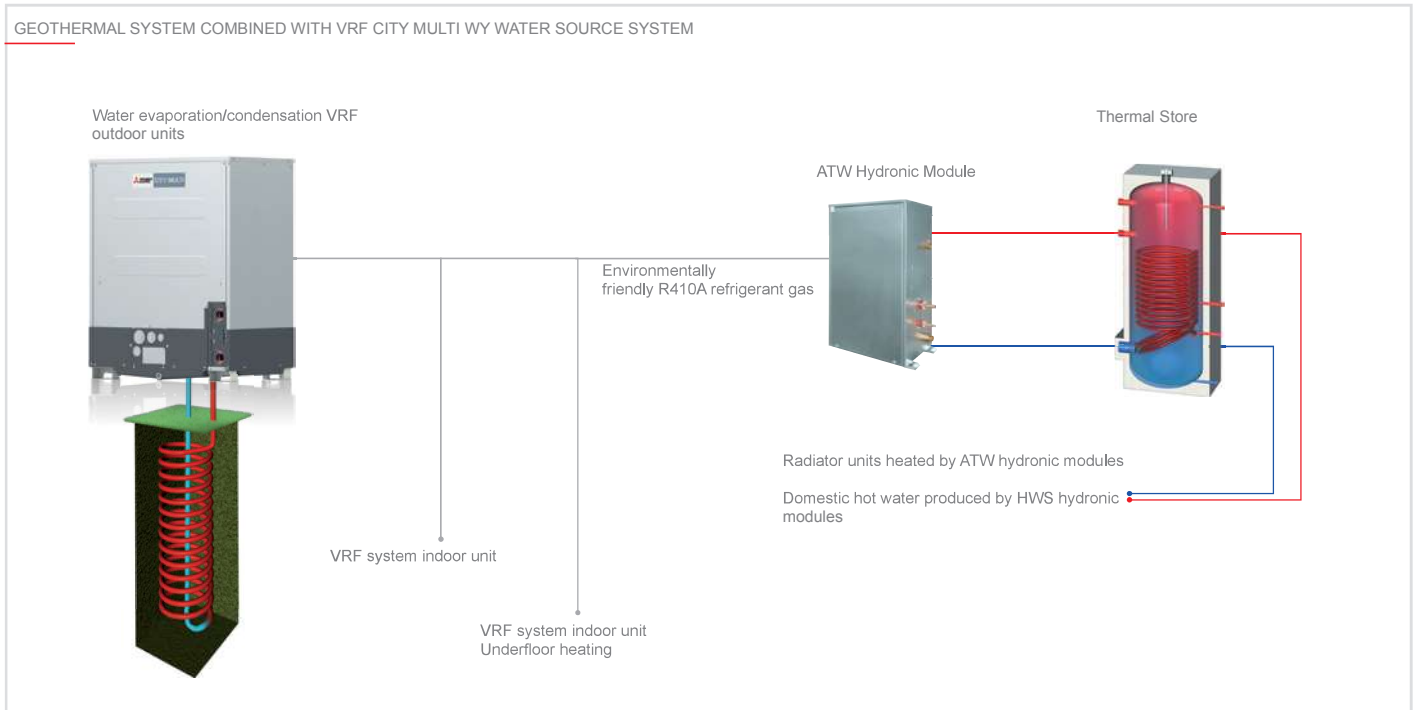
WATER FLOW RATE CONTROL



Geothermal applications

WY and WR2 lines outdoor units are perfectly suited for geothermal applications as they use water as the thermal medium fluid which, at depths from 10 m below ground, maintains a practically constant temperature with no significant excursions all year round.
A geothermal installation uses the ground as a heat source in winter and as a heat sink in summer. Using geothermal probes (heat exchangers) together with VRF CITY MULTI WY and WR2 systems, heat may be extracted from the ground to warm in winter, and dissipated into the ground to cool in summer.

GEOTHERMAL SYSTEM COMBINED WITH VRF CITY MULTI WY WATER SOURCE SYSTEM



Key Technologies















Technical specifications WY LINE

MODEL Single				PQHY-P200YLM-A1	PQHY-P250YLM-A1	PQHY-P300YLM-A1
HP				8	10	12
Power supply	Phases/Voltage/Freq.		V/Hz/n°	3-phase 380-400-415V 50Hz		
Cooling	Capacity*1		kW	22.4	28.0	33.5
	Power input		kW	3.71	4.90	6.04
	SEER			8.12	8.16	7.42
	Temperature operating field	Indoor WB	°C	15.0~24.0	15.0~24.0	15.0~24.0
		Water	°C	10.0~45.0	10.0~45.0	10.0~45.0
Heating	Capacity*2		kW	25.0	31.5	37.5
	Power input		kW	3.97	5.08	6.25
	SCOP			4.90	4.61	4.55
	Temperature operating field	Indoor DB	°C	15.0~27.0	15.0~27.0	15.0~27.0
		Water	°C	10.0~45.0	10.0~45.0	10.0~45.0
Sound power level*3			dB(A)	46	48	54
Connectable indoor units	Total capacity			50 to 130% of O.U. capacity	50 to 130% of O.U. capacity	50 to 130% of O.U. capacity
	Model/Quantity			P15~P250/1~17	P15~P250/1~21	P15~P250/1~26
Ø Ref. piping	Liquid		mm	9.52	9.52	9.52
	Gas			19.05	22.2	22.2
Circulating Water	Flow rate		m^3/h	5.76	5.76	5.76
	Operating volume range			3.0~7.2	3.0~7.2	3.0~7.2
	Pressure drop		kPa	24	24	24
	Heat exchanger volume		l	5	5.0	5.0
External dimentions			mm	1100 x 880 x 550	1100 x 880 x 550	1100 x 880 x 550
Net weight			kg	174	174	174
Ref. Charge R410*4/CO_2 Eq			kg/Tons	5.0 / 10.44	5.0 / 10.44	5.0 / 10.44

*1 Nominal cooling conditions: Indoor: 27°C DB / 19°C WB. Water temperature 30°C. Piping length 7.5 m, vertical difference 0 m.
*2 Nominal heating conditions: Indoor 20°C DB. Water temperature 20°C. Piping length 7.5 m, vertical difference 0 m.
*3 Values measured in anechoic chamber.
*4 GWP value of HFC R410A 2088 according to 517 / 2014.

Technical specifications WY LINE

MODEL Single				PQHY-P350YLM-A1	PQHY-P400YLM-A1	PQHY-P450YLM-A1	PQHY-P500YLM-A1	PQHY-P550YLM-A1	PQHY-P600YLM-A1
HP				14	16	18	20	22	24
Power supply	Phases/Voltage/Freq.		V/Hz/n°	3-phase 380-400-415V 50Hz					
Cooling	Capacity*1		kW	40.0	45.0	50.0	56.0	63.0	69.0
	Power input		kW	7.14	8.03	9.29	11.17	12.54	14.49
	SEER			7.44	7.40	6.62	6.30	6.89	6.89
	Temperature operating field	Indoor WB	°C	15.0~24.0	15.0~24.0	15.0~24.0	15.0~24.0	15.0~24.0	15.0~24.0
		Water	°C	10.0~45.0	10.0~45.0	10.0~45.0	10.0~45.0	10.0~45.0	10.0~45.0
Heating	Capacity*2		kW	45.0	50.0	56	63.0	69.0	76.5
	Power input		kW	7.53	8.37	9.79	11.43	12.27	14.51
	SCOP			4.29	4.25	4.17	4.04	3.77	3.51
	Temperature operating field	Indoor DB	°C	15.0~27.0	15.0~27.0	15.0~27.0	15.0~27.0	15.0~27.0	15.0~27.0
		Water	°C	10.0~45.0	10.0~45.0	10.0~45.0	10.0~45.0	10.0~45.0	10.0~45.0
Sound power level*3			dB(A)	52	52	54	54	56.5	56.5
Connectable indoor units	Total capacity			50 to 130% of O.U. capacity	50 to 130% of O.U. capacity	50 to 130% of O.U. capacity	50 to 130% of O.U. capacity	50 to 130% of O.U. capacity	50 to 130% of O.U. capacity
	Model/Quantity			P15~P250/1~30	P15~P250/1~34	P15~P250/1~39	P15~P250/1~43	P15~P250/2~47	P15~P250/2~50
Ø Ref. piping	Liquid		mm	12.7	15.88	15.88	15.88	15.88	15.88
	Gas			28.58	28.58	28.58	28.58	28.58	28.58
Circulating Water	Flow rate		m^3/h	7.20	7.20	7.20	7.20	11.52	11.52
	Operating volume range			4.5~11.6	4.5~11.6	4.5~11.6	4.5~11.6	6.0~14.4	6.0~14.4
	Pressure drop		kPa	44	44	44	44	45	45
	Heat exchanger volume		l	5.0	5.0	5.0	5.0	5.0	5.0
External dimentions			mm	1450 x 880 x 550	1450 x 880 x 550	1450 x 880 x 550	1450 x 880 x 550	1450 x 880 x 550	1450 x 880 x 550
Net weight			kg	217	217	217	217	246	246
Ref. Charge R410*4/CO_2 Eq			kg/Tons	6.0 / 12.53	6.0 / 12.53	6.0 / 12.53	6.0 / 12.53	11.7 / 24.43	11.7 / 24.43