

WR2 Series

(22.4-56kW)

Simultaneous Heating and Cooling with Double Heat Recovery,
Water Cooled Condensing Unit

CITY MULTI

The City Multi **WR2** Series Heat Recovery VRF system is ideal where a water loop is available and outdoor space is limited.

These models utilise water, instead of air, as the energy transfer medium, and benefit from all of the same technology and flexibility as air sourced VRF systems. City Multi WR2 systems provide the ultimate solution for a breadth of applications requiring simultaneous heating and cooling, including hotels, offices, leisure, retail and high end residential.



Key Features & Benefits:

- High efficiency, modular systems, with ability to recover energy on the refrigerant circuit and between units on the water circuit, in either a closed or open loop building, or ground source application
- Able to utilise waste heat from commercial sources, such as server cooling, or renewable heat from landlord loops, rivers, lakes or geothermal sources
- Very low impact footprint and service space requirements, ideal for internal location
- Provides continuous heating in winter, without the need for defrost operation



Air Conditioning Product Information

WR2 Series (22.4-56kW) Simultaneous Heating and Cooling with Double Heat Recovery, Water Cooled Condensing Unit

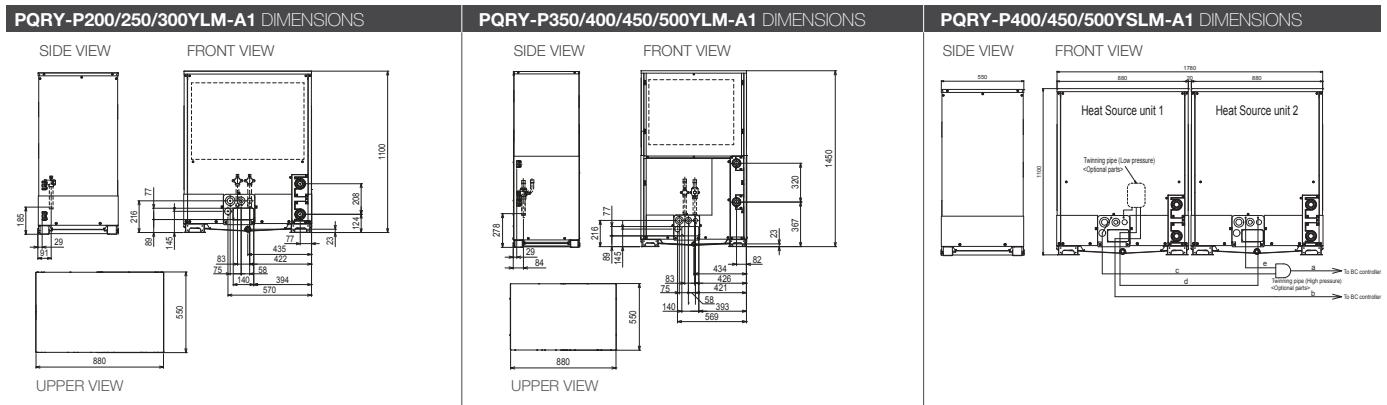


CONDENSING UNITS		PQRY-P200YLM-A1	PQRY-P250YLM-A1	PQRY-P300YLM-A1	PQRY-P350YLM-A1	PQRY-P400YLM-A1	PQRY-P400YSLM-A1	PQRY-P450YLM-A1	PQRY-P450YSLM-A1	PQRY-P500YLM-A1	PQRY-P500YSLM-A1
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5	45.0	50.0	50.0	56.0	56.0	63.0	63.0
	Cooling (nominal)	22.4	28.0	33.5	40.0	45.0	45.0	50.0	50.0	56.0	56.0
POWER INPUT (kW)	Heating (nominal)	3.97	5.08	6.25	7.53	8.37	7.94	9.79	6.24	11.43	10.16
	Cooling (nominal)	3.71	4.90	6.04	7.14	8.03	7.70	9.29	5.69	11.17	10.12
OPERATING WATER VOLUME (m³/h)		3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2	4.5 ~ 11.6	4.5 ~ 11.6	3.0+3.0 ~ 7.2+7.2	4.5 ~ 11.6	3.0+3.0 ~ 7.2+7.2	4.5 ~ 11.6	3.0+3.0 ~ 7.2+7.2
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45
	COP / EER (nominal)	6.29 / 6.03	6.20 / 5.71	6.25 / 5.54	5.97 / 5.60	5.97 / 5.60	6.29 / 5.84	5.72 / 5.38	6.24 / 5.69	5.51 / 5.01	6.20 / 5.53
MAX NO. OF CONNECTABLE INDOOR UNITS		20	25	30	35	40	40	45	45	50	50
MAX CONNECTABLE CAPACITY		50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")
	Liquid	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")
SOUND PRESSURE LEVEL (dBA)		46	48	54	52	52	49	54	50	54	51
SOUND POWER LEVEL (dBA)		60	62	68	66	66	63	70	64	70.5	65
WEIGHT (kg)		173	173	173	217	217	173+173	217	173+173	217	173+173
DIMENSIONS (mm)	Width	880	880	880	880	880	880+880	880	880+880	880	880+880
	Depth	550	550	550	550	550	550	550	550	550	550
	Height	1100	1100	1100	1450	1450	1100	1450	1100	1450	1100
ELECTRICAL SUPPLY ¹⁾		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE ¹⁾		Three	Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)		8	8	8	8	8	8/8	8	8/8	8	8/8
NOMINAL SYSTEM RUNNING CURRENT (A) ¹⁾ Heating / Cooling (MAX)		6.3/5.9 [16.1]	8.1/7.8 [16.1]	10.0/9.6 [18.6]	12.0/11.4 [23.1]	13.4/12.8 [27.6]	12.7/12.3 [16.1+16.1]	15.7/14.8 [32.9]	14.3/14.0 [16.1+16.1]	18.3/17.9 [39.2]	16.2/16.2 [16.1+16.1]
FUSE RATING (BS88) - HRC (A) ¹⁾		1 x 20	1 x 20	1 x 20	1 x 25	1 x 32	1 x 20 / 1 x 20	1 x 40	1 x 20 / 1 x 20	1 x 40	1 x 20 / 1 x 20
MAINS CABLE No. Cores ¹⁾		4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO ₂ EQUIVALENT (T) R410A (GWP 2088)		5.0 / 10.4	5.0 / 10.4	5.0 / 10.4	6.0 / 12.5	6.0 / 12.5	10.0 / 20.9	6.0 / 12.5	10.0 / 20.9	6.0 / 12.5	10.0 / 20.9
MAX ADDITIONAL REFRIGERANT (KG) / CO ₂ EQUIVALENT (T) R410A (GWP 2088)		28.0 / 58.5	30.0 / 62.6	31.0 / 64.7	46.0 / 96.1	47.0 / 98.1	50.0 / 104.4	47.0 / 98.1	51.0 / 106.4	48.0 / 100.2	51.0 / 106.5

Notes: *SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard. *1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. These products are made to order, please consult your local sales office for delivery schedule. PQRY-P200-500Y(S)LM-A1 are stock items.

PIPING RESTRICTIONS	PQRY-P200-500Y(S)LM-A1
TOTAL PIPING LENGTH	550m max ³⁾ (300m) for sizes 200-300 / 750m max ³⁾ (500m) for sizes 350-500
FURTHEST PIPING LENGTH	165m max
BETWEEN CONDENSING UNIT AND BC CONTROLLER (MASTER) - LENGTH	110m max ⁴⁾
BETWEEN INDOOR AND BC CONTROLLER (MASTER/SLAVE) - LENGTH	60m max ⁵⁾ (40m)
BETWEEN INDOOR AND CONDENSING UNIT - HEIGHT	50m max (40m ¹⁾)
BETWEEN INDOOR AND INDOOR - HEIGHT	30m max (20m ²⁾)
BETWEEN INDOOR AND BC CONTROLLER (MASTER/SLAVE) - HEIGHT	15m max (10m ²⁾)
BETWEEN BC CONTROLLER (MASTER) AND BC CONTROLLER (SLAVE) - HEIGHT	15m max (10m ²⁾)

Notes: *1 When condensing unit is below indoor. *2 In case of P200, P250 indoor unit. *3 Distance between condensing unit and BC Controller is 10m or less. *4 Total piping length is 300m or less (500m for sizes 350-500). *5 Height difference between the Master BC Controller and furthest indoor unit is 0m and no size P200 or P250 indoor unit is used. *6 When using multiple sub BC Controllers, the height between them should be considered.



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Note: Refer to 'Installation Manual' and 'Instruction Book' for further 'Technical Information'. The fuse rating is for guidance only and please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:2088), R32 (GWP:675), R407C (GWP:1774), R134a (GWP:1430), R513A (GWP:631), R454B (GWP:468), R1234ze (GWP:7) or R1234yf (GWP:4). *These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IPCC 3rd edition, these are as follows. R410A (GWP:1975), R32 (GWP:550), R407C (GWP:1650) or R134a (GWP:1300).

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