

Air Conditioning

Product Information

WR2 Series (8-20hp)

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

Making a World of Difference

CITY MULTI



Ideal where outdoor space is limited, building heat recovery and efficiency is demanded and a water loop is available, City Multi WR2 Water Cooled models provide the ultimate solution for the majority of applications including hotels, offices, leisure, retail and high end residential.

First developed 15 years ago, the City Multi Water Cooled system utilises water instead of air as an energy transfer medium, but benefits from all the same technology and flexibility of an air sourced VRF.

Key Features

- High efficiency, modular systems, with ability to recover energy between units on the water circuit, in either a closed loop or open loop building or ground source application
- Benefits from all wide indoor unit range and advanced control options
- Very low impact footprint and service space requirements, ideal for internal location



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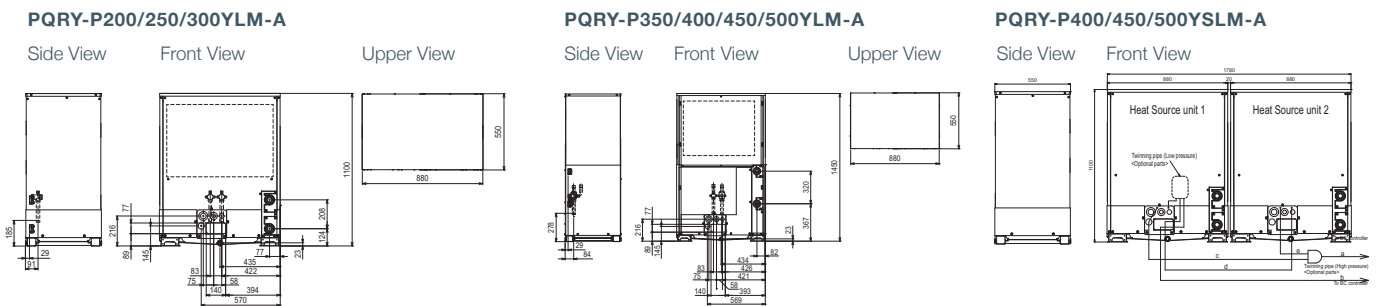
CONDENSING UNITS		PQRY-P200YLM-A	PQRY-P250YLM-A	PQRY-P300YLM-A	PQRY-P350YLM-A	PQRY-P400YLM-A	PQRY-P400YSLM-A	PQRY-P450YLM-A	PQRY-P450YSLM-A	PQRY-P500YLM-A	PQRY-P500YSLM-A
CAPACITY (kW)	Heating (nominal)	25.0	31.5	37.5	45.0	50.0	50.0	56.0	56.0	63.0	63.0
	Cooling (nominal)	22.4	28.0	33.5	40.0	45.0	45.0	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	5.89	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	5.72 / 5.84	5.72 / 5.38	6.24 / 5.69	5.51 / 5.01	6.20 / 5.53
SCOP / SEER		6.95 / 7.15	6.44 / 8.34	6.82 / 7.63	6.29 / 6.52	6.29 / 7.25	6.61 / 7.51	6.03 / 7.77	6.56 / 7.86	5.74 / 7.73	6.44 / 8.26
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)		172	172	172	216	216	172 + 172	216	172 + 172	216	172 + 172
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*		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*		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)* Heating / Cooling [MAX]		6.1 / 5.7 [16.1]	7.8 / 7.5 [16.1]	9.6 / 9.3 [18.6]	11.6 / 11.0 [23.1]	12.9 / 12.4 [27.6]	122/119[161+161]	15.1 / 14.3 [32.9]	138/135[161+161]	17.6 / 17.2 [39.2]	157/156[161+161]
FUSE RATING (BS88) - HRC (A)*		1 x 20A	1 x 20A	1 x 20A	1 x 25A	1 x 32A	1 x 20A / 1 x 20A	1 x 40A	1 x 20A / 1 x 20A	1 x 40A	1 x 20A / 1 x 20A
MAINS CABLE No. Cores*		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)		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)		27.0 / 56.4	32.0 / 66.8	33.0 / 68.9	52.0 / 108.6	52.0 / 108.6	52.0 / 108.6	53.0 / 110.7	53.0 / 110.7	55.0 / 114.8	55.0 / 114.8

Note: *A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. Price includes Twinning Kit where necessary. Condensing unit must be installed inside a building.

PIPING RESTRICTIONS	PQRY-P200-500Y(S)LM-A
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 ^{*6})

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 2 sub BC Controllers, the height between them should be considered.

PRODUCT DIMENSIONS



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Note: The fuse rating is for guidance only. 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) or R134a (GWP:1430). *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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Effective as of September 2017