

# R2 Series High Efficiency Heat Recovery (73.5-100kW)



The **City Multi R2 High Efficiency Heat Recovery** system delivers exceptional seasonal energy performance, providing simultaneous heating and cooling while redistributing surplus heat where it's needed. This advanced heat recovery approach can achieve up to 30% energy savings over conventional systems.

As the only 2-pipe heat recovery solution on the market, the modular City Multi R2 range simplifies installation and maintenance while offering complete design flexibility for applications such as hotels, offices, and leisure spaces.



## Key Features & Benefits:

- **Heat Recovery Operation** - Delivers up to 30% energy savings compared to heat pump systems through advanced heat recovery
- **Lower GWP R32 Refrigerant** - for reduced carbon impact and future-ready legislation compliance
- **Simultaneous Heating & Cooling** - Meets diverse comfort needs across different zones at the same time for optimal occupant satisfaction
- **Unique 2-Pipe System** - Simplifies installation and maintenance while reducing system complexity
- **Ultra-Compact Modular Design** - Smaller unit footprint allows installation in tight spaces without compromising on performance
- **Broad Indoor Unit Compatibility** - Connects to a wide range of unit types and capacities, making it suitable for varied building applications
- **Patented Vertical Flat Tube Heat Exchanger** - Maximises heat exchange efficiency, reducing energy consumption and run costs
- **Reduced Refrigerant Charge** - Uses less refrigerant than the YXM standard efficiency model, lowering embodied carbon and whole-life carbon impact
- **Extended Heating Range (-25°C)** - Ensures reliable heating even in severe winter conditions by maintaining efficient system operation
- **Easy-to-Maintain Safety Feature Options** - For reduced onsite time and costs while supporting occupant peace of mind
- **Enhanced Defrost Technology** - Reduces system downtime during defrost cycles, minimising temperature fluctuations and maintaining reliable indoor heating for consistent occupant comfort
- **Low Noise Operation** - Features a 5-step low noise mode that minimises sound levels for quieter surroundings
- **113m Vertical Height Separation** - Offers generous height allowance between indoor and outdoor units, enabling design flexibility in larger buildings

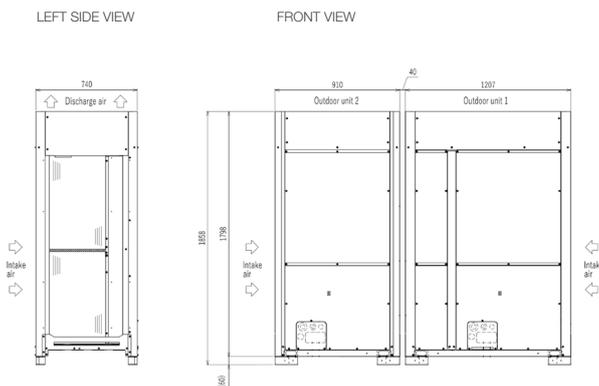




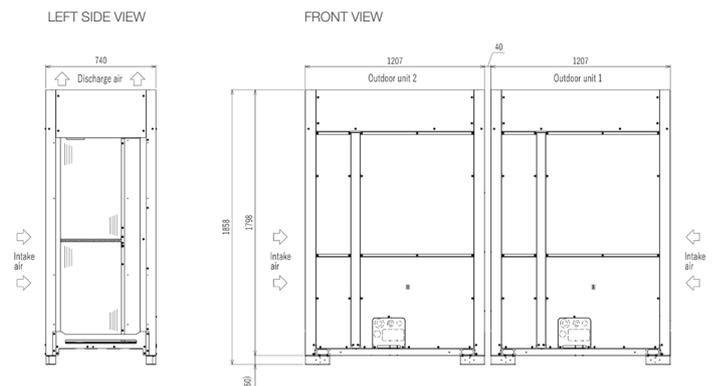
PURY-EM-YXSXM-A OUTDOOR UNITS		PURY-EM650YSXM-A	PURY-EM700YSXM-A	PURY-EM750YSXM-A	PURY-EM800YSXM-A	PURY-EM850YSXM-A	PURY-EM900YSXM-A
CAPACITY (kW)	Heating (Max)	82.5	90.0	95.0	100.0	106.0	112.0
	Cooling (nominal)	73.5	80.0	85.0	90.0	95.0	100.0
	High Performance Heating (UK)	TBC	TBC	TBC	TBC	TBC	TBC
	COP Priority Heating (UK)	TBC	TBC	TBC	TBC	TBC	TBC
	Cooling (UK)	TBC	TBC	TBC	TBC	TBC	TBC
POWER INPUT (kW)	Heating (Max)	22.11	25.49	26.98	28.49	31.08	33.83
	Cooling (nominal)	19.65	22.34	24.07	25.93	28.10	30.58
	High Performance Heating (UK)	TBC	TBC	TBC	TBC	TBC	TBC
	COP Priority Heating (UK)	TBC	TBC	TBC	TBC	TBC	TBC
	Cooling (UK)	TBC	TBC	TBC	TBC	TBC	TBC
COP / EER (Max/Nominal)		3.73 / 3.74	3.53 / 3.58	3.52 / 3.53	3.51 / 3.47	3.41 / 3.38	3.31 / 3.27
SCOP / SEER		4.71 / 8.35	4.72 / 8.15	4.64 / 7.97	4.56 / 7.78	4.50 / 7.75	4.45 / 7.69
MAX NO. OF CONNECTABLE INDOOR UNITS		47	50	50	50	50	50
MAX CONNECTABLE CAPACITY		50~150% OU Capacity					
AIRFLOW (m <sup>3</sup> /min)	High	250 / 200	250 / 250	310 / 250	310 / 310	315 / 310	315 / 315
	Gas	28.58 (1-1/8")	34.93 (1-3/8")	34.93 (1-3/8")	34.93 (1-3/8")	41.28 (1-5/8")	41.28 (1-5/8")
PIPE SIZE mm (in)	Gas	28.58 (1-1/8")	34.93 (1-3/8")	34.93 (1-3/8")	34.93 (1-3/8")	41.28 (1-5/8")	41.28 (1-5/8")
	Liquid	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")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	66.0 / 63.0	66.0 / 61.0	67.0 / 63.0	68.0 / 65.0	70.0 / 65.0	72.0 / 66.0
	Heating / Cooling	86.0 / 83.0	86.0 / 82.0	88.0 / 84.0	90.0 / 86.0	91.0 / 86.0	93.0 / 87.0
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	TBC	TBC	TBC	TBC	TBC	TBC
	Heating / Cooling	TBC	TBC	TBC	TBC	TBC	TBC
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling	TBC	TBC	TBC	TBC	TBC	TBC
	Heating / Cooling	TBC	TBC	TBC	TBC	TBC	TBC
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling	TBC	TBC	TBC	TBC	TBC	TBC
	Heating / Cooling	TBC	TBC	TBC	TBC	TBC	TBC
WEIGHT (kg)		312 + 273	250 + 250	317 + 312	317 + 317	317 + 317	317 + 317
DIMENSIONS (mm)	Width	910 + 1207	1207 + 1207	1207 + 1207	1207 + 1207	1207 + 1207	1207 + 1207
	Depth	740	740	740	740	740	740
	Height	1858	1858	1858	1858	1858	1858
(1798mm without legs)							
ELECTRICAL SUPPLY <sup>2</sup>		380-415v, 50Hz					
PHASE <sup>2</sup>		Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>2</sup>		TBC	TBC	TBC	TBC	TBC	TBC
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>2</sup>	Heating / Cooling [MAX]	35.4 / 31.5 [TBC]	40.8 / 35.8 [TBC]	43.2 / 38.6 [TBC]	45.6 / 41.5 [TBC]	49.8 / 45.0 [TBC]	54.2 / 49.0 [TBC]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-25~-15.5 / -5~-52	-25~-15.5 / -5~-52	-25~-15.5 / -5~-52	-25~-15.5 / -5~-52	-25~-15.5 / -5~-52	-25~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>2</sup>		TBC	TBC	TBC	TBC	TBC	TBC
MAINS CABLE No. Cores <sup>2</sup>		4 + earth / 4 + earth					
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		11.6 / 7.8	12.6 / 8.5	12.6 / 8.5	12.6 / 8.5	12.6 / 8.5	12.6 / 8.5
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)		TBC	TBC	TBC	TBC	TBC	TBC

Notes: ErP Lot 6 calculation method to EN14825. \*1 If distance from OU to BC controller is greater than 65m. \*2 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

### PURY-EM650YSXM-A DIMENSIONS



### PURY-EM700/750/800/850/900YSXM-A DIMENSIONS



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Note: 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:466), R515B (GWP:292), R454C (GWP:148), R1234ze (GWP:7) or R1234yf (GWP:4). \*These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a hydrocarbon, R290 (GWP:0.02). \*These GWP values are based on IPCC 6th edition.

Effective as of February 2025

