

R-410A

SUPER HEAT RECOVERY MULTI
SYSTEMDual DC Twin Rotary
compressors

SHRM VRF Outdoor unit

Features

The three-pipe VRF Super Heat Recovery Multi System (SHRM) delivers simultaneously cooling and heating and has exceptional energy efficiency.

For ease of installation and cost saving the 8 and 10 HP units are modular.

Protection devices

- Discharge and suction temperature sensors
- Internal overload relay
- Compressor over-current relay
- Over-current sensor
- High-pressure switch
- Low-pressure sensors

Key features

Unbeatable energy consumption efficiency: average COP of 3.97 (22.4 kW).

Compact flow selector unit: it automatically adjusts the temperature either by unit or by area.

The highest reliability for back up operation thanks to dual inverter compressors.

Piping branch flexibility: the three-pipe connection allows installation height variation of 35 m (equivalent to a 9-story building).

Wide control applications: Artificial Intelligence network system available and Building Management System (BMS) compatible.

Active Oil Management system: it increases the operation reliability.

Technical specifications **heat pump**

Outdoor unit		MMY-MAP0802FT8-E	MMY-MAP1002T8-E	MMY-MAP1202T8-E
		8 HP	10 HP	12 HP
Cooling capacity ¹	kW	22.4	28	33.5
Power input, cooling	kW	6.07	8.54	12.9
EER	W/W	3.69	3.18	2.6
Energy efficiency class, cooling		A	B	E
Running current, cooling	A	9.25	13.15	19.85
Heating capacity ²	kW	25	31.5	35.5
Power input, heating	kW	6.29	8.73	9.65
COP	W/W	3.97	3.61	3.68
Energy efficiency class, heating		A	A	A
Running current, heating	A	9.55	13.4	14.85
Peak demand current ³	A	30	30	30
Air flow	m ³ /h – l/s	9900 – 2750	10500 – 2917	10500 – 2917
Sound pressure level – at 1 m	dB(A)	57	58	59
Operating range – db	°C	-10 to 43	-10 to 43	-10 to 43
Operating range – wb ⁴	°C	-20 to 16	-20 to 16	-20 to 16
Dimensions (H x L x D)	mm	1800 x 990 x 750	1800 x 990 x 750	1800 x 990 x 750
Weight	kg	263	263	263
Compressor type		Hermetic	Hermetic	Hermetic
Refrigerant charge R410A	kg	11.5	11.5	11.5
Pipework				
Suction line type – diameter	in	Brazed – 7/8	Brazed – 7/8	Brazed – 1 – 1/8
Liquid line type – diameter	in	Flare – 1/2	Flare – 1/2	Flare – 1/2
Discharge line connection type – diameter	in	Brazed – 3/4	Brazed – 3/4	Brazed – 3/4
Maximum equivalent length separation	m	150	150	150
Maximum actual piping separation	m	125	125	125
Maximum pipe length	m	300	300	300
Maximum lift (Indoor unit above/below) ⁵	m	30/50	30/50	30/50
Power supply	V-ph-Hz	400-3-50	400-3-50	400-3-50

¹ Based on an indoor air temperature of 27 °C db/19 °C wb and an outdoor air temperature of 35 °C db




² Based on an indoor air temperature of 20 °C db and an outdoor air temperature of 7 °C db/6 °C wb

³ If outdoor units are combined, refer to the installation manual

⁴ The unit can be operated even if outdoor temperature gets down to -20 °C, however note that the warranty covers only up to -15 °C because operation beyond that temperature is out of specification. When outdoor air temperature falls to under -15 °C, it may cause shortening the product lifetime.

⁵ If the height difference between indoor units exceeds 3 m and if the indoor unit is above, max. lift is reduced to 30 m

Technical specifications **outdoor units**















	Model name		Cooling capacity	Heating capacity	Outdoor units in combination	Number of indoor units		Total cap. of connectable indoor units	
						Max.	Min.	Max.	Max.
	MMY-MAP0802FT8-E	8 HP	22,4 kW	25 kW	1	13	5,6 HP	10,8 HP	
	MMY-MAP1002FT8-E	10 HP	28 kW	31,5 kW	1	16	7 HP	13,5 HP	
	MMY-MAP1202FT8-E	12 HP	33,5 kW	35,5 kW	1	16	8,4 HP	14,4 HP	
	MMY-AP1602FT8-E	16 HP	45 kW	50 kW	2 (22,4 kW + 22,4 kW)	27	11,2 HP	21,6 HP	
	MMY-AP1802FT8-E	18 HP	50,4 kW	56,5 kW	2 (22,4 kW + 28 kW)	30	12,6 HP	24,3 HP	
	MMY-AP2002FT8-E	20 HP	56 kW	63 kW	2 (28 kW+28 kW)	33	14 HP	27 HP	
	MMY-AP2402FT8-E	24 HP	68 kW	76,5 kW	3 (22,4 kW + 22,4 kW + 22,4 kW)	40	16,8 HP	32,4 HP	
	MMY-AP2602FT8-E	26 HP	73 kW	81,5 kW	3 (22,4 kW + 22,4 kW + 28 kW)	43	18,2 HP	35,1 HP	
	MMY-AP2802FT8-E	28 HP	78,5 kW	88 kW	3 (22,4 kW + 28 kW + 28 kW)	47	19,6 HP	37,8 HP	
	MMY-AP3002FT8-E	30 HP	84 kW	95 kW	3 (28 kW + 28 kW + 28kW)	48	21 HP	40,5 HP	

Flow Selector

Model name	Usage	
RBM-Y1122FE	Total capacity for indoor unit:	below 11.2 kW
RBM-Y1802FE	Total capacity for indoor unit:	11.2 to below 18.0 kW
RBM-Y2802FE	Total capacity for indoor unit:	18.0 to 28.0 kW

Simultaneous cooling and heating from different indoor units to meet all operating environments

Technical specifications heat pump

Model Type	Model name	MiNi-SMMS	SMMS and SHRM	Capacity code	Cooling cap. (kW)	Heating cap. (kW)	Height (mm)	Length (mm)	Depth (mm)	Weight (kg)			
Four-way cassette 	MMU-AP0091H	●	●	1	2.8	3.2	256	840	840	20			
	MMU-AP0121H	●	●	1.25	3.6	4							
	MMU-AP0151H	●	●	1.7	4.5	5				23			
	MMU-AP0181H	●	●	2	5.6	6.3							
	MMU-AP0241H	●	●	2.5	7.1	8	319	840	840	28			
	MMU-AP0271H	●	●	3	8	9							
	MMU-AP0301H	●	●	3.2	9	10							
	MMU-AP0361H	●	●	4	11.2	12.5							
MMU-AP0481H	●	●	5	14	16	17							
MMU-AP0561H	●	●	6	16	18								
Compact four-way cassette 	MMU-AP0071MH	●	●	0.8	2.2	2.5	268	575	575	17			
MMU-AP0091MH	●	●	1	2.8	3.2								
MMU-AP0121MH	●	●	1.25	3.6	4								
MMU-AP0151MH	●	●	1.7	4.5	5								
MMU-AP0181MH	●	●	2	5.6	6.3								
Two-way cassette 	MMU-AP0071WH	●	●	0.8	2.2	2.5	398	830	550	33			
	MMU-AP0091WH	●	●	1	2.8	3.2							
	MMU-AP0121WH	●	●	1.25	3.6	4							
	MMU-AP0151WH	●	●	1.7	4.5	5	1350	550	44				
	MMU-AP0181WH	●	●	2	5.6	6.3							
	MMU-AP0241WH	●	●	2.5	7.1	8							
MMU-AP0271WH	●	●	3	8	9	48							
MMU-AP0301WH	●	●	3.2	9	10								
One-way cassette 	MMU-AP0071YH	●	●	0.8	2.2	2.5	235	850	400	22			
	MMU-AP0091YH	●	●	1	2.8	3.2							
	MMU-AP0121YH	●	●	1.25	3.6	4							
	MMU-AP0152SH	●	●	1.7	4.5	5							
Concealed duct, standard type 	MMU-AP0182SH	●	●	2	5.6	6.3	200	1000	710	21			
	MMU-AP0242SH	●	●	2.5	7.1	8							
	MMD-AP0071BH	●	●	0.8	2.2	2.5				320	550	800	27
	MMD-AP0091BH	●	●	1	2.8	3.2							
MMD-AP0121BH	●	●	1.25	3.6	4								
MMD-AP0151BH	●	●	1.7	4.5	5	700							
MMD-AP0181BH	●	●	2	5.6	6.3								
MMD-AP0241BH	●	●	2.5	7.1	8	1350	51						
MMD-AP0271BH	●	●	3	8	9								
MMD-AP0301SH	●	●	3.2	9	10								
MMD-AP0361BH	●	●	4	11.2	12.5								
MMD-AP0481BH	●	●	5	14	16	380	850	660	50				
MMD-AP0561BH	●	●	6	16	18								
Concealed duct, high static pressure 	MMD-AP0181H	●	●	2	5.6	6.3	470	1380	1250	155			
	MMD-AP0241H	●	●	2.5	7.1	8							
	MMD-AP0271H	●	●	3	8	9							
	MMD-AP0361H	●	●	4	11.2	12.5							
	MMD-AP0481H	●	●	5	14	16							
	MMD-AP0721H	●	●	8	22.4	25							
MMD-AP0961H	●	●	10	28	31.5								
Slim Duct 	MMD-AP0071SPH	●	●	0.8	2.2	2.5	210	845	645	22			
	MMD-AP0091SPH	●	●	1	2.8	3.2							
	MMD-AP0121SPH	●	●	1.25	3.6	4				23			
	MMD-AP0151SPH	●	●	1.7	4.5	5							
	MMD-AP0181SPH	●	●	2	5.6	6.3							
Ceiling-suspended 	MMC-AP0151H	●	●	1.7	4.5	5	210	910	680	21			
	MMC-AP0181H	●	●	2	5.6	6.3							
	MMC-AP0241H	●	●	2.5	7.1	8		1180		25			
	MMC-AP0271H	●	●	3	8	9							
	MMC-AP0361H	●	●	4	11.2	12.5							
MMC-AP0481H	●	●	5	14	16	1595	33						
High-wall 	MMK-AP0072H	●	●	0.8	2.2	2.5	275	790	208	11			
	MMK-AP0092H	●	●	1	2.8	3.2							
	MMK-AP0122H	●	●	1.25	3.6	4							
High-wall 	MMK-AP0151H	●	●	1.7	4.5	5.0	368	1055	210	19			
	MMK-AP0181H	●	●	2	5.6	6.3							
	MMK-AP0241H	●	●	2.5	7.1	8.0		1430			25		
Floor standing cabinet type 	MML-AP0071H	●	●	0.8	2.2	2.5	630	950	230	37			
	MML-AP0091H	●	●	1	2.8	3.2							
	MML-AP0121H	●	●	1.25	3.6	4							
	MML-AP0151H	●	●	1.7	4.5	5				40			
	MML-AP0181H	●	●	2	5.6	6.3							
	MML-AP0241H	●	●	2.5	7.1	8							
Floor standing concealed type 	MML-AP0071BH	●	●	0.8	2.2	2.5	600	745	220	21			
	MML-AP0091BH	●	●	1	2.8	3.2							
	MML-AP0121BH	●	●	1.25	3.6	4							
	MML-AP0151BH	●	●	1.7	4.5	5		1045		29			
	MML-AP0181BH	●	●	2	5.6	6.3							
	MML-AP0241BH	●	●	2.5	7.1	8							
Tall floor-standing 	MMF-AP0151H	●	●	1.7	4.5	5	1750	600	210	48			
	MMF-AP0181H	●	●	2	5.6	6.3							
	MMF-AP0241H	●	●	2.5	7.1	8							
	MMF-AP0271H	●	●	3	8	9			390	65			
	MMF-AP0361H	●	●	4	11.2	12.5							
	MMF-AP0481H	●	●	5	14	16							
Fresh air intake 	MMF-AP0561H	●	●	6	16	18	380	660	1200	67			
	MMD-AP0481HFE		SMMS	5	14	12	470	1380	1250	150			
	MMD-AP0721HFE		SMMS	8	22.4	18.7							
	MMD-AP0961HFE		SMMS	10	28	23.3							