

R-410A

SUPER MODULAR MULTI
SYSTEMDual Inverter VRF Heat
Pump

SMMS VRF Outdoor unit

Features

The 2-pipe VRF Super Modular Multi System (SMMS) operates with R-410A refrigerant and incorporates the all inverter twin-rotary double compressors.

It offers outstanding energy efficiencies at partial load conditions, which represent most of the operation conditions. The capacities range from 14 to 135 kW in cooling mode and 16 to 150 kW in heating mode with a capability to serve up to 48 indoor units.

Protection devices

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

Key features

High COP: (4.25 with 22.4 kW size) for reduced energy consumption and increased savings.

Advanced compressor Oil Management System: it guarantees improved reliability.

TCC Link: state-of-the-art communication bus system with automatically configured addressing.

Up to 48 indoor units can be connected.

Latest Inverter Technology with the Intelligent Power Drive Unit (IPDU).

Compact and high COP combinations of the outdoor units.

Technical specifications heat pump

Outdoor unit	CO	MMY-	MAP0501T8-E	MAP0601T8-E	MAP0801T8-E	MAP1001T8-E	MAP1201T8-E
	HP	MMY-	MAP0501HT8-E	MAP0601HT8-E	MAP0801HT8-E	MAP1001HT8-E	MAP1201HT8-E
			5 HP	6 HP	8 HP	10 HP	12 HP
Cooling capacity ¹	kW		14	16	22.4	28	33.5
Power input	kW	C	3.65	4.64	5.67	7.67	11.92
EER	W/W		3.84	3.45	3.95	3.65	2.81
Running current	A	C	5.85	7.28	8.62	11.55	18.30
Heating capacity ²	kW		16	18	25	31.5	37.5
Power input	kW	H	3.84	4.56	5.88	7.97	10.19
COP	W/W		4.17	3.95	4.25	3.95	3.68
Running current	A	H	6.09	7.08	8.93	11.98	15.65
Peak demand current ³	A		20	20	30	30	30
Air flow	m ³ /h – l/s		9000 – 2520	9000 – 2520	9900 – 2750	10500 – 2917	10500 – 2917
Sound pressure level	dB(A)		55	56	57	58	59
Operating range – db	°C	C	-5 ÷ 43	-5 ÷ 43	-5 ÷ 43	-5 ÷ 43	-5 ÷ 43
Operating range – wb ⁴	°C	H	-20 ÷ 16	-20 ÷ 16	-20 ÷ 16	-20 ÷ 16	-20 ÷ 16
Dimensions (h × w × d)	mm		1800 × 990 × 750	1800 × 990 × 750	1800 × 990 × 750	1800 × 990 × 750	1800 × 990 × 750
Weight	kg		228	228	258	258	258
Compressor type			Twin Rotary	Twin Rotary	Twin Rotary	Twin Rotary	Twin Rotary
Refrigerant charge R410A	kg		8.5	8.5	11.8	11.8	11.8
Suction line type – diameter			Flare – 5/8"	Brazed – 3/4"	Brazed – 7/8"	Brazed – 7/8"	Brazed – 1-1/8"
Liquid line type – diameter			Flare – 3/8"	Flare – 3/8"	Flare – 1/2"	Flare – 1/2"	Flare – 1/2"
Discharge line connection type – diameter			Flare – 3/8"	Flare – 3/8"	Flare – 3/8"	Flare – 3/8"	Flare – 3/8"
Maximum equivalent length separation	m		175	175	175	175	175
Maximum actual piping separation	m		150	150	150	150	150
Maximum pipe length	m		300	300	300	300	300
Maximum lift (Indoor unit above/below) ⁵	m		40/50	40/50	40/50	40/50	40/50
Power supply	V-ph-Hz		400-3-50	400-3-50	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

C = cooling mode
H = heating mode

Technical specifications outdoor units

	Model Name		Cooling capacity	Heating capacity	Outdoor units in combination	Number of indoor units Max
	MMY-MAP0501HT8-E	5 HP	14 kW	16 kW	1	8
	MMY-MAP0601HT8-E	6 HP	16 kW	18 kW	1	10
	MMY-MAP0801HT8-E	8 HP	22.4 kW	25 kW	1	13
	MMY-MAP1001HT8-E	10 HP	28 kW	31.5 kW	1	16
	MMY-MAP1201HT8-E	12 HP	33.5 kW	37.5 kW	1	20
	MMY-AP1401HT8-E	14 HP	38.4 kW	43 kW	2 (22.4 kW + 16 kW)	23
	MMY-AP1601HT8-E	16 HP	45 kW	50 kW	2 (22.4 kW + 22.4 kW)	27
	MMY-AP1801HT8-E	18 HP	50.4 kW	56.5 kW	2 (28 kW + 22.4 kW)	30
	MMY-AP2001HT8-E	20 HP	56 kW	63 kW	2 (28 kW + 28 kW)	33
	MMY-AP2201HT8-E	22 HP	61.5 kW	69 kW	3 (22.4 kW + 22.4 kW + 16 kW)	37
	MMY-AP2211HT8-E	22 HP	61.5 kW	69 kW	2 (33.5 kW + 28 kW)	37
	MMY-AP2401HT8-E	24 HP	68 kW	76.5 kW	3 (22.4 kW + 22.4 kW + 22.4 kW)	40
MMY-AP2411HT8-E	24 HP	68 kW	76.5 kW	2 (33.5 kW + 33.5 kW)	40	
	MMY-AP2601HT8-E	26 HP	73 kW	81.5 kW	3 (28 kW + 22.4 kW + 22.4 kW)	43
	MMY-AP2801HT8-E	28 HP	78.5 kW	88 kW	3 (28 kW + 28 kW + 22.4 kW)	47
	MMY-AP3001HT8-E	30 HP	84 kW	95 kW	3 (28 kW + 28 kW + 28 kW)	48
	MMY-AP3201HT8-E	32 HP	90 kW	100 kW	4 (22.4 kW + 22.4 kW + 22.4 kW + 22.4 kW)	48
	MMY-AP3211HT8-E	32 HP	90 kW	100 kW	3 (33.5 kW + 28 kW + 28 kW)	48
	MMY-AP3401HT8-E	34 HP	96 kW	108 kW	4 (28 kW + 22.4 kW + 22.4 kW + 22.4 kW)	48
	MMY-AP3411HT8-E	34 HP	96 kW	108 kW	3 (33.5 kW + 33.5 kW + 28 kW)	48
	MMY-AP3601HT8-E	36 HP	101 kW	113 kW	4 (28 kW + 28 kW + 22.4 kW + 22.4 kW)	48
MMY-AP3611HT8-E	36 HP	101 kW	113 kW	3 (33.5 kW + 33.5 kW + 33.5 kW)	48	
	MMY-AP3801HT8-E	38 HP	106.5 kW	119.5 kW	4 (28 kW + 28 kW + 28 kW + 22.4 kW)	48
	MMY-AP4001HT8-E	40 HP	112 kW	126.5 kW	4 (28 kW + 28 kW + 28 kW + 28 kW)	48
	MMY-AP4201HT8-E	42 HP	118 kW	132 kW	4 (33.5 kW + 28 kW + 28 kW + 28 kW)	48
	MMY-AP4401HT8-E	44 HP	123.5 kW	138 kW	4 (33.5 kW + 33.5 kW + 28 kW + 28 kW)	48
	MMY-AP4601HT8-E	46 HP	130 kW	145 kW	4 (33.5 kW + 33.5 kW + 33.5 kW + 28 kW)	48
MMY-AP4801HT8-E	48 HP	135 kW	150 kW	4 (33.5 kW + 33.5 kW + 33.5 kW + 33.5 kW)	48	