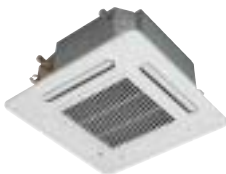


- └ SMMS
- └ R410A
- └ VRF DUAL-INVERTER HEAT PUMP TECHNOLOGY



SMMS VRF.

Features

The SMMS system operates with R410A refrigerant and incorporates the latest inverter drive technology in all outdoor unit models.

The SMMS incorporates twin-inverter compressors in every outdoor unit, an innovation from Toshiba.

With capacities from 14 to 135 kW in cooling mode and 16 to 150 kW in heating mode and the capability to serve up to 48 indoor units from a choice of over 80 - the SMMS provides both efficiency and flexibility.

Key features

Best COP on the market (4.25 with 22.4 kW size): for reduced energy consumption and increased savings.

Advanced compressor Oil Management System guarantees improved reliability.

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

Up to 48 indoor units can be connected - Toshiba exclusivity.

Latest inverter technology with the Intelligent Power Drive Unit (IPDU).

Extended pipe runs up to 300 m - for greater application flexibility.

Technical specifications heat pump

Outdoor unit	CO	MAP0501T8	MAP0601T8	MAP0801T8	MAP1001T8	MAP1201T8
	HP	MAP0501HT8	MAP0601HT8	MAP0801HT8	MAP1001HT8	MAP1201HT8
		5 HP	6 HP	8 HP	10 HP	12 HP
Cooling capacity*	kW	14	16	22.4	28	33.5
Power input, cooling	kW	3.65	4.64	5.67	7.67	11.92
EER, cooling	W/W	3.84	3.45	3.95	3.65	2.81
Energy efficiency class, cooling		A	A	A	A	C
Running current, cooling	A	5.85	7.28	8.62	11.55	18.30
Heating capacity**	kW	16	18	25	31.5	37.5
Power input, heating	kW	3.84	4.56	5.88	7.97	10.19
COP, heating	W/W	4.17	3.95	4.25	3.95	3.68
Energy efficiency class, heating		A	A	A	A	A
Running current, heating	A	6.09	7.08	8.93	11.98	15.65
Air flow	m ³ /h - l/s	9000 - 2520	9000 - 2520	9000 - 2520	9000 - 2520	9000 - 2520
Sound pressure level	dB(A)	55	56	57	58	59
Operating range, cooling - db	°C	-5 - 43°C	-5 - 43°C	-5 - 43°C	-5 - 43°C	-5 - 43°C
Operating range, heating - wb	°C	-20 - 16°C	-20 - 16°C	-20 - 16°C	-20 - 16°C	-20 - 16°C
Dimensions (H x W x D)	mm	1800 x 990 x750	1800 x 990 x750	1800 x 990 x750	1800 x 990 x750	1800 x 990 x750
Weight	kg	228	228	228	228	228
Compressor type		Hermetic	Hermetic	Hermetic	Hermetic	Hermetic
Refrigerant charge R410A	kg	8.5	8.5	12.5	12.5	12.5
Pipework						
Suction line type - diameter	in	Flare - 5/8	Brazed - 3/4	Brazed - 7/8	Brazed - 7/8	Brazed - 1-1/8
Liquid line type - diameter	in	Flare - 3/8	Flare - 3/8	Flare - 1/2	Flare - 1/2	Flare - 1/2
Discharge line connection type - diameter	in	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)***	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

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

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

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




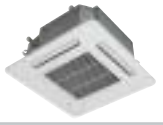











Protection devices.

- Discharge and suction temperature sensors
- Internal overload relay
- Compressor overcurrent relay
- Overcurrent sensor
- High pressure switch
- Low pressure sensors

Technical specifications **heat pump**

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

Technical specifications **heat pump**

Model type	Model name	Capacity code	Cooling cap. (kW)	Heating cap. (kW)	Height (mm)	Width (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				22			
	MMU-AP0181H	2	5.6	6.3							
	MMU-AP0241H	2.5	7.1	8				23			
	MMU-AP0271H	3	8	9							
	MMU-AP0301H	3.2	9	10							
	MMU-AP0361H	4	11.2	12.5							
MMU-AP0481H	5	14	16	319	840	840	28				
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				44			
	MMU-AP0151WH	1.7	4.5	5							
	MMU-AP0181WH	2	5.6	6.3		48					
	MMU-AP0241WH	2.5	7.1	8							
	MMU-AP0271WH	3	8	9							
	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				21			
	MMU-AP0152SH	1.7	4.5	5							
	MMU-AP0182SH	2	5.6	6.3				200	1000	710	22
Concealed duct, standard type 	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				30			
	MMD-AP0151BH	1.7	4.5	5							
	MMD-AP0181BH	2	5.6	6.3		39					
	MMD-AP0241BH	2.5	7.1	8							
	MMD-AP0271BH	3	8	9							
	MMD-AP0301BH	3.2	9	10							
	MMD-AP0361BH	4	11.2	12.5		51					
	MMD-AP0481BH	5	14	16							
	Concealed duct, high static pressure 	MMD-AP0181H	2	5.6		6.3		380	850	660	50
		MMD-AP0241H	2.5	7.1		8					
MMD-AP0271H		3	8	9	52						
MMD-AP0361H		4	11.2	12.5							
MMD-AP0481H		5	14	16	1200	67					
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							
Under-ceiling 	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		25					
	MMC-AP0271H	3	8	9							
	MMC-AP0361H	4	11.2	12.5		33					
MMC-AP0481H	5	14	16								
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-AP0071H	0.8	2.2	2.5	368	895	210	18			
	MMK-AP0091H	1	2.8	3.2							
	MMK-AP0121H	1.25	3.6	4.0		19					
	MMK-AP0151H	1.7	4.5	5.0							
	MMK-AP0181H	2	5.6	6.3		1055		25			
MMK-AP0241H	2.5	7.1	8.0	1430							
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							
	MML-AP0181H	2	5.6	6.3							
Floor standing Concealed type 	MML-AP0241H	2.5	7.1	8	600	745	220	21			
	MML-AP0071BH	0.8	2.2	2.5							
	MML-AP0091BH	1	2.8	3.2							
	MML-AP0121BH	1.25	3.6	4		29					
	MML-AP0151BH	1.7	4.5	5							
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			49				
	MMF-AP0271H	3	8	9							
	MMF-AP0361H	4	11.2	12.5			65				
	MMF-AP0481H	5	14	16							