

Trade Model			MSAG-09HRN1	MSAG-12HRN1	MSAG-18HRN1	MSAG-24HRN1
Power supply		V-Ph-Hz	220-240V,1Ph,50Hz	220-240V,1Ph,50Hz	220-240V,1Ph,50Hz	220-240V,1Ph,50Hz
Cooling	Capacity	Btu/h	9000	12000	18000	24000
	Input	W	776	1096	1643	2190
	Rated current	A	3.4	5.0	7.1	9.4
	EER	W/W	3.40	3.21	3.21	3.21
Heating	Capacity	Btu/h	9000	12500	18000	25000
	Input	W	694	990	1461	2030
	Rated current	A	3	4.6	6.4	8.9
	COP	W/W	3.80	3.70	3.61	3.61
Max. input consumption		W	1200	1750	2950	3000
Max. current		A	7.0	9.0	15.5	16
Starting current		A	20	25	38	55
Compressor	Model		ASM99V1VDZ	ASM140V1VDZ	KSF190V1VETB	KTG250V1VMP
	Type		ROTARY	ROTARY	ROTARY	ROTARY
	Brand		GMCC	GMCC	GMCC	GMCC
	Capacity	W	2770/2790	4060/4060	5835/5875	7300
	Input	W	660/672	955/995	1370/1470	1720
	Rated current(RLA)	A	3.05/2.85	4.35/4.20	6.40/6.30	7.85
	Locked rotor Amp(LRA)	A	20	25.0	38	55
	Thermal protector		BF750-MH	UP3-21/HPA -522	UP3-A6/HPA -340	USP-236-05
	Thermal protector position		INTERNAL	INTERNAL	INTERNAL	INTERNAL
	Capacitor	µF	25.0	35.0	45	60
Refrigerant oil/oil charge	ml	ESTER OIL VG74/300	ESTER OIL VG74/320	ESTER OIL VG74/410	ESTER OIL VG74/720	
Indoor fan motor	Model		YKFG-20-4-5-19	YKFG-20-4-5-21	YKFG-28-4-3-14	YKFG-45-4-22-13
	Input	W	43	43	71.0	77.0
	Capacitor	uF	1.5	1.5	1.5	3
	Speed(Hi/Mi/Lo)	r/min	1200/1050/850	1100/950/800	1200/950/850	1120/1020/950
Indoor coil	a.Number of rows		2	2	2.0	2
	b.Tube pitch(a)x row pitch(b)	mm	21x13.37	21x13.37	21x13.37	21x13.37
	c.Fin spacing	mm	1.3	1.3	1.2	1.3
	d.Fin type (code)		Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	e.Tube outside dia.and type	mm	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube
	f.Coil length x height x width	mm	525x84x13.37+525x210x26.74	605x210x26.74+605x105x26.74	750x210x26.74+750x126x26.74	820x210x26.74+820x126x26.74
	g.Number of circuits		2	2	4	4
Indoor air flow (Hi/Mi/Lo)		m3/h	550/466/325	570/500/380	820/545/455	1121/997/911
Indoor noise level (Hi/Mi/Lo)		dB(A)	40/36/31.5	41/36/28.5	44.5/38.5/30	48.5/42/39
Indoor unit	Dimension(W*D*H)	mm	729x200x292	802x200x295	971x228x321	1082x234x337
	Packing (W*D*H)	mm	790x270x375	875x285x380	1045x305x405	1155x415x315
	Net/Gross weight	Kg	8.5/10.8	9.3/11.7	12.3/15.5	14.7/18.3
Outdoor fan motor	Model		YKT-25-6-51-3	YKT-25-6-51-3	YKT-48-6-219-1	YKT-60-6-21
	Input	W	63.0	63.0	94	126
	Capacitor	uF	2	2	3	5
	Speed	r/min	820	820	890	850
Outdoor coil	a.Number of rows		1	1	1.6	1.6
	b.Tube pitch(a)x row pitch(b)	mm	21x13.37	21x22	21x13.37	21x13.37
	c.Fin spacing	mm	1.4	1.3	1.4	1.3
	d.Fin type (code)		Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	e.Tube outside dia.and type	mm	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube
	f.Coil length x height x width	mm	750x462x13.37	740x462x22	755x504x13.37+755x504x13.37	910*40.11*609
	g.Number of circuits		2	2	4	5
Outdoor air flow		m3/h	1800	1800	2200	4200
Outdoor noise level		dB(A)	54	55	58.5	59
Outdoor unit	Dimension(W*D*H)	mm	720x270x495	720x270x495	765x303x555	890x342x673
	Packing (W*D*H)	mm	835x300x540	835x300x540	887x337x610	995x398x740
	Net/Gross weight	Kg	26.6/28.4	27.1/28.9	34.8/37.3	52.9/55.5
Refrigerant type		Kg	R410A/0.67	R410A/0.65	R410A/1.14	R410A/1.65
Design pressure		MPa	4.2/1.5	4.2/1.5	4.2/1.5	4.2/1.5
Refrigerant piping	Liquid side/ Gas side	mm(inch)	6.35mm(1/4in)/9.52mm(3/8in)	6.35mm(1/4in)/12.7mm(1/2in)	6.35mm(1/4in)/12.7mm(1/2in)	9.52mm(3/8in)/15.9mm(5/8in)
	max. refrigerant pipe length	m	10	10	20	25

	Max. difference in level	m	8	8	8	10
Connection wiring			1.5x3/0.75x2	1.5x3/0.75x2	2.5x3/0.75x2	1.5x4//
Plug type			1.5x3/VDE	1.5x3/VDE	2.5x3/no-plug	//no-plug
Thermostat type			Remote Control	Remote Control	Remote Control	Remote Control
Operation temperature		°C	17~30	17~30	17~30	17~30
Room temperature	Indoor(cooling/ heating)	°C	16~32/0~30	16~32/0~30	16~32/0~30	17~32/0~30
	Outdoor(cooling/heating)	°C	18~43/-7~24	18~43/-7~24	18~43/-7~24	18~43/-7~24
Application area (Cooling Standard)		m ²	11~17	15~22	23~33	29~43
Qty'per 20' /40' /40'HQ			138/282/312	130/276/302	88/186/220	64/134/156