



Model		MDSR-07HRN1	MDSR-09HRN1	
Indoor		MDSR-07HRN1	MDSR-09HRN1	
Outdoor		MDOR-07HRN1	MDOR-09HRN1(-v)	
Power supply		Ph-V-Hz	220-240V~ 50Hz, 1Ph	1Ph, 220-240V~, 50Hz
Cooling	Capacity	kW/BTU	2.2/7000	2.64/9000
	Input	W	680	820
	Rated current	A	3.1	3.7
	EER	W/W	3.21	3.21
Heating	Capacity	kW/BTU	2.34/8000	2.78/9500
	Input	W	650	770
	Rated current	A	3.0	3.4
	COP	W/W	3.61	3.61
Moisture Removal		L/h	0.8	1.0
Max. input consumption		W	1050	1100
Max. current		A	5.5	5.5
Starting current		A	19	21.7
Compressor	Model		PA89M1C-4DZDE	PA103M1C-4DZDE2
	Type		ROTARY	ROTARY
	Brand		GMCC	GMCC
	Capacity	Btu/h	7302/7404	8428/8530
	Input	W	720/735	830/860
	Rated current(RLA)	A	3.30/3.10	3.85/3.73
	Locked rotor Amp(LRA)	A	19	21.7
	Thermal protector		B140-135-241E or BF670-MA	B160-135-241E
	Thermal protector position		EXTERNAL	EXTERNAL
	Capacitor	uF	25	25
	Refrigerant oil/oil charge	ml	ESTER OIL VG74/350CC	ESTER OIL VG74 350cc
Indoor fan motor	Model		RPG13H	RPG13H
	Brand		Welling	Welling
	Input	W	34	34
	Capacitor	uF	1.2	1.2
	Speed(Hi/Mi/Lo)	r/min	1150/950/850	1220 / 1000 / 850
Indoor coil	a.Number of rows		2	2
	b.Tube pitch(a)x row pitch(b)	mm	20x11.28	20x11.28
	c.Fin spacing	mm	1.3	1.3
	d.Fin type (code)		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outside dia.and type	mm	Φ6,innergroove tube	Φ6,innergroove tube
	f.Coil length x height x width	mm	540x240x22.56	540x240x22.56
	g.Number of circuits		2	2
Indoor air flow (Hi/Mi/Lo)		m3/h	400/330/300	480/370/300
Indoor noise level (Hi/Mi/Lo)		dB(A)	36/31/27	38/33/29
Indoor unit	Dimension(W*D*H)	mm	710x189x250	710x189x250
	Packing (W*D*H)	mm	775x260x324	775x260x324
	Net/Gross weight	Kg	7 / 8.5	7 / 9.5
Outdoor fan motor	Model		YDK25-4(B)	YDK24-6T(B)
	Brand		Welling	Welling
	Input	W	61	70
	Capacitor	uF	2	3.0
	Speed	r/min	965 / -- / --	815 / -- / --
Outdoor coil	a.Number of rows		1	1
	b.Tube pitch(a)x row pitch(b)	mm	21x13.37	21x13.37
	c.Fin spacing	mm	1.3	1.4
	d.Fin type (code)		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outside dia.and type	mm	Φ7,innergroove tube	Φ7,innergroove tube
	f.Coil length x height x width	mm	676x399x13.37	694*504*13.37
	g.Number of circuits		2	1
Outdoor air flow		m3/h	1300	1650
Outdoor noise level		dB(A)	55	54
Outdoor unit	Dimension(W*D*H)	mm	685x260x430	700x240x540
	Packing (W*D*H)	mm	795x345x495	815x325x580
	Net/Gross weight	Kg	23 / 25	24.5 / 26.5
Refrigerant type		g	R410A/550g	R410A/620g
Design pressure		MPa	4.2/1.5	4.2/1.5
Refrigerant piping	Liquid side/ Gas side	mm(inch)	Φ6.35/Φ9.52(1/4"/3/8")	Φ6.35/Φ9.52(1/4"/3/8")
	Max. refrigerant pipe length	m	20	20
	Max. difference in level	m	8	8
Operation temperature	Indoor(cooling/ heating)	°C	17~32/0~30	17~32/0~30
	Outdoor(cooling/heating)	°C	18~43/-7~24	18(-25)~43/-7~24

Model			MDSR-12HRN1	MDSR-18HRN1
Indoor			MDSR-12HRN1	MDSR-18HRN1
Outdoor			MDOR-12HRN1(-v)	MDOR-18HRN1(-v)
Power supply		Ph-V-Hz	220-240V~ 50Hz, 1Ph	220-240V~ 50Hz, 1Ph
Cooling	Capacity	kW/BTU	3.52/12000	5.28/18000
	Input	W	1092	1640
	Rated current	A	5.4	7.5
	EER	W/W	3.22	3.21
Heating	Capacity	kW/BTU	3.81/13000	5.28/18000
	Input	W	1041	1460
	Rated current	A	4.8	7.3
	COP	W/W	3.66	3.61
Moisture Removal		L/h	1.2	1.8
Max. input consumption		W	1642	2200
Max. current		A	7.9	12.0
Starting current		A	----	31.8
Compressor	Model		ASM135V1VFT	PA200M2CS-4KU2
	Type		ROTARY	ROTARY
	Brand		GMCC	GMCC
	Capacity	Btu/h	13238	16581
	Input	W	942	1605
	Rated current(RLA)	A	4,01	7.45
	Locked rotor Amp(LRA)	A	----	31.8
	Thermal protector		----	----
	Thermal protector position		INTERNAL	INTERNAL
	Capacitor	uF	35	45
	Refrigerant oil/oil charge	ml	ESTEL OIL VG74 ?350	ESTER OIL VG74 750cc
Indoor fan motor	Model		RPG20E	RPG28R
	Brand		Welling	Welling
	Input	W	45	71
	Capacitor	uF	1,5	1.5
	Speed(Hi/Mi/Lo)	r/min	1200 / 1100 / 800	1250/1050/850
Indoor coil	a.Number of rows		2	2
	b.Tube pitch(a)x row pitch(b)	mm	21x13.37	21x13.37
	c.Fin spacing	mm	1,3	1.3
	d.Fin type (code)		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outside dia.and type	mm	Φ7,innergroove tube	Φ7,innergroove tube
	f.Coil length x height x width	mm	73x63x26.74+637x210x26.7	769x273x26.74
	g.Number of circuits		2	3
Indoor air flow (Hi/Mi/Lo)		m3/h	570/520/380	750/630/510
Indoor noise level (Hi/Mi/Lo)		dB(A)	44/41/32	46/41/35
Indoor unit	Dimension(W*D*H)	mm	790x196x275	930x198x275
	Packing (W*D*H)	mm	865x265x350	1015x265x350
	Net/Gross weight	Kg	8/10	10 / 12.5
Outdoor fan motor	Model		YDK24-6F(B)	YDK48-6H(A)
	Brand		Welling	Welling
	Input	W	63	110
	Capacitor	uF	2,5	3.0
	Speed	r/min	800	890 / -- / --
Outdoor coil	a.Number of rows		1	2
	b.Tube pitch(a)x row pitch(b)	mm	21x13.37	21x13.37
	c.Fin spacing	mm	1,4	1.4
	d.Fin type (code)		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outside dia.and type	mm	Φ7,innergroove tube	Φ7,innergroove tube
	f.Coil length x height x width	mm	755x504x13.37	655x546x26.74
	g.Number of circuits		2	3
Outdoor air flow		m3/h	1800	2300
Outdoor noise level		dB(A)	57.5	60
Outdoor unit	Dimension(W*D*H)	mm	780x250x540	760x285x590
	Packing (W*D*H)	mm	910x335x585	887x355x645
	Net/Gross weight	Kg	27 / 29	37.5 / 39.5
Refrigerant type		g	R410A/780g	R410A/1150g
Design pressure		MPa	4.2/1.5	4.2/1.5
Refrigerant piping	Liquid side/ Gas side	mm(inch)	Φ6.35/Φ12.7(1/4"/1/2")	Φ6.35/Φ12.7(1/4"/1/2")
	Max. refrigerant pipe length	m	20	25
	Max. difference in level	m	8	10
Operation temperature	Indoor(cooling/ heating)	°C	17~32/0~30	17~32/0~30
	Outdoor(cooling/heating)	°C	18(-25)~43/-7~24	18(-25)~43/-7~24

Model			MDSR-24HRN1	MDSR-28HRN1
Indoor			MDSR-24HRN1	MDSR-28HRN1
Outdoor			MDOR-24HRN1	MDOR-28HRN1(-v)
Power supply		Ph-V-Hz	1Ph, 220-240V~, 50Hz	220-240V~ 50Hz, 1Ph
Cooling	Capacity	kW/BTU	7.03/24000	8.21/28000
	Input	W	2502	2928
	Rated current	A	11.2	13.4
	EER	W/W	2,81	2.81
Heating	Capacity	kW/BTU	7.33/24000	8.5/29000
	Input	W	2283	2554
	Rated current	A	10.2	11.6
	COP	W/W	3,21	3.21
Moisture Removal		L/h	2.4	2.8
Max. input consumption		W	3312	3418
Max. current		A	17.4	16.9
Starting current		A	36,8	60
Compressor	Model		PA240X2CS-4KU1	PA270G2CS-4MU1
	Type		ROTARY	ROTARY
	Brand		GMCC	GMCC
	Capacity	Btu/h	19789/19960	23287/23458
	Input	W	1985/2060	2235/2385
	Rated current(RLA)	A	9.2/9.3	10.55/11.15
	Locked rotor Amp(LRA)	A	36,8	60
	Thermal protector		UP3SE0391-T39	---
	Thermal protector position		INTERNAL	INTERNAL
	Capacitor	uF	50	60
	Refrigerant oil/oil charge	ml	ESTER OIL VG74/750	ESTER OIL VG74/850 CC
Indoor fan motor	Model		YDK36-4C(A)	YDK36-4C(A)
	Brand		Welling	Welling
	Input	W	67/58/50	70/54/50
	Capacitor	uF	2	3.0
	Speed(Hi/Mi/Lo)	r/min	1210/1120/1020	1210/1020/950
Indoor coil	a.Number of rows		2	2
	b.Tube pitch(a)x row pitch(b)	mm	21x13.37	21x13.37
	c.Fin spacing	mm	1,4	1.2
	d.Fin type (code)		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outside dia.and type	mm	Φ7,innergroove tube	Φ7,innergroove tube
	f.Coil length x height x width	mm	799x357x26.74	799x357x26.74
	g.Number of circuits		4	4
Indoor air flow (Hi/Mi/Lo)		m3/h	920/850/780	1050/890/820
Indoor noise level (Hi/Mi/Lo)		dB(A)	44/42/39	48/44/42
Indoor unit	Dimension(W*D*H)	mm	1036x230x315	1036x230x315
	Packing (W*D*H)	mm	1135x435x315	1135x435x315
	Net/Gross weight	Kg	13 / 20	13 / 17.5
Outdoor fan motor	Model		YDK75-6D(B)	YDK53-6C
	Brand		Welling	Welling
	Input	W	170	136
	Capacitor	uF	5.0	3
	Speed	r/min	875	800
Outdoor coil	a.Number of rows		2	2
	b.Tube pitch(a)x row pitch(b)	mm	21x13.37	21x13.37
	c.Fin spacing	mm	1,4	1.4
	d.Fin type (code)		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outside dia.and type	mm	Φ7,innergroove tube	Φ7,innergroove tube
	f.Coil length x height x width	mm	760*546*26.74	785x651x26.74
	g.Number of circuits		4	4
Outdoor air flow		m3/h	2500	2700
Outdoor noise level		dB(A)	61	59
Outdoor unit	Dimension(W*D*H)	mm	820x330x595	845x320x700
	Packing (W*D*H)	mm	940x415x645	965x395x755
	Net/Gross weight	Kg	44 / 48	49 / 52.5
Refrigerant type		g	R410A/1600g	R410A/1690g
Design pressure		MPa	4.2/1.5	4.2/1.5
Refrigerant piping	Liquid side/ Gas side	mm(inch)	Φ9.52/Φ15.9(3/8"/5/8")	Φ9.52/Φ15.9(3/8"/5/8")
	Max. refrigerant pipe length	m	25	25
	Max. difference in level	m	10	10
Operation temperature	Indoor(cooling/ heating)	°C	17~32/0~30	17~32/0~30
	Outdoor(cooling/heating)	°C	18~43/-7~24	18(-25)~43/-7~24