

SPECIFICATIONS

CEILING CONVERTIBLE - MCM D SERIES (HEAT PUMP)

MODEL		INDOOR UNIT	MCM 020DR	MCM 025DR	MCM 030DR	MCM 040DR	MCM 050DR			
		OUTDOOR UNIT	MLC 020BR	MLC 025BR	MLC 030BR	MLC 030CR	MLC 035CR	MLC 040CR	MLC 050CR	
NOMINAL COOLING CAPACITY	kcal/h		5040	6048	6552	7560	8820	10080	12096	
	W		5862	7034	7620	8792	10258	11723	14068	
NOMINAL HEATING CAPACITY	Btu/h		20000	24000	26000	30000	35000	40000	48000	
	W		5292	6300	7056	8064	9072	10332	12096	
POWER SOURCE	V/Ph/Hz		220 - 240 / 1 / 50, 208 - 230 / 1 / 60							
	REFRIGERANT / CONTROL		R22 / CAPILLARY TUBE IN OUTDOOR			R22 / CAPILLARY TUBE & TXV IN OUTDOOR				
FAN	AIR FLOW	cfm/cmm	590 / 16.7	660 / 18.7	730 / 20.7		1110 / 31.4		1110 / 31.4	
	FAN MOTOR	50 Hz	4 POLES x 45W	4 POLES x 95W	4 POLES x 95W		4 POLES x 145W		4 POLES x 145W	
RATED INPUT POWER	60 Hz		4 POLES x 45W	4 POLES x 95W	-	4 POLES x 95W	4 POLES x 140W		4 POLES x 140W	
	W (50/60Hz)		96 / 114	130 / 155	132 / -	132 / 179	240 / 337		240 / 337	
RATED RUNNING CURRENT	A (50/60Hz)		0.40 / 0.50	0.58 / 0.70	0.58 / -	0.58 / 0.80	1.04 / 1.50		1.04 / 1.50	
COIL TUBE	MATERIAL		S.B.C.		S.I.G.C.		S.B.C.		S.I.G.C.	
	DIAMETER	mm/in	9.52 / 3/8							
COIL FIN	THICKNESS	mm/in	0.35 / 0.014							
	MATERIAL		ALUMINIUM				ALUMINIUM (HYDROPHILIC)			
ROW	THICKNESS	mm/in	0.11 / 0.0043							
	FIN PER INCH		3	3	3	4		4		
FACE AREA	ROW		12	12	12	12		12		
	m ² /ft ²		0.19 / 2.06	0.19 / 2.06	0.24 / 2.58	0.36 / 3.95		0.36 / 3.95		
DIMENSION	HEIGHT	mm/in	214 / 8.42		249 / 9.80		249 / 9.80			
	WIDTH	mm/in	1214 / 47.80		1214 / 47.80		1714 / 67.40			
WEIGHT	DEPTH	mm/in	670 / 26.30		670 / 26.30		670 / 26.30			
	kg		43	43	45	70		70		
CONTROL	SOUND PRESSURE LEVEL (H / M / L)	dBA	50 / 47 / 40	54 / 53 / 50	51 / 50 / 48		54 / 53 / 52		54 / 53 / 52	
	ROOM TEMPERATURE		MICROCOMPUTER CONTROLLED THERMOSTAT							
CONDENSATE DRAIN SIZE	AIR DISCHARGE		AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)							
	OPERATION		LCD WIRELESS / LED WIRED MICROCOMPUTER REMOTE CONTROL							
AIR FILTER	CONDENSATE DRAIN SIZE	mm/in	19.05 / 3/4							
	WASHABLE SARAN NET (OPTIONAL IONIZER FILTER)									
PACKING DIMENSION	HEIGHT	mm/in	301 / 11.9		345 / 13.6		345 / 13.6			
	WIDTH	mm/in	1311 / 51.6		1361 / 53.5		1816 / 71.4			
WEIGHT	DEPTH	mm/in	760 / 29.9		760 / 29.9		760 / 29.9			
	V/Ph/Hz		220 - 240 / 1 / 50, 208 - 230 / 1 / 60							
COMPRESSOR TYPE	V/Ph/Hz		220 - 240 / 1 / 50, 208 - 230 / 1 / 60				200 - 230 / 3 / 60		380 - 420 / 3 / 50	
	ROTARY HERMETIC						RECIPROCATING HERMETIC			
CAPACITOR - μF	50 Hz		45 / < NIL >	45 / < NIL >	50	45 / < NIL >	35	40 / < NIL >	NIL	
	1Ø / < 3Ø >		40	60	-	45	-	NIL	NIL	
LOCK ROTOR AMPERE - A	50 Hz		56 / < 21.4 >	57 / < 24.9 >	66	85 / < 39 >	82	100 / < 45 >	62	
	1Ø / < 3Ø >		39.6	50	-	88	-	78	106	
RATED RUNNING CURR. (COOLING) - A	50 Hz		9.84 / < 3.7 >	13.0 / < 4.8 >	13.7	13.4 / < 5.0 >	15.0	18.8 / < 6.0 >	7.8	
	1Ø / < 3Ø >		8.3	11.6	-	15.3	-	11.2	14.8	
RATED RUNNING CURR. (HEATING) - A	50 Hz		9.84 / < 3.7 >	12.7 / < 4.9 >	13.0	12.9 / < 4.9 >	14.4	16.9 / < 5.4 >	7.2	
	1Ø / < 3Ø >		8.7	11.4	-	14.2	-	10.0	12.4	
RATED INPUT POWER (COOLING) - W	50 Hz		1987 / < 1950 >	2730 / < 2560 >	2816	2643 / < 2900 >	2952	3530 / < 3431 >	4634	
	1Ø / < 3Ø >		1777	2486	-	3144	-	3595	4905	
RATED INPUT POWER (HEATING) - W	50 Hz		2008 / < 1960 >	2650 / < 2640 >	2577	2562 / < 2756 >	2861	3020 / < 2921 >	4036	
	1Ø / < 3Ø >		1824	2420	-	2846	-	3042	3739	
PROTECTION DEVICE			OVERLOAD PROTECTION			OVERLOAD PROTECTION AND AUTO RESET HIGH PRESSURE SWITCH				
POWER SOURCE	V/Ph/Hz		220 - 240 / 1 / 50, 208 - 230 / 1 / 60							
	FAN TYPE / DRIVE		PROPELLER / DIRECT							
BLADE MATERIAL	GLASS REINFORCED ACRYL STYRENE RESIN									
	DIAMETER	mm/in	420.0 / 16.5				609.6 / 24.0			
RATED RUNNING CURRENT	A (50/60Hz)		0.56 / 0.76		0.7 / -	1.09 / 1.25	1.09 / -	1.09 / 1.25		
	W (50/60Hz)		55 / 55		80 / -	145 / 145	145 / -	145 / 145		
RATED INPUT POWER	W (50/60Hz)		133 / 165		166 / -	241 / 261	241 / -	241 / 261		
	MATERIAL		S.B.C.	S.I.G.C.	S.I.G.C.	S.B.C.	S.I.G.C.	S.I.G.C.	S.I.G.C.	
COIL TUBE	DIAMETER	mm/in	9.52 / 3/8							
	THICKNESS	mm/in	0.35 / 0.014	0.36 / 0.014 AVE.		0.35 / 0.014		0.36 / 0.014 AVE.	0.36 / 0.014 AVE.	
COIL FIN	MATERIAL		ALUMINIUM (SLIT FIN TYPE)				ALUMINIUM (CORRUGATED FIN TYPE)			
	THICKNESS	mm/in	0.127 / 0.005							
ROW	FIN PER INCH		2		2	2				
	FACE AREA	m ² /ft ²	14		16	16				
DIMENSION	HEIGHT	mm/in	0.51 / 5.53		0.87 / 9.33		0.87 / 9.33			
	WIDTH	mm/in	646 / 25.40		850 / 33.46		850 / 33.46			
WEIGHT	DEPTH	mm/in	840 / 33.10		1029 / 40.53		1029 / 40.53			
	kg		330 / 13.00		400 / 15.75		400 / 15.75			
CASING	MATERIAL		GALVANISED MILD STEEL							
	THICKNESS	mm/in	0.8 / 0.031							
SOUND PRESSURE LEVEL	FINISHING		POLYESTER POWDER							
	dBA		52	53	56	60	59	59	62	
PIPE TYPE	FLARE VALVE									
	SIZE		6.35 / 1/4				9.52 / 3/8		9.52 / 3/8	
PACKING DIMENSION	LIQUID	mm/in	15.88 / 5/8		15.88 / 5/8		19.05 / 3/4			
	GAS	mm/in								
HEATING CAPACITY	HEIGHT	mm/in	710 / 27.95				1000 / 39.37			
	WIDTH	mm/in	957 / 37.68				1200 / 47.24			
WEIGHT	DEPTH	mm/in	461 / 18.15				560 / 22.05			
	kg									

- 1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
- 2) ALL UNITS ARE BEING TESTED AND COMPLY TO ARI 210/240-89
- 3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW:
 - a) COOLING - 26.7°C DB / 19.4°C WB INDOOR AND 35°C DB OUTDOOR
 - b) HEATING - 21.1°C DB / 15.6°C WB INDOOR AND 8.3°C DB / 6.1°C WB OUTDOOR
- 4) ALLOWABLE OPERATING RANGE
 - a) COOLING - 19.4°C DB / 13.9°C WB INDOOR AND 19.4°C DB OUTDOOR TO 26.7°C DB / 19.4°C WB INDOOR AND 46.1°C DB OUTDOOR
 - b) HEATING - 21.0°C DB INDOOR AND -8.3°C DB / -9.4°C WB OUTDOOR TO 26.7°C DB INDOOR AND 23.9°C DB / 18.3°C WB

Abbreviation
 S.B.C. - SEAMLESS BARE COPPER
 S.I.G.C. - SEAMLESS INNER GROOVE COPPER

SPECIFICATIONS

CEILING CONVERTIBLE - MCM D SERIES (COOLING ONLY)

MODEL		INDOOR UNIT	MCM 020D	MCM 025D	MCM 030D		MCM 040D		MCM 050D		
		OUTDOOR UNIT	MLC 020B	MLC 025B	MLC 030B	MLC 030C	MLC 035C	MLC 040C	MLC 050C		
NOMINAL COOLING CAPACITY		kcal/h	5040	6300	7056	7560	8820	10080	12600		
		W	5862	7327	8204	8792	10258	11723	14654		
		Btu/h	20000	25000	28000	30000	35000	40000	50000		
POWER SOURCE		V/Ph/Hz	220 - 240 / 1 / 50, 208 - 230 / 1 / 60								
REFRIGERANT / CONTROL			R22 / CAPILLARY TUBE IN OUTDOOR			R22 / CAPILLARY TUBE IN INDOOR					
FAN	AIR FLOW	cfm/cmm	590 / 16.7			660 / 18.7		1110 / 31.4		1110 / 31.4	
	FAN MOTOR	50 Hz	4 POLES x 45W		4 POLES x 95W		4 POLES x 95W		4 POLES x 145W	4 POLES x 145W	
		60 Hz	4 POLES x 45W		4 POLES x 95W		4 POLES x 95W		4 POLES x 140W	4 POLES x 140W	
	RATED INPUT POWER	W (50/60Hz)	96 / 114		130 / 155		132 / 179		240 / 337	240 / 337	
RATED RUNNING CURRENT	A (50/60Hz)	0.40 / 0.50		0.58 / 0.70		0.58 / 0.80		1.04 / 1.50	1.04 / 1.50		
COIL	TUBE	MATERIAL	S.B.C.			S.I.G.C		S.B.C		S.I.G.C	
		DIAMETER	mm/in		9.52 / 3/8						
	THICKNESS	mm/in		0.35 / 0.014							
	FIN	MATERIAL	ALUMINIUM				ALUMINIUM (HYDROPHILIC TYPE)				
		THICKNESS	mm/in		0.11 / 0.0043						
	ROW		3		3		3		4	4	
FIN PER INCH		12		12		12		12	12		
FACE AREA	m ² /ft ²	0.19 / 2.06		0.19 / 2.06		0.24 / 2.58		0.36 / 3.95	0.36 / 3.95		
DIMENSION	HEIGHT	mm/in	214 / 8.42			249 / 9.80		249 / 9.80			
	WIDTH	mm/in	1214 / 47.80			1214 / 47.80		1714 / 67.40			
	DEPTH	mm/in	670 / 26.30			670 / 26.30		670 / 26.30			
WEIGHT	kg	43		43		45		70	70		
SOUND PRESSURE LEVEL (H / M / L)	dBA	50 / 47 / 40		54 / 53 / 50		51 / 50 / 48		54 / 53 / 52	54 / 53 / 52		
CONTROL	ROOM TEMPERATURE	MICROCOMPUTER CONTROLLED THERMOSTAT									
	AIR DISCHARGE OPERATION	AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)									
		LCD WIRELESS / LED WIRED MICROCOMPUTER REMOTE CONTROL									
CONDENSATE DRAIN SIZE	mm/in	19.05 / 3/4									
AIR FILTER		WASHABLE SARAN NET (OPTIONAL IONIZER FILTER)									
PACKING DIMENSION	HEIGHT	mm/in	301 / 11.9			345 / 13.6		345 / 13.6			
	WIDTH	mm/in	1311 / 51.6			1361 / 53.5		1816 / 71.4			
	DEPTH	mm/in	760 / 29.9			760 / 29.9		760 / 29.9			
COMPRESSOR	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50 / < 380 - 420 / 3 / 50 >					380 - 420 / 3 / 50			
	COMPRESSOR TYPE		ROTARY (RECIPROCATING) HERMETIC				RECIPROCATING HERMETIC				
	CAPACITOR - μF	50 Hz	45 / < NIL >		45 / < NIL >		50	45 / < NIL >	35	NIL	NIL
	1Ø / < 3Ø >	60 Hz	40		(35)		-	45	-	NIL	NIL
	LOCK ROTOR AMPERE - A	50 Hz	56 / < 21.4 >		56.5 / < 24.9 >		66	85 / < 39 >	82	45	62
	1Ø / < 3Ø >	60 Hz	37		(70)		-	88	-	78	106
	RATED RUNNING CURRENT - A	50 Hz	10 / < 3.7 >		13.8 / < 4.8 >		14.2	12.7 / < 5.2 >	14.8	5.8	8.3
	1Ø / < 3Ø >	60 Hz	8.75		(12.26)		-	16.3	-	11.7	14.5
	RATED INPUT POWER - W	50 Hz	2080 / < 1950 >		2710 / < 2560 >		2770	2577 / < 3050 >	2985	3486	4943
	1Ø / < 3Ø >	60 Hz	1909		(2635)		-	3420	-	4040	5270
PROTECTION DEVICE		OVERLOAD PROTECTION				OVERLOAD PROTECTION AND MANUAL RESET HIGH/LOW PRESSURE SWITCH					
FAN	POWER SOURCE	V/Ph/Hz	220 - 240 / 1 / 50, 208 - 230 / 1 / 60								
	FAN TYPE / DRIVE		PROPELLER / DIRECT								
	BLADE MATERIAL		GLASS REINFORCED ACRYL STYRENE RESIN								
	DIAMETER	mm/in	420.0 / 16.5				609.6 / 24.0				
	RATED RUNNING CURRENT (A)	50 Hz	0.56		0.7		1.23		-	1.23	
		60 Hz	0.76		-		-		-	-	
	RATED OUTPUT POWER (W)	50 Hz	55		80		145		-	145	
		60 Hz	55		-		145		-	145	
	RATED INPUT POWER (W)	50 Hz	133		166		261		241		
		60 Hz	166		-		261		-	261	
COIL	TUBE	MATERIAL	S.B.C			S.I.G.C		S.I.G.C		S.B.C	
		DIAMETER	mm/in		9.52 / 3/8						
	THICKNESS	mm/in		0.35 / 0.014			0.36 / 0.014 AVE.				
	FIN	MATERIAL	ALUMINIUM (SLIT FIN TYPE)				ALUMINIUM (CORRUGATED FIN TYPE)				
		THICKNESS	mm/in		0.127 / 0.005						
	ROW		2		2		1		2	2	
FIN PER INCH		14		16		16		16	14		
FACE AREA	m ² /ft ²	0.51 / 5.53			0.87 / 9.33						
DIMENSION	HEIGHT	mm/in	646 / 25.40			850 / 33.46					
	WIDTH	mm/in	840 / 33.10			1029 / 40.53					
	DEPTH	mm/in	330 / 13.00			400 / 15.75					
WEIGHT	kg	57		58		58		95	95		
CASING	MATERIAL	GALVANISED MILD STEEL									
	THICKNESS	mm/in		0.8 / 0.031							
	FINISHING	POLYESTER POWDER									
SOUND PRESSURE LEVEL	dBA	52		53		56		60	59		
PIPE	TYPE	FLARE VALVE									
	SIZE	LIQUID	mm/in		9.52 / 3/8			9.52 / 3/8			
PACKING DIMENSION	HEIGHT	mm/in	6.35 / 1/4		15.88 / 5/8			19.05 / 3/4			
	WIDTH	mm/in	710 / 27.95			1000 / 39.37		1200 / 47.24			
	DEPTH	mm/in	957 / 37.68			560 / 22.05		560 / 22.05			

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

2) ALL UNITS ARE BEING TESTED AND COMPLY TO ARI 210/240-89

3) NOMINAL COOLING CAPACITY IS BASED ON THE CONDITIONS BELOW :

a) COOLING - 26.7°C DB / 19.4°C WB INDOOR AND 35°C DB OUTDOOR

4) ALLOWABLE OPERATING RANGE

a) COOLING - 19.4°C DB / 13.9°C WB INDOOR AND 19.4°C DB OUTDOOR TO 26.7°C DB / 19.4°C WB INDOOR AND 46.1°C DB OUTDOOR

Abbreviation

S.B.C. - SEAMLESS BARE COPPER

S.I.G.C. - SEAMLESS INNER GROOVE COPPER