Ducted Blower Split Systems

Models: MDB 075 - 600 ER

MDB 125/150 ER

MDB 600 ER4

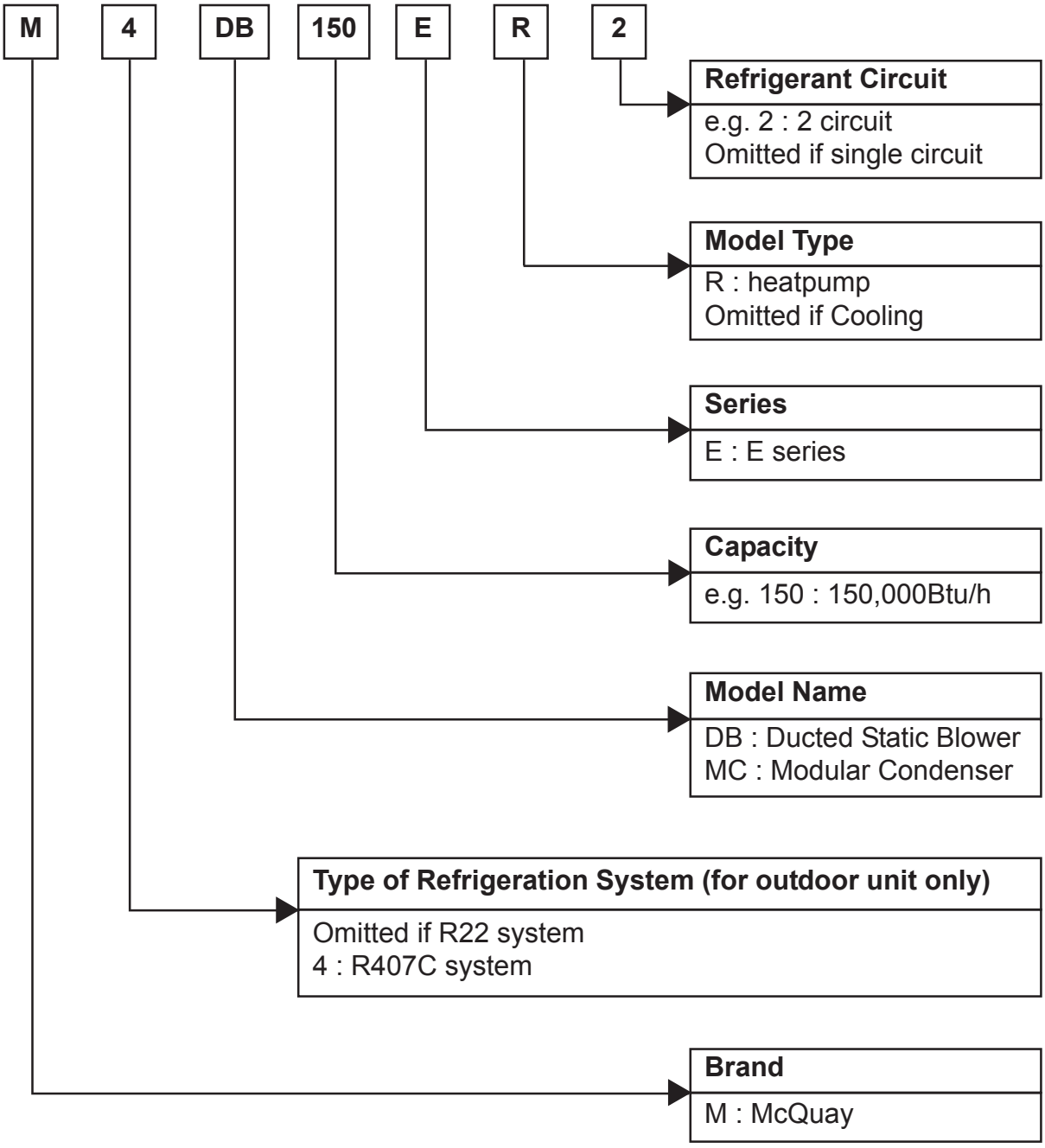
Contents

Note : Installation and maintenance are to be performed only by qualified personnel who are familiar with local codes and regulations, and experienced with this type of equipment.

Caution: Sharp edges and coil surfaces are a potential injury hazard. Avoid contact with them.

Warning : Moving machinery and electrical power hazard. May cause severe personal injury or death. Disconnect and lock off power before servicing equipment.

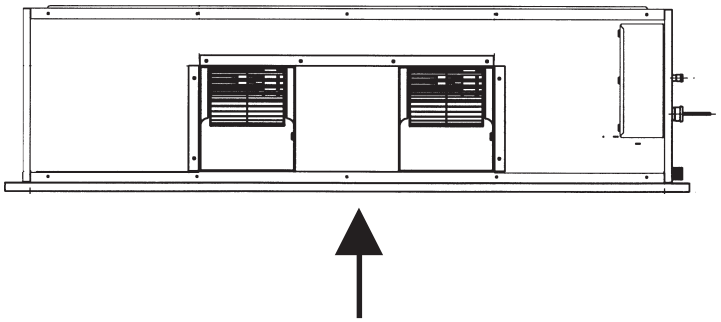
Nomenclature System



Features

Easy Maintenance

The simple design concept has provided the ease of maintenance and servicing. Access to the internal part of the unit can be from the service panel or other side of the unit by loosening a few screws.



Only for model MDB075/100ER with additional service panel from bottom

Air Discharge Orientation

MDB075-150ER models come with standard horizontal air discharge. MDB200-500ER models only come with standard vertical air discharge and they are convertible to horizontal air discharge at field. MDB600ER is available in horizontal and vertical air discharge as standard by differentiate it from nomenclature.

Versatility

Multiple rooms can be cooled together at the same time by using just one unit of fan coil unit.

Fresh Air Intake For Healthy Living

Fresh air can be introduced into the building through the design of fresh air intakes. This will help to improve the indoor air quality.

Superior Air Distribution For Comfortable Living

The conditioned air can be effectively distributed to every corner of the room through the ducting and this ensure a more pleasant environment for comfort living.

Flexibility Of Air Supply

MDB125-600ER models using belt driven blower such as that the air volume and static required can be adjusted according to the requirement. This flexibility allows for wider application.

Scroll Compressor

All MMC-ER outdoor units are using the scroll compressor which has better energy efficiency and quiet in operation.

Thermal Expansion Valve (TXV) Control

All MDB-ER heatpump models are using TXV in both indoor and outdoor to control the refrigerant control device except MDB125ER2.

Sequential Controller As Standard

This controller is supplied as the standard specification for cooling model where the systems are matching with two outdoor units and more. The benefit of this controller is capable of part-loading of the system capacity.

Taper Lock Pulley - Easy Maintenance

For MDB125-ER model and above which are using taper lock pulley to drive the blower with V-groove belt. This taper lock pulley can be installed or dismantling easily using maintenance.

General Specifications

Unit Structure

The casing is constructed with electro-galvanised (EG) mild steel sheet which provide a rigid cabinet. The thickness of the indoor casing is ranging from 1.0mm to 3.2mm whereas the outdoor casing thickness is ranging from 1.0mm to 2.3mm. The finishing of the casing is a long-lasting epoxy polyester powder coating. The indoor panel is using PE insulation with 10mm thickness. All outdoor units are classified under the IP55 Standard.

Coil

Each coil consists of staggered rows of 3/8" OD seamless copper tubes, mechanically expanded into die-formed corrugated aluminum fins. All coils are using aluminum fin except heatpump models which are using hydrophilic blue fin to have better deicing during defrost cycle.

Blower, Fan And Motor

The indoor unit is using metal blower with the forward-curved fan blade and secured by the metal housing. The outdoor propeller fan is constructed from 6-blade aluminum material and direct-driven by weatherproof three phase induction motor. All motor has the Class F (155°C) insulation.

Compressor

All outdoor units are using high efficiency, refrigerant-cooled, Scroll compressor. Compressor has the internal overload protection and supplied with crank case heater to prevent liquid migration, which can damage compressor scroll, during off-cycle and eases start-up.

Safety Controls

Outdoor units are equipped with auto reset high pressure and low pressure cut-out and discharge thermostat to protect against compressor damage due to high head pressure and system leakage respectively. Phase protector is used to detect for any wrong phase and phase loss during installation and operation.

Specifications

Heatpump models (R22)

MODEL		INDOOR UNIT		MDB 075ER	MDB100ER	MDB125ER	MDB125ER2
		OUTDOOR UNIT		MMC 075ER	MMC100ER	MMC125ER	MLC061CR x 2
TOTAL COOLING CAPACITY			Btu/h	77000	96000	116000	110000
			W	22570	28140	34000	32240
TOTAL HEATING CAPACITY			Btu/h	85000	106000	130000	117000
			W	24910	31070	38100	34290
NOMINAL TOTAL POWER (COOLING)			W	7703	9580	11412	11570
NOMINAL TOTAL POWER (HEATING)			W	7895	9835	10102	9730
NOMINAL TOTAL CURRENT (COOLING)			A	15.3	17.7	20.5	20.10
NOMINAL TOTAL CURRENT (HEATING)			A	15.4	17.9	19.1	18.10
INDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL			
		FINISHING		EPOXY POLYESTER POWDER COATING			
		INSULATION		PE FOAM 10MM THICKNESS			
	DIMENSION	HEIGHT (H)	mm (in)	507 (19.96)	507 (19.96)	710 (27.95)	710 (27.95)
		WIDTH (W)	mm (in)	1507 (59.33)	1917 (75.47)	1794 (70.62)	1794 (70.62)
		DEPTH (D)	mm (in)	859 (33.81)	859 (33.81)	964 (37.95)	964 (37.95)
	VOLUME		m^3 (ft^3)	0.656 (23.18)	0.835 (28.65)	1.228 (42.14)	
	NET WEIGHT		kg (lb)	95 (209)	120 (264)	155 (341)	155 (341)
	NOISE LEVEL (SOUND POWER)		dBA	73	75	77	77
	EVAPORATOR COIL	TYPE		CROSS FINNED TUBES			
		TUBE	MATERIAL	SEAMLESS COPPER			
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM		
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			ROWS		3	3	3
			FIN PER INCH (FPI)		14	14	14
		CAPACITY STEP		%	100-0	100-0	100-0	10-50-0
		FACE AREA		m^2 (ft^2)	0.53 (5.73)	0.72 (7.75)	0.89 (9.66)	
		FACE VELOCITY		m/min (FPM)	119.48 (392)	117.95 (387)	118.26 (388)	
	EVAPARATOR BLOWER	TYPE			CENTRIFUGAL		
		DRIVE			DIRECT		BELT DRIVEN	
		BLOWER MATERIAL			ZINC COATED STEEL		
		QUANTITY			2	2	1	1
		BLOWER DIAMETER		mm (in)	282.70 (11.13)	282.70 (11.13)	394.97 (15.55)	394.97 (15.55)
		BLOWER LENGTH		mm (in)	203.20 (8.00)	203.20 (8.00)	381.00 (15.00)	381.00 (15.00)
		AIR FLOW		L/s (CFM)	1061.9 (2250)	1415.8 (3000)	1769.8 (3750)	1769.8 (3750)
		EXTERNAL STATIC PRESSURE (DRY COIL)		mm WG (in WG)	10.8 (0.43)	21.5 (0.85)	17.2 (0.68)	17.2 (0.68)
		BLOWER PULLEY DIAMETER		mm (in)	-	-	160 (6.30)	160 (6.30)
		MOTOR PULLEY DIAMETER		mm (in)	-	-	85 (3.35)	85 (3.35)
		PULLEY		TYPE	-	-	1SPZ	1SPZ
		V-BELT		TYPE	-	-	SPZ760	SPZ760
	EVAPORATOR BLOWER MOTOR	TYPE			PERMANENT SPLIT CAPACITOR		SQUIRREL CAGE INDUCTION	
		POWER SUPPLY		V / Ph / Hz	220~240/1/50		380~415/3/50	
		RATED RUNNING CURRENT		A	3.83	4.45	2.90	2.90
		MOTOR OUTPUT		W	375	500	1500	1500
		RATED INPUT		W	754	1010	1420	1420
		MOTOR POLES			6	4	4	4
	REFRIGERANT	TYPE			R22			
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING			
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE			CAPILARY TUBE
		PIPE CONNECTION			BRAZING			FLARE VALVE
		PIPE SIZE	LIQUID	mm (in)	12.70 (1/2)	15.88 (5/8)	15.88 (5/8)	12.70 (1/2)
			GAS	mm (in)	25.40 (1)	28.57 (1-1/8)	34.92 (1-3/8)	19.05 (3/4)
		DRAIN PIPE CONNECTION		mm (in)	25.40 (1.00)	25.40 (1.00)	25.40 (1.00)	25.40 (1.00)
	AIR FILTER	TYPE			AAF R15			
		SIZE	LENGTH x HEIGHT	mm (in)	399 x 385 (15.71 x 15.16)	536 x 385 (21.10 x 15.16)	508 x 581 (20.00 x 22.87)	508 x 581 (20.00 x 22.87)
			DEPTH	mm (in)	50.8 (2.00)	50.8 (2.00)	50.80 (2.00)	50.80 (2.00)
		QUANTITY			3	3	3	3
OUTDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL			
		FINISHING		EPOXY POLYESTER POWDER			
	DIMENSION	HEIGHT (H)	mm (in)	1041 (40.98)	1041 (40.98)	1041 (40.98)	850 (33.46)
		WIDTH (W)	mm (in)	981 (38.62)	981 (38.62)	1083 (42.63)	1030 (40.55)
		DEPTH (D)	mm (in)	981 (38.62)	981 (38.62)	1083 (42.63)	460 (18.11)
	VOLUME		m^3 (ft^3)	1.002 (35.385)	1.002 (35.385)	1.221 (43.119)	0.403 (14.232)
	NET WEIGHT		kg (lb)	170 (374)	184 (405.65)	197 (434.31)	108 (238.10)
	NOISE LEVEL (SOUND POWER)		dBA	79	80	82	76
	CONDENSER COIL	TYPE			CROSS FINNED TUBES		
		TUBE	MATERIAL		INNER GROOVE SEAMLESS COPPER		
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM HYDROPHILIC BLUE FIN			ALUMINIUM
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			NUMBER x ROWS		2 x 1	2 x 2	2 x 2	1 x 3
			FIN PER INCH (FPI)		20	16	16	14
		FACE AREA		m^2 (ft^2)	2.29 (24.65)	2.26 (24.38)	2.54 (27.34)	0.84 (9.08)
		FACE VELOCITY		m/min (FPM)	86.25 (283)	87.47 (287)	111.25 (365)	125.53 (418)
	CONDENSER FAN	TYPE			PROPELLER			
		DRIVE			DIRECT			
		BLADE MATERIAL			ALUMINIUM			
		QUANTITY			1	1	1	1
		BLADE DIAMETER		mm (in)	812.80 (32)	812.80 (32.00)	914.40 (36)	609.6(24)
		AIR FLOW		L/s (CFM)	3304 (7000)	3304 (7000)	4720 (10000)	1794 (3800)
	CONDENSER FAN MOTOR	TYPE			INDUCTION			PERMANENT SPLIT CAPACITOR
		POWER SUPPLY		V / Ph / Hz	380~415/3/50			220~240/1/50
		RATED RUNNING CURRENT		A	1.20	1.20	1.20	1.20
		MOTOR OUTPUT		W	350.00	350.00	560.00	160.00
		RATED INPUT		W	570.00	600.00	820.00	250.00
		MOTOR POLES			10	10	10	6
	COMPRESSOR	TYPE			SCROLL			
		POWER SUPPLY		V / Ph / Hz	380-415/3/50			
		RATED RUNNING CURRENT (COOLING)		A	12.80	15.00	16.40	8.20
		RATED RUNNING CURRENT (HEATING)		A	12.90	15.20	15.00	7.20
		RATED POWER INPUT (COOLING)		W	6379	7970	9172	4825
		RATED POWER INPUT (HEATING)		W	6571	8225	7862	3905
		COMPRESSOR MOTOR OUTPUT		W	6000	7500	8940	-
		MAXIMUM STARTING CURRENT		A	95	125	110	-
		PROTECTION DEVICE			OVERLOAD PROTECTION & AUTO RESET H/L PRESSURE SWITCH			
		STAGE OF CAPACITY CONTROL			ON / OFF			
		STARTER TYPE			DOL			
	REFRIGERANT	TYPE			R22			
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING			
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE			

NOTES :

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO

2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

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

Heatpump models (R22)

MODEL			INDOOR UNIT		MDB150ER1	MDB150ER2	MDB200ER2
			OUTDOOR UNIT		MMC150ER	MMC 075ER X 2	MMC100ER X 2
TOTAL COOLING CAPACITY				Btu/h	150000	154000	192000
				W	43960	45130	56270
TOTAL HEATING CAPACITY				Btu/h	160000	170000	212000
				W	46890	49820	62130
NOMINAL TOTAL POWER (COOLING)				W	15062	15638	19870
NOMINAL TOTAL POWER (HEATING)				W	12821	16022	20380
NOMINAL TOTAL CURRENT (COOLING)				A	27.5	31.3	37.4
NOMINAL TOTAL CURRENT (HEATING)				A	25.0	31.5	37.8
INDOOR UNIT	CASING		MATERIAL		ELECTRO GALVANIZED MILD STEEL		
			FINISHING		EPOXY POLYESTER POWDER COATING		
			INSULATION		PE FOAM 10MM THICKNESS		
	DIMENSION		HEIGHT (H)	mm (in)	710 (27.95)	710 (27.95)	945 (37.20)
			WIDTH (W)	mm (in)	2073 (81.61)	2073 (81.61)	1894 (74.56)
			DEPTH (D)	mm (in)	964 (37.95)	964 (37.95)	980 (38.58)
	VOLUME			m^3 (ft^3)	1.419 (50.112)	1.419 (50.112)	1.754 (61.942)
	NET WEIGHT			kg (lb)	175 (385.81)	175 (385.81)	220 (485.02)
	NOISE LEVEL (SOUND POWER)			dBA	79	79	85
	EVAPORATOR COIL	TYPE			CROSS FINNED TUBES		
		TUBE	MATERIAL		SEAMLESS COPPER		
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM		
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			ROWS		3	3	4
			FIN PER INCH (FPI)		14	14	12
		CAPACITY STEP		%	100-0	100-50-0	100-50-0
		FACE AREA		m^2 (ft^2)	1.06 (11.50)		1.20 (12.92)
		FACE VELOCITY		m/min (FPM)	119.17 (391)	119.17 (391)	150.88 (495)
	EVAPARATOR BLOWER	TYPE			CENTRIFUGAL		
		DRIVE			BELT DRIVEN		
		BLOWER MATERIAL			ZINC COATED STEEL		
		QUANTITY			1	1	1
		BLOWER DIAMETER		mm (in)	394.97 (15.55)	394.97 (15.55)	394.97 (15.55)
		BLOWER LENGTH		mm (in)	381.00 (15.00)	381.00 (15.00)	381.00 (15.00)
		AIR FLOW		L/s (CFM)	2123.8 (4500)	2123.8 (4500)	3020.5 (6400)
		EXTERNAL STATIC PRESSURE (DRY COIL)		mm WG (in WG)	17.2 (0.67)	17.2 (0.67)	18.0 (0.71)
		BLOWER PULLEY DIAMETER		mm (in)	160 (6.30)	160 (6.30)	140 (5.51)
		MOTOR PULLEY DIAMETER		mm (in)	85 (3.35)	85 (3.35)	80 (3.15)
		PULLEY		TYPE	1SPZ	1SPZ	2SPZ
		V-BELT		TYPE	SPZ760	SPZ1060	SPZ1010
	EVAPORATOR BLOWER MOTOR	TYPE			SQUIRREL CAGE INDUCTION		
		POWER SUPPLY		V / Ph / Hz	380~415/3/50		
		RATED RUNNING CURRENT		A	3.30	3.30	5.00
		MOTOR OUTPUT		W	1500.00	1500.00	3000.00
		RATED INPUT		W	1740.00	1740.00	2730.00
		MOTOR POLES			4	4	4
	REFRIGERANT	TYPE			R22		
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING		
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE		
		PIPE CONNECTION			BRAZING		
		PIPE SIZE	LIQUID	mm (in)	15.88 (5/8)	12.70 (1/2)	15.88 (5/8)
			GAS	mm (in)	34.92 (1-3/8)	25.40 (1.00)	28.58 (1-1/8)
		DRAIN PIPE CONNECTION		mm (in)	25.40 (1.00)	25.40 (1.00)	25.40 (1.00)
	AIR FILTER	TYPE			AAF R15 WASHABLE VILEDON		AAF R29 WASHABLE VILEDON
		SIZE	LENGTH x HEIGHT	mm (in)	601 x 581 (23.66 x 22.87)	601 x 581 (23.66 x 22.87)	543 x 738 (21.38 x 29.06)
			DEPTH	mm (in)	50.80 (2.00)	50.80 (2.00)	50.80 (2.00)
		QUANTITY			3	3	3
OUTDOOR UNIT	CASING		MATERIAL		ELECTRO GALVANIZED MILD STEEL		
			FINISHING		EPOXY POLYESTER POWDER		
	DIMENSION		HEIGHT (H)	mm (in)	1142 (44.96)	1041 (40.98)	1041 (40.98)
			WIDTH (W)	mm (in)	1083 (42.63)	981 (38.62)	981 (38.62)
			DEPTH (D)	mm (in)	1083 (42.63)	981 (38.62)	981 (38.62)
	VOLUME			m^3 (ft^3)	1.339 (47.286)	1.002 (35.385)	1.002 (35.385)
	NET WEIGHT			kg (lb)	268 (590.84)	170 (374.79)	184 (405.65)
	NOISE LEVEL (SOUND POWER)			dBA	83	79	80
	CONDENSER COIL	TYPE			CROSS FINNED TUBES		
		TUBE	MATERIAL		INNER GROOVE TUBE		
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM HYDROPHILIC BLUE FIN		
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			NUMBER x ROWS		2 x 2	2 x 1	2 x 2
			FIN PER INCH (FPI)		16	20	16
		FACE AREA		m^2 (ft^2)	2.82 (30.35)	2.29 (24.65)	2.26 (24.33)
		FACE VELOCITY		m/min (FPM)	100.27 (329)	86.26 (283)	287 (87.48)
	CONDENSER FAN	TYPE			PROPELLER		
		DRIVE			DIRECT		
		BLADE MATERIAL			ALUMINIUM		
		QUANTITY			1	1	1
		BLADE DIAMETER		mm (in)	914.40 (36)	812.80 (32)	812.80 (32)
		AIR FLOW		L/s (CFM)	4720 (10000)	3304 (7000)	3304 (7000)
	CONDENSER FAN MOTOR	TYPE			INDUCTION		
		POWER SUPPLY		V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT		A	1.20	1.20	1.20
		MOTOR OUTPUT		W	560	350	350
		RATED INPUT		W	820	570	600
		MOTOR POLES			10	10	10
	COMPRESSOR	TYPE			SCROLL		
		POWER SUPPLY		V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT (COOLING)		A	23.00	12.80	15.00
		RATED RUNNING CURRENT (HEATING)		A	20.50	12.90	15.20
		RATED POWER INPUT (COOLING)		W	12502	6379	7970
		RATED POWER INPUT (HEATING)		W	10261	6571	8225
		COMPRESSOR MOTOR OUTPUT		W	11250	6000	7500
		MAXIMUM STARTING CURRENT		A	198.0	95.0	125.0
		PROTECTION DEVICE			OVERLOAD PROTECTION & AUTO RESET H/L PRESSURE SWITCH		
		STAGE OF CAPACITY CONTROL			ON / OFF		
		STARTER TYPE			DOL		
	REFRIGERANT	TYPE			R22		
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING		
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE		

NOTES :

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO

2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

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

Heatpump models (R22)

MODEL		INDOOR UNIT		MDB250ER2	MDB300ER2	MDB300ER3
		OUTDOOR UNIT		MMC125ER X 2	MMC150ER X 2	MMC100ER X 3
TOTAL COOLING CAPACITY			Btu/h	232000	300000	288000
			W	68000	87920	84410
TOTAL HEATING CAPACITY			Btu/h	260000	320000	300000
			W	76200	93790	87920
NOMINAL TOTAL POWER (COOLING)			W	23354	30644	29710
NOMINAL TOTAL POWER (HEATING)			W	20734	26162	30475
NOMINAL TOTAL CURRENT (COOLING)			A	41.5	55.5	55.7
NOMINAL TOTAL CURRENT (HEATING)			A	38.7	50.5	56.3
INDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL		
		FINISHING		EPOXY POLYESTER POWDER COATING		
		INSULATION		PE INSULATION 10MM THICKNESS		
	DIMENSION	HEIGHT (H)	mm (in)	1291 (50.82)	1291 (50.82)	1291 (50.82)
		WIDTH (W)	mm (in)	1866 (73.46)	1866 (73.46)	1866 (73.46)
		DEPTH (D)	mm (in)	1199 (47.20)	1199 (47.20)	1199 (47.20)
	VOLUME		m^3 (ft^3)	2.888 (101.990)	2.888 (101.990)	2.888 (101.990)
	NET WEIGHT		kg (lb)	343 (756.18)	343 (756.18)	343 (756.18)
	NOISE LEVEL (SOUND POWER)		dBA	87	89	89
	EVAPORATOR COIL	TYPE		CROSS FINNED TUBES		
		TUBE MATERIAL		PLAIN TUBE		
		TUBE WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
		TUBE OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN MATERIAL		ALUMINIUM		
		FIN THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
		ROWS		4	5	5
		FIN PER INCH (FPI)		14	12	12
		CAPACITY STEP	%	100-50-0	100-50-0	100-67-33-0
		FACE AREA	m^2 (ft^2)	1.48 (15.93)	1.62 (17.44)	1.62 (17.44)
		FACE VELOCITY	m/min (FPM)	500 (152.40)	514 (156.67)	514 (156.67)
	EVAPARATOR BLOWER	TYPE		CENTRIFUGAL		
		DRIVE		BELT DRIVEN		
		BLOWER MATERIAL		ZINC COATED STEEL		
		QUANTITY		1	1	1
		BLOWER DIAMETER	mm (in)	469.90 (18.50)	469.90 (18.50)	469.90 (18.50)
		BLOWER LENGTH	mm (in)	459.99 (18.11)	459.99 (18.11)	459.99 (18.11)
		AIR FLOW	L/s (CFM)	3775.6 (8000)	4247.5 (9000)	4247.5 (9000)
		EXTERNAL STATIC PRESSURE (DRY COIL)	mm WG (in WG)	42.0 (1.65)	36.0 (1.42)	36.0 (1.42)
		BLOWER PULLEY DIAMETER	mm (in)	180 (7.09)	180 (7.09)	180 (7.09)
		MOTOR PULLEY DIAMETER	mm (in)	90 (3.54)	95 (3.74)	95 (3.74)
		PULLEY	TYPE	2SPZ	2SPZ	2SPZ
		V-BELT	TYPE	SPZ1700	SPZ1700	SPZ1700
	EVAPORATOR BLOWER MOTOR	TYPE		SQUIRREL CAGE INDUCTION		
		POWER SUPPLY	V / Ph / Hz	380~415/3/50		
		RATED RUNNING CURRENT	A	6.30	7.10	7.10
		MOTOR OUTPUT	W	4000.00	4000.00	4000.00
		RATED INPUT	W	3370.00	4000.00	4000.00
		MOTOR POLES		4	4	4
	REFRIGERANT	TYPE		R22	R22	R22
		TYPE OF GAS PRECHARGED		NITROGEN HOLDING		
		EXPANSION CONTROL		THERMOSTATIC EXPANSION VALVE		
		PIPE CONNECTION		BRAZING		
		PIPE SIZE LIQUID	mm (in)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
		PIPE SIZE GAS	mm (in)	34.92 (1-3/8)	34.92 (1-3/8)	28.58 (1-1/8)
		DRAIN PIPE CONNECTION	mm (in)	25.40 (1.00)	25.40 (1.00)	25.40 (1.00)
	AIR FILTER	TYPE		AAF R29 WASHABLE VILEDON		
		SIZE LENGTH x HEIGHT	mm (in)	534 x 529 (21.0 x 20.8)		
		DEPTH	mm (in)	50.80 (2.00)	50.80 (2.00)	50.80 (2.00)
		QUANTITY		6	6	6
OUTDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL		
		FINISHING		EPOXY POLYESTER POWDER		
	DIMENSION	HEIGHT (H)	mm (in)	1041 (40.98)	1142 (44.96)	1041 (40.98)
		WIDTH (W)	mm (in)	1083 (42.63)	1083 (42.63)	981 (38.62)
		DEPTH (D)	mm (in)	1083 (42.63)	1083 (42.63)	981 (38.62)
	VOLUME		m^3 (ft^3)	1.221 (43.119)	1.339 (47.286)	1.002 (35.385)
	NET WEIGHT		kg (lb)	197 (434.31)	268 (590.84)	184 (405.65)
	NOISE LEVEL (SOUND POWER)		dBA	82	83	80
	CONDENSER COIL	TYPE		CROSS FINNED TUBES		
		TUBE MATERIAL		INNER GROOVE TUBE		
		TUBE WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
		TUBE OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN MATERIAL		ALUMINIUM HYDROPHILIC BLUE FIN		
		FIN THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
		NUMBER x ROWS		2 x 2	2 x 2	2 x 2
		FIN PER INCH (FPI)		16	16	16
		FACE AREA	m^2 (ft^2)	2.54 (27.34)	2.82 (30.35)	2.26 (24.33)
		FACE VELOCITY	m/min (FPM)	365 (111.25)	329 (100.28)	287 (87.48)
	CONDENSER FAN	TYPE		PROPELLER		
		DRIVE		DIRECT		
		BLADE MATERIAL		ALUMINIUM		
		QUANTITY		1	1	1
		BLADE DIAMETER	mm (in)	914.40 (36)	914.40 (36)	812.80 (32)
		AIR FLOW	L/s (CFM)	10000 (4720)	10000 (4720)	7000 (3304)
	CONDENSER FAN MOTOR	TYPE		INDUCTION		
		POWER SUPPLY	V / Ph / Hz	380~415/3/50		
		RATED RUNNING CURRENT	A	1.20	1.20	1.20
		MOTOR OUTPUT	W	560	560	350
		RATED INPUT	W	820	820	600
		MOTOR POLES		10	10	10
	COMPRESSOR	TYPE		SCROLL		
		POWER SUPPLY	V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT (COOLING)	A	16.40	23.00	15.00
		RATED RUNNING CURRENT (HEATING)	A	15.80	20.50	15.20
		RATED POWER INPUT (COOLING)	W	9172	12502	7970
		RATED POWER INPUT (HEATING)	W	7862	10261	8225
		COMPRESSOR MOTOR OUTPUT	W	8940	11250	7500
		MAXIMUM STARTING CURRENT	A	110.0	198.0	125.0
		PROTECTION DEVICE		OVERLOAD PROTECTION & AUTO RESET H/L PRESSURE SWITCH		
		STAGE OF CAPACITY CONTROL		ON / OFF		
		STARTER TYPE		DOL		
	REFRIGERANT	TYPE		R22		
		TYPE OF GAS PRECHARGED		NITROGEN HOLDING		
		EXPANSION CONTROL		THERMOSTATIC EXPANSION VALVE		

NOTES :

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO

2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

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

Heatpump models (R22)

MODEL			INDOOR UNIT		MDB350ER3		MDB400ER4
			OUTDOOR UNIT		MMC100ER + MMC125ER X 2		MMC100ER X 4
TOTAL COOLING CAPACITY				Btu/h	328000		384000
				W	96130		112540
TOTAL HEATING CAPACITY				Btu/h	366000		424000
				W	107270		124270
NOMINAL TOTAL POWER (COOLING)				W	33064		39115
NOMINAL TOTAL POWER (HEATING)				W	30699		40135
NOMINAL TOTAL CURRENT (COOLING)				A	59.8		73.5
NOMINAL TOTAL CURRENT (HEATING)				A	57.2		74.3
INDOOR UNIT	CASING		MATERIAL		ELECTRO GALVANIZED MILD STEEL		
			FINISHING		EPOXY POLYESTER POWDER COATING		
			INSULATION		PE INSULATION 10MM THICKNESS		
	DIMENSION		HEIGHT (H)	mm (in)	1546 (60.86)		1546 (60.86)
			WIDTH (W)	mm (in)	2122 (83.54)		2274 (89.52)
			DEPTH (D)	mm (in)	1199 (47.20)		1466 (57.71)
	VOLUME			m^3 (ft^3)	3.933 (138.890)		5.154 (182.010)
	NET WEIGHT			kg (lb)	440 (970.03)		513 (1130.97)
	NOISE LEVEL (SOUND POWER)			dBA	92		90
	EVAPORATOR COIL	TYPE			CROSS FINNED TUBES		
		TUBE	MATERIAL		PLAIN TUBE		
			WALL THICKNESS	mm (in)	0.35 (0.013)		0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)		9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM		
			THICKNESS	mm (in)	0.127 (0.005)		0.127 (0.005)
			ROWS		4		4
			FIN PER INCH (FPI)		12		14
		CAPACITY STEP		%	100-67-33-0		100-75-50-25-0
		FACE AREA		m^2 (ft^2)	2.38 (25.62)		2.38 (25.62)
		FACE VELOCITY		m/min (FPM)	410 (124.97)		468 (142.65)
	EVAPARATOR BLOWER	TYPE			CENTRIFUGAL		
		DRIVE			BELT DRIVEN		
		BLOWER MATERIAL			ZINC COATED STEEL		
		QUANTITY			1		1
		BLOWER DIAMETER		mm (in)	469.90 (18.50)		591.82 (23.30)
		BLOWER LENGTH		mm (in)	459.99 (18.11)		563.88 (22.20)
		AIR FLOW		L/s (CFM)	4955.4 (10500)		5663.4 (12000)
		EXTERNAL STATIC PRESSURE (DRY COIL)		mm WG (in WG)	29.5 (1.16)		36.00 (1.41)
		BLOWER PULLEY DIAMETER		mm (in)	250 (9.84)		250 (9.84)
		MOTOR PULLEY DIAMETER		mm (in)	125 (4.92)		106 (4.17)
		PULLEY		TYPE	2SPZ		2SPA
		V-BELT		TYPE	SPZ2360		SPA2160
	EVAPORATOR BLOWER MOTOR	TYPE			SQUIRREL CAGE INDUCTION		
		POWER SUPPLY		V / Ph / Hz	380~415/3/50		
		RATED RUNNING CURRENT		A	8.40		8.70
		MOTOR OUTPUT		W	5500.00		5500.00
		RATED INPUT		W	4510.00		4835.00
		MOTOR POLES			4		4
	REFRIGERANT	TYPE			R22		
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING		
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE		
		PIPE CONNECTION			BRAZING		
		PIPE SIZE	LIQUID	mm (in)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
			GAS	mm (in)	28.58 (1-1/8)	34.92 (1-3/8)	28.58 (1-1/8)
		DRAIN PIPE CONNECTION		mm (in)	25.40 (1.00)	25.40 (1.00)	25.40 (1.00)
	AIR FILTER	TYPE			AAF R29 WASHABLE VILEDON		
		SIZE	LENGTH x HEIGHT	mm (in)	619 x 657		670 x 657
			DEPTH	mm (in)	50.80 (2.00)		50.80 (2.00)
		QUANTITY			6		6
OUTDOOR UNIT	CASING		MATERIAL		ELECTRO GALVANIZED MILD STEEL		
			FINISHING		EPOXY POLYESTER POWDER		
	DIMENSION		HEIGHT (H)	mm (in)	1041 (40.98)	1041 (40.98)	1041 (40.98)
			WIDTH (W)	mm (in)	981 (38.62)	1083 (42.63)	981 (38.62)
			DEPTH (D)	mm (in)	981 (38.62)	1083 (42.63)	981 (38.62)
	VOLUME			m^3 (ft^3)	1.002 (35.385)	1.221 (43.119)	1.002 (35.385)
	NET WEIGHT			kg (lb)	184 (405.65)	197 (434.31)	184 (405.65)
	NOISE LEVEL (SOUND POWER)			dBA	80	82	80
	CONDENSER COIL	TYPE			CROSS FINNED TUBES		
		TUBE	MATERIAL		INNER GROOVE TUBE		
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM HYDROPHILIC BLUE FIN		
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			NUMBER x ROWS		2 x 2	2 x 2	2 x 2
			FIN PER INCH (FPI)		16	16	16
		FACE AREA		m^2 (ft^2)	2.26 (24.33)	2.54 (27.34)	2.26 (24.33)
		FACE VELOCITY		m/min (FPM)	287 (87.48)	365 (111.25)	287 (87.48)
	CONDENSER FAN	TYPE			PROPELLER		
		DRIVE			DIRECT		
		BLADE MATERIAL			ALUMINIUM		
		QUANTITY			1	1	1
		BLADE DIAMETER		mm (in)	812.80 (32.00)	914.40 (36.00)	812.80 (32.00)
		AIR FLOW		L/s (CFM)	7000 (3304)	10000 (4720)	7000 (3304)
	CONDENSER FAN MOTOR	TYPE			INDUCTION		
		POWER SUPPLY		V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT		A	1.20	1.20	1.20
		MOTOR OUTPUT		W	350	560	350
		RATED INPUT		W	600	820	600
		MOTOR POLES			10	10	10
	COMPRESSOR	TYPE			SCROLL		
		POWER SUPPLY		V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT (COOLING)		A	15.00	16.40	15.00
		RATED RUNNING CURRENT (HEATING)		A	15.20	15.00	15.20
		RATED POWER INPUT (COOLING)		W	7970	9172	7970
		RATED POWER INPUT (HEATING)		W	8225	7862	8225
		COMPRESSOR MOTOR OUTPUT		W	7500	8940	7500
		MAXIMUM STARTING CURRENT		A	125.0	110.0	125.0
		PROTECTION DEVICE			OVERLOAD PROTECTION & AUTO RESET H/L PRESSURE SWITCH		
		STAGE OF CAPACITY CONTROL			ON / OFF		
		STARTER TYPE			DOL		
	REFRIGERANT	TYPE			R22		
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING		
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE		

NOTES :

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO

2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

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

Heatpump models (R22)

MODEL		INDOOR UNIT		MDB450ER3	MDB500ER4	MDB600ER4
		OUTDOOR UNIT		MMC150ER X 3	MMC125ER X 4	MMC150ER X 4
TOTAL COOLING CAPACITY			Btu/h	450000	464000	600000
			W	131890	135990	175850
TOTAL HEATING CAPACITY			Btu/h	480000	520000	640000
			W	140680	152400	187570
NOMINAL TOTAL POWER (COOLING)			W	47286	42763	66188
NOMINAL TOTAL POWER (HEATING)			W	40563	36888	57224
NOMINAL TOTAL CURRENT (COOLING)			A	85.1	85.1	118.2
NOMINAL TOTAL CURRENT (HEATING)			A	77.6	79.5	108.2
INDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL		
		FINISHING		EPOXY POLYESTER POWDER COATING		
		INSULATION		PE INSULATION 10MM THICKNESS		
	DIMENSION	HEIGHT (H)	mm (in)	1546 (60.86)	1546 (60.86)	1977 (77.83)
		WIDTH (W)	mm (in)	2274 (89.52)	2274 (89.52)	2274 (89.52)
		DEPTH (D)	mm (in)	1466 (57.71)	1466 (57.71)	1905 (75.00)
	VOLUME		m^3 (ft^3)	5.154 (182.010)	5.154 (182.010)	8.564 (302.430)
	NET WEIGHT		kg (lb)	564 (1243.41)	606 (1336.00)	991 (2184.78)
	NOISE LEVEL (SOUND POWER)		dBA	93	96	89
	EVAPORATOR COIL	TYPE		CROSS FINNED TUBES		
		TUBE	MATERIAL	PLAIN TUBE		
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL	ALUMINIUM		
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			ROWS		4	5	6
			FIN PER INCH (FPI)		14	12	12
		CAPACITY STEP		%	100-67-33-0	100-75-50-25-0	100-75-50-25-0
		FACE AREA		m^2 (ft^2)	2.58 (27.77)	2.55 (27.45)	3.37 (36.27)
		FACE VELOCITY		m/min (FPM)	485 (147.83)	546 (166.42)	495 (150.88)
	EVAPARATOR BLOWER	TYPE		CENTRIFUGAL		
		DRIVE		BELT DRIVEN		
		BLOWER MATERIAL		ZINC COATED STEEL		
		QUANTITY		1	1	1
		BLOWER DIAMETER		mm (in)	591.82 (23.30)	591.82 (23.30)	785.00 (30.91)
		BLOWER LENGTH		mm (in)	563.88 (22.20)	563.88 (22.20)	706.00 (27.80)
		AIR FLOW		L/s (CFM)	6371.3 (13500)	7079.2 (15000)	8495.1 (18000)
		EXTERNAL STATIC PRESSURE (DRY COIL)		mm WG (in WG)	38.0 (1.50)	41.0 (1.61)	53.0 (2.09)
		BLOWER PULLEY DIAMETER		mm (in)	250 (9.84)	315 (24.21)	400 (15.75)
		MOTOR PULLEY DIAMETER		mm (in)	112 (4.41)	150 (5.91)	132 (5.20)
		PULLEY		TYPE	2SPA	2SPA	3SPA
		V-BELT		TYPE	SPA2160	SPA2270	3SPA1850
	EVAPORATOR BLOWER MOTOR	TYPE		SQUIRREL CAGE INDUCTION		
		POWER SUPPLY		V / Ph / Hz	380~415/3/50		
		RATED RUNNING CURRENT		A	12.5	14.7	21.4
		MOTOR OUTPUT		W	7500	11000	11000
		RATED INPUT		W	7320	8035	12900
		MOTOR POLES			4	4	4
	REFRIGERANT	TYPE		R22		
		TYPE OF GAS PRECHARGED		NITROGEN HOLDING		
		EXPANSION CONTROL		THERMOSTATIC EXPANSION VALVE		
		PIPE CONNECTION		BRAZING		
		PIPE SIZE	LIQUID	mm (in)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
			GAS	mm (in)	34.92 (1-3/8)	34.92 (1-3/8)	34.92 (1-3/8)
		DRAIN PIPE CONNECTION		mm (in)	25.40 (1.00)	25.40 (1.00)	25.40 (1.00)
	AIR FILTER	TYPE		AAF R29 WASHABLE VILEDON		
		SIZE	LENGTH x HEIGHT	mm (in)	670 x 657 (26.4 x 25.9)		670 x 577 (26.4 x 22.7)
			DEPTH	mm (in)	50.80 (2.00)	50.80 (2.00)	50.80 (2.00)
		QUANTITY			6	6	6
OUTDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL		
		FINISHING		EPOXY POLYESTER POWDER		
	DIMENSION	HEIGHT (H)		mm (in)	1142 (44.96)	1041 (40.98)	1142 (44.96)
		WIDTH (W)		mm (in)	1083 (42.63)	981 (38.62)	1083 (42.63)
		DEPTH (D)		mm (in)	1083 (42.63)	981 (38.62)	1083 (42.63)
	VOLUME			m^3 (ft^3)	1.339 (47.286)	1.002 (35.385)	1.339 (47.286)
	NET WEIGHT			kg (lb)	268 (590.84)	184 (405.65)	268 (590.84)
	NOISE LEVEL (SOUND POWER)			dBA	83	82	83
	CONDENSER COIL	TYPE		CROSS FINNED TUBES		
		TUBE	MATERIAL	INNER GROOVE TUBE		
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL	ALUMINIUM HYDROPHILIC BLUE FIN		
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			NUMBER x ROWS		2 x 2	2 x 2	2 x 2
			FIN PER INCH (FPI)		16	16	16
		FACE AREA		m^2 (ft^2)	2.82 (30.35)	2.26 (24.33)	2.82 (30.35)
		FACE VELOCITY		m/min (FPM)	329 (100.28)	287 (87.48)	329 (100.28)
	CONDENSER FAN	TYPE		PROPELLER		
		DRIVE		DIRECT		
		BLADE MATERIAL		ALUMINIUM		
		QUANTITY			1	1	1
		BLADE DIAMETER		mm (in)	914.40 (36)	812.80 (32)	914.40 (36)
		AIR FLOW		L/s (CFM)	10000 (4720)	7000 (3304)	10000 (4720)
	CONDENSER FAN MOTOR	TYPE		INDUCTION		
		POWER SUPPLY		V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT		A	1.20	1.20	1.20
		MOTOR OUTPUT		W	560	350	560
		RATED INPUT		W	820	600	820
		MOTOR POLES			10	10	10
	COMPRESSOR	TYPE		SCROLL		
		POWER SUPPLY		V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT (COOLING)		A	23.0	16.4	23.0
		RATED RUNNING CURRENT (HEATING)		A	20.5	15.0	20.5
		RATED POWER INPUT (COOLING)		W	12502	9172	12502
		RATED POWER INPUT (HEATING)		W	10261	7862	10261
		COMPRESSOR MOTOR OUTPUT		W	11250	7500	11250
		MAXIMUM STARTING CURRENT		A	198.0	125.0	198.0
		PROTECTION DEVICE		OVERLOAD PROTECTION & AURO RESET H/L PRESSURE SWITCH		
		STAGE OF CAPACITY CONTROL		ON / OFF		
		STARTER TYPE		DOL		
	REFRIGERANT	TYPE		R22		
		TYPE OF GAS PRECHARGED		NITROGEN HOLDING		
		EXPANSION CONTROL		THERMOSTATIC EXPANSION VALVE		

NOTES :

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO

2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

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

Heatpump models (R22)
Very High Static Motor

MODEL				MDB 075ER	MDB100ER	MDB125ER	MDB125ER2
		OUTDOOR UNIT		MMC 075ER	MMC100ER	MMC125ER	MLC061CR x 2
TOTAL COOLING CAPACITY			Btu/h	77000	96000	116000	110000
			W	22570	28140	34000	32240
TOTAL HEATING CAPACITY			Btu/h	85000	106000	130000	117000
			W	24910	31070	38100	34290
NOMINAL TOTAL POWER (COOLING)			W	8233	10270	11583	11583
NOMINAL TOTAL POWER (HEATING)			W	8652	10108	10844	10844
NOMINAL TOTAL CURRENT (COOLING)			A	15.3	18.7	21.2	21.2
NOMINAL TOTAL CURRENT (HEATING)			A	15.8	18.1	20.2	20.2
INDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL			
		FINISHING		EPOXY POLYESTER POWDER COATING			
		INSULATION		PE FOAM 10MM THICKNESS			
	DIMENSION	HEIGHT (H)	mm (in)	507 (19.96)	507 (19.96)	710 (27.95)	710 (27.95)
		WIDTH (W)	mm (in)	1507 (59.33)	1917 (75.47)	1794 (70.62)	1794 (70.62)
		DEPTH (D)	mm (in)	859 (33.81)	859 (33.81)	964 (37.95)	964 (37.95)
	VOLUME		m^3 (ft^3)	0.656 (23.18)	0.835 (28.65)	1.228 (42.14)	1.228 (42.14)
	NET WEIGHT		kg (lb)	95 (209)	120 (264)	155 (341)	155 (341)
	NOISE LEVEL (SOUND POWER)		dBA	73	75	77	77
	EVAPORATOR COIL	TYPE		CROSS FINNED TUBES			
		TUBE MATERIAL		SEAMLESS COPPER			
		TUBE WALL THICKNESS	mm (in)	0.35 (0.013)			
		TUBE OUTER DIAMETER	mm (in)	9.52 (3/8)			
		FIN MATERIAL		ALUMINIUM			
		FIN THICKNESS	mm (in)	0.127 (0.005)			
		ROWS		3			
		FIN PER INCH (FPI)		14			
		CAPACITY STEP	%	100-0	100-0	100-0	10-50-0
		FACE AREA	m^2 (ft^2)	0.53 (5.73)	0.72 (7.75)	0.89 (9.66)	
		FACE VELOCITY	m/min (FPM)	119.48 (392)	117.95 (387)	118.26 (388)	
	EVAPORATOR BLOWER	TYPE		CENTRIFUGAL			
		DRIVE		DIRECT		BELT DRIVEN	
		BLOWER MATERIAL		ZINC COATED STEEL			
		QUANTITY		2	2	1	1
		BLOWER DIAMETER	mm (in)	282.70 (11.13)	282.70 (11.13)	394.97 (15.55)	394.97 (15.55)
		BLOWER LENGTH	mm (in)	203.20 (8.00)	203.20 (8.00)	381.00 (15.00)	381.00 (15.00)
		AIR FLOW	L/s (CFM)	1061.9 (2250)	1415.8 (3000)	1769.8 (3750)	1769.8 (3750)
		EXTERNAL STATIC PRESSURE (DRY COIL)	mm WG (in WG)	18.3 (0.72)	25.4 (1)	25.4 (1)	25.4 (1)
		BLOWER PULLEY DIAMETER	mm (in)	-	-	160 (6.30)	160 (6.30)
		MOTOR PULLEY DIAMETER	mm (in)	-	-	85 (3.35)	85 (3.35)
		PULLEY	TYPE	-	-	1SPZ	1SPZ
		V-BELT	TYPE	-	-	SPZ760	SPZ760
	EVAPORATOR BLOWER MOTOR	TYPE		PERMANENT SPLIT CAPACITOR		SQUIRREL CAGE INDUCTION	
		POWER SUPPLY	V / Ph / Hz	220~240/1/50		380~415/3/50	
		RATED RUNNING CURRENT	A	5.20	4.45	3.70	3.70
		MOTOR OUTPUT	W	800	500	1590	1590
		RATED INPUT	W	1206	1010	2200	2200
		MOTOR POLES		4	4	4	4
	REFRIGERANT	TYPE		R22			
		TYPE OF GAS PRECHARGED		NITROGEN HOLDING			
		EXPANSION CONTROL		THERMOSTATIC EXPANSION VALVE			CAPILARY TUBE
		PIPE CONNECTION		BRAZING			FLARE VALVE
		PIPE SIZE LIQUID	mm (in)	12.70 (1/2)	15.88 (5/8)	15.88 (5/8)	12.70 (1/2)
		PIPE SIZE GAS	mm (in)	25.40 (1)	28.57 (1-1/8)	34.92 (1-3/8)	19.05 (3/4)
		DRAIN PIPE CONNECTION	mm (in)	25.40 (1)			
	AIR FILTER	TYPE		AAF R15			
		SIZE LENGTH x HEIGHT	mm (in)	399 x 385 (15.71 x 15.16)	536 x 385 (21.10 x 15.16)	508 x 581 (20.00 x 22.87)	508 x 581 (20.00 x 22.87)
		SIZE DEPTH	mm (in)	50.8 (2.00)			
		QUANTITY		3			
OUTDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL			
		FINISHING		EPOXY POLYESTER POWDER			
	DIMENSION	HEIGHT (H)	mm (in)	1041 (40.98)	1041 (40.98)	1041 (40.98)	850 (33.46)
		WIDTH (W)	mm (in)	981 (38.62)	981 (38.62)	1083 (42.63)	1030 (40.55)
		DEPTH (D)	mm (in)	981 (38.62)	981 (38.62)	1083 (42.63)	460 (18.11)
	VOLUME		m^3 (ft^3)	1.002 (35.385)	1.002 (35.385)	1.221 (43.119)	0.403 (14.232)
	NET WEIGHT		kg (lb)	170 (374)	184 (405.65)	197 (434.31)	108 (238.10)
	NOISE LEVEL (SOUND POWER)		dBA	79	80	82	76
	CONDENSER COIL	TYPE		CROSS FINNED TUBES			
		TUBE MATERIAL		INNER GROOVE SEAMLESS COPPER			
		TUBE WALL THICKNESS	mm (in)	0.35 (0.013)			
		TUBE OUTER DIAMETER	mm (in)	9.52 (3/8)			
		FIN MATERIAL		ALUMINIUM HYDROPHILIC BLUE FIN			ALUMINIUM
		FIN THICKNESS	mm (in)	0.127 (0.005)			
		NUMBER x ROWS		2 x 1	2 x 2	2 x 2	1 x 3
		FIN PER INCH (FPI)		20	16	16	14
		FACE AREA	m^2 (ft^2)	2.29 (24.65)	2.26 (24.38)	2.54 (27.34)	0.84 (9.08)
		FACE VELOCITY	m/min (FPM)	86.25 (283)	87.47 (287)	111.25 (365)	125.53 (418)
	CONDENSER FAN	TYPE		PROPELLER			
		DRIVE		DIRECT			
		BLADE MATERIAL		ALUMINIUM			
		QUANTITY		1	1	1	1
		BLADE DIAMETER	mm (in)	812.80 (32)	812.80 (32.00)	914.40 (36)	609.6(24)
		AIR FLOW	L/s (CFM)	3304 (7000)	3304 (7000)	4720 (10000)	1794 (3800)
	CONDENSER FAN MOTOR	TYPE		INDUCTION			PERMANENT SPLIT CAPACITOR
		POWER SUPPLY	V / Ph / Hz	380~415/3/50			220~240/1/50
		RATED RUNNING CURRENT	A	1.20	1.20	1.20	1.20
		MOTOR OUTPUT	W	350.00	350.00	560.00	160.00
		RATED INPUT	W	570.00	600.00	820.00	250.00
		MOTOR POLES		10	10	10	6
	COMPRESSOR	TYPE		SCROLL			
		POWER SUPPLY	V / Ph / Hz	380-415/3/50			
		RATED RUNNING CURRENT (COOLING)	A	12.80	15.00	16.40	8.20
		RATED RUNNING CURRENT (HEATING)	A	12.90	15.20	15.00	7.20
		RATED POWER INPUT (COOLING)	W	6379	7970	9172	4825
		RATED POWER INPUT (HEATING)	W	6571	8225	7862	3905
		COMPRESSOR MOTOR OUTPUT	W	6000	7500	8940	-
		MAXIMUM STARTING CURRENT	A	95	125	110	-
		PROTECTION DEVICE		OVERLOAD PROTECTION & AUTO RESET H/L PRESSURE SWITCH			
		STAGE OF CAPACITY CONTROL		ON / OFF			
		STARTER TYPE		DOL			
	REFRIGERANT	TYPE		R22			
		TYPE OF GAS PRECHARGED		NITROGEN HOLDING			
		EXPANSION CONTROL		THERMOSTATIC EXPANSION VALVE			

NOTES :

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO

2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

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

Heatpump models (R22)
Very High Static Motor

MODEL					MDB150ER1	MDB150ER2
		INDOOR UNIT			MDB150ER1	MDB150ER2
		OUTDOOR UNIT			MMC150ER	MMC075ER X 2
TOTAL COOLING CAPACITY				Btu/h	150000	154000
				W	43960	45130
TOTAL HEATING CAPACITY				Btu/h	160000	170000
				W	46890	49820
NOMINAL TOTAL POWER (COOLING)				W	15374	15924
NOMINAL TOTAL POWER (HEATING)				W	13600	16762
NOMINAL TOTAL CURRENT (COOLING)				A	28.0	31.0
NOMINAL TOTAL CURRENT (HEATING)				A	26.1	32.0
INDOOR UNIT	CASING	MATERIAL			ELECTRO GALVANIZED MILD STEEL	
		FINISHING			EPOXY POLYESTER POWDER COATING	
		INSULATION			PE FOAM 10MM THICKNESS	
	DIMENSION	HEIGHT (H)		mm (in)	710 (27.95)	710 (27.95)
		WIDTH (W)		mm (in)	2073 (81.61)	2073 (81.61)
		DEPTH (D)		mm (in)	964 (37.95)	964 (37.95)
	VOLUME			m^3 (ft^3)	1.419 (50.112)	1.419 (50.112)
	NET WEIGHT			kg (lb)	175 (385.81)	175 (385.81)
	NOISE LEVEL (SOUND POWER)			dBA	79	79
	EVAPORATOR COIL	TYPE			CROSS FINNED TUBES	
		TUBE	MATERIAL		SEAMLESS COPPER	
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM	
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)
			ROWS		3	3
			FIN PER INCH (FPI)		14	14
		CAPACITY STEP		%	100-0	100-50-0
		FACE AREA		m^2 (ft^2)	1.06 (11.50)	
		FACE VELOCITY		m/min (FPM)	119.17 (391)	119.17 (391)
	EVAPARATOR BLOWER	TYPE			CENTRIFUGAL	
		DRIVE			BELT DRIVEN	
		BLOWER MATERIAL			ZINC COATED STEEL	
		QUANTITY			1	1
		BLOWER DIAMETER		mm (in)	394.97 (15.55)	394.97 (15.55)
		BLOWER LENGTH		mm (in)	381.00 (15.00)	381.00 (15.00)
		AIR FLOW		L/s (CFM)	2123.8 (4500)	2123.8 (4500)
		EXTERNAL STATIC PRESSURE (DRY COIL)		mm WG (in WG)	25.4 (1)	25.4 (1)
		BLOWER PULLEY DIAMETER		mm (in)	160 (6.30)	160 (6.30)
		MOTOR PULLEY DIAMETER		mm (in)	85 (3.35)	85 (3.35)
		PULLEY		TYPE	1SPZ	1SPZ
		V-BELT		TYPE	SPZ760	SPZ1060
	EVAPORATOR BLOWER MOTOR	TYPE			SQUIRREL CAGE INDUCTION	
		POWER SUPPLY		V / Ph / Hz	380~415/3/50	
		RATED RUNNING CURRENT		A	3.8	3.8
		MOTOR OUTPUT		W	1870	1870
		RATED INPUT		W	2200	2200
		MOTOR POLES			4	4
	REFRIGERANT	TYPE			R22	
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING	
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE	
		PIPE CONNECTION			BRAZING	
		PIPE SIZE	LIQUID	mm (in)	15.88 (5/8)	12.70 (1/2)
			GAS	mm (in)	34.92 (1-3/8)	25.40 (1.00)
		DRAIN PIPE CONNECTION		mm (in)	25.40 (1.00)	25.40 (1.00)
	AIR FILTER	TYPE			AAF R15 WASHABLE VILEDON	
		SIZE	LENGTH x HEIGHT	mm (in)	601 x 581 (23.66 x 22.87)	601 x 581 (23.66 x 22.87)
			DEPTH	mm (in)	50.80 (2.00)	50.80 (2.00)
		QUANTITY			3	3
OUTDOOR UNIT	CASING	MATERIAL			ELECTRO GALVANIZED MILD STEEL	
		FINISHING			EPOXY POLYESTER POWDER	
	DIMENSION	HEIGHT (H)		mm (in)	1142 (44.96)	1041 (40.98)
		WIDTH (W)		mm (in)	1083 (42.63)	981 (38.62)
		DEPTH (D)		mm (in)	1083 (42.63)	981 (38.62)
	VOLUME			m^3 (ft^3)	1.339 (47.286)	1.002 (35.385)
	NET WEIGHT			kg (lb)	268 (590.84)	170 (374.79)
	NOISE LEVEL (SOUND POWER)			dBA	83	79
	CONDENSER COIL	TYPE			CROSS FINNED TUBES	
		TUBE	MATERIAL		INNER GROOVE TUBE	
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM HYDROPHILIC BLUE FIN	
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)
			NUMBER x ROWS		2 x 2	2 x 1
			FIN PER INCH (FPI)		16	20
		FACE AREA		m^2 (ft^2)	2.82 (30.35)	2.29 (24.65)
		FACE VELOCITY		m/min (FPM)	100.27 (329)	86.26 (283)
	CONDENSER FAN	TYPE			PROPELLER	
		DRIVE			DIRECT	
		BLADE MATERIAL			ALUMINIUM	
		QUANTITY			1	1
		BLADE DIAMETER		mm (in)	914.40 (36)	812.80 (32)
		AIR FLOW		L/s (CFM)	4720 (10000)	3304 (7000)
	CONDENSER FAN MOTOR	TYPE			INDUCTION	
		POWER SUPPLY		V / Ph / Hz	380-415/3/50	
		RATED RUNNING CURRENT		A	1.20	1.20
		MOTOR OUTPUT		W	560	350
		RATED INPUT		W	820	570
		MOTOR POLES			10	10
	COMPRESSOR	TYPE			SCROLL	
		POWER SUPPLY		V / Ph / Hz	380-415/3/50	
		RATED RUNNING CURRENT (COOLING)		A	23.00	12.80
		RATED RUNNING CURRENT (HEATING)		A	20.50	12.90
		RATED POWER INPUT (COOLING)		W	12502	6379
		RATED POWER INPUT (HEATING)		W	10261	6571
		COMPRESSOR MOTOR OUTPUT		W	11250	6000
		MAXIMUM STARTING CURRENT		A	198.0	95.0
		PROTECTION DEVICE			OVERLOAD PROTECTION & AUTO RESET H/L PRESSURE SWITCH	
		STAGE OF CAPACITY CONTROL			ON / OFF	
		STARTER TYPE			DOL	
	REFRIGERANT	TYPE			R22	
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING	
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE	

NOTES :
1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO
2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
3) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY MANUFACTURER WITHOUT PRIOR NOTICE.

Heatpump models (R407C)

MODEL		INDOOR UNIT		MDB075ER	MDB100ER	MDB125ER	MDB125ER2
		OUTDOOR UNIT		M4MC075ER	M4MC100ER	M4MC125ER	M4LC061CR x 2
TOTAL COOLING CAPACITY			Btu/h	73000	91000	108000	108000
			W	21400	26670	31650	31650
TOTAL HEATING CAPACITY			Btu/h	81000	109000	124000	112000
			W	23740	31950	36340	32830
NOMINAL TOTAL POWER (COOLING)			W	8024	10610	12100	12030
NOMINAL TOTAL POWER (HEATING)			W	8224	10610	11100	11034
NOMINAL TOTAL CURRENT (COOLING)			A	15.2	18.6	21.6	20.7
NOMINAL TOTAL CURRENT (HEATING)			A	15.2	19.1	20.3	19.8
INDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL			
		FINISHING		EPOXY POLYESTER POWDER COATING			
		INSULATION		PE FOAM 10MM THICKNESS			
	DIMENSION	HEIGHT (H)	mm (in)	507 (19.96)	507 (19.96)	710 (27.95)	710 (27.95)
		WIDTH (W)	mm (in)	1507 (59.33)	1917 (75.47)	1794 (70.62)	1794 (70.62)
		DEPTH (D)	mm (in)	859 (33.81)	859 (33.81)	964 (37.95)	964 (37.95)
	VOLUME		m^3 (ft^3)	0.656 (23.18)	0.835 (28.65)	1.228 (42.14)	
	NET WEIGHT		kg (lb)	95 (209)	120 (264)	155 (341)	155 (341)
	NOISE LEVEL (SOUND POWER)		dBA	73	75	77	77
	EVAPORATOR COIL	TYPE		CROSS FINNED TUBES			
		TUBE	MATERIAL	SEAMLESS COPPER			
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM		
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			ROWS		3	3	3
			FIN PER INCH (FPI)		14	14	14
		CAPACITY STEP		%	100-0	100-0	100-0	10-50-0
		FACE AREA		m^2 (ft^2)	0.53 (5.73)	0.72 (7.75)	0.89 (9.66)	
		FACE VELOCITY		m/min (FPM)	119.48 (392)	117.95 (387)	118.26 (388)	
	EVAPARATOR BLOWER	TYPE			CENTRIFUGAL			
		DRIVE			DIRECT		BELT DRIVEN	
		BLOWER MATERIAL			ZINC COATED STEEL			
		QUANTITY			2	2	1	1
		BLOWER DIAMETER		mm (in)	282.70 (11.13)	282.70 (11.13)	394.97 (15.55)	394.97 (15.55)
		BLOWER LENGTH		mm (in)	203.20 (8.00)	203.20 (8.00)	381.00 (15.00)	381.00 (15.00)
		AIR FLOW		L/s (CFM)	1061.9 (2250)	1415.8 (3000)	1769.8 (3750)	1769.8 (3750)
		EXTERNAL STATIC PRESSURE (DRY COIL)		mm WG (in WG)	10.8 (0.43)	21.5 (0.85)	17.2 (0.68)	17.2 (0.68)
		BLOWER PULLEY DIAMETER		mm (in)	-	-	160 (6.30)	160 (6.30)
		MOTOR PULLEY DIAMETER		mm (in)	-	-	85 (3.35)	85 (3.35)
		PULLEY		TYPE	-	-	1SPZ	1SPZ
		V-BELT		TYPE	-	-	SPZ760	SPZ760
	EVAPORATOR BLOWER MOTOR	TYPE			PERMANENT SPLIT CAPACITOR		SQUIRREL CAGE INDUCTION	
		POWER SUPPLY		V / Ph / Hz	220~240/1/50		380~415/3/50	
		RATED RUNNING CURRENT		A	3.83	4.45	2.90	2.90
		MOTOR OUTPUT		W	375	500	1500	1500
		RATED INPUT		W	754	1010	1420	1420
		MOTOR POLES			6	4	4	4
	REFRIGERANT	TYPE			R407C			
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING			
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE			CAPILARY TUBE
		PIPE CONNECTION			BRAZING			FLARE VALVE
		PIPE SIZE	LIQUID	mm (in)	12.70 (1/2)	15.88 (5/8)	15.88 (5/8)	12.70 (1/2)
			GAS	mm (in)	25.40 (1)	28.57 (1-1/8)	34.92 (1-3/8)	19.05 (3/4)
		DRAIN PIPE CONNECTION		mm (in)	25.40 (1)	25.40 (1.00)	25.40 (1.00)	25.40 (1.00)
	AIR FILTER	TYPE			AAF R15			
		SIZE	LENGTH x HEIGHT	mm (in)	399 x 385 (15.71 x 15.16)	536 x 385 (21.10 x 15.16)	508 x 581 (20.00 x 22.87)	508 x 581 (20.00 x 22.87)
			DEPTH	mm (in)	50.8 (2.00)	50.8 (2.00)	50.80 (2.00)	50.80 (2.00)
		QUANTITY			3	3	3	3
OUTDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL			
		FINISHING		EPOXY POLYESTER POWDER			
	DIMENSION	HEIGHT (H)	mm (in)	1041 (40.98)	1041 (40.98)	1041 (40.98)	850 (33.46)
		WIDTH (W)	mm (in)	981 (38.62)	981 (38.62)	1083 (42.63)	1030 (40.55)
		DEPTH (D)	mm (in)	981 (38.62)	981 (38.62)	1083 (42.63)	460 (18.11)
	VOLUME		m^3 (ft^3)	1.002 (35.385)	1.002 (35.385)	1.221 (43.119)	0.403 (14.232)
	NET WEIGHT		kg (lb)	170 (374)	184 (405.65)	197 (434.31)	108 (238.10)
	NOISE LEVEL (SOUND POWER)		dBA	79	80	82	76
	CONDENSER COIL	TYPE			CROSS FINNED TUBES			
		TUBE	MATERIAL		INNER GROOVE SEAMLESS COPPER			
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM HYDROPHILIC BLUE FIN			ALUMINIUM
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			NUMBER x ROWS		2 x 1	2 x 2	2 x 2	1 x 3
			FIN PER INCH (FPI)		20	16	16	14
		FACE AREA		m^2 (ft^2)	2.29 (24.65)	2.26 (24.38)	2.54 (27.34)	0.84 (9.08)
		FACE VELOCITY		m/min (FPM)	86.25 (283)	87.47 (287)	111.25 (365)	125.53 (418)
	CONDENSER FAN	TYPE			PROPELLER			
		DRIVE			DIRECT			
		BLADE MATERIAL			ALUMINIUM			
		QUANTITY			1	1	1	1
		BLADE DIAMETER		mm (in)	812.80 (32)	812.80 (32)	914.40 (36)	609.6(24)
		AIR FLOW		L/s (CFM)	3304 (7000)	3304 (7000)	4720 (10000)	1794 (3800)
	CONDENSER FAN MOTOR	TYPE			INDUCTION			PERMANENT SPLIT CAPACITOR
		POWER SUPPLY		V / Ph / Hz	380~415/3/50			220~240/1/50
		RATED RUNNING CURRENT		A	1.2	1.2	1.2	1.2
		MOTOR OUTPUT		W	350	350	560	160
		RATED INPUT		W	570	600	820	250
		MOTOR POLES			10	10	10	6
	COMPRESSOR	TYPE			SCROLL			
		POWER SUPPLY		V / Ph / Hz	380-415/3/50			
		RATED RUNNING CURRENT (COOLING)		A	12.7	15.9	17.5	8.5
		RATED RUNNING CURRENT (HEATING)		A	12.7	16.4	16.2	8.1
		RATED POWER INPUT (COOLING)		W	6700	8550	9860	5055
		RATED POWER INPUT (HEATING)		W	6900	9000	8860	4557
		MAXIMUM STARTING CURRENT		A	95	125	118	67
		PROTECTION DEVICE			OVERLOAD PROTECTION & AUTO RESET H/L PRESSURE SWITCH			
		STAGE OF CAPACITY CONTROL			ON / OFF			
		STARTER TYPE			DOL			
	REFRIGERANT	TYPE			R407C			
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING			
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE			

NOTES :

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO

2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

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

Heatpump models (R407C)

MODEL			INDOOR UNIT		MDB150ER1	MDB150ER2	MDB200ER2
			OUTDOOR UNIT		M4MC150ER	M4MC075ER X 2	M4MC100ER X 2
TOTAL COOLING CAPACITY				Btu/h	145000	146000	182000
				W	42500	42790	53340
TOTAL HEATING CAPACITY				Btu/h	150000	162000	218000
				W	43960	47480	63890
NOMINAL TOTAL POWER (COOLING)				W	16239	16280	21030
NOMINAL TOTAL POWER (HEATING)				W	14060	16680	21930
NOMINAL TOTAL CURRENT (COOLING)				A	28.4	31.1	39.2
NOMINAL TOTAL CURRENT (HEATING)				A	25.8	31.1	40.2
INDOOR UNIT	CASING		MATERIAL		ELECTRO GALVANIZED MILD STEEL		
			FINISHING		EPOXY POLYESTER POWDER COATING		
			INSULATION		PE FOAM 10MM THICKNESS		
	DIMENSION		HEIGHT (H)	mm (in)	710 (27.95)	710 (27.95)	945 (37.20)
			WIDTH (W)	mm (in)	2073 (81.61)	2073 (81.61)	1894 (74.56)
			DEPTH (D)	mm (in)	964 (37.95)	964 (37.95)	980 (38.58)
	VOLUME			m^3 (ft^3)	1.419 (50.112)	1.419 (50.112)	1.754 (61.942)
	NET WEIGHT			kg (lb)	175 (385.81)	175 (385.81)	220 (485.02)
	NOISE LEVEL (SOUND POWER)			dBA	79	79	85
	EVAPORATOR COIL	TYPE			CROSS FINNED TUBES		
		TUBE	MATERIAL		SEAMLESS COPPER		
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM		
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			ROWS		3	3	4
			FIN PER INCH (FPI)		14	14	12
		CAPACITY STEP		%	100-0	100-50-0	100-50-0
		FACE AREA		m^2 (ft^2)	1.06 (11.50)		1.20 (12.92)
		FACE VELOCITY		m/min (FPM)	119.17 (391)	119.17 (391)	150.88 (495)
	EVAPARATOR BLOWER	TYPE			CENTRIFUGAL		
		DRIVE			BELT DRIVEN		
		BLOWER MATERIAL			ZINC COATED STEEL		
		QUANTITY			1	1	1
		BLOWER DIAMETER		mm (in)	394.97 (15.55)	394.97 (15.55)	394.97 (15.55)
		BLOWER LENGTH		mm (in)	381.00 (15.00)	381.00 (15.00)	381.00 (15.00)
		AIR FLOW		L/s (CFM)	2123.8 (4500)	2123.8 (4500)	3020.5 (6400)
		EXTERNAL STATIC PRESSURE (DRY COIL)		mm WG (in WG)	17.2 (0.67)	17.2 (0.67)	18.0 (0.71)
		BLOWER PULLEY DIAMETER		mm (in)	160 (6.30)	160 (6.30)	140 (5.51)
		MOTOR PULLEY DIAMETER		mm (in)	85 (3.35)	85 (3.35)	80 (3.15)
		PULLEY		TYPE	1SPZ	1SPZ	2SPZ
		V-BELT		TYPE	SPZ760	SPZ1060	SPZ1010
	EVAPORATOR BLOWER MOTOR	TYPE			SQUIRREL CAGE INDUCTION		
		POWER SUPPLY		V / Ph / Hz	380~415/3/50		
		RATED RUNNING CURRENT		A	3.30	3.30	5.00
		MOTOR OUTPUT		W	1500.00	1500.00	3000.00
		RATED INPUT		W	1740.00	1740.00	2730.00
		MOTOR POLES			4	4	4
	REFRIGERANT	TYPE			R407C		
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING		
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE		
		PIPE CONNECTION			BRAZING		
		PIPE SIZE	LIQUID	mm (in)	15.88 (5/8)	12.70 (1/2)	15.88 (5/8)
			GAS	mm (in)	34.92 (1-3/8)	25.40 (1.00)	28.58 (1-1/8)
		DRAIN PIPE CONNECTION		mm (in)	25.40 (1.00)	25.40 (1.00)	25.40 (1.00)
	AIR FILTER	TYPE			AAF R15 WASHABLE VILEDON		AAF R29 WASHABLE VILEDON
		SIZE	LENGTH x HEIGHT	mm (in)	601 x 581 (23.66 x 22.87)	601 x 581 (23.66 x 22.87)	543 x 738 (21.38 x 29.06)
			DEPTH	mm (in)	50.80 (2.00)	50.80 (2.00)	50.80 (2.00)
		QUANTITY			3	3	3
OUTDOOR UNIT	CASING		MATERIAL		ELECTRO GALVANIZED MILD STEEL		
			FINISHING		EPOXY POLYESTER POWDER		
	DIMENSION		HEIGHT (H)	mm (in)	1142 (44.96)	1041 (40.98)	1041 (40.98)
			WIDTH (W)	mm (in)	1083 (42.63)	981 (38.62)	981 (38.62)
			DEPTH (D)	mm (in)	1083 (42.63)	981 (38.62)	981 (38.62)
	VOLUME			m^3 (ft^3)	1.339 (47.286)	1.002 (35.385)	1.002 (35.385)
	NET WEIGHT			kg (lb)	268 (590.84)	170 (374.79)	184 (405.65)
	NOISE LEVEL (SOUND POWER)			dBA	83	79	80
	CONDENSER COIL	TYPE			CROSS FINNED TUBES		
		TUBE	MATERIAL		INNER GROOVE TUBE		
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM HYDROPHILIC BLUE FIN		
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			NUMBER x ROWS		2 x 2	2 x 1	2 x 2
			FIN PER INCH (FPI)		16	20	16
		FACE AREA		m^2 (ft^2)	2.82 (30.35)	2.29 (24.65)	2.26 (24.33)
		FACE VELOCITY		m/min (FPM)	100.27 (329)	86.26 (283)	287 (87.48)
	CONDENSER FAN	TYPE			PROPELLER		
		DRIVE			DIRECT		
		BLADE MATERIAL			ALUMINIUM		
		QUANTITY			1	1	1
		BLADE DIAMETER		mm (in)	914.40 (36)	812.80 (32)	812.80 (32)
		AIR FLOW		L/s (CFM)	4720 (10000)	3304 (7000)	3304 (7000)
	CONDENSER FAN MOTOR	TYPE			INDUCTION		
		POWER SUPPLY		V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT		A	1.2	1.2	1.2
		MOTOR OUTPUT		W	560	350	350
		RATED INPUT		W	820	570	600
		MOTOR POLES			10	10	10
	COMPRESSOR	TYPE			SCROLL		
		POWER SUPPLY		V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT (COOLING)		A	23.9	12.7	15.9
		RATED RUNNING CURRENT (HEATING)		A	21.3	12.7	16.4
		RATED POWER INPUT (COOLING)		W	13679	6700	8550
		RATED POWER INPUT (HEATING)		W	11500	6900	9000
		MAXIMUM STARTING CURRENT		A	198.0	95.0	125.0
		PROTECTION DEVICE			OVERLOAD PROTECTION & AUTO RESET H/L PRESSURE SWITCH		
		STAGE OF CAPACITY CONTROL			ON / OFF		
		STARTER TYPE			DOL		
	REFRIGERANT	TYPE			R407C		
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING		
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE		

NOTES :

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO

2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

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

Heatpump models (R407C)

MODEL		INDOOR UNIT		MDB250ER2	MDB300ER2	MDB300ER3
		OUTDOOR UNIT		M4MC125ER X 2	M4MC150ER X 2	M4MC100ER X 3
TOTAL COOLING CAPACITY			Btu/h	216000	290000	273000
			W	63310	84990	80010
TOTAL HEATING CAPACITY			Btu/h	248000	300000	327000
			W	72680	87920	95840
NOMINAL TOTAL POWER (COOLING)			W	24730	32998	31450
NOMINAL TOTAL POWER (HEATING)			W	22730	28640	32800
NOMINAL TOTAL CURRENT (COOLING)			A	43.7	57.3	58.4
NOMINAL TOTAL CURRENT (HEATING)			A	41.1	52.0	59.9
INDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL		
		FINISHING		EPOXY POLYESTER POWDER COATING		
		INSULATION		PE INSULATION 10MM THICKNESS		
	DIMENSION	HEIGHT (H)	mm (in)	1291 (50.82)	1291 (50.82)	1291 (50.82)
		WIDTH (W)	mm (in)	1866 (73.46)	1866 (73.46)	1866 (73.46)
		DEPTH (D)	mm (in)	1199 (47.20)	1199 (47.20)	1199 (47.20)
	VOLUME		m^3 (ft^3)	2.888 (101.990)	2.888 (101.990)	2.888 (101.990)
	NET WEIGHT		kg (lb)	343 (756.18)	343 (756.18)	343 (756.18)
	NOISE LEVEL (SOUND POWER)		dBA	87	89	89
	EVAPORATOR COIL	TYPE		CROSS FINNED TUBES		
		TUBE MATERIAL		PLAIN TUBE		
		TUBE WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
		TUBE OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN MATERIAL		ALUMINIUM		
		FIN THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
		ROWS		4	5	5
		FIN PER INCH (FPI)		14	12	12
		CAPACITY STEP	%	100-50-0	100-50-0	100-67-33-0
		FACE AREA	m^2 (ft^2)	1.48 (15.93)	1.62 (17.44)	1.62 (17.44)
		FACE VELOCITY	m/min (FPM)	500 (152.40)	514 (156.67)	514 (156.67)
	EVAPARATOR BLOWER	TYPE		CENTRIFUGAL		
		DRIVE		BELT DRIVEN		
		BLOWER MATERIAL		ZINC COATED STEEL		
		QUANTITY		1	1	1
		BLOWER DIAMETER	mm (in)	469.90 (18.50)	469.90 (18.50)	469.90 (18.50)
		BLOWER LENGTH	mm (in)	459.99 (18.11)	459.99 (18.11)	459.99 (18.11)
		AIR FLOW	L/s (CFM)	3775.6 (8000)	4247.5 (9000)	4247.5 (9000)
		EXTERNAL STATIC PRESSURE (DRY COIL)	mm WG (in WG)	42.0 (1.65)	36.0 (1.42)	36.0 (1.42)
		BLOWER PULLEY DIAMETER	mm (in)	180 (7.09)	180 (7.09)	180 (7.09)
		MOTOR PULLEY DIAMETER	mm (in)	90 (3.54)	95 (3.74)	95 (3.74)
		PULLEY	TYPE	2SPZ	2SPZ	2SPZ
		V-BELT	TYPE	SPZ1700	SPZ1700	SPZ1700
	EVAPORATOR BLOWER MOTOR	TYPE		SQUIRREL CAGE INDUCTION		
		POWER SUPPLY	V / Ph / Hz	380~415/3/50		
		RATED RUNNING CURRENT	A	6.30	7.10	7.10
		MOTOR OUTPUT	W	4000.00	4000.00	4000.00
		RATED INPUT	W	3370.00	4000.00	4000.00
		MOTOR POLES		4	4	4
	REFRIGERANT	TYPE		R407C		
		TYPE OF GAS PRECHARGED		NITROGEN HOLDING		
		EXPANSION CONTROL		THERMOSTATIC EXPANSION VALVE		
		PIPE CONNECTION		BRAZING		
		PIPE SIZE LIQUID	mm (in)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
		PIPE SIZE GAS	mm (in)	34.92 (1-3/8)	34.92 (1-3/8)	28.58 (1-1/8)
		DRAIN PIPE CONNECTION	mm (in)	25.40 (1.00)	25.40 (1.00)	25.40 (1.00)
	AIR FILTER	TYPE		AAF R29 WASHABLE VILEDON		
		SIZE LENGTH x HEIGHT	mm (in)	534 x 529 (21.0 x 20.8)		
		SIZE DEPTH	mm (in)	50.80 (2.00)	50.80 (2.00)	50.80 (2.00)
		QUANTITY		6	6	6
OUTDOOR UNIT	CASING	MATERIAL		ELECTRO GALVANIZED MILD STEEL		
		FINISHING		EPOXY POLYESTER POWDER		
	DIMENSION	HEIGHT (H)	mm (in)	1041 (40.98)	1142 (44.96)	1041 (40.98)
		WIDTH (W)	mm (in)	1083 (42.63)	1083 (42.63)	981 (38.62)
		DEPTH (D)	mm (in)	1083 (42.63)	1083 (42.63)	981 (38.62)
	VOLUME		m^3 (ft^3)	1.221 (43.119)	1.339 (47.286)	1.002 (35.385)
	NET WEIGHT		kg (lb)	197 (434.31)	268 (590.84)	184 (405.65)
	NOISE LEVEL (SOUND POWER)		dBA	82	83	80
	CONDENSER COIL	TYPE		CROSS FINNED TUBES		
		TUBE MATERIAL		INNER GROOVE TUBE		
		TUBE WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
		TUBE OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN MATERIAL		ALUMINIUM HYDROPHILIC BLUE FIN		
		FIN THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
		NUMBER x ROWS		2 x 2	2 x 2	2 x 2
		FIN PER INCH (FPI)		16	16	16
		FACE AREA	m^2 (ft^2)	2.54 (27.34)	2.82 (30.35)	2.26 (24.33)
		FACE VELOCITY	m/min (FPM)	365 (111.25)	329 (100.28)	287 (87.48)
	CONDENSER FAN	TYPE		PROPELLER		
		DRIVE		DIRECT		
		BLADE MATERIAL		ALUMINIUM		
		QUANTITY		1	1	1
		BLADE DIAMETER	mm (in)	914.40 (36)	914.40 (36)	812.80 (32)
		AIR FLOW	L/s (CFM)	10000 (4720)	10000 (4720)	7000 (3304)
	CONDENSER FAN MOTOR	TYPE		INDUCTION		
		POWER SUPPLY	V / Ph / Hz	380~415/3/50		
		RATED RUNNING CURRENT	A	1.2	1.2	1.2
		MOTOR OUTPUT	W	560	560	350
		RATED INPUT	W	820	820	600
		MOTOR POLES		10	10	10
	COMPRESSOR	TYPE		SCROLL		
		POWER SUPPLY	V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT (COOLING)	A	17.5	23.9	15.9
		RATED RUNNING CURRENT (HEATING)	A	16.2	21.3	16.4
		RATED POWER INPUT (COOLING)	W	9860	13679	8550
		RATED POWER INPUT (HEATING)	W	8860	11500	9000
		MAXIMUM STARTING CURRENT	A	118.0	198.0	125.0
		PROTECTION DEVICE		OVERLOAD PROTECTION & AUTO RESET H/L PRESSURE SWITCH		
		STAGE OF CAPACITY CONTROL		ON / OFF		
		STARTER TYPE		DOL		
	REFRIGERANT	TYPE		R407C		
		TYPE OF GAS PRECHARGED		NITROGEN HOLDING		
		EXPANSION CONTROL		THERMOSTATIC EXPANSION VALVE		

NOTES :

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO

2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

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

Heatpump models (R407C)

MODEL		**INDOOR UNIT**		**MDB350ER3**		**MDB400ER4**
		OUTDOOR UNIT		**M4MC100ER + M4MC125ER X 2**		**M4MC100ER X 4**
TOTAL COOLING CAPACITY			Btu/h	307000		364000
			W	89980		106680
TOTAL HEATING CAPACITY			Btu/h	357000		436000
			W	104630		127780
NOMINAL TOTAL POWER (COOLING)			W	35020		41435
NOMINAL TOTAL POWER (HEATING)			W	33470		43235
NOMINAL TOTAL CURRENT (COOLING)			A	62.9		77.1
NOMINAL TOTAL CURRENT (HEATING)			A	60.8		79.1
INDOOR UNIT	**CASING**	**MATERIAL**		ELECTRO GALVANIZED MILD STEEL		
		FINISHING		EPOXY POLYESTER POWDER COATING		
		INSULATION		PE INSULATION 10MM THICKNESS		
	DIMENSION	**HEIGHT (H)**	mm (in)	1546 (60.86)		1546 (60.86)
		WIDTH (W)	mm (in)	2122 (83.54)		2274 (89.52)
		DEPTH (D)	mm (in)	1199 (47.20)		1466 (57.71)
	VOLUME		m^3 (ft^3)	3.933 (138.890)		5.154 (182.010)
	NET WEIGHT		kg (lb)	440 (970.03)		513 (1130.97)
	NOISE LEVEL (SOUND POWER)		dBA	92		90
	EVAPORATOR COIL	**TYPE**		CROSS FINNED TUBES		
		TUBE **MATERIAL**		PLAIN TUBE		
		WALL THICKNESS	mm (in)	0.35 (0.013)		0.35 (0.013)
		OUTER DIAMETER	mm (in)	9.52 (3/8)		9.52 (3/8)
		FIN **MATERIAL**		ALUMINIUM		
		THICKNESS	mm (in)	0.127 (0.005)		0.127 (0.005)
		ROWS		4		4
		FIN PER INCH (FPI)		12		14
		CAPACITY STEP	%	100-67-33-0		100-75-50-25-0
		FACE AREA	m^2 (ft^2)	2.38 (25.62)		2.38 (25.62)
		FACE VELOCITY	m/min (FPM)	410 (124.97)		468 (142.65)
	EVAPARATOR BLOWER	**TYPE**		CENTRIFUGAL		
		DRIVE		BELT DRIVEN		
		BLOWER MATERIAL		ZINC COATED STEEL		
		QUANTITY		1		1
		BLOWER DIAMETER	mm (in)	469.90 (18.50)		591.82 (23.30)
		BLOWER LENGTH	mm (in)	459.99 (18.11)		563.88 (22.20)
		AIR FLOW	L/s (CFM)	4955.4 (10500)		5663.4 (12000)
		EXTERNAL STATIC PRESSURE (DRY COIL)	mm WG (in WG)	29.5 (1.16)		36.00 (1.41)
		BLOWER PULLEY DIAMETER	mm (in)	250 (9.84)		250 (9.84)
		MOTOR PULLEY DIAMETER	mm (in)	125 (4.92)		106 (4.17)
		PULLEY	TYPE	2SPZ		2SPA
		V-BELT	TYPE	SPZ2360		SPA2160
	EVAPORATOR BLOWER MOTOR	**TYPE**		SQUIRREL CAGE INDUCTION		
		POWER SUPPLY	V / Ph / Hz	380~415/3/50		
		RATED RUNNING CURRENT	A	8.40		8.70
		MOTOR OUTPUT	W	5500.00		5500.00
		RATED INPUT	W	4510.00		4835.00
		MOTOR POLES		4		4
	REFRIGERANT	**TYPE**		R407C		
		TYPE OF GAS PRECHARGED		NITROGEN HOLDING		
		EXPANSION CONTROL		THERMOSTATIC EXPANSION VALVE		
		PIPE CONNECTION		BRAZING		
		PIPE SIZE **LIQUID**	mm (in)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
		GAS	mm (in)	28.58 (1-1/8)	34.92 (1-3/8)	28.58 (1-1/8)
		DRAIN PIPE CONNECTION	mm (in)	25.40 (1.00)	25.40 (1.00)	25.40 (1.00)
	AIR FILTER	**TYPE**		AAF R29 WASHABLE VILEDON		
		SIZE **LENGTH x HEIGHT**	mm (in)	619 x 657		670 x 657
		DEPTH	mm (in)	50.80 (2.00)		50.80 (2.00)
		QUANTITY		6		6
OUTDOOR UNIT	**CASING**	**MATERIAL**		ELECTRO GALVANIZED MILD STEEL		
		FINISHING		EPOXY POLYESTER POWDER		
	DIMENSION	**HEIGHT (H)**	mm (in)	1041 (40.98)	1041 (40.98)	1041 (40.98)
		WIDTH (W)	mm (in)	981 (38.62)	1083 (42.63)	981 (38.62)
		DEPTH (D)	mm (in)	981 (38.62)	1083 (42.63)	981 (38.62)
	VOLUME		m^3 (ft^3)	1.002 (35.385)	1.221 (43.119)	1.002 (35.385)
	NET WEIGHT		kg (lb)	184 (405.65)	197 (434.31)	184 (405.65)
	NOISE LEVEL (SOUND POWER)		dBA	80	82	80
	CONDENSER COIL	**TYPE**		CROSS FINNED TUBES		
		TUBE **MATERIAL**		INNER GROOVE TUBE		
		WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
		OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN **MATERIAL**		ALUMINIUM HYDROPHILIC BLUE FIN		
		THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
		NUMBER x ROWS		2 x 2	2 x 2	2 x 2
		FIN PER INCH (FPI)		16	16	16
		FACE AREA	m^2 (ft^2)	2.26 (24.33)	2.54 (27.34)	2.26 (24.33)
		FACE VELOCITY	m/min (FPM)	287 (87.48)	365 (111.25)	287 (87.48)
	CONDENSER FAN	**TYPE**		PROPELLER		
		DRIVE		DIRECT		
		BLADE MATERIAL		ALUMINIUM		
		QUANTITY		1	1	1
		BLADE DIAMETER	mm (in)	812.80 (32.00)	914.40 (36.00)	812.80 (32.00)
		AIR FLOW	L/s (CFM)	7000 (3304)	10000 (4720)	7000 (3304)
	CONDENSER FAN MOTOR	**TYPE**		INDUCTION		
		POWER SUPPLY	V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT	A	1.2	1.2	1.2
		MOTOR OUTPUT	W	350	560	350
		RATED INPUT	W	600	820	600
		MOTOR POLES		10	10	10
	COMPRESSOR	**TYPE**		SCROLL		
		POWER SUPPLY	V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT (COOLING)	A	15.9	17.5	15.9
		RATED RUNNING CURRENT (HEATING)	A	16.4	16.2	16.4
		RATED POWER INPUT (COOLING)	W	8550	9860	8550
		RATED POWER INPUT (HEATING)	W	9000	8860	9000
		MAXIMUM STARTING CURRENT	A	125.0	110.0	125.0
		PROTECTION DEVICE		OVERLOAD PROTECTION & AUTO RESET H/L PRESSURE SWITCH		
		STAGE OF CAPACITY CONTROL		ON / OFF		
		STARTER TYPE		DOL		
	REFRIGERANT	**TYPE**		R407C		
		TYPE OF GAS PRECHARGED		NITROGEN HOLDING		
		EXPANSION CONTROL		THERMOSTATIC EXPANSION VALVE		

NOTES :

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO

2) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR

HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR

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

Heatpump models (R407C)

MODEL			INDOOR UNIT		MDB450ER3	MDB500ER4	MDB600ER4
			OUTDOOR UNIT		M4MC150ER X 3	M4MC125ER X 4	M4MC150ER X 4
TOTAL COOLING CAPACITY				Btu/h	432000	435000	580000
				W	126610	127490	169990
TOTAL HEATING CAPACITY				Btu/h	450000	496000	600000
				W	131890	145370	175850
NOMINAL TOTAL POWER (COOLING)				W	50817	50755	70896
NOMINAL TOTAL POWER (HEATING)				W	44280	46755	62180
NOMINAL TOTAL CURRENT (COOLING)				A	87.9	89.5	121.9
NOMINAL TOTAL CURRENT (HEATING)				A	79.9	84.3	111.3
INDOOR UNIT	CASING		MATERIAL		ELECTRO GALVANIZED MILD STEEL		
			FINISHING		EPOXY POLYESTER POWDER COATING		
			INSULATION		PE INSULATION 10MM THICKNESS		
	DIMENSION		HEIGHT (H)	mm (in)	1546 (60.86)	1546 (60.86)	1977 (77.83)
			WIDTH (W)	mm (in)	2274 (89.52)	2274 (89.52)	2274 (89.52)
			DEPTH (D)	mm (in)	1466 (57.71)	1466 (57.71)	1905 (75.00)
	VOLUME			m^3 (ft^3)	5.154 (182.010)	5.154 (182.010)	8.564 (302.430)
	NET WEIGHT			kg (lb)	564 (1243.41)	606 (1336.00)	991 (2184.78)
	NOISE LEVEL (SOUND POWER)			dBA	93	96	89
	EVAPORATOR COIL	TYPE			CROSS FINNED TUBES		
		TUBE	MATERIAL		PLAIN TUBE		
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM		
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			ROWS		4	5	6
			FIN PER INCH (FPI)		14	12	12
		CAPACITY STEP		%	100-67-33-0	100-75-50-25-0	100-75-50-25-0
		FACE AREA		m^2 (ft^2)	2.58 (27.77)	2.55 (27.45)	3.37 (36.27)
		FACE VELOCITY		m/min (FPM)	485 (147.83)	546 (166.42)	495 (150.88)
	EVAPARATOR BLOWER	TYPE			CENTRIFUGAL		
		DRIVE			BELT DRIVEN		
		BLOWER MATERIAL			ZINC COATED STEEL		
		QUANTITY			1	1	1
		BLOWER DIAMETER		mm (in)	591.82 (23.30)	591.82 (23.30)	785.00 (30.91)
		BLOWER LENGTH		mm (in)	563.88 (22.20)	563.88 (22.20)	706.00 (27.80)
		AIR FLOW		L/s (CFM)	6371.3 (13500)	7079.2 (15000)	8495.1 (18000)
		EXTERNAL STATIC PRESSURE (DRY COIL)		mm WG (in WG)	38.0 (1.50)	41.0 (1.61)	53.0 (2.09)
		BLOWER PULLEY DIAMETER		mm (in)	250 (9.84)	315 (24.21)	400 (15.75)
		MOTOR PULLEY DIAMETER		mm (in)	112 (4.41)	150 (5.91)	132 (5.20)
		PULLEY		TYPE	2SPA	2SPA	3SPA
		V-BELT		TYPE	SPA2160	SPA2270	3SPA1850
	EVAPORATOR BLOWER MOTOR	TYPE			SQUIRREL CAGE INDUCTION		
		POWER SUPPLY		V / Ph / Hz	380~415/3/50		
		RATED RUNNING CURRENT		A	12.5	14.7	21.4
		MOTOR OUTPUT		W	7500	11000	11000
		RATED INPUT		W	7320	8035	12900
		MOTOR POLES			4	4	4
	REFRIGERANT	TYPE			R407C		
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING		
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE		
		PIPE CONNECTION			BRAZING		
		PIPE SIZE	LIQUID	mm (in)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
			GAS	mm (in)	34.92 (1-3/8)	34.92 (1-3/8)	34.92 (1-3/8)
		DRAIN PIPE CONNECTION		mm (in)	25.40 (1.00)	25.40 (1.00)	25.40 (1.00)
	AIR FILTER	TYPE			AAF R29 WASHABLE VILEDON		
		SIZE	LENGTH x HEIGHT	mm (in)	670 x 657 (26.4 x 25.9)		670 x 577 (26.4 x 22.7)
			DEPTH	mm (in)	50.80 (2.00)	50.80 (2.00)	50.80 (2.00)
		QUANTITY			6	6	6
OUTDOOR UNIT	CASING		MATERIAL		ELECTRO GALVANIZED MILD STEEL		
			FINISHING		EPOXY POLYESTER POWDER		
	DIMENSION		HEIGHT (H)	mm (in)	1142 (44.96)	1041 (40.98)	1142 (44.96)
			WIDTH (W)	mm (in)	1083 (42.63)	981 (38.62)	1083 (42.63)
			DEPTH (D)	mm (in)	1083 (42.63)	981 (38.62)	1083 (42.63)
	VOLUME			m^3 (ft^3)	1.339 (47.286)	1.002 (35.385)	1.339 (47.286)
	NET WEIGHT			kg (lb)	268 (590.84)	184 (405.65)	268 (590.84)
	NOISE LEVEL (SOUND POWER)			dBA	83	82	83
	CONDENSER COIL	TYPE			CROSS FINNED TUBES		
		TUBE	MATERIAL		INNER GROOVE TUBE		
			WALL THICKNESS	mm (in)	0.35 (0.013)	0.35 (0.013)	0.35 (0.013)
			OUTER DIAMETER	mm (in)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
		FIN	MATERIAL		ALUMINIUM HYDROPHILIC BLUE FIN		
			THICKNESS	mm (in)	0.127 (0.005)	0.127 (0.005)	0.127 (0.005)
			NUMBER x ROWS		2 x 2	2 x 2	2 x 2
			FIN PER INCH (FPI)		16	16	16
		FACE AREA		m^2 (ft^2)	2.82 (30.35)	2.26 (24.33)	2.82 (30.35)
		FACE VELOCITY		m/min (FPM)	329 (100.28)	287 (87.48)	329 (100.28)
	CONDENSER FAN	TYPE			PROPELLER		
		DRIVE			DIRECT		
		BLADE MATERIAL			ALUMINIUM		
		QUANTITY			1	1	1
		BLADE DIAMETER		mm (in)	914.40 (36)	812.80 (32)	914.40 (36)
		AIR FLOW		L/s (CFM)	10000 (4720)	7000 (3304)	10000 (4720)
	CONDENSER FAN MOTOR	TYPE			INDUCTION		
		POWER SUPPLY		V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT		A	1.2	1.2	1.2
		MOTOR OUTPUT		W	560	350	560
		RATED INPUT		W	820	600	820
		MOTOR POLES			10	10	10
	COMPRESSOR	TYPE			SCROLL		
		POWER SUPPLY		V / Ph / Hz	380-415/3/50		
		RATED RUNNING CURRENT (COOLING)		A	23.9	17.5	23.9
		RATED RUNNING CURRENT (HEATING)		A	21.3	16.2	21.3
		RATED POWER INPUT (COOLING)		W	13679	9860	13679
		RATED POWER INPUT (HEATING)		W	11500	8860	11500
		MAXIMUM STARTING CURRENT		A	198.0	118.0	198.0
		PROTECTION DEVICE			OVERLOAD PROTECTION & AURO RESET H/L PRESSURE SWITCH		
		STAGE OF CAPACITY CONTROL			ON / OFF		
		STARTER TYPE			DOL		
	REFRIGERANT	TYPE			R407C		
		TYPE OF GAS PRECHARGED			NITROGEN HOLDING		
		EXPANSION CONTROL			THERMOSTATIC EXPANSION VALVE		

NOTES :

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Performance Table

Interpolation and *Extrapolation* method can be used to get the total capacity, Q and sensible capacity, SC at those temperatures which are not stated out in the table.

Example:

Model: MDB075ER / MMC075ER
Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 37°C DB

Solution:

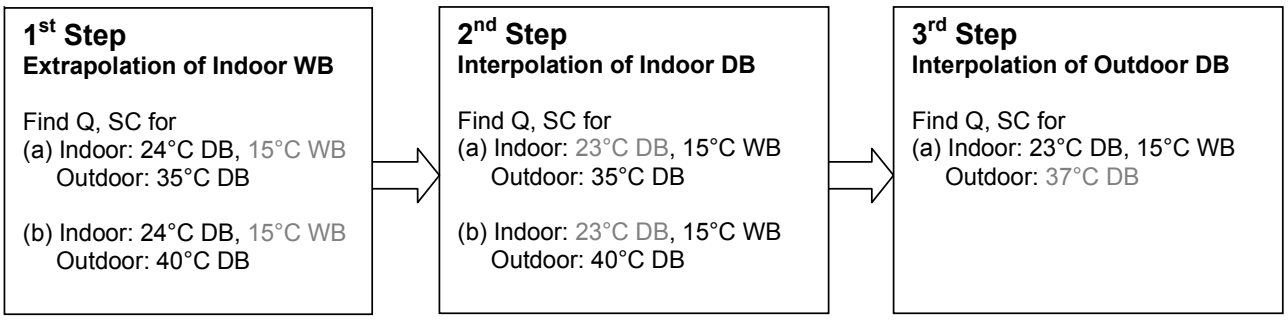
Overall
Based on the Performance table of MDB075ER / MMC075ER

1. Refer to the Indoor DB column,
   - **23°C** is located between 20°C and 24°C (Thus, Interpolation need to be applied)

2. Refer to the Indoor WB column,
   - **15°C** only available in the case of Indoor DB = 20°C. (Thus, Extrapolation between 16°C WB and 17°C WB during 24°C indoor DB is required)

3. Refer to the Outdoor DB column,
   - **37°C** is located between 35°C and 40°C. (Thus, Interpolation need to be applied)

Please follow the steps below in order to get the required capacity.



Details:

1st Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 24°C DB, 15°C WB

Outdoor Condition: 35°C DB

Indoor DB ° C	Indoor WB ° C	Outdoor DB ° C			
			35		
			Q (kW)	SC (kW)	
			⋮	⋮	
24	15		x_1	y_1	
	16		21.223	15.212	
	17		21.758	14.322	

Total capacity, Q

$\Rightarrow$ x_1 = 20.688kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 35°C Outdoor WB)**

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17°C - 15°C}{17°C - 16°C} = \frac{14.322kW - y_1}{14.322kW - 15.212kW}$$

$\Rightarrow$ y_1 = 16.102kW

(b) Indoor Condition: 24°C DB, 15°C WB

Outdoor Condition: 40°C DB

Indoor DB ° C	Indoor WB ° C	Outdoor DB ° C			
			40		
			Q (kW)	SC (kW)	
			⋮	⋮	
24	15		x_2	y_2	
	16		19.471	13.583	
	17		19.982	12.728	

Total capacity, Q

$\Rightarrow$ x_2 = 18.961kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 40°C Outdoor WB)**

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17°C - 15°C}{17°C - 16°C} = \frac{12.728kW - y_2}{12.728kW - 13.583kW}$$

$\Rightarrow$ y_2 = 14.438kW

***** *This is due to 2 different conditions with same WB temperature, will have the same level of enthalpy. For more details, please refer to psychrometrics chart*

2nd Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 35°C DB

Indoor DB ° C	Indoor WB ° C	Outdoor DB ° C			
			35		
			Q (kW)	SC (kW)	
20	**15**		20.688	11.625	
23	**15**		x_3	y_3	
24	**15**		20.688	16.102	

Total capacity, Q

$\Rightarrow$ x_3 = 20.688kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 35°C Outdoor WB)**

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24°C - 20°C}{24°C - 23°C} = \frac{16.102kW - 11.625kW}{16.102kW - y_3}$$

$\Rightarrow$ y_3 = 14.983kW

(b) Indoor Condition: 23°C DB, 15°C WB

Outdoor Condition: 40°C DB

Indoor DB ° C	Indoor WB ° C	Outdoor DB ° C			
			40		
			Q (kW)	SC (kW)	
20	**15**		18.961	9.963	
23	**15**		x_4	y_4	
24	**15**		18.961	14.438	

Total capacity, Q

$\Rightarrow$ x_4 = 18.961kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 40°C Outdoor WB)**

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24°C - 20°C}{24°C - 23°C} = \frac{14.438kW - 9.963kW}{14.438kW - y_4}$$

$\Rightarrow$ y_4 = 13.319kW

** This is due to 2 different conditions with same WB temperature will have the same level of enthalpy. For more details, please refer to psychrometrics chart*

3rd Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 23°C DB, 15°C WB

Outdoor Condition: 37°C DB

Indoor DB ° C	Indoor WB ° C		Outdoor DB ° C					
			35		37		40	
			Q (kW)	SC (kW)	Q (kW)	SC (kW)	Q (kW)	SC (kW)
24	**15**		20.688	14.983	**x**	**y**	18.961	13.319

Total capacity, Q

Interpolation Method:

$$\Rightarrow \frac{40°C - 35°C}{40°C - 37°C} = \frac{18.961kW - 20.688kW}{18.961kW - x}$$

$$\Rightarrow x = 19.997kW$$

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{40°C - 35°C}{40°C - 37°C} = \frac{13.319kW - 14.983kW}{13.319kW - y}$$

$$\Rightarrow y = 14.317kW$$

R22
MDB ~ ER Series (Cooling Mode)
Model : MDB075ER ~ MMC075ER

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	25.869	16.613	24.142	14.951	22.415	13.288	20.688	11.625	18.961	9.963	16.889	7.968
	16	26.479	15.622	24.727	13.994	22.975	12.365	21.223	10.736	19.471	9.108	17.369	7.153
24	16	26.479	20.098	24.727	18.469	22.975	16.840	21.223	15.212	19.471	13.583	17.369	11.628
	17	27.089	19.107	25.312	17.512	23.535	15.917	21.758	14.322	19.982	12.728	17.850	10.814
	18	27.698	18.116	25.897	16.555	24.095	14.994	22.293	13.433	20.492	11.872	18.330	9.999
	19	28.308	17.125	26.481	15.598	24.655	14.071	22.828	12.544	21.002	11.017	18.810	9.184
	20	28.921	16.141	27.102	14.700	25.282	13.260	23.463	11.819	21.644	10.379	19.460	8.650
28	18	27.698	22.591	25.897	21.030	24.095	19.469	22.293	17.908	20.492	16.347	18.330	14.474
	19	28.308	21.601	26.481	20.073	24.655	18.546	22.828	17.019	21.002	15.492	18.810	13.660
	20	28.921	20.616	27.102	19.176	25.282	17.735	23.463	16.294	21.644	14.854	19.460	13.125
	21	29.537	19.636	27.746	18.317	25.955	16.998	24.164	15.679	22.373	14.360	20.223	12.778
	22	30.153	18.656	28.390	17.459	26.627	16.261	24.865	15.064	23.102	13.867	20.986	12.430
	23	30.769	17.676	29.034	16.600	27.300	15.525	25.565	14.449	23.831	13.374	21.750	12.083
	24	31.385	16.695	29.679	15.742	27.972	14.788	26.266	13.834	24.560	12.880	22.513	11.736
30	20	28.921	22.854	27.102	21.413	25.282	19.973	23.463	18.532	21.644	17.092	19.460	15.363
	21	29.537	21.874	27.746	20.555	25.955	19.236	24.164	17.917	22.373	16.598	20.223	15.015
	22	30.153	20.893	28.390	19.696	26.627	18.499	24.865	17.302	23.102	16.105	20.986	14.668
	23	30.769	19.913	29.034	18.838	27.300	17.762	25.565	16.687	23.831	15.611	21.750	14.321
	24	31.385	18.933	29.679	17.979	27.972	17.025	26.266	16.072	24.560	15.118	22.513	13.973

Model : MDB100ER ~ MMC100ER

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	31.997	19.969	29.891	17.899	27.785	15.828	25.679	13.758	23.573	11.687	21.046	9.203
	16	32.830	19.020	30.678	16.935	28.525	14.850	26.372	12.765	24.219	10.680	21.636	8.177
24	16	32.830	25.030	30.678	22.945	28.525	20.859	26.372	18.774	24.219	16.689	21.636	14.187
	17	33.664	24.081	31.465	21.981	29.265	19.881	27.065	17.781	24.865	15.681	22.225	13.161
	18	34.498	23.132	32.251	21.017	30.005	18.902	27.758	16.788	25.511	14.673	22.815	12.136
	19	35.332	22.182	33.038	20.053	30.745	17.924	28.451	15.795	26.157	13.665	23.405	11.110
	20	36.171	21.242	33.872	19.175	31.574	17.107	29.275	15.040	26.977	12.972	24.218	10.491
28	18	34.498	29.141	32.251	27.027	30.005	24.912	27.758	22.798	25.511	20.683	22.815	18.146
	19	35.332	28.192	33.038	26.063	30.745	23.934	28.451	21.804	26.157	19.675	23.405	17.120
	20	36.171	27.252	33.872	25.184	31.574	23.117	29.275	21.049	26.977	18.982	24.218	16.500
	21	37.013	26.318	34.738	24.363	32.462	22.408	30.187	20.453	27.911	18.497	25.181	16.151
	22	37.855	25.384	35.603	23.542	33.351	21.699	31.098	19.856	28.846	18.013	26.143	15.802
	23	38.698	24.450	36.468	22.720	34.239	20.990	32.010	19.260	29.780	17.529	27.105	15.453
	24	39.540	23.517	37.334	21.899	35.128	20.281	32.921	18.663	30.715	17.045	28.068	15.104
30	20	36.171	30.257	33.872	28.189	31.574	26.122	29.275	24.054	26.977	21.986	24.218	19.505
	21	37.013	29.323	34.738	27.368	32.462	25.413	30.187	23.457	27.911	21.502	25.181	19.156
	22	37.855	28.389	35.603	26.546	33.351	24.704	31.098	22.861	28.846	21.018	26.143	18.807
	23	38.698	27.455	36.468	25.725	34.239	23.995	32.010	22.264	29.780	20.534	27.105	18.458
	24	39.540	26.521	37.334	24.904	35.128	23.286	32.921	21.668	30.715	20.050	28.068	18.109

R22
MDB ~ ER Series (Cooling Mode)
Model : MDB125ER ~ MMC125ER

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	38.598	24.153	36.107	21.710	33.615	19.268	31.124	16.826	28.632	14.383	25.642	11.452
	16	39.292	22.676	36.841	20.319	34.390	17.962	31.939	15.605	29.489	13.248	26.548	10.419
24	16	39.292	29.875	36.841	27.517	34.390	25.160	31.939	22.803	29.489	20.446	26.548	17.618
	17	39.986	28.398	37.575	26.126	35.165	23.854	32.755	21.582	30.345	19.311	27.453	16.585
	18	40.679	26.921	38.310	24.735	35.941	22.548	33.571	20.362	31.202	18.175	28.359	15.551
	19	41.373	25.444	39.044	23.343	36.716	21.242	34.387	19.141	32.058	17.040	29.264	14.518
	20	42.067	23.972	39.782	21.998	37.497	20.023	35.212	18.049	32.927	16.074	30.186	13.704
28	18	40.679	34.120	38.310	31.933	35.941	29.747	33.571	27.560	31.202	25.374	28.359	22.750
	19	41.373	32.643	39.044	30.542	36.716	28.441	34.387	26.339	32.058	24.238	29.264	21.717
	20	42.067	31.171	39.782	29.196	37.497	27.222	35.212	25.247	32.927	23.273	30.186	20.903
	21	42.762	29.703	40.522	27.882	38.283	26.061	36.044	24.241	33.805	22.420	31.118	20.236
	22	43.456	28.234	41.263	26.567	39.069	24.901	36.876	23.234	34.682	21.568	32.050	19.568
	23	44.150	26.765	42.003	25.253	39.855	23.741	37.707	22.228	35.560	20.716	32.983	18.901
	24	44.845	25.297	42.743	23.939	40.641	22.580	38.539	21.222	36.437	19.863	33.915	18.233
30	20	42.067	34.770	39.782	32.796	37.497	30.821	35.212	28.846	32.927	26.872	30.186	24.502
	21	42.762	33.302	40.522	31.481	38.283	29.661	36.044	27.840	33.805	26.020	31.118	23.835
	22	43.456	31.833	41.263	30.167	39.069	28.500	36.876	26.834	34.682	25.167	32.050	23.167
	23	44.150	30.365	42.003	28.852	39.855	27.340	37.707	25.827	35.560	24.315	32.983	22.500
	24	44.845	28.896	42.743	27.538	40.641	26.179	38.539	24.821	36.437	23.463	33.915	21.833

Model : MDB125ER2 ~ MLC061CR x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	40.755	25.364	37.538	22.348	34.320	19.332	31.103	16.316	27.885	13.300	24.024	9.681
	16	40.922	23.311	37.786	20.560	34.651	17.809	31.515	15.058	28.380	12.307	24.617	9.006
24	16	40.922	31.041	37.786	28.290	34.651	25.539	31.515	22.789	28.380	20.038	24.617	16.737
	17	41.088	28.987	38.035	26.502	34.981	24.016	31.928	21.530	28.874	19.045	25.210	16.062
	18	41.254	26.934	38.283	24.713	35.312	22.493	32.340	20.272	29.369	18.052	25.803	15.387
	19	41.421	24.880	38.532	22.924	35.642	20.969	32.753	19.014	29.864	17.059	26.396	14.712
	20	41.595	22.824	38.857	21.122	36.118	19.419	33.380	17.716	30.641	16.013	27.354	13.970
28	18	41.254	34.664	38.283	32.444	35.312	30.223	32.340	28.003	29.369	25.782	25.803	23.118
	19	41.421	32.610	38.532	30.655	35.642	28.700	32.753	26.744	29.864	24.789	26.396	22.443
	20	41.595	30.555	38.857	28.852	36.118	27.149	33.380	25.447	30.641	23.744	27.354	21.701
	21	41.776	28.499	39.233	27.040	36.691	25.581	34.149	24.123	31.607	22.664	28.556	20.914
	22	41.956	26.442	39.610	25.228	37.264	24.013	34.918	22.799	32.573	21.584	29.758	20.127
	23	42.136	24.386	39.986	23.416	37.837	22.445	35.688	21.475	33.538	20.504	30.959	19.340
	24	42.316	22.330	40.363	21.603	38.410	20.877	36.457	20.151	34.504	19.425	32.161	18.553
30	20	41.595	34.420	38.857	32.717	36.118	31.015	33.380	29.312	30.641	27.609	27.354	25.566
	21	41.776	32.364	39.233	30.905	36.691	29.447	34.149	27.988	31.607	26.529	28.556	24.779
	22	41.956	30.308	39.610	29.093	37.264	27.879	34.918	26.664	32.573	25.449	29.758	23.992
	23	42.136	28.251	39.986	27.281	37.837	26.310	35.688	25.340	33.538	24.370	30.959	23.205
	24	42.316	26.195	40.363	25.469	38.410	24.742	36.457	24.016	34.504	23.290	32.161	22.418

R22
ADB ~ ER Series (Cooling Mode)
Model :MDB150ER ~ MMC150ER

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	52.027	33.191	48.479	29.750	44.930	26.310	41.382	22.869	37.834	19.428	33.576	15.299
	16	51.795	29.738	48.590	26.738	45.384	23.737	42.179	20.737	38.973	17.736	35.127	14.136
24	16	51.795	38.868	48.590	35.867	45.384	32.867	42.179	29.866	38.973	26.866	35.127	23.265
	17	51.564	35.415	48.701	32.855	45.839	30.294	42.976	27.734	40.113	25.174	36.678	22.102
	18	51.333	31.962	48.813	29.842	46.293	27.722	43.773	25.602	41.252	23.482	38.228	20.938
	19	51.102	28.510	48.924	26.830	46.747	25.150	44.569	23.470	42.392	21.790	39.779	19.775
	20	50.860	25.055	48.935	23.799	47.010	22.543	45.085	21.287	43.160	20.032	40.850	18.525
28	18	51.333	41.092	48.813	38.972	46.293	36.852	43.773	34.732	41.252	32.612	38.228	30.068
	19	51.102	37.639	48.924	35.959	46.747	34.279	44.569	32.600	42.392	30.920	39.779	28.904
	20	50.860	34.184	48.935	32.928	47.010	31.673	45.085	30.417	43.160	29.161	40.850	27.654
	21	50.610	30.728	48.878	29.885	47.145	29.043	45.413	28.200	43.680	27.357	41.601	26.346
	22	50.361	27.272	48.821	26.842	47.281	26.413	45.741	25.983	44.201	25.554	42.353	25.038
	23	50.112	23.816	48.764	23.800	47.416	23.783	46.069	23.766	44.721	23.750	43.104	23.730
	24	49.862	20.360	48.707	20.757	47.552	21.153	46.397	21.550	45.242	21.946	43.856	22.422
30	20	50.860	38.749	48.935	37.493	47.010	36.237	45.085	34.981	43.160	33.726	40.850	32.219
	21	50.610	35.293	48.878	34.450	47.145	33.607	45.413	32.765	43.680	31.922	41.601	30.911
	22	50.361	31.837	48.821	31.407	47.281	30.978	45.741	30.548	44.201	30.118	42.353	29.603
	23	50.112	28.381	48.764	28.364	47.416	28.348	46.069	28.331	44.721	28.315	43.104	28.295
	24	49.862	24.925	48.707	25.321	47.552	25.718	46.397	26.114	45.242	26.511	43.856	26.987

Model : MDB150ER2 ~ MMC075ER x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	51.739	33.226	48.285	29.901	44.831	26.576	41.376	23.251	37.922	19.926	33.777	15.936
	16	52.958	31.245	49.454	27.987	45.950	24.730	42.447	21.473	38.943	18.215	34.738	14.306
24	16	52.958	40.195	49.454	36.938	45.950	33.680	42.447	30.423	38.943	27.166	34.738	23.257
	17	54.177	38.214	50.624	35.024	47.070	31.834	43.517	28.645	39.963	25.455	35.699	21.627
	18	55.396	36.232	51.793	33.110	48.190	29.988	44.587	26.866	40.984	23.744	36.660	19.998
	19	56.615	34.251	52.963	31.196	49.310	28.142	45.657	25.088	42.004	22.034	37.621	18.369
	20	57.842	32.282	54.203	29.401	50.565	26.520	46.926	23.638	43.287	20.757	38.921	17.300
28	18	55.396	45.183	51.793	42.061	48.190	38.939	44.587	35.817	40.984	32.695	36.660	28.948
	19	56.615	43.201	52.963	40.147	49.310	37.093	45.657	34.038	42.004	30.984	37.621	27.319
	20	57.842	41.232	54.203	38.351	50.565	35.470	46.926	32.589	43.287	29.708	38.921	26.250
	21	59.074	39.272	55.492	36.634	51.910	33.996	48.328	31.359	44.745	28.721	40.447	25.556
	22	60.306	37.311	56.780	34.917	53.255	32.523	49.729	30.128	46.204	27.734	41.973	24.861
	23	61.538	35.351	58.069	33.200	54.600	31.049	51.131	28.898	47.662	26.747	43.499	24.166
	24	62.769	33.391	59.357	31.483	55.945	29.576	52.532	27.668	49.120	25.761	45.025	23.472
30	20	57.842	45.708	54.203	42.826	50.565	39.945	46.926	37.064	43.287	34.183	38.921	30.726
	21	59.074	43.747	55.492	41.109	51.910	38.472	48.328	35.834	44.745	33.196	40.447	30.031
	22	60.306	41.787	56.780	39.392	53.255	36.998	49.729	34.604	46.204	32.209	41.973	29.336
	23	61.538	39.826	58.069	37.675	54.600	35.524	51.131	33.374	47.662	31.223	43.499	28.642
	24	62.769	37.866	59.357	35.958	55.945	34.051	52.532	32.143	49.120	30.236	45.025	27.947

R22
MDB ~ ER Series (Cooling Mode)
Model : MDB200ER2 ~ MMC100ER x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	65.036	39.735	60.624	35.357	56.211	30.980	51.799	26.603	47.387	22.226	42.092	16.973
	16	66.467	37.686	62.006	33.292	57.545	28.899	53.085	24.506	48.624	20.112	43.271	14.840
24	16	66.467	50.506	62.006	46.113	57.545	41.720	53.085	37.326	48.624	32.933	43.271	27.661
	17	67.897	48.458	63.389	44.048	58.880	39.638	54.371	35.229	49.862	30.819	44.451	25.528
	18	69.328	46.409	64.771	41.983	60.214	37.557	55.656	33.131	51.099	28.706	45.631	23.395
	19	70.759	44.360	66.153	39.918	61.548	35.476	56.942	31.034	52.337	26.592	46.810	21.262
	20	72.200	42.332	67.630	38.046	63.060	33.759	58.490	29.473	53.921	25.187	48.437	20.043
28	18	69.328	59.229	64.771	54.804	60.214	50.378	55.656	45.952	51.099	41.526	45.631	36.215
	19	70.759	57.181	66.153	52.739	61.548	48.297	56.942	43.855	52.337	39.413	46.810	34.082
	20	72.200	55.153	67.630	50.866	63.060	46.580	58.490	42.294	53.921	38.007	48.437	32.864
	21	73.647	53.138	69.169	49.122	64.691	45.106	60.213	41.090	55.735	37.074	50.361	32.255
	22	75.095	51.124	70.708	47.378	66.322	43.633	61.936	39.887	57.549	36.141	52.286	31.646
	23	76.542	49.110	72.248	45.634	67.953	42.159	63.659	38.683	59.364	35.208	54.211	31.037
	24	77.990	47.096	73.787	43.890	69.584	40.685	65.381	37.480	61.178	34.275	56.135	30.429
30	20	72.200	61.563	67.630	57.277	63.060	52.990	58.490	48.704	53.921	44.417	48.437	39.274
	21	73.647	59.549	69.169	55.533	64.691	51.517	60.213	47.500	55.735	43.484	50.361	38.665
	22	75.095	57.534	70.708	53.789	66.322	50.043	61.936	46.297	57.549	42.551	52.286	38.056
	23	76.542	55.520	72.248	52.045	67.953	48.569	63.659	45.094	59.364	41.618	54.211	37.448
	24	77.990	53.506	73.787	50.301	69.584	47.095	65.381	43.890	61.178	40.685	56.135	36.839

Model : MDB250ER2 ~ MMC125ER x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	78.445	48.061	73.222	42.893	67.999	37.726	62.776	32.558	57.553	27.390	51.285	21.189
	16	79.549	44.927	74.462	39.946	69.375	34.965	64.287	29.983	59.200	25.002	53.096	19.024
24	16	79.549	60.284	74.462	55.303	69.375	50.322	64.287	45.340	59.200	40.359	53.096	34.381
	17	80.653	57.151	75.701	52.356	70.750	47.561	65.799	42.766	60.848	37.971	54.906	32.217
	18	81.756	54.017	76.941	49.408	72.126	44.800	67.311	40.191	62.495	35.582	56.717	30.052
	19	82.860	50.883	78.181	46.461	73.501	42.039	68.822	37.616	64.143	33.194	58.528	27.887
	20	83.964	47.762	79.427	43.632	74.890	39.502	70.353	35.371	65.816	31.241	60.371	26.285
28	18	81.756	69.374	76.941	64.765	72.126	60.157	67.311	55.548	62.495	50.939	56.717	45.409
	19	82.860	66.240	78.181	61.818	73.501	57.396	68.822	52.973	64.143	48.551	58.528	43.244
	20	83.964	63.119	79.427	58.989	74.890	54.859	70.353	50.728	65.816	46.598	60.371	41.642
	21	85.069	60.006	80.678	56.239	76.287	52.471	71.896	48.703	67.505	44.935	62.236	40.414
	22	86.174	56.894	81.929	53.489	77.684	50.083	73.439	46.678	69.194	43.273	64.100	39.186
	23	87.279	53.781	83.180	50.738	79.081	47.696	74.982	44.653	70.884	41.610	65.965	37.959
	24	88.384	50.669	84.431	47.988	80.478	45.308	76.526	42.628	72.573	39.947	67.830	36.731
30	20	83.964	70.798	79.427	66.667	74.890	62.537	70.353	58.407	65.816	54.277	60.371	49.320
	21	85.069	67.685	80.678	63.917	76.287	60.149	71.896	56.382	67.505	52.614	62.236	48.092
	22	86.174	64.572	81.929	61.167	77.684	57.762	73.439	54.356	69.194	50.951	64.100	46.865
	23	87.279	61.460	83.180	58.417	79.081	55.374	74.982	52.331	70.884	49.288	65.965	45.637
	24	88.384	58.347	84.431	55.667	80.478	52.986	76.526	50.306	72.573	47.626	67.830	44.409

R22
MDB ~ ER Series (Cooling Mode)
Model : MDB300ER2 ~ MMC150ER x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	104.053	66.383	96.957	59.501	89.861	52.619	82.764	45.738	75.668	38.856	67.152	30.598
	16	103.591	59.477	97.180	53.476	90.769	47.475	84.358	41.474	77.947	35.472	70.254	28.271
24	16	103.591	77.736	97.180	71.735	90.769	65.734	84.358	59.732	77.947	53.731	70.254	46.530
	17	103.128	70.830	97.403	65.710	91.677	60.589	85.952	55.468	80.226	50.348	73.355	44.203
	18	102.666	63.925	97.626	59.685	92.585	55.444	87.545	51.204	82.505	46.964	76.457	41.876
	19	102.203	57.019	97.848	53.659	93.493	50.300	89.139	46.940	84.784	43.581	79.558	39.549
	20	101.719	50.110	97.869	47.598	94.019	45.086	90.170	42.575	86.320	40.063	81.700	37.049
28	18	102.666	82.183	97.626	77.943	92.585	73.703	87.545	69.463	82.505	65.223	76.457	60.135
	19	102.203	75.278	97.848	71.918	93.493	68.559	89.139	65.199	84.784	61.840	79.558	57.808
	20	101.719	68.368	97.869	65.857	94.019	63.345	90.170	60.833	86.320	58.322	81.700	55.308
	21	101.220	61.456	97.756	59.771	94.291	58.085	90.826	56.400	87.361	54.715	83.203	52.692
	22	100.722	54.544	97.642	53.685	94.562	52.826	91.482	51.966	88.402	51.107	84.706	50.076
	23	100.223	47.632	97.528	47.599	94.833	47.566	92.138	47.533	89.443	47.500	86.208	47.460
	24	99.725	40.720	97.414	41.513	95.104	42.306	92.794	43.099	90.483	43.893	87.711	44.844
30	20	101.719	77.498	97.869	74.986	94.019	72.475	90.170	69.963	86.320	67.451	81.700	64.437
	21	101.220	70.586	97.756	68.900	94.291	67.215	90.826	65.529	87.361	63.844	83.203	61.821
	22	100.722	63.674	97.642	62.814	94.562	61.955	91.482	61.096	88.402	60.237	84.706	59.206
	23	100.223	56.761	97.528	56.728	94.833	56.695	92.138	56.662	89.443	56.629	86.208	56.590
	24	99.725	49.849	97.414	50.643	95.104	51.436	92.794	52.229	90.483	53.022	87.711	53.974

Model : MDB300ER3 ~ MMC100ER x 3

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	95.990	59.908	89.672	53.696	83.354	47.485	77.037	41.274	70.719	35.062	63.138	27.609
	16	98.491	57.060	92.033	50.805	85.574	44.550	79.116	38.294	72.657	32.039	64.907	24.532
24	16	98.491	75.089	92.033	68.834	85.574	62.578	79.116	56.323	72.657	50.068	64.907	42.561
	17	100.993	72.242	94.394	65.942	87.794	59.643	81.195	53.343	74.596	47.044	66.676	39.484
	18	103.494	69.395	96.754	63.051	90.014	56.707	83.274	50.364	76.534	44.020	68.446	36.408
	19	105.996	66.547	99.115	60.159	92.234	53.772	85.353	47.384	78.472	40.996	70.215	33.331
	20	108.513	63.727	101.617	57.524	94.721	51.322	87.826	45.119	80.930	38.916	72.655	31.472
28	18	103.494	87.423	96.754	81.080	90.014	74.736	83.274	68.393	76.534	62.049	68.446	54.437
	19	105.996	84.576	99.115	78.188	92.234	71.801	85.353	65.413	78.472	59.025	70.215	51.360
	20	108.513	81.756	101.617	75.553	94.721	69.350	87.826	63.147	80.930	56.944	72.655	49.501
	21	111.040	78.955	104.213	73.089	97.387	67.223	90.560	61.358	83.734	55.492	75.542	48.454
	22	113.566	76.153	106.809	70.625	100.052	65.097	93.295	59.568	86.538	54.040	78.429	47.406
	23	116.093	73.351	109.405	68.161	102.717	62.970	96.029	57.779	89.341	52.588	81.316	46.359
	24	118.620	70.550	112.001	65.696	105.383	60.843	98.764	55.990	92.145	51.136	84.203	45.312
30	20	108.513	90.771	101.617	84.568	94.721	78.365	87.826	72.162	80.930	65.959	72.655	58.515
	21	111.040	87.969	104.213	82.103	97.387	76.238	90.560	70.372	83.734	64.507	75.542	57.468
	22	113.566	85.167	106.809	79.639	100.052	74.111	93.295	68.583	86.538	63.055	78.429	56.421
	23	116.093	82.366	109.405	77.175	102.717	71.984	96.029	66.793	89.341	61.603	81.316	55.374
	24	118.620	79.564	112.001	74.711	105.383	69.857	98.764	65.004	92.145	60.150	84.203	54.326

R22
MDB ~ ER Series (Cooling Mode)

Model : MDB350ER3 ~ MMC100ER + MMC125ER x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	107.401	70.778	100.656	64.313	93.912	57.847	87.168	51.382	80.424	44.917	72.331	37.158
	16	110.029	66.924	103.241	60.668	96.453	54.412	89.665	48.157	82.877	41.901	74.731	34.394
24	16	110.029	84.531	103.241	78.275	96.453	72.019	89.665	65.764	82.877	59.508	74.731	52.001
	17	112.658	80.677	105.826	74.630	98.994	68.584	92.162	62.538	85.330	56.492	77.132	49.237
	18	115.287	76.822	108.411	70.986	101.535	65.150	94.659	59.313	87.783	53.477	79.532	46.473
	19	117.915	72.968	110.996	67.341	104.076	61.715	97.156	56.088	90.237	50.461	81.933	43.709
	20	120.550	69.124	113.634	63.788	106.719	58.452	99.803	53.115	92.888	47.779	84.589	41.376
28	18	115.287	94.429	108.411	88.593	101.535	82.756	94.659	76.920	87.783	71.084	79.532	64.080
	19	117.915	90.575	110.996	84.948	104.076	79.322	97.156	73.695	90.237	68.068	81.933	61.316
	20	120.550	86.731	113.634	81.395	106.719	76.058	99.803	70.722	92.888	65.386	84.589	58.983
	21	123.188	82.893	116.309	77.901	109.430	72.910	102.551	67.918	95.671	62.927	87.416	56.937
	22	125.826	79.055	118.984	74.408	112.141	69.761	105.298	65.114	98.455	60.467	90.243	54.891
	23	128.465	75.217	121.658	70.915	114.852	66.612	108.045	62.310	101.238	58.008	93.071	52.845
	24	131.103	71.379	124.333	67.421	117.562	63.464	110.792	59.506	104.022	55.549	95.898	50.800
30	20	120.550	95.534	113.634	90.198	106.719	84.862	99.803	79.526	92.888	74.190	84.589	67.786
	21	123.188	91.696	116.309	86.705	109.430	81.713	102.551	76.722	95.671	71.730	87.416	65.740
	22	125.826	87.858	118.984	83.211	112.141	78.564	105.298	73.918	98.455	69.271	90.243	63.695
	23	128.465	84.020	121.658	79.718	114.852	75.416	108.045	71.114	101.238	66.811	93.071	61.649
	24	131.103	80.182	124.333	76.225	117.562	72.267	110.792	68.310	104.022	64.352	95.898	59.603

Model : MDB400ER4 ~ MMC100ER x 4

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	127.986	79.877	119.563	71.595	111.139	63.313	102.716	55.032	94.292	46.750	84.184	36.812
	16	131.322	76.080	122.710	67.740	114.099	59.399	105.488	51.059	96.876	42.718	86.543	32.710
24	16	131.322	100.119	122.710	91.778	114.099	83.438	105.488	75.097	96.876	66.757	86.543	56.748
	17	134.657	96.322	125.858	87.923	117.059	79.524	108.260	71.124	99.461	62.725	88.902	52.646
	18	137.993	92.526	129.006	84.068	120.019	75.610	111.032	67.152	102.045	58.693	91.261	48.544
	19	141.328	88.730	132.154	80.213	122.979	71.696	113.804	63.179	104.630	54.662	93.620	44.442
	20	144.684	84.970	135.489	76.699	126.295	68.429	117.101	60.158	107.907	51.888	96.874	41.963
28	18	137.993	116.564	129.006	108.106	120.019	99.648	111.032	91.190	102.045	82.732	91.261	72.582
	19	141.328	112.768	132.154	104.251	122.979	95.734	113.804	87.217	104.630	78.700	93.620	68.480
	20	144.684	109.008	135.489	100.738	126.295	92.467	117.101	84.197	107.907	75.926	96.874	66.001
	21	148.053	105.273	138.951	97.452	129.849	89.631	120.747	81.811	111.645	73.990	100.723	64.605
	22	151.422	101.537	142.412	94.166	133.403	86.796	124.393	79.425	115.383	72.054	104.572	63.209
	23	154.791	97.802	145.874	90.881	136.956	83.960	128.039	77.039	119.122	70.118	108.421	61.812
	24	158.160	94.067	149.335	87.595	140.510	81.124	131.685	74.653	122.860	68.181	112.270	60.416
30	20	144.684	121.027	135.489	112.757	126.295	104.486	117.101	96.216	107.907	87.945	96.874	78.021
	21	148.053	117.292	138.951	109.471	129.849	101.651	120.747	93.830	111.645	86.009	100.723	76.624
	22	151.422	113.557	142.412	106.186	133.403	98.815	124.393	91.444	115.383	84.073	104.572	75.228
	23	154.791	109.821	145.874	102.900	136.956	95.979	128.039	89.058	119.122	82.137	108.421	73.831
	24	158.160	106.086	149.335	99.614	140.510	93.143	131.685	86.672	122.860	80.201	112.270	72.435

R22
MDB ~ ER Series (Cooling Mode)
Model : MDB450ER4 ~ MMC150ER x 3

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	156.080	99.574	145.436	89.251	134.791	78.929	124.147	68.606	113.502	58.284	100.729	45.897
	16	155.386	89.215	145.770	80.214	136.153	71.212	126.537	62.210	116.920	53.209	105.381	42.407
24	16	155.386	116.604	145.770	107.602	136.153	98.600	126.537	89.599	116.920	80.597	105.381	69.795
	17	154.693	106.245	146.104	98.564	137.516	90.883	128.927	83.203	120.339	75.522	110.033	66.305
	18	153.999	95.887	146.438	89.527	138.878	83.167	131.318	76.807	123.757	70.446	114.685	62.814
	19	153.305	85.529	146.773	80.489	140.240	75.450	133.708	70.411	127.176	65.371	119.337	59.324
	20	152.579	75.164	146.804	71.397	141.029	67.629	135.254	63.862	129.480	60.095	122.550	55.574
28	18	153.999	123.275	146.438	116.915	138.878	110.555	131.318	104.195	123.757	97.835	114.685	90.203
	19	153.305	112.917	146.773	107.877	140.240	102.838	133.708	97.799	127.176	92.759	119.337	86.712
	20	152.579	102.553	146.804	98.785	141.029	95.018	135.254	91.250	129.480	87.483	122.550	82.962
	21	151.831	92.184	146.633	89.656	141.436	87.128	136.239	84.600	131.041	82.072	124.804	79.038
	22	151.083	81.816	146.463	80.527	141.843	79.239	137.223	77.950	132.603	76.661	127.058	75.114
	23	150.335	71.448	146.292	71.399	142.249	71.349	138.207	71.299	134.164	71.250	129.313	71.190
	24	149.587	61.080	146.121	62.270	142.656	63.459	139.191	64.649	135.725	65.839	131.567	67.267
30	20	152.579	116.247	146.804	112.479	141.029	108.712	135.254	104.944	129.480	101.177	122.550	96.656
	21	151.831	105.879	146.633	103.350	141.436	100.822	136.239	98.294	131.041	95.766	124.804	92.732
	22	151.083	95.510	146.463	94.222	141.843	92.933	137.223	91.644	132.603	90.355	127.058	88.808
	23	150.335	85.142	146.292	85.093	142.249	85.043	138.207	84.994	134.164	84.944	129.313	84.884
	24	149.587	74.774	146.121	75.964	142.656	77.154	139.191	78.343	135.725	79.533	131.567	80.961

Model : MDB500ER4 ~ MMC125ER x 4

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	154.392	96.611	144.426	86.841	134.460	77.072	124.495	67.302	114.529	57.533	102.570	45.809
	16	157.167	90.704	147.364	81.276	137.561	71.847	127.758	62.419	117.955	52.990	106.191	41.676
24	16	157.167	119.498	147.364	110.070	137.561	100.642	127.758	91.213	117.955	81.785	106.191	70.471
	17	159.942	113.591	150.302	104.504	140.662	95.417	131.021	86.330	121.381	77.243	109.813	66.338
	18	162.717	107.684	153.240	98.938	143.762	90.192	134.285	81.446	124.807	72.700	113.434	62.205
	19	165.492	101.777	156.178	93.372	146.863	84.968	137.548	76.563	128.233	68.158	117.056	58.073
	20	168.269	95.890	159.129	87.991	149.989	80.093	140.850	72.194	131.710	64.296	120.742	54.818
28	18	162.717	136.479	153.240	127.733	143.762	118.987	134.285	110.241	124.807	101.495	113.434	91.000
	19	165.492	130.571	156.178	122.167	146.863	113.762	137.548	105.357	128.233	96.953	117.056	86.867
	20	168.269	124.684	159.129	116.786	149.989	108.887	140.850	100.989	131.710	93.090	120.742	83.612
	21	171.047	118.810	162.090	111.528	153.133	104.246	144.176	96.963	135.220	89.681	124.472	80.942
	22	173.824	112.936	165.050	106.270	156.277	99.604	147.503	92.938	138.729	86.272	128.201	78.273
	23	176.602	107.062	168.011	101.012	159.420	94.962	150.830	88.912	142.239	82.863	131.930	75.603
	24	179.379	101.188	170.972	95.754	162.564	90.321	154.157	84.887	145.749	79.453	135.660	72.933
30	20	168.269	139.081	159.129	131.183	149.989	123.284	140.850	115.386	131.710	107.487	120.742	98.009
	21	171.047	133.207	162.090	125.925	153.133	118.643	144.176	111.360	135.220	104.078	124.472	95.339
	22	173.824	127.333	165.050	120.667	156.277	114.001	147.503	107.335	138.729	100.669	128.201	92.670
	23	176.602	121.459	168.011	115.409	159.420	109.359	150.830	103.310	142.239	97.260	131.930	90.000
	24	179.379	115.585	170.972	110.151	162.564	104.718	154.157	99.284	145.749	93.851	135.660	87.330

R22
MDB ~ ER Series (Cooling Mode)
Model : MDB600ER4 ~ MMC150ER x 4

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	208.107	132.765	193.914	119.002	179.722	105.238	165.529	91.475	151.336	77.712	134.305	61.196
	16	207.182	118.954	194.360	106.952	181.538	94.949	168.716	82.947	155.894	70.945	140.508	56.542
24	16	207.182	155.472	194.360	143.469	181.538	131.467	168.716	119.465	155.894	107.462	140.508	93.060
	17	206.257	141.660	194.805	131.419	183.354	121.178	171.903	110.937	160.452	100.696	146.710	88.406
	18	205.332	127.849	195.251	119.369	185.171	110.889	175.090	102.409	165.010	93.929	152.913	83.752
	19	204.406	114.038	195.697	107.319	186.987	100.600	178.277	93.881	169.567	87.162	159.116	79.099
	20	203.438	100.219	195.738	95.196	188.039	90.173	180.339	85.149	172.640	80.126	163.400	74.098
28	18	205.332	164.367	195.251	155.887	185.171	147.407	175.090	138.926	165.010	130.446	152.913	120.270
	19	204.406	150.556	195.697	143.837	186.987	137.118	178.277	130.398	169.567	123.679	159.116	115.616
	20	203.438	136.737	195.738	131.714	188.039	126.690	180.339	121.667	172.640	116.644	163.400	110.616
	21	202.441	122.913	195.511	119.542	188.581	116.171	181.651	112.800	174.722	109.429	166.406	105.384
	22	201.444	109.088	195.284	107.370	189.123	105.651	182.963	103.933	176.803	102.214	169.411	100.152
	23	200.446	95.264	195.056	95.198	189.666	95.132	184.275	95.066	178.885	95.000	172.417	94.920
	24	199.449	81.440	194.829	83.026	190.208	84.612	185.588	86.199	180.967	87.785	175.422	89.689
30	20	203.438	154.996	195.738	149.972	188.039	144.949	180.339	139.926	172.640	134.903	163.400	128.875
	21	202.441	141.171	195.511	137.801	188.581	134.430	181.651	131.059	174.722	127.688	166.406	123.643
	22	201.444	127.347	195.284	125.629	189.123	123.910	182.963	122.192	176.803	120.473	169.411	118.411
	23	200.446	113.523	195.056	113.457	189.666	113.391	184.275	113.325	178.885	113.259	172.417	113.179
	24	199.449	99.699	194.829	101.285	190.208	102.871	185.588	104.458	180.967	106.044	175.422	107.948

R22
MDB ~ ER Series (Heating Mode)
Model : MDB075ER ~ MMC075ER

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	10.655	10.655	12.849	12.849	13.580	13.580	21.625	21.625	26.013	26.013	28.207	28.207	30.401	30.401
17	10.329	10.329	12.676	12.676	13.459	13.459	22.325	22.325	25.781	25.781	27.955	27.955	30.130	30.130
19	10.003	10.003	12.504	12.504	13.337	13.337	23.025	23.025	25.549	25.549	27.704	27.704	29.859	29.859
21	9.676	9.676	12.331	12.331	13.216	13.216	23.726	23.726	25.317	25.317	27.452	27.452	29.588	29.588
23	9.823	9.823	12.276	12.276	13.094	13.094	22.592	22.592	25.085	25.085	27.201	27.201	29.317	29.317
25	9.970	9.970	12.222	12.222	12.972	12.972	21.459	21.459	24.853	24.853	26.949	26.949	29.046	29.046
27	10.118	10.118	12.167	12.167	12.851	12.851	20.326	20.326	24.621	24.621	26.698	26.698	28.775	28.775

Model : MDB100ER ~ MMC100ER

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	14.519	14.519	17.604	17.604	18.632	18.632	29.942	29.942	36.111	36.111	39.195	39.195	42.280	42.280
17	14.053	14.053	17.362	17.362	18.465	18.465	29.824	29.824	35.789	35.789	38.846	38.846	41.903	41.903
19	13.586	13.586	17.120	17.120	18.298	18.298	29.706	29.706	35.467	35.467	38.497	38.497	41.526	41.526
21	13.119	13.119	16.878	16.878	18.131	18.131	29.587	29.587	35.145	35.145	38.147	38.147	41.149	41.149
23	13.343	13.343	16.809	16.809	17.964	17.964	29.163	29.163	34.823	34.823	37.798	37.798	40.773	40.773
25	13.566	13.566	16.740	16.740	17.798	17.798	28.739	28.739	34.501	34.501	37.448	37.448	40.396	40.396
27	13.790	13.790	16.671	16.671	17.631	17.631	28.315	28.315	34.179	34.179	37.099	37.099	40.019	40.019

Model : MDB125ER ~ MMC125ER

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	16.683	16.683	20.760	20.760	22.119	22.119	37.066	37.066	45.219	45.219	49.295	49.295	53.372	53.372
17	16.022	16.022	20.446	20.446	21.921	21.921	36.806	36.806	44.816	44.816	48.856	48.856	52.896	52.896
19	15.362	15.362	20.132	20.132	21.723	21.723	36.546	36.546	44.412	44.412	48.416	48.416	52.420	52.420
21	14.701	14.701	19.819	19.819	21.524	21.524	36.286	36.286	44.009	44.009	47.977	47.977	51.945	51.945
23	15.089	15.089	19.767	19.767	21.326	21.326	35.881	35.881	43.606	43.606	47.537	47.537	51.469	51.469
25	15.477	15.477	19.716	19.716	21.128	21.128	35.475	35.475	43.203	43.203	47.098	47.098	50.994	50.994
27	15.865	15.865	19.664	19.664	20.930	20.930	35.070	35.070	42.799	42.799	46.659	46.659	50.518	50.518

Model : MDB125ER2 ~ MLC061CR x 2

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	16.057	16.057	19.724	19.724	20.946	20.946	34.392	34.392	41.726	41.726	45.393	45.393	49.061	49.061
17	15.481	15.481	19.439	19.439	20.759	20.759	33.814	33.814	41.354	41.354	44.989	44.989	48.623	48.623
19	14.905	14.905	19.154	19.154	20.571	20.571	33.236	33.236	40.982	40.982	44.584	44.584	48.186	48.186
21	14.329	14.329	18.870	18.870	20.383	20.383	32.658	32.658	40.610	40.610	44.180	44.180	47.749	47.749
23	14.639	14.639	18.807	18.807	20.196	20.196	32.636	32.636	40.238	40.238	43.775	43.775	47.312	47.312
25	14.949	14.949	18.744	18.744	20.008	20.008	32.615	32.615	39.866	39.866	43.370	43.370	46.874	46.874
27	15.260	15.260	18.681	18.681	19.821	19.821	32.593	32.593	39.494	39.494	42.966	42.966	46.437	46.437

R22
MDB ~ ER Series (Heating Mode)
Model : MDB150ER ~ MMC150ER

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	21.418	21.418	27.160	27.160	29.075	29.075	50.130	50.130	61.615	61.615	67.358	67.358	73.100	73.100
17	20.450	20.450	26.723	26.723	28.814	28.814	48.307	48.307	61.066	61.066	66.757	66.757	72.449	72.449
19	19.483	19.483	26.286	26.286	28.554	28.554	46.484	46.484	60.517	60.517	66.157	66.157	71.797	71.797
21	18.515	18.515	25.849	25.849	28.294	28.294	44.660	44.660	59.967	59.967	65.557	65.557	71.146	71.146
23	19.139	19.139	25.810	25.810	28.033	28.033	45.661	45.661	59.418	59.418	64.956	64.956	70.495	70.495
25	19.763	19.763	25.771	25.771	27.773	27.773	46.662	46.662	58.868	58.868	64.356	64.356	69.843	69.843
27	20.387	20.387	25.731	25.731	27.513	27.513	47.663	47.663	58.319	58.319	63.755	63.755	69.192	69.192

Model : MDB150ER2 ~ MMC075ER x 2

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	21.310	21.310	25.698	25.698	27.161	27.161	43.250	43.250	52.026	52.026	56.413	56.413	60.801	60.801
17	20.658	20.658	25.353	25.353	26.918	26.918	44.650	44.650	51.562	51.562	55.911	55.911	60.259	60.259
19	20.005	20.005	25.007	25.007	26.674	26.674	46.051	46.051	51.098	51.098	55.408	55.408	59.718	59.718
21	19.353	19.353	24.661	24.661	26.431	26.431	47.452	47.452	50.634	50.634	54.905	54.905	59.176	59.176
23	19.647	19.647	24.553	24.553	26.188	26.188	45.185	45.185	50.170	50.170	54.402	54.402	58.634	58.634
25	19.941	19.941	24.444	24.444	25.944	25.944	42.918	42.918	49.706	49.706	53.899	53.899	58.092	58.092
27	20.235	20.235	24.335	24.335	25.701	25.701	40.651	40.651	49.242	49.242	53.396	53.396	57.550	57.550

Model : MDB200ER2 ~ MMC100ER x 2

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	29.039	29.039	35.208	35.208	37.264	37.264	59.884	59.884	72.222	72.222	78.391	78.391	84.560	84.560
17	28.105	28.105	34.724	34.724	36.930	36.930	59.647	59.647	71.578	71.578	77.692	77.692	83.806	83.806
19	27.172	27.172	34.240	34.240	36.596	36.596	59.411	59.411	70.934	70.934	76.993	76.993	83.052	83.052
21	26.238	26.238	33.757	33.757	36.263	36.263	59.175	59.175	70.289	70.289	76.294	76.294	82.299	82.299
23	26.685	26.685	33.618	33.618	35.929	35.929	58.326	58.326	69.645	69.645	75.595	75.595	81.545	81.545
25	27.133	27.133	33.480	33.480	35.595	35.595	57.478	57.478	69.001	69.001	74.897	74.897	80.792	80.792
27	27.580	27.580	33.341	33.341	35.261	35.261	56.629	56.629	68.357	68.357	74.198	74.198	80.038	80.038

Model : MDB250ER2 ~ MMC125ER x 2

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	33.367	33.367	41.52	41.52	44.237	44.237	74.132	74.132	90.437	90.437	98.59	98.59	106.743	106.743
17	32.045	32.045	40.892	40.892	43.841	43.841	73.612	73.612	89.631	89.631	97.712	97.712	105.792	105.792
19	30.723	30.723	40.265	40.265	43.445	43.445	73.092	73.092	88.825	88.825	96.833	96.833	104.841	104.841
21	29.401	29.401	39.637	39.637	43.049	43.049	72.573	72.573	88.018	88.018	95.954	95.954	103.89	103.89
23	30.178	30.178	39.534	39.534	42.653	42.653	71.762	71.762	87.212	87.212	95.075	95.075	102.938	102.938
25	30.954	30.954	39.431	39.431	42.257	42.257	70.951	70.951	86.405	86.405	94.196	94.196	101.987	101.987
27	31.731	31.731	39.328	39.328	41.861	41.861	70.139	70.139	85.599	85.599	93.317	93.317	101.036	101.036

R22
MDB ~ ER Series (Heating Mode)
Model : MDB300ER2 ~ MMC150ER x 2

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	42.836	42.836	54.321	54.321	58.149	58.149	100.261	100.261	123.231	123.231	134.716	134.716	146.201	146.201
17	40.901	40.901	53.447	53.447	57.629	57.629	96.614	96.614	122.132	122.132	133.515	133.515	144.898	144.898
19	38.966	38.966	52.573	52.573	57.108	57.108	92.967	92.967	121.033	121.033	132.314	132.314	143.595	143.595
21	37.031	37.031	51.698	51.698	56.587	56.587	89.321	89.321	119.934	119.934	131.113	131.113	142.292	142.292
23	38.278	38.278	51.620	51.620	56.067	56.067	91.323	91.323	118.835	118.835	129.912	129.912	140.989	140.989
25	39.526	39.526	51.541	51.541	55.546	55.546	93.325	93.325	117.737	117.737	128.711	128.711	139.686	139.686
27	40.774	40.774	51.463	51.463	55.026	55.026	95.327	95.327	116.638	116.638	127.511	127.511	138.383	138.383

Model : MDB300ER3 ~ MMC100ER x 3

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	43.558	43.558	52.812	52.812	55.896	55.896	89.826	89.826	108.332	108.332	117.586	117.586	126.839	126.839
17	42.158	42.158	52.086	52.086	55.395	55.395	87.796	87.796	107.366	107.366	116.538	116.538	125.709	125.709
19	40.757	40.757	51.360	51.360	54.895	54.895	85.767	85.767	106.400	106.400	115.490	115.490	124.579	124.579
21	39.357	39.357	50.635	50.635	54.394	54.394	83.738	83.738	105.434	105.434	114.441	114.441	123.448	123.448
23	40.028	40.028	50.427	50.427	53.893	53.893	84.228	84.228	104.468	104.468	113.393	113.393	122.318	122.318
25	40.699	40.699	50.219	50.219	53.393	53.393	84.718	84.718	103.502	103.502	112.345	112.345	121.188	121.188
27	41.371	41.371	50.012	50.012	52.892	52.892	85.208	85.208	102.536	102.536	111.297	111.297	120.057	120.057

Model : MDB350ER3 ~ MMC100ER + MMC125ER x 2

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	47.886	47.886	59.123	59.123	62.869	62.869	104.073	104.073	126.548	126.548	137.786	137.786	149.023	149.023
17	46.097	46.097	58.254	58.254	62.306	62.306	103.436	103.436	125.420	125.420	136.557	136.557	147.695	147.695
19	44.309	44.309	57.385	57.385	61.743	61.743	102.798	102.798	124.291	124.291	135.329	135.329	146.367	146.367
21	42.520	42.520	56.515	56.515	61.180	61.180	102.160	102.160	123.163	123.163	134.101	134.101	145.039	145.039
23	43.520	43.520	56.343	56.343	60.617	60.617	100.925	100.925	122.034	122.034	132.873	132.873	143.711	143.711
25	44.521	44.521	56.171	56.171	60.054	60.054	99.689	99.689	120.906	120.906	131.644	131.644	142.383	142.383
27	45.521	45.521	55.999	55.999	59.491	59.491	98.454	98.454	119.777	119.777	130.416	130.416	141.055	141.055

Model : MDB400ER4 ~ MMC100ER x 4

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	58.077	58.077	70.415	70.415	74.528	74.528	119.767	119.767	144.443	144.443	156.781	156.781	169.119	169.119
17	56.210	56.210	69.448	69.448	73.861	73.861	119.295	119.295	143.155	143.155	155.384	155.384	167.612	167.612
19	54.343	54.343	68.480	68.480	73.193	73.193	118.822	118.822	141.867	141.867	153.986	153.986	166.105	166.105
21	52.476	52.476	67.513	67.513	72.525	72.525	118.350	118.350	140.579	140.579	152.588	152.588	164.598	164.598
23	53.371	53.371	67.236	67.236	71.858	71.858	116.653	116.653	139.291	139.291	151.191	151.191	163.091	163.091
25	54.266	54.266	66.959	66.959	71.190	71.190	114.956	114.956	138.003	138.003	149.793	149.793	161.584	161.584
27	55.161	55.161	66.682	66.682	70.523	70.523	113.259	113.259	136.715	136.715	148.395	148.395	160.076	160.076

R22
MDB ~ ER Series (Heating Mode)
Model : MDB450ER4 ~ MMC150ER x 3

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	64.254	64.254	81.481	81.481	87.224	87.224	150.391	150.391	184.846	184.846	202.074	202.074	219.301	219.301
17	61.351	61.351	80.170	80.170	86.443	86.443	144.921	144.921	183.198	183.198	200.272	200.272	217.347	217.347
19	58.449	58.449	78.859	78.859	85.662	85.662	139.451	139.451	181.550	181.550	198.471	198.471	215.392	215.392
21	55.546	55.546	77.547	77.547	84.881	84.881	133.981	133.981	179.901	179.901	196.670	196.670	213.438	213.438
23	57.418	57.418	77.430	77.430	84.100	84.100	136.984	136.984	178.253	178.253	194.868	194.868	211.484	211.484
25	59.289	59.289	77.312	77.312	83.319	83.319	139.987	139.987	176.605	176.605	193.067	193.067	209.529	209.529
27	61.160	61.160	77.194	77.194	82.539	82.539	142.990	142.990	174.957	174.957	191.266	191.266	207.575	207.575

Model : MDB500ER4 ~ MMC125ER x 4

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	66.733	66.733	83.039	83.039	88.475	88.475	148.263	148.263	180.875	180.875	197.181	197.181	213.487	213.487
17	64.090	64.090	81.784	81.784	87.682	87.682	147.224	147.224	179.262	179.262	195.423	195.423	211.584	211.584
19	61.446	61.446	80.529	80.529	86.890	86.890	146.185	146.185	177.649	177.649	193.665	193.665	209.682	209.682
21	58.803	58.803	79.274	79.274	86.098	86.098	145.146	145.146	176.036	176.036	191.908	191.908	207.779	207.779
23	60.356	60.356	79.068	79.068	85.306	85.306	143.524	143.524	174.423	174.423	190.150	190.150	205.877	205.877
25	61.908	61.908	78.862	78.862	84.513	84.513	141.901	141.901	172.810	172.810	188.392	188.392	203.974	203.974
27	63.461	63.461	78.656	78.656	83.721	83.721	140.279	140.279	171.198	171.198	186.635	186.635	202.072	202.072

Model : MDB600ER4 ~ MMC150ER x 4

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	85.672	85.672	108.642	108.642	116.298	116.298	200.522	200.522	246.462	246.462	269.432	269.432	292.401	292.401
17	81.802	81.802	106.893	106.893	115.257	115.257	193.228	193.228	244.264	244.264	267.030	267.030	289.796	289.796
19	77.932	77.932	105.145	105.145	114.216	114.216	185.935	185.935	242.066	242.066	264.628	264.628	287.190	287.190
21	74.062	74.062	103.397	103.397	113.175	113.175	178.641	178.641	239.869	239.869	262.226	262.226	284.584	284.584
23	76.557	76.557	103.240	103.240	112.134	112.134	182.645	182.645	237.671	237.671	259.825	259.825	281.978	281.978
25	79.052	79.052	103.082	103.082	111.093	111.093	186.650	186.650	235.473	235.473	257.423	257.423	279.372	279.372
27	81.547	81.547	102.925	102.925	110.051	110.051	190.654	190.654	233.276	233.276	255.021	255.021	276.767	276.767

R407C
MDB ~ ER Series (Cooling Mode)
Model : MDB075ER ~ M4MC075ER

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	24.526	15.361	22.888	13.784	21.251	12.208	19.614	10.632	17.976	9.056	16.011	7.165
	16	25.103	14.421	23.443	12.877	21.782	11.333	20.121	9.789	18.460	8.245	16.467	6.392
24	16	25.103	18.897	23.443	17.353	21.782	15.808	20.121	14.264	18.460	12.720	16.467	10.867
	17	25.681	17.957	23.997	16.445	22.312	14.933	20.628	13.421	18.944	11.909	16.922	10.095
	18	26.259	17.018	24.551	15.538	22.843	14.058	21.135	12.578	19.427	11.098	17.378	9.323
	19	26.837	16.079	25.106	14.631	23.374	13.183	21.643	11.735	19.911	10.288	17.833	8.550
	20	27.419	15.145	25.694	13.780	23.969	12.414	22.244	11.048	20.519	9.683	18.449	8.044
28	18	26.259	21.493	24.551	20.013	22.843	18.534	21.135	17.054	19.427	15.574	17.378	13.798
	19	26.837	20.554	25.106	19.106	23.374	17.658	21.643	16.211	19.911	14.763	17.833	13.025
	20	27.419	19.621	25.694	18.255	23.969	16.889	22.244	15.524	20.519	14.158	18.449	12.519
	21	28.003	18.691	26.305	17.441	24.607	16.191	22.909	14.940	21.210	13.690	19.173	12.190
	22	28.587	17.762	26.915	16.627	25.244	15.492	23.573	14.357	21.902	13.222	19.896	11.860
	23	29.170	16.833	27.526	15.813	25.882	14.794	24.237	13.774	22.593	12.755	20.620	11.531
	24	29.754	15.904	28.137	14.999	26.519	14.095	24.902	13.191	23.284	12.287	21.343	11.202
30	20	27.419	21.858	25.694	20.493	23.969	19.127	22.244	17.761	20.519	16.395	18.449	14.757
	21	28.003	20.929	26.305	19.679	24.607	18.428	22.909	17.178	21.210	15.928	19.173	14.427
	22	28.587	20.000	26.915	18.865	25.244	17.730	23.573	16.595	21.902	15.460	19.896	14.098
	23	29.170	19.070	27.526	18.051	25.882	17.031	24.237	16.012	22.593	14.992	20.620	13.769
	24	29.754	18.141	28.137	17.237	26.519	16.333	24.902	15.429	23.284	14.524	21.343	13.439

Model : MDB100ER ~ M4MC100ER

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	30.33	18.405	28.334	16.442	26.338	14.48	24.341	12.517	22.345	10.554	19.95	8.199
	16	31.121	17.505	29.08	15.529	27.039	13.552	24.998	11.576	22.958	9.599	20.509	7.227
24	16	31.121	23.515	29.08	21.538	27.039	19.562	24.998	17.585	22.958	15.609	20.509	13.237
	17	31.911	22.615	29.826	20.625	27.741	18.634	25.655	16.644	23.57	14.653	21.068	12.265
	18	32.701	21.715	30.572	19.711	28.442	17.707	26.312	15.702	24.183	13.698	21.627	11.293
	19	33.492	20.816	31.318	18.797	29.143	16.779	26.969	14.761	24.795	12.742	22.186	10.32
	20	34.287	19.925	32.108	17.965	29.929	16.005	27.75	14.045	25.572	12.085	22.957	9.733
28	18	32.701	27.725	30.572	25.721	28.442	23.716	26.312	21.712	24.183	19.707	21.627	17.302
	19	33.492	26.825	31.318	24.807	29.143	22.789	26.969	20.77	24.795	18.752	22.186	16.33
	20	34.287	25.934	32.108	23.974	29.929	22.014	27.75	20.055	25.572	18.095	22.957	15.743
	21	35.085	25.049	32.928	23.196	30.771	21.342	28.615	19.489	26.458	17.636	23.869	15.412
	22	35.884	24.164	33.749	22.417	31.614	20.67	29.479	18.924	27.343	17.177	24.781	15.081
	23	36.682	23.279	34.569	21.639	32.456	19.998	30.343	18.358	28.229	16.718	25.694	14.75
	24	37.481	22.394	35.389	20.86	33.298	19.326	31.207	17.793	29.115	16.259	26.606	14.419
30	20	34.287	28.939	32.108	26.979	29.929	25.019	27.75	23.059	25.572	21.099	22.957	18.747
	21	35.085	28.054	32.928	26.201	30.771	24.347	28.615	22.494	26.458	20.641	23.869	18.417
	22	35.884	27.169	33.749	25.422	31.614	23.675	29.479	21.929	27.343	20.182	24.781	18.086
	23	36.682	26.284	34.569	24.643	32.456	23.003	30.343	21.363	28.229	19.723	25.694	17.755
	24	37.481	25.398	35.389	23.865	33.298	22.331	31.207	20.798	29.115	19.264	26.606	17.424

R407C
MDB ~ ER Series (Cooling Mode)
Model : MDB125ER ~ M4MC125ER

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	35.936	21.655	33.616	19.382	31.297	17.108	28.977	14.834	26.658	12.560	23.874	9.831
	16	36.582	20.281	34.300	18.086	32.019	15.891	29.737	13.697	27.455	11.502	24.717	8.869
24	16	36.582	27.479	34.300	25.285	32.019	23.090	29.737	20.896	27.455	18.701	24.717	16.068
	17	37.228	26.104	34.984	23.989	32.740	21.874	30.496	19.759	28.252	17.644	25.560	15.106
	18	37.874	24.729	35.668	22.694	33.462	20.658	31.256	18.622	29.050	16.587	26.403	14.144
	19	38.520	23.354	36.352	21.398	34.184	19.442	32.016	17.486	29.847	15.529	27.246	13.182
	20	39.166	21.984	37.039	20.146	34.911	18.307	32.784	16.469	30.657	14.630	28.104	12.424
28	18	37.874	31.928	35.668	29.892	33.462	27.857	31.256	25.821	29.050	23.785	26.403	21.342
	19	38.520	30.553	36.352	28.597	34.184	26.640	32.016	24.684	29.847	22.728	27.246	20.380
	20	39.166	29.183	37.039	27.344	34.911	25.506	32.784	23.667	30.657	21.829	28.104	19.623
	21	39.813	27.815	37.728	26.120	35.643	24.425	33.558	22.730	31.474	21.035	28.972	19.001
	22	40.459	26.448	38.417	24.897	36.375	23.345	34.333	21.793	32.290	20.242	29.840	18.380
	23	41.106	25.081	39.106	23.673	37.106	22.265	35.107	20.856	33.107	19.448	30.708	17.759
	24	41.752	23.714	39.795	22.449	37.838	21.184	35.881	19.920	33.924	18.655	31.576	17.137
30	20	39.166	32.782	37.039	30.944	34.911	29.105	32.784	27.267	30.657	25.428	28.104	23.222
	21	39.813	31.415	37.728	29.720	35.643	28.025	33.558	26.330	31.474	24.635	28.972	22.601
	22	40.459	30.047	38.417	28.496	36.375	26.944	34.333	25.393	32.290	23.841	29.840	21.979
	23	41.106	28.680	39.106	27.272	37.106	25.864	35.107	24.456	33.107	23.048	30.708	21.358
	24	41.752	27.313	39.795	26.048	37.838	24.784	35.881	23.519	33.924	22.254	31.576	20.736

Model : MDB125ER2 ~ M4LC061CR x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	40.014	24.668	36.855	21.707	33.696	18.745	30.537	15.784	27.378	12.823	23.587	9.269
	16	40.178	22.651	37.099	19.951	34.021	17.250	30.942	14.549	27.864	11.848	24.170	8.607
24	16	40.178	30.382	37.099	27.681	34.021	24.980	30.942	22.279	27.864	19.578	24.170	16.337
	17	40.341	28.365	37.343	25.925	34.345	23.484	31.347	21.044	28.349	18.603	24.752	15.675
	18	40.504	26.349	37.587	24.169	34.670	21.989	31.752	19.809	28.835	17.629	25.334	15.012
	19	40.668	24.333	37.831	22.413	34.994	20.493	32.157	18.573	29.321	16.654	25.916	14.350
	20	40.839	22.315	38.150	20.643	35.461	18.971	32.773	17.299	30.084	15.627	26.857	13.621
28	18	40.504	34.079	37.587	31.899	34.670	29.719	31.752	27.539	28.835	25.359	25.334	22.743
	19	40.668	32.063	37.831	30.143	34.994	28.224	32.157	26.304	29.321	24.384	25.916	22.080
	20	40.839	30.045	38.150	28.373	35.461	26.702	32.773	25.030	30.084	23.358	26.857	21.352
	21	41.016	28.026	38.520	26.594	36.024	25.162	33.528	23.730	31.032	22.298	28.037	20.579
	22	41.193	26.007	38.890	24.815	36.587	23.622	34.283	22.430	31.980	21.237	29.217	19.807
	23	41.370	23.988	39.259	23.036	37.149	22.083	35.039	21.130	32.929	20.177	30.396	19.034
	24	41.547	21.969	39.629	21.256	37.712	20.543	35.794	19.830	33.877	19.117	31.576	18.261
30	20	40.839	33.910	38.150	32.239	35.461	30.567	32.773	28.895	30.084	27.223	26.857	25.217
	21	41.016	31.891	38.520	30.459	36.024	29.027	33.528	27.595	31.032	26.163	28.037	24.444
	22	41.193	29.872	38.890	28.680	36.587	27.488	34.283	26.295	31.980	25.103	29.217	23.672
	23	41.370	27.854	39.259	26.901	37.149	25.948	35.039	24.995	32.929	24.043	30.396	22.899
	24	41.547	25.835	39.629	25.122	37.712	24.408	35.794	23.695	33.877	22.982	31.576	22.127

R407C
MDB ~ ER Series (Cooling Mode)
Model : MDB150ER ~ M4MC150ER

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	50.293	31.575	46.863	28.249	43.433	24.923	40.003	21.597	36.573	18.271	32.457	14.279
	16	50.069	28.237	46.970	25.337	43.872	22.436	40.773	19.536	37.674	16.635	33.956	13.155
24	16	50.069	37.367	46.970	34.466	43.872	31.566	40.773	28.665	37.674	25.765	33.956	22.284
	17	49.845	34.029	47.078	31.554	44.311	29.079	41.543	26.604	38.776	24.129	35.455	21.159
	18	49.622	30.691	47.186	28.642	44.750	26.593	42.313	24.543	39.877	22.494	36.954	20.035
	19	49.398	27.354	47.293	25.730	45.189	24.106	43.084	22.482	40.979	20.859	38.453	18.910
	20	49.164	24.014	47.303	22.800	45.443	21.586	43.582	20.372	41.721	19.158	39.488	17.702
28	18	49.622	39.821	47.186	37.772	44.750	35.722	42.313	33.673	39.877	31.623	36.954	29.164
	19	49.398	36.483	47.293	34.859	45.189	33.236	43.084	31.612	40.979	29.988	38.453	28.040
	20	49.164	33.144	47.303	31.930	45.443	30.716	43.582	29.502	41.721	28.288	39.488	26.831
	21	48.923	29.803	47.248	28.988	45.574	28.174	43.899	27.359	42.224	26.544	40.215	25.567
	22	48.682	26.462	47.194	26.047	45.705	25.631	44.216	25.216	42.727	24.801	40.941	24.302
	23	48.441	23.121	47.139	23.105	45.836	23.089	44.533	23.073	43.231	23.057	41.667	23.038
	24	48.200	19.780	47.084	20.164	45.967	20.547	44.850	20.930	43.734	21.314	42.394	21.774
30	20	49.164	37.708	47.303	36.494	45.443	35.280	43.582	34.066	41.721	32.853	39.488	31.396
	21	48.923	34.367	47.248	33.553	45.574	32.738	43.899	31.924	42.224	31.109	40.215	30.131
	22	48.682	31.027	47.194	30.611	45.705	30.196	44.216	29.781	42.727	29.365	40.941	28.867
	23	48.441	27.686	47.139	27.670	45.836	27.654	44.533	27.638	43.231	27.622	41.667	27.603
	24	48.200	24.345	47.084	24.728	45.967	25.112	44.850	25.495	43.734	25.878	42.394	26.338

Model : MDB150ER2 ~ M4MC075ER x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	49.051	30.721	45.776	27.569	42.502	24.417	39.227	21.264	35.952	18.112	32.023	14.329
	16	50.207	28.843	46.885	25.755	43.563	22.666	40.242	19.578	36.920	16.490	32.934	12.784
24	16	50.207	37.793	46.885	34.705	43.563	31.617	40.242	28.529	36.920	25.441	32.934	21.735
	17	51.363	35.915	47.994	32.891	44.625	29.867	41.256	26.843	37.887	23.819	33.845	20.190
	18	52.519	34.036	49.103	31.076	45.687	28.117	42.271	25.157	38.855	22.197	34.756	18.645
	19	53.674	32.158	50.211	29.262	46.748	26.366	43.285	23.471	39.822	20.575	35.667	17.100
	20	54.837	30.291	51.388	27.559	47.938	24.828	44.488	22.097	41.039	19.365	36.899	16.087
28	18	52.519	42.987	49.103	40.027	45.687	37.067	42.271	34.107	38.855	31.148	34.756	27.596
	19	53.674	41.108	50.211	38.212	46.748	35.317	43.285	32.421	39.822	29.526	35.667	26.051
	20	54.837	39.241	51.388	36.510	47.938	33.779	44.488	31.047	41.039	28.316	36.899	25.038
	21	56.005	37.383	52.609	34.882	49.213	32.381	45.817	29.881	42.421	27.380	38.346	24.379
	22	57.173	35.524	53.831	33.254	50.488	30.984	47.146	28.714	43.803	26.445	39.793	23.721
	23	58.341	33.666	55.052	31.627	51.763	29.587	48.475	27.548	45.186	25.509	41.239	23.062
	24	59.509	31.807	56.274	29.999	53.038	28.190	49.803	26.382	46.568	24.573	42.686	22.403
30	20	54.837	43.717	51.388	40.985	47.938	38.254	44.488	35.522	41.039	32.791	36.899	29.513
	21	56.005	41.858	52.609	39.357	49.213	36.857	45.817	34.356	42.421	31.855	38.346	28.854
	22	57.173	40.000	53.831	37.730	50.488	35.460	47.146	33.190	43.803	30.920	39.793	28.196
	23	58.341	38.141	55.052	36.102	51.763	34.063	48.475	32.023	45.186	29.984	41.239	27.537
	24	59.509	36.282	56.274	34.474	53.038	32.666	49.803	30.857	46.568	29.049	42.686	26.879

R407C
MDB ~ ER Series (Cooling Mode)
Model : MDB200ER2 ~ M4MC100ER x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	61.649	36.547	57.466	32.397	53.284	28.248	49.101	24.099	44.919	19.950	39.900	14.971
	16	63.005	34.605	58.777	30.440	54.548	26.276	50.320	22.111	46.092	17.946	41.018	12.949
24	16	63.005	47.425	58.777	43.261	54.548	39.096	50.320	34.931	46.092	30.767	41.018	25.769
	17	64.361	45.483	60.087	41.303	55.813	37.123	51.539	32.943	47.265	28.763	42.136	23.747
	18	65.717	43.541	61.397	39.346	57.078	35.150	52.758	30.955	48.438	26.760	43.254	21.725
	19	67.074	41.599	62.708	37.388	58.342	33.178	53.977	28.967	49.611	24.756	44.372	19.703
	20	68.439	39.677	64.107	35.614	59.776	31.550	55.444	27.487	51.112	23.424	45.914	18.548
28	18	65.717	56.362	61.397	52.166	57.078	47.971	52.758	43.776	48.438	39.580	43.254	34.546
	19	67.074	54.420	62.708	50.209	58.342	45.998	53.977	41.787	49.611	37.577	44.372	32.524
	20	68.439	52.497	64.107	48.434	59.776	44.371	55.444	40.308	51.112	36.245	45.914	31.369
	21	69.811	50.588	65.567	46.781	61.322	42.974	57.077	39.167	52.832	35.360	47.738	30.792
	22	71.183	48.678	67.026	45.128	62.868	41.577	58.710	38.026	54.552	34.476	49.563	30.215
	23	72.556	46.769	68.485	43.475	64.414	40.180	60.343	36.886	56.272	33.591	51.387	29.638
	24	73.928	44.860	69.944	41.821	65.960	38.783	61.976	35.745	57.992	32.707	53.211	29.061
30	20	68.439	58.907	64.107	54.844	59.776	50.781	55.444	46.718	51.112	42.655	45.914	37.779
	21	69.811	56.998	65.567	53.191	61.322	49.384	57.077	45.577	52.832	41.770	47.738	37.202
	22	71.183	55.089	67.026	51.538	62.868	47.987	58.710	44.437	54.552	40.886	49.563	36.625
	23	72.556	53.179	68.485	49.885	64.414	46.590	60.343	43.296	56.272	40.001	51.387	36.048
	24	73.928	51.270	69.944	48.232	65.960	45.193	61.976	42.155	57.992	39.117	53.211	35.471

Model : MDB250ER2 ~ M4MC125ER x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	73.035	42.973	68.172	38.161	63.309	33.350	58.446	28.539	53.584	23.727	47.748	17.954
	16	74.063	40.055	69.326	35.417	64.590	30.779	59.854	26.141	55.117	21.504	49.434	15.938
24	16	74.063	55.412	69.326	50.774	64.590	46.136	59.854	41.498	55.117	36.861	49.434	31.295
	17	75.090	52.494	70.481	48.030	65.871	43.566	61.261	39.101	56.651	34.637	51.120	29.280
	18	76.118	49.577	71.635	45.286	67.152	40.995	62.668	36.704	58.185	32.413	52.806	27.264
	19	77.145	46.659	72.789	42.542	68.432	38.424	64.076	34.307	59.719	30.190	54.491	25.249
	20	78.174	43.753	73.949	39.908	69.725	36.062	65.501	32.217	61.277	28.372	56.208	23.757
28	18	76.118	64.934	71.635	60.643	67.152	56.352	62.668	52.061	58.185	47.770	52.806	42.621
	19	77.145	62.016	72.789	57.899	68.432	53.781	64.076	49.664	59.719	45.547	54.491	40.606
	20	78.174	59.110	73.949	55.265	69.725	51.419	65.501	47.574	61.277	43.729	56.208	39.114
	21	79.202	56.212	75.114	52.704	71.026	49.196	66.938	45.688	62.849	42.181	57.944	37.971
	22	80.231	53.314	76.279	50.144	72.327	46.973	68.374	43.803	64.422	40.633	59.680	36.828
	23	81.259	50.416	77.443	47.583	73.627	44.750	69.811	41.917	65.995	39.084	61.416	35.685
	24	82.288	47.518	78.608	45.023	74.928	42.527	71.248	40.032	67.568	37.536	63.152	34.542
30	20	78.174	66.789	73.949	62.943	69.725	59.098	65.501	55.253	61.277	51.407	56.208	46.793
	21	79.202	63.891	75.114	60.383	71.026	56.875	66.938	53.367	62.849	49.859	57.944	45.650
	22	80.231	60.993	76.279	57.822	72.327	54.652	68.374	51.481	64.422	48.311	59.680	44.506
	23	81.259	58.095	77.443	55.262	73.627	52.429	69.811	49.596	65.995	46.763	61.416	43.363
	24	82.288	55.197	78.608	52.701	74.928	50.206	71.248	47.710	67.568	45.215	63.152	42.220

R407C
MDB ~ ER Series (Cooling Mode)
Model : MDB300ER2 ~ M4MC150ER x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	100.585	63.150	93.725	56.498	86.865	49.846	80.006	43.194	73.146	36.541	64.914	28.558
	16	100.138	56.475	93.941	50.674	87.743	44.873	81.546	39.072	75.349	33.271	67.912	26.309
24	16	100.138	74.734	93.941	68.933	87.743	63.132	81.546	57.330	75.349	51.529	67.912	44.568
	17	99.691	68.058	94.156	63.108	88.621	58.159	83.086	53.209	77.552	48.259	70.910	42.319
	18	99.244	61.383	94.371	57.284	89.499	53.185	84.627	49.087	79.755	44.988	73.908	40.069
	19	98.796	54.708	94.587	51.460	90.377	48.212	86.167	44.965	81.958	41.717	76.906	37.820
	20	98.328	48.028	94.607	45.600	90.885	43.173	87.164	40.745	83.443	38.317	78.977	35.403
28	18	99.244	79.642	94.371	75.543	89.499	71.444	84.627	67.346	79.755	63.247	73.908	58.328
	19	98.796	72.966	94.587	69.719	90.377	66.471	86.167	63.224	81.958	59.976	76.906	56.079
	20	98.328	66.287	94.607	63.859	90.885	61.431	87.164	59.004	83.443	56.576	78.977	53.662
	21	97.846	59.606	94.497	57.976	91.148	56.347	87.798	54.718	84.449	53.089	80.429	51.133
	22	97.364	52.924	94.387	52.093	91.410	51.263	88.432	50.432	85.455	49.601	81.882	48.605
	23	96.882	46.242	94.277	46.210	91.672	46.178	89.066	46.146	86.461	46.114	83.335	46.076
	24	96.400	39.560	94.167	40.327	91.934	41.094	89.701	41.861	87.467	42.627	84.787	43.547
30	20	98.328	75.417	94.607	72.989	90.885	70.561	87.164	68.133	83.443	65.705	78.977	62.792
	21	97.846	68.735	94.497	67.106	91.148	65.476	87.798	63.847	84.449	62.218	80.429	60.263
	22	97.364	62.053	94.387	61.223	91.410	60.392	88.432	59.561	85.455	58.731	81.882	57.734
	23	96.882	55.372	94.277	55.340	91.672	55.308	89.066	55.276	86.461	55.244	83.335	55.205
	24	96.400	48.690	94.167	49.457	91.934	50.223	89.701	50.990	87.467	51.757	84.787	52.677

Model : MDB300ER3 ~ M4MC100ER x 3

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	90.990	55.215	85.002	49.327	79.013	43.439	73.024	37.551	67.036	31.663	59.849	24.598
	16	93.362	52.516	87.239	46.586	81.117	40.656	74.995	34.727	68.873	28.797	61.527	21.682
24	16	93.362	70.544	87.239	64.615	81.117	58.685	74.995	52.756	68.873	46.826	61.527	39.710
	17	95.733	67.845	89.477	61.874	83.222	55.903	76.966	49.931	70.710	43.960	63.204	36.794
	18	98.104	65.146	91.715	59.133	85.326	53.120	78.937	47.107	72.548	41.094	64.881	33.878
	19	100.475	62.447	93.953	56.392	87.430	50.337	80.908	44.282	74.385	38.227	66.558	30.961
	20	102.861	59.774	96.325	53.895	89.788	48.015	83.251	42.135	76.715	36.255	68.871	29.199
28	18	98.104	83.175	91.715	77.162	85.326	71.149	78.937	65.136	72.548	59.122	64.881	51.907
	19	100.475	80.476	93.953	74.421	87.430	68.366	80.908	62.311	74.385	56.256	66.558	48.990
	20	102.861	77.803	96.325	71.923	89.788	66.043	83.251	60.164	76.715	54.284	68.871	47.228
	21	105.256	75.148	98.785	69.587	92.314	64.027	85.844	58.467	79.373	52.907	71.608	46.235
	22	107.651	72.492	101.246	67.252	94.841	62.011	88.436	56.771	82.030	51.531	74.344	45.243
	23	110.047	69.836	103.707	64.916	97.367	59.995	91.028	55.075	84.688	50.154	77.081	44.250
	24	112.442	67.181	106.168	62.580	99.894	57.979	93.620	53.379	87.346	48.778	79.817	43.257
30	20	102.861	86.818	96.325	80.938	89.788	75.058	83.251	69.178	76.715	63.298	68.871	56.242
	21	105.256	84.162	98.785	78.602	92.314	73.042	85.844	67.482	79.373	61.922	71.608	55.250
	22	107.651	81.506	101.246	76.266	94.841	71.026	88.436	65.786	82.030	60.545	74.344	54.257
	23	110.047	78.851	103.707	73.930	97.367	69.010	91.028	64.089	84.688	59.169	77.081	53.264
	24	112.442	76.195	106.168	71.594	99.894	66.994	93.620	62.393	87.346	57.792	79.817	52.271

R407C
MDB ~ ER Series (Cooling Mode)
Model : MDB350ER3 ~ M4MC100ER + M4MC125ER x 2

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	100.524	64.358	94.212	58.307	87.900	52.256	81.587	46.204	75.275	40.153	67.700	32.891
	16	102.985	60.751	96.631	54.896	90.278	49.041	83.924	43.185	77.571	37.330	69.947	30.304
24	16	102.985	78.358	96.631	72.503	90.278	66.647	83.924	60.792	77.571	54.937	69.947	47.911
	17	105.445	74.750	99.051	69.091	92.656	63.432	86.262	57.773	79.867	52.115	72.194	45.324
	18	107.906	71.143	101.470	65.680	95.034	60.217	88.599	54.755	82.163	49.292	74.440	42.737
	19	110.366	67.536	103.889	62.269	97.413	57.003	90.936	51.736	84.459	46.470	76.687	40.150
	20	112.832	63.937	106.359	58.943	99.886	53.948	93.414	48.954	86.941	43.959	79.174	37.966
28	18	107.906	88.750	101.470	83.287	95.034	77.824	88.599	72.362	82.163	66.899	74.440	60.344
	19	110.366	85.142	103.889	79.876	97.413	74.609	90.936	69.343	84.459	64.076	76.687	57.757
	20	112.832	81.544	106.359	76.550	99.886	71.555	93.414	66.561	86.941	61.566	79.174	55.573
	21	115.301	77.952	108.862	73.280	102.424	68.608	95.985	63.936	89.546	59.264	81.820	53.658
	22	117.770	74.360	111.366	70.010	104.961	65.661	98.556	61.312	92.151	56.962	84.466	51.743
	23	120.240	70.767	113.869	66.741	107.498	62.714	101.127	58.687	94.757	54.660	87.112	49.828
	24	122.709	67.175	116.372	63.471	110.036	59.767	103.699	56.063	97.362	52.359	89.758	47.914
30	20	112.832	90.348	106.359	85.353	99.886	80.359	93.414	75.364	86.941	70.370	79.174	64.376
	21	115.301	86.755	108.862	82.083	102.424	77.411	95.985	72.740	89.546	68.068	81.820	62.461
	22	117.770	83.163	111.366	78.814	104.961	74.464	98.556	70.115	92.151	65.766	84.466	60.547
	23	120.240	79.571	113.869	75.544	107.498	71.517	101.127	67.491	94.757	63.464	87.112	58.632
	24	122.709	75.979	116.372	72.274	110.036	68.570	103.699	64.866	97.362	61.162	89.758	56.717

Model : MDB400ER4 ~ M4MC100ER x 4

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	121.320	73.620	113.335	65.769	105.351	57.919	97.366	50.068	89.381	42.218	79.799	32.797
	16	124.482	70.021	116.319	62.115	108.156	54.209	99.994	46.302	91.831	38.396	82.035	28.909
24	16	124.482	94.059	116.319	86.153	108.156	78.247	99.994	70.341	91.831	62.435	82.035	52.947
	17	127.644	90.461	119.303	82.499	110.962	74.537	102.621	66.575	94.281	58.613	84.272	49.059
	18	130.806	86.862	122.287	78.844	113.768	70.827	105.249	62.809	96.731	54.791	86.508	45.170
	19	133.967	83.263	125.271	75.190	116.574	67.116	107.877	59.043	99.180	50.970	88.744	41.282
	20	137.148	79.699	128.433	71.859	119.717	64.020	111.002	56.180	102.287	48.340	91.828	38.932
28	18	130.806	110.900	122.287	102.883	113.768	94.865	105.249	86.847	96.731	78.830	86.508	69.209
	19	133.967	107.302	125.271	99.228	116.574	91.155	107.877	83.082	99.180	75.008	88.744	65.320
	20	137.148	103.738	128.433	95.898	119.717	88.058	111.002	80.218	102.287	72.378	91.828	62.971
	21	140.342	100.197	131.714	92.783	123.086	85.370	114.458	77.957	105.830	70.543	95.477	61.647
	22	143.535	96.656	134.995	89.669	126.455	82.682	117.914	75.695	109.374	68.708	99.125	60.323
	23	146.729	93.115	138.276	86.554	129.823	79.994	121.370	73.433	112.918	66.872	102.774	59.000
	24	149.922	89.574	141.557	83.440	133.192	77.306	124.827	71.171	116.461	65.037	106.423	57.676
30	20	137.148	115.757	128.433	107.917	119.717	100.077	111.002	92.237	102.287	84.398	91.828	74.990
	21	140.342	112.216	131.714	104.803	123.086	97.389	114.458	89.976	105.830	82.562	95.477	73.666
	22	143.535	108.675	134.995	101.688	126.455	94.701	117.914	87.714	109.374	80.727	99.125	72.343
	23	146.729	105.134	138.276	98.574	129.823	92.013	121.370	85.452	112.918	78.892	102.774	71.019
	24	149.922	101.593	141.557	95.459	133.192	89.325	124.827	83.191	116.461	77.056	106.423	69.695

R407C
MDB ~ ER Series (Cooling Mode)
Model : MDB450ER4 ~ M4MC150ER x 3

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	149.837	93.756	139.618	83.846	129.400	73.937	119.181	64.027	108.962	54.117	96.700	42.226
	16	149.171	83.812	139.939	75.170	130.707	66.529	121.475	57.887	112.244	49.245	101.165	38.875
24	16	149.171	111.200	139.939	102.558	130.707	93.917	121.475	85.275	112.244	76.634	101.165	66.264
	17	148.505	101.256	140.260	93.882	132.015	86.509	123.770	79.135	115.525	71.761	105.631	62.913
	18	147.839	91.312	140.581	85.206	133.323	79.101	126.065	72.995	118.807	66.889	110.097	59.562
	19	147.173	81.368	140.902	76.530	134.631	71.692	128.360	66.855	122.089	62.017	114.563	56.212
	20	146.475	71.418	140.932	67.802	135.388	64.185	129.844	60.568	124.301	56.951	117.648	52.611
28	18	147.839	118.700	140.581	112.595	133.323	106.489	126.065	100.383	118.807	94.277	110.097	86.950
	19	147.173	108.756	140.902	103.918	134.631	99.081	128.360	94.243	122.089	89.405	114.563	83.600
	20	146.475	98.807	140.932	95.190	135.388	91.573	129.844	87.956	124.301	84.340	117.648	79.999
	21	145.757	88.853	140.768	86.426	135.778	83.999	130.789	81.572	125.799	79.145	119.812	76.233
	22	145.039	78.900	140.604	77.662	136.169	76.425	131.734	75.188	127.298	73.950	121.976	72.466
	23	144.321	68.946	140.440	68.899	136.559	68.851	132.678	68.803	128.797	68.756	124.140	68.699
	24	143.603	58.993	140.277	60.135	136.950	61.277	133.623	62.419	130.296	63.561	126.304	64.932
30	20	146.475	112.501	140.932	108.884	135.388	105.267	129.844	101.650	124.301	98.034	117.648	93.694
	21	145.757	102.547	140.768	100.120	135.778	97.693	130.789	95.266	125.799	92.839	119.812	89.927
	22	145.039	92.594	140.604	91.356	136.169	90.119	131.734	88.882	127.298	87.645	121.976	86.160
	23	144.321	82.640	140.440	82.593	136.559	82.545	132.678	82.498	128.797	82.450	124.140	82.393
	24	143.603	72.687	140.277	73.829	136.950	74.971	133.623	76.113	130.296	77.255	126.304	78.626

Model : MDB500ER4 ~ M4MC125ER x 4

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	144.743	87.558	135.400	78.399	126.057	69.240	116.714	60.081	107.371	50.923	96.159	39.932
	16	147.344	82.020	138.154	73.181	128.963	64.342	119.773	55.503	110.583	46.664	99.554	36.057
24	16	147.344	110.815	138.154	101.976	128.963	93.137	119.773	84.298	110.583	75.459	99.554	64.852
	17	149.946	105.277	140.908	96.758	131.870	88.239	122.833	79.719	113.795	71.200	102.949	60.977
	18	152.548	99.739	143.662	91.540	134.777	83.340	125.892	75.141	117.007	66.942	106.345	57.103
	19	155.149	94.201	146.417	86.322	137.684	78.442	128.951	70.563	120.219	62.684	109.740	53.228
	20	157.752	88.682	149.184	81.277	140.615	73.872	132.047	66.467	123.478	59.063	113.196	50.177
28	18	152.548	128.534	143.662	120.334	134.777	112.135	125.892	103.936	117.007	95.736	106.345	85.897
	19	155.149	122.996	146.417	115.116	137.684	107.237	128.951	99.357	120.219	91.478	109.740	82.023
	20	157.752	117.476	149.184	110.071	140.615	102.667	132.047	95.262	123.478	87.857	113.196	78.971
	21	160.356	111.969	151.959	105.142	143.562	98.315	135.165	91.488	126.768	84.661	116.692	76.468
	22	162.960	106.462	154.735	100.213	146.509	93.964	138.284	87.714	130.059	81.465	120.188	73.965
	23	165.564	100.955	157.510	95.284	149.457	89.612	141.403	83.940	133.349	78.269	123.685	71.463
	24	168.168	95.448	160.286	90.354	152.404	85.260	144.522	80.166	136.640	75.072	127.181	68.960
30	20	157.752	131.874	149.184	124.469	140.615	117.064	132.047	109.659	123.478	102.254	113.196	93.368
	21	160.356	126.367	151.959	119.539	143.562	112.712	135.165	105.885	126.768	99.058	116.692	90.865
	22	162.960	120.860	154.735	114.610	146.509	108.361	138.284	102.111	130.059	95.862	120.188	88.363
	23	165.564	115.353	157.510	109.681	149.457	104.009	141.403	98.338	133.349	92.666	123.685	85.860
	24	168.168	109.846	160.286	104.752	152.404	99.658	144.522	94.564	136.640	89.470	127.181	83.357

R407C
MDB ~ ER Series (Cooling Mode)
Model : MDB600ER4 ~ M4MC150ER x 4

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	201.170	126.301	187.450	112.996	173.731	99.692	160.011	86.387	146.292	73.082	129.828	57.117
	16	200.276	112.950	187.881	101.348	175.487	89.745	163.092	78.143	150.698	66.541	135.824	52.618
24	16	200.276	149.468	187.881	137.865	175.487	126.263	163.092	114.661	150.698	103.059	135.824	89.136
	17	199.381	136.117	188.312	126.217	177.242	116.317	166.173	106.417	155.103	96.517	141.820	84.638
	18	198.487	122.766	188.743	114.568	178.998	106.371	169.254	98.173	159.509	89.976	147.816	80.139
	19	197.593	109.415	189.173	102.920	180.754	96.425	172.335	89.930	163.915	83.435	153.812	75.640
	20	196.657	96.057	189.214	91.201	181.771	86.345	174.328	81.489	166.885	76.634	157.953	70.807
28	18	198.487	159.284	188.743	151.086	178.998	142.889	169.254	134.691	159.509	126.494	147.816	116.657
	19	197.593	145.933	189.173	139.438	180.754	132.943	172.335	126.447	163.915	119.952	153.812	112.158
	20	196.657	132.574	189.214	127.719	181.771	122.863	174.328	118.007	166.885	113.151	157.953	107.324
	21	195.693	119.211	188.994	115.953	182.295	112.694	175.596	109.436	168.897	106.177	160.859	102.267
	22	194.729	105.848	188.774	104.186	182.819	102.525	176.865	100.864	170.910	99.203	163.764	97.209
	23	193.765	92.484	188.554	92.420	183.344	92.356	178.133	92.293	172.922	92.229	166.670	92.152
	24	192.801	79.121	188.334	80.654	183.868	82.188	179.401	83.721	174.935	85.255	169.575	87.095
30	20	196.657	150.833	189.214	145.978	181.771	141.122	174.328	136.266	166.885	131.410	157.953	125.583
	21	195.693	137.470	188.994	134.211	182.295	130.953	175.596	127.694	168.897	124.436	160.859	120.526
	22	194.729	124.107	188.774	122.445	182.819	120.784	176.865	119.123	170.910	117.462	163.764	115.468
	23	193.765	110.743	188.554	110.679	183.344	110.615	178.133	110.551	172.922	110.488	166.670	110.411
	24	192.801	97.380	188.334	98.913	183.868	100.447	179.401	101.980	174.935	103.513	169.575	105.354

R22
MDB ~ ER Series (Heating Mode)
Model : MDB075ER ~ M4MC075ER

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	10.154	10.154	12.244	12.244	12.941	12.941	20.607	20.607	24.789	24.789	26.879	26.879	28.970	28.970
17	9.843	9.843	12.080	12.080	12.825	12.825	21.275	21.275	24.568	24.568	26.640	26.640	28.712	28.712
19	9.532	9.532	11.915	11.915	12.710	12.710	21.942	21.942	24.347	24.347	26.400	26.400	28.454	28.454
21	9.221	9.221	11.750	11.750	12.594	12.594	22.609	22.609	24.125	24.125	26.160	26.160	28.195	28.195
23	9.361	9.361	11.699	11.699	12.478	12.478	21.529	21.529	23.904	23.904	25.921	25.921	27.937	27.937
25	9.501	9.501	11.647	11.647	12.362	12.362	20.449	20.449	23.683	23.683	25.681	25.681	27.679	27.679
27	9.641	9.641	11.595	11.595	12.246	12.246	19.369	19.369	23.462	23.462	25.442	25.442	27.421	27.421

Model : MDB100ER ~ M4MC100ER

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	14.930	14.930	18.102	18.102	19.159	19.159	30.789	30.789	37.133	37.133	40.305	40.305	43.476	43.476
17	14.450	14.450	17.853	17.853	18.988	18.988	30.668	30.668	36.802	36.802	39.945	39.945	43.089	43.089
19	13.970	13.970	17.605	17.605	18.816	18.816	30.546	30.546	36.471	36.471	39.586	39.586	42.702	42.702
21	13.490	13.490	17.356	17.356	18.645	18.645	30.425	30.425	36.139	36.139	39.227	39.227	42.314	42.314
23	13.720	13.720	17.285	17.285	18.473	18.473	29.989	29.989	35.808	35.808	38.867	38.867	41.927	41.927
25	13.950	13.950	17.214	17.214	18.301	18.301	29.552	29.552	35.477	35.477	38.508	38.508	41.539	41.539
27	14.180	14.180	17.142	17.142	18.130	18.130	29.116	29.116	35.146	35.146	38.149	38.149	41.152	41.152

Model : MDB125ER ~ M4MC125ER

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	15.913	15.913	19.802	19.802	21.098	21.098	35.355	35.355	43.132	43.132	47.020	47.020	50.908	50.908
17	15.283	15.283	19.502	19.502	20.909	20.909	35.107	35.107	42.747	42.747	46.601	46.601	50.455	50.455
19	14.653	14.653	19.203	19.203	20.720	20.720	34.859	34.859	42.362	42.362	46.182	46.182	50.001	50.001
21	14.022	14.022	18.904	18.904	20.531	20.531	34.612	34.612	41.978	41.978	45.763	45.763	49.547	49.547
23	14.392	14.392	18.855	18.855	20.342	20.342	34.225	34.225	41.593	41.593	45.343	45.343	49.094	49.094
25	14.763	14.763	18.806	18.806	20.153	20.153	33.838	33.838	41.209	41.209	44.924	44.924	48.640	48.640
27	15.133	15.133	18.756	18.756	19.964	19.964	33.451	33.451	40.824	40.824	44.505	44.505	48.186	48.186

Model : MDB125ER2 ~ M4LC061CR x 2

ID DB°C	utdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	15.371	15.371	18.881	18.881	20.051	20.051	32.922	32.922	39.943	39.943	43.454	43.454	46.964	46.964
17	14.819	14.819	18.608	18.608	19.872	19.872	32.369	32.369	39.587	39.587	43.066	43.066	46.545	46.545
19	14.268	14.268	18.336	18.336	19.692	19.692	31.816	31.816	39.231	39.231	42.679	42.679	46.127	46.127
21	13.716	13.716	18.063	18.063	19.512	19.512	31.262	31.262	38.875	38.875	42.291	42.291	45.708	45.708
23	14.013	14.013	18.003	18.003	19.333	19.333	31.242	31.242	38.518	38.518	41.904	41.904	45.290	45.290
25	14.311	14.311	17.943	17.943	19.153	19.153	31.221	31.221	38.162	38.162	41.517	41.517	44.871	44.871
27	14.608	14.608	17.882	17.882	18.974	18.974	31.200	31.200	37.806	37.806	41.129	41.129	44.453	44.453

R22
MDB ~ ER Series (Heating Mode)
Model : MDB150ER ~ M4MC150ER

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	20.079	20.079	25.463	25.463	27.257	27.257	46.997	46.997	57.764	57.764	63.148	63.148	68.532	68.532
17	19.172	19.172	25.053	25.053	27.013	27.013	45.288	45.288	57.249	57.249	62.585	62.585	67.921	67.921
19	18.265	18.265	24.643	24.643	26.769	26.769	43.578	43.578	56.734	56.734	62.022	62.022	67.310	67.310
21	17.358	17.358	24.234	24.234	26.525	26.525	41.869	41.869	56.219	56.219	61.459	61.459	66.699	66.699
23	17.943	17.943	24.197	24.197	26.281	26.281	42.808	42.808	55.704	55.704	60.896	60.896	66.089	66.089
25	18.528	18.528	24.160	24.160	26.037	26.037	43.746	43.746	55.189	55.189	60.333	60.333	65.478	65.478
27	19.113	19.113	24.123	24.123	25.793	25.793	44.684	44.684	54.674	54.674	59.771	59.771	64.867	64.867

Model : MDB150ER2 ~ M4MC075ER x 2

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	20.308	20.308	24.489	24.489	25.883	25.883	41.215	41.215	49.577	49.577	53.759	53.759	57.940	57.940
17	19.686	19.686	24.160	24.160	25.651	25.651	42.549	42.549	49.135	49.135	53.279	53.279	57.424	57.424
19	19.064	19.064	23.830	23.830	25.419	25.419	43.884	43.884	48.693	48.693	52.800	52.800	56.907	56.907
21	18.442	18.442	23.501	23.501	25.187	25.187	45.219	45.219	48.251	48.251	52.321	52.321	56.391	56.391
23	18.722	18.722	23.397	23.397	24.955	24.955	43.058	43.058	47.809	47.809	51.842	51.842	55.875	55.875
25	19.003	19.003	23.293	23.293	24.724	24.724	40.898	40.898	47.367	47.367	51.362	51.362	55.358	55.358
27	19.283	19.283	23.189	23.189	24.492	24.492	38.738	38.738	46.924	46.924	50.883	50.883	54.842	54.842

Model : MDB200ER2 ~ M4MC100ER x 2

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	29.861	29.861	36.204	36.204	38.319	38.319	61.578	61.578	74.266	74.266	80.609	80.609	86.953	86.953
17	28.901	28.901	35.707	35.707	37.975	37.975	61.336	61.336	73.603	73.603	79.891	79.891	86.178	86.178
19	27.941	27.941	35.209	35.209	37.632	37.632	61.093	61.093	72.941	72.941	79.172	79.172	85.403	85.403
21	26.981	26.981	34.712	34.712	37.289	37.289	60.85	60.85	72.279	72.279	78.453	78.453	84.628	84.628
23	27.441	27.441	34.57	34.57	36.946	36.946	59.977	59.977	71.616	71.616	77.735	77.735	83.853	83.853
25	27.901	27.901	34.427	34.427	36.603	36.603	59.105	59.105	70.954	70.954	77.016	77.016	83.078	83.078
27	28.361	28.361	34.285	34.285	36.259	36.259	58.232	58.232	70.292	70.292	76.298	76.298	82.303	82.303

Model : MDB250ER2 ~ M4MC125ER x 2

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	31.827	31.827	39.603	39.603	42.196	42.196	70.710	70.710	86.263	86.263	94.040	94.040	101.817	101.817
17	30.566	30.566	39.005	39.005	41.818	41.818	70.215	70.215	85.494	85.494	93.202	93.202	100.909	100.909
19	29.305	29.305	38.406	38.406	41.440	41.440	69.719	69.719	84.725	84.725	92.364	92.364	100.002	100.002
21	28.044	28.044	37.808	37.808	41.062	41.062	69.223	69.223	83.956	83.956	91.525	91.525	99.095	99.095
23	28.785	28.785	37.709	37.709	40.684	40.684	68.450	68.450	83.187	83.187	90.687	90.687	98.187	98.187
25	29.526	29.526	37.611	37.611	40.306	40.306	67.676	67.676	82.417	82.417	89.849	89.849	97.280	97.280
27	30.266	30.266	37.513	37.513	39.929	39.929	66.902	66.902	81.648	81.648	89.010	89.010	96.373	96.373

R22
MDB ~ ER Series (Heating Mode)
Model : MDB300ER2 ~ M4MC150ER x 2

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	40.159	40.159	50.926	50.926	54.515	54.515	93.995	93.995	115.529	115.529	126.296	126.296	137.063	137.063
17	38.345	38.345	50.106	50.106	54.027	54.027	90.576	90.576	114.499	114.499	125.170	125.170	135.842	135.842
19	36.531	36.531	49.287	49.287	53.539	53.539	87.157	87.157	113.469	113.469	124.044	124.044	134.620	134.620
21	34.716	34.716	48.467	48.467	53.051	53.051	83.738	83.738	112.438	112.438	122.919	122.919	133.399	133.399
23	35.886	35.886	48.394	48.394	52.563	52.563	85.615	85.615	111.408	111.408	121.793	121.793	132.177	132.177
25	37.056	37.056	48.320	48.320	52.075	52.075	87.492	87.492	110.378	110.378	120.667	120.667	130.956	130.956
27	38.225	38.225	48.246	48.246	51.587	51.587	89.369	89.369	109.348	109.348	119.541	119.541	129.734	129.734

Model : MDB300ER3 ~ M4MC100ER x 3

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	47.478	47.478	57.565	57.565	60.927	60.927	97.910	97.910	118.082	118.082	128.169	128.169	138.255	138.255
17	45.952	45.952	56.774	56.774	60.381	60.381	95.698	95.698	117.029	117.029	127.026	127.026	137.023	137.023
19	44.425	44.425	55.983	55.983	59.835	59.835	93.486	93.486	115.976	115.976	125.884	125.884	135.791	135.791
21	42.899	42.899	55.192	55.192	59.290	59.290	91.274	91.274	114.923	114.923	124.741	124.741	134.559	134.559
23	43.631	43.631	54.966	54.966	58.744	58.744	91.809	91.809	113.870	113.870	123.598	123.598	133.327	133.327
25	44.362	44.362	54.739	54.739	58.198	58.198	92.343	92.343	112.817	112.817	122.456	122.456	132.095	132.095
27	45.094	45.094	54.513	54.513	57.652	57.652	92.877	92.877	111.764	111.764	121.313	121.313	130.862	130.862

Model : MDB350ER3 ~ M4MC100ER + M4MC125ER x 2

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	46.708	46.708	57.670	57.670	61.323	61.323	101.514	101.514	123.436	123.436	134.398	134.398	145.359	145.359
17	44.964	44.964	56.822	56.822	60.774	60.774	100.892	100.892	122.336	122.336	133.200	133.200	144.063	144.063
19	43.219	43.219	55.974	55.974	60.225	60.225	100.270	100.270	121.235	121.235	132.001	132.001	142.768	142.768
21	41.475	41.475	55.126	55.126	59.676	59.676	99.648	99.648	120.134	120.134	130.803	130.803	141.473	141.473
23	42.450	42.450	54.958	54.958	59.127	59.127	98.443	98.443	119.034	119.034	129.605	129.605	140.177	140.177
25	43.426	43.426	54.790	54.790	58.578	58.578	97.238	97.238	117.933	117.933	128.407	128.407	138.882	138.882
27	44.401	44.401	54.622	54.622	58.028	58.028	96.033	96.033	116.832	116.832	127.209	127.209	137.586	137.586

Model : MDB400ER4 ~ M4MC100ER x 4

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	59.721	59.721	72.408	72.408	76.637	76.637	123.157	123.157	148.531	148.531	161.219	161.219	173.906	173.906
17	57.801	57.801	71.413	71.413	75.951	75.951	122.671	122.671	147.207	147.207	159.781	159.781	172.356	172.356
19	55.881	55.881	70.419	70.419	75.264	75.264	122.185	122.185	145.882	145.882	158.344	158.344	170.806	170.806
21	53.961	53.961	69.424	69.424	74.578	74.578	121.699	121.699	144.558	144.558	156.907	156.907	169.256	169.256
23	54.881	54.881	69.139	69.139	73.892	73.892	119.954	119.954	143.233	143.233	155.470	155.470	167.706	167.706
25	55.802	55.802	68.854	68.854	73.205	73.205	118.209	118.209	141.908	141.908	154.033	154.033	166.157	166.157
27	56.722	56.722	68.570	68.570	72.519	72.519	116.464	116.464	140.584	140.584	152.595	152.595	164.607	164.607

R22
MDB ~ ER Series (Heating Mode)
Model : MDB450ER4 ~ M4MC150ER x 3

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	60.238	60.238	76.389	76.389	81.772	81.772	140.992	140.992	173.293	173.293	189.444	189.444	205.595	205.595
17	57.517	57.517	75.159	75.159	81.040	81.040	135.864	135.864	171.748	171.748	187.755	187.755	203.763	203.763
19	54.796	54.796	73.930	73.930	80.308	80.308	130.735	130.735	170.203	170.203	186.067	186.067	201.930	201.930
21	52.075	52.075	72.701	72.701	79.576	79.576	125.607	125.607	168.658	168.658	184.378	184.378	200.098	200.098
23	53.829	53.829	72.590	72.590	78.844	78.844	128.423	128.423	167.112	167.112	182.689	182.689	198.266	198.266
25	55.583	55.583	72.480	72.480	78.112	78.112	131.238	131.238	165.567	165.567	181.000	181.000	196.434	196.434
27	57.338	57.338	72.369	72.369	77.380	77.380	134.053	134.053	164.022	164.022	179.312	179.312	194.601	194.601

Model : MDB500ER4 ~ M4MC125ER x 4

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	63.653	63.653	79.207	79.207	84.391	84.391	141.420	141.420	172.527	172.527	188.080	188.080	203.634	203.634
17	61.132	61.132	78.009	78.009	83.635	83.635	140.429	140.429	170.988	170.988	186.404	186.404	201.819	201.819
19	58.610	58.610	76.812	76.812	82.880	82.880	139.438	139.438	169.450	169.450	184.727	184.727	200.004	200.004
21	56.089	56.089	75.615	75.615	82.124	82.124	138.447	138.447	167.911	167.911	183.050	183.050	198.189	198.189
23	57.570	57.570	75.419	75.419	81.368	81.368	136.899	136.899	166.373	166.373	181.374	181.374	196.375	196.375
25	59.051	59.051	75.222	75.222	80.613	80.613	135.352	135.352	164.835	164.835	179.697	179.697	194.560	194.560
27	60.532	60.532	75.026	75.026	79.857	79.857	133.804	133.804	163.296	163.296	178.021	178.021	192.745	192.745

Model : MDB600ER4 ~ M4MC150ER x 4

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	80.317	80.317	101.852	101.852	109.030	109.030	187.989	187.989	231.058	231.058	252.592	252.592	274.126	274.126
17	76.689	76.689	100.213	100.213	108.054	108.054	181.151	181.151	228.997	228.997	250.340	250.340	271.683	271.683
19	73.061	73.061	98.573	98.573	107.078	107.078	174.314	174.314	226.937	226.937	248.089	248.089	269.240	269.240
21	69.433	69.433	96.934	96.934	106.102	106.102	167.476	167.476	224.877	224.877	245.837	245.837	266.798	266.798
23	71.772	71.772	96.787	96.787	105.125	105.125	171.230	171.230	222.817	222.817	243.586	243.586	264.355	264.355
25	74.111	74.111	96.640	96.640	104.149	104.149	174.984	174.984	220.756	220.756	241.334	241.334	261.912	261.912
27	76.450	76.450	96.493	96.493	103.173	103.173	178.738	178.738	218.696	218.696	239.082	239.082	259.469	259.469

Sound Data

MDB-ER SERIES

Sound Pressure Level

Model	1/1 Octave Sound Pressure Level (dB), ref 20μPa							Overall A (dBA)
	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	
MDB075ER	55	54	54	51	49	44	36	56
MDB100ER	56	55	55	52	50	45	37	57
MDB125ER	57	55	56	53	51	46	38	58
MDB125ER2	57	55	56	53	51	46	38	58
MDB150ER	58	56	57	54	52	47	39	59
MDB150ER2	58	56	57	54	52	47	39	59
MDB200ER2	60	56	58	56	54	49	41	61
MDB250ER2	62	57	59	59	57	52	43	63
MDB300ER2	66	60	62	61	59	54	44	66
MDB300ER3	66	60	62	61	59	54	44	66
MDB350ER3	67	60	62	62	59	54	44	66
MDB400ER4	67	64	63	63	59	54	45	67
MDB450ER3	68	64	65	63	60	55	46	68
MDB500ER4	69	66	66	64	61	56	47	68
MDB600ER4	70	68	68	66	62	57	48	70

Sound Power Level

Model	1/1 Octave Sound Power Level (dB), ref 1pW							Overall A (dBA)
	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	
MDB075ER	72	73	71	68	65	61	56	73
MDB100ER	74	74	73	70	67	63	58	75
MDB125ER	75	76	75	72	69	65	60	77
MDB125ER2	75	76	75	72	69	65	60	77
MDB150ER	77	78	77	74	71	67	62	79
MDB150ER2	77	78	77	74	71	67	62	79
MDB200ER2	83	84	83	81	77	73	68	85
MDB250ER2	85	86	85	83	79	75	70	87
MDB300ER2	87	88	87	85	81	77	72	89
MDB300ER3	87	88	87	85	81	77	72	89
MDB350ER3	90	91	90	87	84	80	75	92
MDB400ER4	88	89	88	86	82	78	73	90
MDB450ER3	91	92	91	89	85	81	76	93
MDB500ER4	94	95	94	92	88	84	79	96
MDB600ER4	87	88	87	85	81	77	72	89

Power Tables

R22 Cooling
MDB-ER Series

Model : MDB075ER vs MMC075ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	5,608	6,244	6,811	7,379	7,946	8,627
15.0	5,710	6,336	6,895	7,454	8,013	8,683
16.7	5,868	6,479	7,025	7,570	8,116	8,770
18.0	5,989	6,589	7,124	7,659	8,194	8,837
19.4	6,120	6,688	7,196	7,703	8,251	8,908
20.0	6,175	6,766	7,294	7,821	8,349	8,982
22.0	6,362	6,965	7,504	8,043	8,582	9,228
22.2	6,380	6,985	7,525	8,065	8,605	9,253
24.0	6,548	7,164	7,714	8,264	8,814	9,475

All power units in watts

Model : MDB100ER vs MMC100ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	7,500	8,180	8,787	9,394	10,001	10,730
15.0	7,570	8,266	8,888	9,510	10,132	10,878
16.7	7,678	8,400	9,044	9,689	10,333	11,107
18.0	7,761	8,502	9,164	9,826	10,487	11,282
19.4	7,850	8,471	9,026	9,580	10,439	11,470
20.0	7,888	8,651	9,332	10,013	10,694	11,511
22.0	8,016	8,780	9,463	10,145	10,828	11,647
22.2	8,028	8,793	9,476	10,159	10,841	11,661
24.0	8,143	8,909	9,594	10,278	10,962	11,783

All power units in watts

Model : MDB125ER vs MMC125ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	8,640	9,512	10,290	11,069	11,847	12,781
15.0	8,755	9,643	10,436	11,229	12,022	12,973
16.7	8,934	9,847	10,662	11,477	12,291	13,269
18.0	9,070	10,002	10,834	11,666	12,498	13,496
19.4	9,217	10,005	10,709	11,412	12,470	13,740
20.0	9,280	10,227	11,073	11,918	12,764	13,779
22.0	9,490	10,420	11,251	12,081	12,911	13,908
22.2	9,511	10,440	11,268	12,097	12,926	13,921
24.0	9,700	10,613	11,428	12,243	13,059	14,037

All power units in watts

Model : MDB125ER2 vs MLC061CR x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	9,402	10,151	10,819	11,488	12,156	12,958
15.0	9,449	10,241	10,948	11,655	12,363	13,211
16.7	9,522	10,381	11,148	11,915	12,681	13,602
18.0	9,578	10,488	11,300	12,113	12,925	13,900
19.4	9,638	10,331	10,951	11,570	12,775	14,222
20.0	9,663	10,623	11,480	12,337	13,195	14,223
22.0	9,749	10,692	11,533	12,375	13,217	14,227
22.2	9,757	10,698	11,539	12,379	13,219	14,228
24.0	9,835	10,760	11,587	12,413	13,239	14,231

All power units in watts

R22 Cooling
MDB-ER Series

Model : MDB150ER vs MMC150ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	11,615	12,721	13,709	14,697	15,684	16,869
15.0	11,744	12,890	13,913	14,936	15,959	17,186
16.7	11,944	13,151	14,228	15,305	16,382	17,675
18.0	12,097	13,350	14,469	15,588	16,707	18,049
19.4	12,262	13,267	14,164	15,062	16,603	18,452
20.0	12,332	13,623	14,775	15,927	17,079	18,462
22.0	12,568	13,815	14,929	16,043	17,157	18,494
22.2	12,591	13,834	14,945	16,055	17,165	18,497
24.0	12,803	14,008	15,084	16,159	17,235	18,526

All power units in watts

Model : MDB150ER2 vs MMC075ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	11,448	12,725	13,866	15,006	16,146	17,515
15.0	11,649	12,906	14,029	15,151	16,274	17,621
16.7	11,959	13,186	14,281	15,377	16,472	17,786
18.0	12,197	13,400	14,474	15,549	16,623	17,912
19.4	12,452	13,596	14,617	15,638	16,733	18,048
20.0	12,562	13,749	14,810	15,870	16,930	18,203
22.0	12,927	14,146	15,235	16,324	17,412	18,719
22.2	12,964	14,186	15,278	16,369	17,461	18,770
24.0	13,292	14,543	15,660	16,777	17,894	19,235

All power units in watts

Model : MDB200ER2 vs MMC100ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	15,710	17,088	18,318	19,548	20,778	22,254
15.0	15,838	17,248	18,506	19,765	21,023	22,534
16.7	16,037	17,495	18,798	20,100	21,402	22,965
18.0	16,189	17,685	19,021	20,356	21,692	23,295
19.4	16,352	17,615	18,743	19,870	21,588	23,650
20.0	16,422	17,966	19,344	20,722	22,100	23,753
22.0	16,656	18,222	19,621	21,020	22,418	24,097
22.2	16,679	18,248	19,649	21,049	22,450	24,131
24.0	16,890	18,479	19,898	21,318	22,737	24,440

All power units in watts

Model : MDB250ER2 vs MMC125ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	17,810	19,567	21,136	22,705	24,274	26,156
15.0	18,032	19,821	21,417	23,014	24,611	26,527
16.7	18,376	20,212	21,852	23,492	25,132	27,100
18.0	18,638	20,512	22,185	23,858	25,531	27,538
19.4	18,921	20,513	21,933	23,354	25,470	28,010
20.0	19,043	20,950	22,653	24,356	26,060	28,103
22.0	19,447	21,335	23,020	24,706	26,392	28,414
22.2	19,487	21,373	23,057	24,741	26,425	28,445
24.0	19,851	21,719	23,387	25,056	26,724	28,725

All power units in watts

R22 Cooling
MDB-ER Series

Model : MDB300ER2 vs MMC150ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	23,750	25,976	27,963	29,950	31,937	34,321
15.0	24,000	26,304	28,360	30,417	32,474	34,942
16.7	24,387	26,811	28,975	31,139	33,304	35,901
18.0	24,683	27,199	29,445	31,692	33,938	36,634
19.4	25,001	27,027	28,835	30,644	33,726	37,424
20.0	25,138	27,732	30,048	32,364	34,680	37,459
22.0	25,592	28,115	30,368	32,620	34,873	37,576
22.2	25,638	28,154	30,400	32,646	34,892	37,587
24.0	26,047	28,499	30,688	32,877	35,065	37,692

All power units in watts

Model : MDB300ER3 vs MMC100ER x 3

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	23,470	25,534	27,377	29,220	31,064	33,275
15.0	23,664	25,776	27,662	29,548	31,433	33,696
16.7	23,964	26,150	28,102	30,053	32,005	34,347
18.0	24,194	26,436	28,438	30,440	32,442	34,844
19.4	24,441	26,333	28,021	29,710	32,287	35,380
20.0	24,547	26,860	28,924	30,989	33,054	35,532
22.0	24,900	27,245	29,338	31,432	33,525	36,038
22.2	24,936	27,284	29,380	31,476	33,573	36,088
24.0	25,254	27,630	29,752	31,875	33,997	36,543

All power units in watts

Model : MDB350ER4 vs MMC100ER + MMC125ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	25,440	27,880	30,059	32,238	34,417	37,032
15.0	25,730	28,218	30,439	32,661	34,882	37,547
16.7	26,179	28,740	31,027	33,313	35,600	38,344
18.0	26,522	29,139	31,476	33,813	36,149	38,954
19.4	26,891	29,107	31,085	33,064	36,039	39,610
20.0	27,049	29,723	32,110	34,497	36,884	39,748
22.0	27,577	30,236	32,610	34,985	37,359	40,208
22.2	27,630	30,287	32,661	35,034	37,407	40,254
24.0	28,104	30,750	33,111	35,473	37,835	40,669

All power units in watts

Model : MDB400ER4 vs MMC100ER x 4

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	30,795	33,535	35,981	38,427	40,873	43,809
15.0	31,062	33,866	36,370	38,874	41,378	44,382
16.7	31,475	34,379	36,971	39,564	42,157	45,268
18.0	31,791	34,771	37,431	40,092	42,753	45,945
19.4	32,131	34,638	36,876	39,115	42,551	46,675
20.0	32,276	35,347	38,089	40,831	43,572	46,862
22.0	32,762	35,862	38,630	41,398	44,166	47,487
22.2	32,811	35,914	38,684	41,454	44,225	47,549
24.0	33,248	36,377	39,171	41,965	44,759	48,111

All power units in watts

R22 Cooling
MDB-ER Series

Model : MDB450ER4 vs MMC150ER x 3

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	36,945	40,317	43,327	46,337	49,348	52,960
15.0	37,299	40,785	43,898	47,011	50,124	53,859
16.7	37,845	41,509	44,781	48,052	51,323	55,249
18.0	38,264	42,063	45,456	48,848	52,241	56,312
19.4	38,714	41,791	44,538	47,286	51,909	57,456
20.0	38,907	42,831	46,335	49,839	53,343	57,548
22.0	39,550	43,404	46,844	50,285	53,726	57,855
22.2	39,614	43,461	46,895	50,330	53,764	57,886
24.0	40,193	43,976	47,354	50,731	54,109	58,162

All power units in watts

Model : MDB500ER4 vs MMC125ER x 4

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	36,915	40,462	43,629	46,796	49,963	53,763
15.0	37,338	40,946	44,167	47,388	50,609	54,474
16.7	37,993	41,694	44,998	48,302	51,606	55,571
18.0	38,493	42,265	45,633	49,001	52,369	56,411
19.4	39,032	42,252	45,128	48,003	52,236	57,315
20.0	39,263	43,111	46,546	49,982	53,418	57,540
22.0	40,033	43,877	47,309	50,741	54,173	58,292
22.2	40,110	43,953	47,385	50,817	54,249	58,367
24.0	40,803	44,643	48,072	51,500	54,929	59,044

All power units in watts

Model : MDB600ER4 vs MMC150ER x 4

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	52,400	56,975	61,060	65,144	69,229	74,131
15.0	52,820	57,543	61,760	65,977	70,194	75,254
16.7	53,470	58,422	62,843	67,264	71,685	76,990
18.0	53,967	59,093	63,671	68,248	72,825	78,318
19.4	54,502	58,697	62,442	66,188	72,352	79,748
20.0	54,731	60,044	64,787	69,530	74,273	79,965
22.0	55,495	60,799	65,535	70,270	75,006	80,688
22.2	55,572	60,875	65,609	70,344	75,079	80,760
24.0	56,260	61,555	66,283	71,010	75,738	81,411

All power units in watts

R22 Heating
MDB-ER Series
Model : MDB075ER vs MMC075ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	6,508	6,999	7,438	7,877	8,316	8,842
15.0	5,710	6,336	6,895	7,454	8,013	8,683
16.7	5,868	6,479	7,025	7,570	8,116	8,770
18.0	5,989	6,589	7,124	7,659	8,194	8,837
19.4	6,120	6,757	7,326	7,895	8,265	8,708
20.0	6,175	6,766	7,294	7,821	8,349	8,982
22.0	6,362	6,965	7,504	8,043	8,582	9,228
22.2	6,380	6,985	7,525	8,065	8,605	9,253
24.0	6,711	7,342	7,906	8,470	9,034	9,711

All power units in watts

Model : MDB100ER vs MMC100ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	8,310	8,880	9,388	9,897	10,405	11,015
15.0	7,570	8,266	8,888	9,510	10,132	10,878
16.7	7,678	8,400	9,044	9,689	10,333	11,107
18.0	7,761	8,502	9,164	9,826	10,487	11,282
19.4	7,850	8,563	9,199	9,835	10,642	11,610
20.0	7,888	8,651	9,332	10,013	10,694	11,511
22.0	8,016	8,780	9,463	10,145	10,828	11,647
22.2	8,028	8,793	9,476	10,159	10,841	11,661
24.0	8,360	9,147	9,849	10,552	11,254	12,097

All power units in watts

Model : MDB125ER vs MMC125ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	8,640	9,203	9,706	10,208	10,711	11,314
15.0	8,755	9,643	10,436	11,229	12,022	12,973
16.7	8,934	9,847	10,662	11,477	12,291	13,269
18.0	9,070	10,002	10,834	11,666	12,498	13,496
19.4	9,217	9,535	9,818	10,102	11,568	13,327
20.0	9,280	10,227	11,073	11,918	12,764	13,779
22.0	9,490	10,420	11,251	12,081	12,911	13,908
22.2	9,511	10,440	11,268	12,097	12,926	13,921
24.0	8,587	9,395	10,116	10,838	11,560	12,425

All power units in watts

Model : MDB125ER2 vs MLC061CR2 x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	9,242	9,591	9,902	10,213	10,524	10,898
15.0	9,449	10,241	10,948	11,655	12,363	13,211
16.7	9,522	10,381	11,148	11,915	12,681	13,602
18.0	9,578	10,488	11,300	12,113	12,925	13,900
19.4	9,638	9,671	9,700	9,730	11,113	12,772
20.0	9,663	10,623	11,480	12,337	13,195	14,223
22.0	9,749	10,692	11,533	12,375	13,217	14,227
22.2	9,757	10,698	11,539	12,379	13,219	14,228
24.0	8,271	9,049	9,744	10,439	11,134	11,968

All power units in watts

R22 Heating
MDB-ER Series

Model : MDB150ER vs MMC150ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	11,510	12,110	12,646	13,181	13,717	14,360
15.0	11,744	12,890	13,913	14,936	15,959	17,186
16.7	11,944	13,151	14,228	15,305	16,382	17,675
18.0	12,097	13,350	14,469	15,588	16,707	18,049
19.4	12,262	12,463	12,642	12,821	15,208	18,072
20.0	12,332	13,623	14,775	15,927	17,079	18,462
22.0	12,568	13,815	14,929	16,043	17,157	18,494
22.2	12,591	13,834	14,945	16,055	17,165	18,497
24.0	10,898	11,924	12,839	13,755	14,671	15,770

All power units in watts

Model : MDB150ER2 vs MMC075ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	13,248	14,237	15,120	16,002	16,885	17,945
15.0	11,649	12,906	14,029	15,151	16,274	17,621
16.7	11,959	13,186	14,281	15,377	16,472	17,786
18.0	12,197	13,400	14,474	15,549	16,623	17,912
19.4	12,452	13,734	14,878	16,022	16,761	17,648
20.0	12,562	13,749	14,810	15,870	16,930	18,203
22.0	12,927	14,146	15,235	16,324	17,412	18,719
22.2	12,964	14,186	15,278	16,369	17,461	18,770
24.0	13,619	14,900	16,045	17,189	18,334	19,707

All power units in watts

Model : MDB200ER2 vs MMC100ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	17,330	18,487	19,520	20,553	21,586	22,826
15.0	15,838	17,248	18,506	19,765	21,023	22,534
16.7	16,037	17,495	18,798	20,100	21,402	22,965
18.0	16,189	17,685	19,021	20,356	21,692	23,295
19.4	16,352	17,798	19,089	20,380	21,994	23,930
20.0	16,422	17,966	19,344	20,722	22,100	23,753
22.0	16,656	18,222	19,621	21,020	22,418	24,097
22.2	16,679	18,248	19,649	21,049	22,450	24,131
24.0	17,323	18,953	20,409	21,865	23,321	25,067

All power units in watts

Model : MDB250ER2 vs MMC125ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	17,810	18,949	19,967	20,984	22,001	23,222
15.0	18,032	19,821	21,417	23,014	24,611	26,527
16.7	18,376	20,212	21,852	23,492	25,132	27,100
18.0	18,638	20,512	22,185	23,858	25,531	27,538
19.4	18,921	19,572	20,153	20,734	23,666	27,184
20.0	19,043	20,950	22,653	24,356	26,060	28,103
22.0	19,447	21,335	23,020	24,706	26,392	28,414
22.2	19,487	21,373	23,057	24,741	26,425	28,445
24.0	17,624	19,283	20,764	22,245	23,726	25,503

All power units in watts

R22 Heating
MDB-ER Series

Model : MDB300ER2 vs MMC150ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	23,540	24,753	25,836	26,919	28,002	29,301
15.0	24,000	26,304	28,360	30,417	32,474	34,942
16.7	24,387	26,811	28,975	31,139	33,304	35,901
18.0	24,683	27,199	29,445	31,692	33,938	36,634
19.4	25,001	25,418	25,790	26,162	30,936	36,664
20.0	25,138	27,732	30,048	32,364	34,680	37,459
22.0	25,592	28,115	30,368	32,620	34,873	37,576
22.2	25,638	28,154	30,400	32,646	34,892	37,587
24.0	22,238	24,331	26,199	28,068	29,937	32,179

All power units in watts

Model : MDB300ER3 vs MMC100ER x 3

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	25,900	27,633	29,180	30,728	32,275	34,132
15.0	23,664	25,776	27,662	29,548	31,433	33,696
16.7	23,964	26,150	28,102	30,053	32,005	34,347
18.0	24,194	26,436	28,438	30,440	32,442	34,844
19.4	24,441	26,607	28,541	30,475	32,895	35,800
20.0	24,547	26,860	28,924	30,989	33,054	35,532
22.0	24,900	27,245	29,338	31,432	33,525	36,038
22.2	24,936	27,284	29,380	31,476	33,573	36,088
24.0	25,904	28,342	30,519	32,695	34,872	37,484

All power units in watts

Model : MDB350ER4 vs MMC100ER + MMC125ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	26,250	27,962	29,491	31,020	32,548	34,383
15.0	25,730	28,218	30,439	32,661	34,882	37,547
16.7	26,179	28,740	31,027	33,313	35,600	38,344
18.0	26,522	29,139	31,476	33,813	36,149	38,954
19.4	26,891	28,258	29,478	30,699	34,438	38,924
20.0	27,049	29,723	32,110	34,497	36,884	39,748
22.0	27,577	30,236	32,610	34,985	37,359	40,208
22.2	27,630	30,287	32,661	35,034	37,407	40,254
24.0	26,094	28,550	30,743	32,936	35,128	37,760

All power units in watts

Model : MDB400ER4 vs MMC100ER x 4

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	34,035	36,333	38,385	40,437	42,489	44,951
15.0	31,062	33,866	36,370	38,874	41,378	44,382
16.7	31,475	34,379	36,971	39,564	42,157	45,268
18.0	31,791	34,771	37,431	40,092	42,753	45,945
19.4	32,131	35,004	37,570	40,135	43,362	47,235
20.0	32,276	35,347	38,089	40,831	43,572	46,862
22.0	32,762	35,862	38,630	41,398	44,166	47,487
22.2	32,811	35,914	38,684	41,454	44,225	47,549
24.0	34,115	37,326	40,192	43,059	45,926	49,366

All power units in watts

R22 Heating
MDB-ER Series

Model : MDB450ER4 vs MMC150ER x 3

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	36,630	38,483	40,137	41,791	43,445	45,431
15.0	37,299	40,785	43,898	47,011	50,124	53,859
16.7	37,845	41,509	44,781	48,052	51,323	55,249
18.0	38,264	42,063	45,456	48,848	52,241	56,312
19.4	38,714	39,378	39,970	40,563	47,723	56,316
20.0	38,907	42,831	46,335	49,839	53,343	57,548
22.0	39,550	43,404	46,844	50,285	53,726	57,855
22.2	39,614	43,461	46,895	50,330	53,764	57,886
24.0	34,479	37,724	40,621	43,518	46,416	49,892

All power units in watts

Model : MDB500ER4 vs MMC125ER x 4

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	36,915	39,226	41,290	43,354	45,418	47,895
15.0	37,338	40,946	44,167	47,388	50,609	54,474
16.7	37,993	41,694	44,998	48,302	51,606	55,571
18.0	38,493	42,265	45,633	49,001	52,369	56,411
19.4	39,032	40,371	41,567	42,763	48,627	55,663
20.0	39,263	43,111	46,546	49,982	53,418	57,540
22.0	40,033	43,877	47,309	50,741	54,173	58,292
22.2	40,110	43,953	47,385	50,817	54,249	58,367
24.0	36,349	39,770	42,824	45,879	48,933	52,598

All power units in watts

Model : MDB600ER4 vs MMC150ER x 4

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	51,980	54,530	56,806	59,083	61,359	64,091
15.0	52,820	57,543	61,760	65,977	70,194	75,254
16.7	53,470	58,422	62,843	67,264	71,685	76,990
18.0	53,967	59,093	63,671	68,248	72,825	78,318
19.4	54,502	55,479	56,352	57,224	66,771	78,228
20.0	54,731	60,044	64,787	69,530	74,273	79,965
22.0	55,495	60,799	65,535	70,270	75,006	80,688
22.2	55,572	60,875	65,609	70,344	75,079	80,760
24.0	48,640	53,218	57,306	61,393	65,481	70,386

All power units in watts

R407C Cooling
MDB-ER Series

Model : MDB075ER vs M4MC075ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	6,124	6,727	7,265	7,803	8,341	8,987
15.0	6,200	6,813	7,361	7,909	8,457	9,114
16.7	6,317	6,947	7,510	8,073	8,636	9,311
18.0	6,407	7,050	7,624	8,198	8,773	9,462
19.4	6,503	7,049	7,537	8,024	8,751	9,624
20.0	6,545	7,200	7,784	8,369	8,954	9,656
22.0	6,682	7,331	7,910	8,489	9,068	9,763
22.2	6,696	7,344	7,923	8,501	9,079	9,773
24.0	6,820	7,462	8,035	8,609	9,182	9,870

All power units in watts

Model : MDB100ER vs M4MC100ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	8,210	8,877	9,473	10,069	10,664	11,379
15.0	8,256	8,982	9,631	10,279	10,927	11,705
16.7	8,328	9,145	9,875	10,604	11,334	12,209
18.0	8,383	9,270	10,061	10,853	11,645	12,595
19.4	8,442	9,059	9,609	10,160	11,455	13,010
20.0	8,467	9,410	10,251	11,092	11,933	12,943
22.0	8,552	9,429	10,213	10,996	11,780	12,720
22.2	8,560	9,431	10,209	10,987	11,764	12,698
24.0	8,636	9,449	10,175	10,900	11,626	12,497

All power units in watts

Model : MDB125ER vs M4MC125ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	9,340	10,227	11,018	11,810	12,602	13,552
15.0	9,443	10,341	11,143	11,945	12,747	13,710
16.7	9,602	10,518	11,336	12,154	12,972	13,953
18.0	9,724	10,653	11,483	12,313	13,143	14,139
19.4	9,855	10,661	11,380	12,100	13,118	14,340
20.0	9,911	10,858	11,704	12,550	13,396	14,411
22.0	10,098	11,056	11,911	12,766	13,621	14,647
22.2	10,117	11,075	11,931	12,787	13,643	14,671
24.0	10,285	11,253	12,117	12,982	13,846	14,883

All power units in watts

Model : MDB125ER2 vs M4LC061CR x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	9,402	10,259	11,025	11,790	12,555	13,474
15.0	9,492	10,361	11,138	11,915	12,691	13,623
16.7	9,630	10,520	11,314	12,108	12,902	13,855
18.0	9,736	10,641	11,448	12,255	13,063	14,031
19.4	9,850	10,633	11,331	12,030	13,026	14,222
20.0	9,899	10,825	11,652	12,478	13,305	14,297
22.0	10,062	11,007	11,849	12,692	13,535	14,547
22.2	10,079	11,025	11,869	12,714	13,558	14,572
24.0	10,226	11,188	12,047	12,906	13,766	14,797

All power units in watts

R407C Cooling
MDB-ER Series

Model : MDB150ER vs M4MC150ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	12,630	13,800	14,845	15,889	16,934	18,188
15.0	12,758	13,982	15,076	16,169	17,262	18,574
16.7	12,955	14,264	15,432	16,601	17,769	19,171
18.0	13,106	14,479	15,705	16,931	18,157	19,628
19.4	13,269	14,335	15,287	16,239	18,003	20,120
20.0	13,339	14,762	16,033	17,304	18,576	20,101
22.0	13,571	14,932	16,148	17,363	18,579	20,037
22.2	13,594	14,949	16,159	17,369	18,579	20,031
24.0	13,803	15,102	16,262	17,422	18,582	19,974

All power units in watts

Model : MDB150ER2 vs M4MC075ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	12,480	13,691	14,773	15,854	16,936	18,234
15.0	12,628	13,861	14,961	16,062	17,162	18,483
16.7	12,856	14,122	15,252	16,382	17,512	18,868
18.0	13,031	14,322	15,475	16,627	17,780	19,163
19.4	13,220	14,318	15,299	16,280	17,735	19,480
20.0	13,300	14,616	15,791	16,966	18,141	19,551
22.0	13,569	14,878	16,047	17,216	18,385	19,788
22.2	13,596	14,904	16,073	17,241	18,409	19,811
24.0	13,838	15,140	16,303	17,466	18,629	20,024

All power units in watts

Model : MDB200ER2 vs M4MC100ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	17,130	18,482	19,690	20,897	22,105	23,554
15.0	17,211	18,680	19,992	21,303	22,615	24,189
16.7	17,337	18,986	20,458	21,931	23,404	25,171
18.0	17,433	19,220	20,815	22,411	24,007	25,921
19.4	17,536	18,790	19,910	21,030	23,621	26,730
20.0	17,580	19,483	21,182	22,880	24,579	26,617
22.0	17,728	19,520	21,121	22,721	24,322	26,242
22.2	17,743	19,524	21,115	22,705	24,296	26,205
24.0	17,876	19,558	21,060	22,562	24,064	25,867

All power units in watts

Model : MDB250ER2 vs M4MC125ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	19,210	20,997	22,592	24,188	25,783	27,698
15.0	19,407	21,216	22,831	24,447	26,062	28,000
16.7	19,712	21,555	23,201	24,847	26,493	28,468
18.0	19,945	21,814	23,484	25,153	26,822	28,825
19.4	20,196	21,824	23,277	24,730	26,766	29,210
20.0	20,303	22,212	23,915	25,619	27,323	29,368
22.0	20,662	22,605	24,340	26,076	27,811	29,893
22.2	20,698	22,645	24,383	26,121	27,859	29,945
24.0	21,021	22,999	24,765	26,532	28,298	30,418

All power units in watts

R407C Cooling
MDB-ER Series

Model : MDB300ER2 vs M4MC150ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	25,780	28,133	30,234	32,335	34,436	36,958
15.0	26,027	28,488	30,686	32,884	35,081	37,718
16.7	26,409	29,037	31,384	33,731	36,077	38,893
18.0	26,701	29,457	31,918	34,378	36,839	39,792
19.4	27,015	29,163	31,080	32,998	36,526	40,760
20.0	27,150	30,010	32,565	35,119	37,673	40,738
22.0	27,599	30,349	32,805	35,260	37,716	40,663
22.2	27,644	30,383	32,829	35,275	37,720	40,655
24.0	28,048	30,688	33,045	35,402	37,759	40,588

All power units in watts

Model : MDB300ER3 vs M4MC100ER x 3

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	25,600	27,626	29,435	31,244	33,053	35,224
15.0	25,723	27,925	29,890	31,855	33,821	36,179
16.7	25,914	28,386	30,593	32,800	35,007	37,655
18.0	26,060	28,739	31,130	33,522	35,914	38,784
19.4	26,217	28,095	29,773	31,450	35,336	40,000
20.0	26,284	29,135	31,681	34,227	36,773	39,828
22.0	26,508	29,192	31,588	33,984	36,380	39,256
22.2	26,531	29,198	31,579	33,960	36,341	39,199
24.0	26,733	29,249	31,495	33,741	35,988	38,684

All power units in watts

Model : MDB350ER4 vs M4MC100ER + M4MC125ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	27,550	30,007	32,201	34,395	36,590	39,222
15.0	27,791	30,330	32,596	34,862	37,128	39,848
16.7	28,165	30,828	33,206	35,583	37,961	40,815
18.0	28,450	31,209	33,672	36,135	38,598	41,554
19.4	28,757	31,005	33,013	35,020	38,352	42,350
20.0	28,889	31,743	34,291	36,839	39,387	42,445
22.0	29,328	32,156	34,680	37,205	39,730	42,760
22.2	29,372	32,197	34,719	37,242	39,764	42,791
24.0	29,767	32,569	35,070	37,571	40,073	43,075

All power units in watts

Model : MDB400ER4 vs M4MC100ER x 4

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	33,635	36,324	38,725	41,125	43,526	46,407
15.0	33,808	36,731	39,341	41,951	44,561	47,693
16.7	34,074	37,360	40,293	43,226	46,160	49,680
18.0	34,278	37,841	41,021	44,202	47,382	51,199
19.4	34,498	36,988	39,212	41,435	46,617	52,835
20.0	34,592	38,381	41,765	45,148	48,531	52,591
22.0	34,906	38,458	41,629	44,801	47,972	51,778
22.2	34,937	38,466	41,616	44,766	47,916	51,697
24.0	35,220	38,535	41,494	44,454	47,413	50,965

All power units in watts

R407C Cooling
MDB-ER Series

Model : MDB450ER4 vs M4MC150ER x 3

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	39,990	43,553	46,735	49,916	53,097	56,915
15.0	40,339	44,062	47,386	50,711	54,035	58,024
16.7	40,878	44,849	48,394	51,939	55,484	59,738
18.0	41,291	45,450	49,164	52,878	56,592	61,049
19.4	41,735	44,995	47,906	50,817	56,109	62,460
20.0	41,925	46,250	50,111	53,972	57,833	62,466
22.0	42,560	46,755	50,500	54,246	57,991	62,485
22.2	42,623	46,805	50,539	54,273	58,007	62,487
24.0	43,194	47,260	50,890	54,519	58,149	62,505

All power units in watts

Model : MDB500ER4 vs M4MC125ER x 4

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	39,715	43,321	46,541	49,762	52,982	56,846
15.0	40,088	43,737	46,995	50,252	53,510	57,419
16.7	40,665	44,379	47,695	51,011	54,327	58,306
18.0	41,106	44,870	48,231	51,591	54,952	58,985
19.4	41,581	44,874	47,815	50,755	54,828	59,715
20.0	41,785	45,634	49,071	52,508	55,945	60,069
22.0	42,463	46,418	49,949	53,480	57,011	61,249
22.2	42,531	46,496	50,037	53,578	57,118	61,367
24.0	43,142	47,202	50,828	54,453	58,078	62,429

All power units in watts

Model : MDB600ER4 vs M4MC150ER x 4

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	56,460	61,290	65,603	69,916	74,228	79,404
15.0	56,874	61,913	66,411	70,910	75,408	80,807
16.7	57,514	62,874	67,660	72,446	77,232	82,976
18.0	58,003	63,610	68,615	73,621	78,627	84,634
19.4	58,530	62,969	66,933	70,896	77,952	86,420
20.0	58,756	64,601	69,821	75,040	80,259	86,522
22.0	59,509	65,267	70,409	75,551	80,692	86,862
22.2	59,584	65,334	70,468	75,602	80,735	86,896
24.0	60,262	65,933	70,997	76,061	81,125	87,202

All power units in watts

R407C Heating
MDB-ER Series

Model : MDB075ER vs M4MC075ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	7,024	7,484	7,895	8,307	8,718	9,211
15.0	6,200	6,813	7,361	7,909	8,457	9,114
16.7	6,317	6,947	7,510	8,073	8,636	9,311
18.0	6,407	7,050	7,624	8,198	8,773	9,462
19.4	6,503	7,121	7,672	8,224	8,769	9,424
20.0	6,545	7,200	7,784	8,369	8,954	9,656
22.0	6,682	7,331	7,910	8,489	9,068	9,763
22.2	6,696	7,344	7,923	8,501	9,079	9,773
24.0	6,990	7,648	8,236	8,823	9,411	10,116

All power units in watts

Model : MDB100ER vs M4MC100ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	8,210	8,983	9,674	10,364	11,055	11,883
15.0	8,256	8,982	9,631	10,279	10,927	11,705
16.7	8,328	9,145	9,875	10,604	11,334	12,209
18.0	8,383	9,270	10,061	10,853	11,645	12,595
19.4	8,442	9,220	9,915	10,610	11,205	11,919
20.0	8,467	9,410	10,251	11,092	11,933	12,943
22.0	8,552	9,429	10,213	10,996	11,780	12,720
22.2	8,560	9,431	10,209	10,987	11,764	12,698
24.0	9,019	9,867	10,625	11,383	12,141	13,050

All power units in watts

Model : MDB125ER vs M4MC125ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	9,740	10,307	10,813	11,319	11,825	12,432
15.0	9,443	10,341	11,143	11,945	12,747	13,710
16.7	9,602	10,518	11,336	12,154	12,972	13,953
18.0	9,724	10,653	11,483	12,313	13,143	14,139
19.4	9,855	10,302	10,701	11,100	12,527	14,240
20.0	9,911	10,858	11,704	12,550	13,396	14,411
22.0	10,098	11,056	11,911	12,766	13,621	14,647
22.2	10,117	11,075	11,931	12,787	13,643	14,671
24.0	9,435	10,323	11,116	11,909	12,702	13,653

All power units in watts

Model : MDB125ER2 vs M4LC061CR x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	9,242	9,898	10,484	11,069	11,655	12,358
15.0	9,492	10,361	11,138	11,915	12,691	13,623
16.7	9,630	10,520	11,314	12,108	12,902	13,855
18.0	9,736	10,641	11,448	12,255	13,063	14,031
19.4	9,850	10,275	10,655	11,034	11,824	12,772
20.0	9,899	10,825	11,652	12,478	13,305	14,297
22.0	10,062	11,007	11,849	12,692	13,535	14,547
22.2	10,079	11,025	11,869	12,714	13,558	14,572
24.0	9,379	10,262	11,050	11,838	12,626	13,572

All power units in watts

R407C Heating
MDB-ER Series

Model : MDB150ER vs M4MC150ER

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	12,510	13,192	13,800	14,409	15,017	15,747
15.0	12,758	13,982	15,076	16,169	17,262	18,574
16.7	12,955	14,264	15,432	16,601	17,769	19,171
18.0	13,106	14,479	15,705	16,931	18,157	19,628
19.4	13,269	13,553	13,806	14,060	15,910	18,130
20.0	13,339	14,762	16,033	17,304	18,576	20,101
22.0	13,571	14,932	16,148	17,363	18,579	20,037
22.2	13,594	14,949	16,159	17,369	18,579	20,031
24.0	11,951	13,076	14,080	15,084	16,089	17,294

All power units in watts

Model : MDB150ER2 vs M4MC075ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	14,280	15,207	16,034	16,861	17,689	18,682
15.0	12,628	13,861	14,961	16,062	17,162	18,483
16.7	12,856	14,122	15,252	16,382	17,512	18,868
18.0	13,031	14,322	15,475	16,627	17,780	19,163
19.4	13,220	14,462	15,571	16,680	17,771	19,080
20.0	13,300	14,616	15,791	16,966	18,141	19,551
22.0	13,569	14,878	16,047	17,216	18,385	19,788
22.2	13,596	14,904	16,073	17,241	18,409	19,811
24.0	14,178	15,512	16,704	17,895	19,087	20,516

All power units in watts

Model : MDB200ER2 vs M4MC100ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	17,130	18,695	20,091	21,488	22,885	24,562
15.0	17,211	18,680	19,992	21,303	22,615	24,189
16.7	17,337	18,986	20,458	21,931	23,404	25,171
18.0	17,433	19,220	20,815	22,411	24,007	25,921
19.4	17,536	19,113	20,522	21,930	23,120	24,548
20.0	17,580	19,483	21,182	22,880	24,579	26,617
22.0	17,728	19,520	21,121	22,721	24,322	26,242
22.2	17,743	19,524	21,115	22,705	24,296	26,205
24.0	18,641	20,395	21,961	23,528	25,094	26,974

All power units in watts

Model : MDB250ER2 vs M4MC125ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	20,010	21,157	22,181	23,205	24,229	25,458
15.0	19,407	21,216	22,831	24,447	26,062	28,000
16.7	19,712	21,555	23,201	24,847	26,493	28,468
18.0	19,945	21,814	23,484	25,153	26,822	28,825
19.4	20,196	21,106	21,918	22,730	25,585	29,010
20.0	20,303	22,212	23,915	25,619	27,323	29,368
22.0	20,662	22,605	24,340	26,076	27,811	29,893
22.2	20,698	22,645	24,383	26,121	27,859	29,945
24.0	19,321	21,139	22,762	24,386	26,010	27,958

All power units in watts

R407C Heating
MDB-ER Series

Model : MDB300ER2 vs M4MC150ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	25,540	26,916	28,145	29,374	30,602	32,077
15.0	26,027	28,488	30,686	32,884	35,081	37,718
16.7	26,409	29,037	31,384	33,731	36,077	38,893
18.0	26,701	29,457	31,918	34,378	36,839	39,792
19.4	27,015	27,598	28,119	28,640	32,340	36,780
20.0	27,150	30,010	32,565	35,119	37,673	40,738
22.0	27,599	30,349	32,805	35,260	37,716	40,663
22.2	27,644	30,383	32,829	35,275	37,720	40,655
24.0	24,344	26,635	28,681	30,727	32,772	35,227

All power units in watts

Model : MDB300ER3 vs M4MC100ER x 3

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	25,600	27,944	30,038	32,131	34,224	36,736
15.0	25,723	27,925	29,890	31,855	33,821	36,179
16.7	25,914	28,386	30,593	32,800	35,007	37,655
18.0	26,060	28,739	31,130	33,522	35,914	38,784
19.4	26,217	28,580	30,690	32,800	34,130	35,727
20.0	26,284	29,135	31,681	34,227	36,773	39,828
22.0	26,508	29,192	31,588	33,984	36,380	39,256
22.2	26,531	29,198	31,579	33,960	36,341	39,199
24.0	27,880	30,504	32,847	35,190	37,533	40,344

All power units in watts

Model : MDB350ER4 vs M4MC100ER + M4MC125ER x 2

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	28,350	30,273	31,991	33,708	35,426	37,486
15.0	27,791	30,330	32,596	34,862	37,128	39,848
16.7	28,165	30,828	33,206	35,583	37,961	40,815
18.0	28,450	31,209	33,672	36,135	38,598	41,554
19.4	28,757	30,449	31,960	33,470	36,920	41,059
20.0	28,889	31,743	34,291	36,839	39,387	42,445
22.0	29,328	32,156	34,680	37,205	39,730	42,760
22.2	29,372	32,197	34,719	37,242	39,764	42,791
24.0	28,450	31,127	33,518	35,909	38,299	41,168

All power units in watts

Model : MDB400ER4 vs M4MC100ER x 4

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	33,635	36,748	39,528	42,308	45,088	48,423
15.0	33,808	36,731	39,341	41,951	44,561	47,693
16.7	34,074	37,360	40,293	43,226	46,160	49,680
18.0	34,278	37,841	41,021	44,202	47,382	51,199
19.4	34,498	37,634	40,435	43,235	45,615	48,471
20.0	34,592	38,381	41,765	45,148	48,531	52,591
22.0	34,906	38,458	41,629	44,801	47,972	51,778
22.2	34,937	38,466	41,616	44,766	47,916	51,697
24.0	36,750	40,209	43,297	46,385	49,473	53,179

All power units in watts

R407C Heating
MDB-ER Series

Model : MDB450ER4 vs M4MC150ER x 3

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	39,630	41,728	43,600	45,473	47,346	49,594
15.0	40,339	44,062	47,386	50,711	54,035	58,024
16.7	40,878	44,849	48,394	51,939	55,484	59,738
18.0	41,291	45,450	49,164	52,878	56,592	61,049
19.4	41,735	42,649	43,464	44,280	49,830	56,490
20.0	41,925	46,250	50,111	53,972	57,833	62,466
22.0	42,560	46,755	50,500	54,246	57,991	62,485
22.2	42,623	46,805	50,539	54,273	58,007	62,487
24.0	37,638	41,180	44,343	47,506	50,669	54,464

All power units in watts

Model : MDB500ER4 vs M4MC125ER x 4

Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	41,315	43,641	45,719	47,796	49,873	52,366
15.0	40,088	43,737	46,995	50,252	53,510	57,419
16.7	40,665	44,379	47,695	51,011	54,327	58,306
18.0	41,106	44,870	48,231	51,591	54,952	58,985
19.4	41,581	43,438	45,097	46,755	52,464	59,315
20.0	41,785	45,634	49,071	52,508	55,945	60,069
22.0	42,463	46,418	49,949	53,480	57,011	61,249
22.2	42,531	46,496	50,037	53,578	57,118	61,367
24.0	39,742	43,482	46,822	50,161	53,501	57,509

All power units in watts

Model : MDB600ER4 vs M4MC150ER x 4

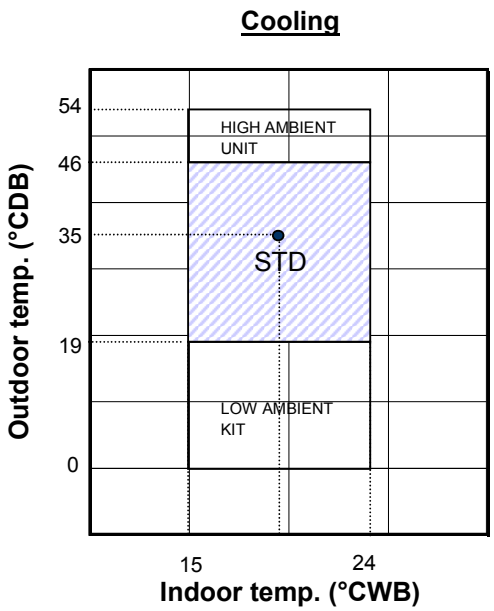
Indoor WB	Outdoor DB, °C					
°C	19.4	25	30	35	40	46
13.9	55,980	58,856	61,424	63,992	66,560	69,642
15.0	56,874	61,913	66,411	70,910	75,408	80,807
16.7	57,514	62,874	67,660	72,446	77,232	82,976
18.0	58,003	63,610	68,615	73,621	78,627	84,634
19.4	58,530	59,840	61,010	62,180	69,662	78,640
20.0	58,756	64,601	69,821	75,040	80,259	86,522
22.0	59,509	65,267	70,409	75,551	80,692	86,862
22.2	59,584	65,334	70,468	75,602	80,735	86,896
24.0	52,853	57,827	62,269	66,710	71,152	76,481

All power units in watts

Operating Range

Ensure the operating temperature is in allowable range.

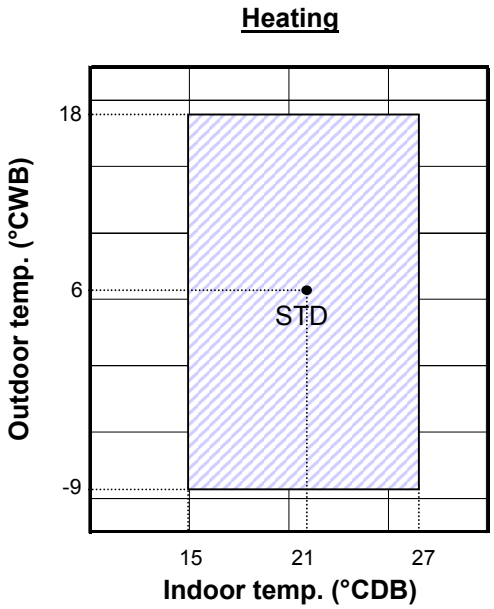
Cooling only

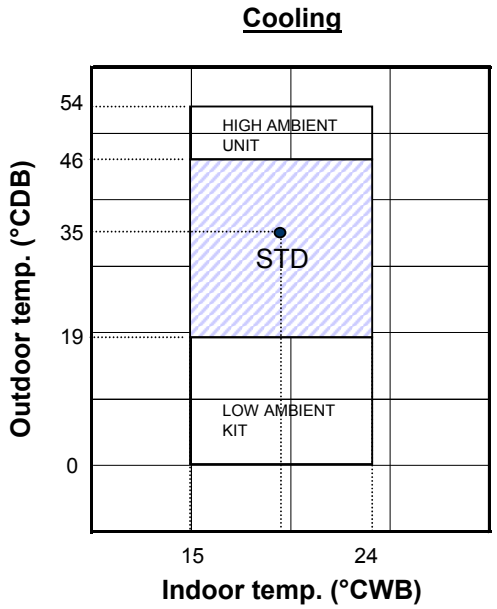


Caution :

The use of your air conditioner outside the range of working temperature and humidity can result in serious failure.

Heatpump





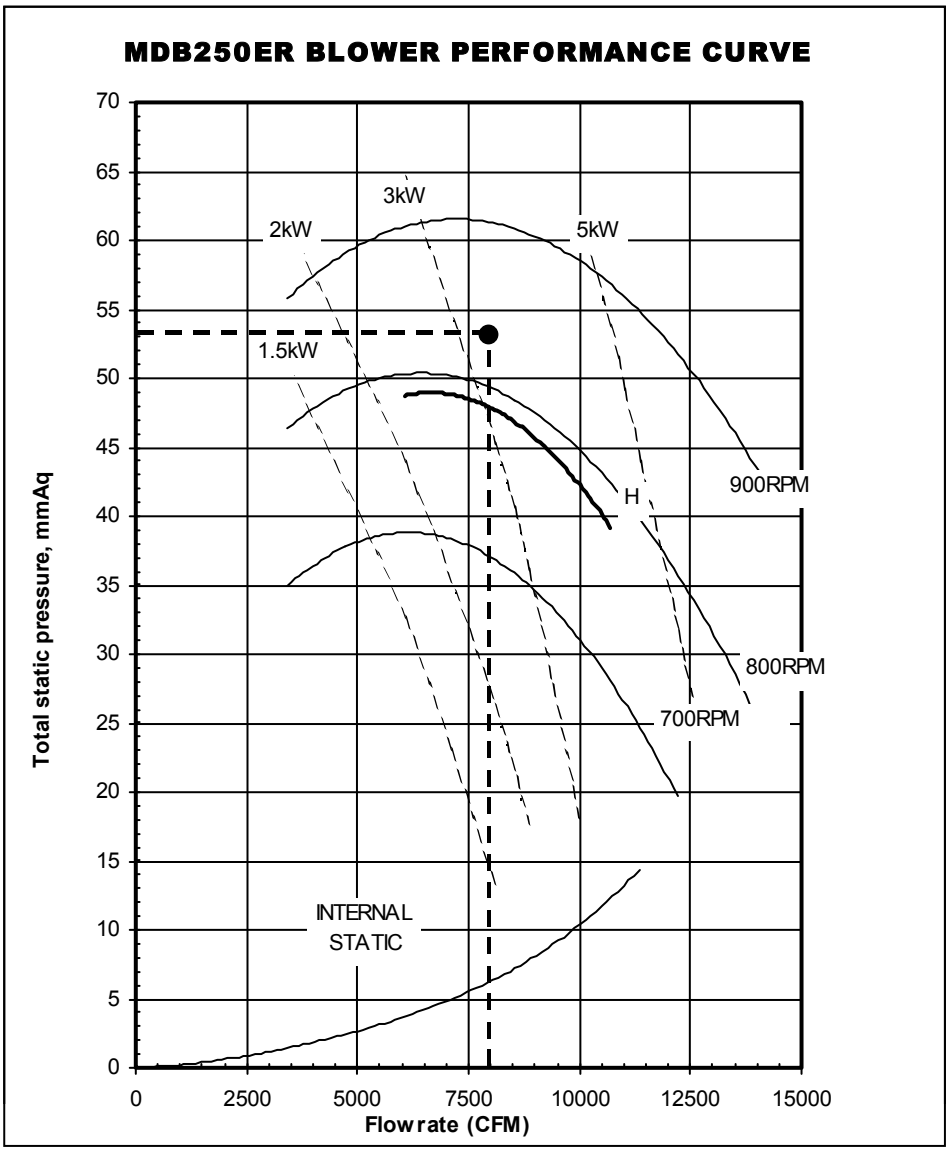
Drive Package Selection Example

Example 1 :

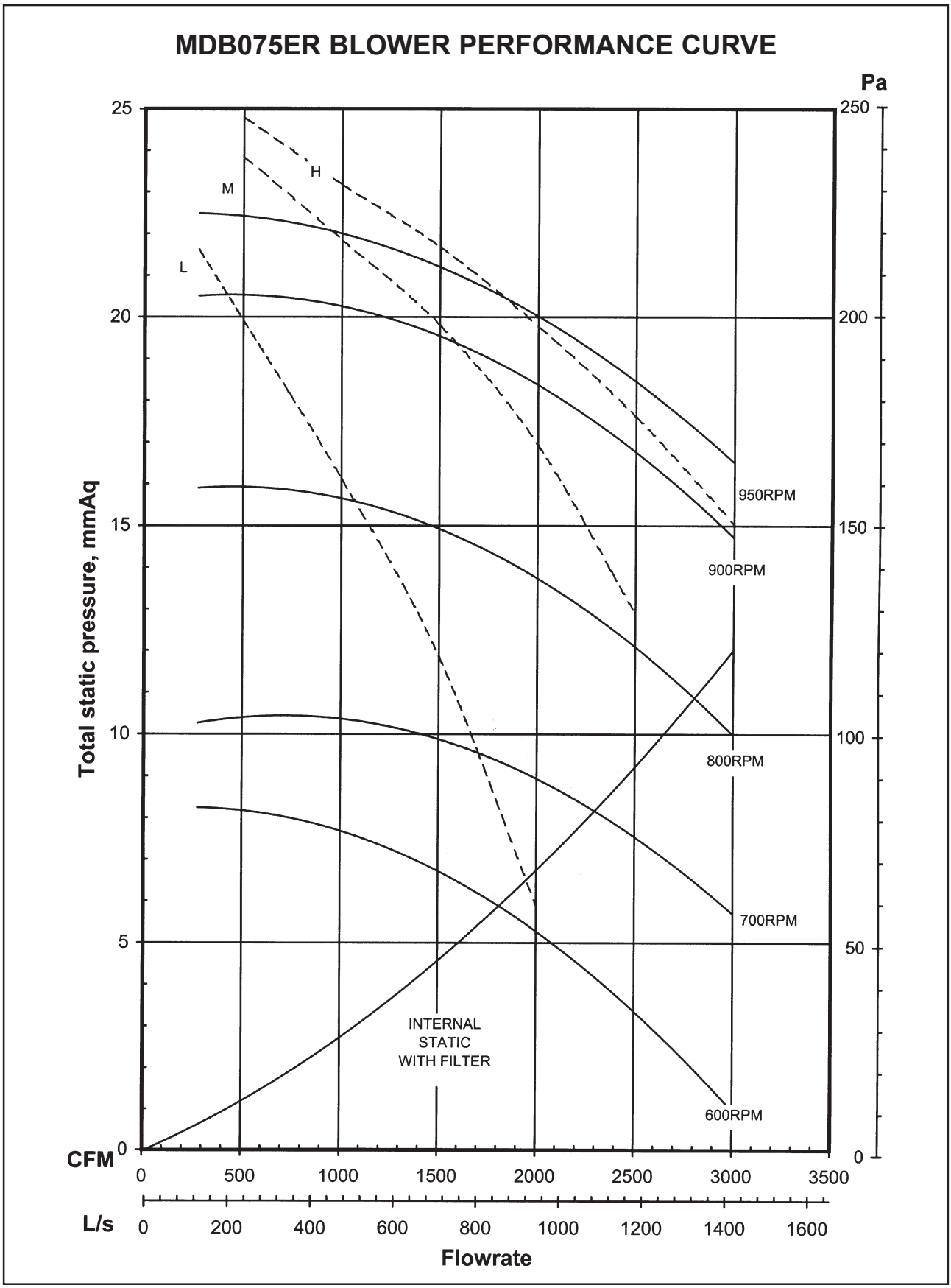
The following are the design requirements for MDB250ER2 unit:				
	Model:	**MDB250ER2**		
	Supply Air Quantity	=	8000	CFM
	External Static Pressure	=	48	mmAq
Step 1:	From the blower curve (at 8000 CFM), Standard operating system;			
	Total Static Pressure	=	**48.1**	mmAq
	Internal Static Pressure	=	**6.1**	mmAq
	External Static Pressure	=	**42.0**	mmAq
	External Static Pressure of 42.0 mmAq did not fulfill the design requirements.			
Step 2:	Therefore at 8000 CFM and External Static Pressure of 29 mmAq,			
	Total Static Pressure	=	6.1 + 48.1	mmAq
		=	**54.1**	mmAq
Step 3:	From the blower curve of MDB250ER2, the design requirement needs about 830 RPM, whereas the unit can only deliver 870 RPM under 8000 CFM. Therefore, it is necessary to resize the pulley sizes.			
	From the table next page, the standard component data as follow :			
	Motor pulley	=	90	mm
	Blower pulley	=	180	mm
	Motor RPM	=	1440	
	In order to obtain 830 RPM, we recalculate the new blower pulley as:			
	(While maintaining the motor pulley)			
	D_b	=	90 x 1440 / 830	
		=	156.2	mm
	The nearest pulley size will be a diameter of 160 mm			
	Recheck, with D_b	=	160	mm
	Blower pulley	=	1440 x 95 / 160	
		=	**855**	
	We thus need to change the blower pulley from 180mm to 160mm in order to obtain the higher operating static pressure.			
Step 4:	When the pulley is changed, the V-belt length must be rechecked. We have for horizontal air throw configuration:			
	V-belt length, L	=	$2C + 1.57 (D_b + D_m)$	
		=	2 (623) + 1.57 (95 + 160)	
		=	1646.35	mm
	We thus can use a belt with a length of **1650mm**			
	where, C	=	distance between the centres of the two pulleys	
	D_b	=	diameter of blower pulley	
	D_m	=	diameter of motor pulley	
Step 5:	From the blower curve, we can also notice that the motor power input has increased. At the new operating point, the power is approximately 3.5 kW.			
	By applying a safety factor of 1.2 to account for losses, we calculate that the motor power input requirement should be = 3.5 x 1.2 = **4.2 kW**			
	Thus, the existing motor is still sufficient to drive the blower with the smaller 160mm blower pulley.			
	Summary:			
	i) Blower pulley diameter	=	**160**	**mm**
	ii) V-belt size	=	**1650**	**mm**

The following table summarizes the pulley data, motor size used for the MDB series, as manufactured:

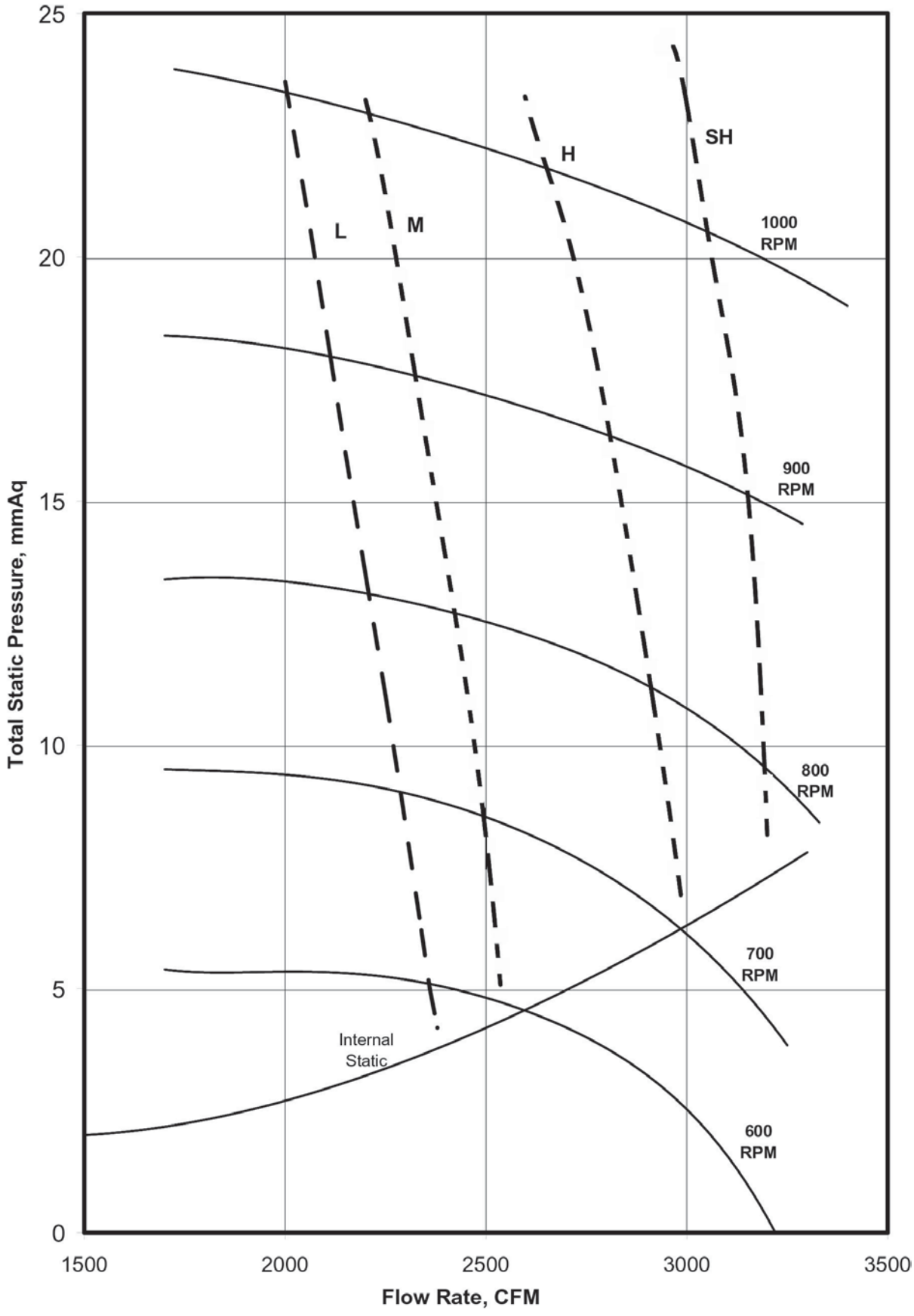
Model	Motor Pulley, D_m	Blower Pulley, D_b	Pulley Centre Distance, C		Motor (kW)	Motor RPM
	Taper # (mm)	Taper # (mm)	Horizontal	Vertical		
MDB125ER	85	160	180	-	1.5	1425
MDB150ER	75	160	180	-	1.5	1425
MDB200ER2	80	140	314	330	3	1430
MDB250ER2	90	180	599	623	4	1440
MDB300ER2	95	180	599	623	4	1440
MDB350ER3	125	250	840	870	5.5	1445
MDB400ER4	106	250	732	782	5.5	1445
MDB450ER3	112	250	738	768	7.5	1445
MDB500ER4	150	315	700	751	11	1445
MDB600ER4	132	400	300	490	11	1450



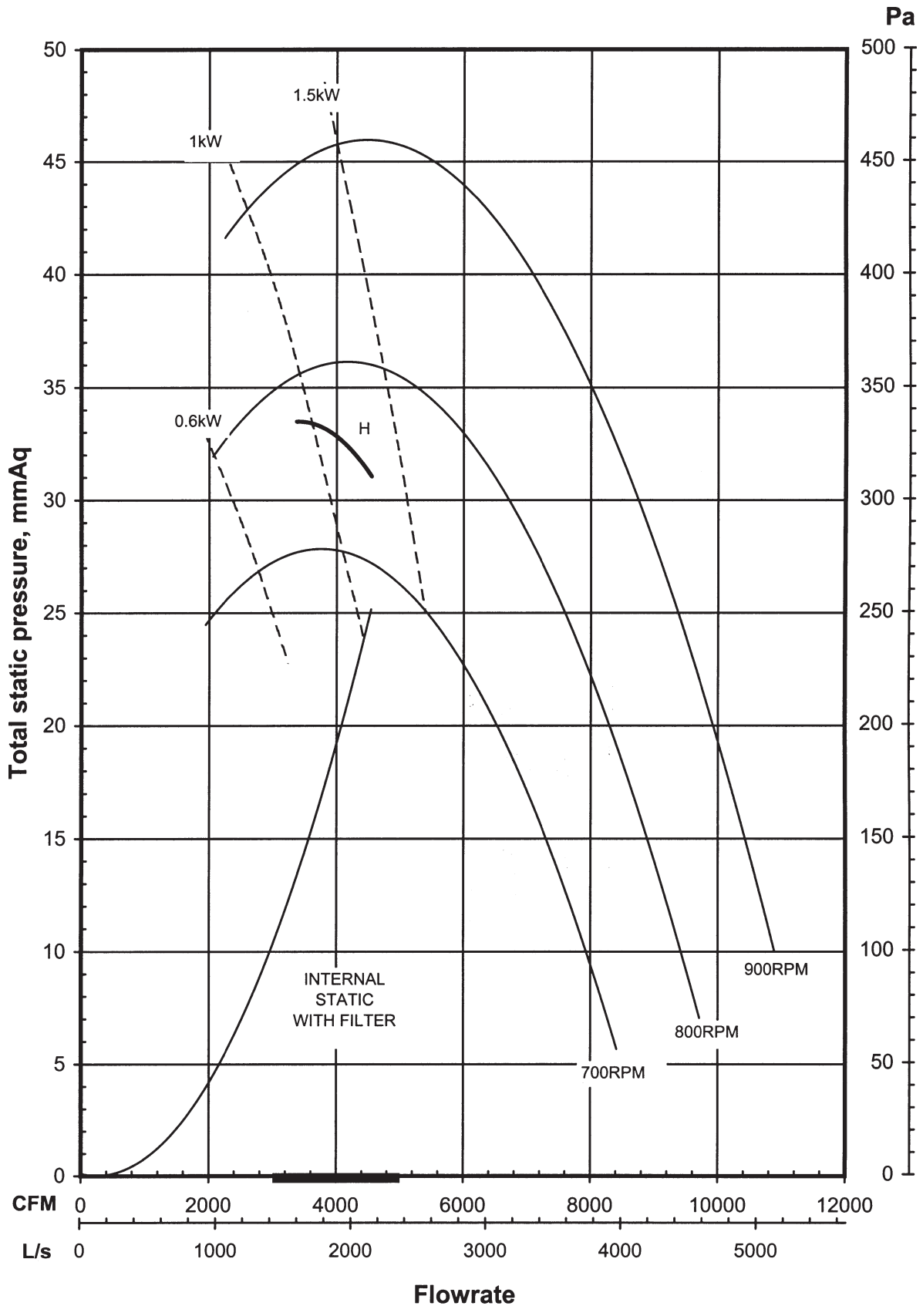
Blower Performance Curves



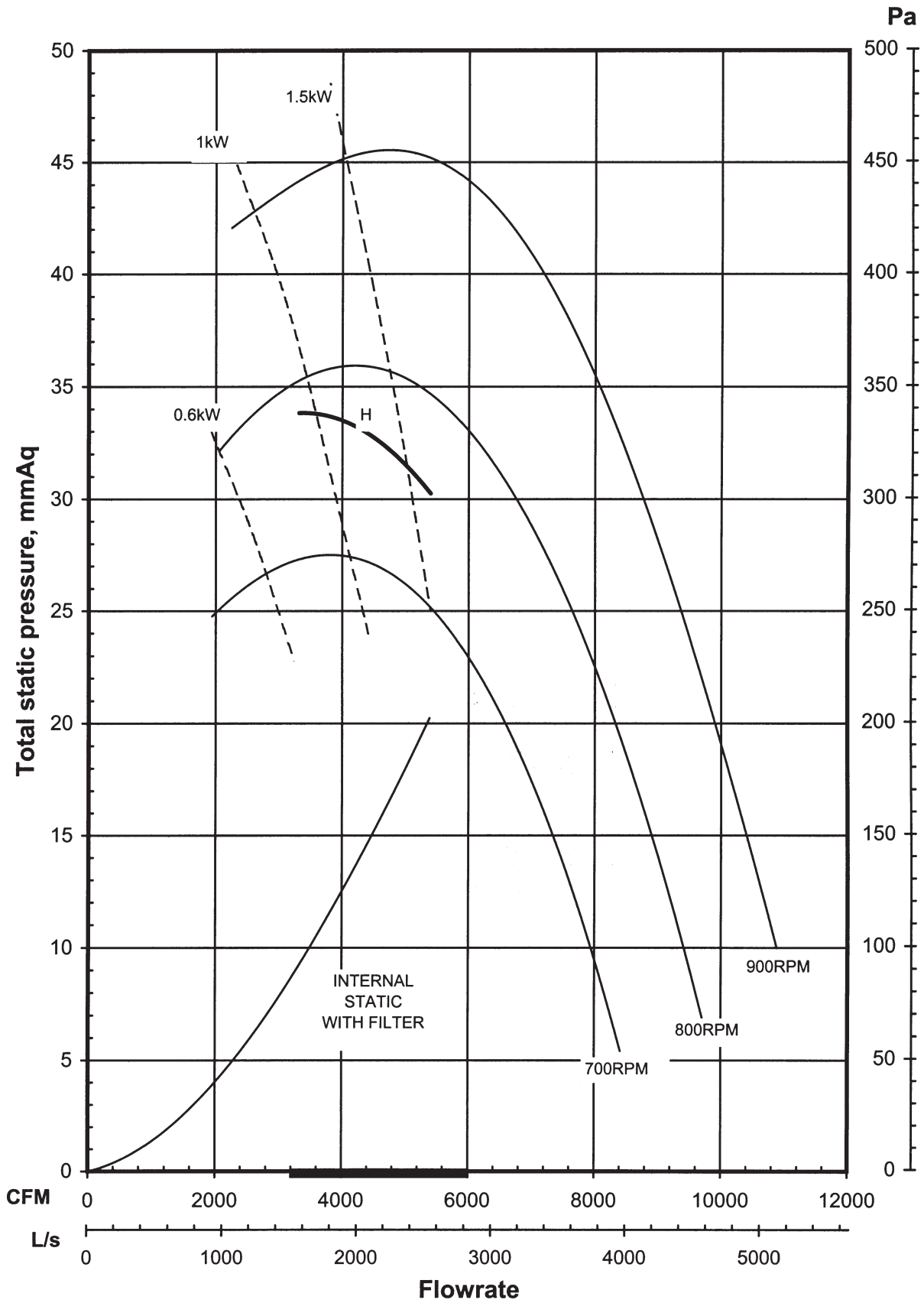
MDB100ER BLOWER PERFORMANCE CURVE



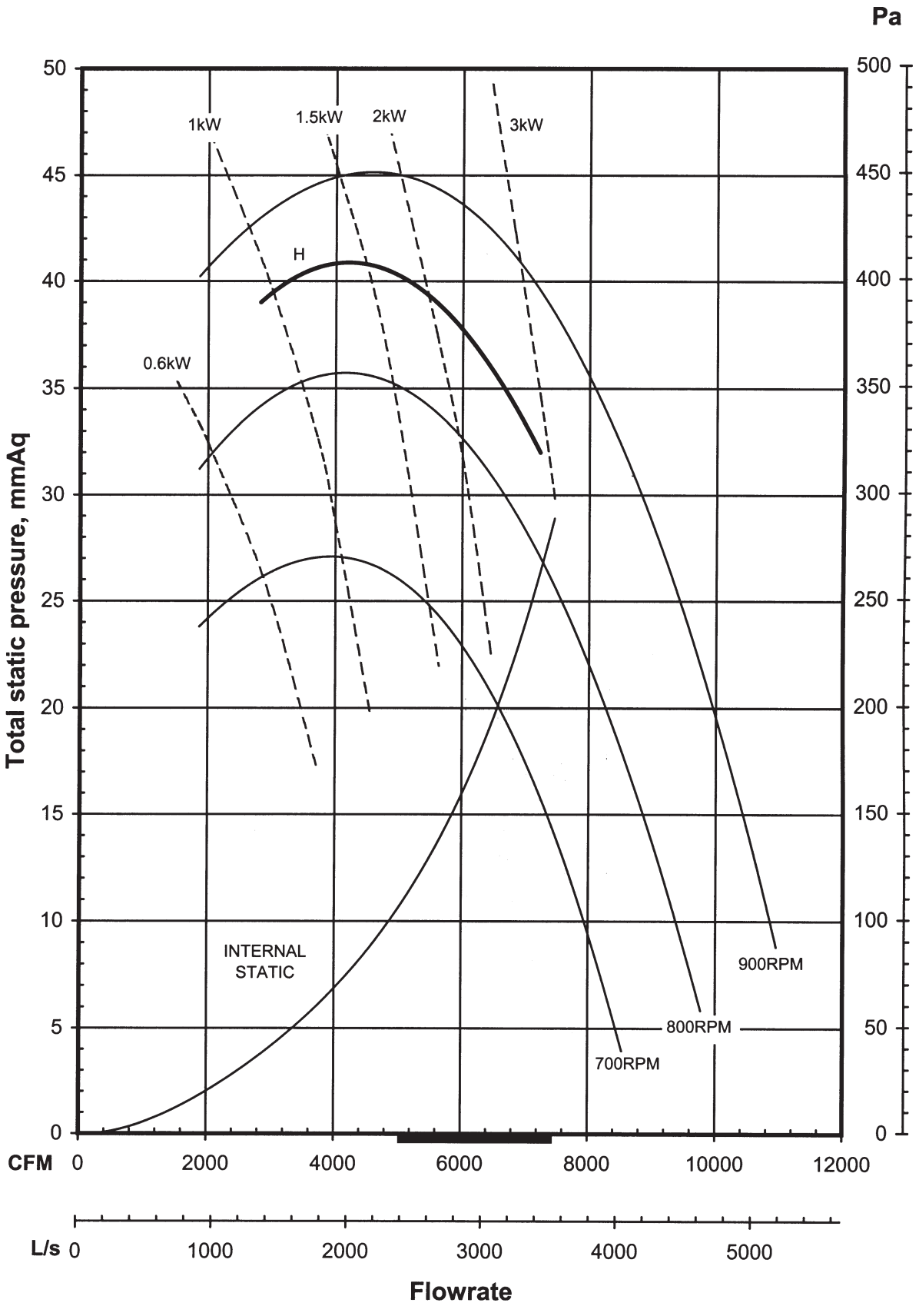
MDB125ER BLOWER PERFORMANCE CURVE



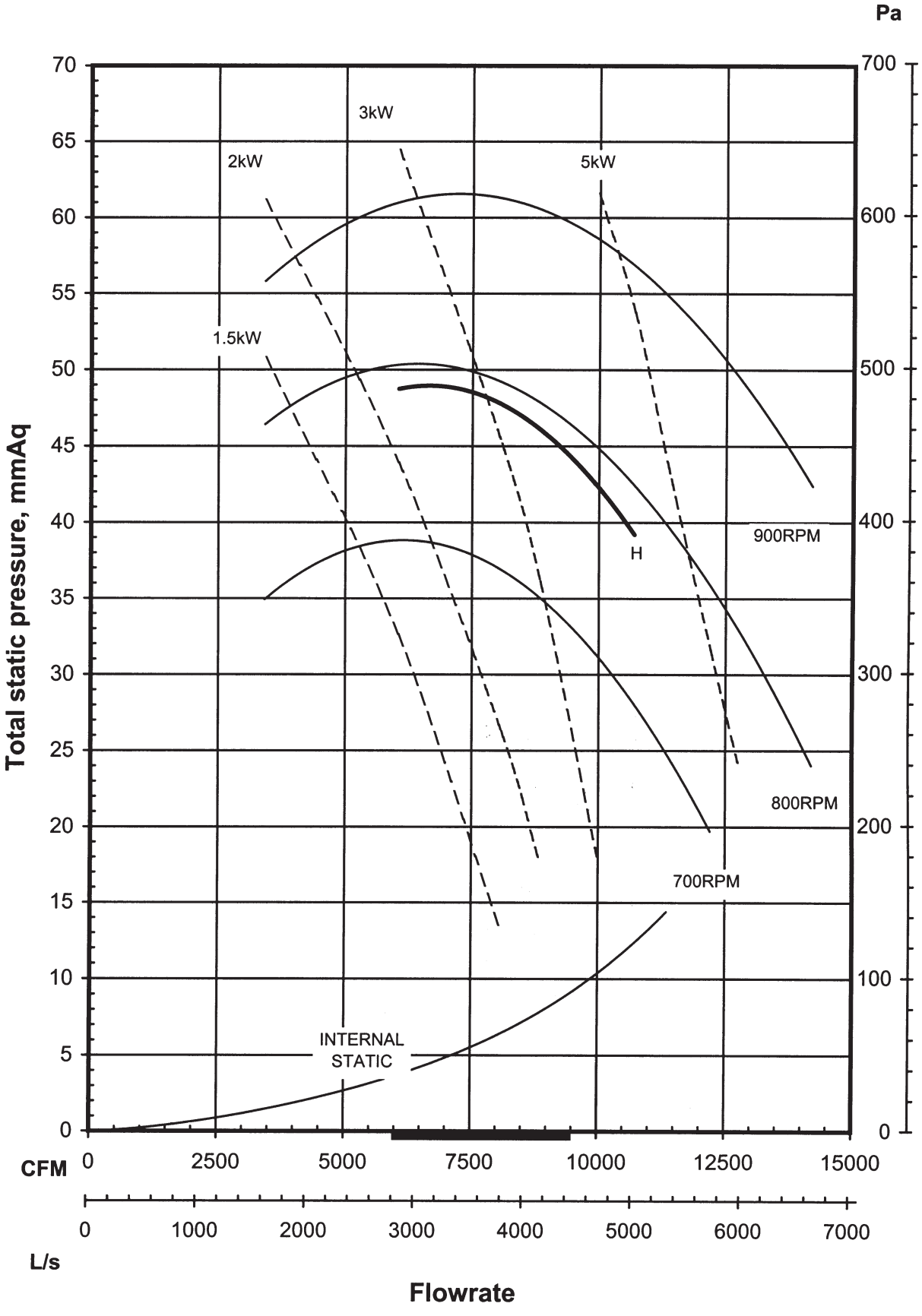
MDB150ER BLOWER PERFORMANCE CURVE



MDB200ER BLOWER PERFORMANCE CURVE



MDB250ER BLOWER PERFORMANCE CURVE



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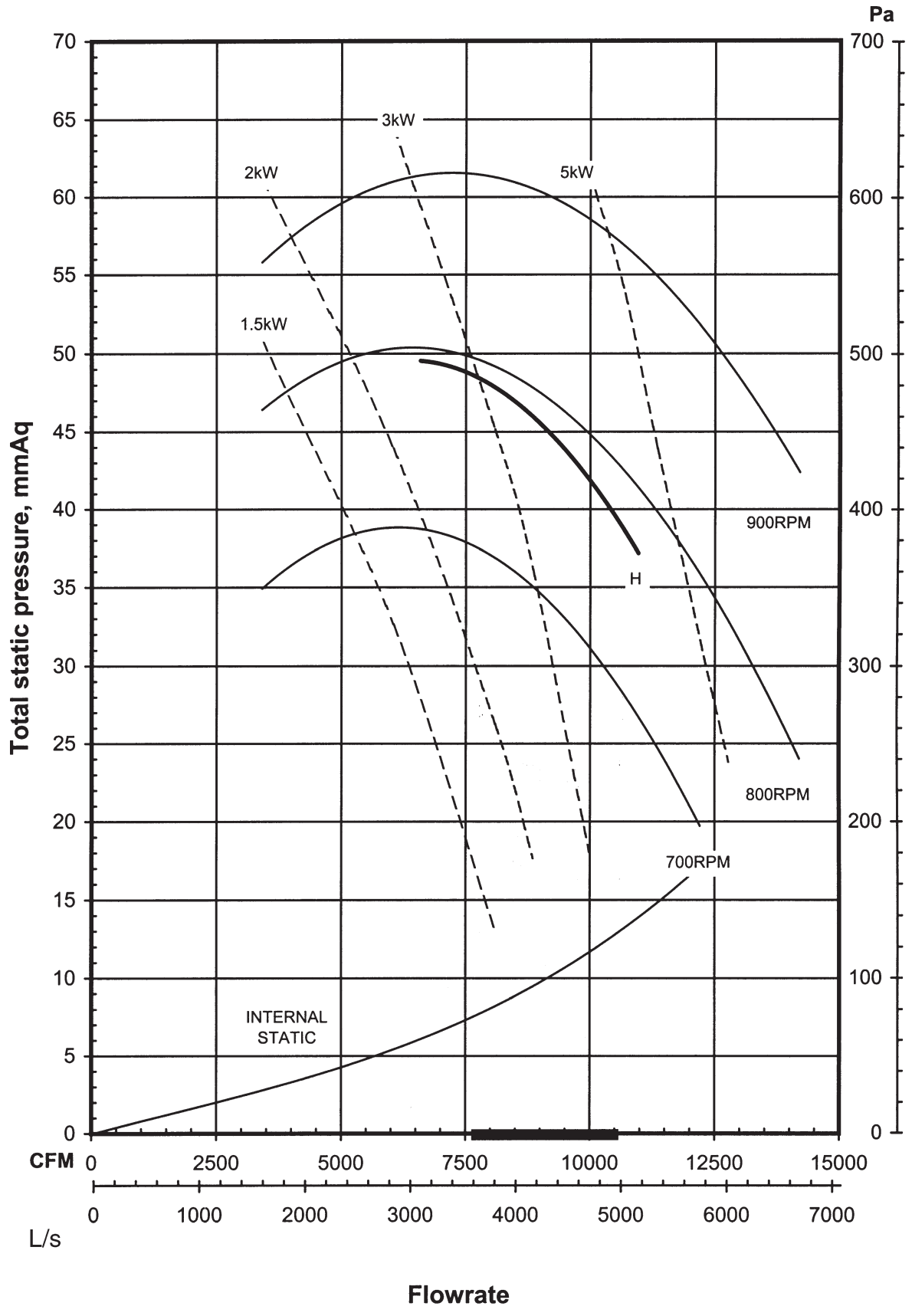
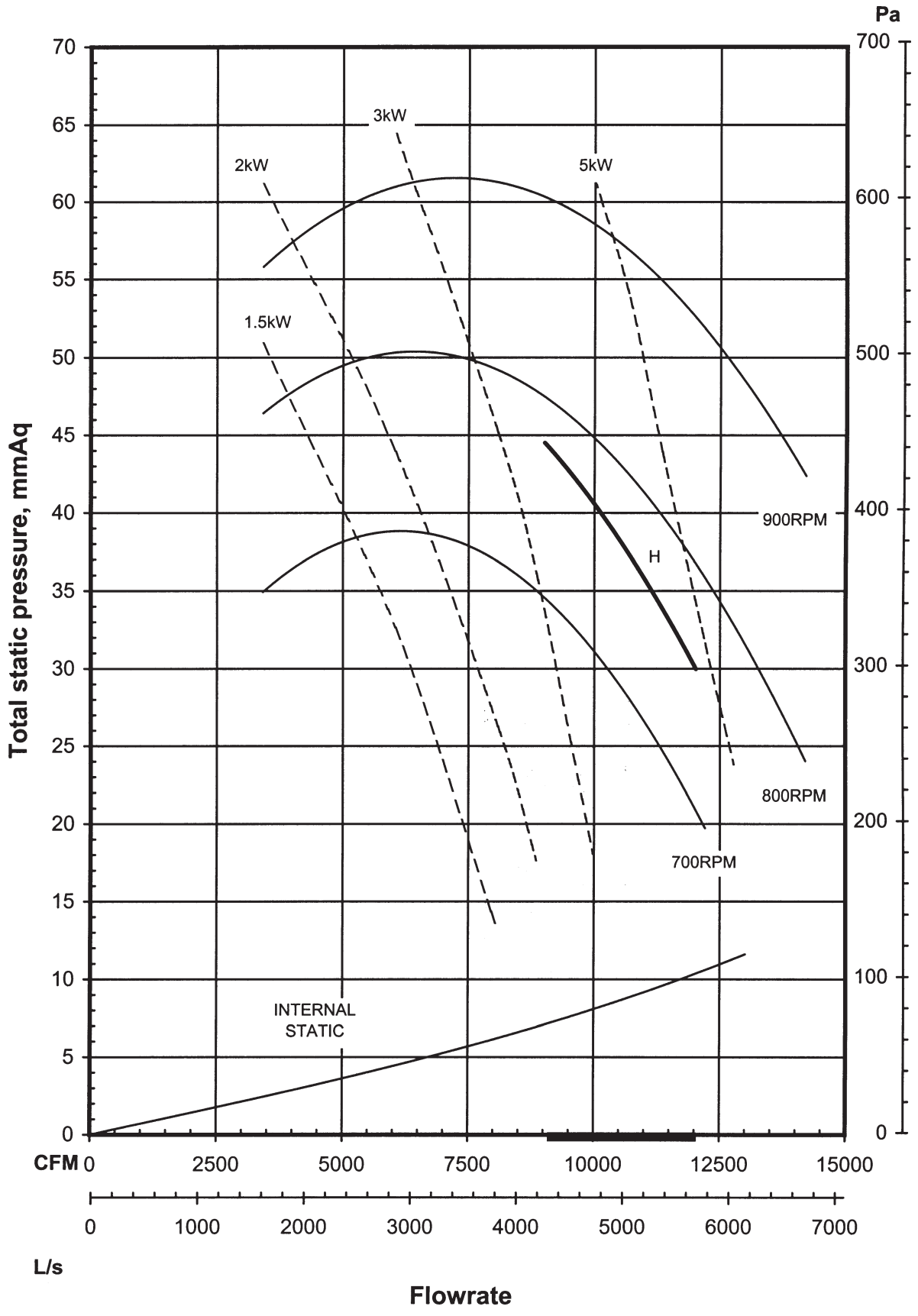
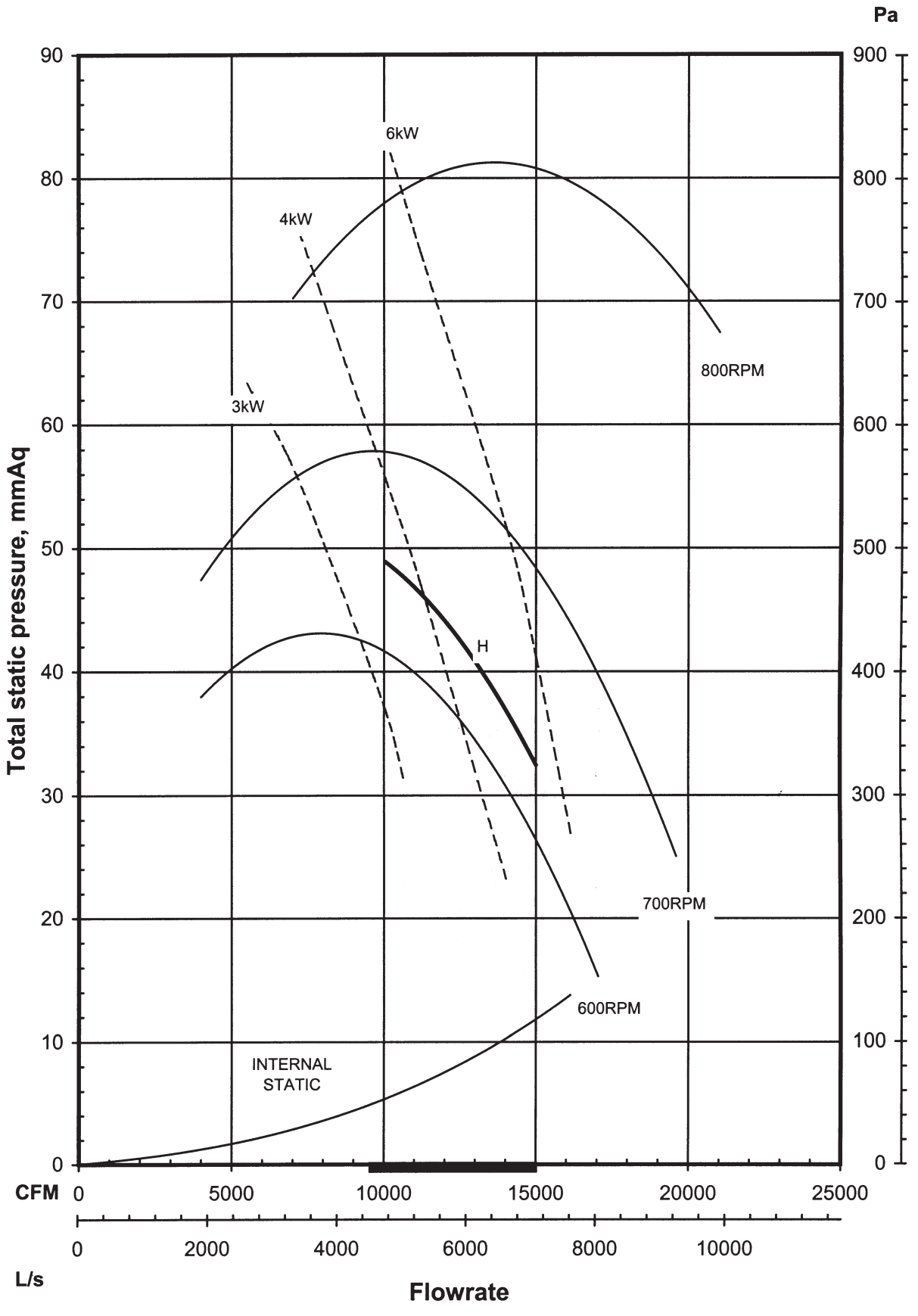


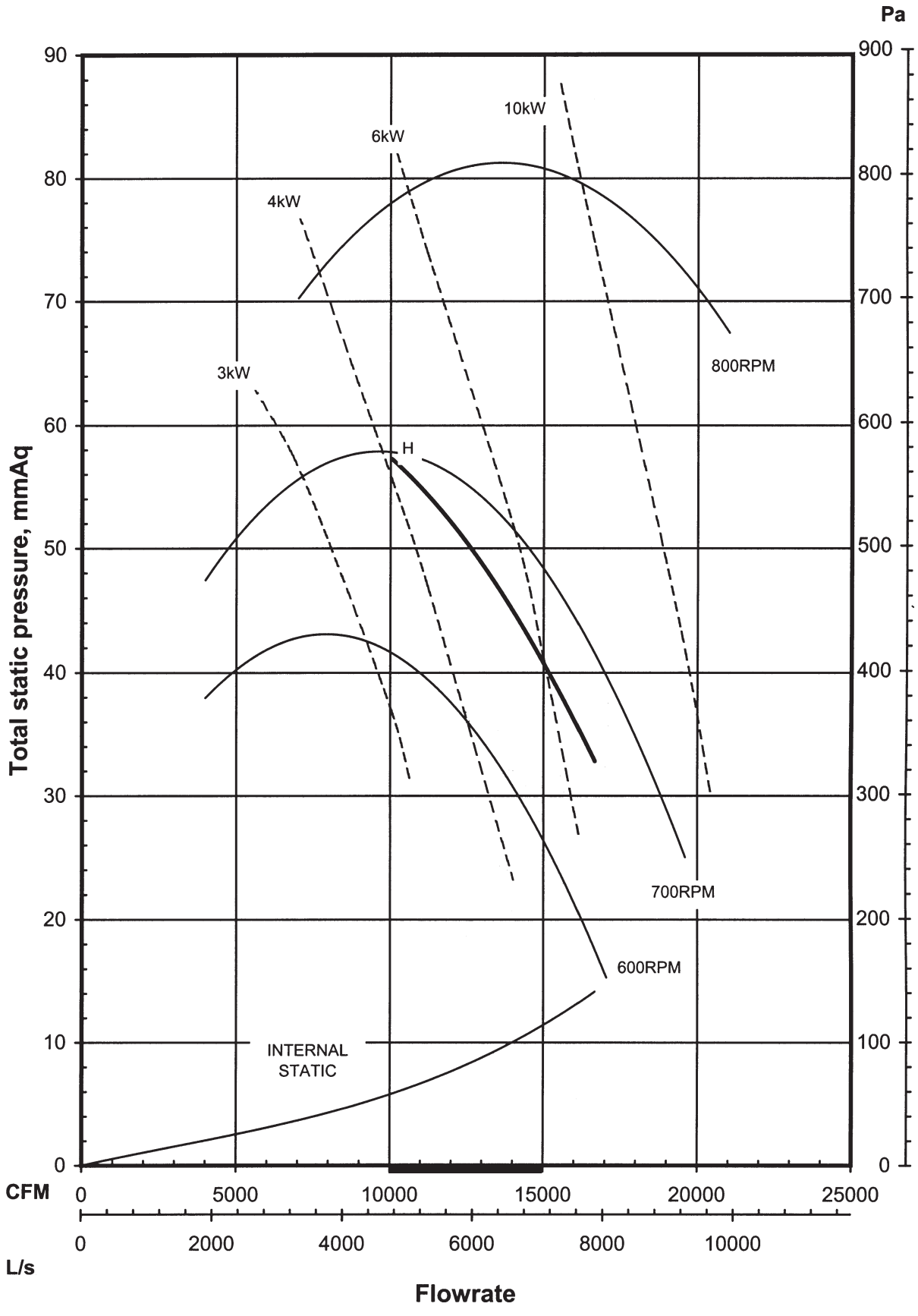
MDB350ER BLOWER PERFORMANCE CURVE



MDB400ER BLOWER PERFORMANCE CURVE



MDB450ER BLOWER PERFORMANCE CURVE



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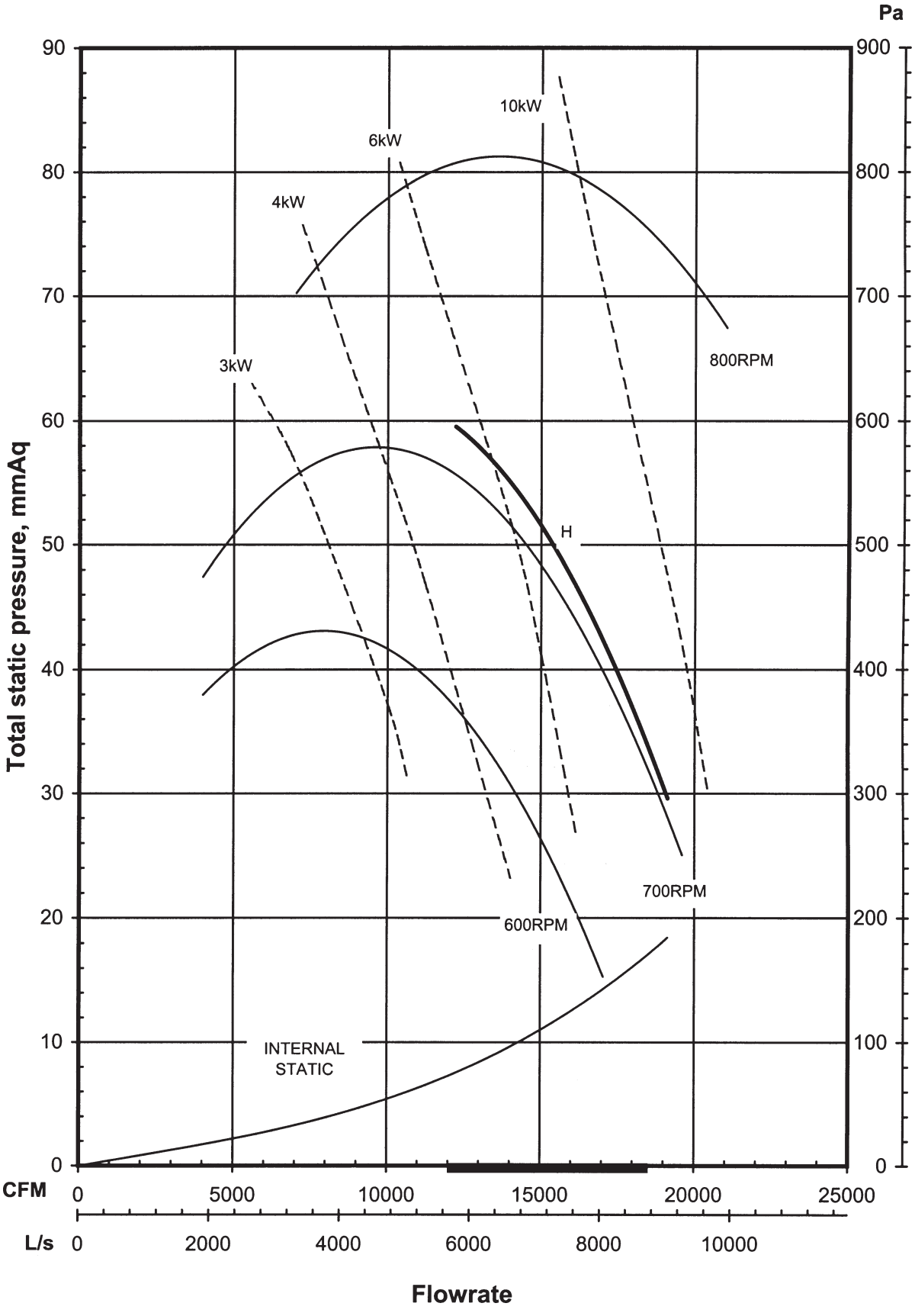
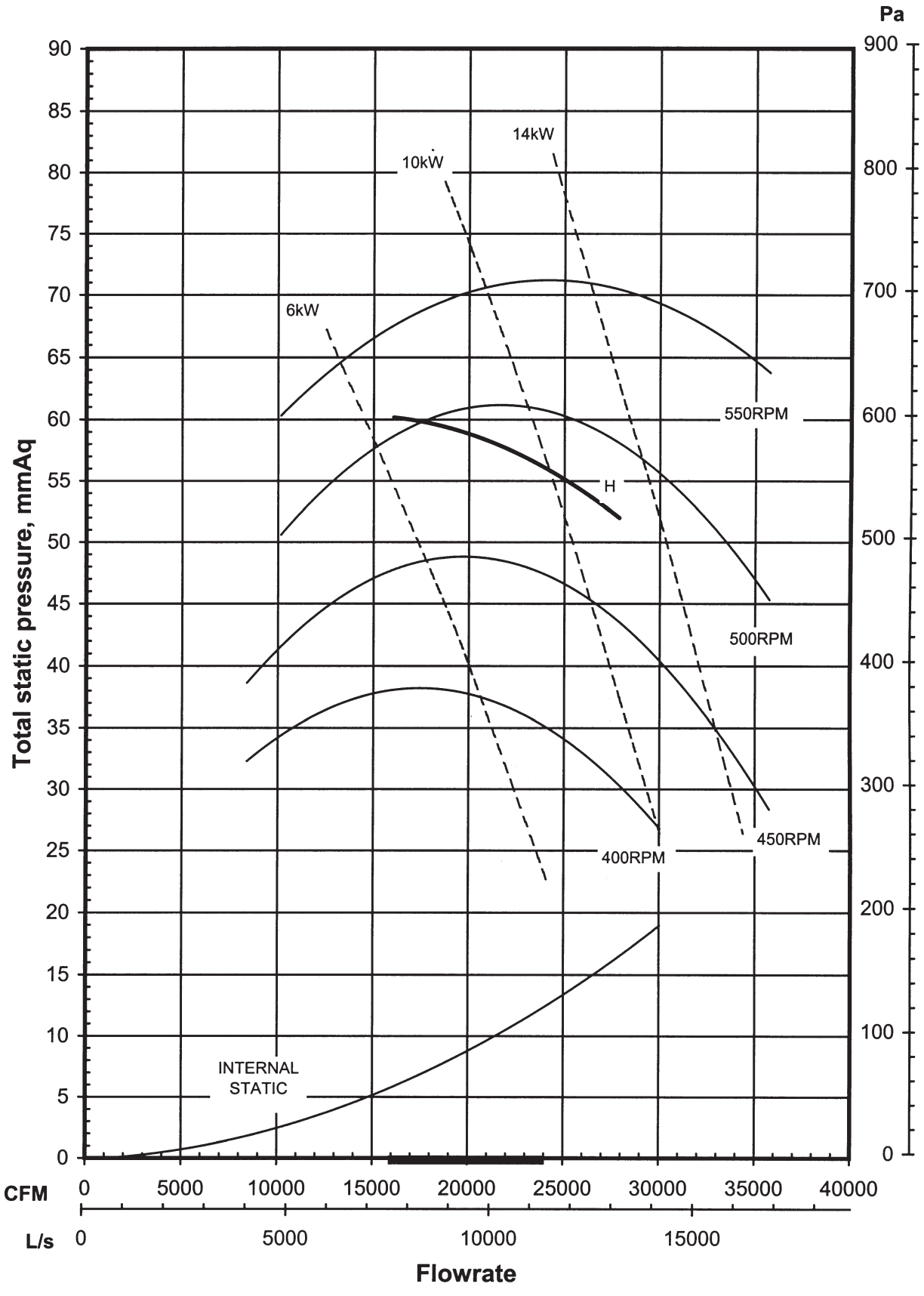
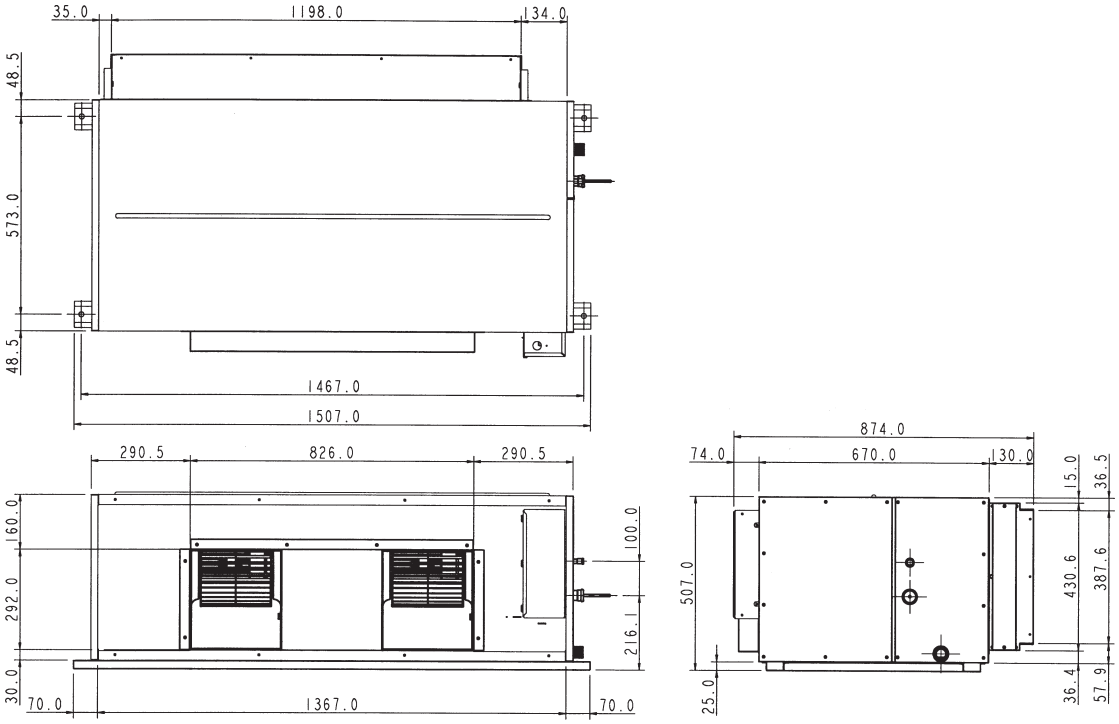


MDB600ER BLOWER PERFORMANCE CURVE

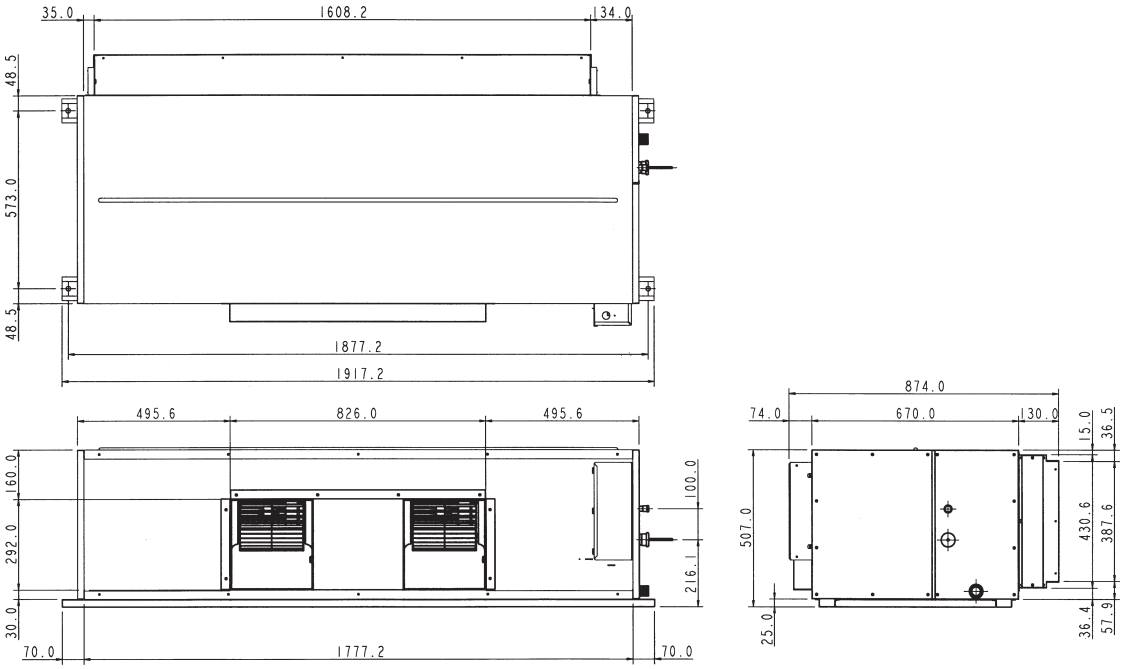


Outlines And Dimensions (Indoor)

Model : MDB 075ER

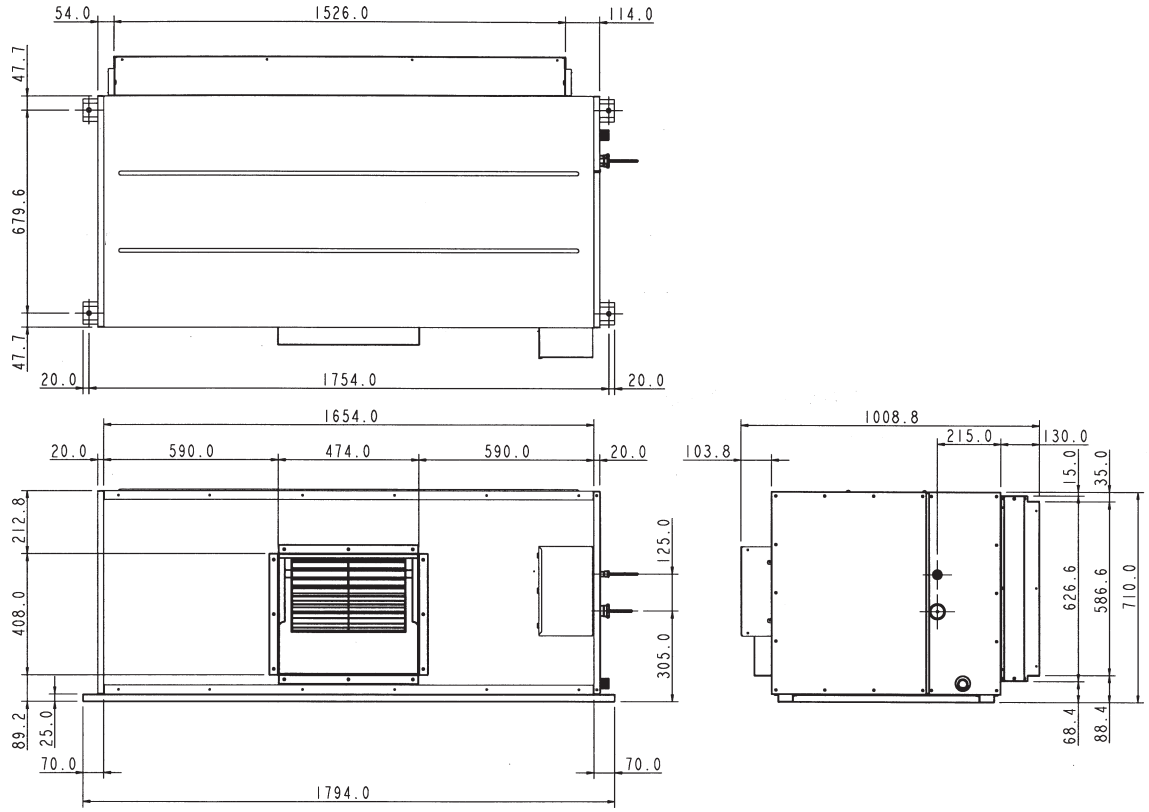


Model : MDB 100ER

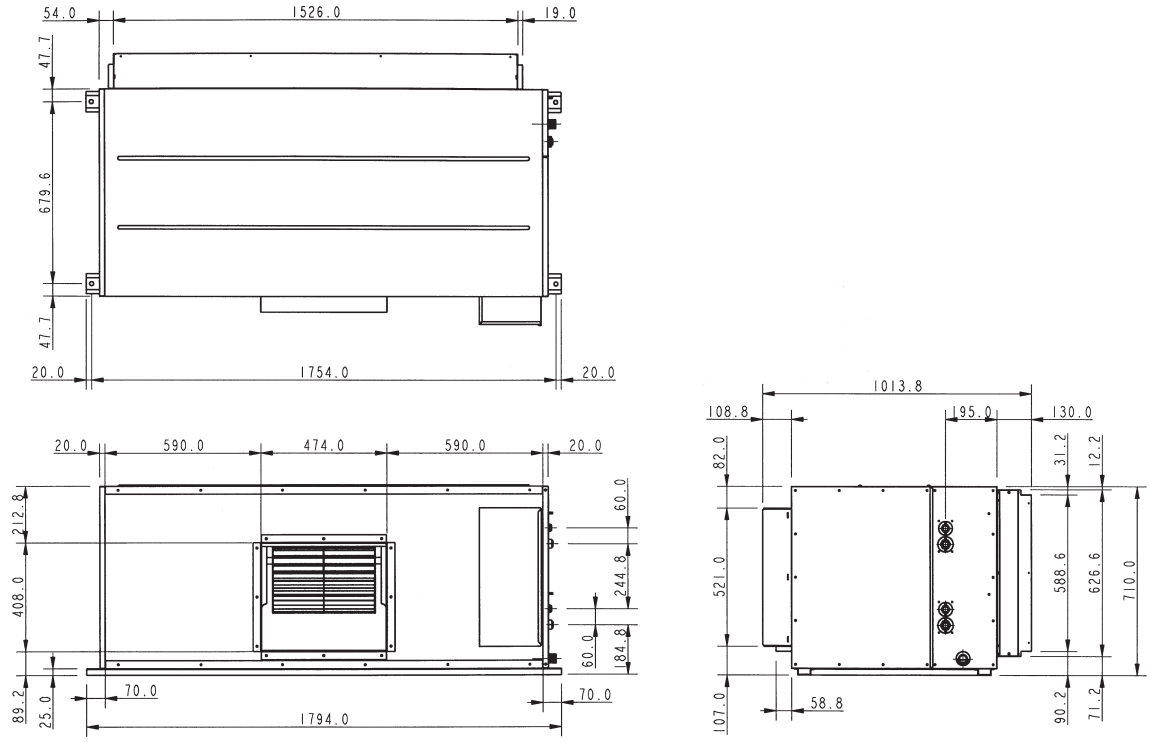


Note : All unit in mm

Model : MDB 125ER

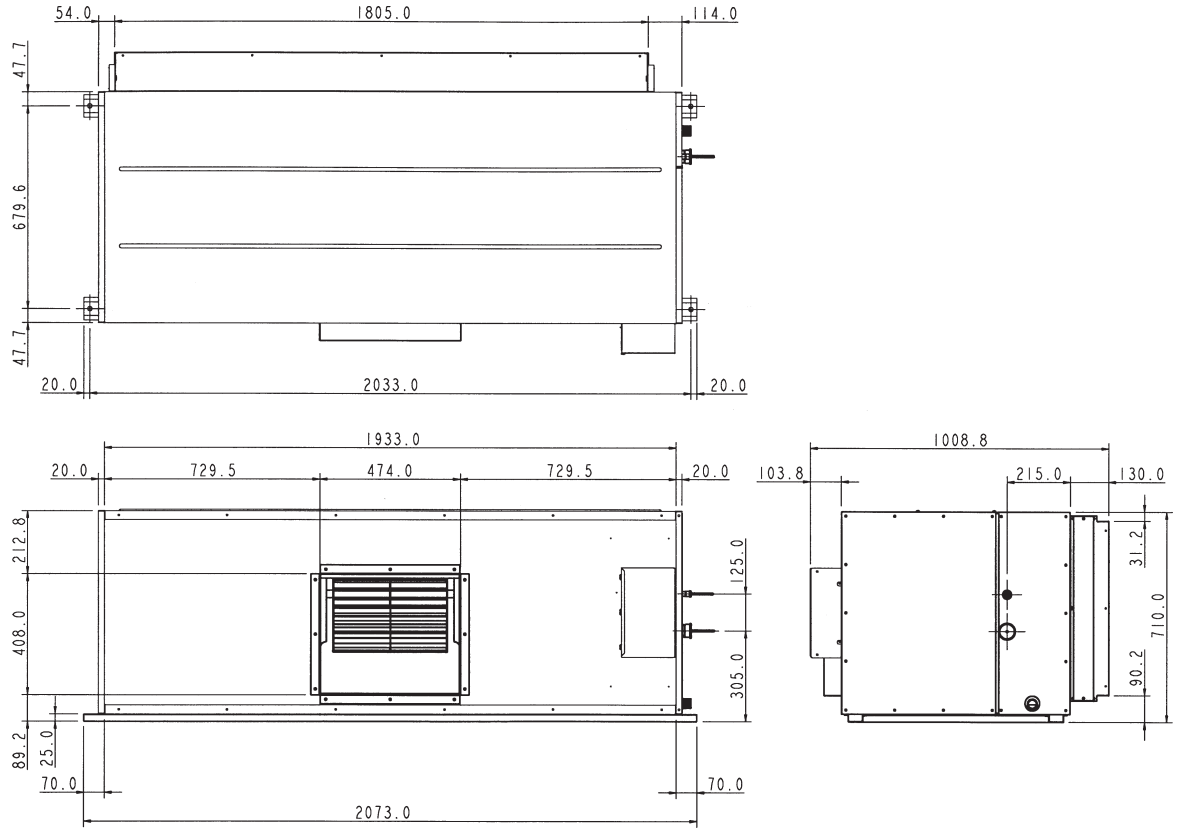


Model : MDB 125ER2

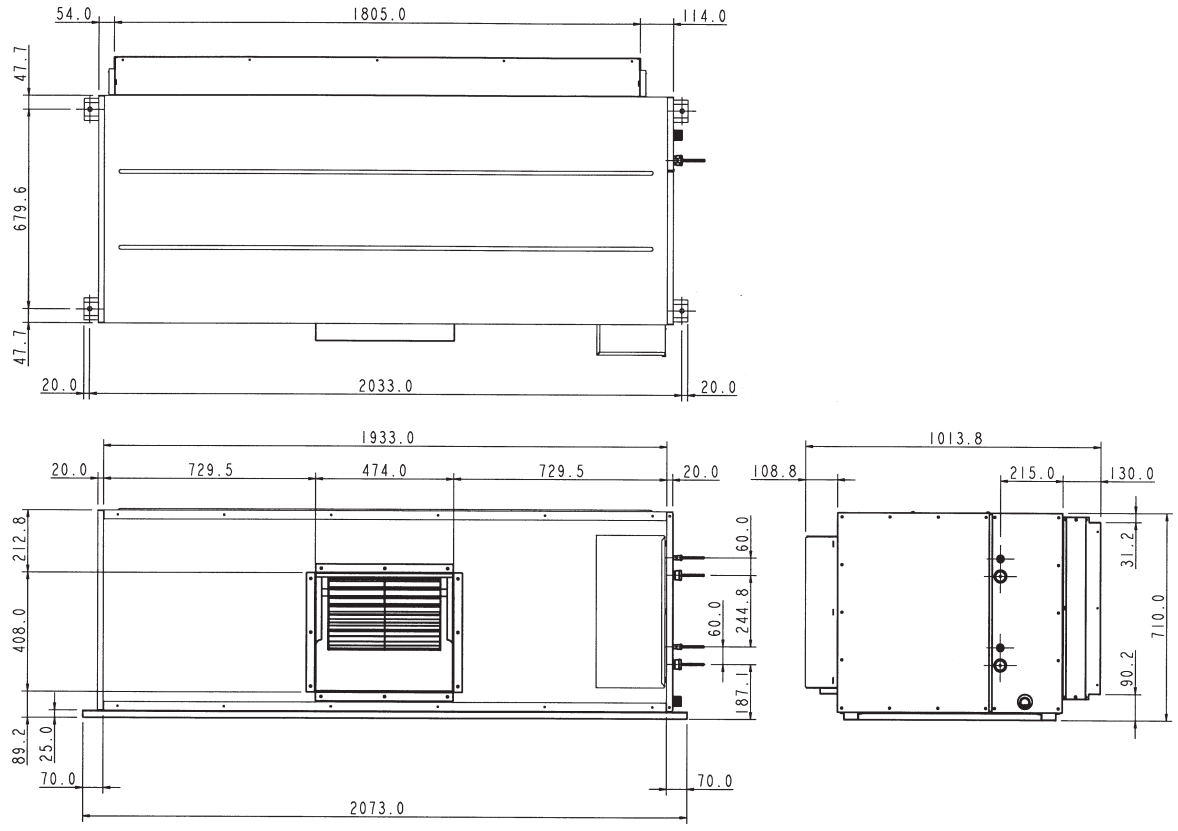


Note : All unit in mm

Model : MDB 150ER

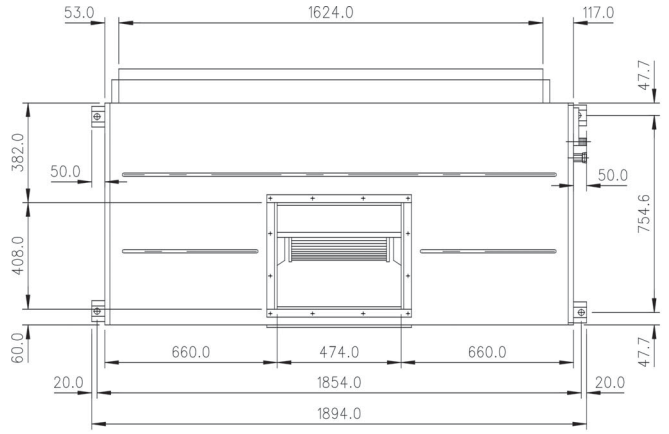


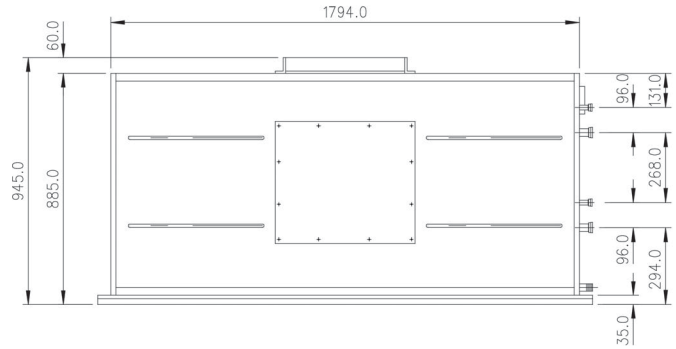
Model : MDB 150ER2

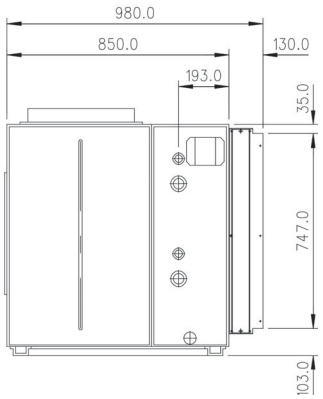


Note : All unit in mm

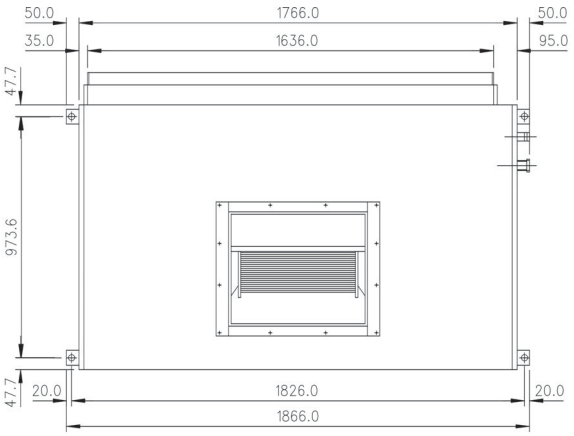
Model : MDB 200ER2

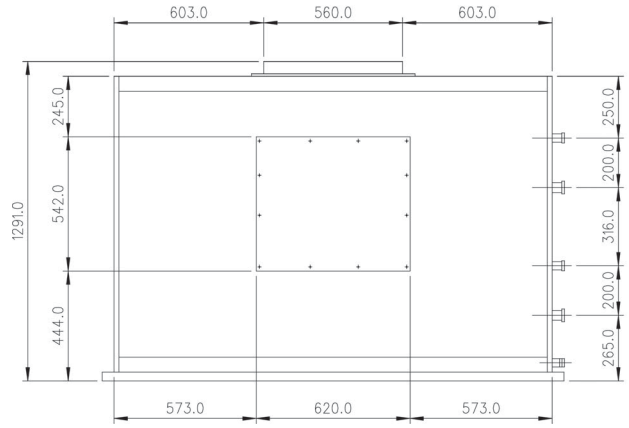


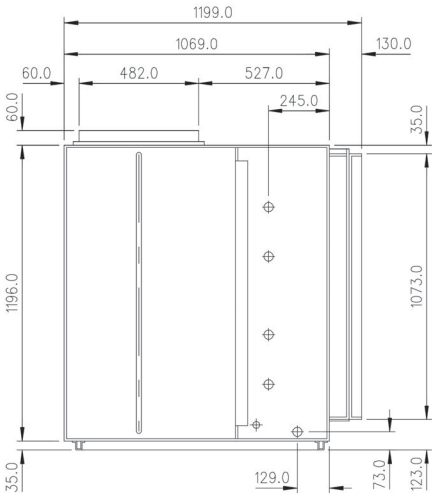




Model : MDB 250 / 300ER2

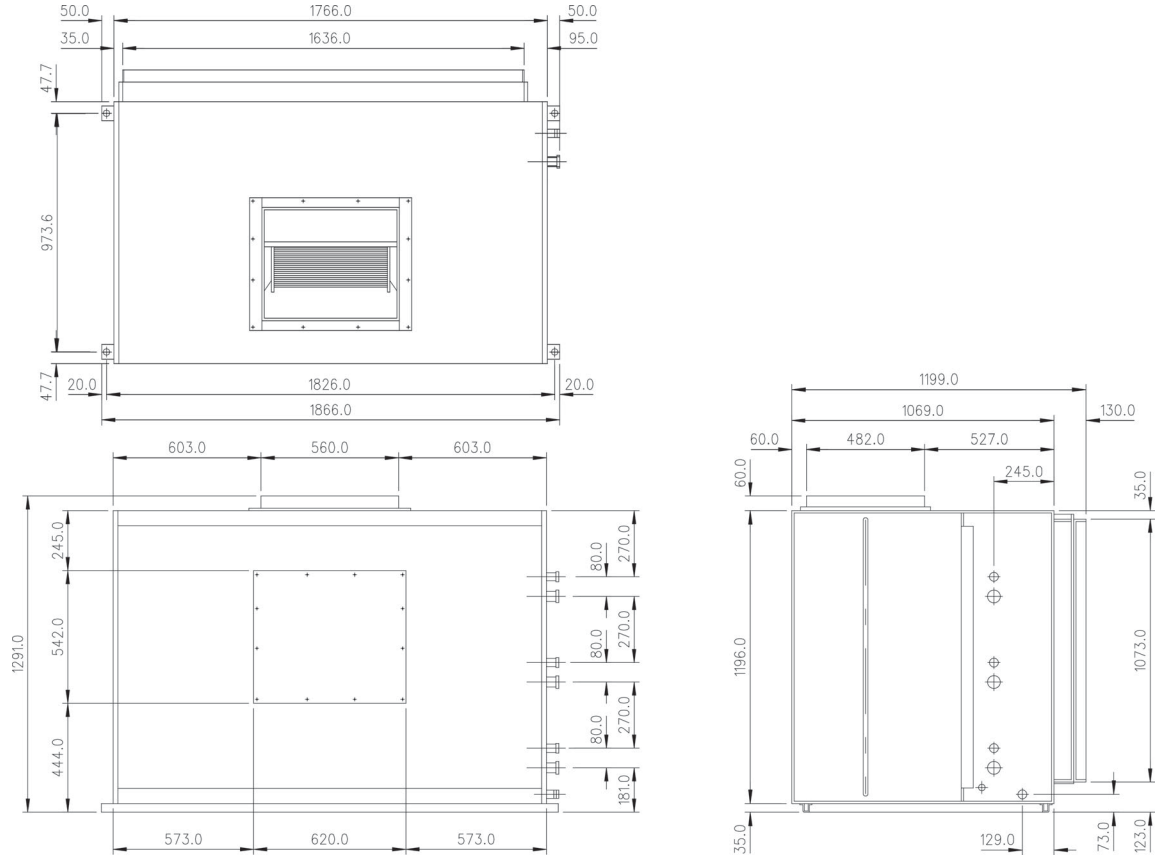




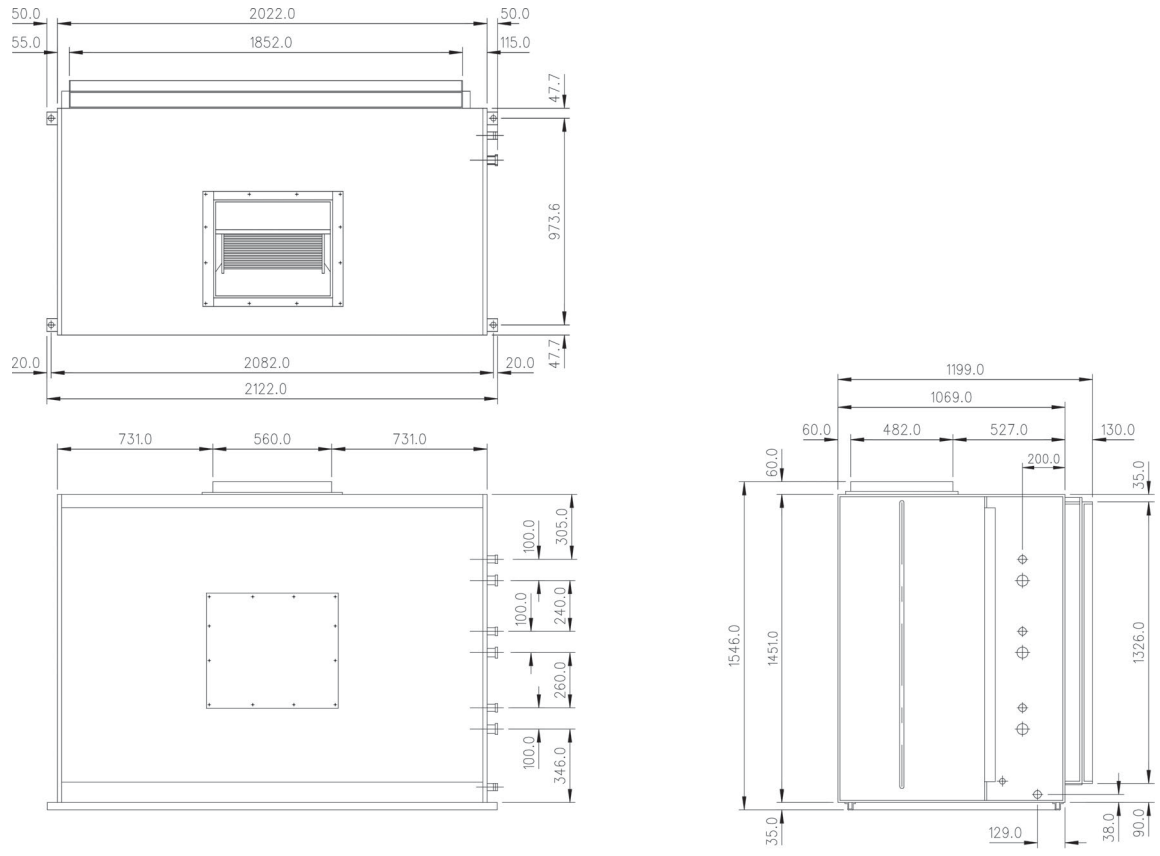


Note : All unit in mm

Model : MDB 300ER3

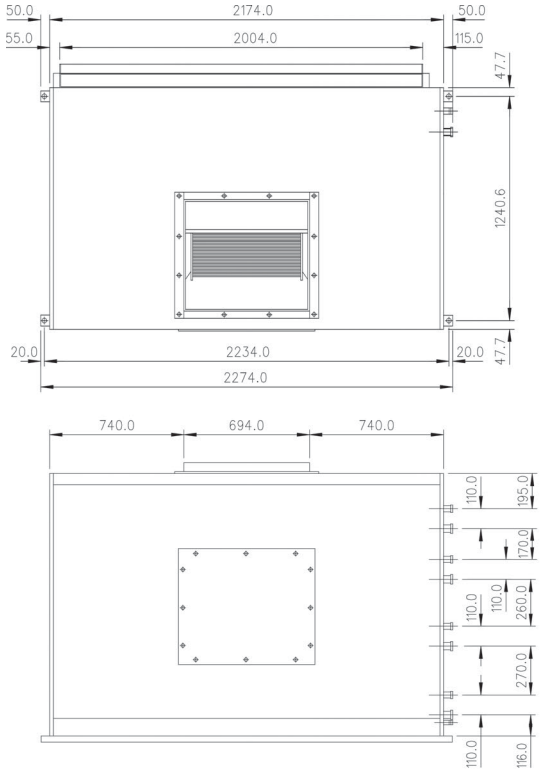


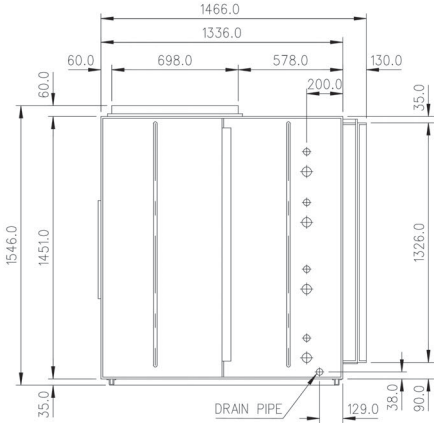
Model : MDB 350ER3



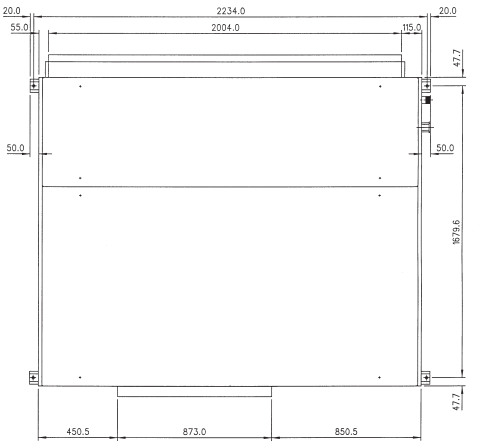
Note : All unit in mm

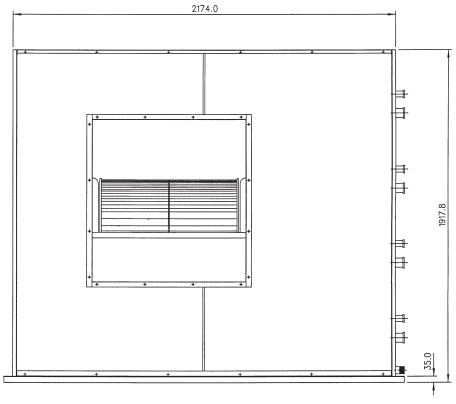
Model : MDB 400ER4 / 450ER3 / 500ER4

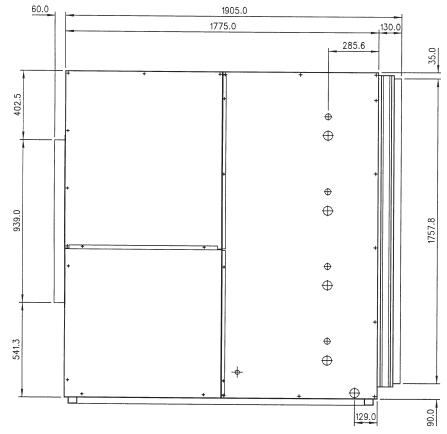




Model : MDB 600ER4



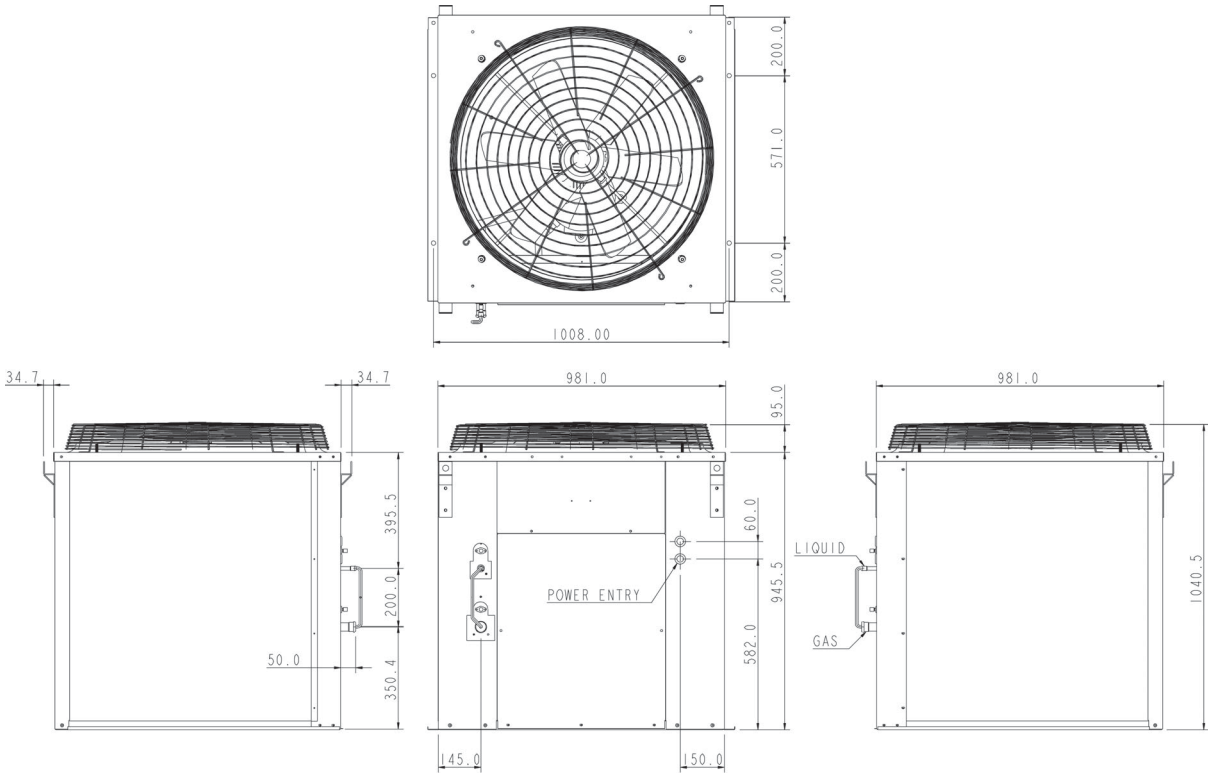




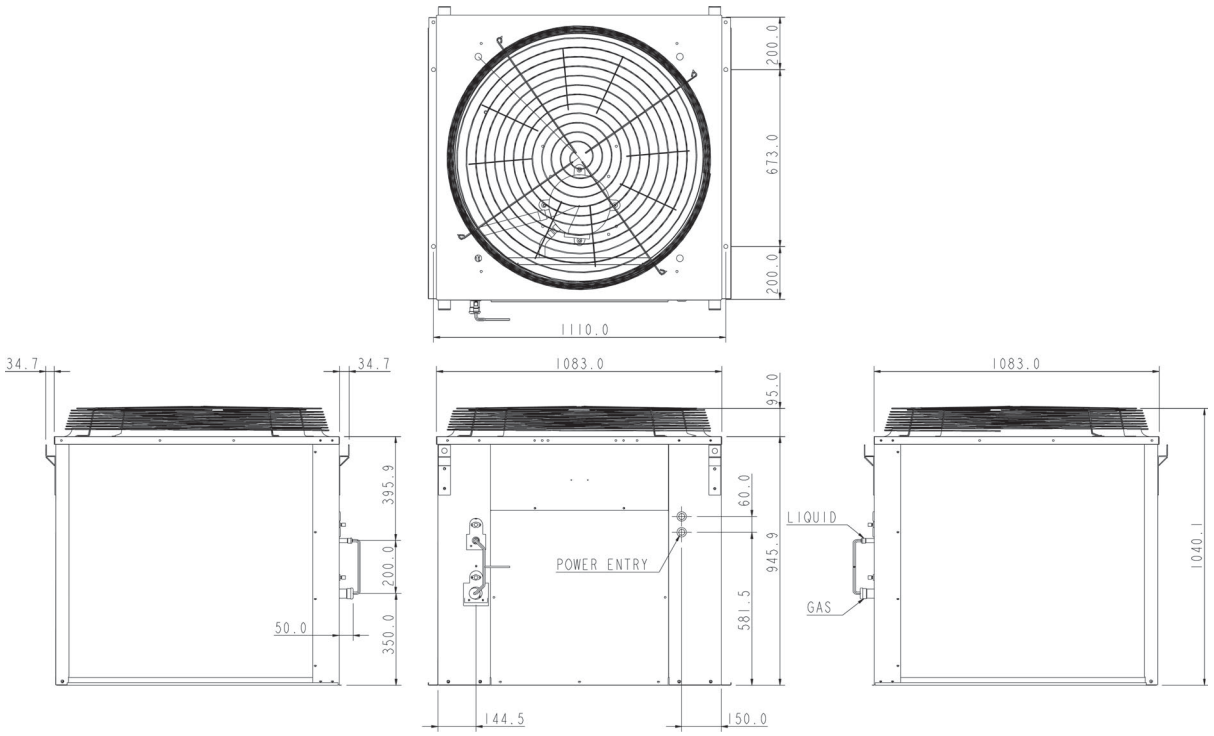
Note : All unit in mm

Outlines And Dimensions (Outdoor)

Model : MMC 075 / 100ER

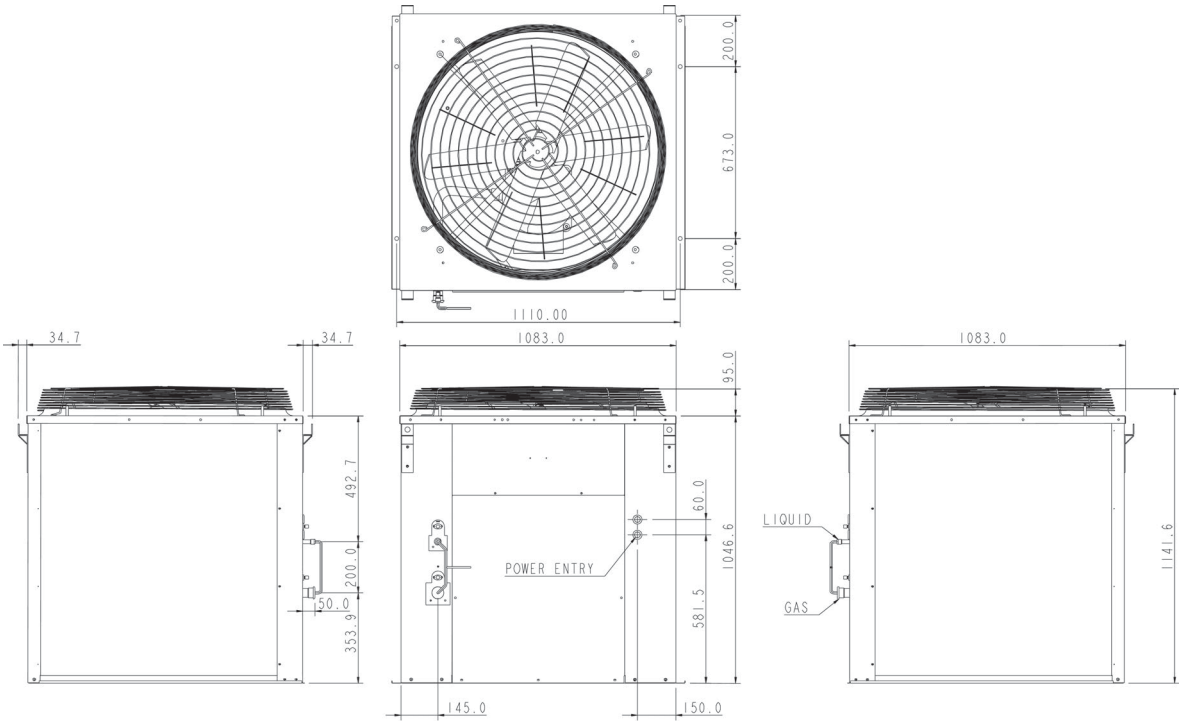


Model : MMC 125ER



Note : All unit in mm

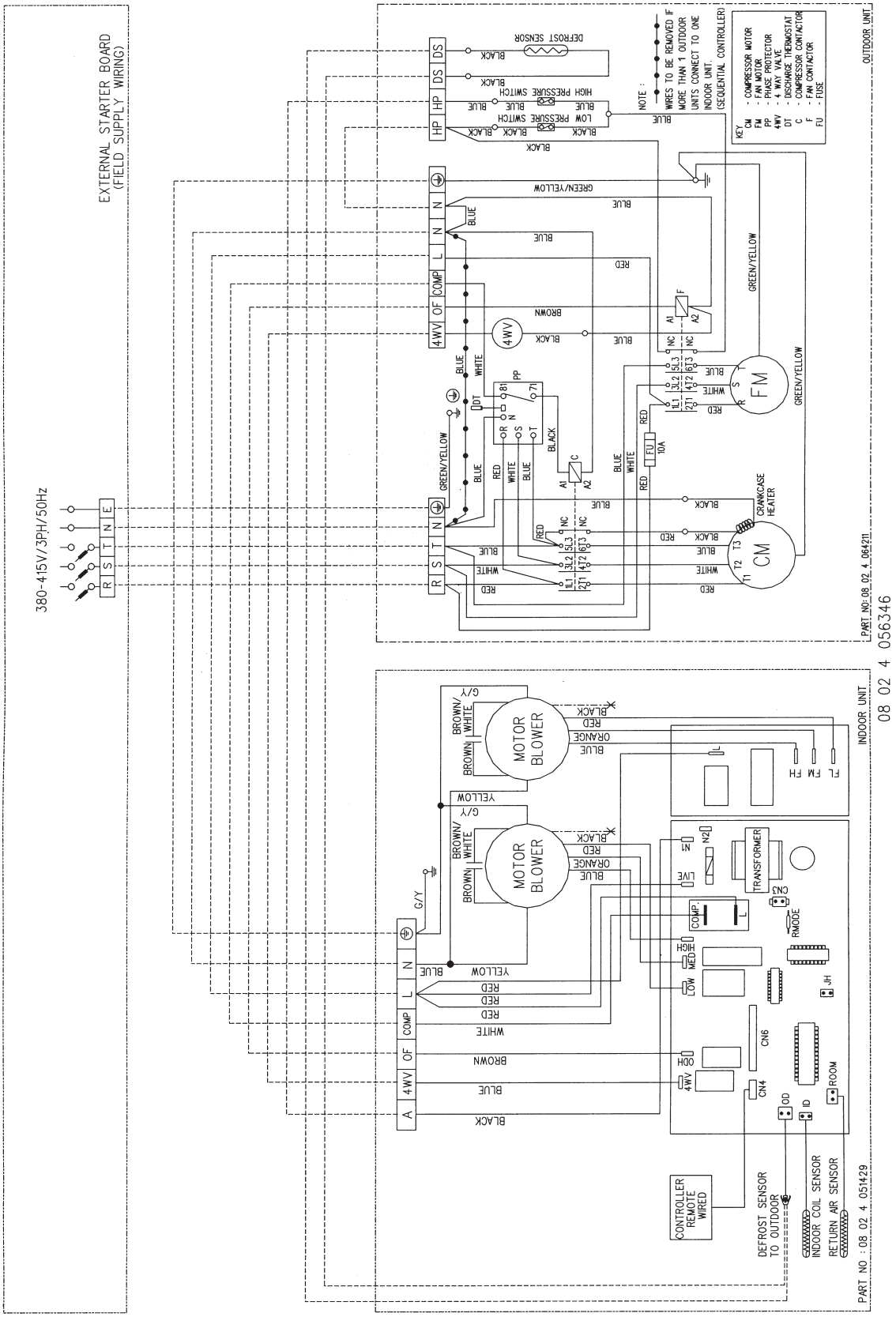
Model : MMC 150ER



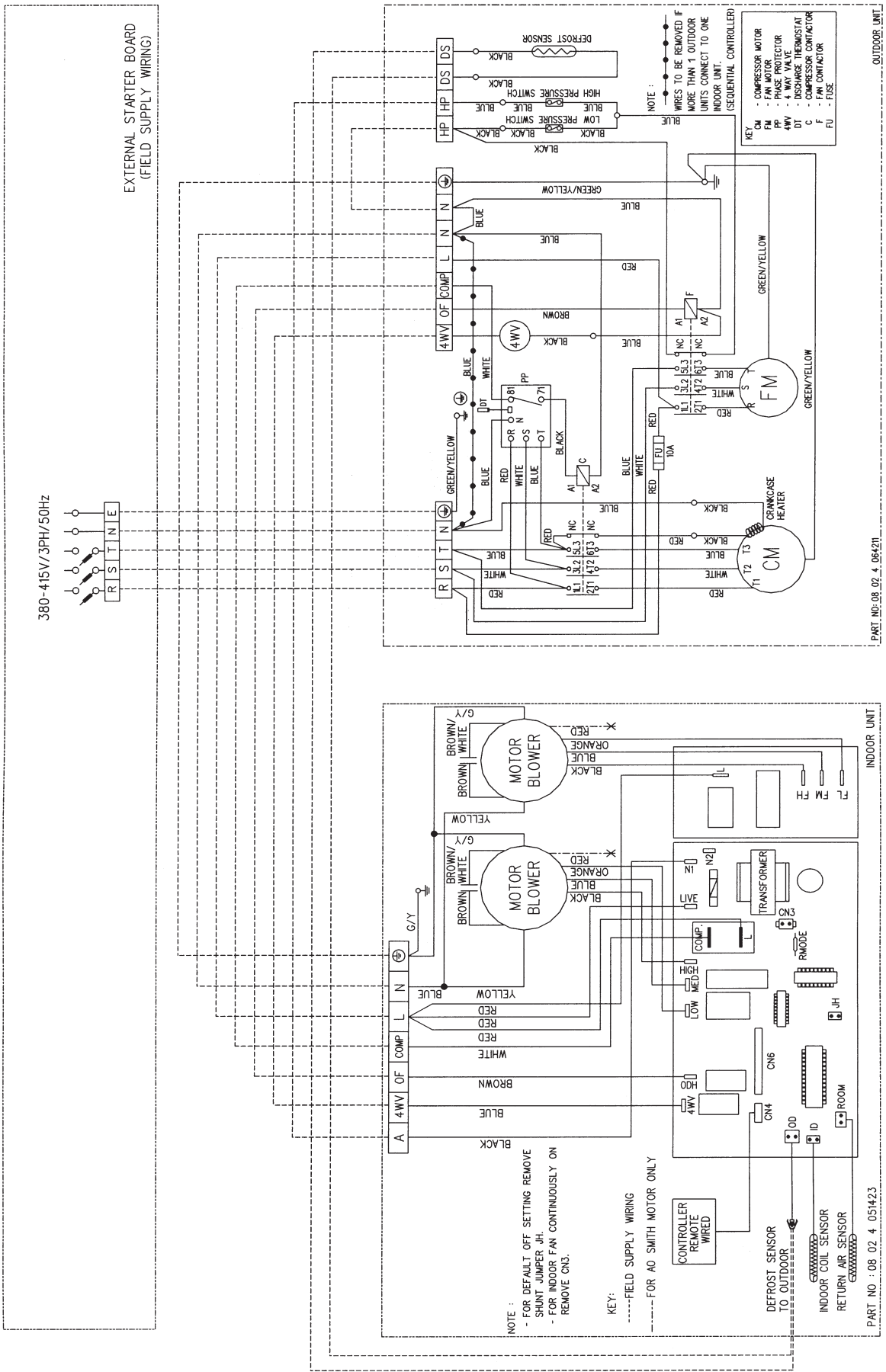
Note : All unit in mm

Wiring Diagrams

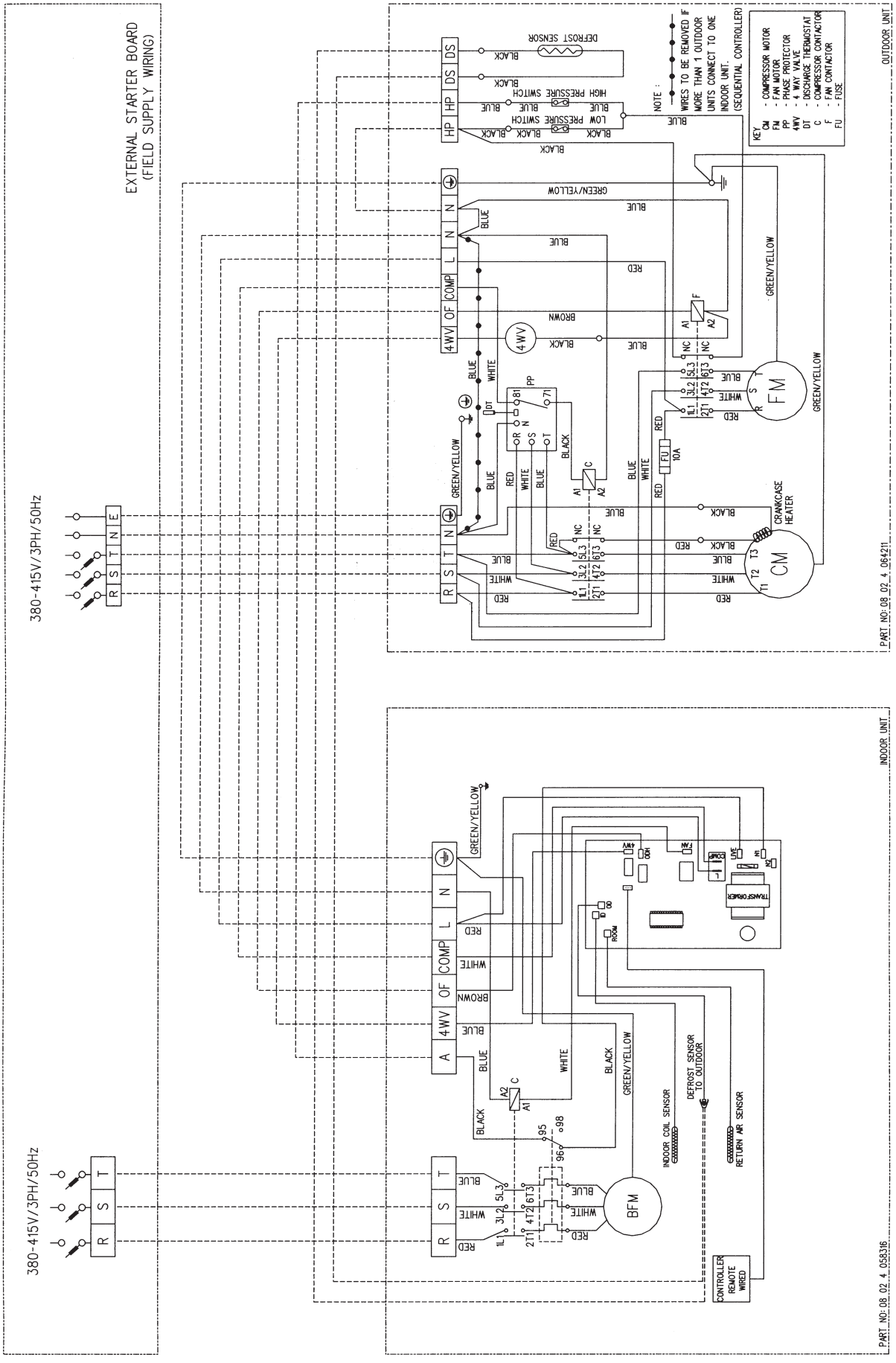
Model : MDB 075ER vs MMC 075ER



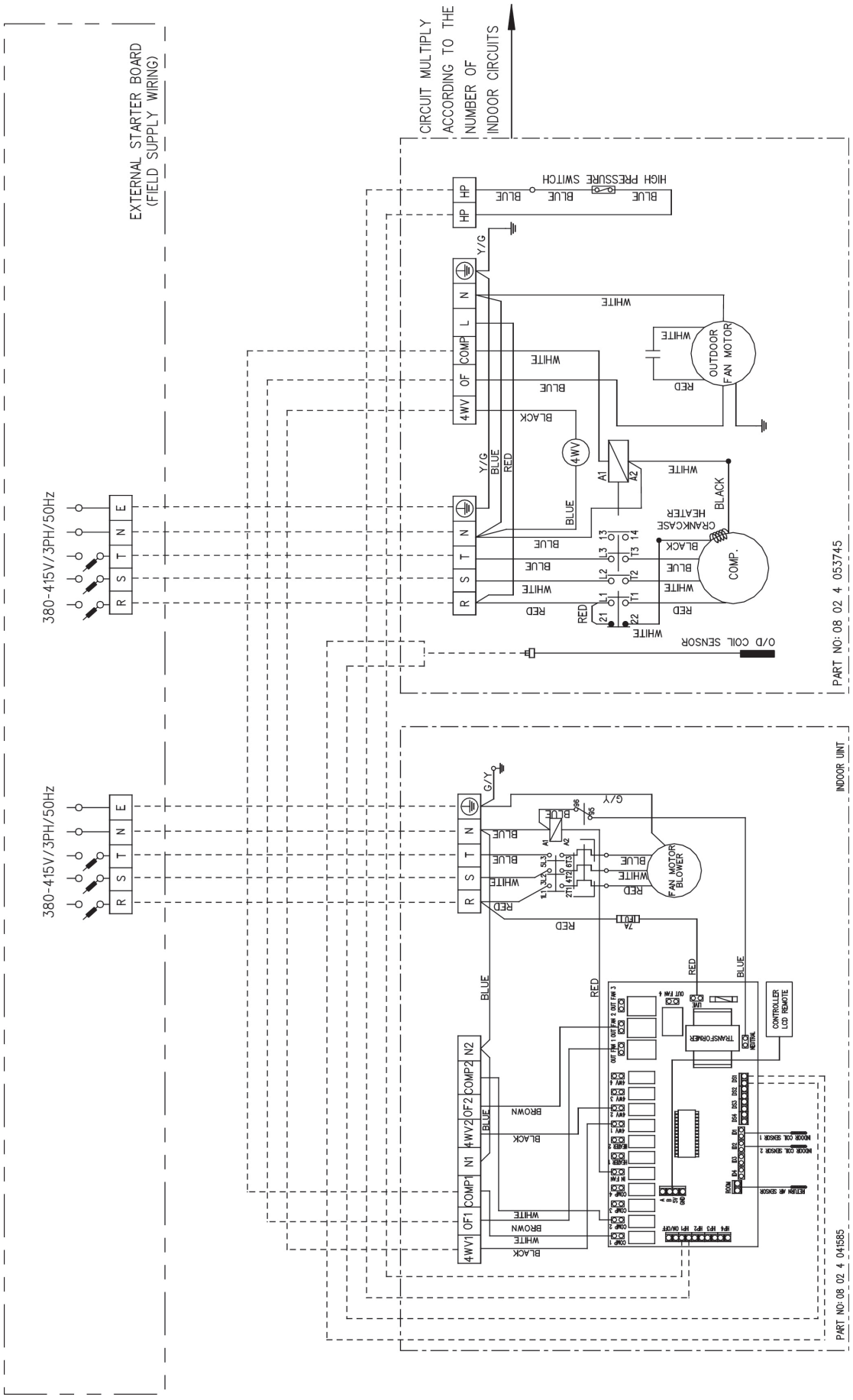
Model : MDB 100ER vs MMC 100ER



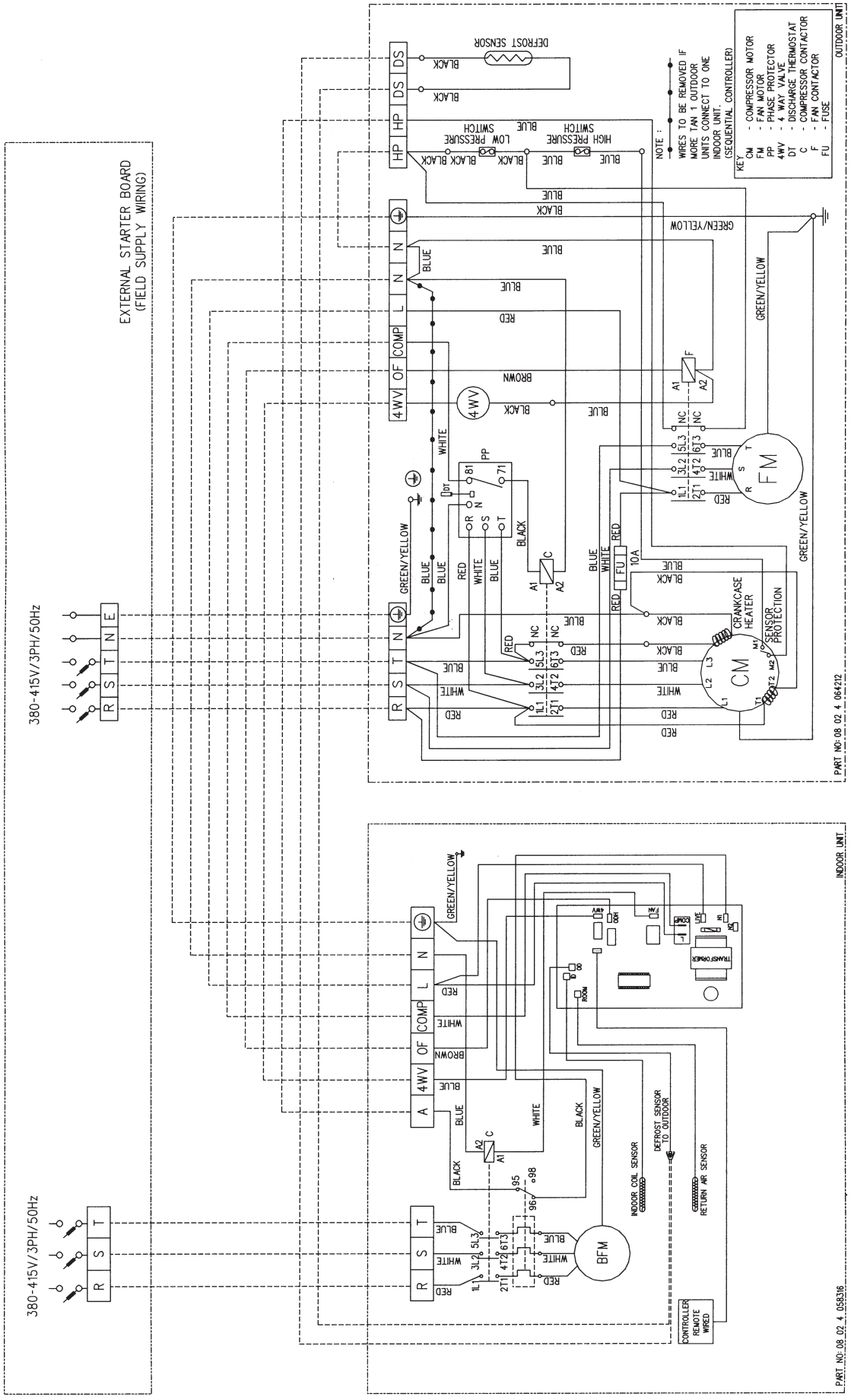
Model : MDB 125ER vs MMC 125ER



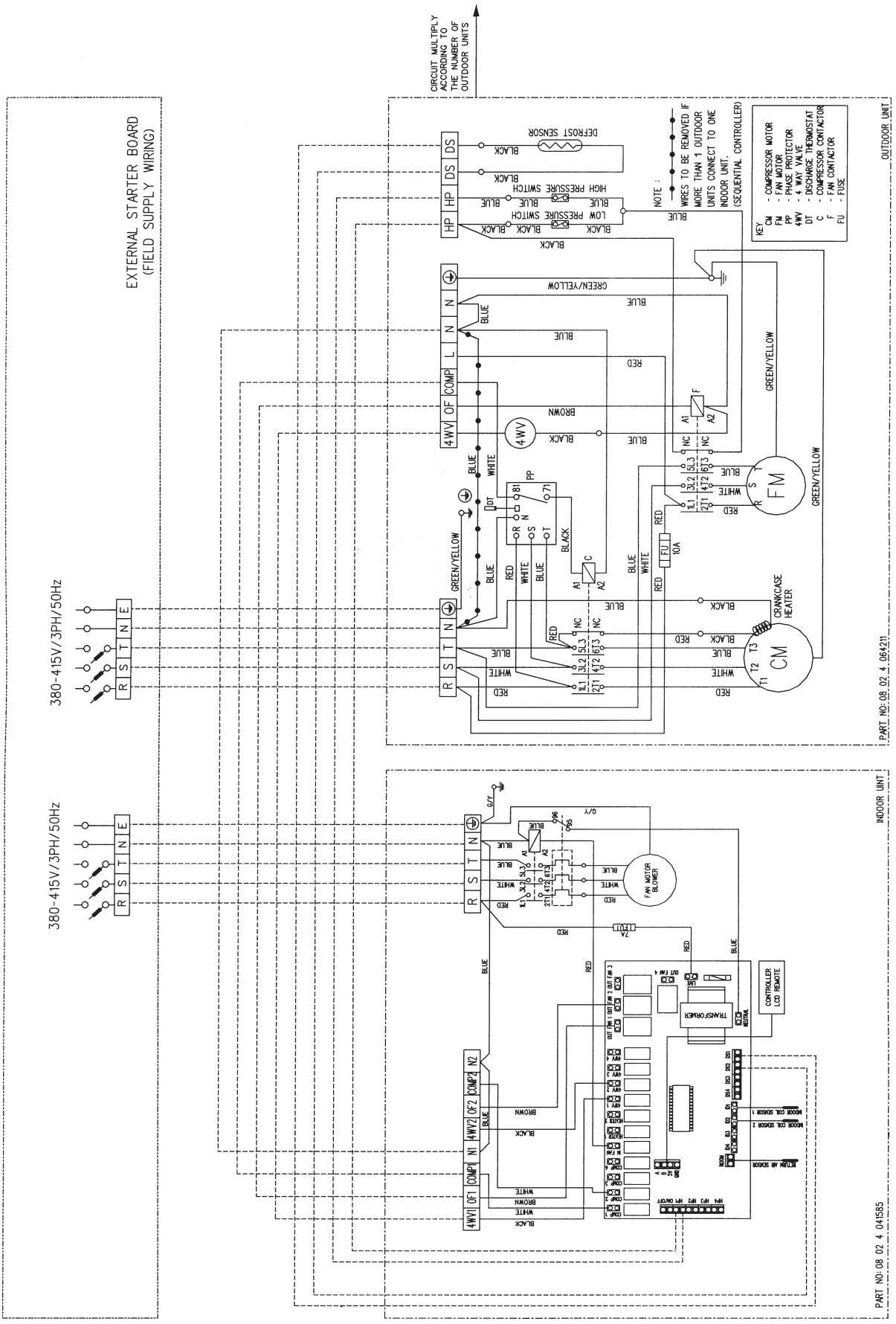
Model : MDB 125ER2 vs MLC 061CR2 x 2



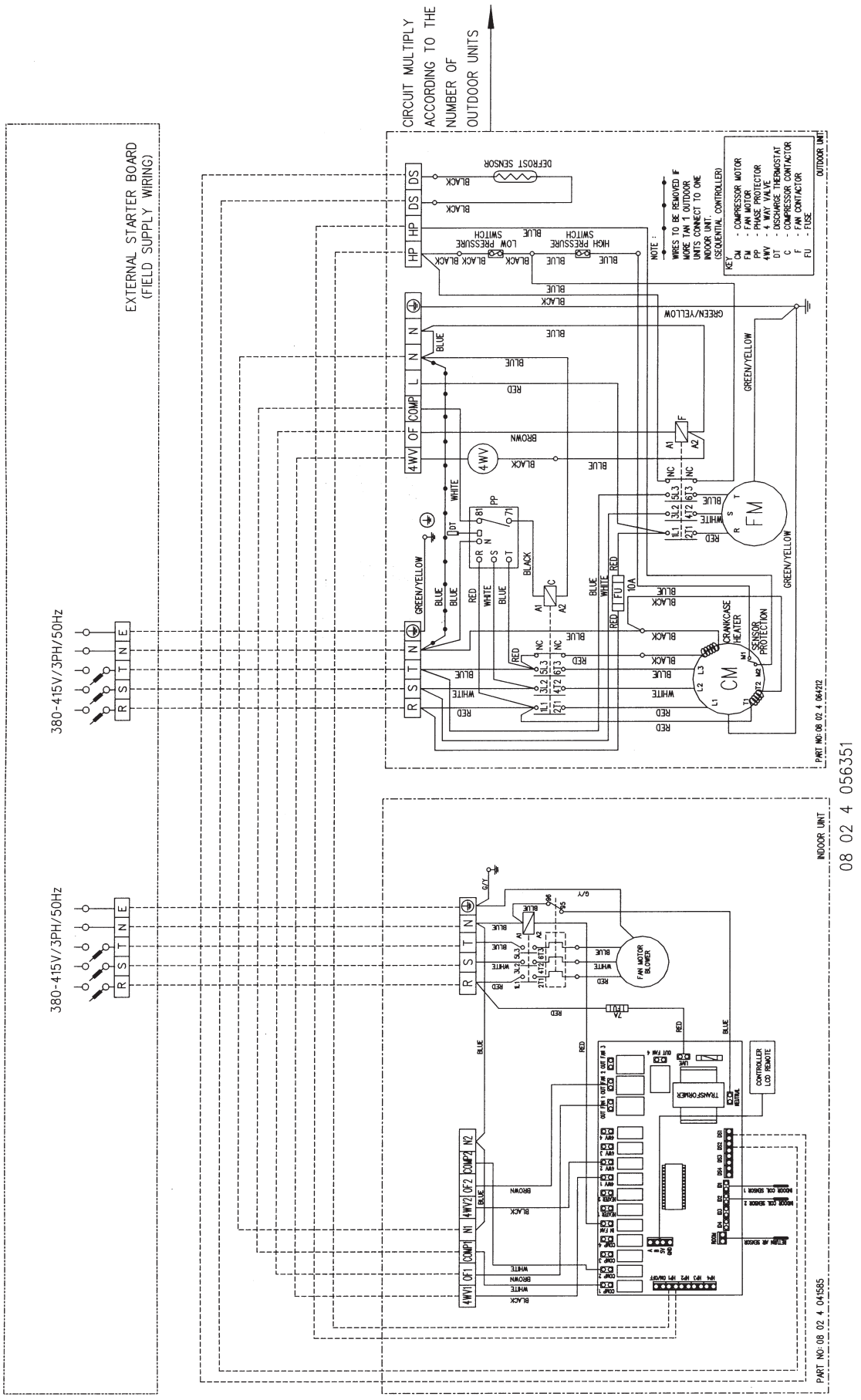
Model : MDB 150ER vs MMC 150ER



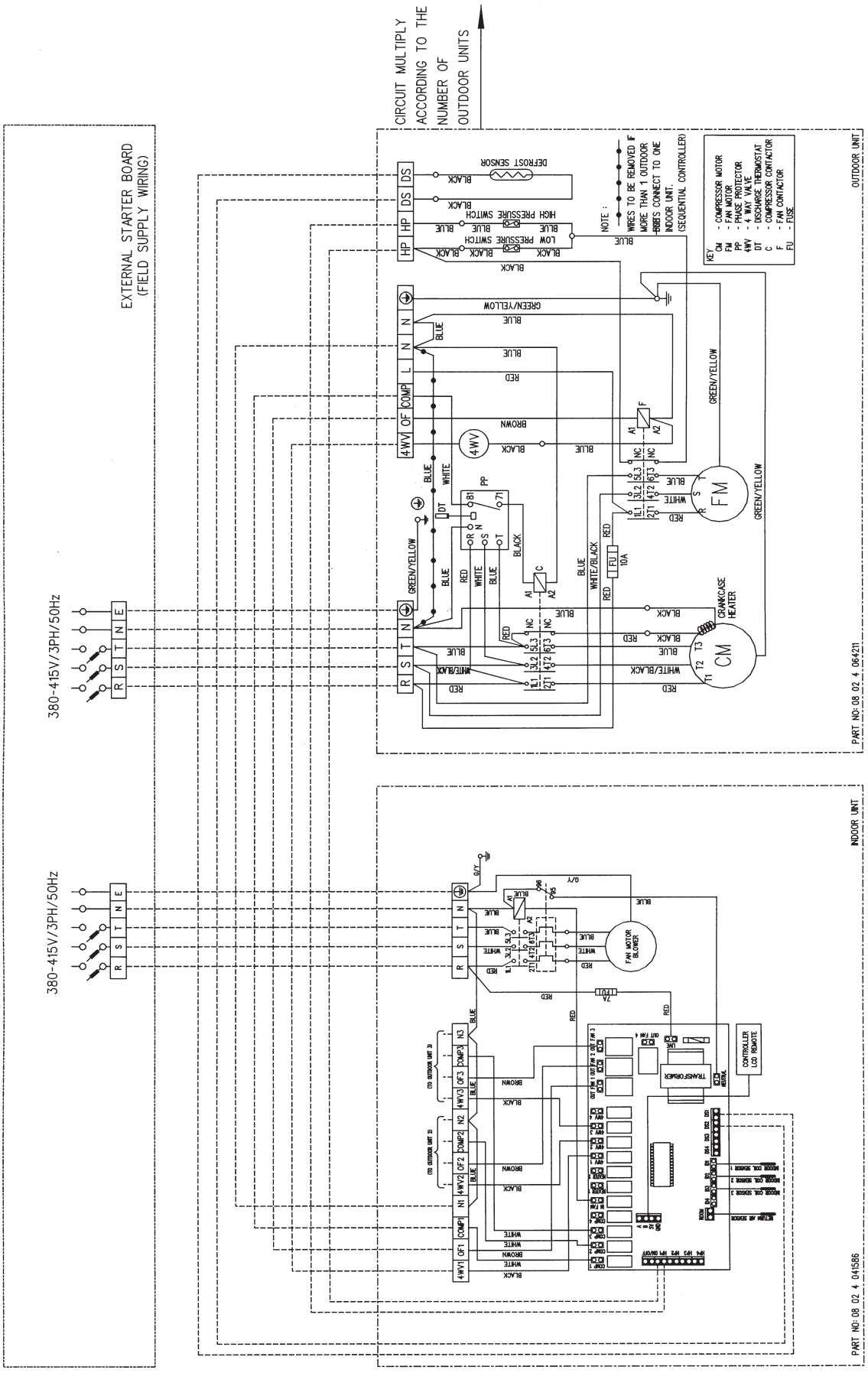
Model : MDB 150ER2 vs MMC 075ER x 2
MDB 200ER2 vs MMC 100ER x 2
MDB 250ER2 vs MMC 125ER x 2



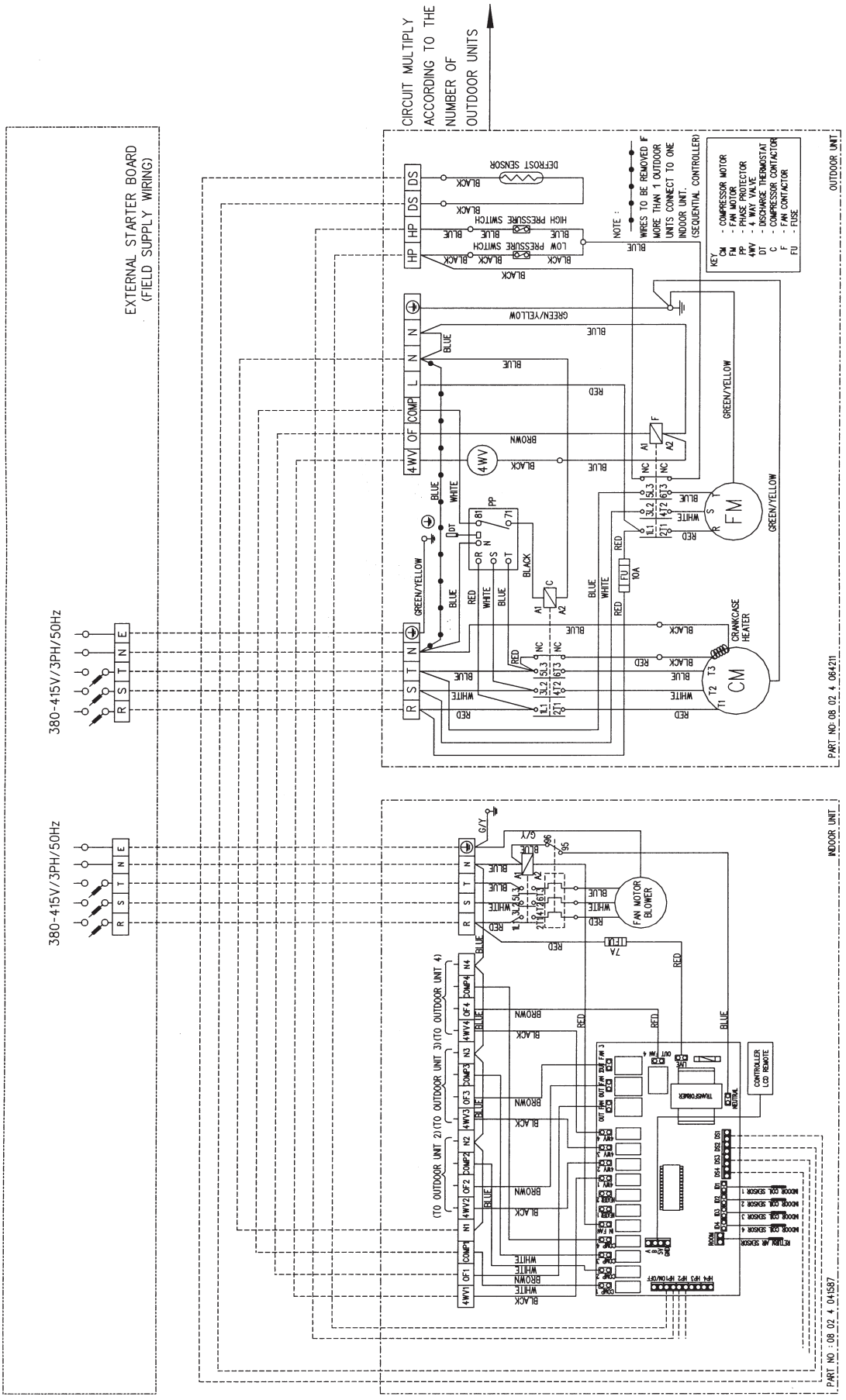
Model : MDB 300ER2 vs MMC 150ER x 2



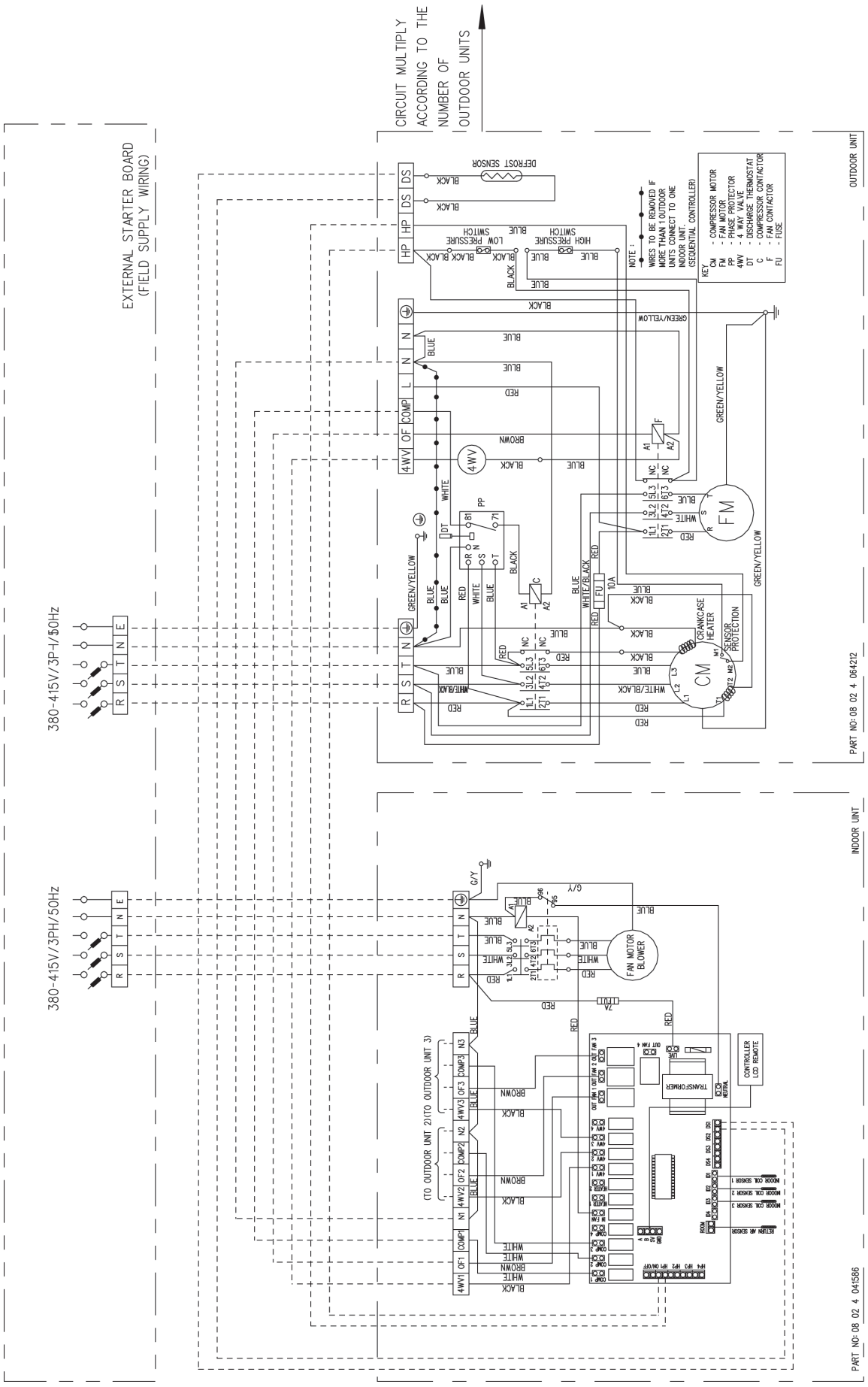
Model : MDB 300ER3 vs MMC 100ER x 3
MDB 350ER3 vs MMC 100ER + MMC 125ER x 2



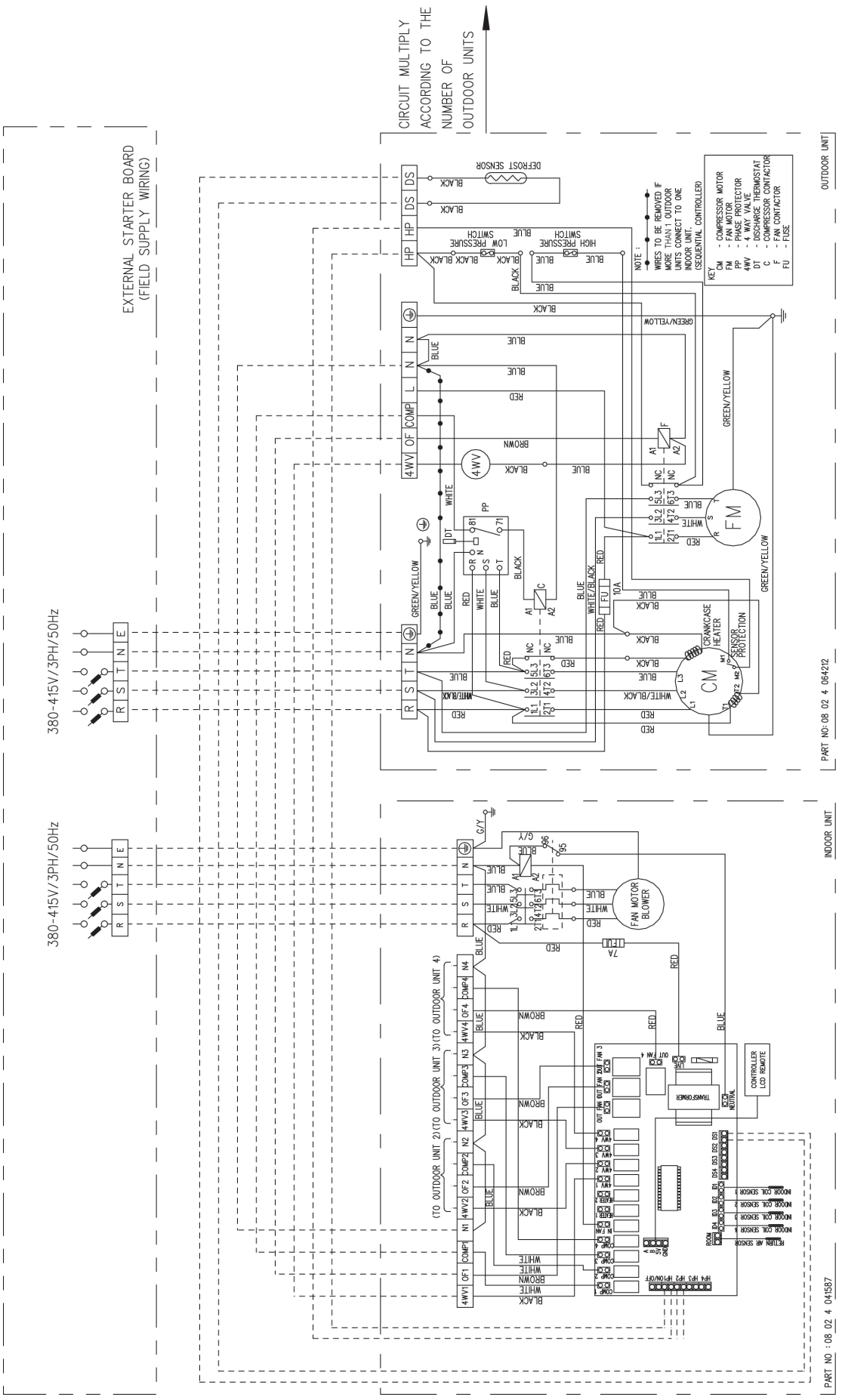
Model : MDB 400ER4 vs MMC 100ER x 4
MDB 500ER4 vs MMC 125ER x 4



Model : MDB 450ER3 vs MMC 150ER x 3

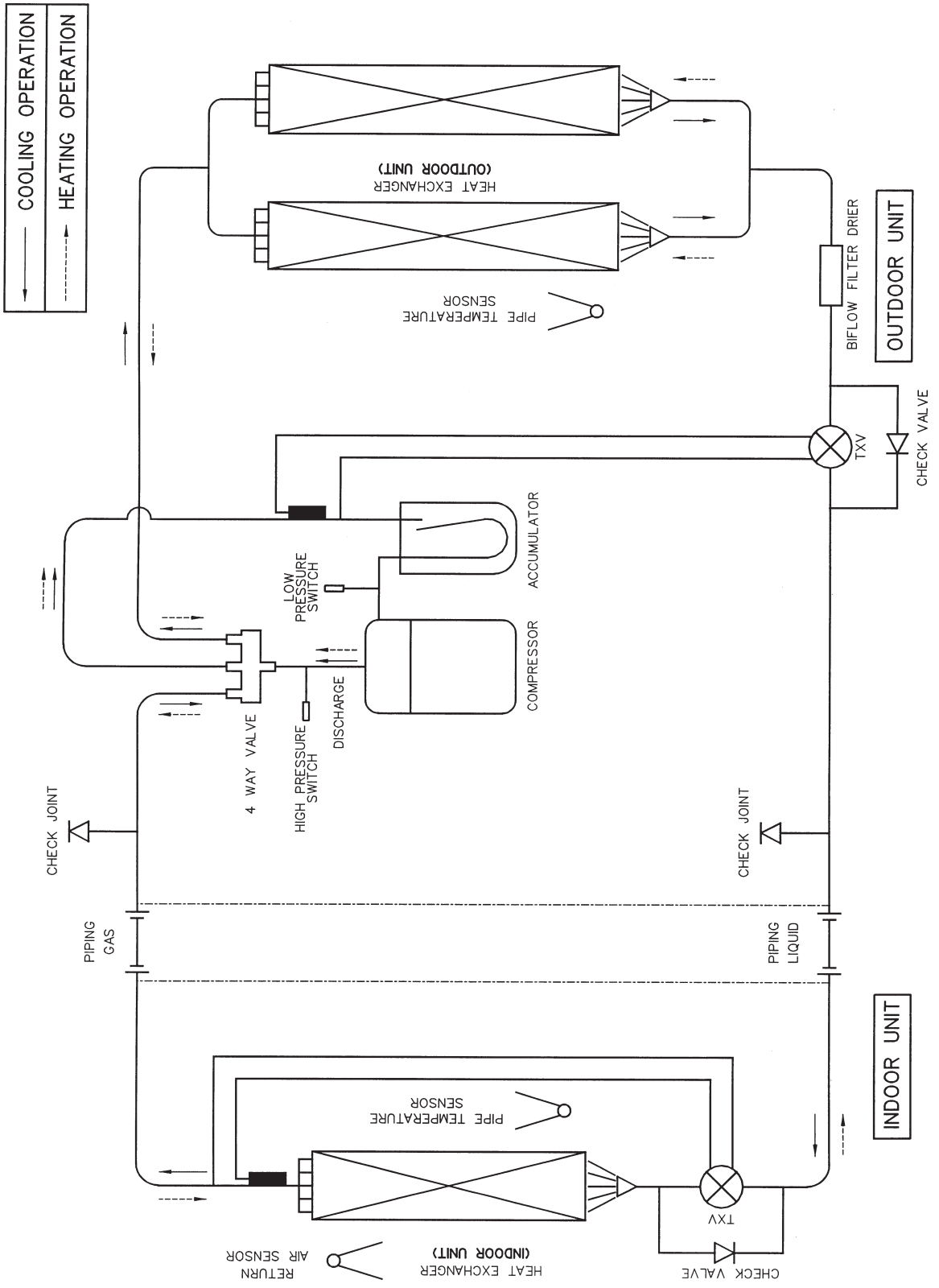


Model : MDB 600ER4 vs MMC 150ER x 4

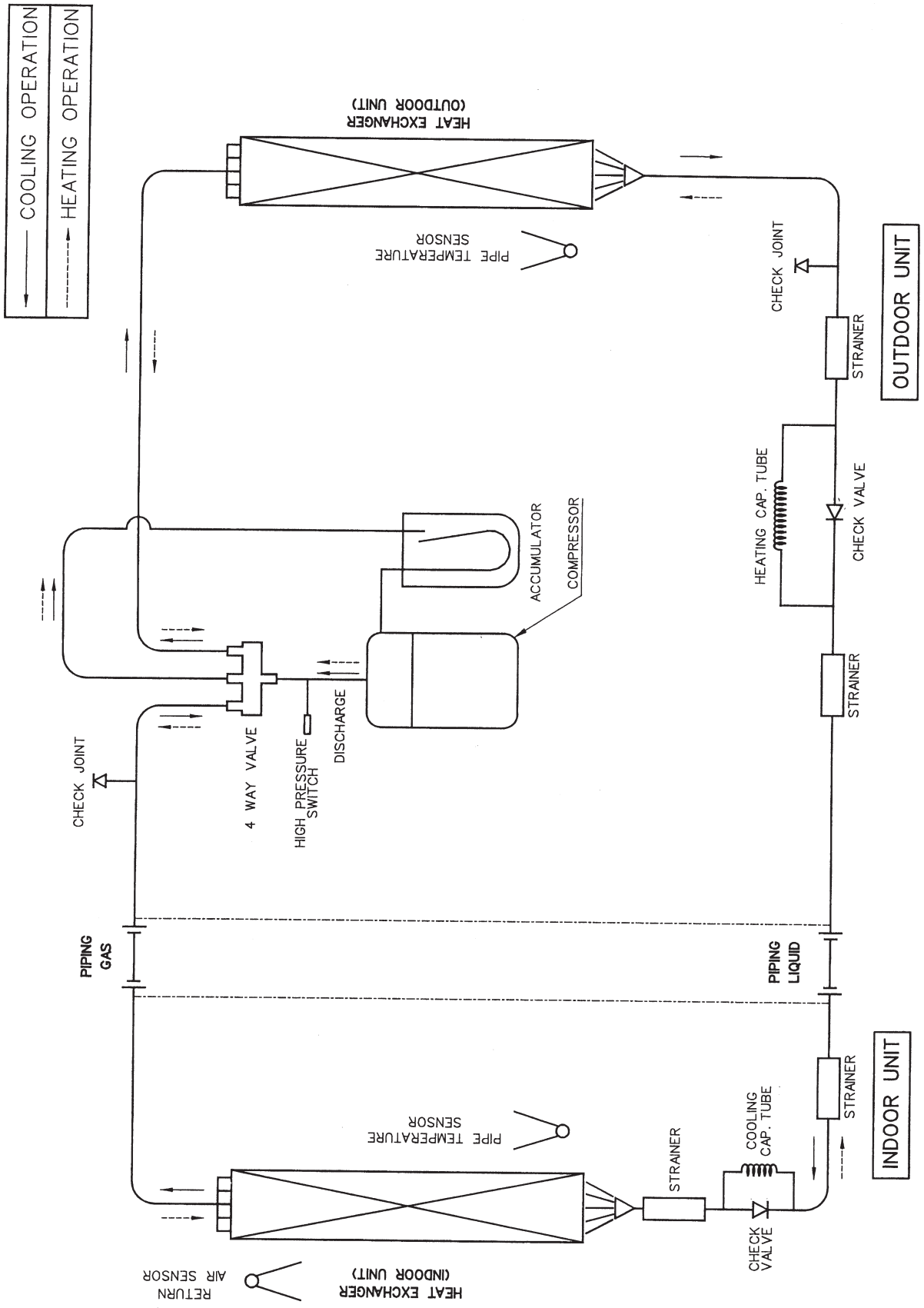


Refrigerant Circuit Diagram

Model : MMC 075 / 100 / 125 / 150 ER
M4MC 075 / 100 / 125 / 150 ER



Model : MLC 061CR



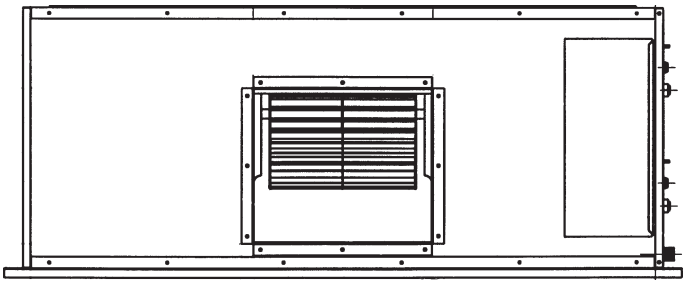
Installation (Indoor)

Preliminary Site Survey

a) Electrical supply and installation is to confirm to local authority's (e.g. National Electricity Board) codes and regulations.
b) Voltage supply fluctuation must not exceed +/- 10% of rated voltage. Electricity supply line must be independent of welding transformers which can cause supply fluctuation.
c) Ensure that the location is convenient for wiring and piping.

Mounting

a) For ceiling mounted models, locate a position where piping and ducting work can be kept to a minimum. Ensure that overhead supports are strong enough to hold the unit's weight. Position hanger rods and check for alignment with the unit. Check that hangers are secure and that the base of fan-coil unit is level in two horizontal directions.



DRAINAGE PIPE SIDE

Pipings

Do not use contaminated or damaged copper tubings. If pipings, evaporator or condenser are exposed or had been opened for 15 seconds or more, vacuum and purge with field supplied refrigerant. Generally, do not remove plastic/rubber plugs/caps from fittings, tubings and coils until ready to connect suction or liquid line into fittings.

Operational Check

After all electrical wiring is completed and the system is charged with refrigerant, make sure unit is operating properly. Check that:

a) Condenser fans are running, with warm air blowing off the condenser coil.
b) Evaporator blowers are running and discharging cool air.
c) Suction line inside condensing unit feels cool.
d) Liquid line inside condensing unit feels warm.

Electrical Connection

As wiring regulations differ from country to country, please refer to your LOCAL ELECTRICAL CODES for field wiring regulations and ensure that these are complied with. Besides, observe the following general precautions:

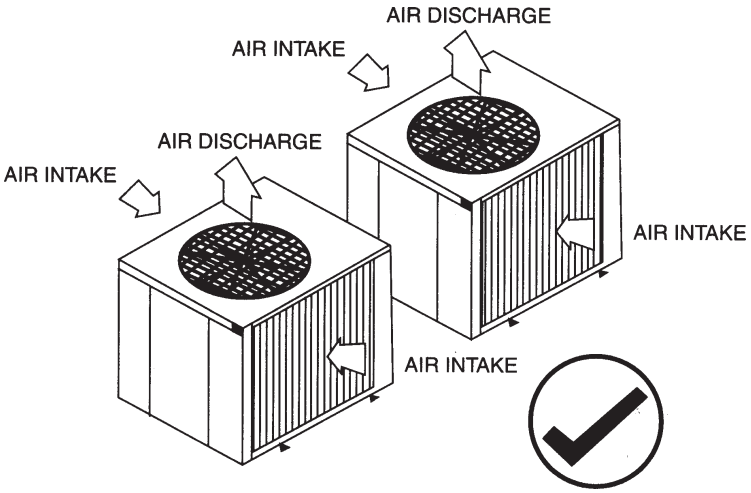
a) Ensure that the rated voltage of the unit corresponds to that of the name plate before commencing wiring work.
b) Provide a power outlet to be used exclusively for each unit. A power supply disconnect and a circuit breaker for over-current protection should be provided in the exclusive line.
c) The unit must be GROUNDED to prevent possible hazard due to insulation failure.
d) All wiring must be firmly connected.
e) Electrical wiring must not touch the refrigerant piping, compressor and any moving parts of the fan motors.

Installation (Outdoor)

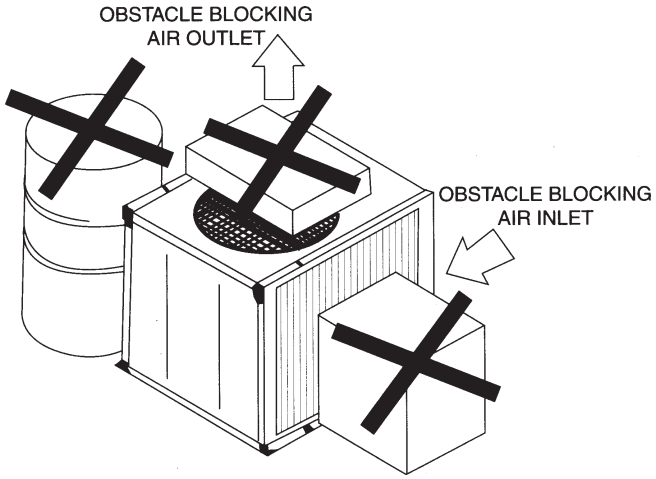
Location For Installation Of The Condensing Units

As condensing temperature rises, evaporating temperature rises and cooling capacity drops. In order to achieve maximum cooling capacity, the location selected should fulfill the following requirements:-

a) Install the condensing (outdoor) unit in a way such that hot air distributed by the outdoor condensing unit cannot be drawn in again (as in the case of short circuit of hot discharge air). Allow sufficient space for maintenance around the unit.



b) Ensure that there is no obstruction of air flow into or out of the unit. Remove obstacle which block air intake or discharge.



c) The location must be well ventilated, so that the unit can draw and distribute plenty of air thus lowering the condensing temperature.
d) A place capable of bearing the weight of the outdoor unit and isolating noise and vibration.
e) A place protected from direct sunlight. Otherwise use an awning for protection, if necessary.
f) A place where the hot air discharge and operating sound level will not annoy the neighbours.
g) The location must not be susceptible to dust or oil mist.

CAUTION: If the condensing unit is operated in an atmosphere containing oils (including machine oils), salt (coastal area), sulphide gas (near hot spring, oil refinery plant), such substances may lead to failure of the unit.

Field Piping

To ensure satisfactory operation and performance, the following points should be noted for the field piping arrangements of the complete refrigerant cycle.

a) Liquid loops or oil traps must be provided according to the position of the outdoor and the indoor units (depending on whether the indoor unit is above or below the outdoor unit).
b) Field supplied filter dryer should be provided as close to the expansion valve(s) of the indoor unit (evaporator) as possible.
c) Field supplied sight glass must be assembled and mounted next to filter dryer.

Maximum Pipe Length And Maximum Number Of Bends

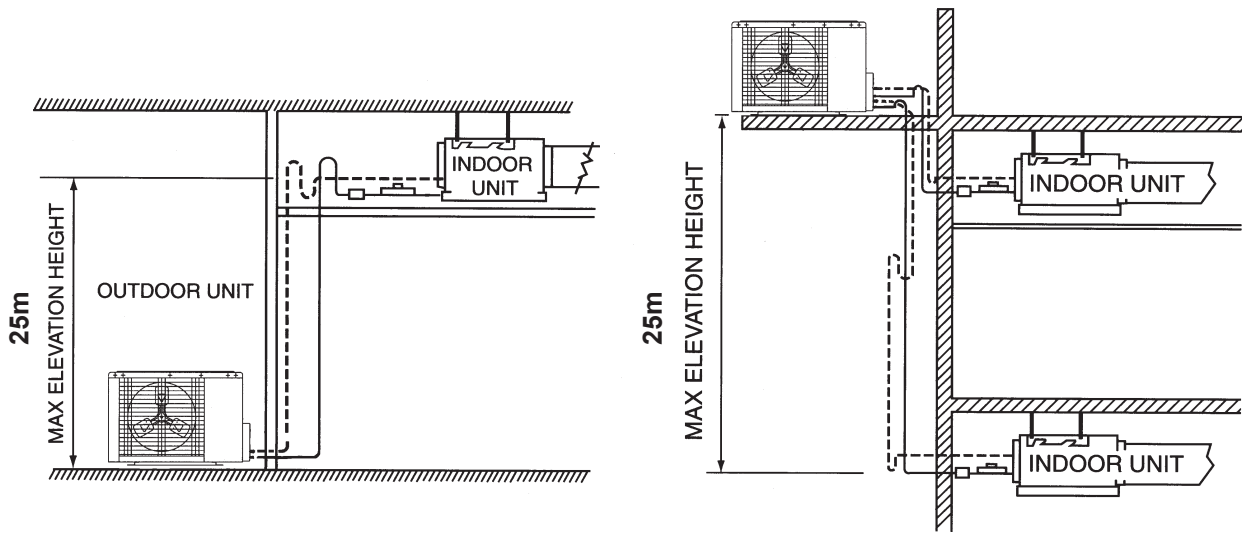
When the pipe is too long, the required refrigerant quantity increases. Both the capacity and reliability drops as a result. As the number of bends increases, system piping resistance to the refrigerant flow increases, thus lowering the cooling capacity and the compressor may become defective. If the height difference between the evaporator and the condenser is excessive, the cooling capacity drops, the lubricating oil return is retarded, affecting the compressor efficiency adversely.

Always choose the shortest piping path and follow the recommendations as shown below :-

Model	Max. Elevation, m (ft.)	Max. Length, m (ft)	Max. Total Length, m (ft.)	Max. of Bends
MMC 075/100/125/150ER	25 (82.0)	20 (65.6)	45 (147.6)	8

CAUTION:

1) **Our guarantee on the performance of our air-conditioners is strictly revoked if the height, length and/or the number of bends of the refrigerant piping system installed is beyond the limit above.**
2) **Bendings must be carefully made so as not to crush the pipe. Use a pipe bender to bend a pipe as far as possible.**



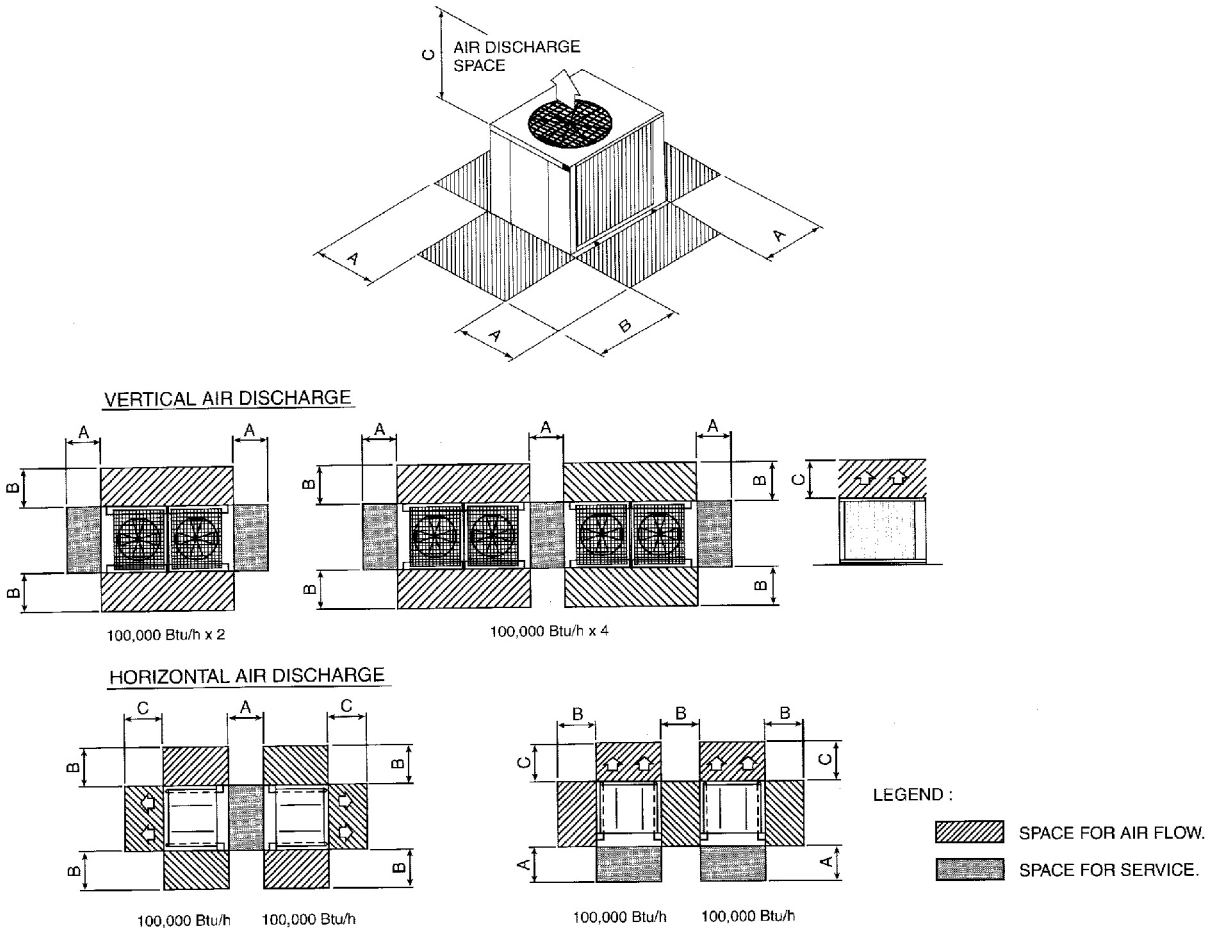
Maximum Allowable Piping Length & Elevation Difference

Installation Clearance

When two or more outdoor units are installed in a location, they must be positioned such that one unit will not be taking the hot discharge air from another to avoid hot air short circuiting.

This also applies when two or more units are installed one above the other. Below are the installation clearance guidelines :

Model	MMC 075/100/125/150ER	2 x MMC 075/100/125/150ER	3 x MMC 075/100/125/150ER	4 x MMC 075/100/125/150ER
A (mm)	300	600	600	600
B (mm)	1000	1000	1000	1000
C (mm)	1500	1500	2000	2000



Guidelines Of Field-charging Air Conditioning Systems With Scroll Compressors

These guidelines are intended for use with Scroll compressors only with R22, R407C, R134a, R404A, R507, and R410A refrigerants. They do not apply to reciprocating compressors or competitive Scroll compressors.

Field-charging - Some Precaution Points
Scroll compressors have a very high volumetric efficiency and quickly pump a deep vacuum if there is insufficient refrigerant in the system or if refrigerant is added too slowly. Operation with low suction pressure will quickly lead to very high discharge temperatures. While this process is happening, the scrolls are not being well lubricated - scrolls depend on the oil mist in the refrigerant for lubrication. A lack of lubrication leads to high friction between the scroll flanks and tips and generates additional heat. The combination of heat of compression and heat from increased friction is concentrated in a small localized discharge area where temperatures can quickly rise to more than 300°C. These extreme temperatures damage the Scroll spirals and the orbiting Scroll bearing. This damage can occur in less than one minute especially on larger compressors. Failure may occur in the first few hours or the damage done during field charging may show up some time later.

Other typical field charging problems include undercharging, overcharging, moisture or air in the system etc. In time each one of these problems can cause compressor failure.

Equipment
Minimal equipment is required for field charging. The minimum equipment required to do a satisfactory job is:-

Set of service gauges
Hoses
Vacuum pump
Vacuum gauge
Scales
Thermometer

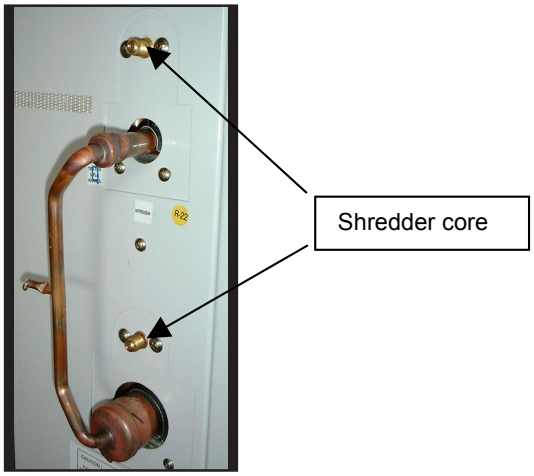
Charging Hoses
Most field-charging is done using standard service hoses. Hoses are made in different colors with different working pressures and with different leak rates but the most important point is the presence or absence of Shredder valve depressors. Shredder valve depressors severely restrict the flow through the service hoses. This slows evacuation and vapor charging dramatically. In most cases the Shredder depressor can be removed but it is simpler to have one set of hoses with and one set without Shredder depressors.

Hose with Shredder valve Depressor

Hose without Shredder valve Depressor

Hose selection is important depending whether the system is being evacuated or charged. Charging liquid from the cylinder into the liquid line should be carried out using an open hose connected to an unrestricted fitting. This will reduce charging time.

Typical service valves found on the outdoor unit



Shredder valves

Shredder valve with core in place

Shredder valve with core removed

Most split systems have a suitable connection on the outdoor unit

Shredder valves provide easy system access for pressure reading and addition of refrigerant. On small systems, they provide a reasonable connection for evacuation also. However, Shredder valves and the hoses connected to them can cause very severe pressure drops and can multiply evacuation time by a factor of 4 or 5.
On the positive side, Shredder valves provide a restriction that slows the speed of liquid charging into the suction side. When a pressure drop is desirable (charging liquid into suction), connect via a Shredder valve. When a pressure drop is detrimental (evacuation), connect via an open fitting.

How Much Refrigerant?
The proper refrigerant charge should follow the volume as recommended by manufacturer and recommendation should be followed by the installer. Refer to the table of Refrigerant Charge Level.

If the installer cannot find the correct charge but the system must be started, refrigerant should be carefully added to the system until reasonable sub-cooling is measured in the liquid line and reasonable suction superheat is measured at the compressor suction. Suction and discharge pressures must be monitored carefully during the charging process.

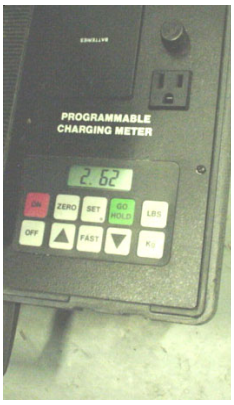
Charge Limits
Copeland Scroll compressors have the different charge limits for different compressor models as shown in table below. If the total charge exceeds these limits, the system should have a crankcase heater and/or pump down cycle and/or accumulator to prevent liquid damage to the compressor. Some systems may require accumulators to limit liquid floodback even though the charge is lower than the published limit.

Compressor Range	Model	lbs.	kg.
Quest	ZR46 to ZR81	10	4.5
Summit	ZR84 to ZR144	16	7.3
Specter	ZR90 to ZR19M	17	7.7

Charging Recommendations

Charging liquid in a CONTROLLED manner into the suction side until the system is full. This recommendation does not hold true for reciprocating compressors where liquid charging into the suction side could cause severe damage.

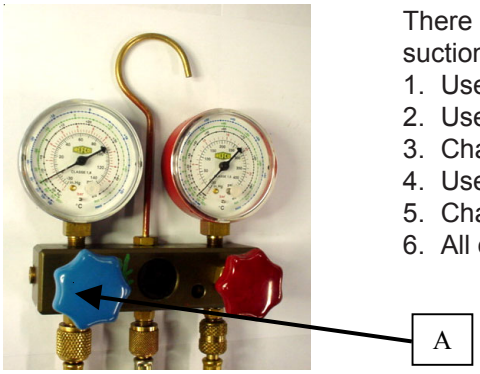
Charging Cylinder on Scale



Close-up of Scale

Carefully monitor the suction and discharge pressures - ensure that the suction pressure does not fall below 25 psig (1.7 bar) at any time during the charging process.

CAUTION : Manifold Gauge will show cylinder pressure rather than suction pressure if the cylinder valve and Manifold valve "A" are both open.



There are many ways of charging liquid in a "controlled manner" into the suction side:-

1. Use valve A on the manifold gauge set
2. Use the valve on the refrigerant cylinder
3. Charge through a Shredder valve
4. Use a hose with a Shredder valve depressor
5. Charge into the suction side at some distance from the compressor.
6. All of the above

Charging Procedures - Three phase compressors

The fundamental procedure is the same as for single phase models but the compressor can run in the wrong direction on starting. If this happens reverse any two phases and start again. Short term reverse rotation will not damage the compressor.

As compressors get larger the importance of correct field charging procedures grows exponentially. Unfortunately larger systems are often field charged which leads to many infant failures. All Specter compressors have internal discharge temperature protectors which are very effective in preventing dangerously high discharge temperatures during charging. The protection module will trip and lock the compressor out for 30 minutes. It is not normally necessary to wait 30 minutes for the module to reset. When the compressor has cooled down the module can be reset by breaking the power supply to the control circuit. Very often the serviceman does not understand why the module tripped and uses a jumper wire to bypass it. He continues to charge the system and removes the jumper when charging is complete. The compressor may or may not run with the protector back in the circuit but it is certain that the compressor has been damaged and premature failure is inevitable.

System Refrigerant Charge Level Guidelines

Indoor	Outdoor	Liquid Pipe	Gas Pipe	Refrigerant Charge (kg/7.5m pipe length)
MDB075ER	**MMC075ER**	1/2	1	7.0
MDB100ER	**MMC100ER**	5/8	1-1/8	9.5
MDB125ER	**MMC125ER**	5/8	1-3/8	11.5
MDB125ER2	**MLC061CR x 2**	5/8	1-3/8	5.2 x 2
MDB150ER	**MMC150ER**	1/2	1	11.9
MDB150ER2	**MMC075ER x 2**	5/8	1-1/8	7.0 x 2
MDB200ER2	**MMC100ER x 2**	5/8	1-1/8	9.5 x 2
MDB250ER2	**MMC125ER x 2**	5/8	1-3/8	11.5 x 2
MDB300ER2	**MMC150ER x 2**	5/8	1-1/8	11.9 x 2
MDB300ER3	**MMC100ER x 3**	5/8	1-1/8	9.5 x 3
MDB350ER3	**MMC125ER x 2 & MMC100ER**	5/8	1-1/8 & 1-3/8	11.5 x 2 + 9.5
MDB400ER4	**MMC100ER x 4**	5/8	1-1/8	9.5 x 4
MDB450ER3	**MMC150ER x 3**	5/8	1-1/8	11.9 x 3
MDB500ER4	**MMC125ER x 4**	5/8	1-3/8	11.5 x 4
MDB600ER4	**MMC150ER x 4**	5/8	1-1/8	11.9 x 4
MDB075ER	**MMC075ER**	1/2	1	6.5
MDB100ER	**MMC100ER**	5/8	1-1/8	9.5
MDB125ER	**MMC125ER**	5/8	1-3/8	10.1
MDB125ER2	**MLC061CR x 2**	5/8	1-3/8	3.9 x 2
MDB150ER	**MMC150ER**	1/2	1	9.0
MDB150ER2	**MMC075ER x 2**	5/8	1-1/8	6.5 x 2
MDB200ER2	**MMC100ER x 2**	5/8	1-1/8	9.5 x 2
MDB250ER2	**MMC125ER x 2**	5/8	1-3/8	10.1 x 2
MDB300ER2	**MMC150ER x 2**	5/8	1-1/8	9.0 x 2
MDB300ER3	**MMC100ER x 3**	5/8	1-1/8	9.5 x 3
MDB350ER3	**MMC125ER x 2 & MMC100ER**	5/8	1-1/8 & 1-3/8	10.1 x 2 + 9.5
MDB400ER4	**MMC100ER x 4**	5/8	1-1/8	9.5 x 4
MDB450ER3	**MMC150ER x 3**	5/8	1-1/8	9.0 x 3
MDB500ER4	**MMC125ER x 4**	5/8	1-3/8	10.1 x 4
MDB600ER4	**MMC150ER x 4**	5/8	1-1/8	9.0 x 4

Remarks:
With Scroll Compressor and Outdoor and Indoor with TXV and Check Valave.

Additional charge
Based on liquid pipe size per meter length:

Liquid Pipe Size, inch	Additional Charge, kg/meter
1/4”	0.02
5/16”	0.04
3/8”	0.05
1/2”	0.10
5/8”	0.17
3/4”	0.26
7/8”	0.37

Note: Refer to the table of the Recommended Maximum Pipe Length.

Special Precautions For R407C

Special Precautions When Dealing With Refrigerant R407C Unit

1) What Is New Refrigerant R407C?

R407C is a zeotropic refrigerant mixture which has Zero Ozone Depletion Potential (ODP = 0) and thus conformed to the Montreal Protocol regulation. It requires Polyol-ester oil (POE) oil for its compressor's lubricant. Its refrigerant capacity and performance are about the same as the refrigerant R22.

2) Components

Mixture weight compositionR32(23%), R125(25%), R134a(52%)

3) Characteristic

- R407C liquid and vapor components have different compositions when the fluid evaporates or condenses. Hence, when leak occurs and only vapor leaks out, the composition of the refrigerant mixture left in the system will change and subsequently affect the system performance. **DO NOT** add new refrigerant to leaked system. It is recommended that the system should be evacuated thoroughly before recharging with R407C.
- When refrigerant R407C is used, the composition will differ depending on whether it is in gaseous or liquid phase. Hence when charging R407C, ensure that only liquid is being withdrawn from the cylinder or can. This is to make certain that only original composition of R407C is being charged into the system.
- POE oil is used as lubricant for R407C compressor, which is different from the mineral oil used for R22 compressor. Extra precaution must be taken not to expose the R407C system too long to moist air.

4) Check List Before Installation / Servicing

- Tubing
  Refrigerant R407C is more easily affected by dust of moisture compared with R22, make sure to temporarily cover the ends of the tubing prior to installation
- Compressor oil
  No additional charge of compressor oil is permitted.
- Refrigerant
  No other refrigerant other that R407C
- Tools
  Tools specifically for R407C only (must not be used for R22 or other refrigerant)
  i) Manifold gauge and charging hose
  ii) Gas leak detector
  iii) Refrigerant cylinder/charging cylinder
  iv) Vacuum pump c/w adapter
  v) Flare tools
  vi) Refrigerant recovery machine

5) Handling And Installation Guidelines

Like R22 system, the handling and installation of R407C system are closely similar. All precautionary measures; such as ensuring no moisture, no dirt or chips in the system, clean brazing using nitrogen, and thorough leak check and vacuuming are equally important requirements. However, due to zeotropic nature of R407C and its hydroscopic POE oil, additional precautions must be taken to ensure optimum and trouble free system operation.

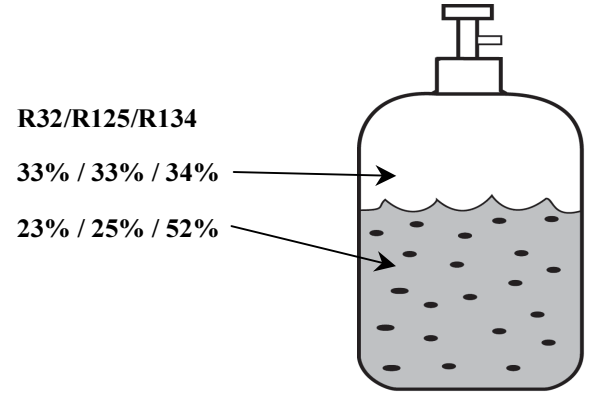
a) Filter dryer must be installed along the liquid line for all R407C air conditioners. This is to minimise the contamination of moisture and dirt in the refrigerant system. Filter dryer must be of molecular sieve type. For a heat pump system, install a two--way flow filter dryer along the liquid line.

b) During installation or servicing, avoid prolong exposure of the internal part of the refrigerant system to moist air. Residual POE oil in the piping and components can absorb moisture from the air.

c) Ensure that the compressor is not expose to open air for more than the recommended time specified by its manufacturer (typically less than 10 minutes). Removed the seal plugs only when the compressor is about to be brazed.

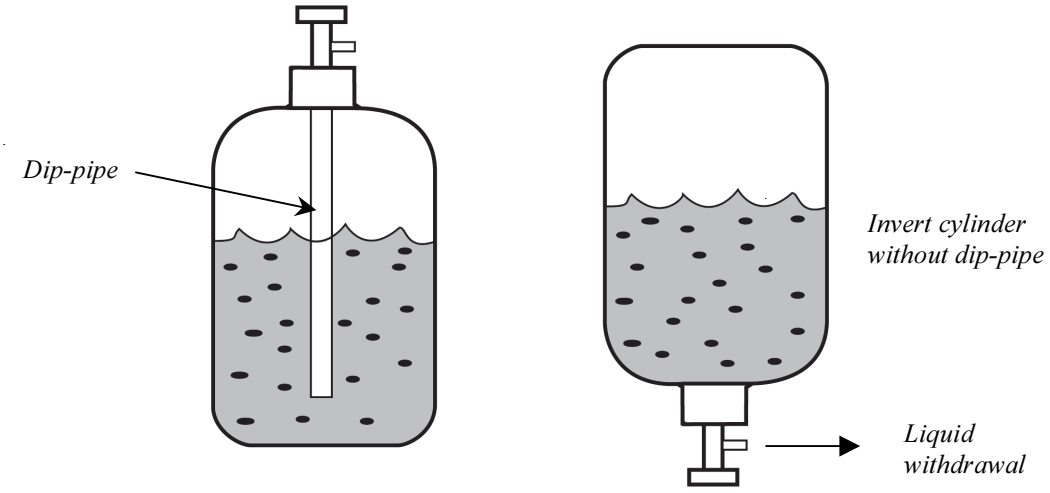
d) The system should be thoroughly vacuumed to 1.0 Pa (700mmHg) or lower. This vacuuming level is more stringent than R22 system so as to ensure no incompressible gas and moisture in the system.

e) When charging R407C, ensure that only liquid is being withdrawn from the cylinder or can. This is to ensure that only the original composition of R407C is being delivered into the system. The liquid composition can be different from the vapor composition.



Composition of R407C in vapour phase is different from liquid phase.

f) Normally, the R407C cylinder or can is being equipped with a dip pipe for liquid withdrawal. However, if the dip pipe is not available, invert the cylinder or can so as to withdraw liquid from the valve at the bottom.



g) When servicing leak, the top up method, commonly practiced for R22 system, is not recommended for R407C system. Unlike R22 where the refrigerant is of a single component, the composition of R407C, which made up of three different components, may have changed during the leak. Consequently, a top up may not ensure that the R407C in the system is of original composition. This composition shift may adversely affect the system performance. It is recommended that the system should be evacuated thoroughly before recharging with R407C.

Servicing And Maintenance

The design concept of the Condensing Unit is such that all servicing can be done from the front and side of the unit.

Upon removal of front and side panel, all the electrical “terminal box”, fan and motor assembly and compressor are easily accessible.

Under normal circumstances, these outdoor units only require a check and cleaning of air intake coil surfaces once quarterly. However, if a unit is installed in area subjected to much oil, mist and dust, the coil must be regularly cleaned by qualified Air Conditioner Service Technicians to ensure sufficient heat exchange and proper operation. Otherwise, the systems life span might be shortened.

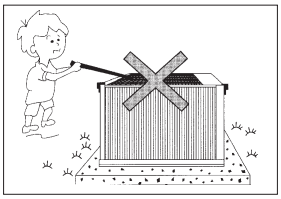
CAUTION

When the compressor is to be stopped for a long time, the crankcase heater should be energized for at least 6 hours before start of operation.
Do not charge OXYGEN, ACETYLENE or other flammable and poisonous gases into the refrigeration cycle when performing a leakage test or an airtight test. These types of gases are extremely dangerous, because explosion can occur.
It is recommended that nitrogen or refrigerant be charged for these types of tests.

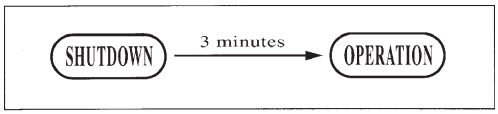
Caution For Use

Bear the following points in mind to safeguard against malfunction and breakdown.

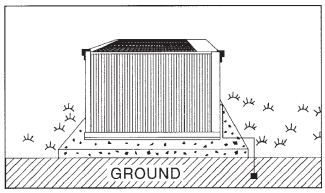
Do not stick rods or other objects through the air outlet during operation since this may result to damage or injury



The air conditioner must not re-start within 3 minutes after shutdown. (These models are equipped with a crankcase heater with the compressor).



Make sure the air conditioner is properly grounded by checking the ground terminal.

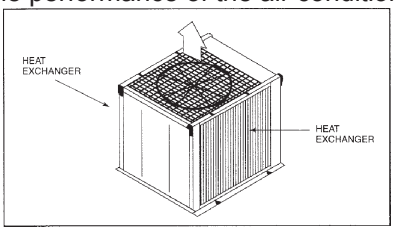


Maintenance

For superb performance and lasting durability, please do not forget to conduct proper and regular maintenance.

Cleaning The Outdoor Unit Heat Exchanger

If you use your air conditioner for prolonged period of time, the outdoor unit heat exchanger will become dirty impairing its function and reducing the performance of the air conditioned. Consult your local dealer about the cleaning of the heat exchanger.



Operation

Electrical Connection

Wiring regulations about wire diameter differs from country to country. Please refer to your LOCAL ELECTRICAL CODES for field wiring rules. Be sure that installation comply with such rules and regulations.

General Precaution

Ensure that the rated voltage of the unit correspond to the name plate before carrying out proper wiring according to the wiring diagram.

Provide a power outlet to be used exclusively for each unit. A power supply disconnect and a circuit breaker for over current protection should be provided in the exclusive line.

The unit must be GROUNDED to prevent possible hazard due to insulation failures

Every wiring must be firmly connected.

Every wiring should not touch the refrigerant piping, compressor and any moving parts of fan motor.

Operational Check

After all wiring is completed and the system is charged with refrigerant, make sure the unit is operating properly. Check that :

Condenser fans are running with warm air blowing off the condensing unit.

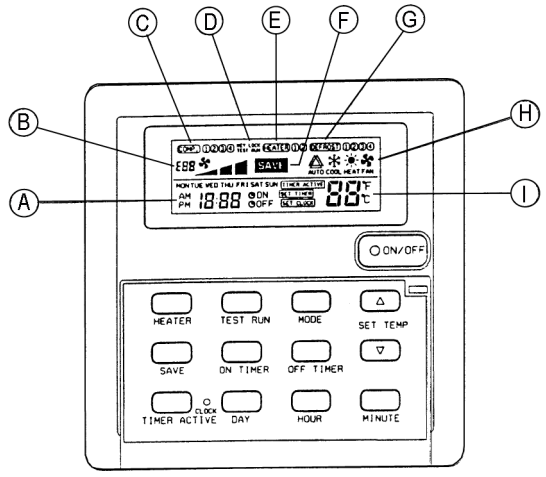
Evaporator blowers are running and discharging cool air from ducts.

Suction line and liquid line pressures are in the region of 75 psig and 275 psig respectively.

Sequential Controller LCD Operating Instructions

(Standard for cooling and heatpump units)

Sequential controller LCD display



A : Time display
B : Error indication
C : Compressor running display (up to 4 compressors)
D : Key lock display
E : Heater display (up to 2 heaters)
F : Energy saving mode display
G : Compressor defrost cycle display (up to 4 compressors)
H : Operation mode display
I : Temperature set display

2. Operating Guide

2.1 **ON/OFF** key

Press once to start the air conditioning unit.
Press again to stop the unit.
The operation lamp next to the key lights up and goes off respectively when the unit is running or not running.
Caution : In the case when the **ON/OFF** key is pressed immediately after the operation is stopped, the unit will not restart until 3 minutes later to protect the compressor.

2.2 Selecting Operation Mode

Press the **MODE** key to select the type of operating mode. Consecutive press of the key switches the operation over *"COOL", "HEAT", "AUTO" and "FAN"*

2.3 SAVE Mode

Press the **SAVE** key to select the energy saving function. This option is only available for "COOL", "HEAT" and "AUTO" modes.

2.4 Auxiliary Electric Heater

If the "HEAT" mode provides insufficient heating to a room even at the highest temperature setting (30°C), press the **HEATER** key to activate the auxiliary electric heater. For models with two heaters, consecutive press of the key allows the selection of one or both heaters active.

2.5 Temperature Setting

To set the desired room temperature, press ▲ or ▼ to increase or decrease the set temperature in the range of 16°C to 30°C.

Press both ▲ and ▼ simultaneously to toggle between °C and °F setting.

2.6 Time Setting

Real time Clock

Press the **CLOCK** key once to activate set clock mode.

Press again to disable set clock mode.

Under set clock mode, the time of the present day can be set by pressing the respective **MINUTE, HOUR** and **DAY** key.

7 days timer

Press the **ON TIMER** key to activate auto ON timer mode. Under this mode, press the respective **MINUTE, HOUR** and **DAY** key to select the time of the week when the air-conditioning unit is to automatically start running. Press the **ON TIMER** key again to save the setting.

Press the **OFF TIMER** key to activate auto OFF timer mode. Under this mode, press the respective **MINUTE, HOUR** and **DAY** key to select the time of the week when the air-conditioning unit is to automatically stop running. Press the **ON TIMER** key again to save the setting.

Then to activate the 7 days timer, press and hold the **TIMER ACTIVE** key until the word "TIMER ACTIVE" appears on the LCD screen. Repeat the same step to disable the 7 days timer.

2.7 Other Function

Key Lock

Press the **MINUTE** key 3 times consecutively to activate the key lock. A *"KEY LOCK" symbol* will appear on the LCD screen. At this point, only the **ON/OFF** key is valid.

To disable the key lock, again press the **MINUTE** key 3 times consecutively.

Test run

Press the TEST key 2 times consecutively to test run the unit.

3. Error Code

When the system is on and an error occurs, the **ON/OFF** LED on the LCD panel will blink and an error code is shown. When the system is off and there is a thermistor error, the **ON/OFF** LED is off but the error code is still displayed. Each error code represents different message as below

Error code	Possible fault	Error code	Possible fault
E01	Require manual reset (possible causes)	E19	Indoor coil sensor 4 short
E02	Compressor 1 high temperature (overload)	E20	Indoor coil sensor 1 open
E03	Compressor 2 high temperature(overload)	E21	Indoor coil sensor 2 open
E04	Compressor 3 high temperature(overload)	E22	Indoor coil sensor 3 open
E05	Compressor 4 high temperature(overload)	E23	Indoor coil sensor 4 open
E06	Compressor 1 high pressure trip / contact open	E24	Outdoor coil sensor 1 short
E07	Compressor 2 high pressure trip / contact open	E25	Outdoor coil sensor 2 short
E08	Compressor 3 high pressure trip / contact open	E26	Outdoor coil sensor 3 short
E09	Compressor 4 high pressure trip / contact open	E27	Outdoor coil sensor 4 short
E10	Compressor 1 trip / low R-22 / outdoor abnormal	E28	Outdoor coil sensor 1 open
E11	Compressor 2 trip / low R-22 / outdoor abnormal	E29	Outdoor coil sensor 2 open
E12	Compressor 3 trip / low R-22 / outdoor abnormal	E30	Outdoor coil sensor 3 open
E13	Compressor 4 trip / low R-22 / outdoor abnormal	E31	Outdoor coil sensor 4 open
E14	Room sensor short	E32	Compressor 1 de-ice
E15	Room sensor open	E33	Compressor 2 de-ice
E16	Indoor coil sensor 1 short	E34	Compressor 3 de-ice
E17	Indoor coil sensor 2 short	E35	Compressor 4 de-ice
E18	Indoor coil sensor 3 short		

4. Installation of LCD remote controller

4.1 Accessories

The following accessories are included. If any part is missing, contact your dealer immediately.

① Remote controller

② Wooden screw 4.1 x 16 (2 pieces)

③ Instruction manual

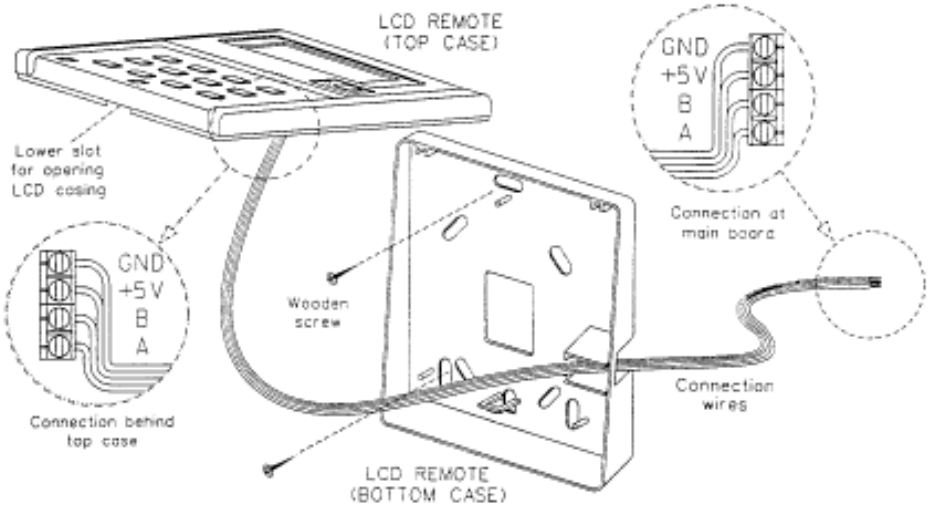
4.2 Step by step guide

i) First, open up the casing of the LCD remote controller **into its top and bottom** case using a screwdriver. To do this, insert the screwdriver into the lower slot and slide it in the outward direction.

ii) Fix the bottom case onto the wall with the 2 wooden screws provided. Then, insert the 4 connecting wires (from the main board) through the slot on the lower right.

iii) Connect one end in each of the 4 wires to the terminal block behind the top case as shown below. The wire that goes into the “GND” terminal at the top case must be connected at the other end to the “GND” terminal at the main board. The same goes for the “+5V”, “B” and “A” connection.

iv) Fasten back the top and bottom case into place. Hook the two upper claws into their respective slots and snap the lower part shut.



5. Auto Random Restart
When power resumed, the unit will automatically restart and operate at the previous setting as before power failure occurred. (Remove jumper at JH/JP1 will cancel the auto random restart function. Please refer to wiring diagram for the location of the JH/JP1).

Sequential Controller Specifications

The controller can be configured to suit individual's need with details below :

Model Selection

1. Number of Compressor

The control can be configured into 6 main types base on number of compressors by changing "**R42**" values :

	Number of Compressor	R42 value
a.	Cooling / heater* 2 Compressor	20k
b.	Cooling / heater* 3 Compressor	47k
c.	Cooling / heater* 4 Compressor	Open
d.	Heat pump 2 compressors	1k
e.	Heat pump 3 compressors	3.3k
f.	Heat pump 4 compressors	9.1k

Note : * Cooling or heater model depending on SW1 and SW2 setting. Factory setting for number of compressor is based on air conditioner models.

2. Number of Heater

	Number of Heater	SW1(dip1)	SW2(dip2)
a.	No heater (0 heater)	off	off
b.	1 heater	on	off
c.	2 heaters	on / off	on

Note : Factory preset : SW1 = off; SW2 = off ~ no heater

3. Auto Mode Selection

		SW5(dip 5)
a.	Auto mode off	off
b.	Auto mode on	on

Note : Factory preset : SW5 = off ~ auto mode off

4. Stage Differential Temperature

Differential temperature is the temperature difference between turning on or off 1 compressor to another compressor in thermostat cycle.
The stage differential temperature can be selected from the range shown below :

	Dip switch 3	Dip switch 4
a. Default	off	off
b. 0.5°C	on	off
c. 1.0°C	off	on
d. 1.5°C	on	on

note that 1.5°C only valid for 2 and 3 compressors model. For 4 compressors model, maximum allowed is 1.0°C.

The default differential temperature is base on number of compressor model, the setting is as below :

Model	Diff. Temperature
1 compressor	Not applicable
2 compressor	1.5°C
3 compressor	1.0°C
4 compressors	0.5°C

5. Hot Keep Option

	Dip switch 6
a. Fan off	off
b. Fan on	on

6. Operating Modes

The system has 4 operating modes to select with respect to each model selection:

Model	Auto	Cool	Heat	Fan	
SQCn	-	X	-	X	
SQHnh	-	X	X	X	(Dip switch 5 = off)
SQHnh	X	X	X	X	(Dip switch 5 = on)

Where x denotes modes available
n = number of compressor(s)
h = number of heater(s)

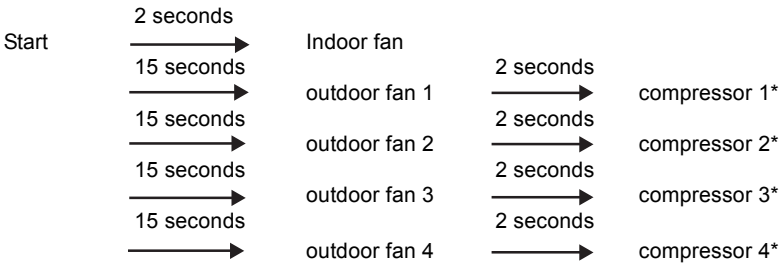
7. Last Memory Functions

The power up settings for either with or without the last memory backup is based on the JH1 setting.

	JH1 Setting
a. Last memory backup	JH1 Plugged
b. Without last memory backup	JH1 Removed

8. Sequential Control For Cool Mode

The starting sequence for indoor fan, outdoor fan and compressors is shown as below:

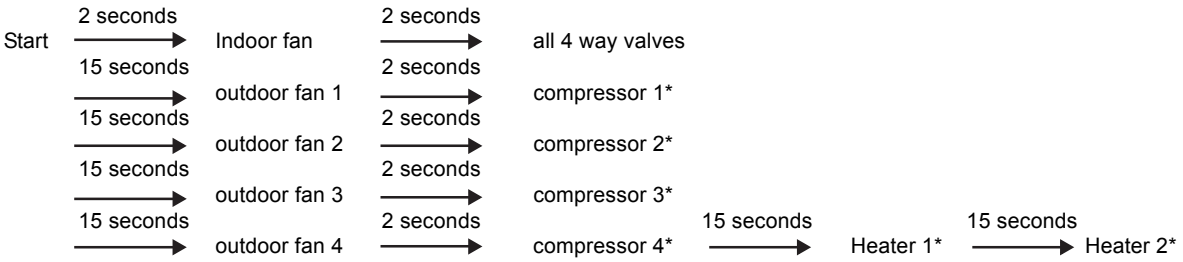


* if available and applicable

The compressors will be turned on one by one depending on the on/off conditions shown in the above

9. Sequential control for heat mode

The starting sequence for indoor fan, outdoor fan and compressors is as shown below :



* if available and applicable

The compressors will be turned on one by one depending on the on/off conditions shown in the above.

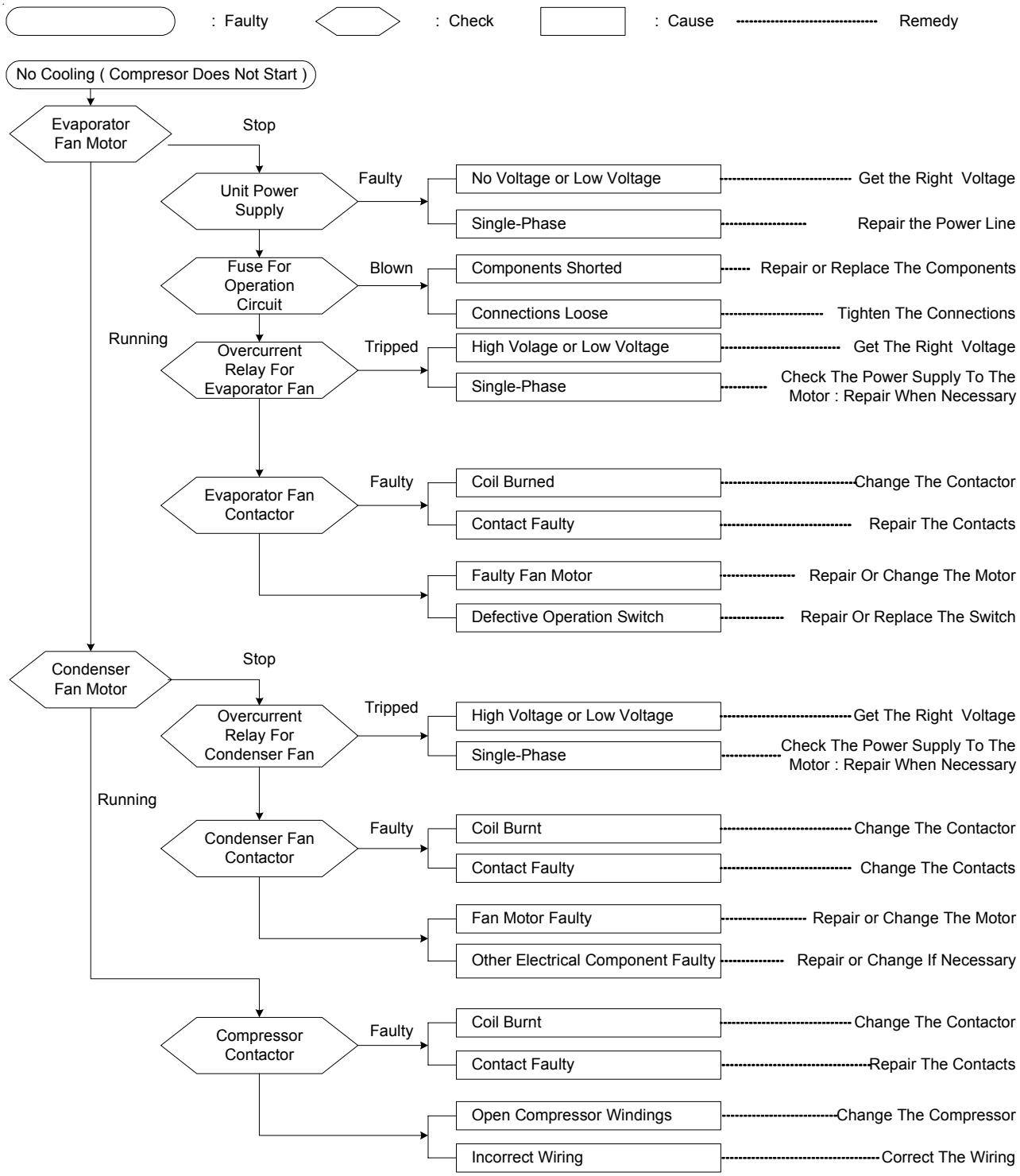
Troubleshooting

When any air conditioner malfunction is noted, immediately switch off the power supply to the unit and contact the local dealer, if necessary. Some simple trouble shooting tips are given below :

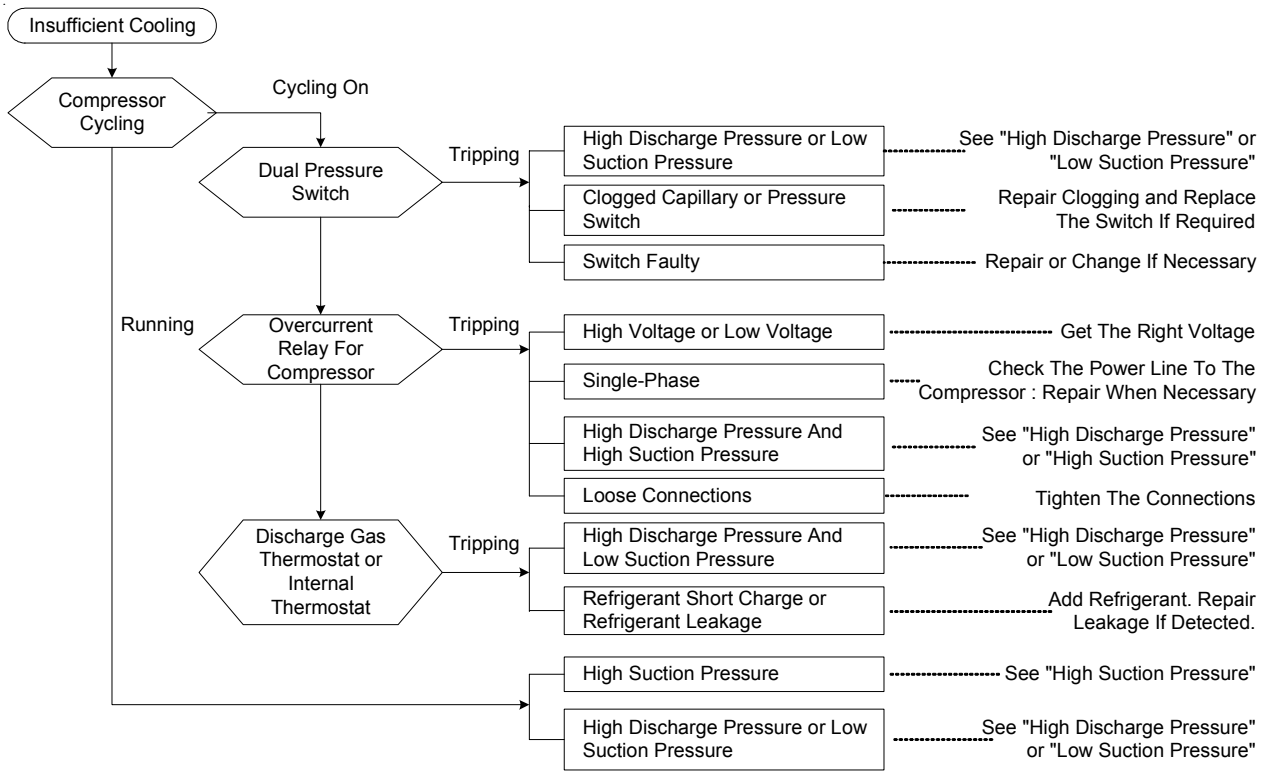
Trouble	Probable Cause	Suggested Action
1. Fan does not work	1. No power supply 2. Fan capacitor faulty 3. Fan motor faulty 4. Switch faulty	1. Check power supply 2. Contact local dealer 3. Contact local dealer 4. Change switch
2. Fan works, but compressor does not work	1. Thermostat setting too high 2. Dual pressure control trip 3. Compressor faulty 4. Compressor contactor faulty	1. Reset thermostat 2. Reset Pressure Control 3. Contact local dealer 4. Contact local dealer
3. Both fan and compressor does not work	1. Power failure 2. Starter trip 3. Fuse blown in power switch or operating unit	1. Operate when power supply resume 2. Reset starter 3. Check and replace fuse
4. Air-conditioner works but cooling not satisfactory	1. Thermostat setting too high 2. Doors and/or windows not closed 3. Condenser coil dirty 4. Some objects blocking the inlet and/or outlet of the unit 5. Insufficient refrigerant charge.	1. Reset thermostat 2. Close doors and/or windows 3. Contact local dealer 4. Remove the object 5. Contact local dealer

The following chart are efficient checking procedures for troubleshooting when these fan-coil units, are coupled with the condensing units using standard wiring. For dual circuited models, perform the procedures for each circuit.

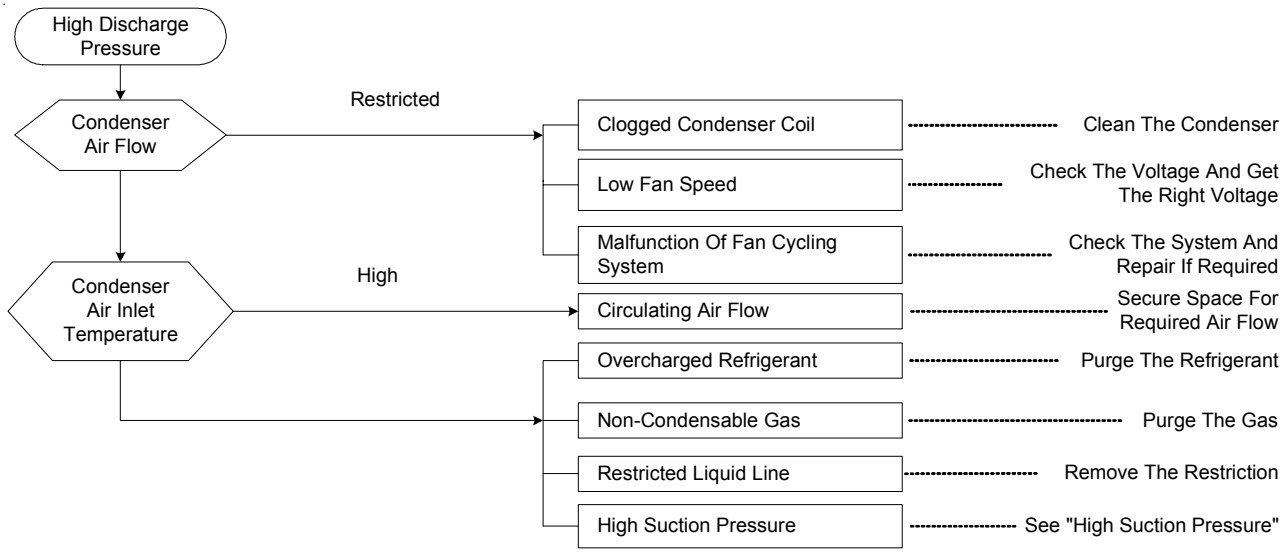
No Cooling



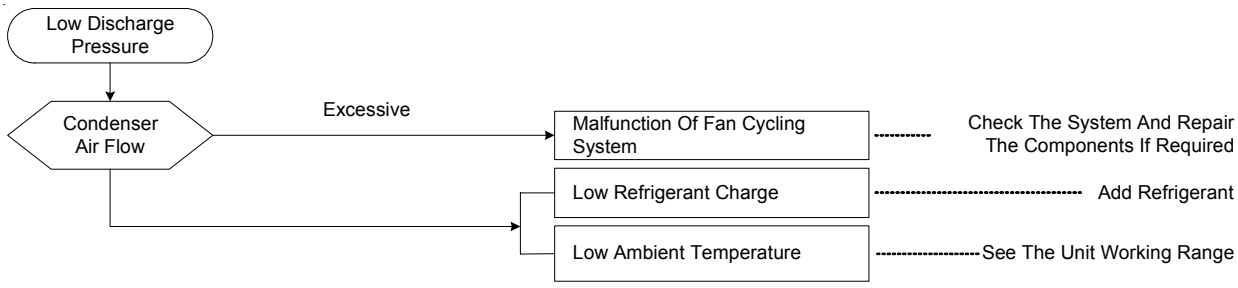
Insufficient Cooling



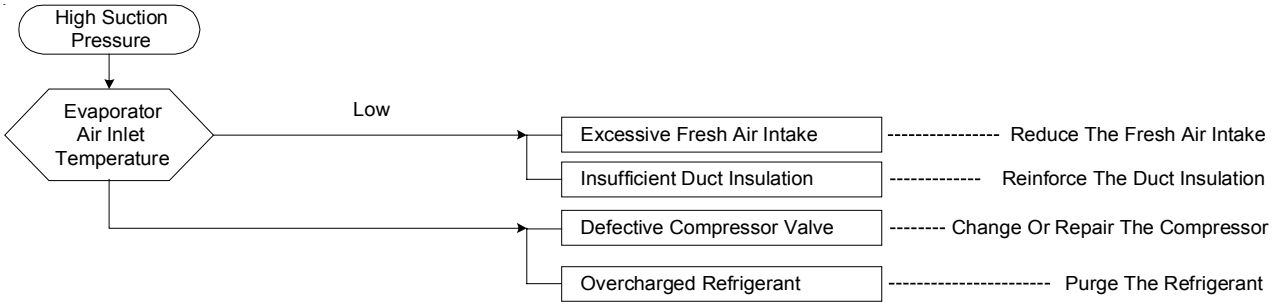
High Discharge Pressure



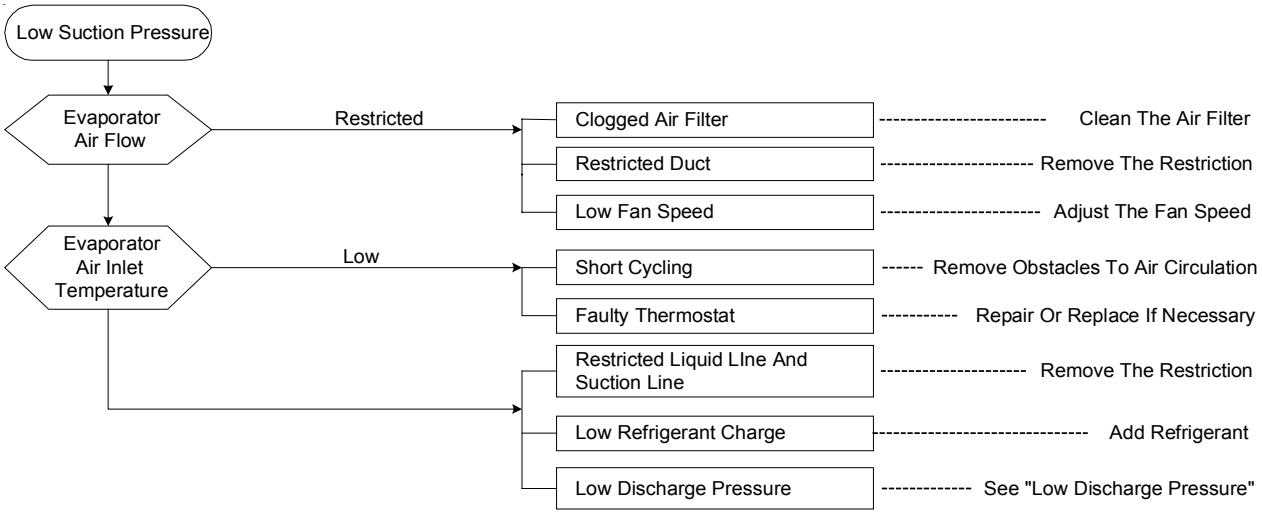
Low Discharge Pressure



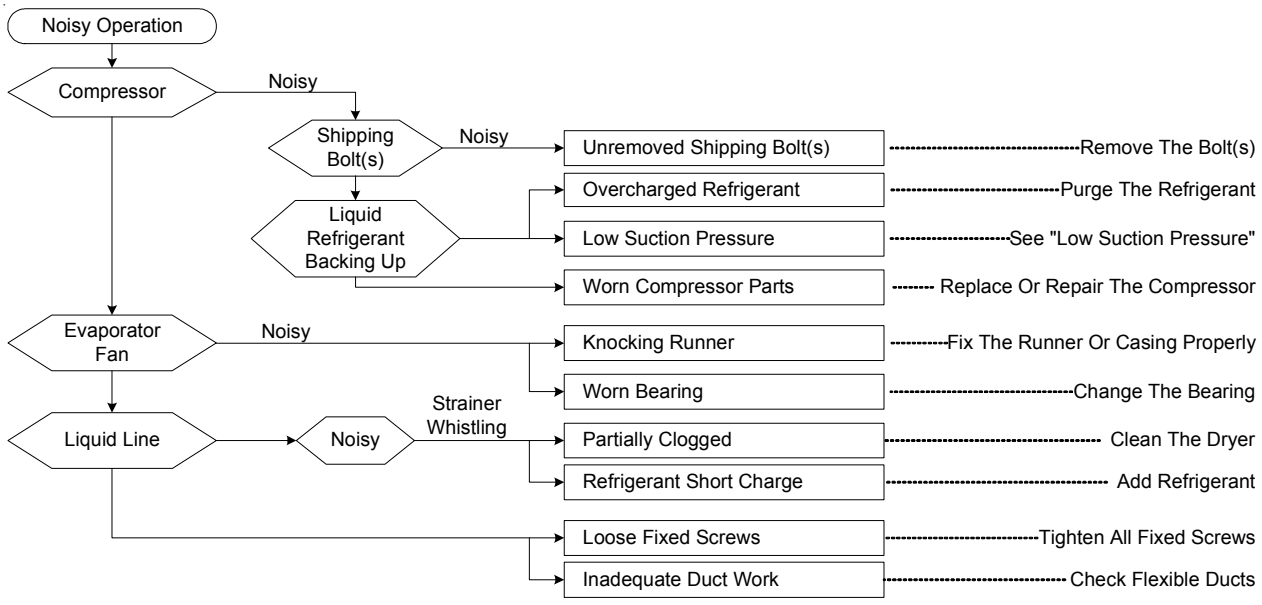
High Suction Pressure



Low Suction Pressure



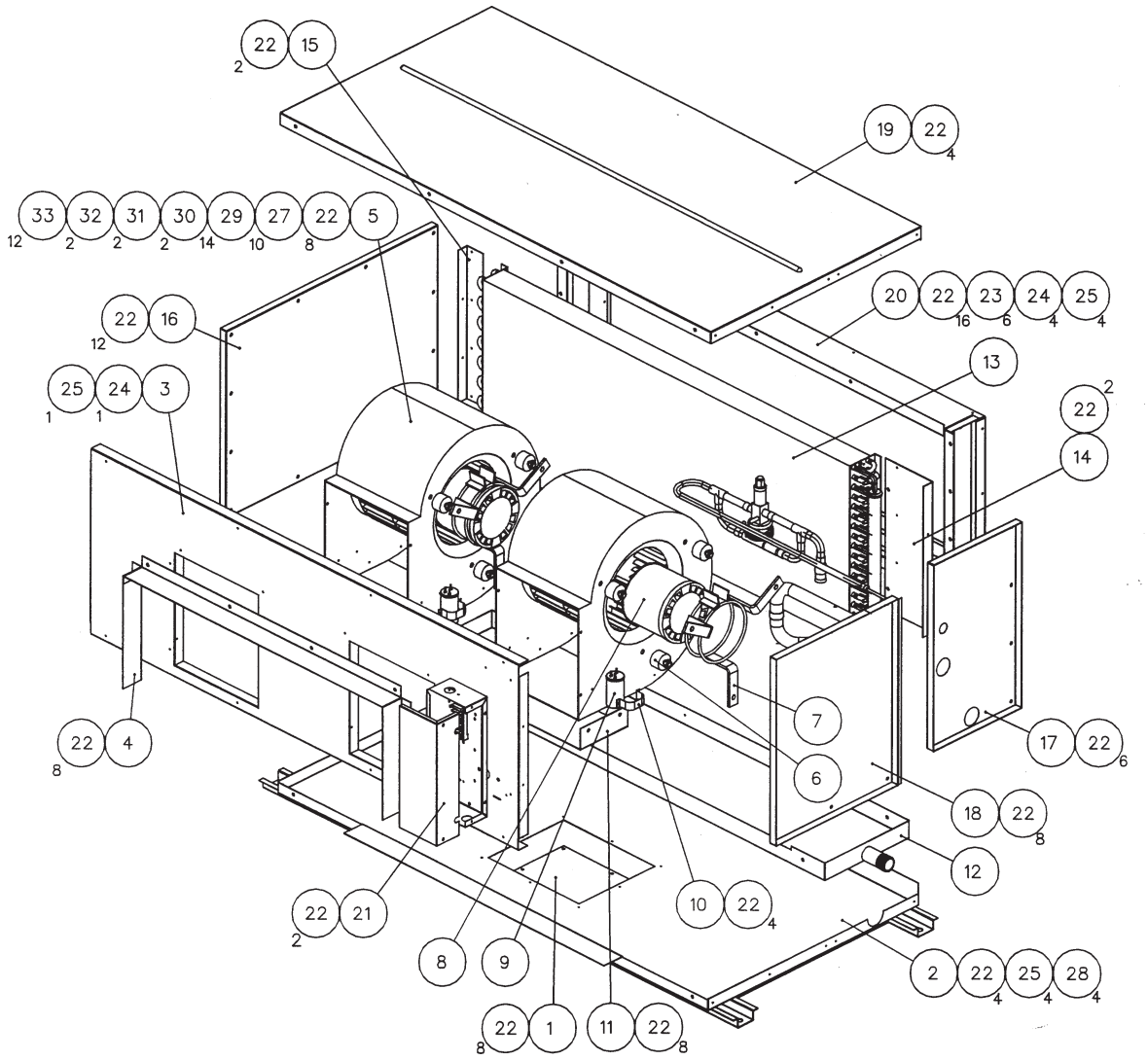
Noisy Operation



21. PARTS LIST

INDOOR MODELS

MODEL : ADB75ER

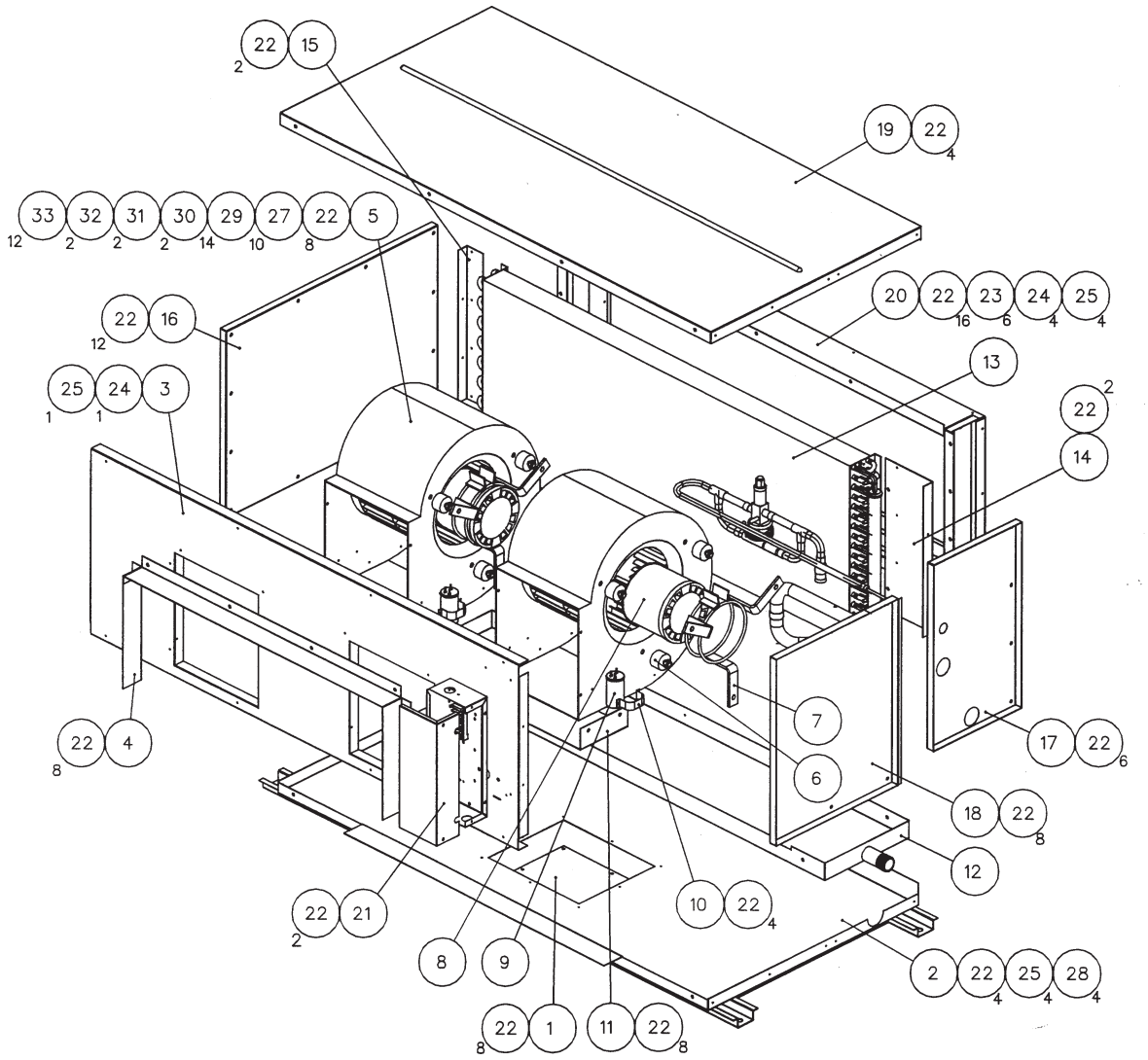


NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN COVER INS.	12	ASSY., DRAIN PAN INS.	23	SCREW, SELF TAPPING PAN HEAD
2	ASSY., BASE PAN INS.	13	ASSY., COIL TUBING	24	SCREW, TRUSS HEAD PHILIP
3	ASSY., FRONT PANEL INS.	14	ASSY., COIL SIDE COVER RIGHT INS.	25	NUT, WELD M5
4	ASSY., FLANGE BLOWER	15	ASSY., COIL SIDE COVER LEFT INS.	26	SCREW, WOOD
5	ASSY., BLOWER	16	ASSY., SIDE PANEL LEFT INS.	27	WASHER, PLAIN
6	GROMET, MNTG COMPLETE WITH NUT	17	ASSY., SIDE PANEL SML RIGHT INS.	28	WASHER, PLAIN
7	ASSY., BRACKET FAN MOTOR	18	ASSY., SIDE PANEL BIG RIGHT INS.	29	WASHER, SPRING
8	MOTOR	19	ASSY., TOP PANEL INS.	30	WASHER, SPRING
9	CAPACITOR, 6 uF / 440V	20	ASSY., SECTION FILTER	31	BOLT, HEXAGON PAN HEAD
10	CLAMP, CAPACITOR	21	ASSY., TERMINAL BOX	32	NUT, HEXAGON
11	SUPPORT, BLOWER BRACKET	22	SCREW, S.T.TRUSS HEAD PHILIP	33	NUT, HEXAGON

Parts List

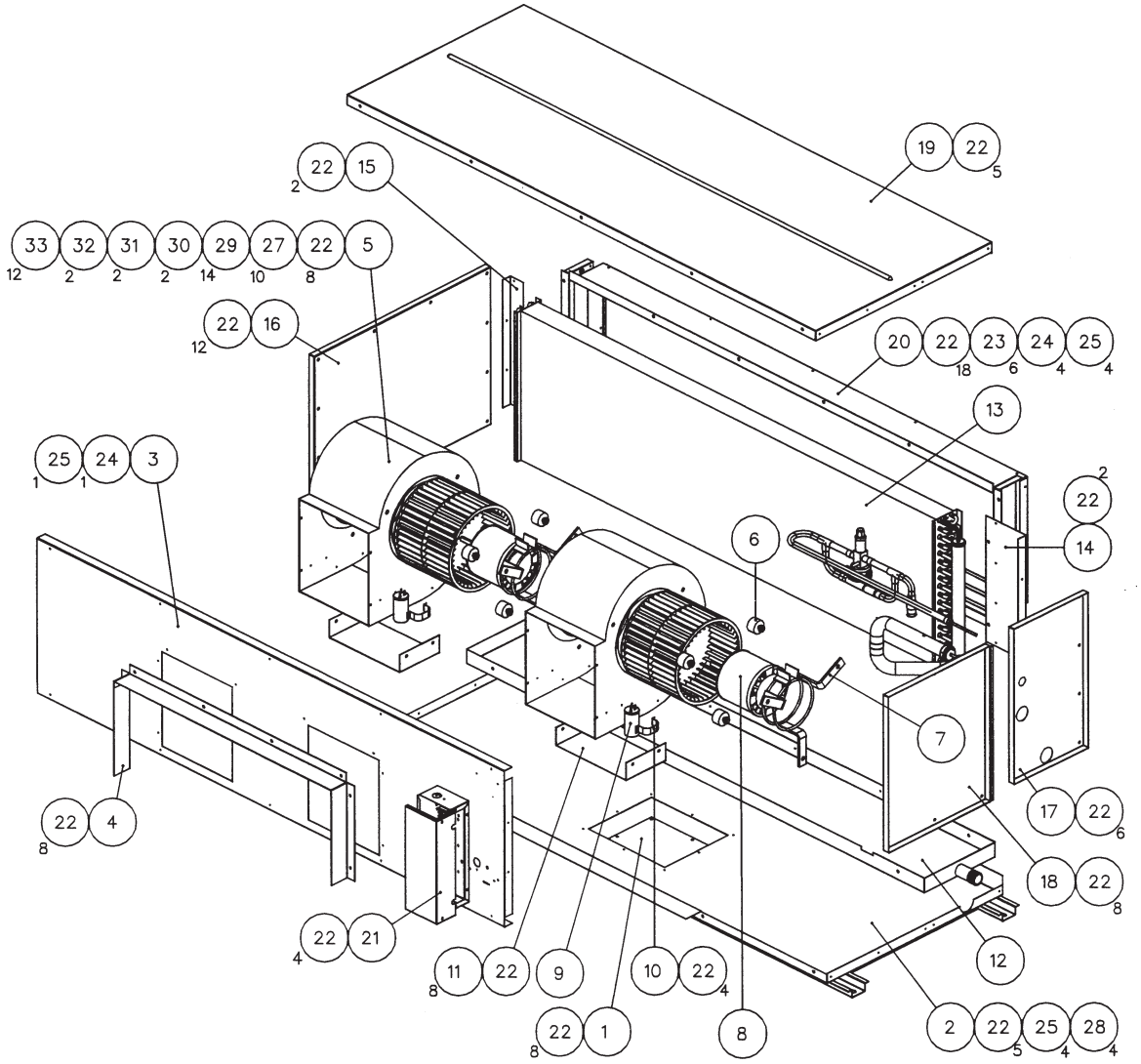
Indoor Models

Model : MDB075ER



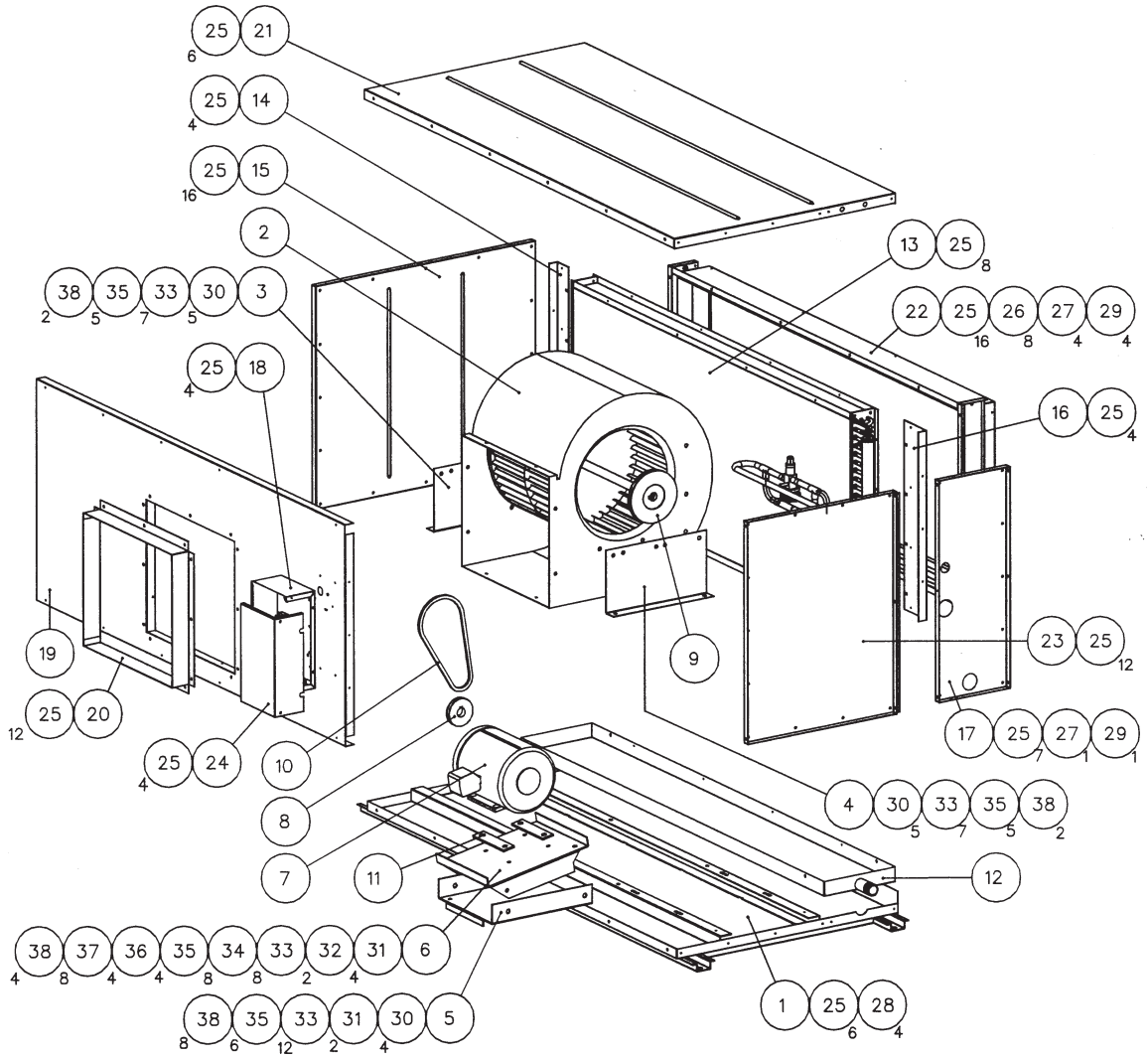
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN COVER INS.	12	ASSY., DRAIN PAN INS.	23	SCREW, SELF TAPPING PAN HEAD
2	ASSY., BASE PAN INS.	13	ASSY., COIL TUBING	24	SCREW, TRUSS HEAD PHILIP
3	ASSY., FRONT PANEL INS.	14	ASSY., COIL SIDE COVER RIGHT INS.	25	NUT, WELD M5
4	ASSY., FLANGE BLOWER	15	ASSY., COIL SIDE COVER LEFT INS.	26	SCREW, WOOD
5	ASSY., BLOWER	16	ASSY., SIDE PANEL LEFT INS.	27	WASHER, PLAIN
6	GROMET, MNTG COMPLETE WITH NUT	17	ASSY., SIDE PANEL SML RIGHT INS.	28	WASHER, PLAIN
7	ASSY., BRACKET FAN MOTOR	18	ASSY., SIDE PANEL BIG RIGHT INS.	29	WASHER, SPRING
8	MOTOR	19	ASSY., TOP PANEL INS.	30	WASHER, SPRING
9	CAPACITOR, 6 uF / 440V	20	ASSY., SECTION FILTER	31	BOLT, HEXAGON PAN HEAD
10	CLAMP, CAPACITOR	21	ASSY., TERMINAL BOX	32	NUT, HEXAGON
11	SUPPORT, BLOWER BRACKET	22	SCREW, S.T.TRUSS HEAD PHILIP	33	NUT, HEXAGON

Model : MDB100ER



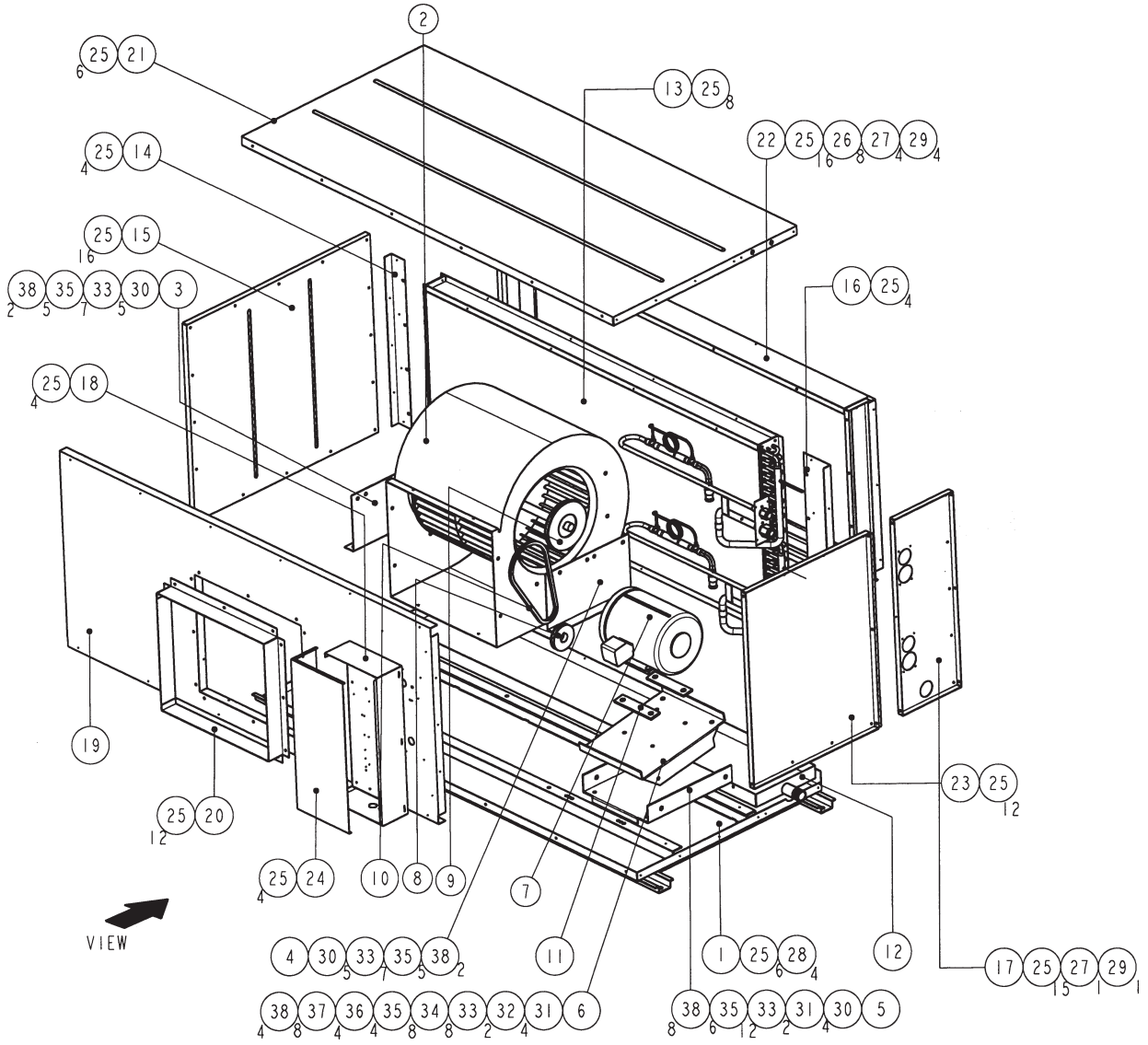
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN COVER INS.	12	ASSY., DRAIN PAN INS.	23	SCREW, SELF TAPPING PAN HEAD
2	ASSY., BASE PAN INS.	13	ASSY., COIL TUBING	24	SCREW, TRUSS HEAD PHILIP
3	ASSY., FRONT PANEL INS.	14	ASSY., COIL SIDE COVER RIGHT INS.	25	NUT, WELD M5
4	ASSY., FLANGE BLOWER	15	ASSY., COIL SIDE COVER LEFT INS.	26	SCREW, WOOD
5	ASSY., BLOWER	16	ASSY., SIDE PANEL LEFT INS.	27	WASHER, PLAIN
6	GROMET, MNTG COMPLETE WITH NUT	17	ASSY., SIDE PANEL SML RIGHT INS.	28	WASHER, PLAIN
7	ASSY., BRACKET FAN MOTOR	18	ASSY., SIDE PANEL BIG RIGHT INS.	29	WASHER, SPRING
8	MOTOR	19	ASSY., TOP PANEL INS.	30	WASHER, SPRING
9	CAPACITOR, 7.5 uF / 440V	20	ASSY., SECTION FILTER	31	BOLT, HEXAGON PAN HEAD
10	CLAMP, CAPACITOR	21	ASSY., TERMINAL BOX	32	NUT, HEXAGON
11	SUPPORT, BLOWER BRACKET	22	SCREW, S.T.TRUSS HEAD PHILIP	33	NUT, HEXAGON

Model : MDB125ER



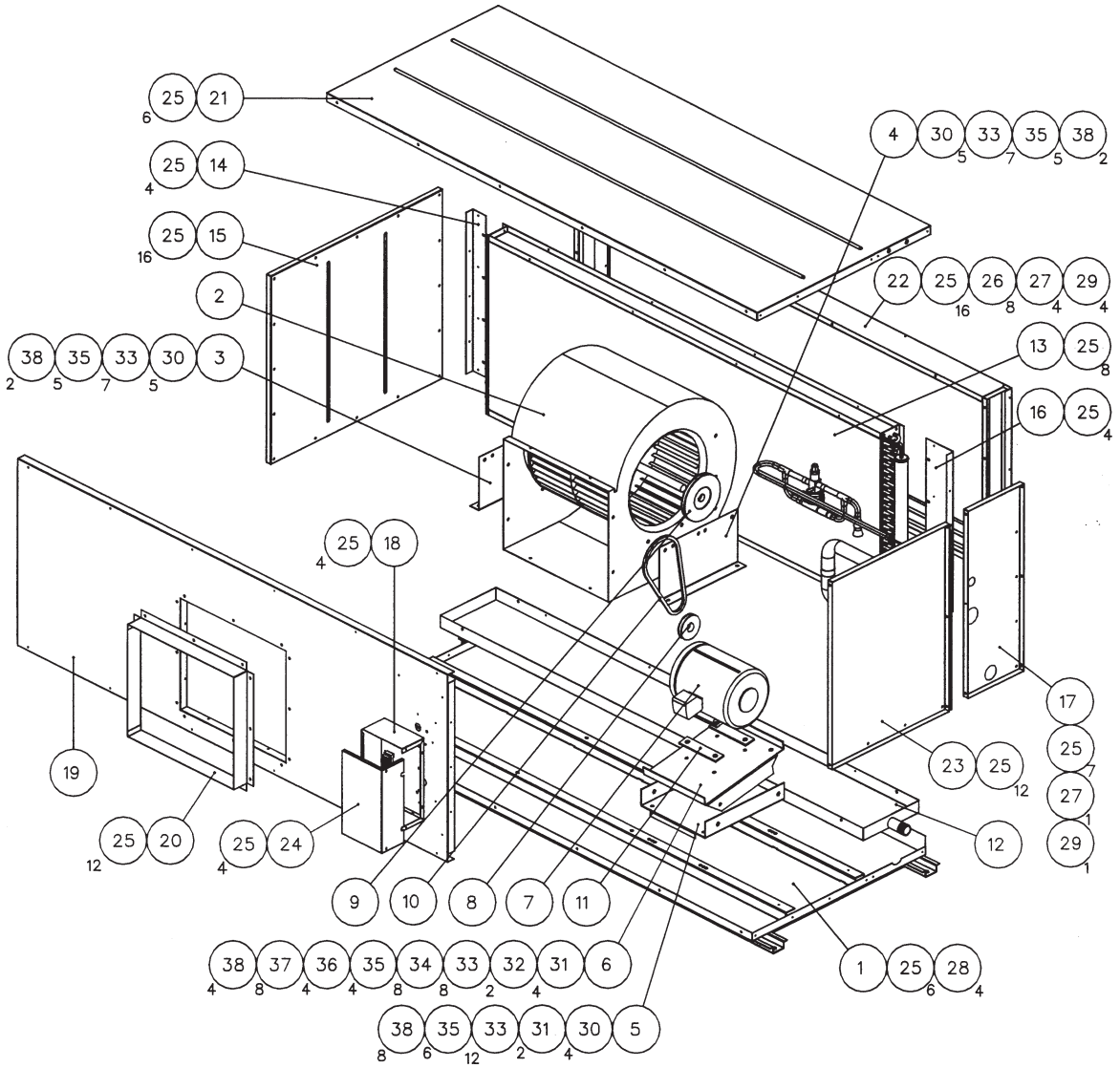
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN INS.	14	ASSY., COIL SIDE COVER LEFT INS.	27	SCREW, TRUSS HEAD PHILIP (M5 x 16.0)
2	ASSY., BLOWER	15	ASSY., SIDE PANEL LEFT INS.	28	SCREW, WOOD
3	SUPPORT, BLOWER BRACKET LEFT	16	ASSY., COIL SIDE COVER RIGHT INS.	29	NUT, WELD M5
4	SUPPORT, BLOWER BRACKET RIGHT	17	ASSY., SIDE PANEL SML RIGHT INS.	30	BOLT, HEXAGON (M8 x 20.0)
5	BASE, MOTOR LOWER	18	ASSY., TERMINAL BOARD MAIN	31	BOLT, HEXAGON (M8 x 30.0)
6	BASE, MOTOR UPPER	19	ASSY., FRONT PANEL INS.	32	BOLT, HEXAGON 1/2"
7	MOTOR	20	ASSY., FLANGE BLOWER	33	WASHER, PLAIN (M8)
8	PULLEY, MOTOR	21	ASSY., TOP PANEL INS.	34	WASHER, PLAIN (1/2")
9	PULLEY, BLOWER	22	ASSY., SECTION FILTER	35	WASHER, SPRING (M8)
10	V-BELT	23	ASSY., SIDE PANEL BIG RIGHT INS.	36	WASHER, SPRING (1/2")
11	RUBBER, SHEET	24	COVER, TERMINAL BOARD	37	NUT, HEXAGON (1/2")
12	ASSY., DRAIN PAN INS.	25	SCREW, S.T.T.H. PHILIP (8 x 3/8" A)	38	NUT, HEXAGON (M8)
13	ASSY., COIL TUBING	26	SCREW, SELF TAPPING PAN HEAD 8 x 3/4"		

Model : MDB125ER2



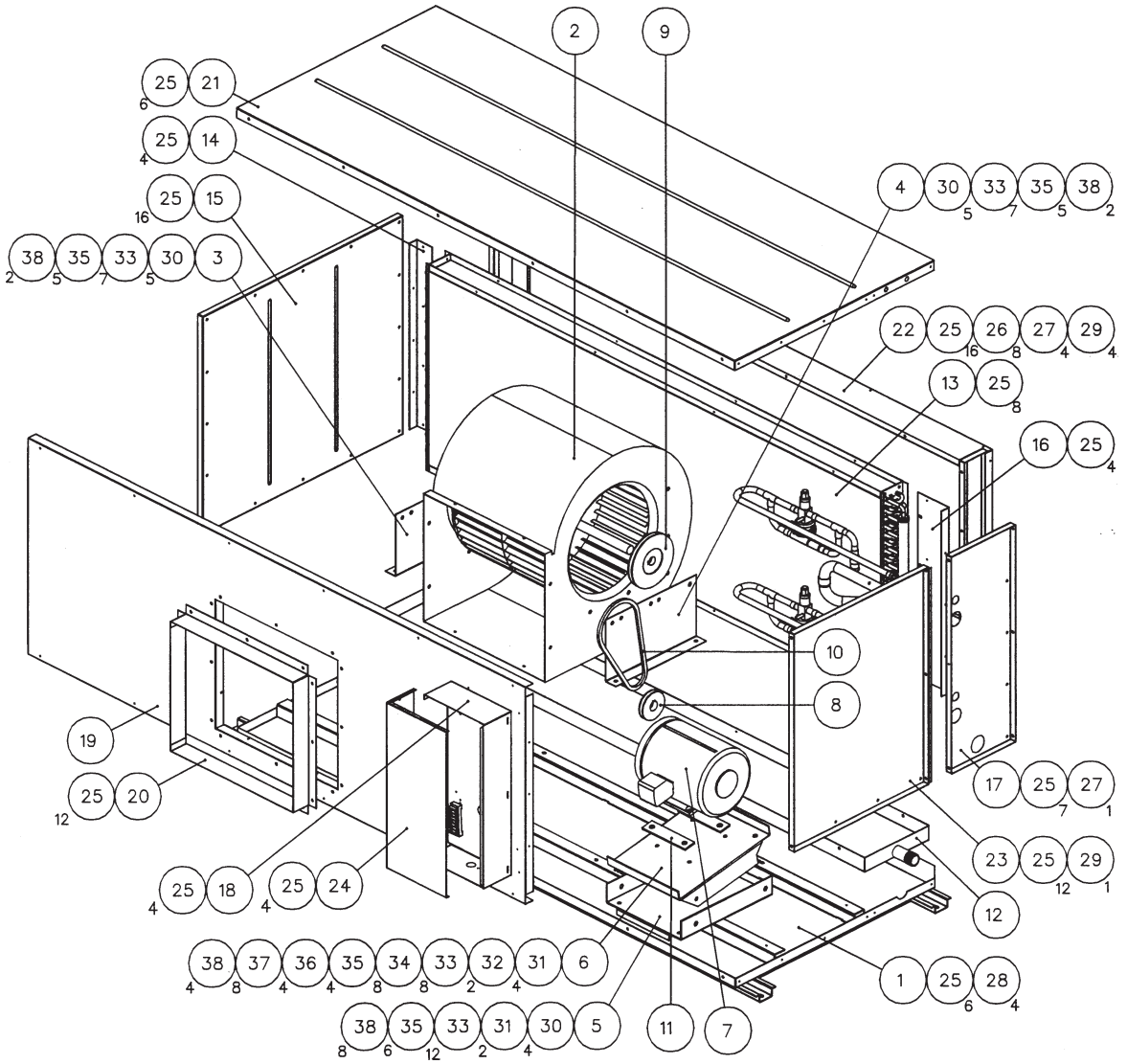
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN INS.	14	ASSY., COIL SIDE COVER LEFT INS.	27	SCREW, TRUSS HEAD PHILIP (M5 x 16.0)
2	ASSY., BLOWER	15	ASSY., SIDE PANEL LEFT INS.	28	SCREW, WOOD
3	SUPPORT, BLOWER BRACKET LEFT	16	ASSY., COIL SIDE COVER RIGHT INS.	29	NUT, WELD M5
4	SUPPORT, BLOWER BRACKET RIGHT	17	ASSY., SIDE PANEL SML RIGHT INS.	30	BOLT, HEXAGON (M8 x 20.0)
5	BASE, MOTOR LOWER	18	ASSY., TERMINAL BOARD MAIN	31	BOLT, HEXAGON (M8 x 30.0)
6	BASE, MOTOR UPPER	19	ASSY., FRONT PANEL INS.	32	BOLT, HEXAGON 1/2"
7	MOTOR	20	ASSY., FLANGE BLOWER	33	WASHER, PLAIN (M8)
8	PULLEY, MOTOR	21	ASSY., TOP PANEL INS.	34	WASHER, PLAIN (1/2")
9	PULLEY, BLOWER	22	ASSY., SECTION FILTER	35	WASHER, SPRING (M8)
10	V-BELT	23	ASSY., SIDE PANEL BIG RIGHT INS.	36	WASHER, SPRING (1/2")
11	RUBBER, SHEET	24	COVER, TERMINAL BOARD	37	NUT, HEXAGON (1/2")
12	ASSY., DRAIN PAN INS.	25	SCREW, S.T.T.H. PHILIP (8 x 3/8" A)	38	NUT, HEXAGON (M8)
13	ASSY., COIL TUBING	26	SCREW, SELF TAPPING PAN HEAD 8 x 3/4"		

Model : MDB150ER



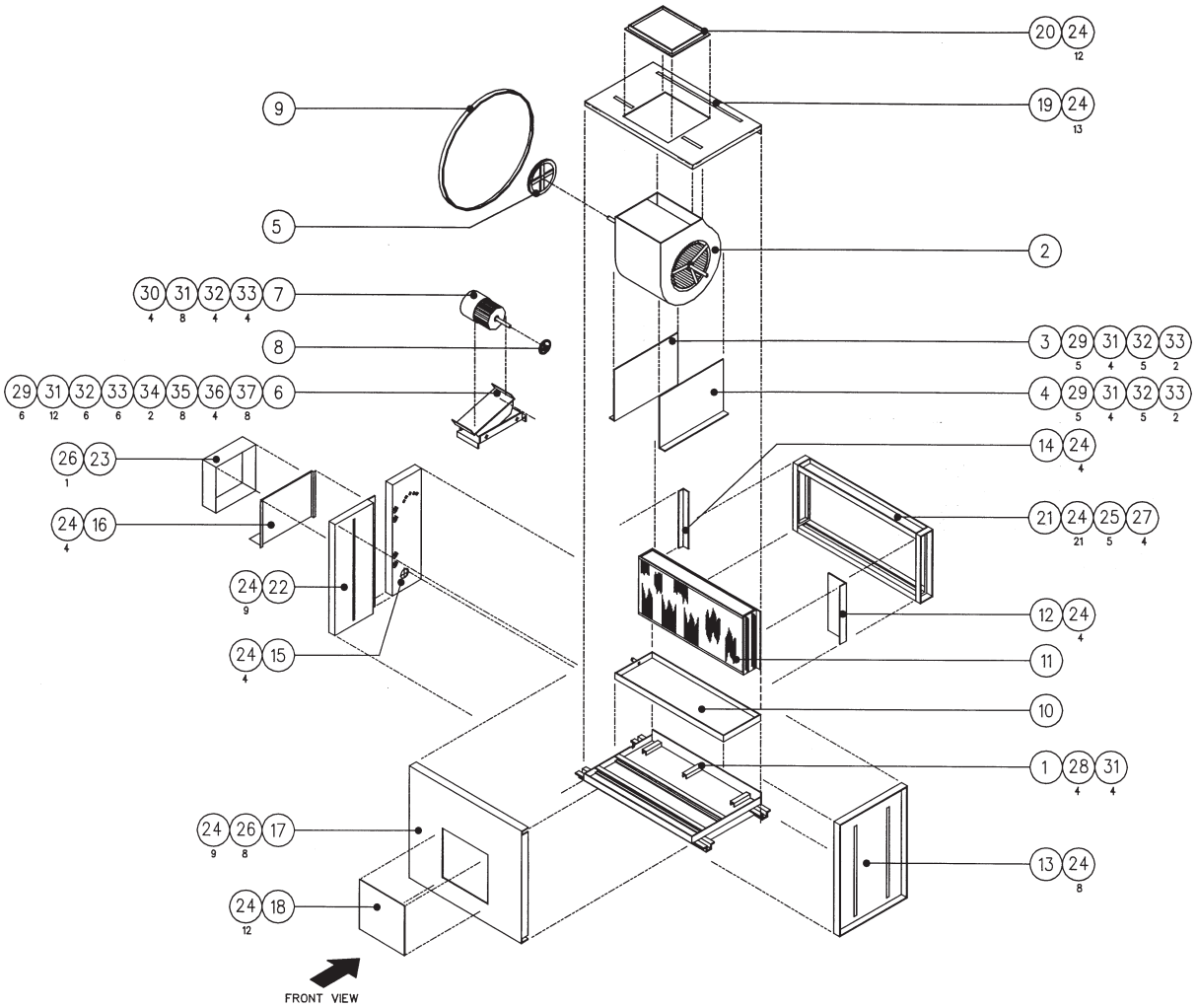
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN INS.	14	ASSY., COIL SIDE COVER LEFT INS.	27	SCREW, TRUSS HEAD PHILIP (M5 x 16.0)
2	ASSY., BLOWER	15	ASSY., SIDE PANEL LEFT INS.	28	SCREW, WOOD
3	SUPPORT, BLOWER BRACKET LEFT	16	ASSY., COIL SIDE COVER RIGHT INS.	29	NUT, WELD M5
4	SUPPORT, BLOWER BRACKET RIGHT	17	ASSY., SIDE PANEL SML RIGHT INS.	30	BOLT, HEXAGON (M8 x 20.0)
5	BASE, MOTOR LOWER	18	ASSY., TERMINAL BOARD MAIN	31	BOLT, HEXAGON (M8 x 30.0)
6	BASE, MOTOR UPPER	19	ASSY., FRONT PANEL INS.	32	BOLT, HEXAGON 1/2"
7	MOTOR	20	ASSY., FLANGE BLOWER	33	WASHER, PLAIN (M8)
8	PULLEY, MOTOR	21	ASSY., TOP PANEL INS.	34	WASHER, PLAIN (1/2")
9	PULLEY, BLOWER	22	ASSY., SECTION FILTER	35	WASHER, SPRING (M8)
10	V-BELT	23	ASSY., SIDE PANEL BIG RIGHT INS.	36	WASHER, SPRING (1/2")
11	RUBBER, SHEET	24	COVER, TERMINAL BOARD	37	NUT, HEXAGON (1/2")
12	ASSY., DRAIN PAN INS.	25	SCREW, S.T.T.H. PHILIP (8 x 3/8" A)	38	NUT, HEXAGON (M8)
13	ASSY., COIL TUBING	26	SCREW, SELF TAPPING PAN HEAD 8 x 3/4"		

Model : MDB150ER2



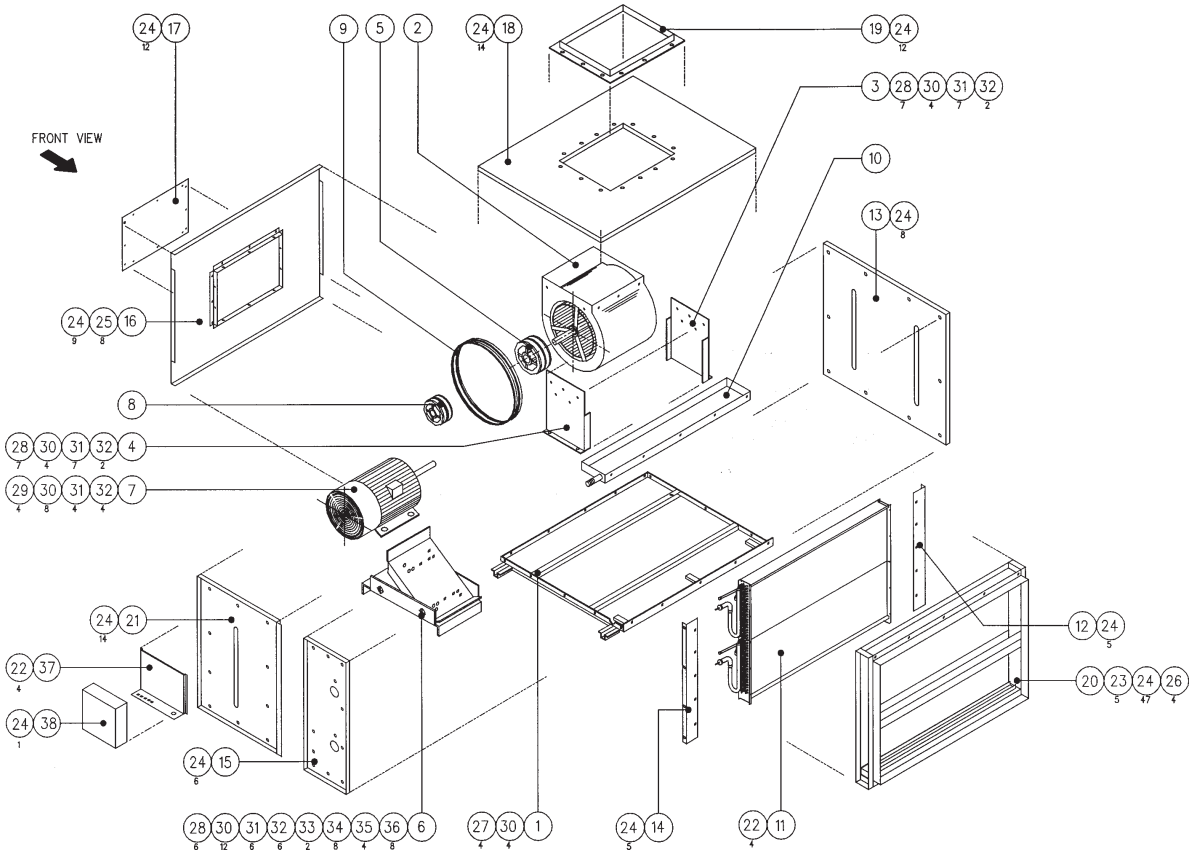
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN INS.	14	ASSY., COIL SIDE COVER LEFT INS.	27	SCREW, TRUSS HEAD PHILIP (M5 x 16.0)
2	ASSY., BLOWER	15	ASSY., SIDE PANEL LEFT INS.	28	SCREW, WOOD
3	SUPPORT, BLOWER BRACKET LEFT	16	ASSY., COIL SIDE COVER RIGHT INS.	29	NUT, WELD M5
4	SUPPORT, BLOWER BRACKET RIGHT	17	ASSY., SIDE PANEL SML RIGHT INS.	30	BOLT, HEXAGON (M8 x 20.0)
5	BASE, MOTOR LOWER	18	ASSY., TERMINAL BOARD MAIN	31	BOLT, HEXAGON (M8 x 30.0)
6	BASE, MOTOR UPPER	19	ASSY., FRONT PANEL INS.	32	BOLT, HEXAGON 1/2"
7	MOTOR	20	ASSY., FLANGE BLOWER	33	WASHER, PLAIN (M8)
8	PULLEY, MOTOR	21	ASSY., TOP PANEL INS.	34	WASHER, PLAIN (1/2")
9	PULLEY, BLOWER	22	ASSY., SECTION FILTER	35	WASHER, SPRING (M8)
10	V-BELT	23	ASSY., SIDE PANEL BIG RIGHT INS.	36	WASHER, SPRING (1/2")
11	RUBBER, SHEET	24	COVER, TERMINAL BOARD	37	NUT, HEXAGON (1/2")
12	ASSY., DRAIN PAN INS.	25	SCREW, S.T.T.H. PHILIP (8 x 3/8" A)	38	NUT, HEXAGON (M8)
13	ASSY., COIL TUBING	26	SCREW, SELF TAPPING PAN HEAD 8 x 3/4"		

Model : MDB200ER2



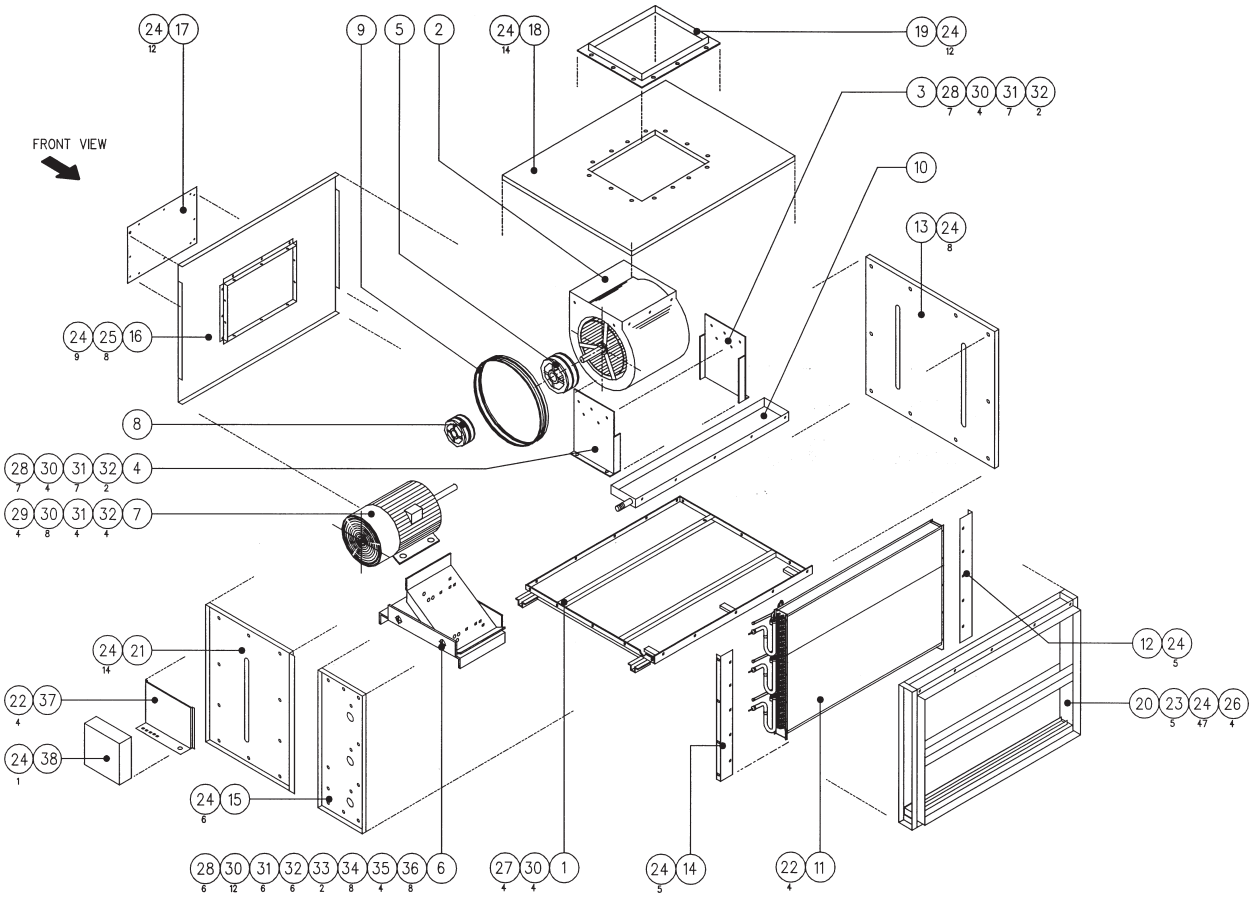
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN	14	ASSY., COIL SIDE COVER LEFT	27	SCREW, TRUSS HEAD PHILIP
2	ASSY., BLOWER HOUSING	15	ASSY., SIDE PANEL SMALL LEFT	28	SCREW, WOOD
3	SUPPORT, BLOWER LEFT	16	ASSY., SEQ. CONT. BASE (MAIN)	29	BOLT, HEXAGON
4	SUPPORT, BLOWER RIGHT	17	ASSY., FRONT PANEL	30	BOLT, HEXAGON
5	PULLEY, BLOWER	18	BLOWER, COVER	31	WASHER, PLAIN
6	ASSY., MOTOR BRACKET	19	ASSY., TOP PANEL	32	WASHER, SPRING
7	MOTOR	20	ASSY., BLOWER FLANGE	33	NUT, HEXAGON
8	PULLEY, MOTOR	21	ASSY., FILTER SECTION	34	BOLT, ADJUSTING
9	V-BELT	22	ASSY., SIDE PANEL BIG LEFT	35	WASHER, PLAIN
10	ASSY., DRAIN PAN	23	COVER, TERMINAL	36	WASHER, SPRING
11	ASSY., COIL	24	SCREW, S.T. TRUSS HEAD PHILIP	37	NUT, HEXAGON
12	ASSY., COIL SIDE COVER RIGHT	25	SCREW, SELF TAPPING PAN HEAD		
13	ASSY., SIDE PANEL RIGHT	26	SCREW, TRUSS HEAD PHILIP		

Model : MDB250ER2



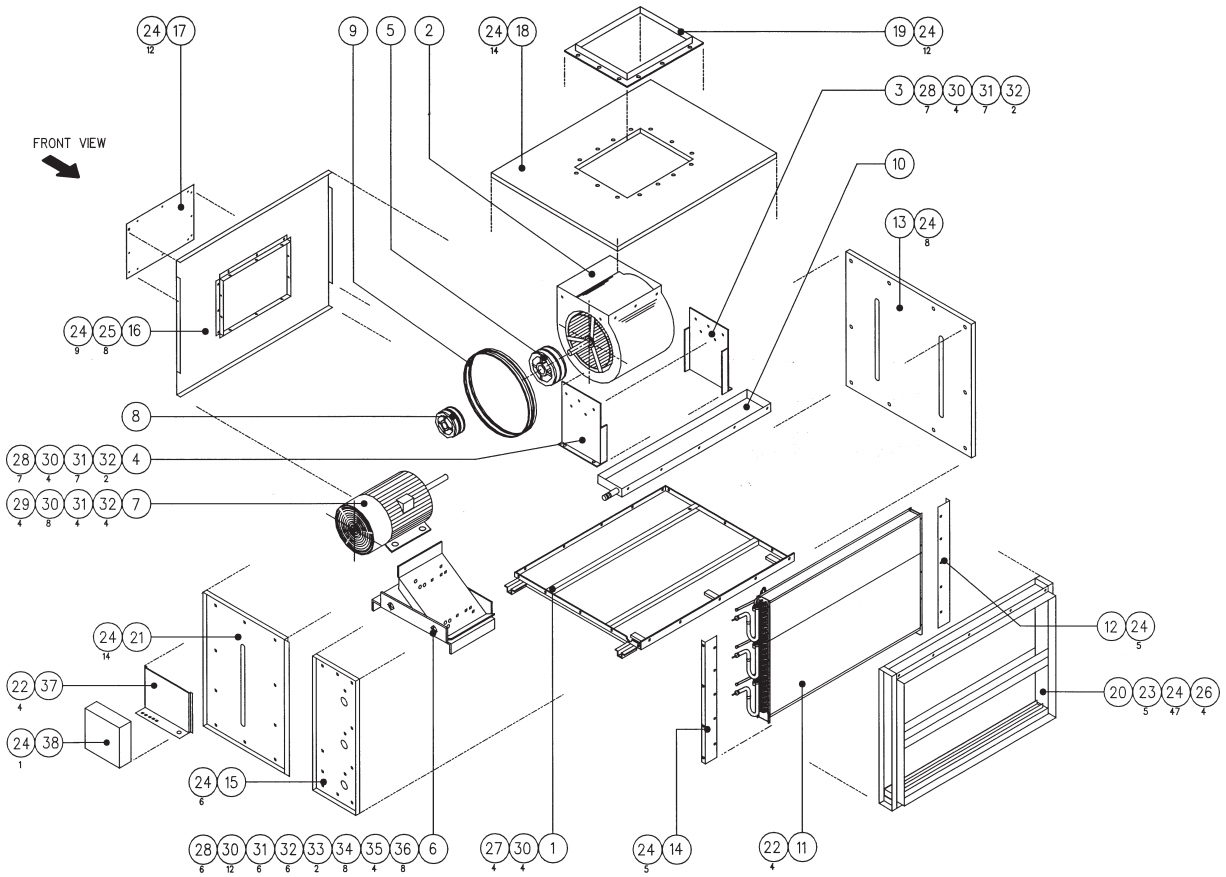
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN	14	ASSY., COIL SIDE COVER RIGHT	27	SCREW, WOOD
2	ASSY., BLOWER HOUSING	15	ASSY., SIDE PANEL SMALL RIGHT	28	BOLT, HEXAGON
3	SUPPORT, BLOWER LEFT	16	ASSY., FRONT PANEL	29	BOLT, HEXAGON
4	SUPPORT, BLOWER RIGHT	17	COVER, BLOWER	30	WASHER, PLAIN
5	PULLEY, BLOWER	18	ASSY., TOP PANEL	31	WASHER, SPRING
6	ASSY., MOTOR BRACKET	19	ASSY., BLOWER FLANGE	32	NUT, HEXAGON
7	MOTOR	20	ASSY., FILTER SECTION	33	BOLT, ADJUSTING
8	PULLEY, MOTOR	21	ASSY., SIDE PANEL BIG RIGHT	34	WASHER, PLAIN
9	V-BELT	22	SCREW, S.T. TRUSS HEAD PHILIP	35	WASHER, SPRING
10	ASSY., DRAIN PAN	23	SCREW, SELF TAPPING PAN HEAD	36	NUT, HEXAGON
11	ASSY., COIL TUBING	24	SCREW, TRUSS HEAD PHILIP	37	ASSY., SEQ. CONT. BASE (MAIN)
12	ASSY., COIL SIDE COVER LEFT	25	SCREW, TRUSS HEAD PHILIP	38	COVER, TERMINAL
13	ASSY., SIDE PANEL LEFT	26	SCREW, TRUSS HEAD PHILIP		

Model : MDB300ER3



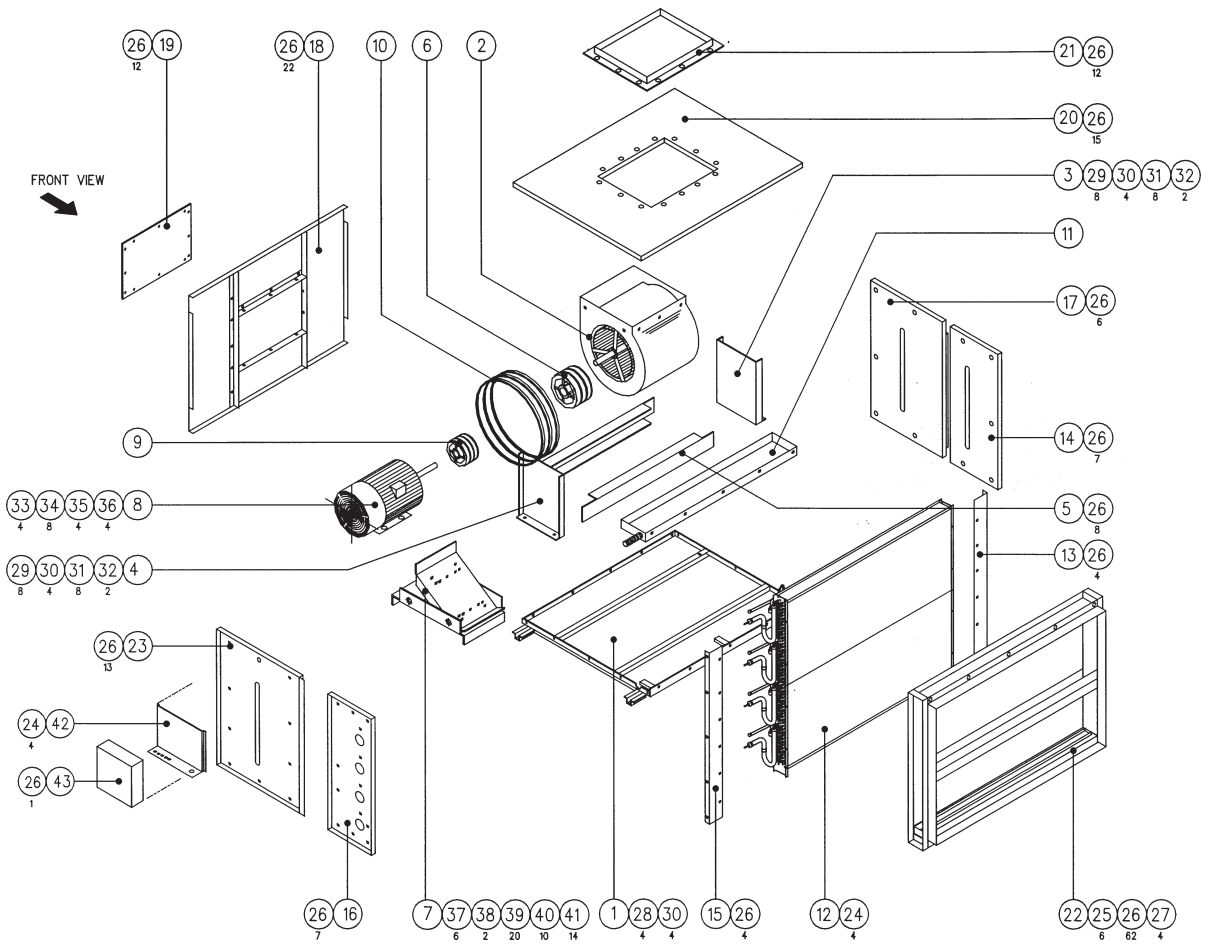
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN	14	ASSY., COIL SIDE COVER RIGHT	27	SCREW, WOOD
2	ASSY., BLOWER HOUSING	15	ASSY., SIDE PANEL SMALL RIGHT	28	BOLT, HEXAGON
3	SUPPORT, BLOWER LEFT	16	ASSY., FRONT PANEL	29	BOLT, HEXAGON
4	SUPPORT, BLOWER RIGHT	17	COVER, BLOWER	30	WASHER, PLAIN
5	PULLEY, BLOWER	18	ASSY., TOP PANEL	31	WASHER, SPRING
6	ASSY., MOTOR BRACKET	19	ASSY., BLOWER FLANGE	32	NUT, HEXAGON
7	MOTOR	20	ASSY., FILTER SECTION	33	BOLT, ADJUSTING
8	PULLEY, MOTOR	21	ASSY., SIDE PANEL BIG RIGHT	34	WASHER, PLAIN
9	V-BELT	22	SCREW, S.T. TRUSS HEAD PHILIP	35	WASHER, SPRING
10	ASSY., DRAIN PAN	23	SCREW, SELF TAPPING PAN HEAD	36	NUT, HEXAGON
11	ASSY., COIL TUBING	24	SCREW, TRUSS HEAD PHILIP	37	ASSY., SEQ. CONT. BASE (MAIN)
12	ASSY., COIL SIDE COVER LEFT	25	SCREW, TRUSS HEAD PHILIP	38	COVER, TERMINAL
13	ASSY., SIDE PANEL LEFT	26	SCREW, TRUSS HEAD PHILIP		

Model : MDB350ER3



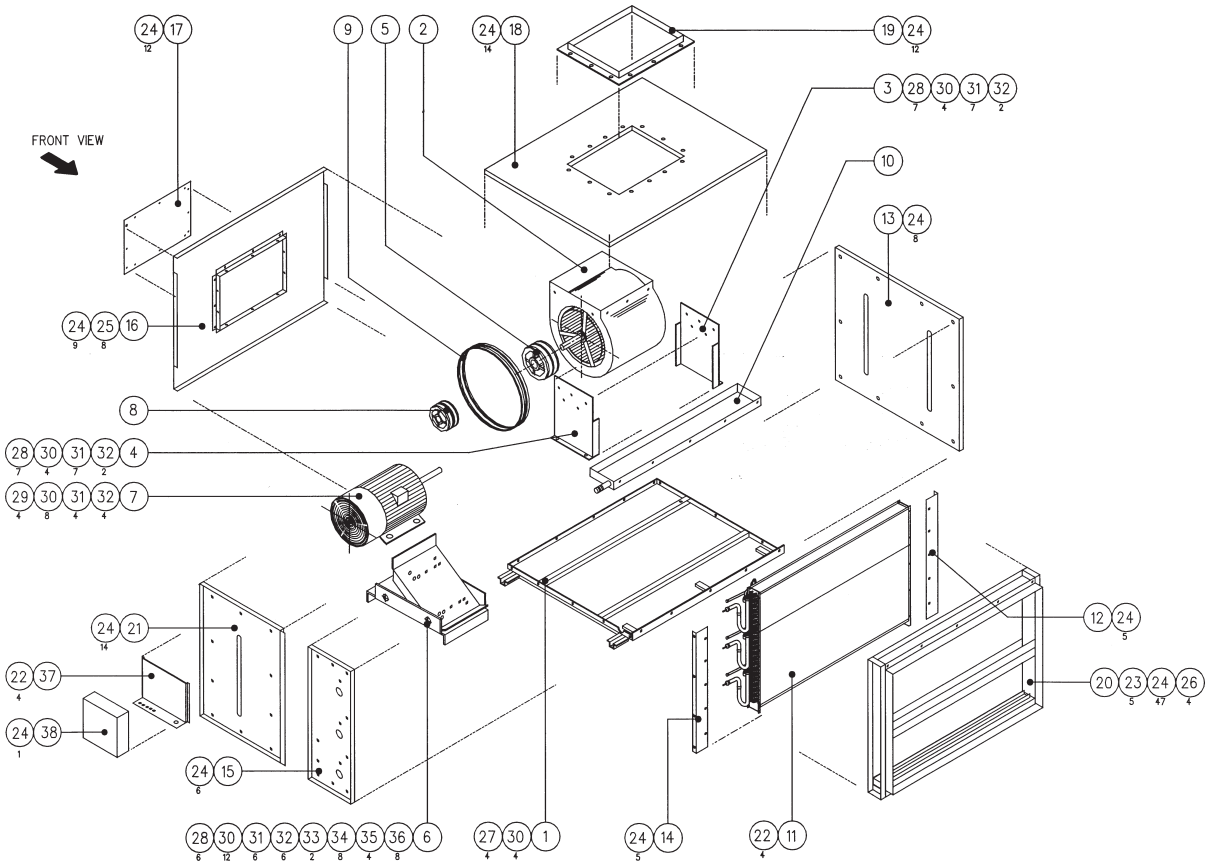
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN	14	ASSY., COIL SIDE COVER RIGHT	27	SCREW, WOOD
2	ASSY., BLOWER HOUSING	15	ASSY., SIDE PANEL SMALL RIGHT	28	BOLT, HEXAGON
3	SUPPORT, BLOWER LEFT	16	ASSY., FRONT PANEL	29	BOLT, HEXAGON
4	SUPPORT, BLOWER RIGHT	17	COVER, BLOWER	30	WASHER, PLAIN
5	PULLEY, BLOWER	18	ASSY., TOP PANEL	31	WASHER, SPRING
6	ASSY., MOTOR BRACKET	19	ASSY., BLOWER FLANGE	32	NUT, HEXAGON
7	MOTOR	20	ASSY., FILTER SECTION	33	BOLT, ADJUSTING
8	PULLEY, MOTOR	21	ASSY., SIDE PANEL BIG RIGHT	34	WASHER, PLAIN
9	V-BELT	22	SCREW, S.T. TRUSS HEAD PHILIP	35	WASHER, SPRING
10	ASSY., DRAIN PAN	23	SCREW, SELF TAPPING PAN HEAD	36	NUT, HEXAGON
11	ASSY., COIL TUBING	24	SCREW, TRUSS HEAD PHILIP	37	ASSY., SEQ. CONT. BASE (MAIN)
12	ASSY., COIL SIDE COVER LEFT	25	SCREW, TRUSS HEAD PHILIP	38	COVER, TERMINAL
13	ASSY., SIDE PANEL LEFT	26	SCREW, TRUSS HEAD PHILIP		

Model : MDB400ER4



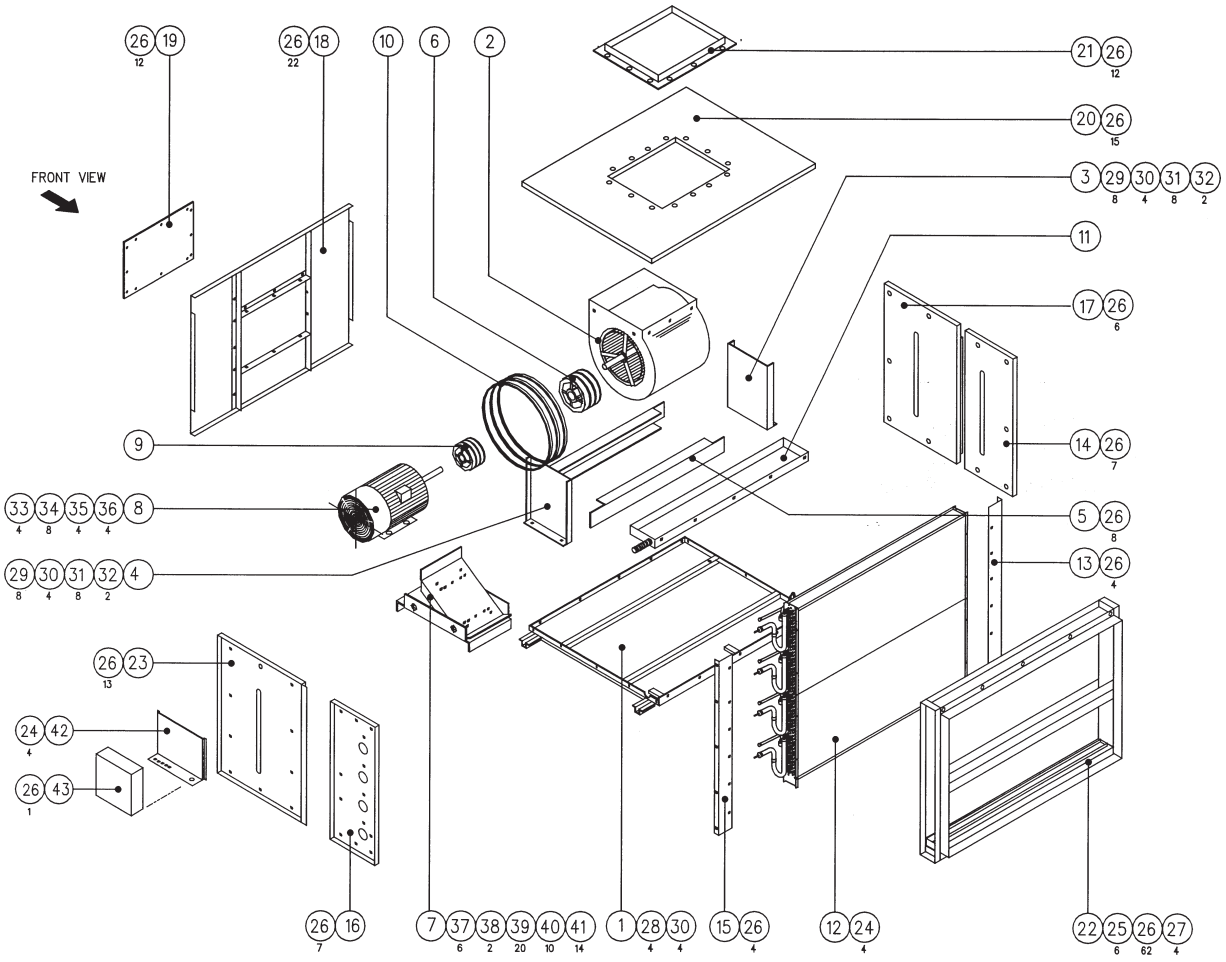
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN	16	ASSY., SIDE PANEL BACK RIGHT	31	WASHER, SPRING
2	ASSY., BLOWER HOUSING	17	ASSY., SIDE PANEL FRONT LEFT	32	NUT, HEXAGON
3	SUPPORT, BLOWER LEFT	18	ASSY., FRONT PANEL	33	BOLT, HEXAGON
4	SUPPORT, BLOWER RIGHT	19	BLOWER, COVER	34	WASHER, PLAIN
5	SUPPORT, BLOWER STRUC. F/B	20	ASSY., TOP PANEL	35	WASHER, SPRING
6	PULLEY, BLOWER	21	ASSY., BLOWER FLANGE	36	NUT, HEXAGON
7	ASSY., MOTOR BRACKET	22	ASSY., FILTER SECTION	37	BOLT, HEXAGON
8	MOTOR	23	ASSY., SIDE PANEL FRONT RIGHT	38	BOLT, HEXAGON
9	PULLEY, MOTOR	24	SCREW, S.T. TRUSS HEAD PHILIP	39	WASHER, PLAIN
10	V-BELT	25	SCREW, SELF TAPPING PAN HEAD	40	WASHER, SPRING
11	ASSY., DRAIN PAN	26	SCREW, TRUSS HEAD PHILIP	41	NUT, HEXAGON
12	ASSY., COIL TUBING	27	SCREW, TRUSS HEAD PHILIP	42	ASSY., SEQ. CONT. BASE (MAIN)
13	ASSY., COIL SIDE COVER LEFT	28	SCREW, WOOD	43	COVER TERMINAL
14	ASSY., SIDE PANEL BACK LEFT	29	BOLT, HEXAGON		
15	ASSY., COIL SIDE COVER RIGHT	30	WASHER, PLAIN		

Model : MDB450ER3



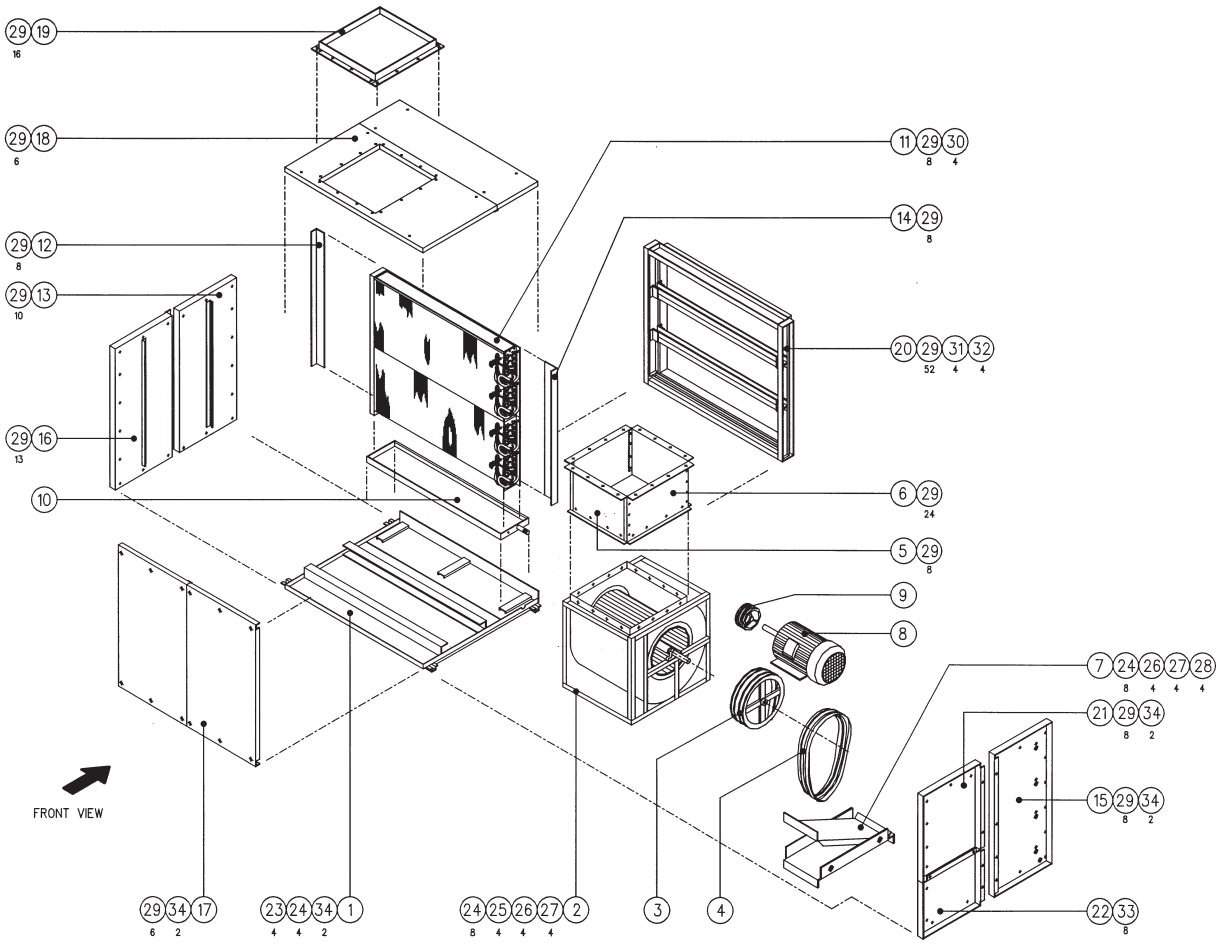
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN	14	ASSY., COIL SIDE COVER RIGHT	27	SCREW, WOOD
2	ASSY., BLOWER HOUSING	15	ASSY., SIDE PANEL SMALL RIGHT	28	BOLT, HEXAGON
3	SUPPORT, BLOWER LEFT	16	ASSY., FRONT PANEL	29	BOLT, HEXAGON
4	SUPPORT, BLOWER RIGHT	17	COVER, BLOWER	30	WASHER, PLAIN
5	PULLEY, BLOWER	18	ASSY., TOP PANEL	31	WASHER, SPRING
6	ASSY., MOTOR BRACKET	19	ASSY., BLOWER FLANGE	32	NUT, HEXAGON
7	MOTOR	20	ASSY., FILTER SECTION	33	BOLT, ADJUSTING
8	PULLEY, MOTOR	21	ASSY., SIDE PANEL BIG RIGHT	34	WASHER, PLAIN
9	V-BELT	22	SCREW, S.T. TRUSS HEAD PHILIP	35	WASHER, SPRING
10	ASSY., DRAIN PAN	23	SCREW, SELF TAPPING PAN HEAD	36	NUT, HEXAGON
11	ASSY., COIL TUBING	24	SCREW, TRUSS HEAD PHILIP	37	ASSY., SEQ. CONT. BASE (MAIN)
12	ASSY., COIL SIDE COVER LEFT	25	SCREW, TRUSS HEAD PHILIP	38	COVER, TERMINAL
13	ASSY., SIDE PANEL LEFT	26	SCREW, TRUSS HEAD PHILIP		

Model : MDB500ER4



NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN	16	ASSY., SIDE PANEL BACK RIGHT	31	WASHER, SPRING
2	ASSY., BLOWER HOUSING	17	ASSY., SIDE PANEL FRONT LEFT	32	NUT, HEXAGON
3	SUPPORT, BLOWER LEFT	18	ASSY., FRONT PANEL	33	BOLT, HEXAGON
4	SUPPORT, BLOWER RIGHT	19	BLOWER, COVER	34	WASHER, PLAIN
5	SUPPORT, BLOWER STRUC. F/B	20	ASSY., TOP PANEL	35	WASHER, SPRING
6	PULLEY, BLOWER	21	ASSY., BLOWER FLANGE	36	NUT, HEXAGON
7	ASSY., MOTOR BRACKET	22	ASSY., FILTER SECTION	37	BOLT, HEXAGON
8	MOTOR	23	ASSY., SIDE PANEL FRONT RIGHT	38	BOLT, HEXAGON
9	PULLEY, MOTOR	24	SCREW, S.T. TRUSS HEAD PHILIP	39	WASHER, PLAIN
10	V-BELT	25	SCREW, SELF TAPPING PAN HEAD	40	WASHER, SPRING
11	ASSY., DRAIN PAN	26	SCREW, TRUSS HEAD PHILIP	41	NUT, HEXAGON
12	ASSY., COIL TUBING	27	SCREW, TRUSS HEAD PHILIP	42	ASSY., SEQ. CONT. BASE (MAIN)
13	ASSY., COIL SIDE COVER LEFT	28	SCREW, WOOD	43	COVER TERMINAL
14	ASSY., SIDE PANEL BACK LEFT	29	BOLT, HEXAGON		
15	ASSY., COIL SIDE COVER RIGHT	30	WASHER, PLAIN		

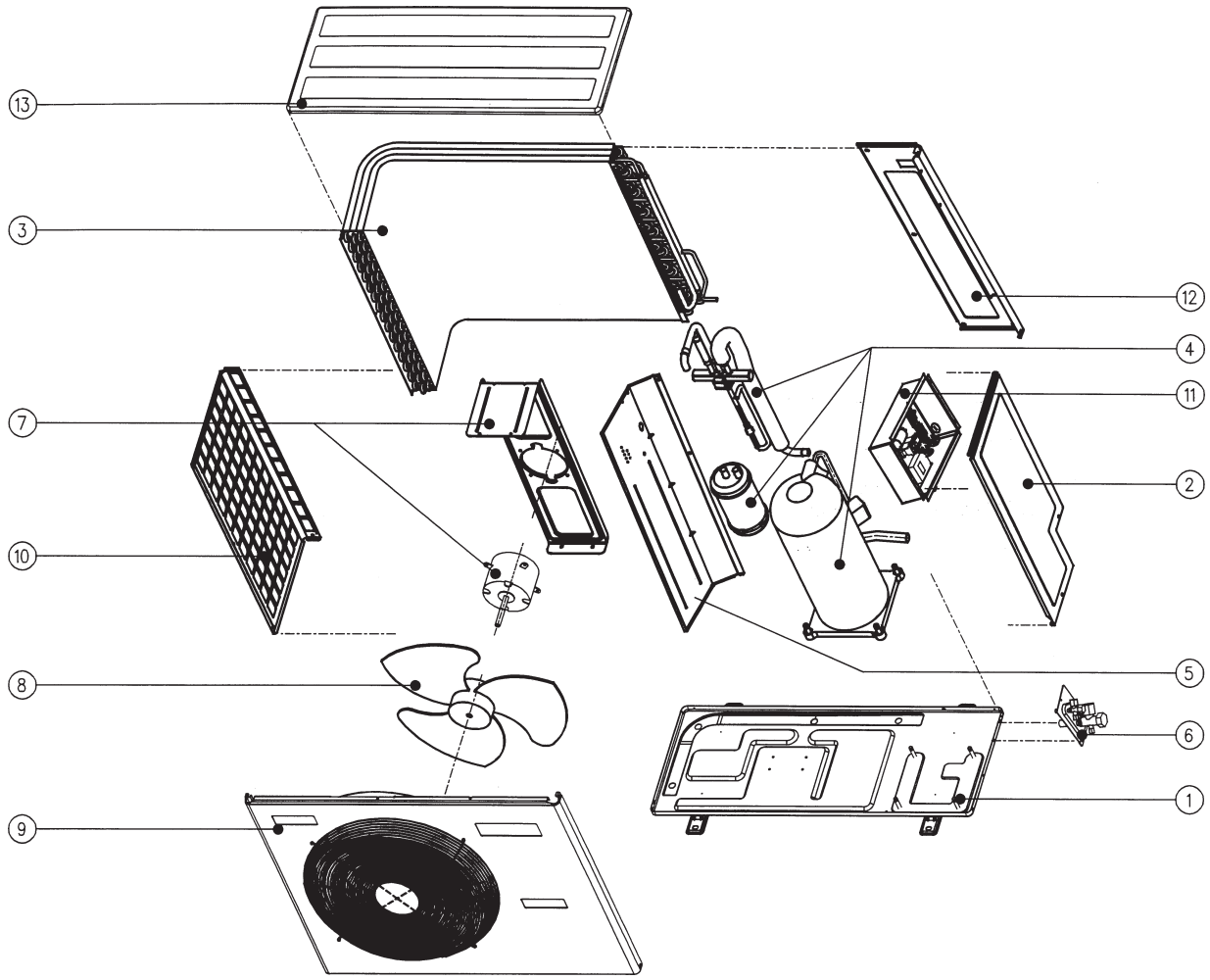
Model : MDB600ER4



NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN	13	ASSY., SIDE PANEL BACK LEFT	25	BOLT, HEXAGON
2	ASSY., BLOWER HOUSING	14	ASSY., COIL SIDE COVER RIGHT	26	WASHER, SPRING
3	PULLEY, BLOWER	15	ASSY., SIDE PANEL BACK RIGHT	27	NUT, HEXAGON
4	V-BELT	16	ASSY., SIDE PANEL FRONT LEFT	28	BOLT, HEXAGON
5	PANEL, BLOWER DUCT FRONT/BACK	17	ASSY., FRONT PANEL	29	SCREW, TRUSS HEAD PHILIP
6	PANEL, BLOWER DUCT LEFT/RIGHT	18	ASSY., TOP PANEL	30	SCREW, TRUSS HEAD PHILIP
7	ASSY., MOTOR BRACKET	19	ASSY., BLOWER FLANGE	31	SCREW, TRUSS HEAD PHILIP
8	MOTOR	20	ASSY., FILTER SECTION	32	SCREW, TRUSS HEAD PHILIP
9	PULLEY, MOTOR	21	ASSY., SIDE PANEL FRONT	33	SCREW, BUTTERFLY
10	ASSY., DRAIN PAN	22	ASSY., SIDE PANEL FRONT	34	NUT, WELD
11	ASSY., COIL	23	SCREW, WOOD		
12	ASSY., COIL SIDE COVER LEFT	24	WASHER, PLAIN		

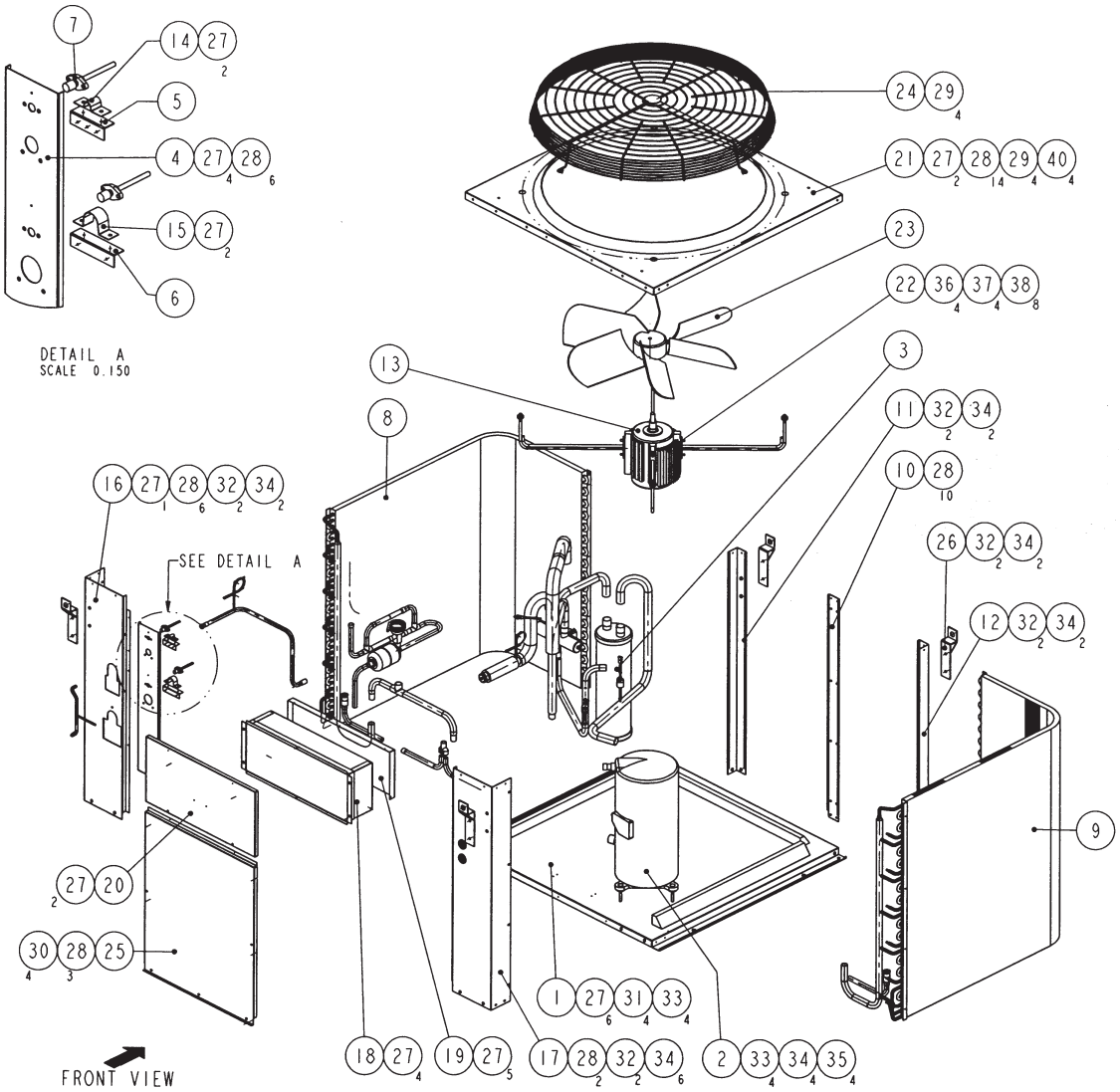
Outdoor Models

Model : MLC061CR



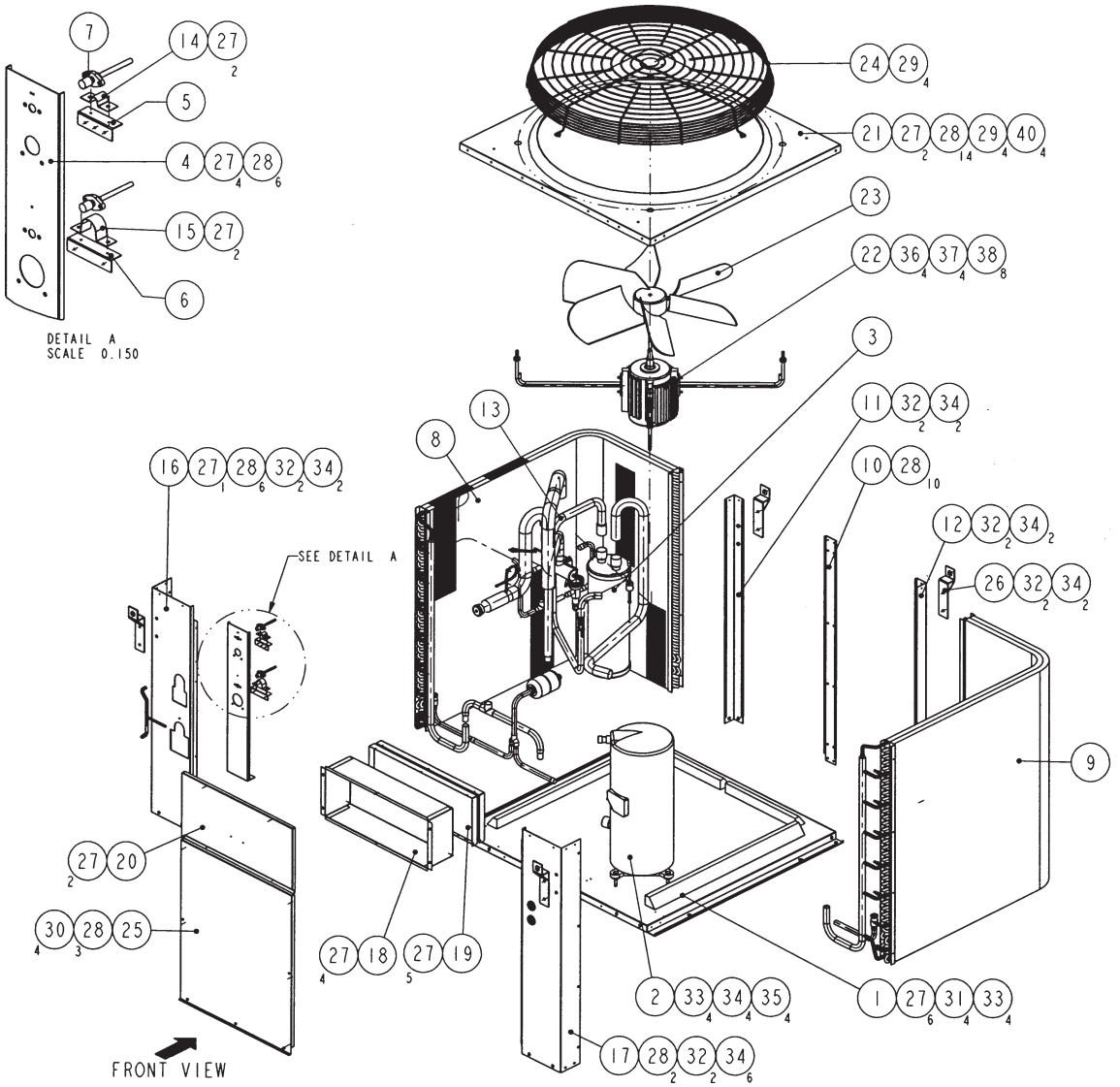
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., BASE PAN	6	ASSY., VALVE PLATE	11	ASSY., TERMINAL BOARD MAIN
2	PANEL, SERVICE	7	ASSY., BRACKET MOTOR	12	PANEL, BACK RIGHT
3	ASSY., COIL	8	FAN BLADE	13	PANEL, TOP
4	ASSY., TUBING	9	ASSY., PANEL FRONT		
5	ASSY., PANEL PARTITION	10	PANEL, SIDE LEFT		

Model : MMC075ER



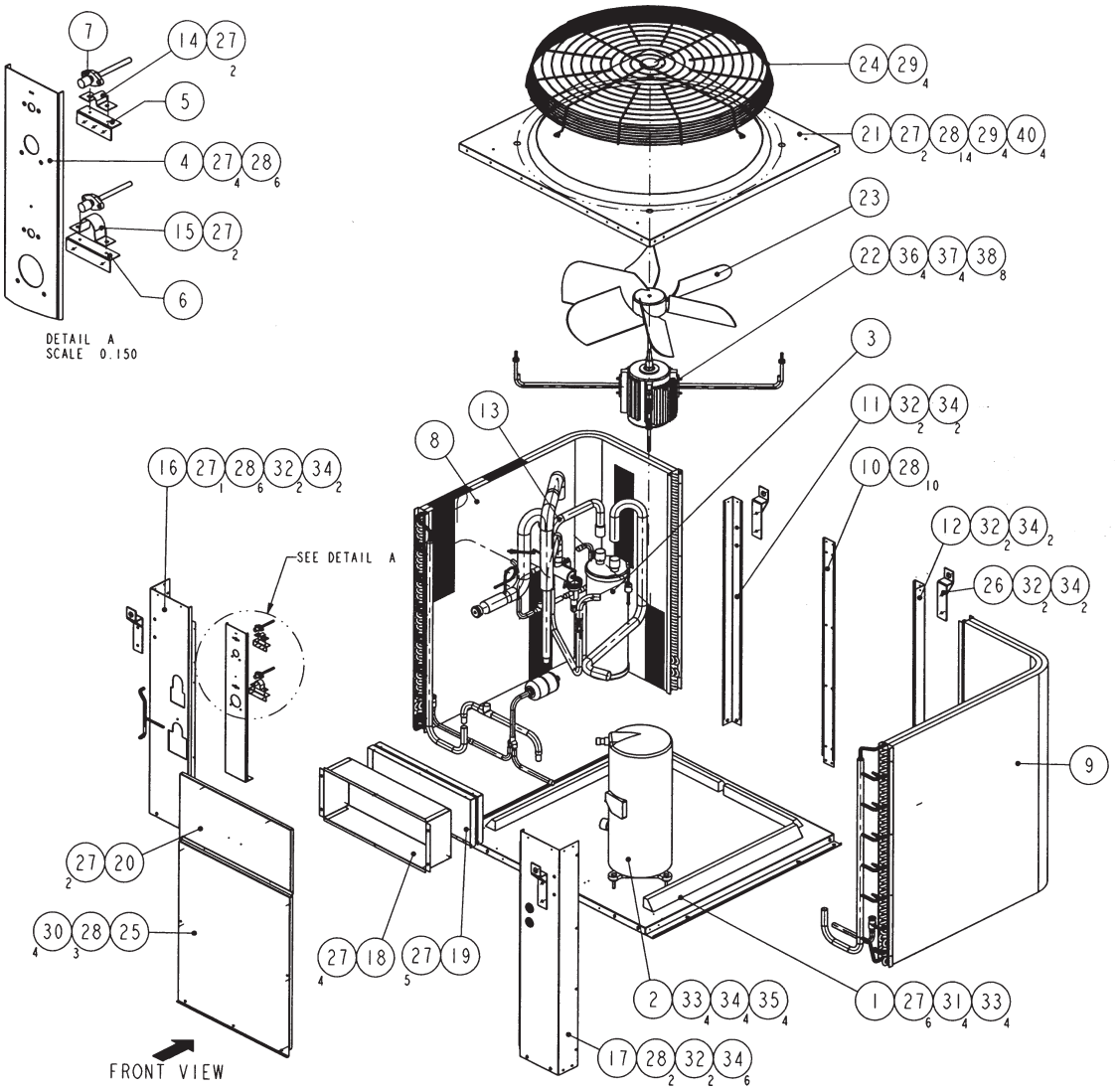
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., PANEL BASE	15	CLAMP, GAS TUBE Ø 1 1/8"	29	SCREW, TRUSS HEAD PHILIP
2	ASSY., COMPRESSOR	16	ASSY., STRUCTURE FRONT LEFT	30	SCREW, TRUSS HEAD PHILIP
3	ACCUMULATOR	17	ASSY., STRUCTURE FRONT RIGHT	31	SCREW, WOOD
4	STRUCTURE, TUBE SUPPORT	18	ASSY., TERMINAL BOX (MAIN)	32	BOLT, HEXAGON
5	SUPPORT, TUBE LIQUID Ø 1/2"	19	COVER, TERMINAL BOX BACK	33	WASHER, PLAIN
6	SUPPORT, GAS TUBE Ø 1 1/8"	20	PANEL, SERVICE TOP	34	WASHER, SPRING
7	ASSY., ACCESS VALVE	21	PLATE, ORIFICE	35	NUT, HEXAGON
8	ASSY., O/D COIL LEFT MAIN	22	ASSY., MOTOR	36	WASHER, PLAIN
9	ASSY., O/D COIL RIGHT MAIN	23	BLADE, FAN	37	WASHER, SPRING
10	STRUCTURE, COIL	24	GUARD, FAN 32"	38	NUT, HEXAGON
11	ASSY., STRUCTURE BACK LEFT	25	PANEL, SERVICE BOTTOM	39	ISOLATOR, DURO 40
12	ASSY., STRUCTURE BACK RIGHT	26	ASSY., HOISTING BRACKET	40	ISOLATOR SLEEVE
13	ASSY., UNIT TUBING	27	SCREW, TRUSS HEAD PHILIP		
14	CLAMP, LIQUID TUBE Ø 1/2"	28	SCREW, TRUSS HEAD PHILIP		

Model : MMC100ER



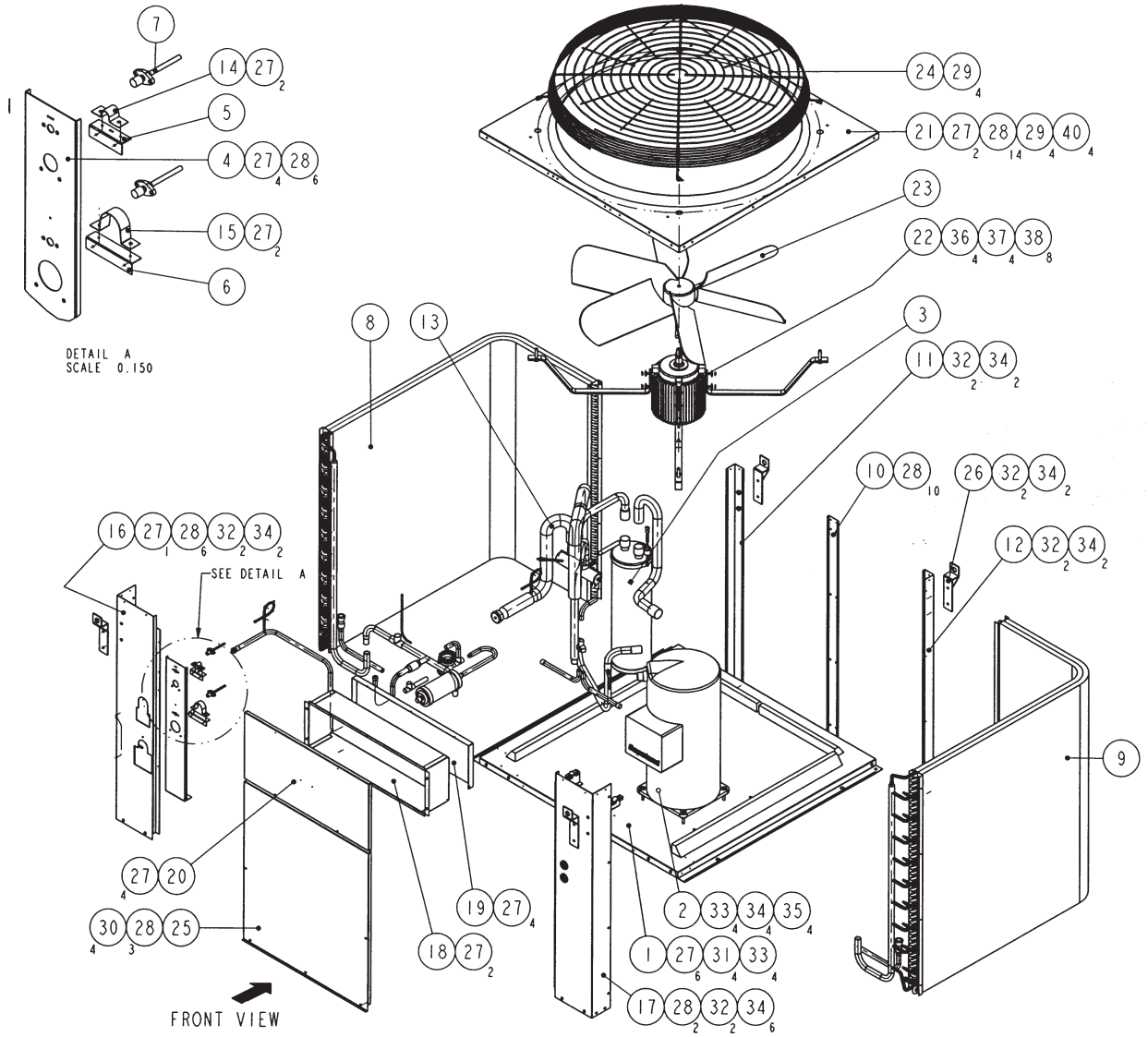
NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., PANEL BASE	15	CLAMP, GAS TUBE Ø 1 3/8"	29	SCREW, TRUSS HEAD PHILIP
2	ASSY., COMPRESSOR	16	ASSY., STRUCTURE FRONT LEFT	30	SCREW, TRUSS HEAD PHILIP
3	ACCUMULATOR	17	ASSY., STRUCTURE FRONT RIGHT	31	SCREW, WOOD
4	STRUCTURE, TUBE SUPPORT	18	ASSY., TERMINAL BOX (MAIN)	32	BOLT, HEXAGON
5	SUPPORT, TUBE LIQUID Ø 5/8"	19	COVER, TERMINAL BOX BACK	33	WASHER, PLAIN
6	SUPPORT, GAS TUBE Ø 1 3/8"	20	PANEL, SERVICE TOP	34	WASHER, SPRING
7	ASSY., ACCESS VALVE	21	PLATE, ORIFICE	35	NUT, HEXAGON
8	ASSY., O/D COIL LEFT MAIN	22	ASSY., MOTOR	36	WASHER, PLAIN
9	ASSY., O/D COIL RIGHT MAIN	23	BLADE, FAN	37	WASHER, SPRING
10	STRUCTURE, COIL	24	GUARD, FAN 32"	38	NUT, HEXAGON
11	ASSY., STRUCTURE BACK LEFT	25	PANEL, SERVICE BOTTOM	39	ISOLATOR, DURO 40
12	ASSY., STRUCTURE BACK RIGHT	26	ASSY., HOISTING BRACKET	40	ISOLATOR SLEEVE
13	ASSY., UNIT TUBING	27	SCREW, TRUSS HEAD PHILIP		
14	CLAMP, LIQUID TUBE Ø 5/8"	28	SCREW, TRUSS HEAD PHILIP		

Model : MMC125ER



NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., PANEL BASE	15	CLAMP, GAS TUBE Ø 1 3/8"	29	SCREW, TRUSS HEAD PHILIP
2	ASSY., COMPRESSOR	16	ASSY., STRUCTURE FRONT LEFT	30	SCREW, TRUSS HEAD PHILIP
3	ACCUMULATOR	17	ASSY., STRUCTURE FRONT RIGHT	31	SCREW, WOOD
4	STRUCTURE, TUBE SUPPORT	18	ASSY., TERMINAL BOX (MAIN)	32	BOLT, HEXAGON
5	SUPPORT, TUBE LIQUID Ø 5/8"	19	COVER, TERMINAL BOX BACK	33	WASHER, PLAIN
6	SUPPORT, GAS TUBE Ø 1 3/8"	20	PANEL, SERVICE TOP	34	WASHER, SPRING
7	ASSY., ACCESS VALVE	21	PLATE, ORIFICE	35	NUT, HEXAGON
8	ASSY., O/D COIL LEFT MAIN	22	ASSY., MOTOR	36	WASHER, PLAIN
9	ASSY., O/D COIL RIGHT MAIN	23	BLADE, FAN	37	WASHER, SPRING
10	STRUCTURE, COIL	24	GUARD, FAN 36"	38	NUT, HEXAGON
11	ASSY., STRUCTURE BACK LEFT	25	PANEL, SERVICE BOTTOM	39	ISOLATOR, DURO 40
12	ASSY., STRUCTURE BACK RIGHT	26	ASSY., HOISTING BRACKET	40	ISOLATOR SLEEVE
13	ASSY., UNIT TUBING	27	SCREW, TRUSS HEAD PHILIP		
14	CLAMP, LIQUID TUBE Ø 5/8"	28	SCREW, TRUSS HEAD PHILIP		

Model : MMC150ER



NO	DESCRIPTION	NO	DESCRIPTION	NO	DESCRIPTION
1	ASSY., PANEL BASE	15	CLAMP, GAS TUBE Ø 1 3/8"	29	SCREW, TRUSS HEAD PHILIP
2	ASSY., COMPRESSOR	16	ASSY., STRUCTURE FRONT LEFT	30	SCREW, TRUSS HEAD PHILIP
3	ACCUMULATOR	17	ASSY., STRUCTURE FRONT RIGHT	31	SCREW, WOOD
4	STRUCTURE, TUBE SUPPORT	18	ASSY., TERMINAL BOX (MAIN)	32	BOLT, HEXAGON
5	SUPPORT, TUBE LIQUID Ø 5/8"	19	COVER, TERMINAL BOX BACK	33	WASHER, PLAIN
6	SUPPORT, GAS TUBE Ø 1 3/8"	20	PANEL, SERVICE TOP	34	WASHER, SPRING
7	ASSY., ACCESS VALVE	21	PLATE, ORIFICE	35	NUT, HEXAGON
8	ASSY., O/D COIL LEFT MAIN	22	ASSY., MOTOR	36	WASHER, PLAIN
9	ASSY., O/D COIL RIGHT MAIN	23	BLADE, FAN	37	WASHER, SPRING
10	STRUCTURE, COIL	24	GUARD, FAN 36"	38	NUT, HEXAGON
11	ASSY., STRUCTURE BACK LEFT	25	PANEL, SERVICE BOTTOM	39	ISOLATOR, DURO 40
12	ASSY., STRUCTURE BACK RIGHT	26	ASSY., HOISTING BRACKET	40	ISOLATOR SLEEVE
13	ASSY., UNIT TUBING	27	SCREW, TRUSS HEAD PHILIP		
14	CLAMP, LIQUID TUBE Ø 5/8"	28	SCREW, TRUSS HEAD PHILIP