

# Liebert DataMate Parts Manual

## Evaporator 1.5/ 2/3 Ton Systems



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## Product Description

The **DataMate** is a split system air or water/glycol cooled unit or self-contained chilled water unit.

The **evaporator section** includes the blower assembly, filter, microprocessor control, and electric reheat. All evaporator sections are 208/230 Volt 1-phase. A cooling-only model is also available

**Air cooled units** - include the evaporator section plus one of the following condensing units. (Design ambient 95°F (35°C).)

**MCD Centrifugal fan unit** includes scroll compressor, factory mounted disconnect switch, condenser coil, centrifugal blower assembly, high pressure switch, Lee-temp head pressure control system, hot gas bypass, and filter drier. Unit must be mounted indoors. Duct flanges are provided. (See pricing for voltages).

**Prop fan unit** which includes scroll compressor, condenser coil, prop fan, high pressure switch, Lee-Temp head pressure control, filter dryer, hot gas bypass, and sight glass. Unit is designed for outdoor location (see pricing for voltages). (Consult the Prop Fan Condensing Unit Price Book for optional selections).

**DMC Water/Glycol** cooled includes the evaporator section plus a water/glycol cooled condensing unit which includes compressor, condenser, two-way water regulating valve, filter dryer, and sight glass. Design pressure is 1034 kPa (50 psi). Condensing unit is designed to mate up to evaporator section to create a self-contained system. (See pricing for voltages.) Drycooler(s) and pump(s) selected separately.

**MCD Water/Glycol Condensing Unit** includes a scroll compressor, factory mounted disconnect switch, coaxial condenser, two-way or optional three-way water regulating valve, hot gas bypass, and filter drier. Design pressure is 150 psi (1034 kPa) or optional 350 psi (2413 kPa). (See pricing for voltages and complete model number). Drycooler(s) and pump(s) selected separately for applications using glycol loop. Drycooler and pump selected separately.

**Chilled water** fan/coil section includes chilled water coil and two-way slow close valve. Design pressure is 125 psi (862 kPa).

**Humidifier.** Steam-generating type with electronic control and automatic flushing circuit, humidification and dehumidification control, strainer, inlet drain, and solenoid valves and controls for humidification and dehumidification.

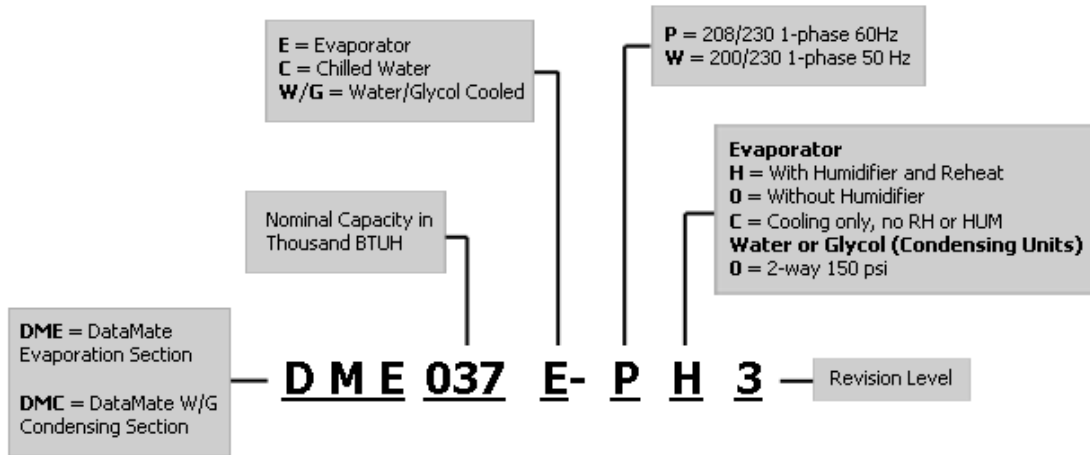
**Condensate Pump.** Can be field installed in the base of the unit. The pump is supplied with discharge check valve.

**Pre-charged refrigerant line set.** Contains an insulated copper suction line and a copper liquid line for interconnection of the indoor and outdoor sections. Available in 15 foot (4.5m) and 30 foot (9m) sections.

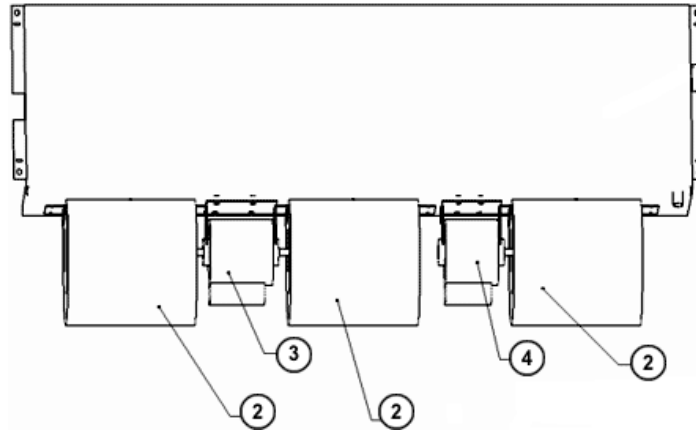
**Refrigerant-Line sweat adapter kit.** Contains two suction and two liquid line compatible fittings that allow field-supplied interconnecting refrigerant lines to be used. See Installation, Operation & Maintenance Manual for maximum recommended installed distances.

**277 Volt System** requires two field installed transformers (37.5 amps each). One for evaporator module and one for condensing module. For self-contained water/glycol system: consult factory for required transformer. The transformer is epoxy encapsulated and is suitable for indoor/outdoor installation.

## Model Number Definition

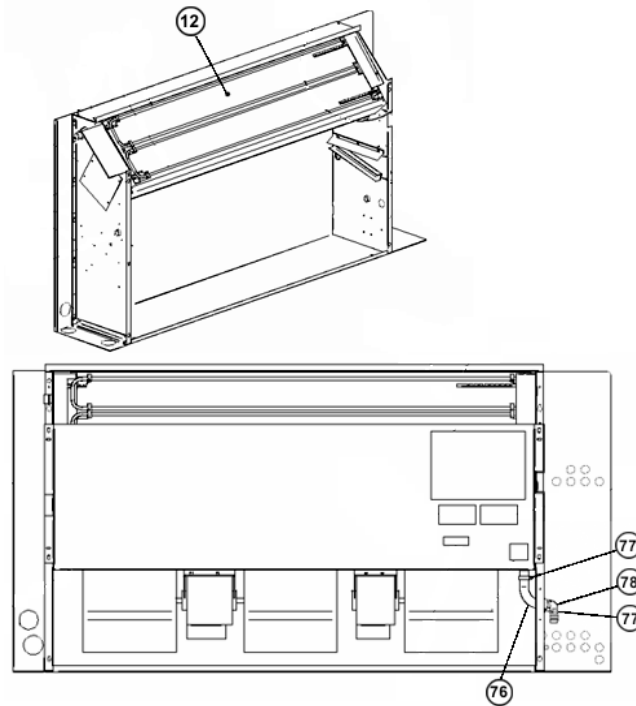


## 1. Blower/Motor Section



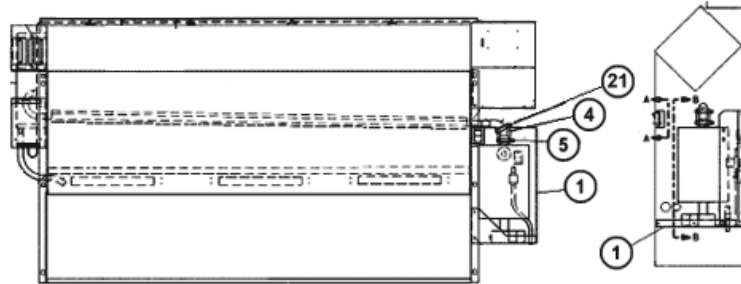
Item	Part #	Description	Voltage	20E	27E	37E	44C
2	124117G1	BLOWER HOUSING COMPLT 2T DM	208/230-60-1 200/230-50-1		3		
	124117G2	BLOWER HOUSING COMPLT 1.5T&3T DM	208/230-60-1 200/230-50-1	2		3	3
3	124101P1	MOTOR .16HP 220-1-60 DBL SHFT	208/230-60-1 200/230-50-1	1		1	1
	124102P1	MOTOR .12HP 220-1-60 DBL SHFT	208/230-60-1 200/230-50-1		1		
4	124103P1	MOTOR .11HP 220-1-60 SGL SHFT	208/230-60-1 200/230-50-1			1	1
	124104P1	MOTOR .08HP 220-1-60 SGL SHFT	208/230-60-1 200/230-50-1		1		

## 2. Coil Section



Item	Part #	Description	Voltage	20E	27E	37E	44C
12	124105P1	COIL EVAP DM 1.5T 12X29.31X3.5	208/230-60-1 200/230-50-1	1			
	124105P2	COIL EVAP DM 1.5T 12X47X2.62	208/230-60-1 200/230-50-1		1		
	124105P3	COIL EVAP DM 3T 12X47X3.5	208/230-60-1 200/230-50-1			1	
	130886P1	COIL CW 2T DME	208/230-60-1 200/230-50-1				1
76	1C11305P1	HOSE DRAIN .75 ID FORMED	208/230-60-1 200/230-50-1	1	1	1	1
77	124216P2	CLAMP HOSE WORM DRIVE.31 X 1.25	208/230-60-1 200/230-50-1	1	1	1	
78	P15-0110	ELL NYLON 90 3/4Barb X 3/4Barb	208/230-60-1 200/230-50-1	1	1	1	1

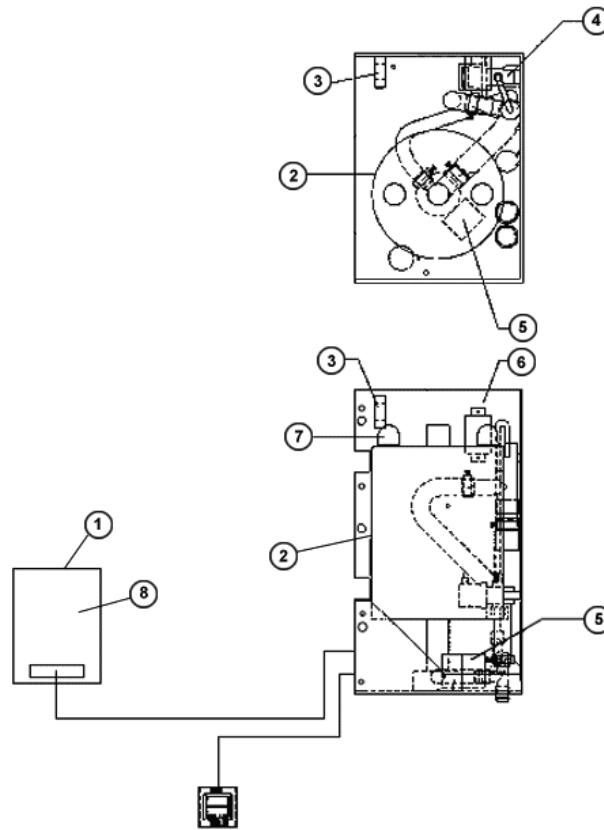
### 3. Humidifier Section



Item	Part #	Description	Voltage	20E	27E	37E	44C
1		Humidifier Assembly on Page 4					
4	124220P1	Hose Steam 0.88ID 10PSI	208/230-60-1 200/230-50-1	1	1	1	1
5	124216P2	CLAMP HOSE WORM DRIVE .31 X 1.25	208/230-60-1 200/230-50-1	1	1	1	
21	P02-0020	CLAMP HOSE WORM DRIVE .75-1.75	208/230-60-1 200/230-50-1	1	1	1	1

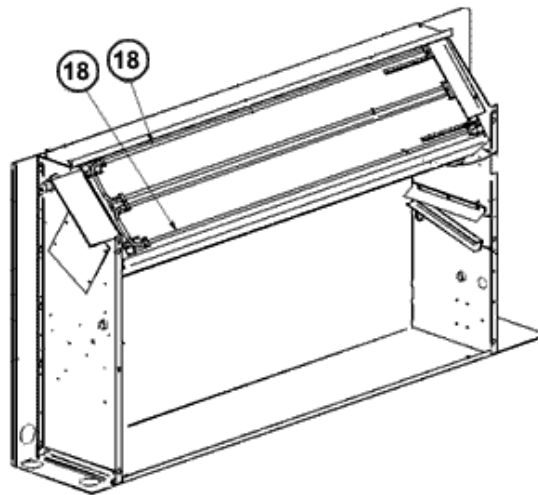


### 3.1. Humidifier Assembly



Item	Part #	Description	Voltage	20E	27E	37E	44C
1	134562P1	PWA CNTL ELEC RELAY HUM 2STG	208/30-60-1	1	1	1	1
2	127849P1	BOTTLE HUM 1PH 220/277 5 LBS	208/230-60-1 200/230-50-1	1	1	1	1
3	127853P1	XFMR TORROID HUM 5T MME	208/230-60-1 200/230-50-1	1	1	1	1
4	136812P1	VALVE SOL/STRNR HUM FILL 24V	208/30-60-1	1	1	1	1
5	127992P1	VALVE SOL DRAIN KIT HUM 24V	208/230-60-1 200/230-50-1	1	1	1	1
6	E03-0170	Relay 1P2T 24V 50/60HZ	208/230-60-1 200/230-50-1	2	2	2	2
7	128759P1	BOOT RUBBER SG HUM TERM COVER	208/230-60-1 200/230-50-1	2	2	2	2
8	100281	RES MF 1/4W 0.1% 249K	208/230-60-1 200/230-50-1	1	1	1	1

#### 4. Reheat Section

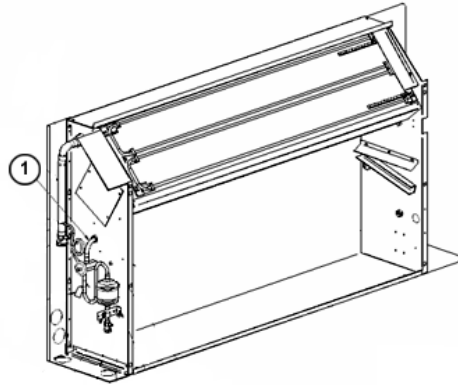


**Note: One (1) element used on 020E units**

Item	Part #	Description	Voltage	20E	27E	37E	44C
18	124067P1	ELEMENT HEATER DM	208/230-60-1 200/230-50-1	1			
	124068P1	ELEMENT HEATER DM	208/230-60-1 200/230-50-1		2	2	2

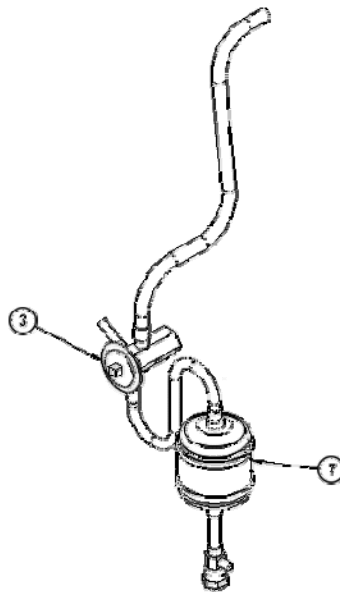
## 5. Piping Section

### 5.1. DX Piping



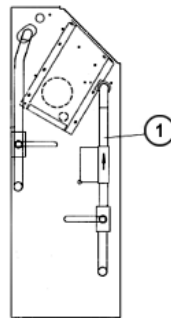
Item	Part #	Description	Voltage	20E	27E	37E	44C
1		Liquid Line Piping on Page 6					

#### 5.1.1. Liquid Line Piping



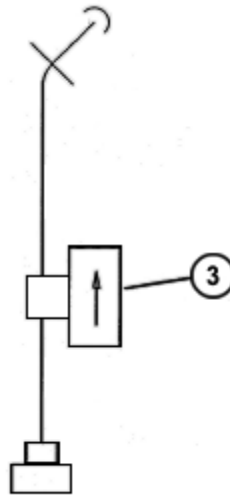
Item	Part #	Description	Voltage	20E	27E	37E	44C
3	1C19507P1	VALVE EXP 3/8 X 1/2 X 1/4 ODF	208/230-60-1 200/230-50-1		1		
	1C19507P2	VALVE EXP 3/8 X 1/2 X 1/4 ODF	208/230-60-1 200/230-50-1			1	
	1C19507P3	VALVE EXP 3/8 X 1/2 X 1/4 1.5T DM	208/230-60-1 200/230-50-1	1			
7	136782P1	FILTER/DRYER 3/8ODF SLDR	208/230-60-1 200/230-50-1	1	1	1	

## 5.2. Chilled Water Piping



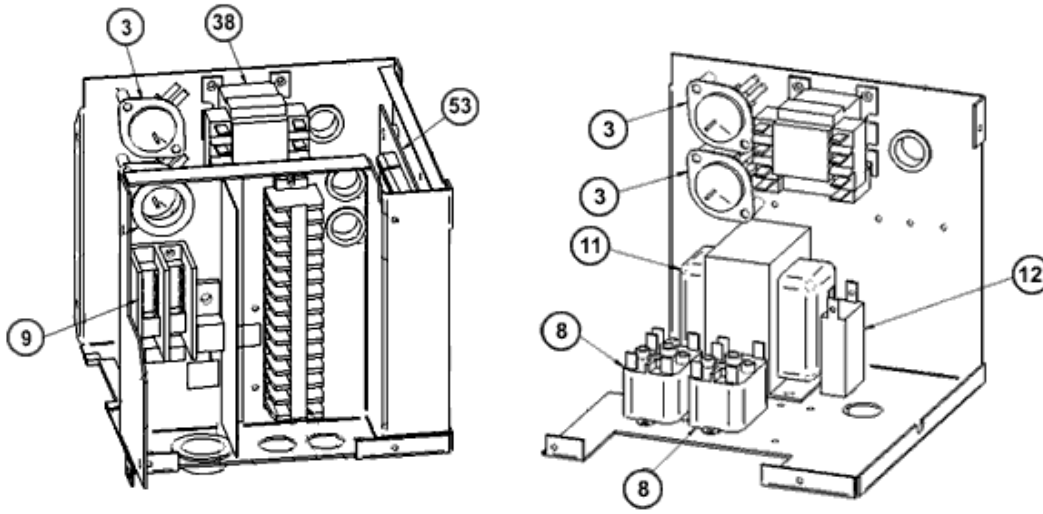
Item	Part #	Description	Voltage	20E	27E	37E	44C
1		Piping Water In Assembly on Page 7					

### 5.2.1. Piping Water In Assembly



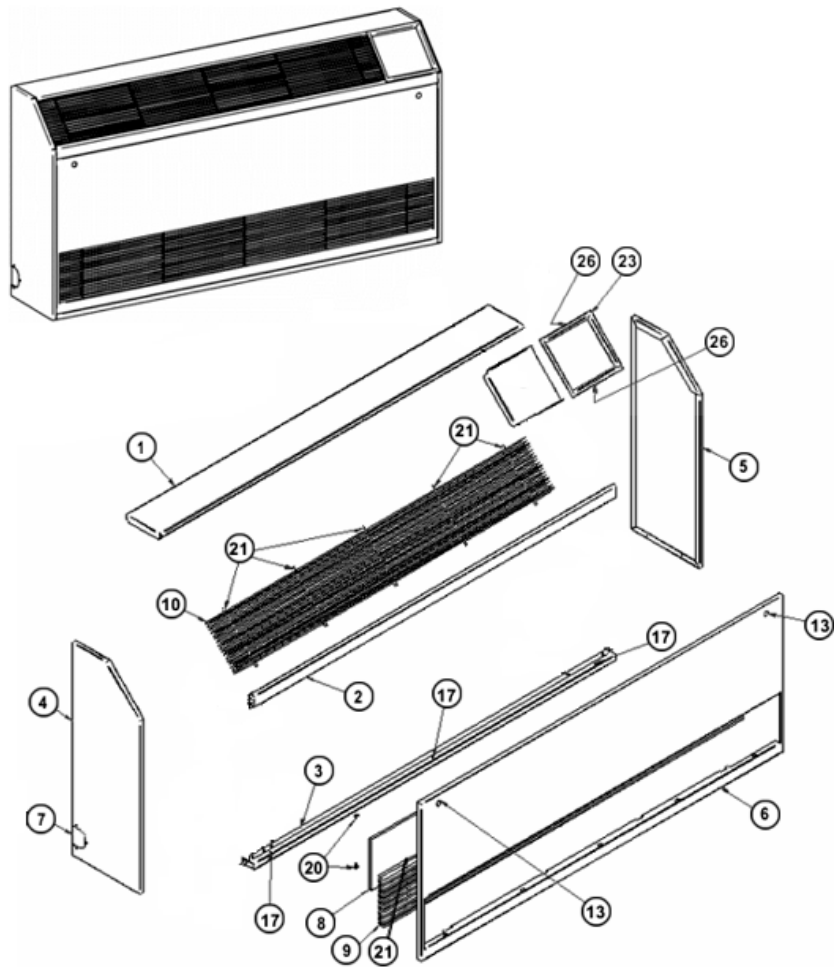
Item	Part #	Description	Voltage	20E	27E	37E	44C
1	127585P2	VALVE H2O SLOW 2WAY 3/5" 8CV	208/230-60-1 200/230-50-1				1

## 6. Electrical Section



Item	Part #	Description	Voltage	20E	27E	37E	44C
1	1D16378P20	SAFETY STAT REHEAT DM	208/230-60-1 200/230-50-1	1	2	2	2
8	E03-0170	Relay 1P2T 24V 50/60HZ	208/230-60-1 200/230-50-1	2	2	2	2
<i>Note: These relays are used for the Motor Relay (MR) and Dehumidification Relay (DHR).</i>							
9	121187P1	PWRBLK 2PL 1)2: 14X6)10: 18 QC	208/230-60-1 208/200-50-1	1	1	1	1
11	E03-0010	XMFR 075VA 5060 208/30/77-24	208/230-60-1 200/230-50-1	1	1	1	1
12	E-276C	CB 3.2A BRKT MNT ETA	208/230-60-1 200/230-50-1	1	1	1	1
38	131116P1	RELAY ELECTRIC HEAT	208/230-60-1 200/230-50-1	1	1	1	1
53	415771G1	PWA Control Board MM2	208/230-60-1 200/230-50-1	1	1	1	1

## 7. Exterior Section



Item	Part #	Description	Voltage	20E	27E	37E	44C
1	131111P1	PANEL CAB TOP 16GA CRS 62.88	208/230-60-1 200/230-50-1			1	1
	131111P2	PANEL CAB TOP 16GA CRS 45.25	208/230-60-1 200/230-50-1	1			
2	131110P1	PANEL CAB UP FR 16GA CRS 62.88	208/230-60-1 200/230-50-1		1	1	1
	131110P2	PANEL CAB UP FR 16GA CRS 45.25	208/230-60-1 200/230-50-1	1			
3	132483P1	PANEL CABINET LOWER FR 63" DM	208/230-60-1 200/230-50-1		1	1	1
	132483P2	PANEL CABINET LOWER FR 45 " DM	208/230-60-1 200/230-50-1	1			
4	124079P1	PANEL CABINET LEFT SIDE DM	208/230-60-1 200/230-50-1	1	1	1	1
5	124079P2	PANEL CABINET RIGHT SIDE DM	208/230-60-1 200/230-50-1	1	1	1	1
6	124081P1	PANEL FRAME SERVICE 63 " DM	208/230-60-1 200/230-50-1		1	1	1
	124081P2	PANEL FRAME SERVICE 45 " DM	208/230-60-1 200/230-50-1	1			
7	124080P1	PLATE LL & CAB HOLE COVER DM	208/230-60-1 200/230-50-1	1	1	1	1
8	124156P1	FILTER AIR MEDIA 2/3T DM	208/230-60-1 200/230-50-1		1	1	1
	124156P2	FILTER AIR MEDIA 1.5T DM	208/230-60-1 200/230-50-1	1			
	124157P1	ENCL AIR FILTER 2&3T DM	208/230-60-1 200/230-50-1		1	1	1

Liebert DataMate™ (Evaporator)

Item	Part #	Description	Voltage	20E	27E	37E	44C
	124157P2	ENCL AIR FILTER 2&3T DM	208/230-60-1 200/230-50-1	1			
	124158P1	WIRE FILTER MED RETAIN END DM	208/230-60-1 200/230-50-1	2	3	3	3
9	131108G2	GRILL AIR RETURN ASSY DME 2/3T	208/230-60-1 200/230-50-1		1	1	1
	131108G4	GRILL AIR RETURN ASSY DME 1.5T	208/230-60-1 200/230-50-1	1			
10	131108G1	GRILL AIR DISCH ASSY DME 2/3T	208/230-60-1 200/230-50-1		1	1	1
	131108G3	GRILL AIR DISCH ASSY DME 1.5T	208/230-60-1 200/230-50-1	1			
13	1D16378P63	LOCK PANEL DMATE	208/230-60-1 200/230-50-1	2	2	2	2
17	124144P1	SUPPORT FRONT SERVICE PANEL DM	208/230-60-1 200/230-50-1	2	3	3	3
20	124145P1	CLIP AIR FILTER MTG DM	208/230-60-1 200/230-50-1	10	10	10	10
21	124143P1	CLIP AIR GRILL SPACING DM	208/230-60-1 200/230-50-1	10	10	10	10
23	131109P1	BEZEL DM CONTROL	208/230-60-1 200/230-50-1	1	1	1	1
26	167442P1	STRIP MAGNETIC ADH BACKED	208/230-60-1 200/230-50-1	1.5	1.5	1.5	1.5

## 8. Option/Miscellaneous Section

### 8.1. Condensate Pump



Part #	Description	Voltage	20E	27E	37E	44C
132477G1S	KIT COND PMP DM	208/230-60-1 200/230-50-1	1	1	1	1

### 8.2. Field Add-on Kits

Part #	Description	Voltage	20E	27E	37E	44C
SKREADME020EP	KIT RHT DME 1.5 TON 208/230/60	208/230-60-1 200/230-50-1	1			
SKREADME2T3TP	KIT RHT DME 1.5 TON 208/230/60	208/230-60-1 200/230-50-1		1	1	1
135623G1	KIT HUM DME 1.5/3.0T	208/230-60-1 200/230-50-1	1	1	1	1



## 9. RSP Kits

### 9.1. A Kits

Part #	Description	Section Where Used
124156P2	FILTER MEDIA	EXTERIOR PANEL SECTION
127849P1	HUMIDIFIER BOTTLE	HUMIDIFIER DETAIL SECTION

### 9.2. B Kits

Part #	Description	Section Where Used
127853P1	HUMIDIFIER TORROID TRANSFORMER	HUMIDIFIER DETAIL SECTION
127992P1	HUMIDIFIER DRAIN VALVE	HUMIDIFIER DETAIL SECTION
136812P1	HUMIDIFIER FILL VALVE	HUMIDIFIER DETAIL SECTION
E03-0170	HUMIDIFIER RELAY	HUMIDIFIER DETAIL SECTION
127585P2	CHILLED WATER VALVE	PIPING SECTION
136782P1	FILTER DRIER	PIPING SECTION
148372P1	Press SW HP SPDTAR C/Out 370PS	PIPING SECTION
1C19507P1	VALVE EXP 3/8 X 1/2 X 1/4 ODF	PIPING SECTION
1C19507P2	VALVE EXP 3/8 X 1/2 X 1/4 ODF	PIPING SECTION
1C19507P3	EXPANSION VALVE	PIPING SECTION
131116P1	REHEAT RELAY	ELECTRICAL PANEL SECTION
1A19537P1	CAP RUN 30UF 370VAC	ELECTRICAL PANEL SECTION
1C19540P1	RES PTC 12.5 OHM 20%	ELECTRICAL PANEL SECTION
1C21105P1	CONTACTOR 2 PL 24V	ELECTRICAL PANEL SECTION
1D16378P20	REHEAT SAFETY(S)	ELECTRICAL PANEL SECTION
C03-005A	CAP RUN 25MF 370VAC	ELECTRICAL PANEL SECTION
C15-0091	CAP RUN 40UF 440VAC	ELECTRICAL PANEL SECTION
E03-0010	XMFR 075VA 5060 208/30/77-24	ELECTRICAL PANEL SECTION
E03-0170	MOTOR RELAYS	ELECTRICAL PANEL SECTION
E276C	CB 3.2A BRKT MNT ETA	ELECTRICAL PANEL SECTION

### 9.3. C Kits

Part #	Description	Section Where Used
124101P1	MOTOR .16HP 220-1-60 DBL SHFT	BLOWER MOTOR SECTION
124102P1	MOTOR .12HP 220-1-60 DBL SHFT	BLOWER MOTOR SECTION
124103P1	MOTOR .11HP 220-1-60 SGL SHFT	BLOWER MOTOR SECTION
124104P1	MOTOR .08HP 220-1-60 SGL SHFT	BLOWER MOTOR SECTION
153210G1	WALL CONTROLLER	ELECTRICAL PANEL SECTION
415771G1	CONTROL BOARD	ELECTRICAL PANEL SECTION
124067P1	REHEAT ELEMENTS	REHEAT SECTION
124068P1		
136696P1	WATER REGULATING VALVE	PIPING SECTION
156400P1		
146303P1	COMPRESSOR	COMPRESSOR SECTION
163166P1		
134562P1	PWA CNTL ELEC RELAY HUM 2STG	HUMIDIFIER DETAIL SECTION

## 10. Parts Gallery

			
124117G1	124101P1	124103P1	124105P1
			
1C11305P1	124216P2	P15-0110	124220P1
			
P02-0020	134562P1	127849P1	127853P1
			
127992P1	E03-0170	128759P1	124067P1
			
100281	1C19507P1	136782P1	127585P2
			
121187P1	1D16378P20	131116P1	415771G1
			
E03-0010	E-276C	131111P1	167442P1

			
131109P1	124079P2	124143P1	131108G1
			
131110P1	124079P1	124080P1	132483P1
			
124144P1	124145P1	124156P2	124156P1
			
131108G2	1D16378P63	124081P1	132477G1S

## 11. Revision History

Revision Date	Modification	Details
03/2010	Manual Conversion	