

Mini Mate 2 (2 and 3 Ton) Parts Manual

Evaporator



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1. Product Description

The **Mini-Mate2** is a split system air, water/glycol cooled unit, or self contained chilled water unit.

The **Evaporator Section** includes the evaporator coil, factory mounted disconnect switch, blower assembly, and microprocessor control with wall mounted control box. The unit is provided with supply and return air openings for field supplied ducting. Evaporator sections are available in 208/230 Volt 1-phase or 277 Volt 1-phase models. 3-ton Evaporators are also available in 208/230 Volt 3-phase, or 460 Volt 3-phase models. Evaporators can be configured with canister humidifier and/or reheat. A condensing unit must be selected for each evaporator.

The **Evaporator** can also be ordered as a belt-drive unit. In this configuration the blower and direct drive motor are removed from the evaporator, and replaced by the high static blower assembly. The high static blower assembly is ordered separately.

Microprocessor Control includes a 2 line, 16 character, wall-mounted LCD display which provides temperature set point and sensitivity adjustment, humidity set point and sensitivity adjustment, digital display of temperature, humidity, set points and sensitivities, and alarm conditions. An 8-key membrane keypad for setpoint/program control, unit on/off, fan speed, and alarm silence is located below the LCD display. The display can be located up to 300 ft (91.4 m) from the evaporator unit, using field supplied wire. Temperature and humidity sensors are located in the wallbox.

Air Cooled Condensing Units

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, and filter drier. Unit must be mounted indoors. Duct flanges are provided. (See pricing for voltages). Hot Gas Bypass is available as an option.

Prop Fan Condensing Unit includes scroll compressor, condenser coil, prop fan, high pressure switch, Lee-Temp head pressure control, and filter drier. Unit is designed for outdoor location (see pricing for voltages). Condensing unit is available with optional hot gas bypass, Quiet-line, and high ambient models (Consult the Prop Fan Condensing Unit Price Book for optional selections).

MCD Water/Glycol Condensing Unit includes a scroll compressor, factory mounted disconnect switch, coaxial condenser, two-way or optional three-way water regulating valve, and filter drier. Design pressure is 150 psi (1034 kPa) or optional 300 psi (2068 kPa). (See pricing for voltages and complete model number). Drycooler(s) and pump(s) selected separately for applications using glycol loop.

Chilled Water Models are self-contained and include chilled water coil, slow close two-way solenoid valve, and factory mounted disconnect switch. Design pressure is 300 psi (2068 kPa) static pressure, with 60 psi (414 kPa) close-off pressure rating.

Optional Factory Installed Equipment

Evaporator Options

Electric Reheat includes 304/304 stainless steel finned tubular reheat, with high limit safety switch.

SCR Electric Reheat includes the controller and software to provide full cooling with modulating reheat.

Hot Water Reheat includes a hot water coil, 2-way solenoid valve, and Y-strainer. Note: this option not available with free-cooling option or other reheat options.

Humidifier Package includes steam generating type humidifier with automatic flushing circuit, inlet strainer, drain, and solenoid valves. Humidifier Problem alarm is annunciated to wallbox.

Free-Cooling coil can be ordered with the evaporator section. This option contains a 3-way, slow-close solenoid valve, thermostat, flushing circuit, and separated supply and return

pipng for chilled water cooling. A 3-way regulating valve is recommended for the water/glycol condensing unit.

Smoke Detector is factory wired to provide an audible and visual alarm at the control display, and shuts the unit off.

Firestat senses return air temperature and shuts down unit if temperature reaches the 125°F (51.7°C).

Filter Clog senses pressure drop across the filters and annunciates the display upon reaching a customer set point.

Condensing Unit Options

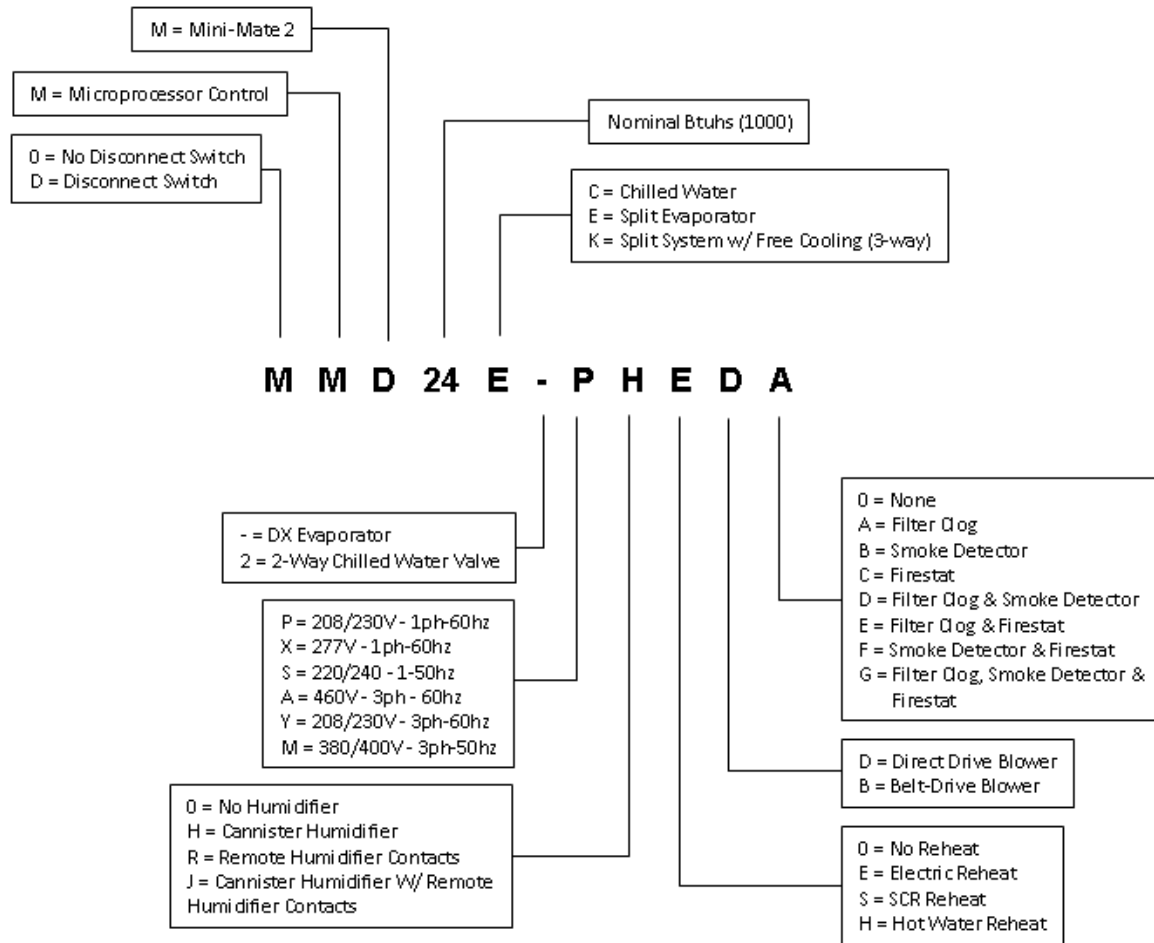
Hot Gas Bypass includes bypass valve, solenoid valve, and necessary piping for manual capacity modulation.

High Ambient, Quietline, and Hot Gas Bypass options are also available on Prop-Fan Condensing Units. Consult Prop-Fan Condensing Unit Pricebook for pricing.

Ship Loose Accessories

Filter Box (for ducted applications) includes filter box with duct flange connection, 20"x 20"x 4" (508mm x 508mm x 102mm) filter, and a duct flange for use on the supply air opening of the unit. Available with 20% or 30% filters.

2. Model Number Definition

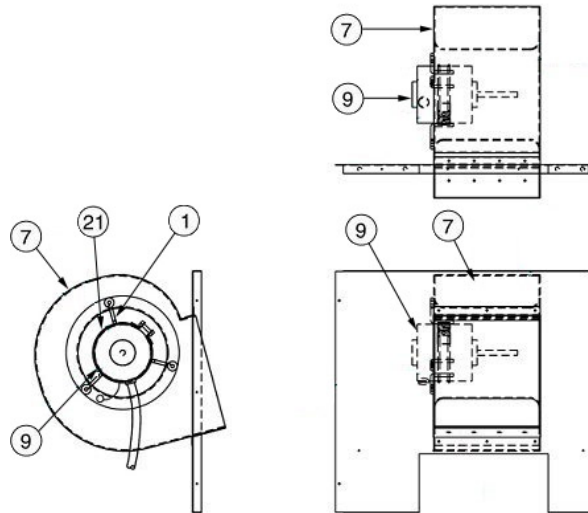


3. Mini Mate 2 Families

	208/230-1-60	277-1-60	208/230-3-60	460-3-60	220/240-1-50	380/400-3-50
SPLIT EVAPORATOR						
1.0 TON	MMD12E-P	MMD12E-X	N/A	N/A	MMD11A-S	N/A
1.5 TON	MMD18E-P	MMD18E-X	N/A	N/A	MMD17A-S	N/A
2.0 TON	MMD24E-P	MMD24E-X	N/A	N/A	MMD23E-S	MMD23E-M
3.0 TON	MMD36E-P	MMD36E-X	MMD36E-Y	MMD36E-A	MMD35E-S	MMD35E-M
AIR COOLED						
1.0 TON	MMD12A-P	N/A	N/A	N/A	N/A	N/A
1.5 TON	N/A	N/A	N/A	N/A	N/A	N/A
2.0 TON	MCD24A-P	MCD24A-X	N/A	N/A	MCD23A-S	MCD23A-M
3.0 TON	MCD36A-P	MCD36A-X	MCD36A-Y	MCD36A-A	MCD35A-S	MCD35A-M
WATER/GLYCOL COOLED						
1.0 TON	MMD14W-P	MMD14W-X	N/A	N/A	MMD13W-S	N/A
1.5 TON	MMD20W-P	MMD20W-X	N/A	N/A	MMD19W-S	N/A
2.0 TON	MCD26W-P	MCD26W-X	N/A	N/A	MCD25W-S	MCD25W-M
3.0 TON	MCD38W-P	MCD38W-X	MCD38W-Y	MCD38W-A	MCD37W-S	MCD37W-M
CHILLED WATER						
1.0 TON	N/A	N/A	N/A	N/A	N/A	N/A
1.5 TON	MMD23C-P	MMD23C-X	N/A	N/A	MMD22C-S	N/A
2.0 TON	N/A	N/A	N/A	N/A	N/A	N/A
3.0 TON	MMD40C-P	MMD40C-X	MMD40C-Y	MMD40C-A	MMD39C-S	MMD39C-M

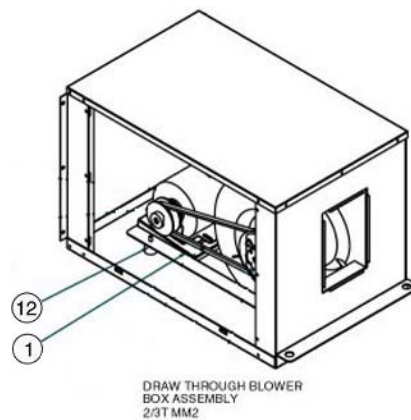
4. Blower/Motor Section

4.1. Standard Blower



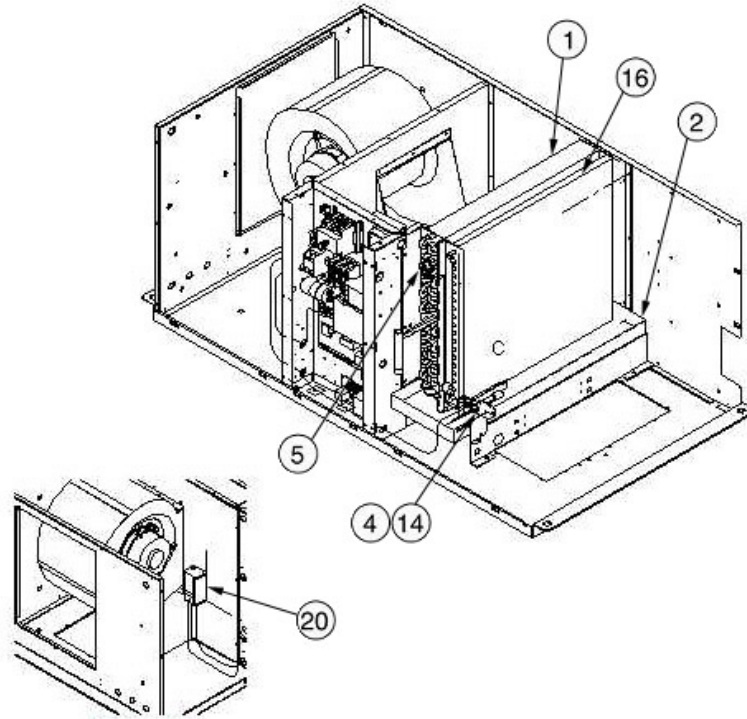
Item	Part #	Description	Volts	2 Ton	3 Ton
1	127843P1	GROMMET WASHER	ALL	3	3
	127843P2	GROMMET TUBE	ALL	3	3
	127843P3	SLEEVE SPACING	ALL	3	3
	127844P1	SCREW CAP ZINC 1/4-20 x 1-3/4	ALL	3	3
	S-1110	WASHER PLAIN FLAT Z 1/4in	ALL	6	6
	S-1130	NUT LOCK HEX NYL INSR 1/4-20 Z	ALL	3	3
	S-128A	SCREW CAP HEX G8 PO5/16-18 x 1-3/8	ALL	1	1
	S-3380	NUT HEX FLANGE SERR ZC 5/16-18	ALL	1	1
7	1C19516P1	BLOWER w/H DD10-08APX0.50	ALL	1	1
9	1D19535P1	MOTOR .50HP 205//236-1-50/60	208/230	1	1
	1D19535P2	MOTOR .50HP 277-1-60	277	1	1
	1D19535P3	MOTOR .50HP 460-1-60	460		1
	1D19535P4	MOTOR .50HP 220//240-1-50	220/240	1	1
	1D19535P5	MOTOR .50HP 380//415-1-50	380/415	1	1
21	156003P1	MOUNT MOTOR	ALL	1	1

4.2. High Static Blower



Item	Part #	Description	Volts	Quantity
1		Blower Assembly on Page 6		
12	1A17649P1	Kit Compressor Mtg Spring	ALL	1

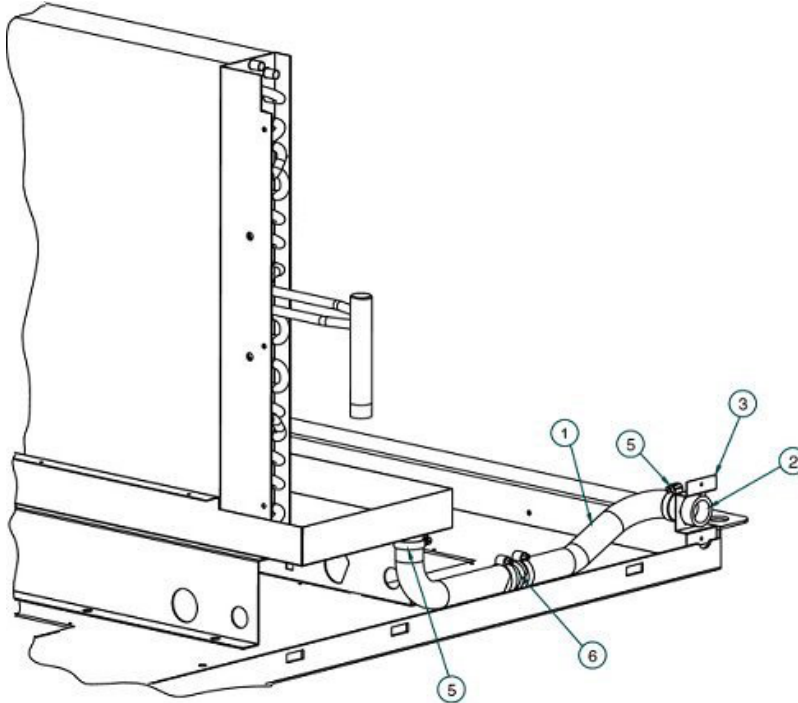
5. Coil Section



Item	Part #	Description	Volts	2 Ton	3 Ton
1	156103P1	Coil Evap 3Row MM2	ALL	1	1
2	156153G1	Pan Drain Assembly 2/3T MM2	ALL	1	1
4	1A18660P1	SW Level Liquid GEMS LS-7	ALL	1	1
5	1A19716P1	FreezeStat W/Brkt OPN28FCLS42F	ALL	1	1
14	154083P1	Bracket Liquid Level Switch MM2	ALL	1	1
16	156141P1	Coil W/HGRH/HWRH MM2	ALL	1	1
	156140P1	Coil CW MM2 W/Freecooling	All	1	1
20	168166P1	THSTAT SPST 30/50F 2.5FIXDIFF	ALL	1	1
		NOTE: Thermostat is used on units with Freecooling and Hot Water Reheat Coils			

6. Humidifier Section

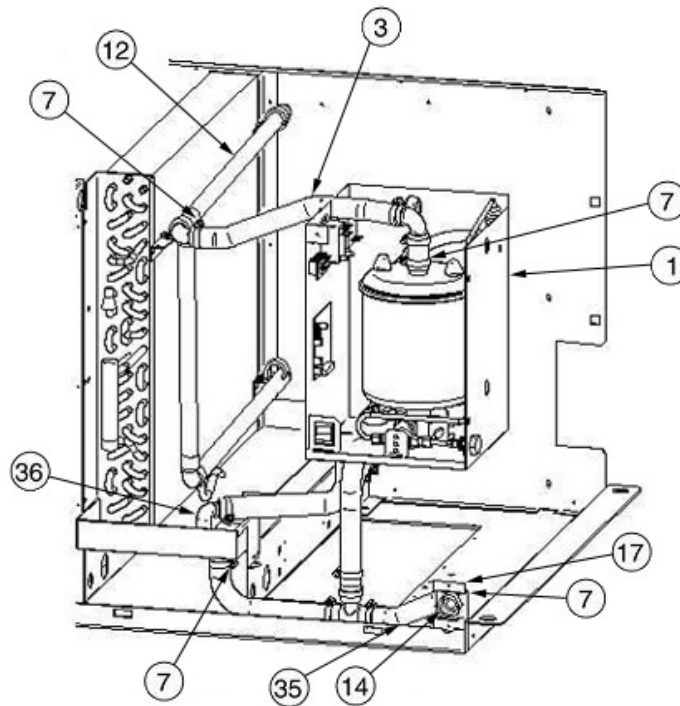
6.1. Humidifier None



ASSEMBLY DRAIN ONLY- NO HUMIDIFIER
2/3 TON MM2

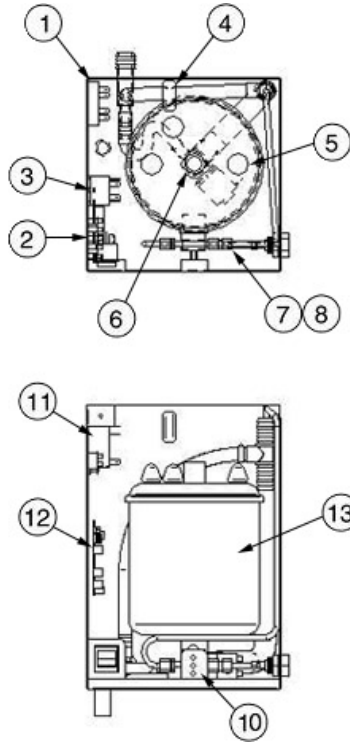
Item	Part #	Description	Volts	2 Ton	3 Ton
1	1C11305P1	Drain Line Formed Rubber Long	ALL	1	1
2	P02-0260	Adapter Nylon 3/4FPT X 3/4Hose	ALL	1	1
3	1C19696P1	Bracket Drain Mtg Adapter	ALL	1	1
5	124216P2	Clamp Hose Worm Drive .31 X 1.25	All	4	4
6	P15-0140	Union Nylon 3/4barb x 3/4barb	ALL	1	1

6.2. Humidifier SGH



Item	Part #	Description	Volts	2 Ton	3 Ton
1	164790P1	Hum Assy 2/3T MM2 208//277	208/230-1-60 208/230-3-60 220/240-1-50 277-1-60	1	1
	164790P2	Hum Assy 2/3T MM2 380//460	380-3-50 460-3-60	1	1
3	124220P1	Hose Steam 0.88ID 10PSI	All	2 ft.	2 ft.
	P-078A	EII 90 FTGxFTG 7/8" Short Rad	All	1 ea.	1 ea.
	124216P2	Clamp Hose Worm Drive .31x1.25	All	2 ea.	2 ea.
7	124216P2	Clamp Hose Worm Drive .31 X 1.25	All	6 ea.	6 ea.
12	156060G1L	Manifold Steam Assembly	ALL	1	1
14	P02-0260	Adapter Nylon 3/4FPT X 3/4Hose	All	1	1
17	1C19696P1	Bracket Drain Mtg Adapter	All	1	1
35	1C11305P1	Drain Line Formed Rubber Long	All	4	4
	1A16207P1	Tee Barb 3/4x3/4x3/4	All	1	1
	124216P2	Clamp Hose Worm Drive .31x1.25	All	5	5
	P15-0140	Union Nylon 3/4Barbx3/4Barb	All	1	1
	P-5500	Hose Drain .75 ID Trap	All	1	1
36	1C11305P1	Drain Line Formed Rubber Long	All	1	1
	124216P2	Clamp Hose Worm Drive .31x1.25	All	1	1
	P15-0110	EII Nylon 90 3/4Barb x 3/4Barb	All	1	1

6.3. Humidifier Detail



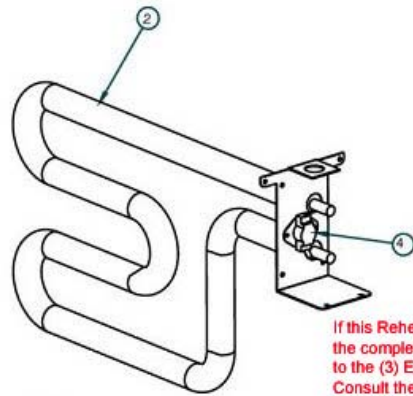
Item	Part #	Description	Volts	2 Ton	3 Ton
1	154240P1	Relay 2P2T 24V 50/60Hz	All	1	1
2	154243P1	PCB SGH MM2	All	1	1
3	128751P1	Cylinder Full Interface	All	1	1
4	127853P1	Torroid Transformer	All	1	1
5	128759P1	Rubber Boot	All	3	3
6	127992P1	Drain Valve	All	1	1
7	P-057A	1/4" Brass Compression Nut	All	1	1
8	P-057B	1/4" Brass Ferrule	All	1	1
10	KIT-164659P1	KIT SG FILL VALVE MM2	All	1	1
11	1A19592P1	SW 2P2T ROCKER	All	1	1
12	136972P1	Terminal Block	All	1	1

6.4. No Humidifier Remote Contact



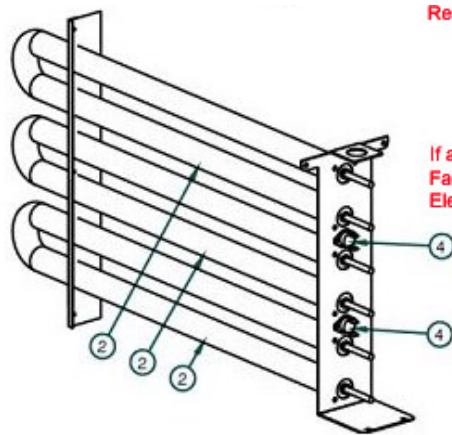
Item	Part #	Description	Volts	2 Ton	3 Ton
1	E03-0170	Relay 1P2T 24V 50/60HZ	All	1	1
2	132487P1	TERMLSTRIP SECTION 1 POS	All	2	2
3	132487P2	TERMLSTRIP SECTION END BARRIER	All	1	1

7. Reheat Section



If this Reheat Element has failed, then the complete assembly must be changed to the (3) Element Reheat Assembly. Consult the Factory for the replacement Reheat Kit.

Item	Part #	Description	Volts	2 Ton	3 Ton
2	154005P1	Heater 6.0KW	240V SINGLE PHASE	N/A	N/A
	154005P5	Heater 6.0KW 290V SS 304 S/F	290V SINGLE PHASE	N/A	N/A
4	154237P1	Swt Safety Therm 120F Open	All	2	2



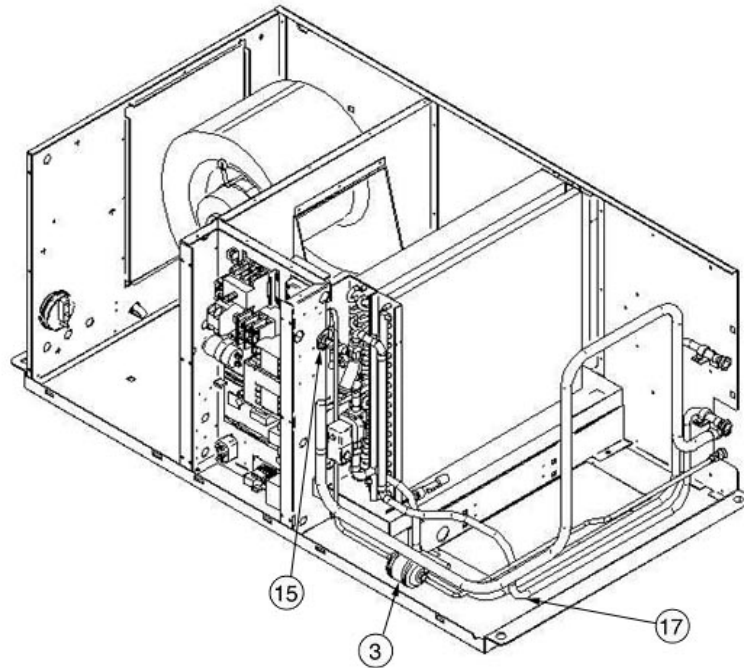
Reheat Kit.

If a Reheat Element has failed, the Factory recommends that all (3) Elements and the GCD be replaced.

Item	Part #	Description	Volts	Type	2 Ton	3 Ton
2	148366P11	Heater 2.3KW 240V SS 304 S/F	208/230/60/3 380/400/50/3	Standard	*3	3
	148366P12	Heater 2.3KW 277V SS 304 S/F	460/60/3		N/A	3
	148366P15	Heater 2.0KW 240V SS 304 S/F	208/230/60/1 220/240/50/1		3	3
	148366P16	Heater 2.0KW 277V SS 304 S/F	277/60/1		3	3
	148366P11	Heater 2.3KW 240V SS 304 S/F	208/230/60/1 220/240/50/1 380/400/50/3	SCR Reheat	3	N/A
	148366P12	Heater 2.3KW 277V SS 304 S/F	277/60/1		3	N/A
	148366P13	Heater 3.3KW 240V SS 304 S/F	208/230/60/1 220/240/50/1 208/230/60/3 380/400/50/3		N/A	3
	148366P14	Heater 3.3KW 277V SS 304 S/F	277/60/1 460/60/1		N/A	3
4	136965P1	Swt Safety Therm 105F	All	-	2	2

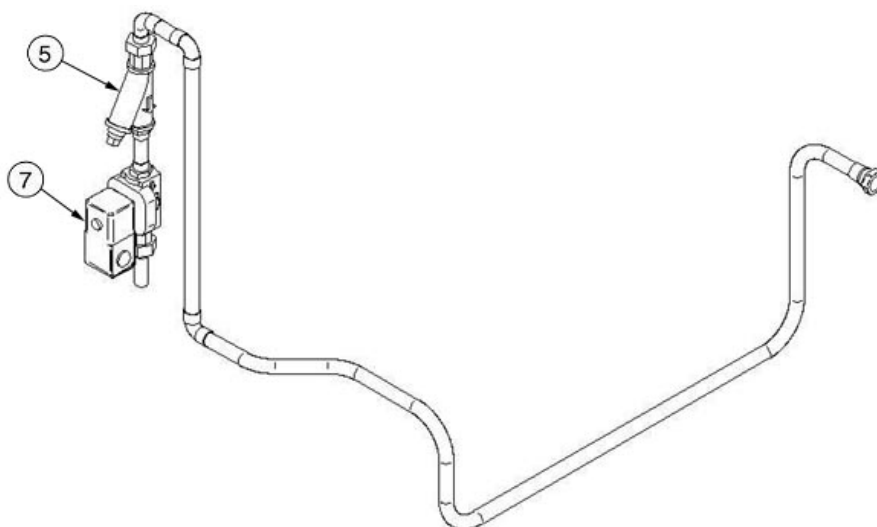
8. Piping Section

8.1. DX Split System w/ Hot Water Reheat



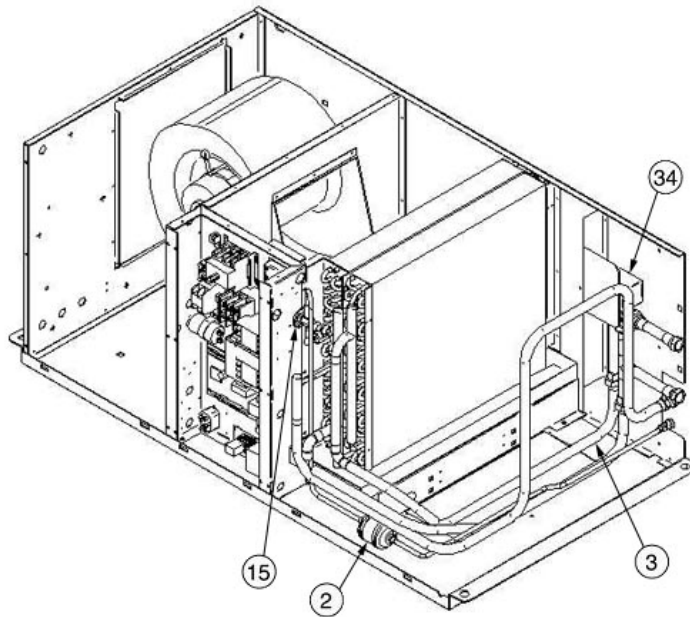
Item	Part #	Description	Volts	2 Ton	3 Ton
3	136782P1	FILTER/DRIER 3/8ODF SLDR	ALL	1	1
15	156108P1	VALVE EXP 3/8X5/8ODF1/8CAP	ALL	1	1
17		PIPING HWRH EVAP 2/3T on Page 13			

8.1.1. Piping HWRH EVAP



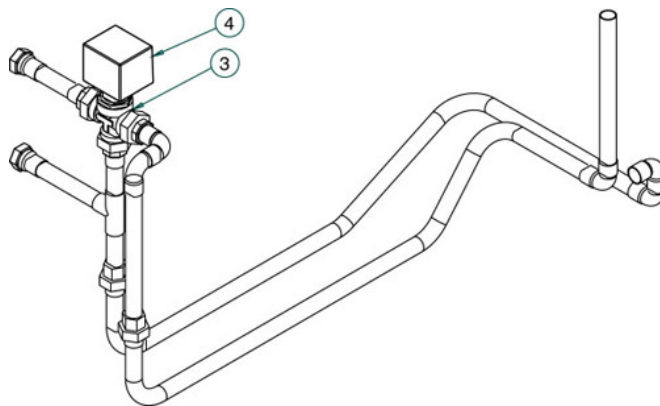
Item	Part #	Description	Volts	2 Ton	3 Ton
5	R-0520	Strainer -Y- 1/2" CI	ALL	1	1
7	1A23985P1	Valve Solnd 1/2" NC 24V 50/60	ALL	1	1

8.2. DX Split System w/ Freecooling



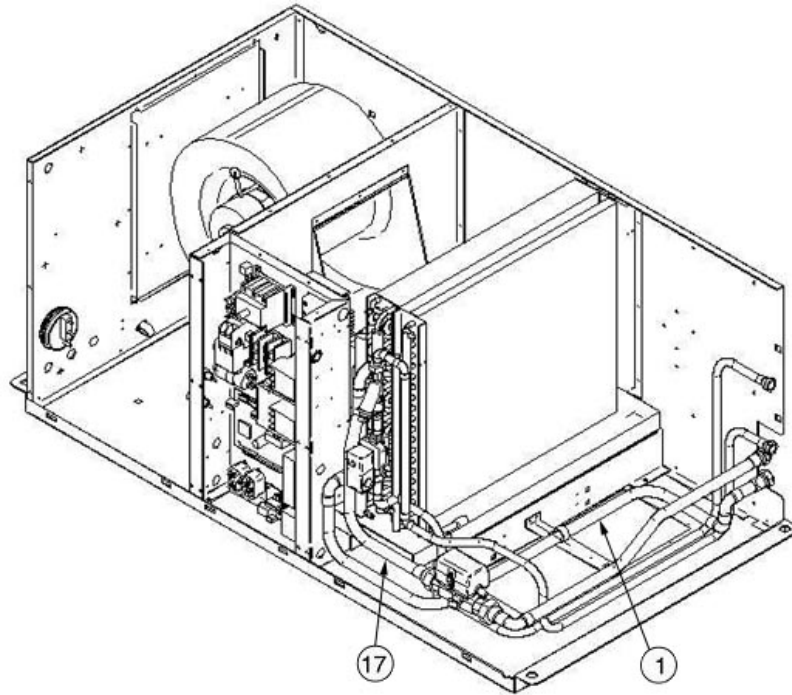
Item	Part #	Description	Volts	2 Ton	3 Ton
2	136782P1	FILTER/DRIER 3/8ODF SLDR	ALL	1	1
3		PIPING HWRH EVAP 2/3T MM2 on Page 14			
15	156108P1	VALVE EXP 3/8X5/8ODF1/8CAP	ALL	1	1
34	154246P2	Actuator On/Off MM2	All	1	1

8.2.1. PIPING HWRH EBAP 2/3T MM2



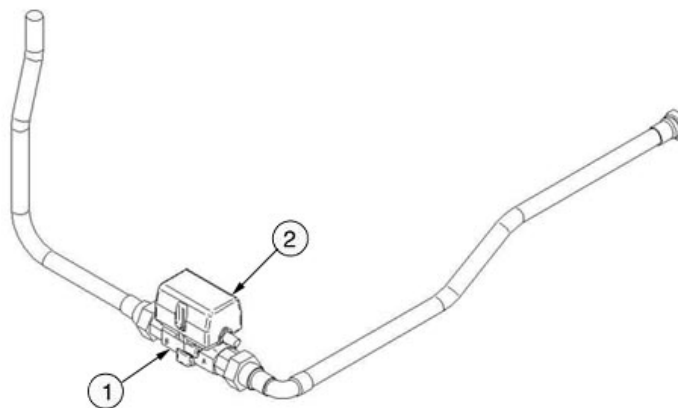
Item	Part #	Description	Volts	2 Ton	3 Ton
3	154246P3	VALVE H2O SLOW 3WAY 1"	All	1	1
4	154246P2	Actuator On/Off MM2	All	1	1

8.3. CW 2 Way w/ Hot Water Reheat



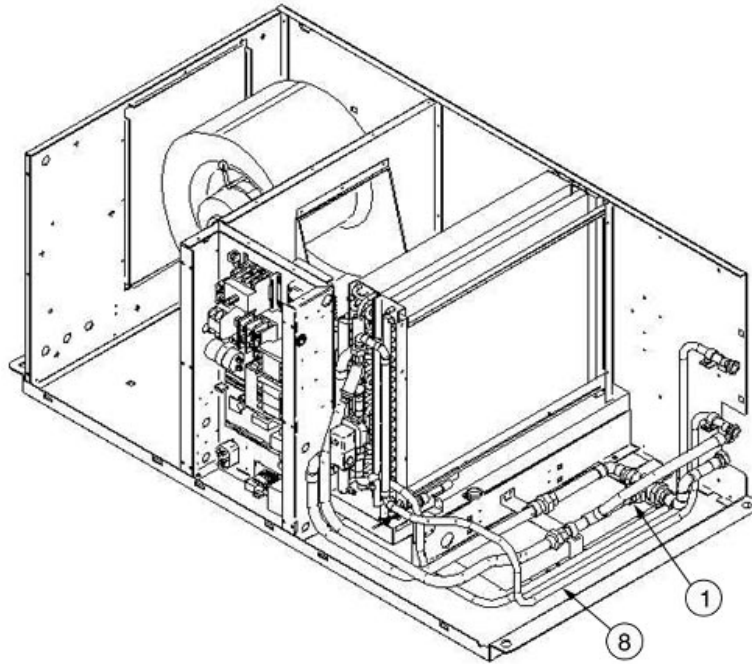
Item	Part #	Description	Volts	2 Ton	3 Ton
1		PIPING ASSEMBLY RETURN HIGH DIFF on Page 15			
17		PIPING HWRH EVAP MM2 on Page 13			

8.3.1. PIPING ASSEMBLY RETURN HIGH DIFF



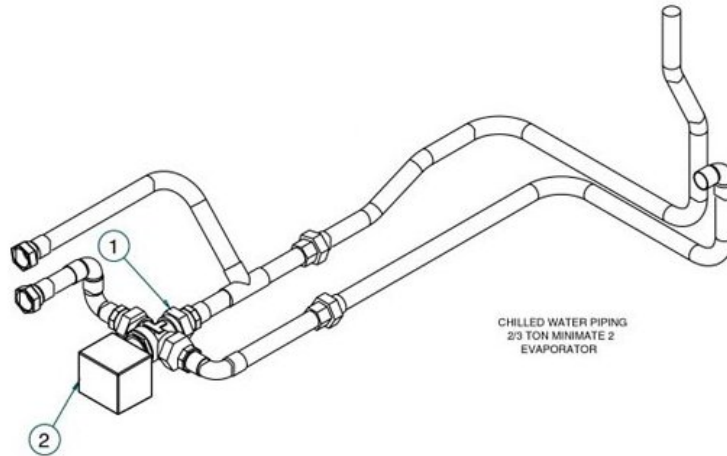
Item	Part #	Description	Volts	2 Ton	3 Ton
1	156033P1	Valve H2O Slow 2Way 1" HIDIFF	ALL	1	1
2	156033P2	Actuator ON/OFF MM2	ALL	1	1

8.4. CW 3 Way w/ Hot Water Reheat



Item	Part #	Description	Volts	2 Ton	3 Ton
1		PIPING CW 2/3T MM2 EVAP on Page 16			
2		PIPING HWRH EVAP 2/3T MM2 on Page 13			

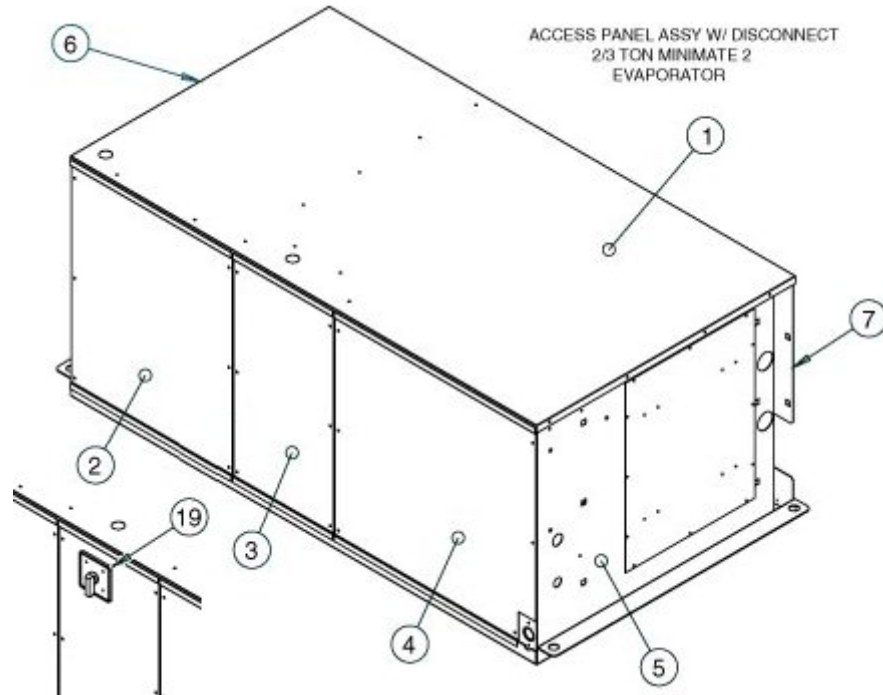
8.4.1. PIPING CW 2/3T MM2 EVAP



Item	Part #	Description	Volts	2 Ton	3 Ton
1	154246P3	VALVE H2O SLOW 3WAY 1"	All	1	1
2	154246P2	Actuator On/Off MM2	All	1	1

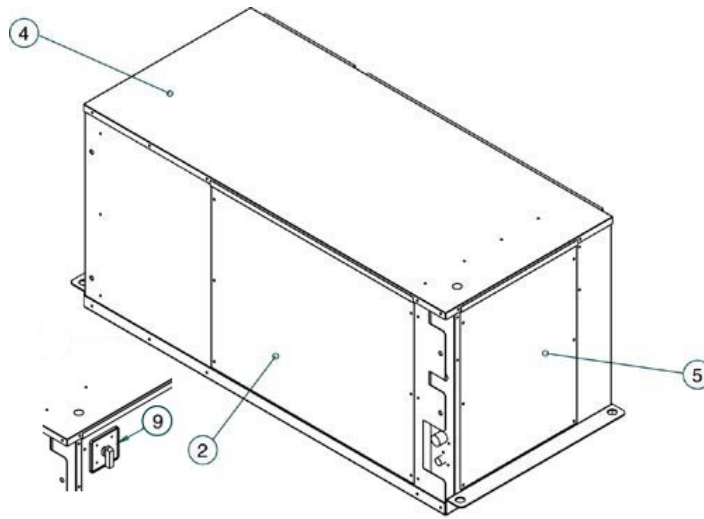
9. Access Panel Section

9.1. Evaporator Section



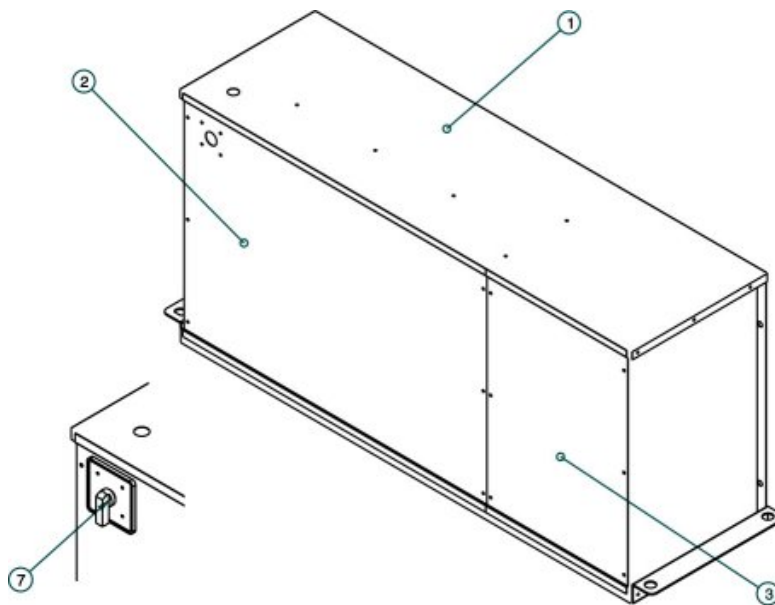
Item	Part #	Description	Volts	2 Ton	3 Ton
1	156171P1	PANEL TOP 2/3T MM2	ALL	1	1
2	156168P1	PANEL FRONT LEFT 2/3T MM2	ALL	1	1
3	156169P1	PANEL FRONT CENTER 2/3T MM2	ALL	1	1
	156169P2	PANEL FRONT CENTER 2/3T MM2 No Disc	ALL	1	1
4	156170P1	PANEL FRONT RIGHT 2/3T MM2	ALL	1	1
5	156167P1	PANEL RIGHT SIDE 2/3T MM2	ALL	1	1
6	156166P1	PANEL LEFT SIDE 2/3T MM2	ALL	1	1
7	156165P1	PANEL REAR 2/3T MM2	ALL	1	1
19	1C18352P1	Handle Disconnect Switch Faceplate	All	1	1

9.2. Condenser Section – AIR



Item	Part #	Description	Volts	2 Ton	3 Ton
2	156359P1	Panel ACC Right 2/3T A Cond MM2	ALL		1
4	156356P1	Panel Top 2/3T A Cond MM2	ALL	1	1
5	156366P1	PANEL ACC LFT 2/3T A COND MM2	ALL	1	1
	156366P2	PANEL ACC LFT 2/3T A COND MM2	ALL	1	1
9	1C18352P1	Handle Disconnect Switch Faceplate	All	1	1

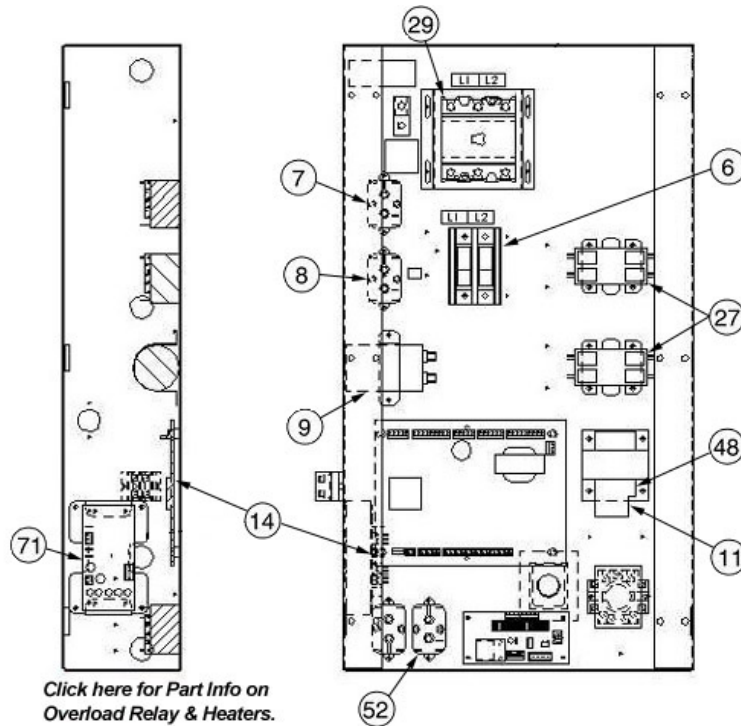
9.3. Condenser Section – W/G



Item	Part #	Description	Volts	2 Ton	3 Ton
1	156554P1	Panel Top Rear WG Cond 2/3T MM2	ALL	1	1
2	156556P1	Panel Left Frt WG Cond 2/3T MM2	ALL	1	1
	156556P2	Panel Left Frt WG Cond 2/3T MM2 No Disc	ALL	1	1
3	156557P1	Panel Right Frt WG Cond 2/3T	ALL	1	1
7	1C18352P1	Handle Disconnect Switch Faceplate	All	1	1

10. Electrical Section

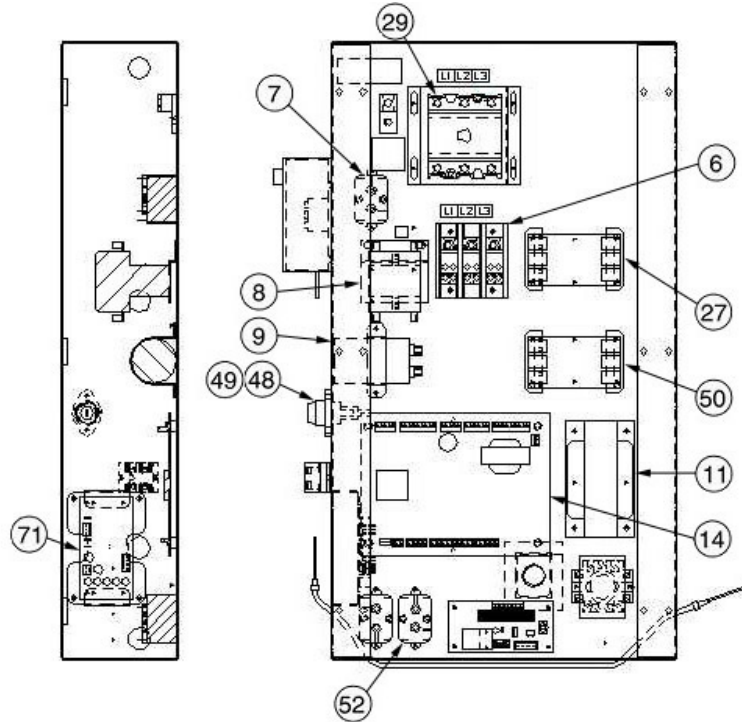
10.1. EP 1 Phase



Item	Part #	Description	Volts	2 Ton	3 Ton
6	E15-0010	PWRBLK 2PL 1)2/0:12 x 4) 4:14	208/230-1-60 220/240-1-50 277-1-60	1	1
7	E03-0170	Relay 1P2T 24V 50/60HZ	208/230-1-60 220/240-1-50 277-1-60	1	1
	E-013A	Contacteur 2pl 24VCoil 10/25Amp Note: Dehumidification Relay is used on units with Direct Drive Motors.	208/230-1-60 220/240-1-50 277-1-60	1	1
8	E03-0170	Relay 1P2T 24V 50/60HZ	208/230-1-60 220/240-1-50 277-1-60	1	1
		Note: Dehumidification Relay is used on units with Direct Drive Motors.			
9	B03-002A	CAP RUN 15MF 370V/AC	208/230-1-60 277-1-60	1	1
	B03-0030	CAP RUN 10MF 370VAC	220/240-1-50	1	1
11	127184P1	XMFR 75VA 208/230-24 50/60Hz	*208/230-1-60	1	1
	E03-0010	XFMR 75VA 50/60 208/230/277-24	*277-1-60	1	1
	156390P2	XMFR 100VA 277-24 50/60Hz	**277-1-60	1	1
	136201P1	XMFR 200VA 200-240/2450	**208/230-1-60 220/240-1-50	1	1
		* Transformer is used on units with Direct Drive Motors. ** Transformer is used on units with High Static Blower Box.			
14	415771G1	PWA Control Board MM2	ALL	1	1
27	E-011A	Contacteur 2pl 24VCoil 20/30Amp	208/230-1-60 220/240-1-50 277-1-60	1	1
29	1C18351P2	Switch Disconnect 600V 3PL 60A	208/230-1-60 220/240-1-50 277-1-60	1	1
48	1A17009P1	CB 3.15A BRKT MNT TRIMAX	277-1-60	1	1
	127977P3	FUSE FNQ-R-4	*208/230-1-60 *277-1-60	1	1

Item	Part #	Description	Volts	2 Ton	3 Ton
	127977P4	FUSE FNO-R-6	220/240-1-50	1	1
	F02-4380	BRKT CB 75VA XFMR	277-1-60	1	1
	4A10033P1	FUSE HLDR PNL-MNT SCRCAP REJN	**208/230-1-60 220/240-1-50 **277-1-60	1	1
		* Fuses are used on units with High Static Blower Box. ** Fuse Holder is used on units with High Static Blower Box.			
52	E03-0170	Relay 1P2T 24V 50/60HZ	All	1	1
71	166806G1	Ground Current Detector Assy	208/230-1-60 220/240-1-50 277-1-60	1	1

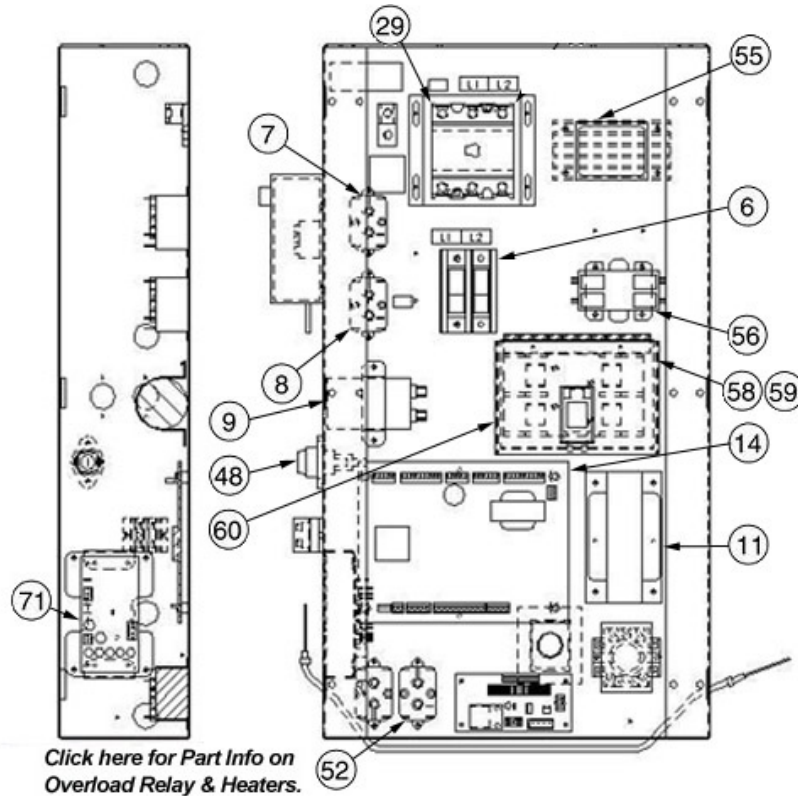
10.2. EP 3 Phase



Item	Part #	Description	Volts	2 Ton	3 Ton
6	E13-0040	TERMBLK 3PL 1)2/0:6x4)4:14	208/230-3-60 380/400-3-50 460-3-60	1	1
7	E03-0170	Relay 1P2T 24V 50/60HZ	208/230-3-60 380/400-3-50 460-3-60	1	1
	124501P1	Contactora 3PL 24VCOIL 15/20Amp <i>* Used on units with the High Static Blower Box</i>	*208/230-3-60 *380/400-3-50 *460-3-60	1	1
8	E03-0170	RELAY 1P2T 24V 50/60HZ	208/230-3-60		1
	127665P1	CONTACTOR 2NO 1NC W/MTG PLATE <i>Note: Dehumidification Relay is used on units with Direct Drive Motors.</i>	380/400-3-50 460-3-60	1	1
9	B03-002A	CAP RUN 15MF 370V/AC	208/230-3-60 460-3-60		1
	B03-0030	CAP RUN 10MF 370VAC <i>Note: Capacitors used on units with Direct Drive Motors.</i>	380/415-3-50	1	1
11	136200P1	XMFR 150VA 460/615/2460	460-3-60		1
	136201P1	XMFR 200VA 200-240/2450	208/230-3-60		1
	136201P2	XMFR 200VA 380-415/2450	380/415-3-50	1	1
14	415771G1	PWA Control Board MM2	ALL	1	1
27	E-0110	CONTACTOR 3PL 24V COIL 25/30AMP	208/230-3-60 380/415-3-50 460-3-60	1	1
29	1C18351P2	Switch Disconnect 600V 3PL 60A	208/230-3-60 380/415-3-50 460-3-60	1	1
48	127977P3	FUSE FNQ-R-4	208/230-3-60 460-3-60		1
	127977P4	FUSE FNQ-R-6 127977P4 is used on 460 Volt units with High Static Blower Box & SCR Reheat.	380/415-3-50 460-3-60	1	1 *1

Item	Part #	Description	Volts	2 Ton	3 Ton
49	4A10033P1	FUSE HLDR PNL-MNT SCRWCAP REJN	208/230-3-60 380/415-3-50 460-3-60	1	1 1 1
50	E-0110	CONTACTOR 3PL 24V COIL 25/30AMP	208/230-3-60 380/415-3-50 460-3-60	1	1 1 1
52	E03-0170	Relay 1P2T 24V 50/60HZ	All	1	1
71	166806G1	Ground Current Detector Assy	208/230-3-60 380/415-3-50 460-3-60	1	1 1 1

10.3. EP 1 Phase w/ SCR Reheat



Item	Part #	Description	Volts	2 Ton	3 Ton
6	E15-0010	PWRBLK 2PL 1)2/0:12 x 4) 4:14	208/230-1-60 220/240-1-50 277-1-60	1	1
7	E03-0170	Relay 1P2T 24V 50/60HZ	208/230-1-60 220/240-1-50 277-1-60	1	1
	E-013A	Contactor 2pl 24VCoil 10/25Amp Note: E-013A is used on units with the High Static Blower Box.	208/230-1-60 220/240-1-50 277-1-60	1	1
8	E03-0170	Relay 1P2T 24V 50/60HZ	208/230-1-60 220/240-1-50 277-1-60	1	1
		Note: Dehumidification Relay is used on units with Direct Drive Motors.			
9	B03-002A	CAP RUN 15MF 370V/AC	208/230-1-60 277-1-60	1	1
	B03-0030	CAP RUN 10MF 370VAC		1	1
		Note: Capacitors used on units with Direct Drive Motors.	220/240-1-50		
11	156390P2	XMFR 100VA 277-24 50/60Hz	277-1-60	1	1
	136201P1	XMFR 200VA 200-240/2450	208/230-1-60 220/240-1-50	1	1
14	415771G1	PWA Control Board MM2	ALL	1	1
29	1C18351P1	Switch Disconnect 600V 3PL 100A	208/230-1-60 220/240-1-50		1
	1C18351P2	Switch Disconnect 600V 3PL 60A	208/230-1-60	1	
			220/240-1-50 277-1-60	1	1
48	127977P3	FUSE FNQ-R-4	208/230-1-60 277-1-60	1	1
	127977P4	FUSE FNQ-R-6	220/240-1-50	1	1
	4A10033P1	FUSE HLDR PNL-MNT SCRCAP REJN	208/230-1-60 220/240-1-50	1	1

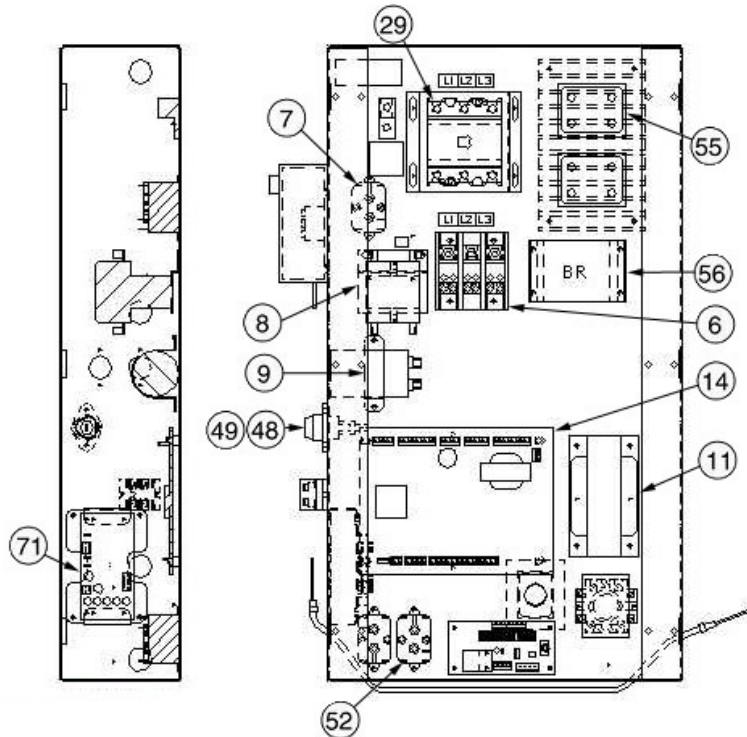
Item	Part #	Description	Volts	2 Ton	3 Ton
			277-1-60		
52	E03-0170	Relay 1P2T 24V 50/60HZ	ALL	1	1
55	154190G1	Control Reheat SCR Assy MM2 on Page 24	208/230-1-60 220/240-1-50 277-1-60	1	1
56	E-011C	Contactora 2PL 24VCOIL 40/50Amp	208/230-1-60 220/240-1-50 277-1-60	1	1
58	129629P1	FUSE BLOCK 2P 60A Note: Used on 3 Ton 208/230 and 220/240 Volt units	208/230-1-60 220/240-1-50		1
59	E-1160	FUSE DUAL ELMNT 250V 60.0 AMP Note: Used on 3 Ton 208/230 & 220/240 Volt units.	208/230-1-60 220/240-1-50		2
60	156190G1	Fuse Box Assy 2/3T MM2 Note: Used on 3 Ton 208/230 & 220/240 Volt units.	208/230-1-60 220/240-1-50		1
71	166806G1	Ground Current Detector Assy	208/230-1-60 220/240-1-50 277-1-60	1	1

10.3.1. Control Reheat SCR Assembly



Item	Part #	Description	Volts	2 Ton	3 Ton
1	154021P1	Heatsink MM2	208/230-1-60 220/240-1-50 277-1-60	1	1
2	517017P1	Relay Solid State 055Amp 24Vac	208/230-1-60 220/240-1-50 277-1-60	1	1
3	139166P1	Varistor Metal Oxide 575V	208/230-1-60 220/240-1-50 277-1-60	1	1

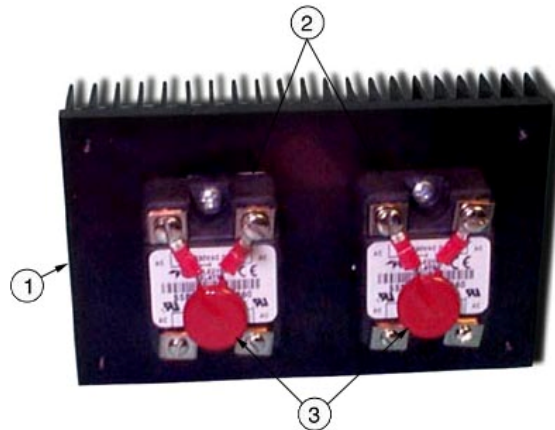
10.4. EP 2 Phase w/ SCR Reheat



Item	Part #	Description	Volts	2 Ton	3 Ton
6	E13-0040	TERMBLK 3PL 1)2/0:6x4)4:14	208/230-3-60 380/400-3-50 460-3-60	1	1
7	E03-0170	Relay 1P2T 24V 50/60HZ	208/230-3-60 380/400-3-50 460-3-60	1	1
	124501P1	Contactor 3PL 24VCOIL 15/20Amp <i>* Used on units with the High Static Blower Box.</i>	*208/230-3-60 *380/400-3-50 *460-3-60	1	1
8	E03-0170	RELAY 1P2T 24V 50/60HZ	208/230-3-60		1
	127665P1	CONTACTOR 2NO 1NC W/MTG PLATE <i>Note: Dehumidification Relay is used on units with Direct Drive Motors.</i>	380/400-3-50 460-3-60	1	1
9	B03-002A	CAP RUN 15MF 370V/AC	208/230-3-60 460-3-60		1
	B03-0030	CAP RUN 10MF 370VAC <i>Note: Capacitors used on units with Direct Drive Motors.</i>	380/415-3-50	1	1
11	136200P1	XMFR 150VA 460/615/2460	460-3-60		1
	136201P1	XMFR 200VA 200-240/2450	208/230-3-60		1
	136201P2	XMFR 200VA 380-415/2450	380/415-3-50	1	1
14	415771G1	PWA Control Board MM2	ALL	1	1
29	1C18351P2	Switch Disconnect 600V 3PL 60A	208/230-3-60	1	1
			380/415-3-50		1
			460-3-60		1
48	127977P3	FUSE FNQ-R-4	208/230-3-60		1
			460-3-60		1
49	4A10033P1	FUSE HLDR PNL-MNT SCRWCAP REJN	380/415-3-50	1	1
			208/230-3-60		1
52	E03-0170	Relay 1P2T 24V 50/60HZ	All	1	1
55	139170G1	Control Reheat SCR Assy on Page 26	208/230-3-60		1
			380/415-3-50	1	1

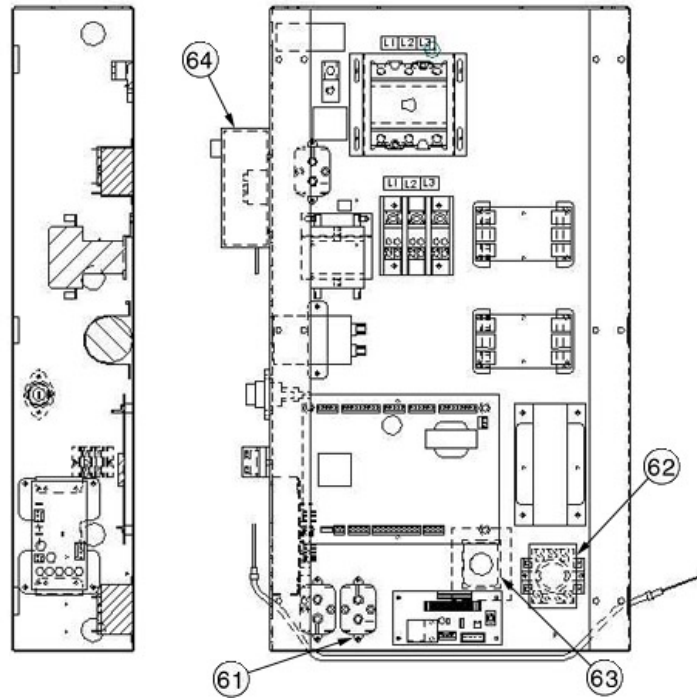
Item	Part #	Description	Volts	2 Ton	3 Ton
			460-3-60		1
56	E-0110	CONTACTOR 3PL 24V COIL 25/30AMP	208/230-3-60 380/415-3-50 460-3-60	1	1 1 1
71	166806G1	Ground Current Detector Assy	208/230-3-60 380/415-3-50 460-3-60	1	1 1 1

10.4.1. Control SCR Reheat Assembly



Item	Part #	Description	Volts	2 Ton	3 Ton
1	139165P1	Heatsink AAVID A-007-107	208/230-3-60 380/415-3-50 460-3-60	1	1
2	517017P1	Relay Solid State 055Amp 24Vac	208/230-3-60 380/415-3-50 460-3-60	2	2
3	139166P1	Varistor Metal Oxide 575V	208/230-3-60 380/415-3-50 460-3-60	2	2

10.5. EP Freecooling Components



Item	Part #	Description	Volts	2 Ton	3 Ton
61	E-0130	RELAY 2P2T 24VAC COIL	ALL	1	1
62	154244P1	Timer Digital Relay	All	1	1
63	1C22351P1	XMFR 40VA 120/208/240/24 60Hz	208/230-1-60 208/230-3-60	1	1
	1C22351P2	XMFR 40VA 200/220/24 50Hz FSC	220/240-1-50	1	1
	1C22351P3	XMFR 40VA 380/415/24 50Hz FSC	380/415-3-50	1	1
	1C22351P4	XMFR 40VA 277/480-24 60Hz	277-1-60 460-3-60	1	1
64	E02-0160	Thermostat SPDT 40/90F 3.5-14Diff	All	1	1

10.6. Wall Controller



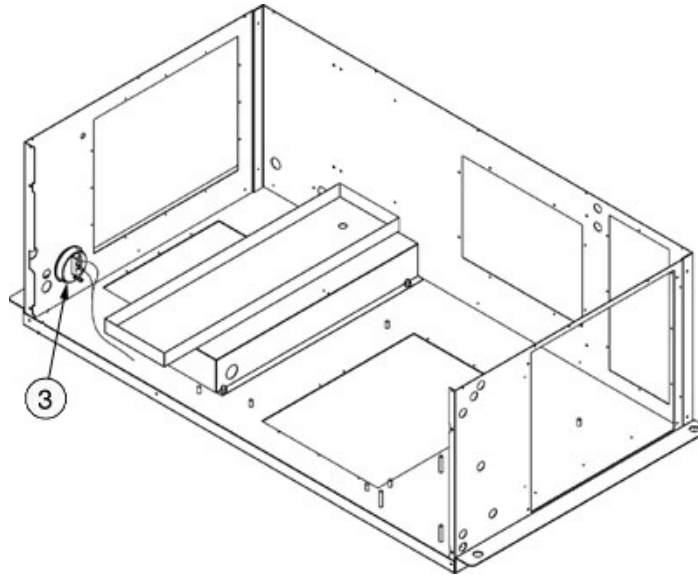
Part #	Description	Volts	2 Ton	3 Ton
153210G1 *	Wall Box MM2	All	1	1
153210G2 **	Wall Box MM2	All	1	1

* Used on units with Direct Drive Motors.

** Used on units with the High Static Blower Box.

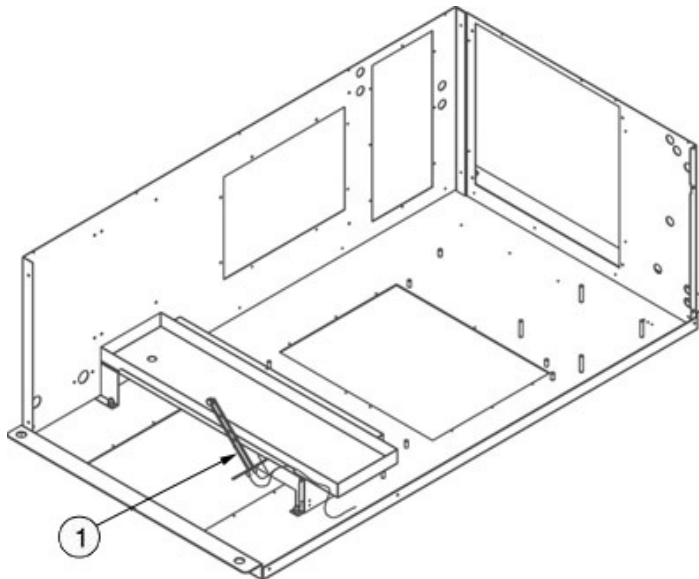
11. Options Miscellaneous

11.1. Filter Clog



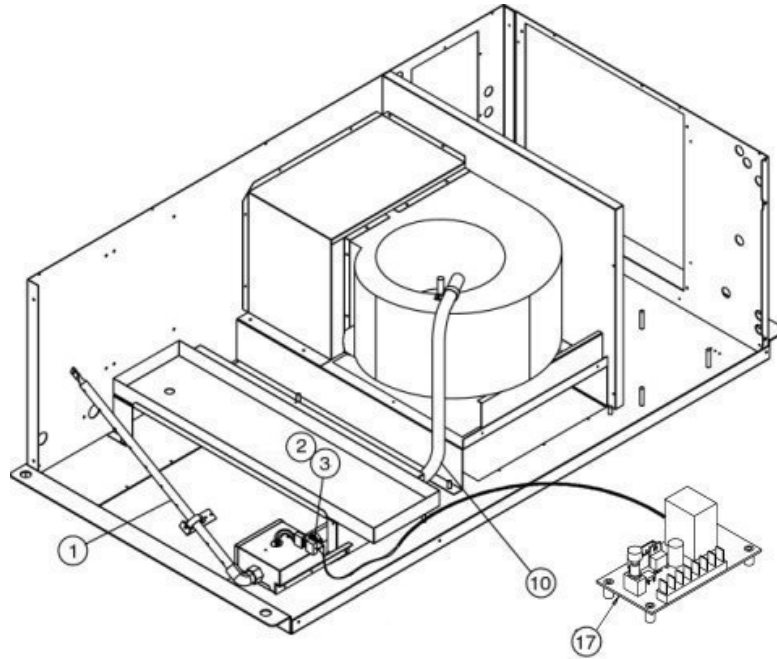
Item	Part #	Description	Volts	2 Ton	3 Ton
3	154020P1	Switch Air Diffntl/Clogged Filter	ALL	1	1

11.2. Firestat



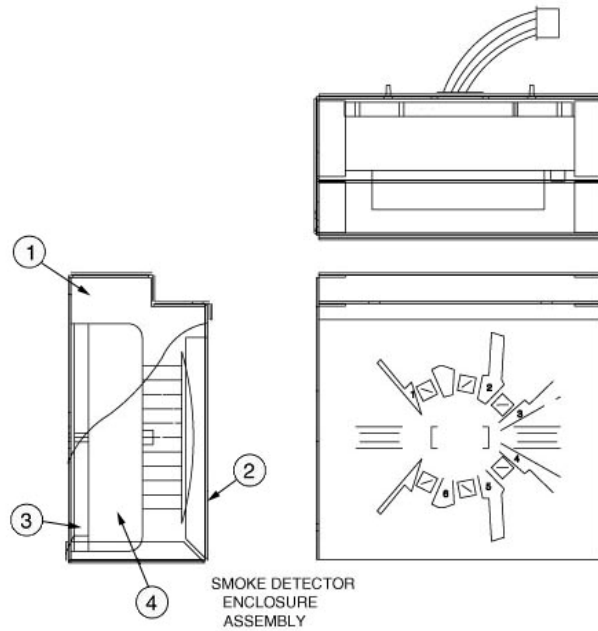
Item	Part #	Description	Volts	2 Ton	3 Ton
1	154213P1	Firestat Open on Rise MM2	ALL	1	1

11.3. Smoke Detector



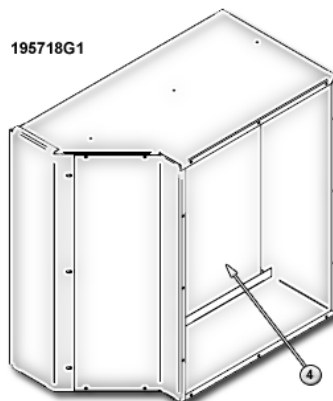
Item	Part #	Description	Volts	2 Ton	3 Ton
1	128230P1	Tube Sampling Smoke Detector	ALL	1	1
2		Smoke Detector Enclosure on Page 30			
3	F02-8800	Conn Tube Smoke Detector	ALL	1	1
10	S04-0420	Tubing Vinyl Clear 3/4ID	ALL	1	1
17	124502P1	PWA Smoke Detector Cntl 24VDC	ALL	1	1
	<i>Note: This item is mounted in the electrical panel</i>				

11.3.1. Smoke Detector Enclosure



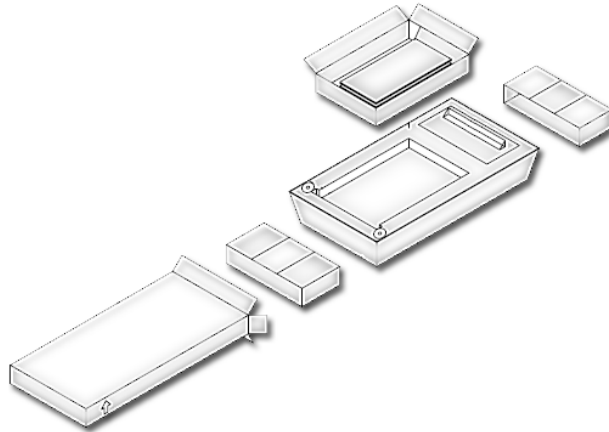
Item	Part #	Description	Volts	2 Ton	3 Ton
1	149100P1	BOX SMOKE DETECTOR 731U	ALL	1	1
2	149101P1	COVER SMOKE DETECTOR 731U	ALL	1	1
3	149102P1	BASE SMOKE DETECTOR 702E	ALL	1	1
4	149103P1	SENSOR SMOKE DETECTOR PHOTOELECTRIC	ALL	1	1

11.4. Filter Box Assembly



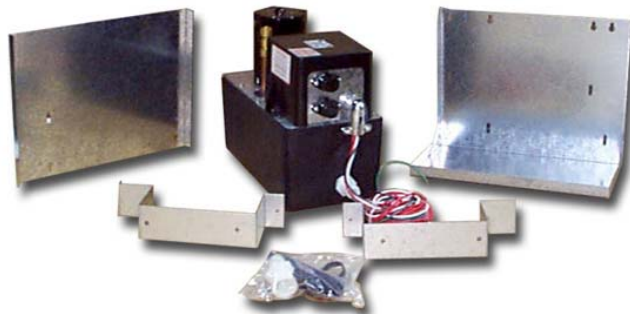
Item	Part #	Description	2 Ton	3 Ton
1	195534P3	FILTER 20X20X4 MERV 7	1	1

11.5. Air Distribution Plenum



Part #	Description	2 Ton	3 Ton
195524P2	FILTER 16X25X4 MERV 7	1	1
195717G1	MERV 7 Air Distribution Plenum	1	1

11.6. Condensate Pump Kits



Part #	Description	Volts	2 Ton	3 Ton
134001P1	Pump Condensate 208/30/1/65 MM	208/230/1-60	1	1
		208/230-3-60	1	1
		220/240-1-50	1	1
134001P2	Pump Condensate 277/1/60/50 MM	277-1-60	1	1
134001P3	Pump Condensate 460/1/60/50 MM	380/415-3-50	1	1
		460-3-60	1	1
SKCPHTMM0023P	Serv. Cond Pump w/o Tank MM 208	208/230-1-60	1	1
		208/230-3-60	1	1
		220/240-1-50	1	1
SKCPHTMM0023PT	Serv. Cond Pump w/ Tank MM 208	208/230-1-60	1	1
		208/230-3-60	1	1
		220/240-1-50	1	1
SKCPHTMM0023X	Serv. Cond Pump w/o Tank MM 277	277-1-60	1	1
SKCPHTMM0023XT	Serv. Cond Pump w/ Tank MM 277	277-1-60	1	1
SKCPHTMM0048A	Serv. Cond Pump w/o Tank MM 460	380/415-3-50	1	1
		460-3-60	1	1
SKCPHTMM0048AT	Serv. Cond Pump w/ Tank MM 460	380/415-3-50	1	1
		460-3-60	1	1

11.7. Single Point Power Kit



Part #	Description	2 Ton	3 Ton
156039G1	Kit SPP MM2 2&3T 1PH No Fuse	X	X
156039G2	Kit SPP MM2 2&3T 3PH No Fuse		X
156039G3	Kit SPP MM2 2&3T 1PH 50E 20C	X	
156039G4	Kit SPP MM2 2&3T 1PH 60E 40C		X
156039G5	Kit SPP MM2 2&3T 1PH 35E 40C		X
156039G6	Kit SPP MM2 2&3T 1PH 45E 40C		X
156039G7	Kit SPP MM2 2&3T 1PH 50E 30C		X
156039G8	Kit SPP MM2 2&3T 1PH 60E 30C		X
156039G9	Kit SPP MM2 2&3T 1PH NoE 40C		X
156039G10	Kit SPP MM2 2&3T 3PH 45E NoC		X




















Note: See Sales Price Book for Specific Application.

11.8. Field Add-On Kits

Part #	Description	Volts	2 Ton	3 Ton
164022G1	Kit Filter Clog 1//5T MM2	ALL	1	1
164135G1	Kit Firestat 1//5T MM2	ALL	1	1
164252G1	Kit Smoke Detector D/B MM2 2/3T	ALL	1	1
164254G1	Kit Hum MM2 2/3T 208//277	208/230-1-60	1	1
		208/230-3-60	1	1
		220/240-1-50	1	1
		277-1-60	1	1
164254G2	Kit Hum MM2 2/3T 380//460	380/415-3-50	1	1
		460-3-60		1
156331G1	Kit Elec RH 208/230 1P 2/3T MM2	208/230-1-60	1	1
		220/240-1-50	1	1
156332G1	Kit Elec RH 277 1P 2/3T MM2	277-1-60	1	1
164250G1	Kit Elec RHT 208/230 3P 3T	208/230-3-60		1
164250G2	Kit Elec RHT 380/415 3P 3T	380/415-3-50	1	1
164250G3	Kit Elec RHT 460 3P 3T	460-3-60		1
SKARATHMM2	Kit Return Air Temp/Humid MM2	ALL	1	1
SKARCISDMM2	Kit Rem Ind Smoke Detector MM2	ALL	1	1

12. Parts Gallery

			
Motor Mount HW	1C19516P1	1D19535P1	156003P1
			
1A17649P1	156181P1	156051P1	B-1440
			
B13-0150	156052P3	B13-0100/B13-0080	B13-0210
			
156376P1	156103P1	156153G1	1A18660P1
			
1A19716P1	154083P1	156141P1	168166P1
			
1C11305P1	P02-0260	1C19696P1	124216P2
			
P15-0140	164790P1	124220P1	156060G1L

			
154240P1	154243P1 rev2	154243P1 rev3	128751P1
			
127853P1	128759P1	127992P1	P-057A
			
P-057B	KIT-164659P1	1A19592P1	136972P1
			
154016P1	E03-0170	154005P1	154237P1
			
148366P11	136965P1	166810G1	136782P1
			
156108P1	R-0520	1A23985P1	154246P3
			
154246P2	156033P2	156033P1	156171P1

			
156168P1	156169P2	156167P1	156166P1
			
156165P1	1C18352P1	156359P1	156356P1
			
156366P1	156556P1	156554P1	156557P1
			
E15-0010	E-011A	1A17009P1	127977P3
			
136201P1	E03-0010	415771G1	B03-0030
			
E-013A	1C18351P2	E13-0040	E-0110
			
136200P1	4A10033P1	124501P1	154190G1

			
154021P1	517017P1	139166P1	E-011C
			
129629P1	E-1160	136201P1	156190G1
			
139170G1	E02-0160	154244P1	1C22351P1
			
E-0130	153210G1	154020P1	154213P1
			
128230P1	F02-8800	S04-0420	124502P1
			
195534P3	195717G1	134001P1	156039G1

13. Revision Page

Revision Date	Modification	Details
08/27/2009	Changed filter part numbers	Old Part # New Part# 1A19647P1 195534P3 1A19527P1 195524P2
	Removed 154150G2	Removed "Filter Box Assy 30%" from the menu
02/2010	Manual conversion	