

Liebert Challenger™ 3000



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Precision Cooling
For Business-Critical Continuity

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1. Product Features

3 or 5 Tons of Air Conditioning in Less Than 7 Square Feet

A self contained environmental control system that is available in 21 different configurations to meet your application needs. It fits into 7 square feet of corner space and is front accessible for service, reducing the amount of floor space needed to be kept open. The Challenger 3000 provides complete environmental control: Temperature; Humidity; Air Filtration; 24 hours per day, 365 days per year.

Ideal Applications:

- Laboratories and medical imaging suites
- Telecommunications switching offices
- Industrial process control
- Computer rooms

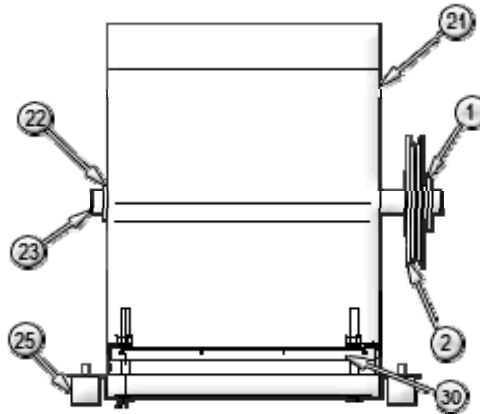
Product Features:

- Reliable refrigeration components featuring scroll compressors, A-Frame Evaporator coils, all factories pre-piped, wired, and tested in a rugged, easy-access tubular-steel frame.
- Two levels of microprocessor control systems.
- Optional SCR-controlled reheats for precise control of temperature.

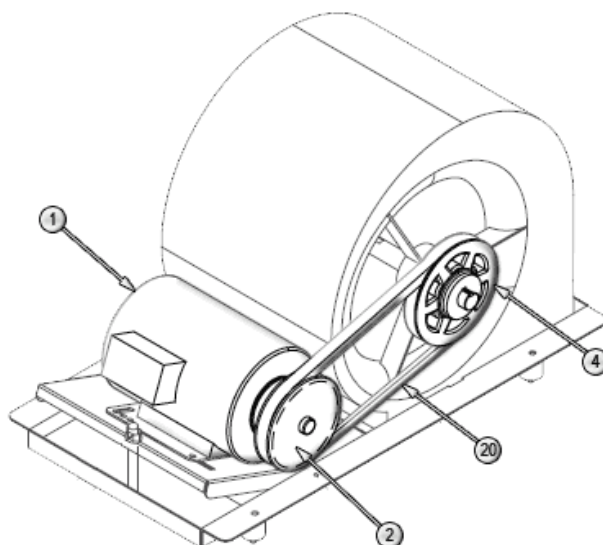
2. Model Number Definition

B	F	042	A	—	A	S	E	I
Challenger 3000	E= Downflow with Econ-O-Coil	Nominal capacity in thousand BTUH	A= Air Cooled	A=460/60/3	A= Advanced Microprocessor	0= No Reheat	0= No Humidifier	
	F= Downflow		C= Chilled Water	B=575/60/3	G= Advanced Microprocessor w/graphics	E= Electric Reheat	I= Infrared Humidifier	
	K= Upflow with Econ-O-Coil		E= Evaporator	C=208/60/3		H= Hot Water Reheat	S= Steam Generating Humidifier	
	U= Upflow		G= GLYCOOL	D=230/60/3		G= Hot Gas Reheat		
			WG= Water Cooled/ Glycol Cooled	2=380/60/3		S= SCR Reheat		
				J=200/50/3				
				H=230/50/3				
				M=380/415/50/3				

3. Blower/ Motor Section



Item #	Part Number	Description	Quantity
1	B-0080	BUSHING PULLEY H 1"DIA	1
2	B13-0150	PULLEY AK61H	1
	136988P1	PULLEY BK60H	1
	B-0540	PULLEY 2BK80H	1
	B02-0050	PULLEY 2BK90H	1
21	1A24383P1	BLOWER W/H A12-09ATX1.00	1
	136589P1	BLOWER W/H A12-06ATX1.00 CL2	1
	136590P1	BLOWER W/H A12-09ATX1.00 CL2	1
	B06-001A	BRKT BLW MTR MTG A12-12A	1
	B06-0010	BLOWER W/H A12-12ATX1.00	1
22	185861P1	BEARING ASSEMBLY 2-015 SERIES	2
23	136968P1	SHAFT 15.88 X 1.00 C-1018	1
	136786P1	SHAFT 15.88 X 1.00 CLASSII	1
	136591P1	SHAFT 19.25 X 1.00 CLASSII	1
25	136556P1	ISOLATOR 1-1/4X1-1/4-5/16-18	4
30	136610P1	BASE MOTOR MOUNTING	1

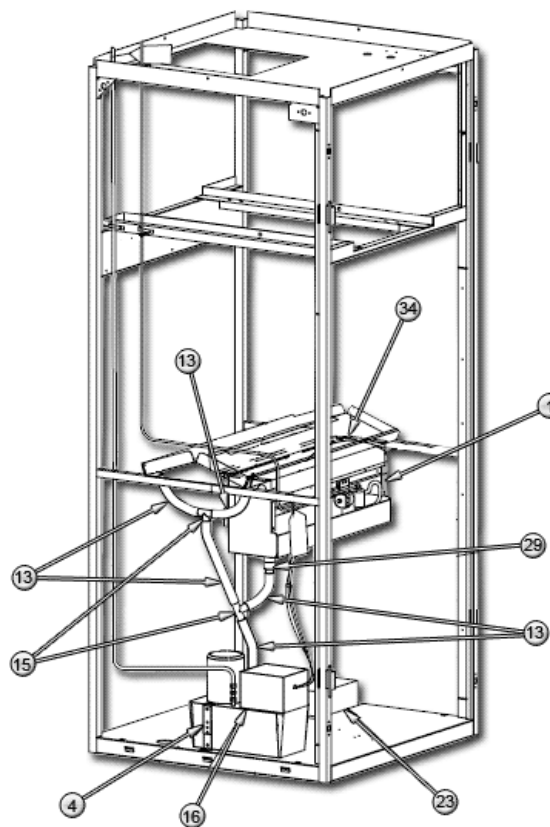


Item #	HP	Part Number	Description	Quantity
1	.75 HP	1A21868P1	BASE MOTOR MOUNTING	1
		B13-0260	MOTOR .75HP 208-3-60 INTOL	1
		B13-0270	MOTOR .75HP 230/460-3-60	1
		136746P1	MOTOR .75HP 575 HI EFF	1
		B13-0280	MOTOR .75HP 575-3-60 INTOL	1
	1 HP	B-1720	MOTOR 1.0HP 200/208-3-60 E+	1
		B-0900	MOTOR 1.0HP 200/380/400-3-50	1
		B13-0290	MOTOR 1.0HP 208-3-60 INTOL	1
		B-1080	MOTOR 1.0HP 220/380-3-50	1
		B13-0300	MOTOR 1.0HP 230/460-3-60	1
		B-1730	MOTOR 1.0HP 230/460-3-60	1
		B-2200	MOTOR 1.0HP 380-3-60	1
		136746P2	MOTOR 1.0HP 575 HI EFF	1
		B13-0310	MOTOR 1.0HP 575-3-60 INTOL	1
		B-2210	MOTOR 1.5HP 190/380-3-60	1
		B-1740	MOTOR 1.5HP 200/208 E+ OPD	1
	1.5 HP	B-0910	MOTOR 1.5HP 200/380/400-3-50	1
		B-1090	MOTOR 1.5HP 220/380-3-50	1
		B-1750	MOTOR 1.5HP 230/460 E+ OPD	1
		136746P3	MOTOR 1.5HP 575 HI EFF	1
		B13-0320	MOTOR 1.5HP 208/230-3-60 INTOL	1
		B13-0330	MOTOR 1.5HP 230/460-3-60	1
		B13-0340	MOTOR 1.5HP 575-3-60	1
		B-1760	MOTOR 2.0HP 200/208-3-60 E+	1
	2 HP	B-0920	MOTOR 2.0HP 200/380/400-3-50	1
		B-022A	MOTOR 2.0HP 208/230/460-3-60	1
		B-1100	MOTOR 2.0HP 220/380-3-50	1
		B-1770	MOTOR 2.0HP 230/460-3-60	1
		B-2160	MOTOR 2.0HP 380-3-60	1
		136746P4	MOTOR 2.0HP 575 HI EFF	1
		B-023A	MOTOR 2.0HP 575-3-60	1
		B-025A	MOTOR 3.0HP 208/230/460-3-60	1
	3HP	B-026A	MOTOR 3.0HP 575-3-60	1
2	-	B-0660	SHEAVE 1VP56X7/8	1
		B-1380	SHEAVE 1VP60X7/8	1
		B-005A	SHEAVE 1VP50X7/8	1
		136944P1	SHEAVE 1VP50X1-1/8	1
		B13-0120	SHEAVE 1VP44X7/8	1
		136945P1	SHEAVE 1VP56X1-1/8	1
		B13-0110	SHEAVE 1VP40X7/8	1
		B13-0100	SHEAVE 1VP40X5/8	1
		B13-0080	SHEAVE 1VP34X5/8	1

Item #	HP	Part Number	Description	Quantity
4	-	183105P1	SHEAVE AK66H	1
		183106P1	SHEAVE AK71H	1
		B13-0150	PULLEY AK61H	1
		183107P1	SHEAVE AK74H	1
20	-	B13-0190	BELT A-35	1
		B13-0200	BELT A-36	1
		B13-0210	BELT A-37	1
		128179P1	BELT A-38 "V"BELT	1
		B13-0220	BELT A-39	1
		B13-0250	BELT A-40	1
		B13-0230	BELT A-41	1
		B-1690	BELT B-36	1
		B-0550	BELT B-42	1

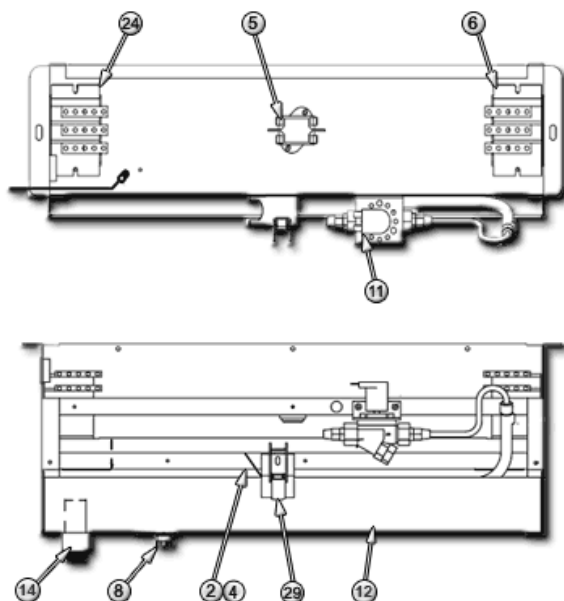
4. Humidifier Section Front Return

4.1. Upflow IR Option w/ Condensate Pump



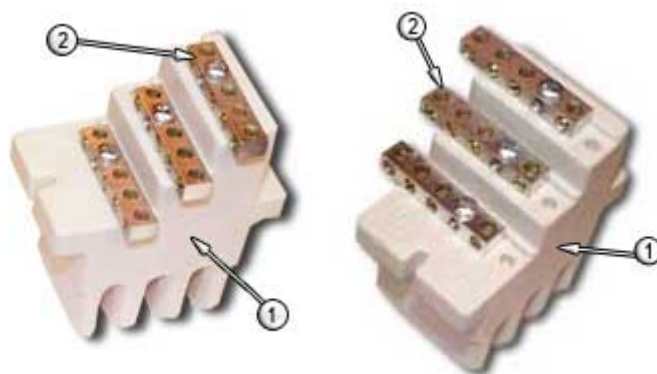
Item #	Part Number	Description	Quantity
1		HUM ASSY IR (See Page 6)	
4	F20-2300	BRKT COND PUMP ADJ-PART B	1
13	P15-0170	HOSE DRAIN .75 ID STRAIGHT	1
15	1A16207P1	TEE BARB 3/4X3/4X3/4	2
16	1A1927P1	PUMP CONDENSATE 208/230/1/60DF	1
	1C19034P1	PUMP CONDENSATE 460 W/WIRE	1
	1A19271P2	PUMP CONDENSATE 460/1/60DF	1
	X-015A	PUMP CONDENSATE W/O AUX W/WIRE	1
23	E05-4600	XFMR 500VA 60 575-230	1
29	P-5400	ADAPTER SWIVL3/4FPTX3/4HOSEBRB	1
34	136635P1	HUMIDIFIER DUCT	1

4.1.1. Hum Assy IR



Item #	Part Number	Description	Quantity
2	124578P1	REFLECTOR IR HUMIDIFIER	1
4	H-002A	LAMP I/R LINEAR/QRTZ 1600W208V	1
	H-0020	LAMP I/R LINEAR/QRTZ 1600W240V	1
	H13-0010	LAMP I/R LINEAR/QRTZ 1600W277V	1
5	R13-0090	SAFETY SWT THERM 120F TR	1
6/24		SOCKET ASSEMBLY (See Page 6)	
8		HUMIDIFIER RESET SAFETY (See Page 7)	
11		VALVE SOLENOID ASSEMBLY (See Page 7)	
12	179856G1	DRAIN PAN ASSY CHAL	1
14	1C18003G6	BASE STANDPIPE/DRAIN VALVE	1
29	136743P1	LATCH HUMIDIFIER PAN	1

4.1.2. Socket Assembly



Part Number	Description	Quantity
009-0262	HUM SOCKET ASSY 3 5POS LEFT	1
009-0261	HUM SOCKET ASSY 3 5POS LEFT	1

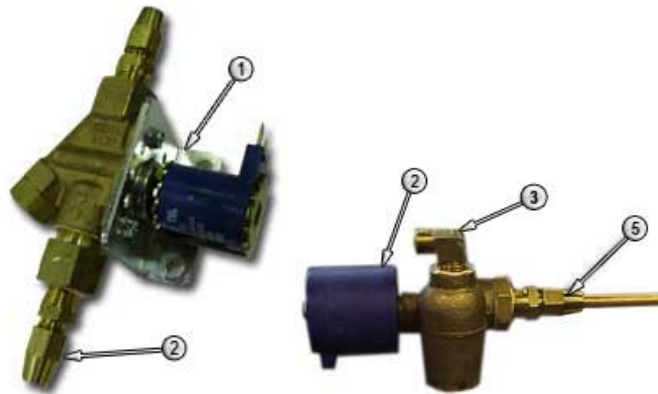
Item #	Part Number	Description	Quantity
1	H-014A	SOCKET BUSBAR PORCELAIN	1
2	H-0370	BUSBAR HUMIDIFIER HI-VOLT	3

4.1.3. Humidifier Reset Safety



Item #	Part Number	Description	Quantity
3	H-0450	SENSOR SAFETY THOPN-RISE 225F	1

4.1.4. Valve Solenoid Assembly

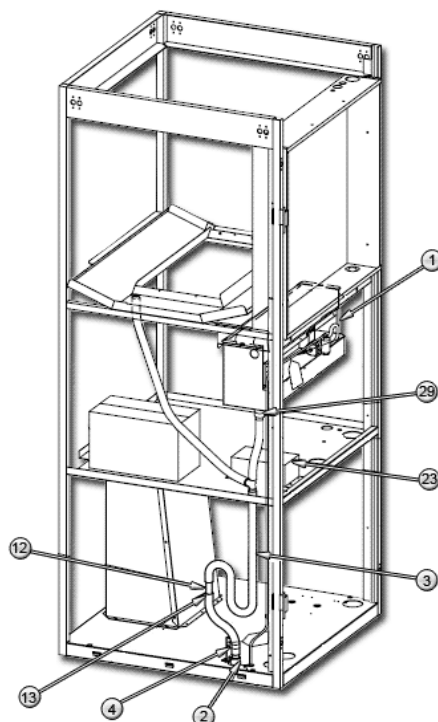


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1C11414G1

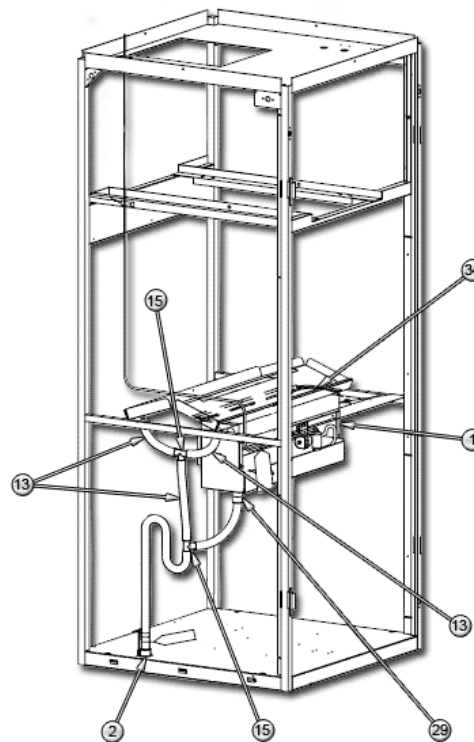
Item #	Part Number	Description	Quantity
1	185108P1	VALV SOLND/STRNR/FLWREG .5GPM	1
2	P-5590	VALVE SOL/STRNR/FLO-REG .5 GPM	1
3	P15-0250	ELL BRASS 1/4COMX1/4NPT	1
5	127781P1	ADAPTER BRASS 1/4COMX1/4MPT	1

4.2. Downflow IR Option



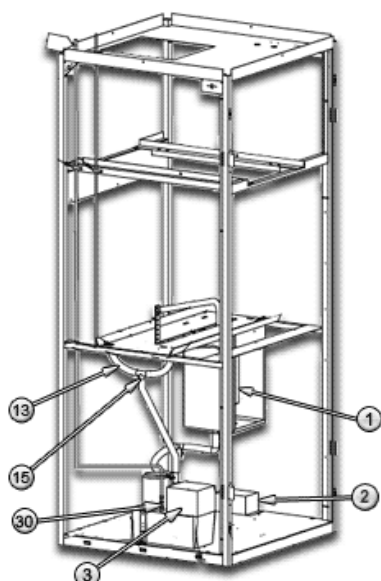
Item #	Part Number	Description	Quantity
1		HUMIDIFIER ASSEMBLY IR (See Page 6)	
2	P02-0260	ADAPTER POLY 3/4FPTX3/4HOSE	1
3	P15-0170	HOSE DRAIN .75 ID STRAIGHT	1
4	P15-0170	HOSE DRAIN .75 ID STRAIGHT	1
12	P15-0140	UNION NYLON 3/4BARBX3/4BARB	1
13	F20-2300	BRKT COND PUMP ADJ-PART B	1
23	E05-4600	XFMR 500VA 60 575-230	1
29	P-5400	ADAPTER SWIVL3/4FPTX3/4HOSEBRB	1

4.3. Upflow IR No Pump

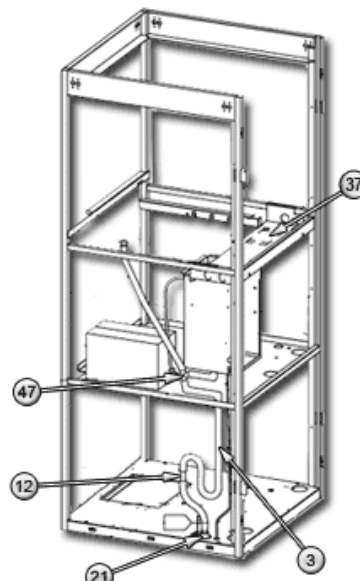


Item #	Part Number	Description	Quantity
1		HUMIDIFIER IR ASSY (See Page 6)	
2	P02-0260	ADAPTER POLY 3/4FPTX3/4HOSE	1
13	P15-0170	HOSE DRAIN .75 ID STRAIGHT	1
15	1A16207P1	TEE BARB 3/4X3/4X3/4	2
29	P-5400	ADAPTER SWIVL3/4FPTX3/4HOSEBRB	1
34	136635P1	HUMIDIFIER DUCT	1

4.3.1. Steam Generating



A: UpFlow Steam Generating Humidifier
Option w/ Condensate Pump



B: DownFlow Steam Generating Humidifier
Option

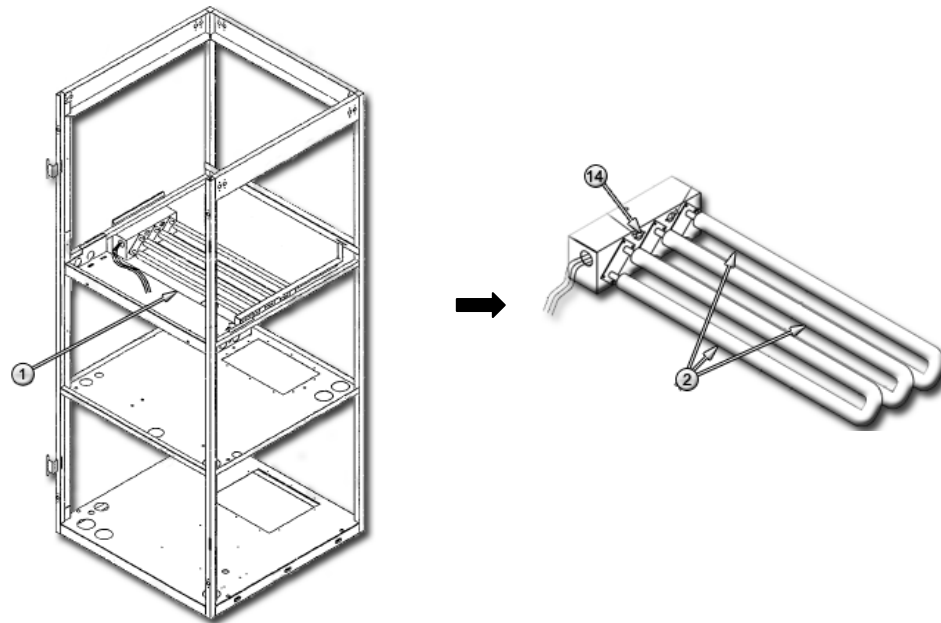
A.

Item #	Part Number	Description	Quantity
1	136555G1	HUM CANNISTER 11LB/HR 200//230	1
	136555G3	HUM CANNISTER 11LB/HR 380//575	1
	136798P1	TANK HUMIDIFIER 200-230V	1
	136798P2	TANK HUMIDIFIER 380-575V	1
2	E05-4600	XFMR 500VA 60 575-230	1
3	1A1927P1	PUMP CONDENSATE 208/230/1/60DF	1
	1C19034P1	PUMP CONDENSATE 460 W/WIRE	1
	1A19271P2	PUMP CONDENSATE 460/1/60DF	1
	X-015A	PUMP CONDENSATE W/O AUX W/WIRE	1
13	P15-0170	HOSE DRAIN .75 ID STRAIGHT	1
15	1A16207P1	TEE BARB 3/4X3/4X3/4	2
30	121965P2	FTG CROSS 3/8HOSE X 3/8TUB 90	1

B.

Item #	Part Number	Description	Quantity
3	P15-0170	HOSE DRAIN .75 ID STRAIGHT	1
12	P15-0140	UNION NYLON 3/4BARBX3/4BARB	1
21	P02-0260	ADAPTER POLY 3/4FPTX3/4HOSE	1
37	E05-4600	XFMR 500VA 60 575-230	1
47	121965P2	FTG CROSS 3/8HOSE X 3/8TUB 90	1

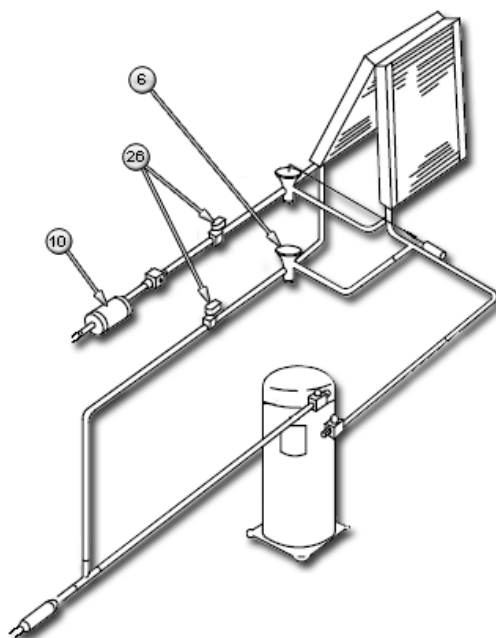
4.3.2. Reheat Assembly



Item #	Part Number	Description	Quantity
2	148366P1	HEATER 03.0KW 208V SS 304 S/F	3
	148366P2	HEATER 03.0KW 230V SS 304 S/F	3
	148366P4	HEATER 03.0KW 460V SS 304 S/F	3
	148366P5	HEATER 03.0KW 575V SS 304 S/F	3
	148366P7	HEATER 05.0KW 230V SS 304 S/F	3
	148366P9	HEATER 05.0KW 460V SS 304 S/F	3
14	136965P1	SAFETY SWT THERM 105F	2

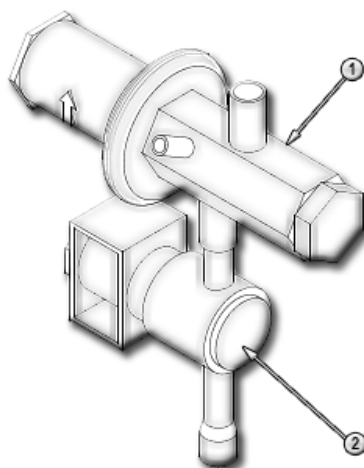
5. Piping Section

5.1.1. Air



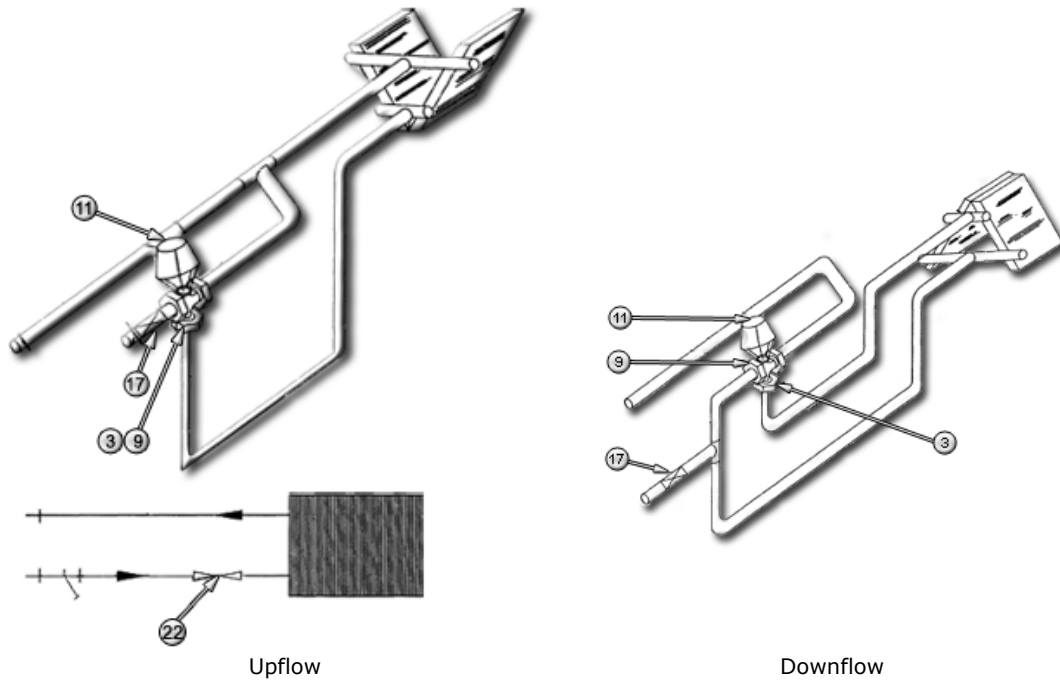
Item #	Part Number	Description	Quantity
6		HOT GAS ASM (See Page 12)	
10	180908P1	FILTER/DRIER 164-S 1/2"ODF	1
	180910P1	FILTER/DRIER 305-S 5/8"ODF	1
	180909P1	FILTER/DRIER 304-S 1/2"ODF	1
26	1A23985P1	VALVE SOLND 1/2" NC 24V 50/60	1

5.1.1.1. Hot Gas ASM



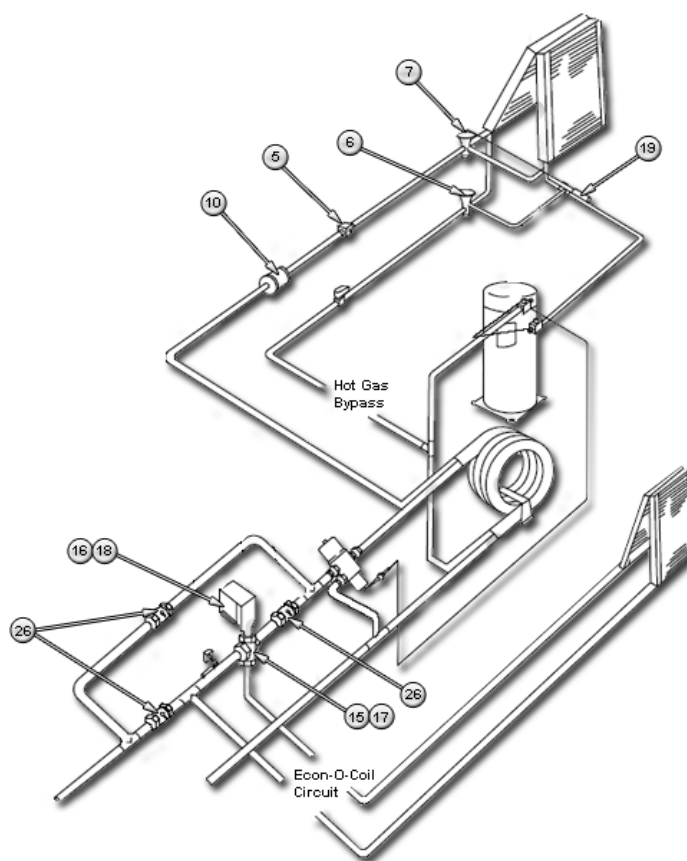
Item #	Part Number	Description	Quantity
1	P-0180	VALVE BYPASS/DISCH 1/20DF SLDR	1
2	P-0080	VALVE SOLENOID 1/2MXF 24V-50/60	1

5.1.2. Chilled Water



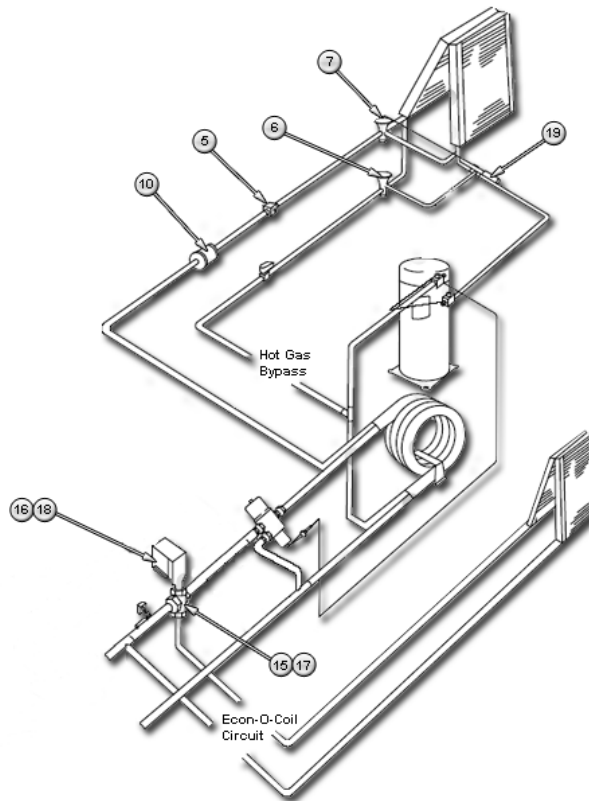
Item #	Part Number	Description	Quantity
3	159006P3	VALVE CW2WAY 1" 250# B/C	1
	159009P1	VALVE 1"2WAY UNION BODY	1
9	146352G1	ACTUATOR ASSY SP SML 92" WH	1
	128122G2	ACTUATOR ASSY CHAL 3/5T /CAM77	1
11	146352G1	ACTUATOR ASSY SP SML 92" WH	1
	128122G2	ACTUATOR ASSY CHAL 3/5T /CAM77	1
17	127998P2	SW FLOW ASSY 1-1/8"	1
	1C18346G1	TEE ASSY 1-1/8 FLOW SWITCH SP	1
22	P-411B	VALVE CHECK BRASS IN-LINE	1

5.1.3. Glycool

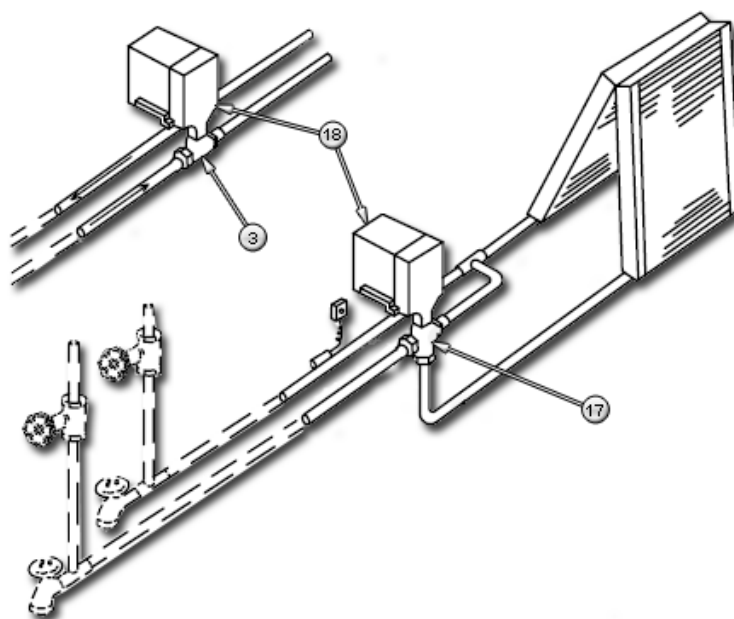


Item #	Part Number	Description	Quantity
5	127997P1	SIGHT GLASS CLEAR W/FLOAT 1"	1
6		HOT GAS ASM (See Page 12)	
7	128157P1	VALVE EXP 1/2X5/8X1/4ODF 3T	1
10	180908P1	FILTER/DRIER 164-S 1/2"ODF	1
	180910P1	FILTER/DRIER 305-S 5/8"ODF	1
	180909P1	FILTER/DRIER 304-S 1/2"ODF	1
15	159007P3	VALVE CW3WAY 1" 250# B/C	1
	159010P1	VALVE 1"3WAY UNION BODY	1
16	146352G1	ACTUATOR ASSY SP SML 92" WH	1
	128122G2	ACTUATOR ASSY CHAL 3/5T /CAM77	1
17	159007P3	VALVE CW3WAY 1" 250# B/C	1
	159010P1	VALVE 1"3WAY UNION BODY	1
18	146352G1	ACTUATOR ASSY SP SML 92" WH	1
	128122G2	ACTUATOR ASSY CHAL 3/5T /CAM77	1
19	148039P1	SENSOR GLYCOL W/PLUG	1
26	F02-371A	SUPPORT VALVE TEV	1

5.1.4. Water Glycol



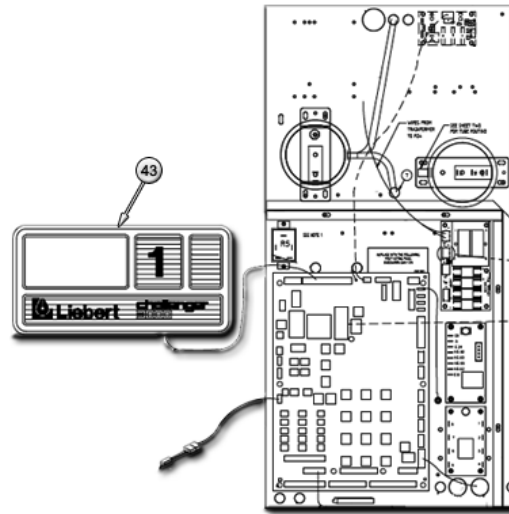
Item #	Part Number	Description	Quantity
5	127997P1	SIGHT GLASS CLEAR W/FLOAT 1"	1
6		HOT GAS ASM (See Page 12)	
7	128157P1	VALVE EXP 1/2X5/8X1/4ODF 3T	1
10	180908P1	FILTER/DRIER 164-S 1/2"ODF	1
	180910P1	FILTER/DRIER 305-S 5/8"ODF	1
	180909P1	FILTER/DRIER 304-S 1/2"ODF	1
15	159007P3	VALVE CW3WAY 1" 250# B/C	1
	159010P1	VALVE 1"3WAY UNION BODY	1
16	146352G1	ACTUATOR ASSY SP SML 92" WH	1
	128122G2	ACTUATOR ASSY CHAL 3/5T /CAM77	1
17	159007P3	VALVE CW3WAY 1" 250# B/C	1
	159010P1	VALVE 1"3WAY UNION BODY	1
18	146352G1	ACTUATOR ASSY SP SML 92" WH	1
	128122G2	ACTUATOR ASSY CHAL 3/5T /CAM77	1
19	148039P1	SENSOR GLYCOL W/PLUG	1

5.1.5. Econo Coil

Item #	Part Number	Description	Quantity
3	159006P3	VALVE CW2WAY 1" 250# B/C	1
	159009P1	VALVE 1"2WAY UNION BODY	1
17	159007P3	VALVE CW3WAY 1" 250# B/C	1
	159010P1	VALVE 1"3WAY UNION BODY	1
18	146352G1	ACTUATOR ASSY SP SML 92" WH	1
	128122G2	ACTUATOR ASSY CHAL 3/5T /CAM77	1

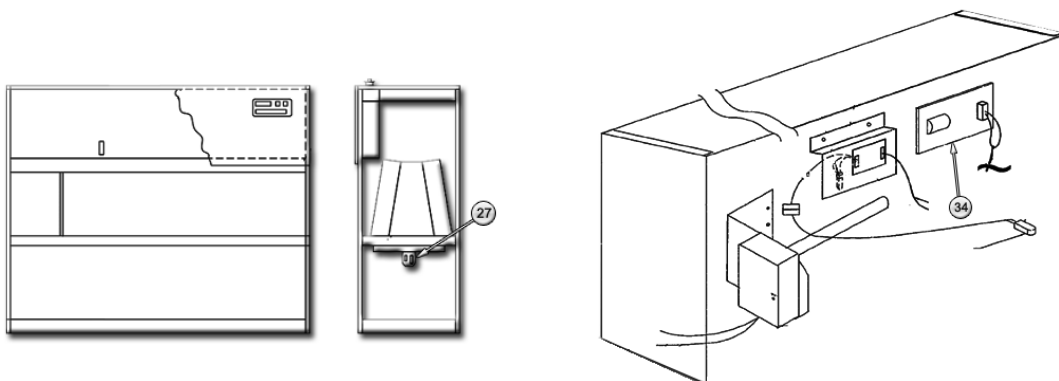
6. Electrical Section

6.1. Display



Item #	Part Number	Description	Quantity
43	139140G1	DISPLAY ASM L15 GRAPHICS	1
	139145G5	DISPLAY ASM AM UNISYS 24IN/WH	1
	139145G6	DISPLAY ASM AM UNISYS 36IN/WH	1
	166819G1	DISPLAY ASM AM 4X20 UNIV 24/WH	1
	166819G2	DISPLAY ASM AM 4X20 UNIV 36/WH	1
	135687G1	DISPLAY ASM SM C3000 ENGLISH	1
	135687G2	DISPLAY ASM SM C3000 FRENCH	1
	135687G3	DISPLAY ASM SM C3000 SPANISH	1
	135687G7	DISPLAY ASM SM S3 UNISYS	1

6.2. EL Sensors

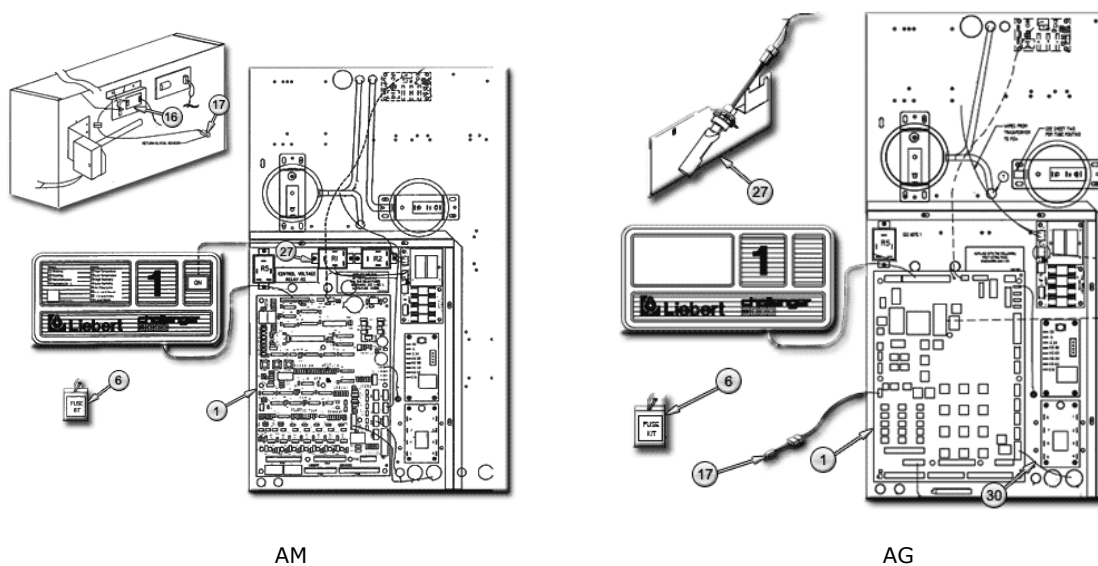


EL Sensor SM/AM/AG

EL Sensor T/H SM/AM/AG

Item #	Part Number	Description	Quantity
27	1C16334G16	SENSORS T/H 15/SMSYST REM 30	1
	1C16334G17	SENSORS T/H 15 REM 060	1
	1C16334G18	SENSORS T/H 15 REM 090	1
	1C16334G19	SENSORS T/H 15 REM 120	1
	1C16334G20	SENSORS T/H 15 REM 150	1
34	4C13121G4	PWA SMT TEMP/HUM GEN EAST SNSR	1

6.3. Controls



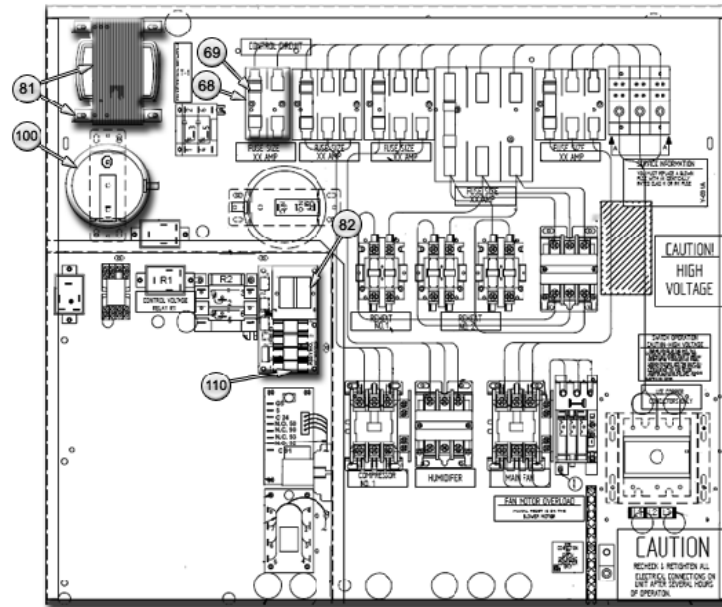
AM

AG

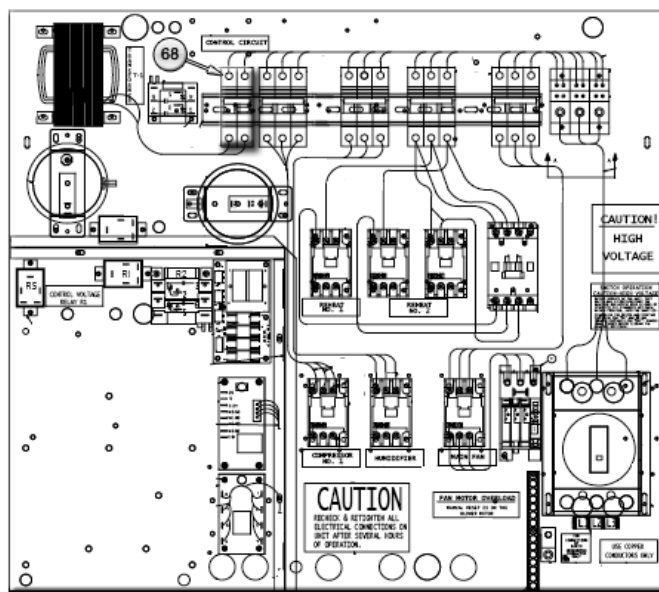
Item #	Type	Part Number	Description	Quantity
1	AM	4D14331G1	PWA CNTL 00 SM C3000	1
		4D14331G3	PWA CNTL 00 SM CW	1
6		135637P2	FUSE KIT QTY 8 4A NON-TD FUSES	1
		135637P3	FUSE KIT QTY 8 6A NON-TD FUSES	1
16		4C14431G1	PWA GLYCOL SYSTEM 3	1
17	AG	148039P1	SENSOR GLYCOL W/PLUG	1
		415761G2	PWA UNIVERSAL CONTROL AM	1
1		415761G3	PWA UNIVERSAL CONTROL AG	1
		415761G4	PWA UNIVERSAL CONTROL AM C3000	1
		415761G5	PWA UNIVERSAL CONTROL AG C3000	1
6		135637P2	FUSE KIT QTY 8 4A NON-TD FUSES	1
		135637P3	FUSE KIT QTY 8 6A NON-TD FUSES	1
17		148039P1	SENSOR GLYCOL W/PLUG	1
27		179859G1	ALARM HIGH WATER C3000	1
		136824G1	ALARM HIGH WATER C3000 AM/AG	1
30		1A19716P1	FREEZSTAT W/BRKT OPN31FCLS48F	2

6.4. Backpanel

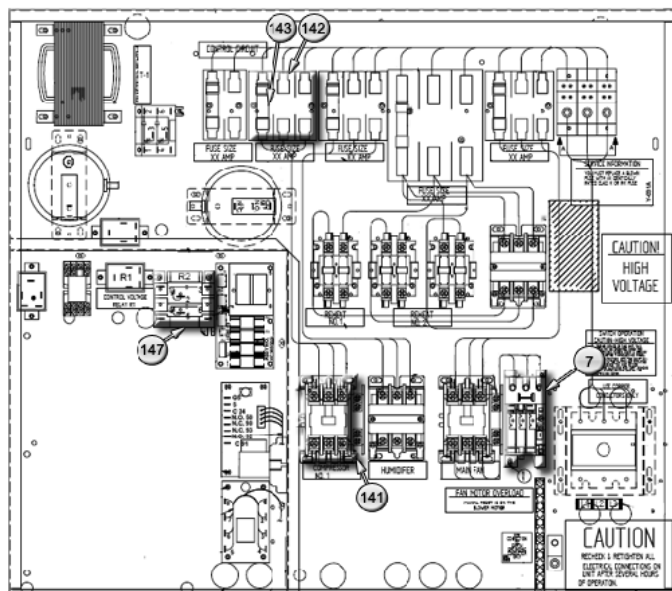
6.4.1.1. Fused



Item #	Part Number	Description	Quantity
68	136810P1	FUSEBLOCK BUSS JP600V 30A 3P	1
	136811P1	FUSEBLOCK BUSS JP600V 30A 3P	1
	E-1020	FUSEBLOCK 250V 3P 030A	1
69	136821P2	FUSE DUAL ELMNT "J" 600V 1.25A	2
	136821P3	FUSE DUAL ELMNT "J" 600V 2.0A	2
	E-2030	FUSE DUAL ELMNT 250V 04.5AMP	2
	E-203D	FUSE DUAL ELMNT 250V 02.8AMP	2
81	136200P1	XFMR 150VA 460/615/2460	1
	136201P1	XFMR 200VA 200-240/2450	1
	136201P2	XFMR 200VA 380-415/2450	1
	136202P1	XFMR 300VA 460-615/2460	1
	136203P1	XFMR 400VA 200-240/24V	1
	136203P2	XFMR 400VA 380-415/2450	1
82	4C14651G1	PWA ISO XFMR/FUSE INTF	1
100	128199P1	SW AIR DIFFERENTIAL 2 PORTS	1
110	135409P2	FUSE GLASS 250V 4AMP .25X1.25	4
	135409P3	FUSE GLASS 250V 6AMP .25X1.25	4

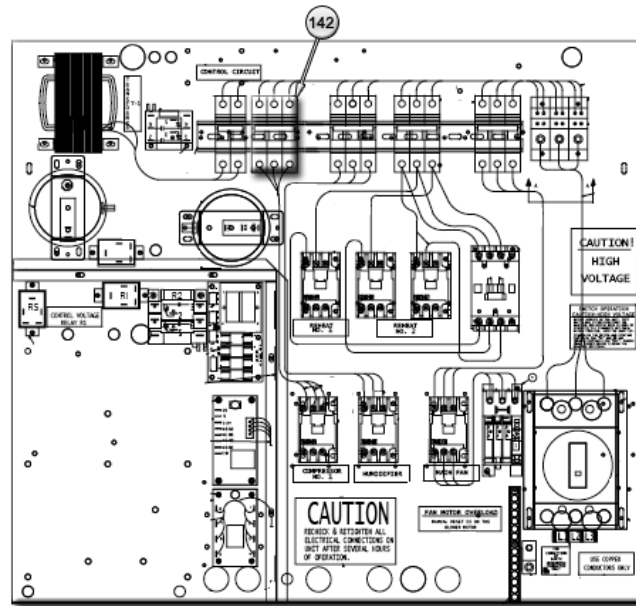


Item #	Part Number	Description	Quantity
68	136240P3	CB MCB 2P 240/415VABBS272-K1.6	1
	136240P5	CB MCB 2P 240/415V ABBS272-K3	1
	136240P7	CB MCB 2P 240/415V ABBS272-K6	1



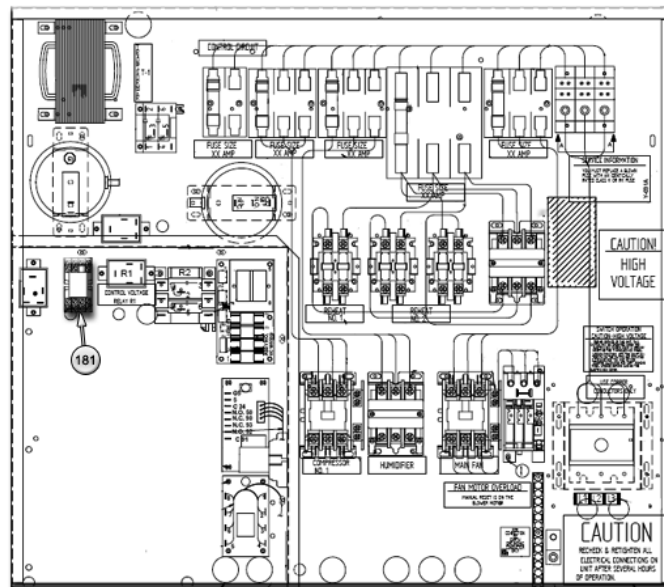
Item #	Part Number	Description	Quantity
7	124547P1	OVERLOAD RELAY W/B MNT 32A C-H	1
141	123273P1	CONTACTOR 3PL 25/30 NO/NC AUX	1
	136233P1	CONTACTOR 3P30IND40RES24/50 AUX	1
142	136811P1	FUSEBLOCK BUSS JP600V 30A 3P	1
	E-1020	FUSEBLOCK 250V 3P 030A	1
143	136821P13	FUSE DUAL ELEMENT "J" 600V 17.5A	3
	E-2080	FUSE DUAL ELMNT 250V 25.0AMP	3
	E-2090	FUSE DUAL ELMNT 250V 30.0AMP	3
147	E-0130	RELAY 2P2T 24VAC COIL	1

6.5.1.2. Circuit Breaker



Item #	Part Number	Description	Quantity
142	136241P10	CB MCB 3P 240/415V ABBS273-K16	1
	136241P11	CB MCB 3P 240/415V ABBS273-K20	1

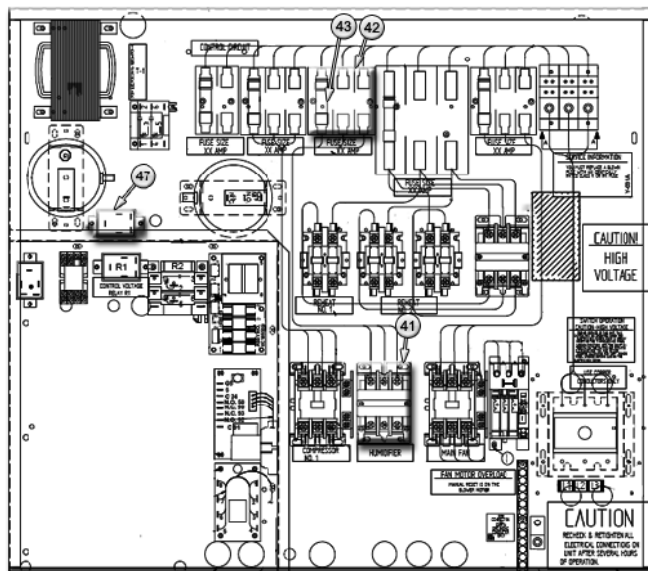
6.6. Condensate Pump



Item #	Part Number	Description	Quantity
181	E-0130	RELAY 2P2T 24VAC COIL	1

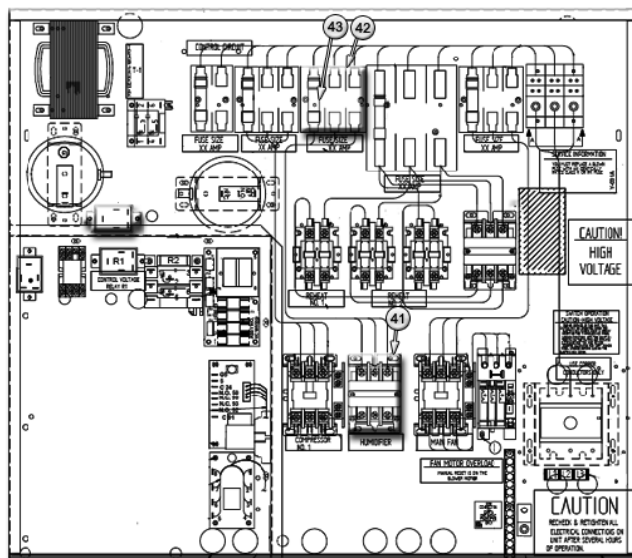
6.7. Humidifier

6.7.1.1. Steam Generating



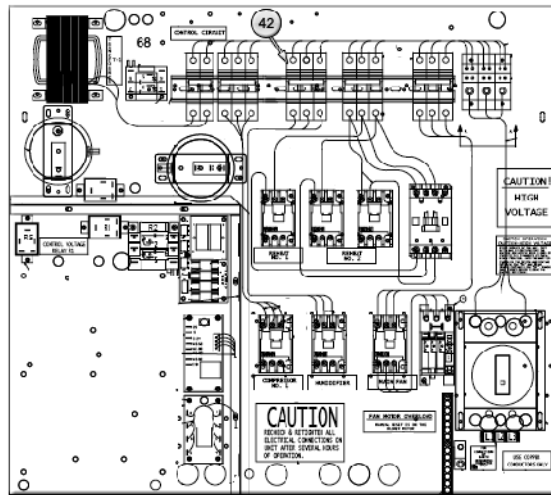
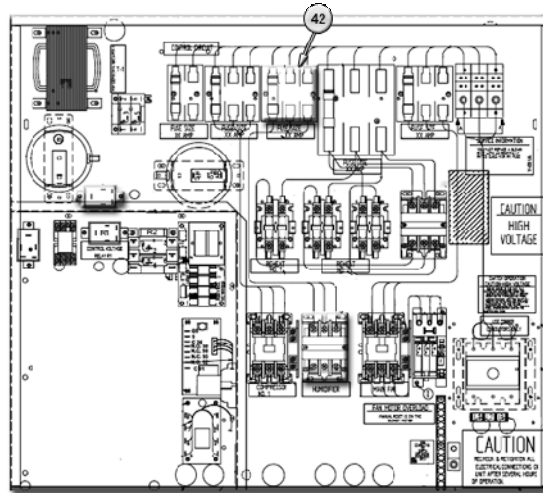
Item #	Part Number	Description	Quantity
41	136221P1	CONTACTOR 3P16IND/21RES24/50	1
	124501P1	CONTACTOR 3PL 24VCOIL 15/20AMP	1
42		Option Fused/Circuit Breaker (See Page)	
43	E-2070	FUSE DUAL ELMNT 250V 15.0AMP	3
	136821P12	FUSE DUAL ELMNT "J" 600V 15.0A	3
47	E03-0170	RELAY 1P2T 24V 50/60HZ	1

6.7.1.2. IR



Item #	Part Number	Description	Quantity
41	136221P1	CONTACTOR 3P16IND/21RES24/50	1
	124501P1	CONTACTOR 3PL 24VCOIL 15/20AMP	1
42		Option Fused/Circuit Breaker (See Page 23)	
43	E-1230	FUSE DUAL ELMNT 250V 20.0AMP	3
	E-2070	FUSE DUAL ELMNT 250V 15.0AMP	3
	136821P12	FUSE DUAL ELMNT "J" 600V 15.0A	3

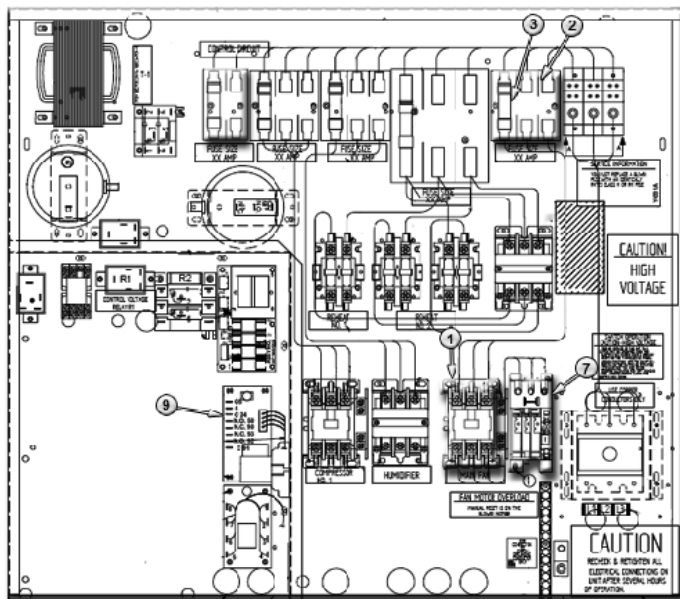
6.7.1.3. Humidifier Option Fused/Circuit Breaker



Item #	Type	Part Number	Description	Quantity
42	Fused	136810P1	FUSEBLOCK BUSS JP600V 30A 3P	1
		136811P1	FUSEBLOCK BUSS JP600V 30A 3P	1
		E-1020	FUSEBLOCK 250V 3P 030A	1
42	CB	136241P10	CB MCB 3P 240/415V ABBS273-K16	1
		136241P11	CB MCB 3P 240/415V ABBS273-K20	1

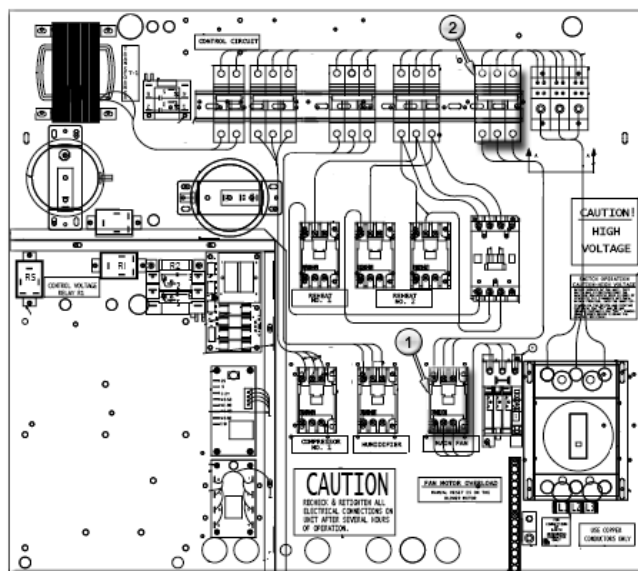
6.7.2. Motor

6.7.2.1. Fused



Item #	Part Number	Description	Quantity
1	124501P1	CONTACTOR 3PL 24VCOIL 15/20AMP	1
2	E-1020	FUSEBLOCK 250V 3P 030A	1
3	136811P1	FUSEBLOCK BUSS JP600V 30A 3P	1
	E-2070	FUSE DUAL ELMNT 250V 15.0AMP	3
	136821P12	FUSE DUAL ELMNT "J" 600V 15.0A	3
7	124547P1	OVERLOAD RELAY W/B MNT 32A C-H	1
9	4C14341G1	PWA MOD MTR 0-10V CONVTR	1

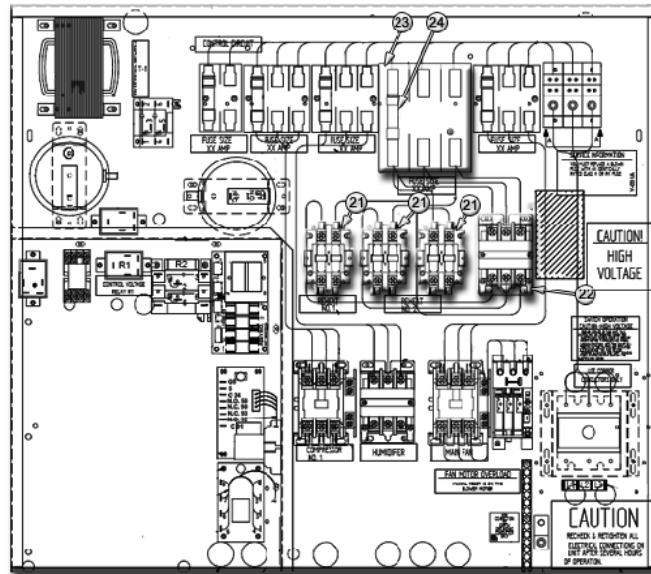
6.7.2.2. Circuit Breaker



Item #	Part Number	Description	Quantity
1	136221P1	CONTACTOR 3P16IND/21RES24/50	1
2	136241P10	CB MCB 3P 240/415V ABBS273-K16	1

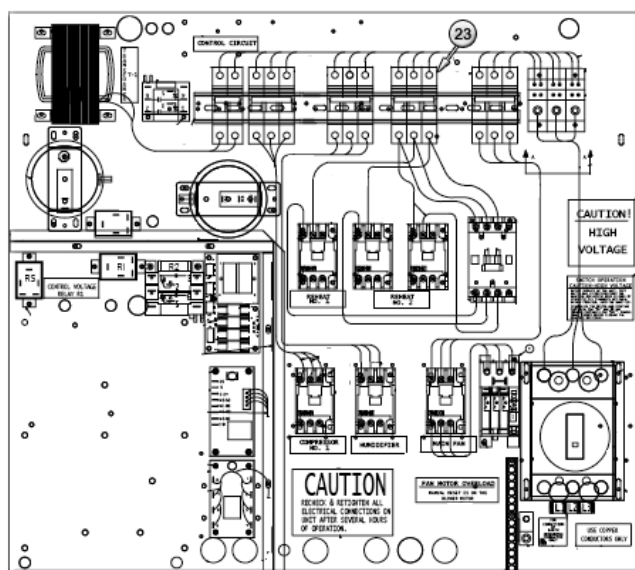
6.7.3. Reheat

6.7.3.1. Fused



Item #	Part Number	Description	Quantity
21	E-011A	CONTACTOR 2PL 24VCOIL 20/30AMP	3
	136222P1	CONTACTOR 3P23IND/32RES24/50	3
22	E-0110	CONTACTOR 3PL 24V COIL 25/30AMP	1
	136222P1	CONTACTOR 3P23IND/32RES24/50	1
23	136223P1	CONTACTOR 3P30IND/40RES24	1
	E-1040	FUSEBLOCK 250V 3P 060A	1
	136811P1	FUSEBLOCK BUSS JP600V 30A 3P	1
	136303P1	FUSEBLOCK 250V 3P 060A SEMICON	1
24	136301P1	FUSEBLOCK 250V 3P 060A CL T	1
	E-1200	FUSE DUAL ELMNT 250V 35.0AMP	3
	E-3060	FUSE DUAL ELMNT 250V 50.0AMP	3
	136821P16	FUSE DUAL ELMNT "J" 600V 30.0A	3
	136821P15	FUSE DUAL ELMNT "J" 600V 25.0A	3
	136821P14	FUSE DUAL ELMNT "J" 600V 20.0A	3
	136821P12	FUSE DUAL ELMNT "J" 600V 15.0A	3
	136302P1	FUSE 250V 60.0AMP SEMICON	3
	136300P1	FUSE 250V 40.0AMP CL T	3

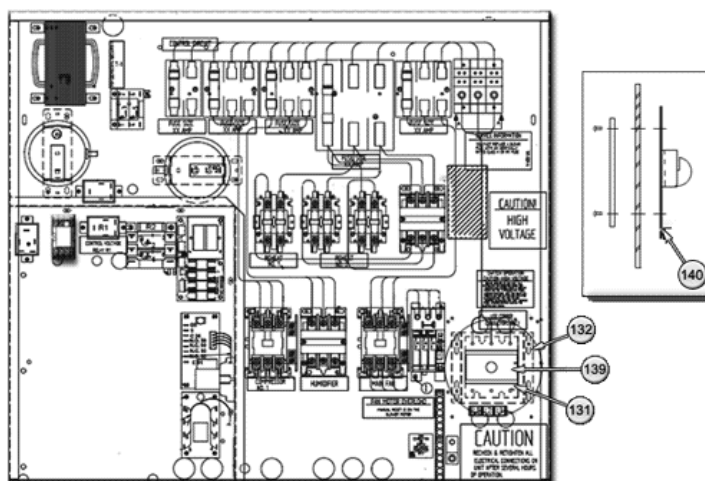
6.7.3.2. Circuit Breaker



Item #	Part Number	Description	Quantity
23	136241P11	CB MCB 3P 240/415V ABBS273-K20	1
	136241P13	CB MCB 3P 240/415V ABBS273-K32	1
	136241P15	CB MCB 3P 240/415V ABBS273-K50	1

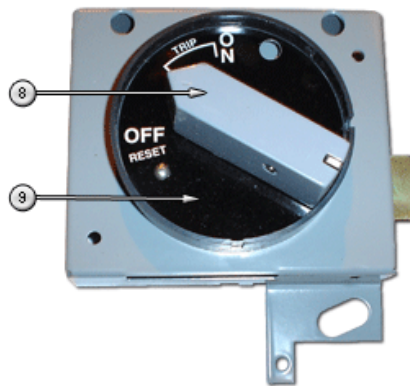
6.7.4. EP Disconnect

6.7.4.1. First View



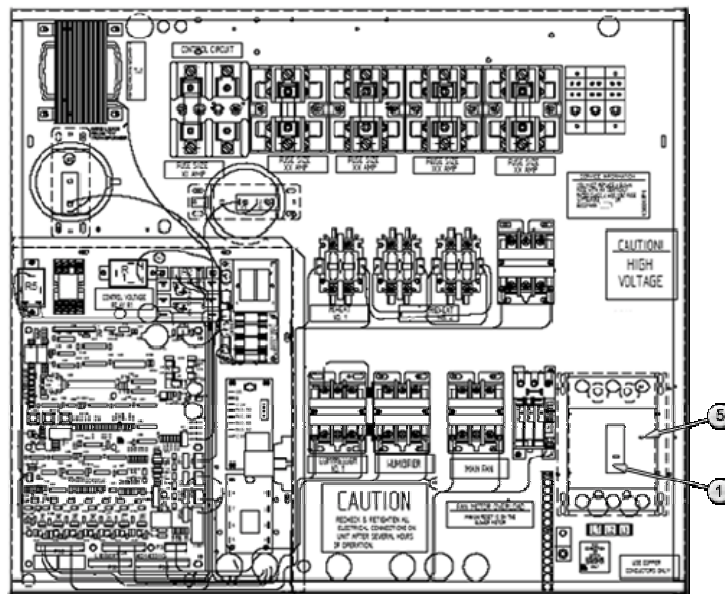
Item #	Part Number	Description	Quantity
131	1C18351P1	SW DISC 600V 3PL 100A	1
	1C18351P2	SW DISC 600V 3PL 60A	1
	E02-2880	SW DISC 480V 3PL 100A 120V	1
	E02-2910	SW DISC 600V 3PL 100A 120V	1
	E02-2890	SW DISC 240V 3PL 100A 120V	1
132	F02-2130	BRKT LKDISC OPER 100	1
	F02-2140	BRKT LKDISC OPER 225	1
	F02-2150	BRKT NON LKDISC OPER 100	1
	F02-2160	BRKT NON LKDISC OPER 225	1
139	E-288A	SW DISC LOKG HANDLE ROTARY (See Page 27)	1
140	E-288B	SW DISC LOKG RING CATCH	1

6.7.4.1.1. SW Disc Locking Handle Rotary



Item #	Part Number	Description	Quantity
8	1C18352P1	HANDLE DISC SWT	1
9	4D10624P1	LABEL DISCONNECT	1

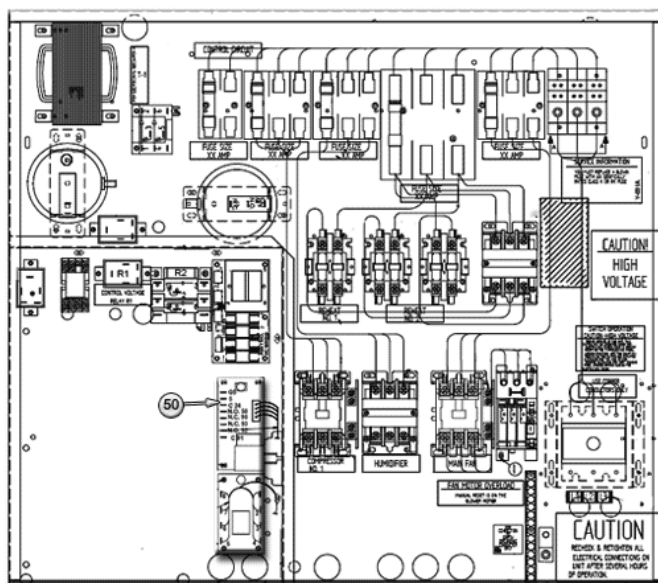
6.7.4.2. Second View



Item #	Part Number	Description	Quantity
1	1C18351P1	SW DISC 600V 3PL 100A	1
	1C18351P2	SW DISC 600V 3PL 60A	1
	E02-2880	SW DISC 480V 3PL 100A 120V	1
	E02-2910	SW DISC 600V 3PL 100A 120V	1
	E02-2890	SW DISC 240V 3PL 100A 120V	1
5	1C18354P1	COLLAR LKG DISC W/2 SCREWS KM	1

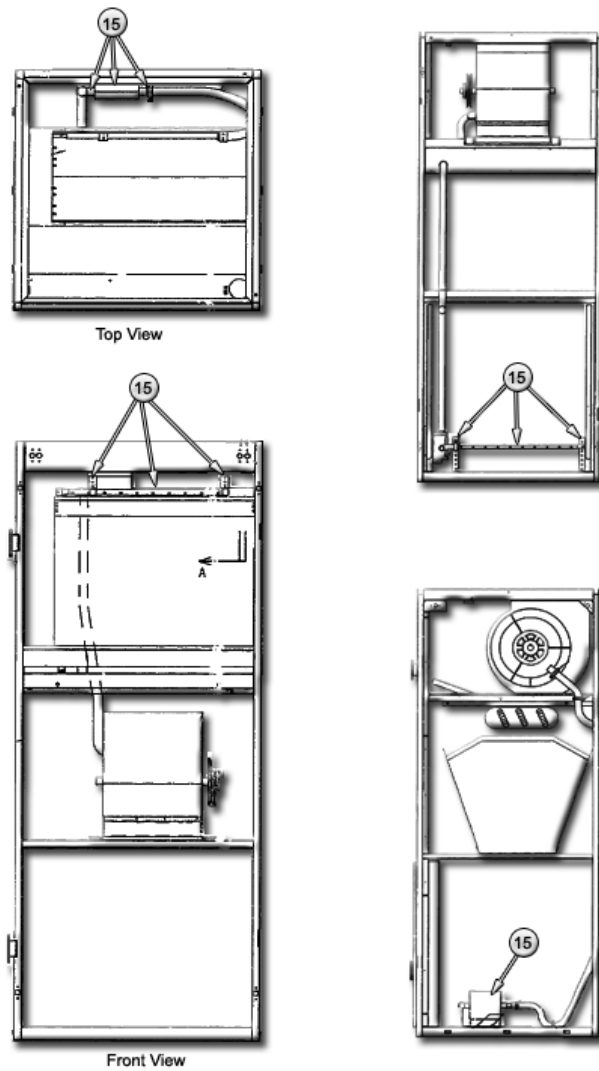
6.7.5. Smoke Detector

6.7.5.1. EP Smoke Detector



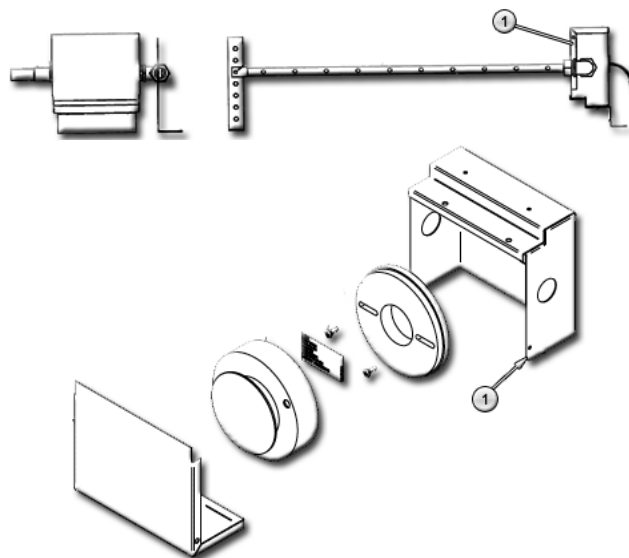
Item #	Part Number	Description	Quantity
50	124502P2	PWA SMOKE DET CNTL 24VDC 2CONN	1

6.7.5.2. Smoke Detector Assembly



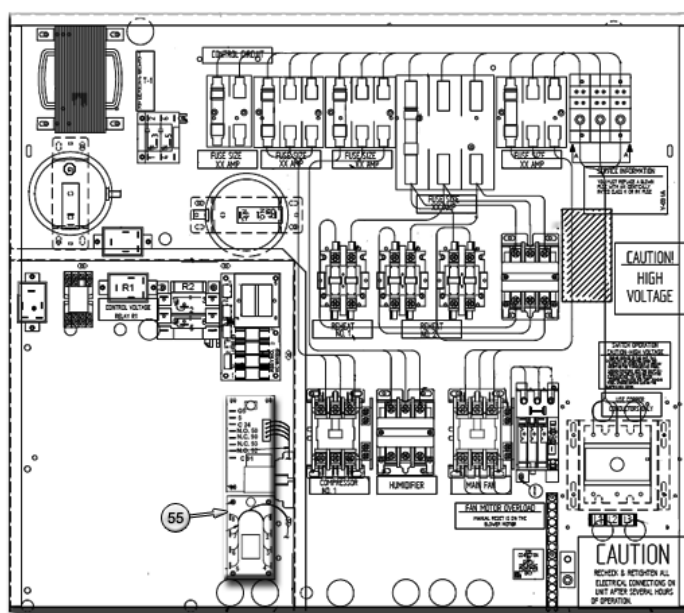
Item #	Part Number	Description	Quantity
15		Smoke Detector Assembly (See Page 30)	

6.7.5.3. Smoke Detector Assembly



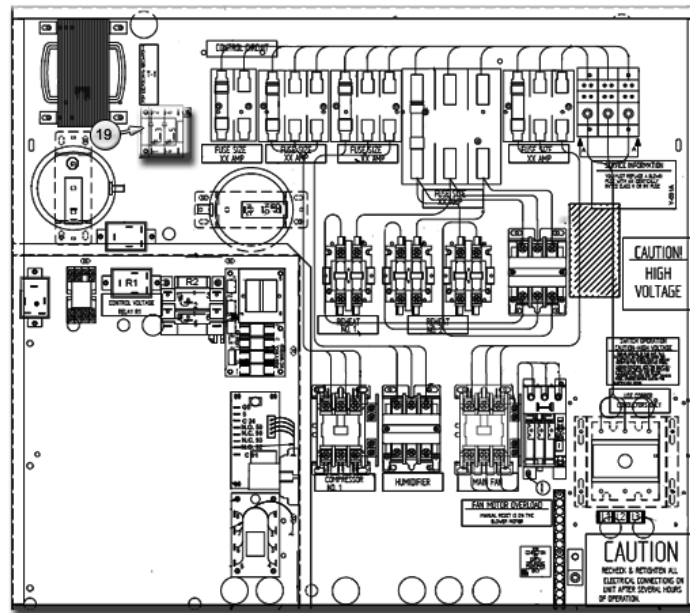
Item #	Part Number	Description	Quantity
1	149105P1	SMOKE DETECT BASE & HEAD 731L	1

6.7.6. Auto Restart



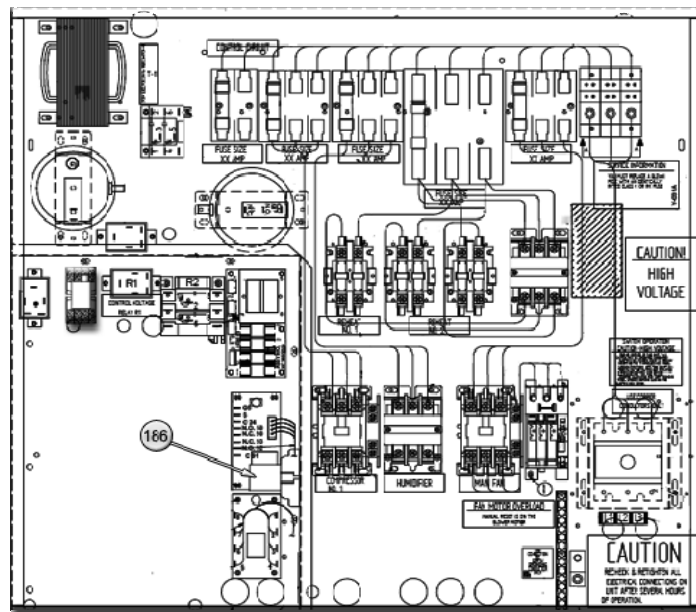
Item #	Part Number	Description	Quantity
55	E-3530	RELAY 2P2T 24VAC COIL	1

6.7.7. Reheat/ Humidifier Lockout



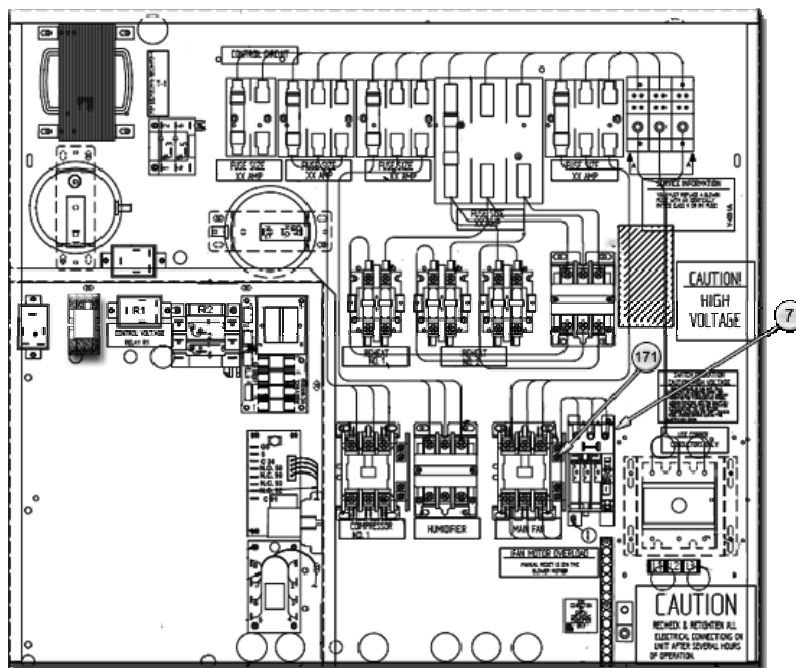
Item #	Part Number	Description	Quantity
19	E-0130	RELAY 2P2T 24VAC COIL	1

6.7.8. EP Common Alarms



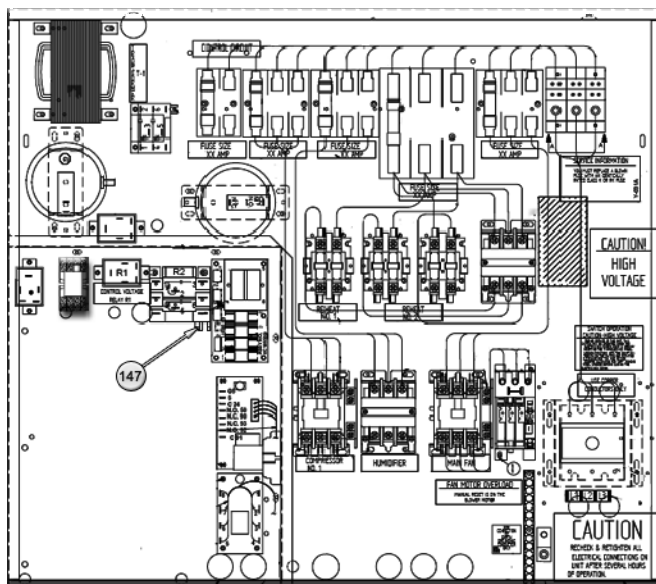
Item #	Part Number	Description	Quantity
186	E-2440	RELAY 3P2T 24VAC 125V MAXLOAD	1

6.7.9. EP Main Fan



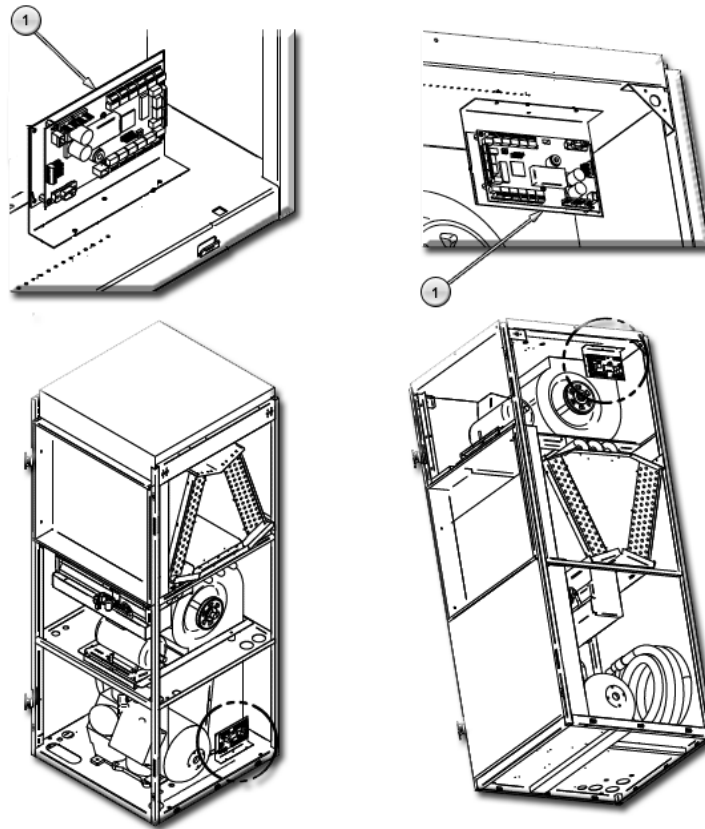
Item #	Part Number	Description	Quantity
7	124547P1	OVERLOAD RELAY W/B MNT 32A C-H	1
171	149117P1	CONTACTS AUX NO/NC 49ACR6 FRNS	1

6.7.10. EP Fan Coil



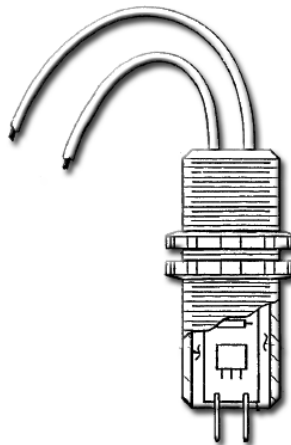
Item #	Part Number	Description	Quantity
147	E03-0170	RELAY 1P2T 24V 50/60HZ	1

6.7.11. Kit Open Comms



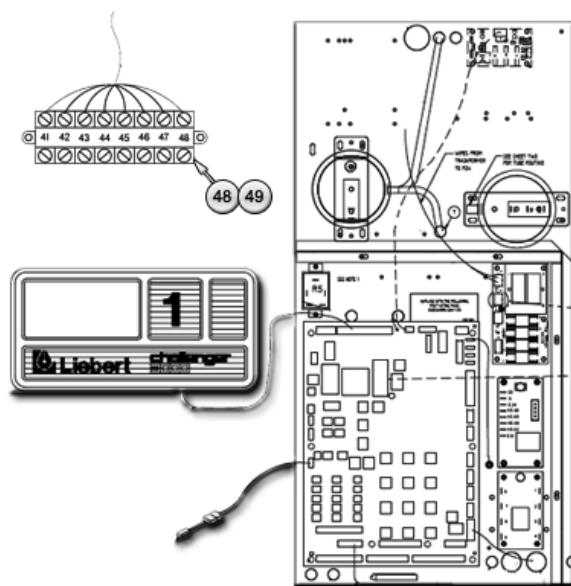
Item #	Part Number	Description	Quantity	Remarks
1	OC-DO	KIT OPENCOMMS DISCRETE OUTPUT	1	-
	NIC	KIT OPENCOMMS NETWORK CARD	1	These parts can be used only until November 2006
	NIC-485	KIT OPENCOMMS NIC-485	1	
	OCWEB-ADPT	KIT OCWEB ADAPTER	1	These parts can be used on December 2006 onwards
	OC485-ADPT	KIT OC485 ADAPTER	1	

6.7.12. Liquitect Assembly



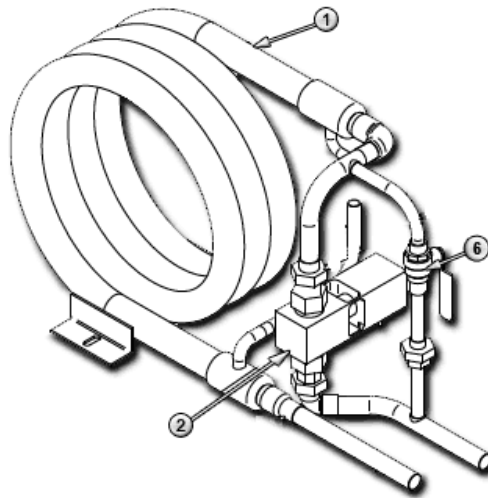
Part Number	Description	Quantity
F02-005	ENCL LIQUITECT ASSY W/BRKT	1

6.7.13. Low Terminal Voltage



Item #	Part Number	Description	Quantity
48	132487P1	TERMLSTRIP SECTION 1 POS	8
49	132487P2	TERMLSTRIP SECTION END BARRIER	1

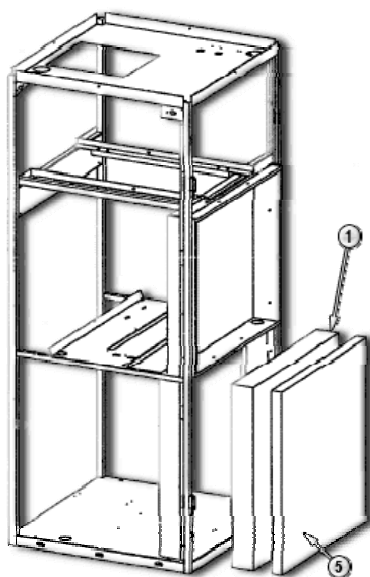
7. Condenser Section



Item #	Type	Part Number	Description	Quantity
1	COAX	128159P1	CONDENSER COAXIAL	1
		1C21115P1	CONDENSER COAXIAL TUBE IN TUBE	1
	CU-NI	1C21115P2	CONDENSER COAXIAL 90/10 CU-NI	1
		128159P2	CONDENSER COAXIAL 90/10 CU-NI	1
2	-	P-4760	VALVE H2O REG 3WAY 3/4" 300#	1
		P-311A	VALVE H2O REG 2WAY 1"	1
		P-311B	VALVE H2O REG 3WAY 1"	1
		P-026A	VALVE H2O REG 2WAY 3/4" 350#	1
		136696P1	VALVE H2O REG 2WAY 3/4" UB	1
		171819P4	VALVE H2O REG 2WAY 1" 350#	1
		131852P1	VALVE H2O REG 2WAY 1" UB	1
		136698P1	VALVE H2O REG 3WAY 3/4" UB	1
		171818P4	VALVE H2O REG 3WAY 1" 350#	1
		131853P1	VALVE H2O REG 3WAY 1" UB	1
6	-	1C14431P1	VALVE BALL	1

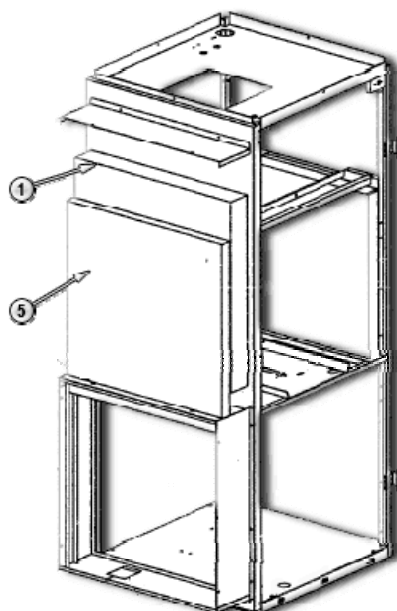
8. Filter Section

8.1. Upflow Front Return



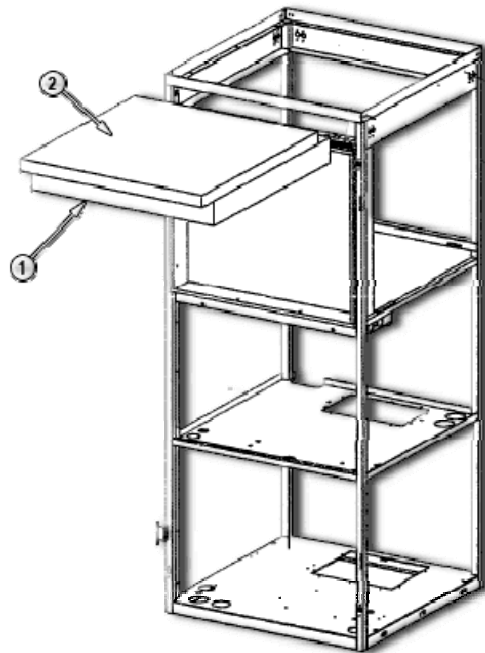
Item #	Part Number	Description	Quantity
1	136550P1	FILTER 4" 28.5X29.5 20%	1
	136550P2	FILTER 4" 28.5X29.5 30%	1
	136550P4	FILTER 4" 28.5X29.5 60-65%	1
	1A17806P8	FILTER 4" 29.5X28.5 45% ASH	1
5	136550P3	FILTER 2" 28.5X29.5 20%	1

8.2. Upflow Rear Return



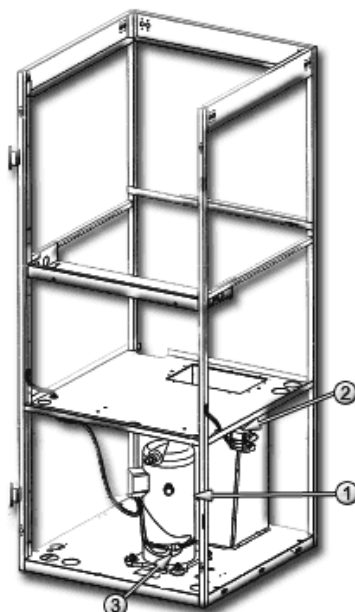
Item #	Part Number	Description	Quantity
1	136550P1	FILTER 4" 28.5X29.5 20%	1
	136550P2	FILTER 4" 28.5X29.5 30%	1
	136550P4	FILTER 4" 28.5X29.5 60-65%	1
	1A17806P8	FILTER 4" 29.5X28.5 45% ASH	1
5	136550P3	FILTER 2" 28.5X29.5 20%	1

8.3. Downflow Filter



Item #	Part Number	Description	Quantity
1	136550P1	FILTER 4" 28.5X29.5 20%	1
	136550P2	FILTER 4" 28.5X29.5 30%	1
	136550P4	FILTER 4" 28.5X29.5 60-65%	1
	1A17806P8	FILTER 4" 29.5X28.5 45% ASH	1
2	136550P3	FILTER 2" 28.5X29.5 20%	1

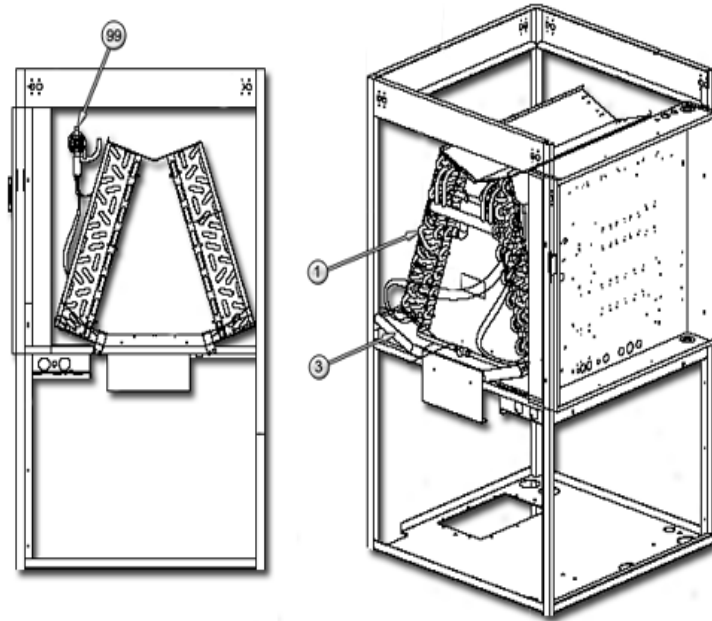
9. Compressor Section



Item #	Tonnage	Part Number	Description	Voltage	Quantity
1	3T	172146P1	COMP SCRL ZR47KC-TF5 W/ROTA	200/235	1
		136964P1	COMP SCRL ZR40K3-TF5 W/ ROTA	208/236	1
		172146P2	COMP SCRL ZR47KC-TFD W/ROTA	380/420	1
		136964P2	COMP SCRL ZR40K3-TFD W/ ROTA	460	1
		136964P3	COMP SCRL ZR40K3-TFE W/ ROTA	575	1
	5T	151143P1	COMP SCRL ZR72KC-TF5 W/ROTA	200	1
		151143P2	COMP SCRL ZR72KC-TFD W/ROTA	380/420	1
		151142P1	COMP SCRL ZR61K3-TF5 W/ROTA	208/236	1
		151142P2	COMP SCRL ZR61K3-TFD W/ROTA	460	1
		151142P3	COMP SCRL ZR61K3-TFE W/ROTA	575	1
		151142P5	COMP SCRL ZR61KC-TF7 W/ROTA	386	1
		154290P1	COMP SCRL ZR61KC-TF5 W/ROTA	208/236	1
		154290P2	COMP SCRL ZR61KC-TFD W/ROTA	460	1
		154290P3	COMP SCRL ZR61KC-TFE W/ROTA	575	1
2	-	1D15060P1	SW PRES HI 360PSI	-	1
		1D16206P1	SW PRES LOW 20/65PSI	-	1
		1D15060P1	SW PRES HI 360PSI	-	1
		1D15059P1	SW PRES LOW 15/35PSI	-	1
3	-	132102P2	HEATER C/CASE 480V 40W SCROLL	-	1
		134142P1	HEATER C/CASE 240V 70W SCROLL	-	1
		134142P2	HEATER C/CASE 480V 70W SCROLL	-	1
		132102P3	HEATER C/CASE 575V 40W SCROLL	-	1
		134142P3	HEATER C/CASE 575V 70W SCROLL	-	1

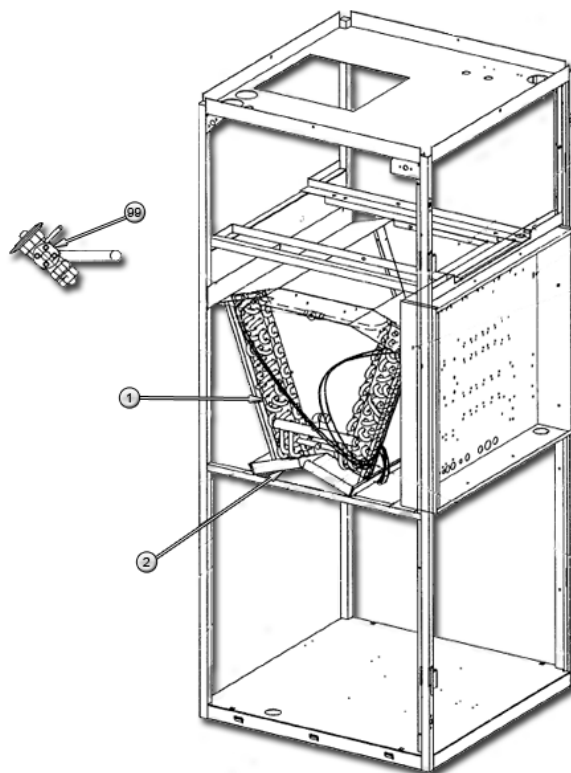
10. Coil Section

10.1. 3T Downflow Option



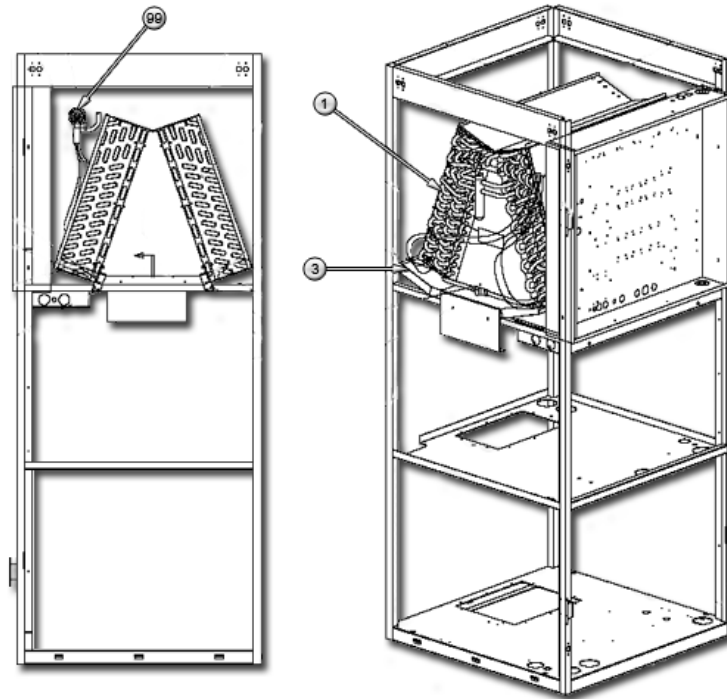
Item #	Tonnage	Part Number	Description	Quantity
1	3T	136783G1	COIL ASSY 3T DX D	1
		136783G3P	COIL ASSY 3T DX D W/LIBCOTE	1
		136688G1	COIL CW ASSY 3T W/HWRH D	1
		136705G1	COIL CW D 3T	1
		136705G2	COIL CW D 3T W/HWRH	1
		136705G5	COIL CW D 3T W/LIBCOTE	1
		136686G1	COIL DX ASSY 3T HW/HG D	1
		136653G1	COIL CW ASSY C3000 D	1
	5T	136653G3	COIL CW ASSY C3000 D	1
		136653G3P	COIL CW ASSY C3000 D LIBCOTED	1
		136784G4P	COIL ASSY 5T DX D W/LIBCOTE	1
		136535G2	COIL ASSY 5T DX GLYCOOL D	1
		136535G2P	COIL ASSY 5T GLYCOOL D W/LIBC	1
		136535P6	COIL ASSY 5TGLYCOOL C3000 CRGTD	1
		136689G1	COIL CW ASSY 5T W/HWRH D	1
		136977G1	COIL CW ASSY C3000 5T D	1
		136977G3P	COIL CW ASSY C3000 5T D LIB	1
		136976G1	COIL CW D 5T	1
		136976G2	COIL CW D 5T W/HWRH	1
		136976G5	COIL CW D 5T W/LIBCOTE	1
		136928P1	COIL SUBASSY 5T DX D	1
		136653G1	COIL CW ASSY C3000 D	1
		136653G3	COIL CW ASSY C3000 D	1
		136653G3P	COIL CW ASSY C3000 D LIBCOTED	1
3	-	136778G1	PAN DRAIN COIL C3000	1
99	-	128157P1	VAVLE EXP 1/2X5/8X1/40DF 3T	1

10.2. 3T Upflow Option



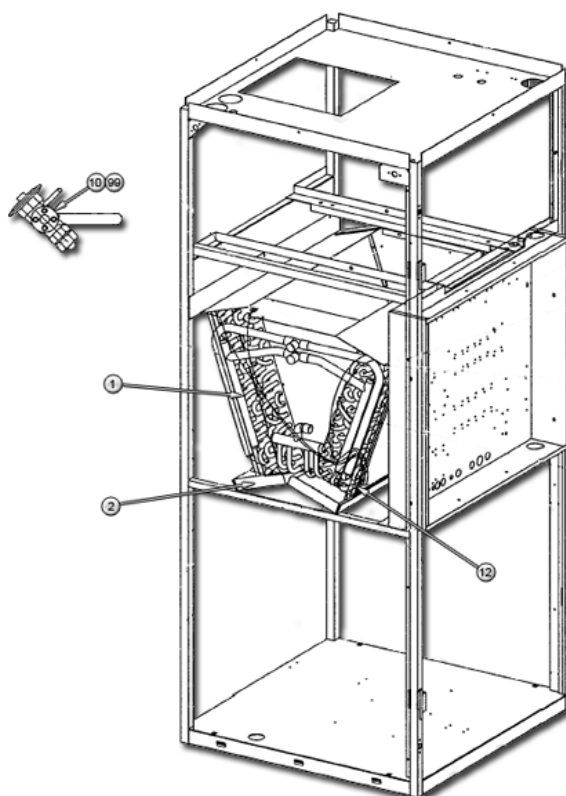
Item #	Tonnage	Part Number	Description	Quantity
1	3T	136783G4	COIL ASSY 3T DX U	1
		136783G2P	COIL ASSY 3T DX U W/HERESITE	1
		136779G1	COIL CW U 3T	1
		136779G5	COIL CW U 3T W/HERESITE	1
		136779G2	COIL CW U 3T W/HWRH	1
		136929P1	COIL SUBASSY 3T DX U	1
		136653G2	COIL CW ASSY C3000 U	1
		136653G4	COIL CW ASSY C3000 U	1
		136653G2P	COIL CW ASSY C3000 U HERESITE	1
	5T	136704G2	COIL 5T U DX HGRH/HWRH	1
		136704G5	COIL 5T U DX W/HERESITE	1
		136535G1	COIL ASSY 5T DX GLYCOOL U	1
		136784G1	COIL ASSY 5T DX U	1
		136784G3P	COIL ASSY 5T DX U W/HERESITE	1
		136535G1P	COIL ASSY 5T GLYCOOL U W/LIBC	1
		136977G4	COIL CW ASSY C3000 5T U	1
		136977G2P	COIL CW ASSY C3000 5T U LIB	1
		136975G1	COIL CW U 5T	1
		136975G2	COIL CW U 5T W/HWRH	1
		136975G5	COIL CW U 5T W/LIBCOTE	1
		136687G1	COIL DX ASSY 5T U HW/HG	1
		136927P1	COIL SUBASSY 5T DX U	1
		136653G2	COIL CW ASSY C3000 U	1
		136653G4	COIL CW ASSY C3000 U	1
		136653G2P	COIL CW ASSY C3000 U HERESITE	1
2	-	136631G1	PAN DRAIN COIL U C3000	1
99	-	128157P1	VAVLE EXP 1/2X5/8X1/4ODF 3T	1

10.3. 5T Downflow Option



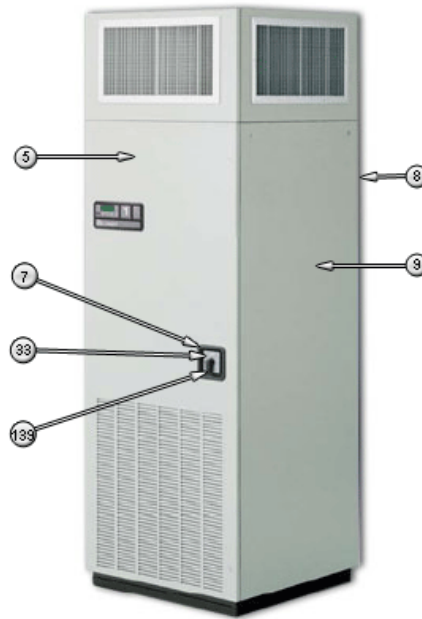
Item #	Tonnage	Part Number	Description	Quantity
1	3T	136783G1	COIL ASSY 3T DX D	1
		136783G3P	COIL ASSY 3T DX D W/LIBCOTE	1
		136688G1	COIL CW ASSY 3T W/HWRH D	1
		136705G1	COIL CW D 3T	1
		136705G2	COIL CW D 3T W/HWRH	1
		136705G5	COIL CW D 3T W/LIBCOTE	1
		136686G1	COIL DX ASSY 3T HW/HG D	1
		136653G1	COIL CW ASSY C3000 D	1
		136653G3	COIL CW ASSY C3000 D	1
	5T	136653G3P	COIL CW ASSY C3000 D LIBCOTED	1
		136784G4P	COIL ASSY 5T DX D W/LIBCOTE	1
		136535G2	COIL ASSY 5T DX GLYCOOL D	1
		136535G2P	COIL ASSY 5T GLYCOOL D W/LIBC	1
		136535P6	COIL ASY 5TGLYCOOL C3000 CRGTD	1
		136689G1	COIL CW ASSY 5T W/HWRH D	1
		136977G1	COIL CW ASSY C3000 5T D	1
		136977G3P	COIL CW ASSY C3000 5T D LIB	1
		136976G1	COIL CW D 5T	1
		136976G2	COIL CW D 5T W/HWRH	1
		136976G5	COIL CW D 5T W/LIBCOTE	1
		136928P1	COIL SUBASSY 5T DX D	1
		136653G1	COIL CW ASSY C3000 D	1
		136653G3	COIL CW ASSY C3000 D	1
		136653G3P	COIL CW ASSY C3000 D LIBCOTED	1
3	-	136778G1	PAN DRAIN COIL C3000	1
99	-	128158P1	VALVE EXP 1/2X5/8X1/4ODF 5T	1

10.4. 5T Upflow Option



Item #	Tonnage	Part Number	Description	Quantity
1	3T	136783G4	COIL ASSY 3T DX U	1
		136783G2P	COIL ASSY 3T DX U W/HERESITE	1
		136779G1	COIL CW U 3T	1
		136779G5	COIL CW U 3T W/HERESITE	1
		136779G2	COIL CW U 3T W/HWRH	1
		136929P1	COIL SUBASSY 3T DX U	1
		136653G2	COIL CW ASSY C3000 U	1
		136653G4	COIL CW ASSY C3000 U	1
		136653G2P	COIL CW ASSY C3000 U HERESITE	1
	5T	136704G2	COIL 5T U DX HGRH/HWRH	1
		136704G5	COIL 5T U DX W/HERESITE	1
		136535G1	COIL ASSY 5T DX GLYCOOL U	1
		136784G1	COIL ASSY 5T DX U	1
		136784G3P	COIL ASSY 5T DX U W/HERESITE	1
		136535G1P	COIL ASSY 5T GLYCOOL U W/LIBC	1
		136977G4	COIL CW ASSY C3000 5T U	1
		136977G2P	COIL CW ASSY C3000 5T U LIB	1
		136975G1	COIL CW U 5T	1
		136975G2	COIL CW U 5T W/HWRH	1
		136975G5	COIL CW U 5T W/LIBCOTE	1
		136687G1	COIL DX ASSY 5T U HW/HG	1
		136927P1	COIL SUBASSY 5T DX U	1
		136653G2	COIL CW ASSY C3000 U	1
		136653G4	COIL CW ASSY C3000 U	1
		136653G2P	COIL CW ASSY C3000 U HERESITE	1
2	-	136631G1	PAN DRAIN COIL U C3000	1
12	-	P02-0290	VALVE CORE REFRIGERANT	4

11. Exterior Section



Item #	Part Number	Description	Quantity
5	136520P1	PANEL FRONT ACCT ASSY	1
	136520G1	PANEL FRT ACCT ASSY D W/DISC	1
	136520G2	PANEL FRT ASSY C3000 D NO DISC	1
	184138G1	PANEL FRT ACCT ASSY D W/DISC	1
	184138G2	PANEL FRT ACCT ASSY D NO DISC	1
	184153G1	PANEL ACCNT HVY G D W/DISC	1
	184153G2	PANEL ACCNT HVY G D NO DISC	1
	136683G1	PANEL FRT ACCT ASSY HG D W/DISC	1
	136683G2	PANEL FRT ACCT ASSY HG D W/O DISC	1
7	179746P1	DISCONNECT BEZEL GLOBAL	1
8	136607P1	PANEL REAR D/U	1
	136607P2	PANEL REAR VRR	1
	136685P1	PANEL REAR D/U HEAVY GAUGE	1
9	136608P1	PANEL SIDE RIGHT/LEFT D/U	1
	136684P1	PANEL SIDE D/U HEAVY GAUGE	1
33	E-288B	SW DISC LOKG RING CATCH	1
199	E-288A	SW DISC LOKG HANDLE ROTARY (See Page 27)	1

12. Parts Gallery



B-0080



B13-0150



1A24383P1



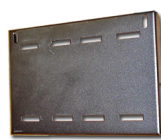
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B-0660



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B13-0190



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H-002A



R13-0090



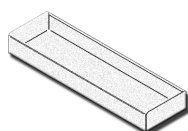
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H-0370



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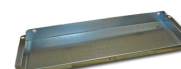
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P-5400



P02-0260



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121965P2



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136965p1



P-0180



P-0080



180908P1



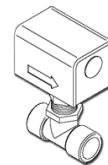
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166819G1



1C16334G16



4C13121G4



4D14331G1



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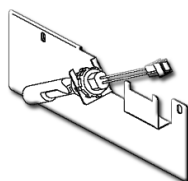
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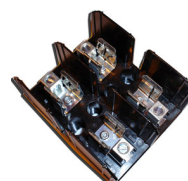
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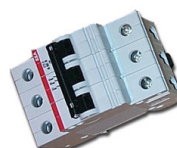
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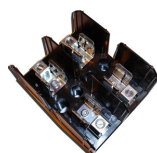
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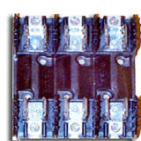
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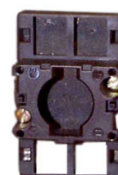
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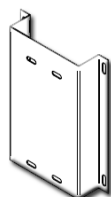
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F02-2140



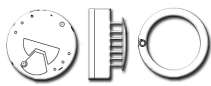
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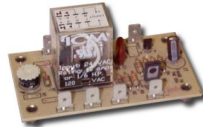
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E-3530



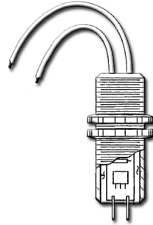
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F02-005



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P-4760



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136550P3



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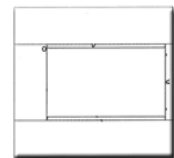
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136778G1



P02-0290



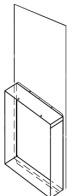
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136520P1



136608P1



P15-0170



1A16207P1



136783G1

13. Revision Page

Revision Date	Modification	Details
11/27/2008	Convert manual into new layout	-
10/20/2008	Compressor Section	Break dual switch into individual (hi and lo) switches. (See Page 38)
	Piping Section	Add Hot Gas assembly. (See Page 12)