

# Parts List, Tech Labels, Wiring Diagrams

## PHX3 SERIES

## PACKAGE HEAT PUMP UNITS



### TABLE OF CONTENTS

PARTS LIST .....	2 - 3
PARTS DRAWING .....	4 - 5
TECH LABELS	
PHX324 - 30 .....	6
PHX336 - 42 .....	7
PHX348 - 60 .....	8
WIRING DIAGRAMS	
PHX324 - 60 .....	9

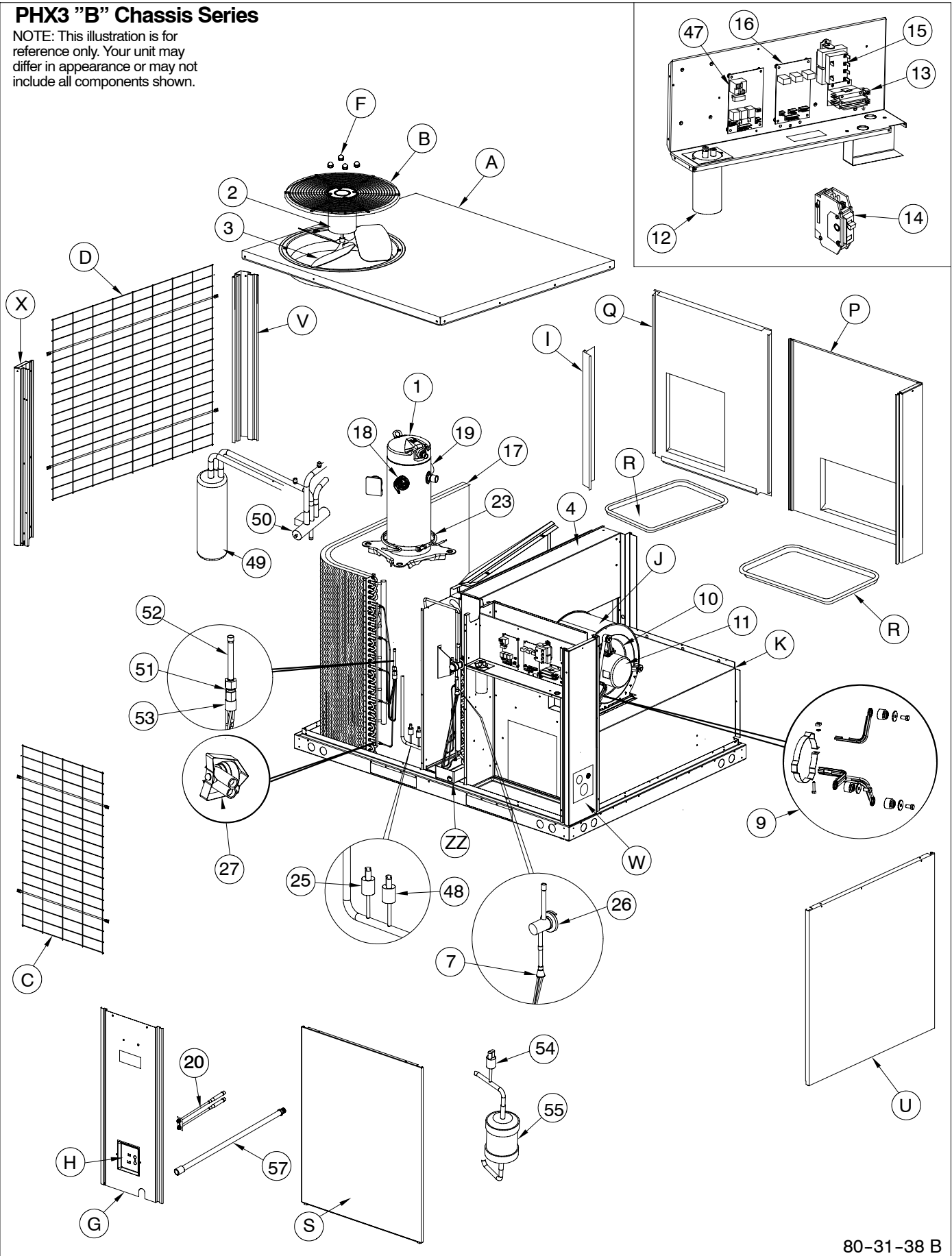


KEY NO.	DESCRIPTION	FAST NUMBER	PHX324000K00A1	PHX330000K00A1	PHX336000K00A1	PHX342000K00A1	PHX348000K00A1	PHX360000K00A1
1	COMP (R-22, 20K BTU, 2 STAGE, 208/230V-1 PH)	ZPS20K4EPFV830	1	*	*	*	*	*
	COMP (R-22, 26K BTU, 2 STAGE, 208/230V-1 PH)	ZPS26K4EPVF830	*	1	*	*	*	*
	COMP (R-22, 30K BTU, 2 STAGE, 208/230V-1 PH)	ZPS30K4EPFV830	*	*	1	*	*	*
	COMP (R-22, 35K BTU, 2 STAGE, 208/230V-1 PH)	ZPS35K4EPFV830	*	*	*	1	*	*
	COMP (R-22, 40K BTU, 2 STAGE, 208/230V-1 PH)	ZPS40K4EPFV830	*	*	*	*	1	*
	COMP (R-22, 51K BTU, 2 STAGE, 208/230V-1 PH)	ZPS51K4EPFV830	*	*	*	*	*	1
2	MTR CND 1/230 1/8 825/1	1173699	1	1	*	*	*	*
	MTR CND 1/230 1/4 1100	1173700	*	*	1	1	1	*
	MTR CND 1/230 1/4	1171335	*	*	*	*	*	1
3	FAN C 20" 3B 1/2" 34 INT	1173706	1	1	1	*	*	*
	FAN C 22" 3B 1/2" 28 INT	1171219	*	*	*	*	*	1
	FAN C 22" 3B 1/2" 24 INT	1171220	*	*	*	1	1	*
4	COIL, EVAP -MANIFOLDS INCLUDED-	1174353	1	*	*	*	*	*
		1174354	*	1	*	*	*	*
		1174355	*	*	1	*	*	*
		1174356	*	*	*	1	*	*
		1174357	*	*	*	*	1	*
		1174358	*	*	*	*	*	1
7	DISTRIBUTOR, EVAP (R-22)	1174243	*	*	*	*	*	1
		1174359	*	*	*	1	1	*
		1174360	1	1	*	*	*	*
		1174361	*	*	1	*	*	*
9	KIT, BLW MTR MTG	1174295	1	1	1	1	1	1
10	WHEEL DD10x8x1/2 CW CV	1173813	1	1	*	*	*	*
	WHEEL DD11x9x1/2 CW CV	1171742	*	*	1	1	*	*
	WHEEL DD11x10x1/2 CW CV	1173815	*	*	*	*	1	1
11	MTR, BLW (208-230 VAC, 4.1A, 1 PH, 1/2 HP)	1174278	1	*	*	*	*	*
	MTR, BLW (208-230 VAC, 4.1A, 1 PH, 1/2 HP)	1174279	*	1	*	*	*	*
	MTR, BLW (208-230 VAC, 6A, 1 PH, 3/4 HP)	1174280	*	*	1	*	*	*
	MTR, BLW (208-230 VAC, 6A, 1 PH, 3/4 HP)	1174281	*	*	*	1	*	*
	MTR, BLW (208-230 VAC, 7.6A, 1 PH, 1 HP)	1174282	*	*	*	*	1	*
	MTR, BLW (208-230 VAC, 7.6A, 1 PH, 1 HP)	1174362	*	*	*	*	*	1
12	CAP RN RD 370V 5+35	1172110	1	*	*	*	*	*
	CAP RN RD 370V 5+40	1172147	*	1	1	*	*	*
	CAP RN RD 370V 5+45	1172124	*	*	*	1	1	*
	CAP RN RD 370V 10+80	1173703	*	*	*	*	*	1
13	CONTACTOR (SPST, NO, 25A, 24VAC )	1173689	1	1	1	*	*	*
	CONTACTOR (SPST, NO, 40A, 24VAC )	1173690	*	*	*	1	1	1
14	BREAKER 3.2A 1 POLE 250V	1171114	1	1	1	1	1	1
15	TRANS 200/230/460>24 75VA	1171496	1	1	1	1	1	1
16	BOARD CIRCUIT X-13	1173693	1	1	1	1	1	1
17	COIL, COND -MANIFOLDS INCLUDED-	1174400	1	*	*	*	*	*
		1174401	*	1	*	*	*	*
		1174402	*	*	1	*	*	*
		1174403	*	*	*	1	*	*
		1174404	*	*	*	*	1	*
		1174405	*	*	*	*	*	1
18	PLUG COMP WIRE (SM)	1173826	1	1	1	1	1	1
19	PLUG COMP SOLENOID COIL 185"LD	1173827	1	1	1	1	1	1
20	PORT ASY VLV/SWT LK	1083619	1	1	1	1	1	1
21	HARNESS, WIRE (DUAL CAP PHP)	1174406	1	1	1	1	1	1
22	HARNESS, WIRE (DUAL CAP ADP)	1174323	1	1	1	1	1	1
23	HTR CC WP 40W240V	1173705	1	1	1	1	1	1
25	SWITCH, PRESS (HIGH)	1174407	1	1	1	1	1	1
26	VALVE, TXV	1174408	1	*	*	*	*	*
		1174409	*	1	1	*	*	*
		1174410	*	*	*	1	1	*
		1174411	*	*	*	*	*	1
27	SENSOR DEFROST O80 C30 3/8	1173697	1	1	1	1	1	1
47	BOARD CIRCUIT, DEF	1174185	1	1	1	1	1	1
48	SWITCH, PRESS (LOW)	1174412	1	1	1	1	1	1
49	ACCUMULATOR 120 IN3 3/4 NH	1172018	1	1	1	*	*	*
	ACCUMULATOR 154 IN3 3/4 NH	1173713	*	*	*	1	*	*
	ACCUMULATOR 174 IN3 7/8 NH	1173714	*	*	*	*	1	*
	ACCUMULATOR 247 IN3 7/8 NH	1172313	*	*	*	*	*	1

KEY NO.	DESCRIPTION	FAST NUMBER	PHX324000K00A1	PHX330000K00A1	PHX336000K00A1	PHX342000K00A1	PHX348000K00A1	PHX360000K00A1
50	VALVE REV W/COIL 24V	1173708	1	1	1	*	*	*
		1172618	*	*	*	1	1	*
		1173709	*	*	*	*	*	1
51	PISTON .040	1173990	1	*	*	*	*	*
	PISTON .049	1173868	*	1	*	*	*	*
	PISTON .052	1174060	*	*	1	*	*	*
	PISTON .061	1173663	*	*	*	1	1	*
	PISTON .065	1173873	*	*	*	*	*	1
52	NUT, TEFLON WASHER, PISTON RETAINER WITH 3/8	1174325	1	1	1	1	1	1
53	DISTRIBUTOR, COND (R-22)	1174241	1	*	1	*	*	*
		1174446	*	1	*	*	*	*
		1174242	*	*	*	1	1	1
54	SWITCH, PRESS (COMP SELONOID)	1174413	1	1	1	1	1	1
55	DRIER BIFLOW 06 CI 3/8 SWEAT	1172311	1	1	1	1	1	1
57	TUBE, DRAIN	1069172	1	1	1	*	*	*
58	SOLENOID, LIQ LINE	1174447	1	*	*	*	*	*
A	PANEL, TOP	1174392	1	1	1	*	*	*
		1174393	*	*	*	1	1	1
B	GRILLE, COND OUTLET	1173832	1	1	1	*	*	*
		1174394	*	*	*	1	1	1
C	GRILLE, COND INLET	1064543	1	1	1	*	*	*
		1064544	1	1	1	*	*	*
D	GRILLE, COND INLET	1064547	*	*	*	1	1	1
		1064545	*	*	*	1	1	1
E	GRILLE, COND INLET	1064546	*	*	*	*	*	1
F	NUT, CAP	1172740	4	4	4	4	4	4
G	PANEL PORT P250 L	1068182	1	1	1	*	*	*
		1068164	*	*	*	1	1	1
H	PLATE PORT P250 L	1068189	1	1	1	1	1	1
I	BRACKET, EVAP	1098999	1	1	1	*	*	*
		1099106	*	*	*	1	1	1
J	HOUSING, BLW	1174166	1	1	*	*	*	*
		1174167	*	*	1	1	*	*
		1174168	*	*	*	*	1	1
K	BOX, BLW	1174395	1	1	1	*	*	*
		1174396	*	*	*	1	1	1
L	FILTER FG 20X30X2	1054503	*	*	*	2	2	2
O	POST, CNTR	1068163	*	*	*	1	1	1
P	PANEL, SUPPLY AIR	1110951	1	1	1	*	*	*
		1111268	*	*	*	1	1	1
Q	PANEL, RETURN AIR	1110952	1	1	1	*	*	*
		1111269	*	*	*	1	1	1
R	COVER, DUCTS	1110961	2	2	2	*	*	*
		1111275	*	*	*	2	2	2
S	PANEL, ACCESS	1068185	1	1	1	*	*	*
		1068186	*	*	*	1	1	1
U	PANEL, ACCESS	1110953	1	1	1	*	*	*
		1111270	*	*	*	1	1	1
V	POST, RETURN AIR	1068167	2	2	2	*	*	*
		1068168	*	*	*	1	1	1
W	POST, CNR (ELEC HP/PAC)	1174397	1	1	1	*	*	*
		1174398	*	*	*	1	1	1
X	POST, CNR	1068172	*	*	*	1	1	1
Y	PANEL FILTER	1111271	*	*	*	1	1	1
Z	PANEL, EVAP COIL BAFF	1111281	*	*	*	1	1	1
ZZ	PAN, DRAIN	1110954	1	1	1	*	*	*
		1172244	*	*	*	1	1	1

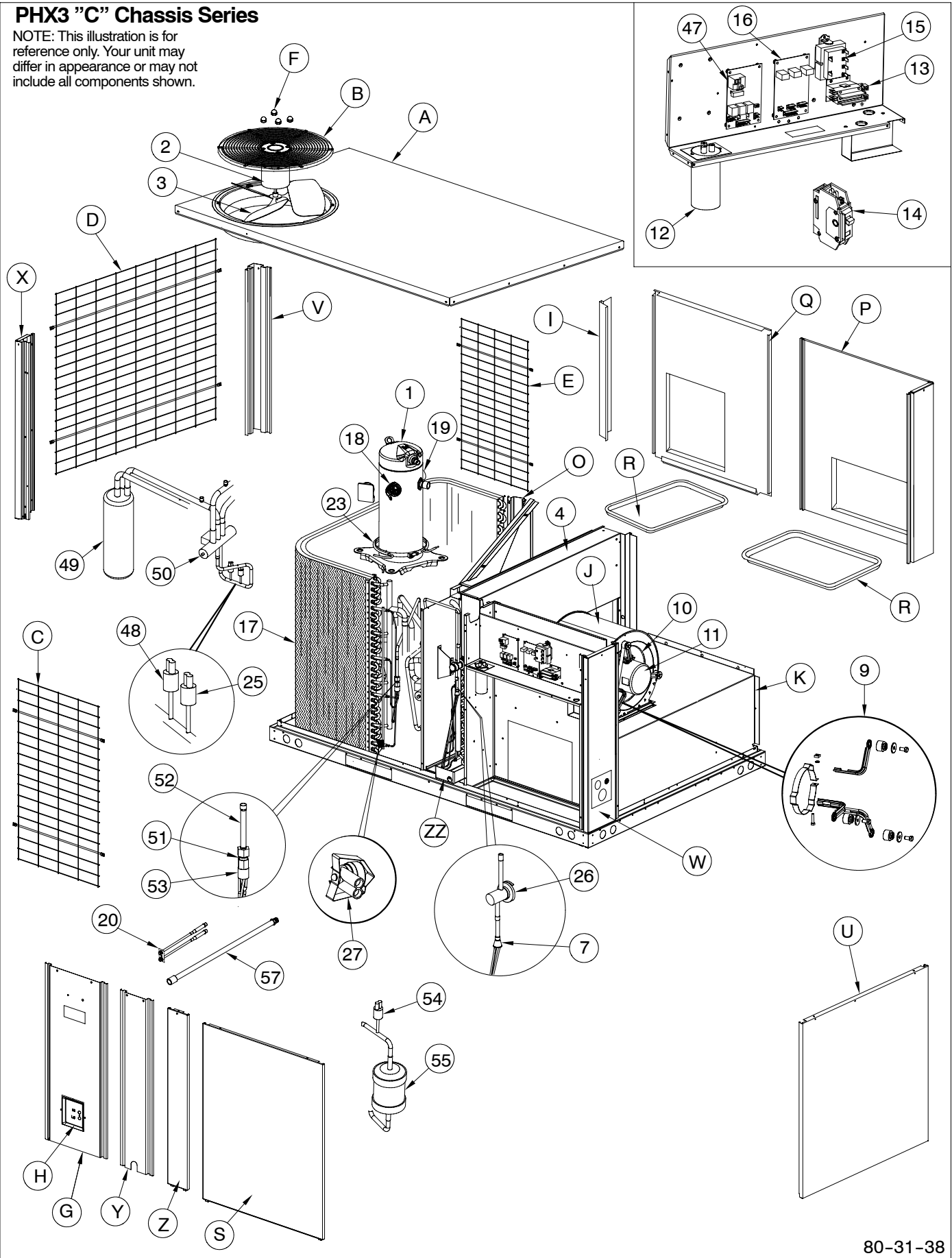
**PHX3 "B" Chassis Series**

NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.



**PHX3 "C" Chassis Series**

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ID Airflow (SCFM)		PHX348**														
		1400					1600					1800				
		Entering Indoor Temperature - Degrees F, Wet Bulb														
		57	62	63 ††	67	72	57	62	63 ††	67	72	57	62	63 ††	67	72
75	MBh†	42.8	44.1	44.9	48.4	53.1	44.9	45.4	46.0	49.6	54.3	46.7	46.7	46.9	50.5	55.3
	S/T‡	0.98	0.91	0.72	0.69	0.50	0.98	0.95	0.75	0.73	0.52	0.98	0.98	0.79	0.76	0.54
	AMPS*	15.9	16.4	16.5	16.6	16.9	16.2	16.3	16.3	16.5	16.7	16.5	16.5	16.6	16.8	17.0
	HI PR	323	324	325	331	340	325	325	326	332	341	330	330	328	335	343
	LO PR	125	126	128	138	151	128	128	129	139	153	135	136	133	143	157
85	MBh†	41.3	42.1	42.8	46.3	50.7	43.2	43.4	43.9	47.3	51.9	44.9	44.9	44.7	48.2	52.7
	S/T‡	0.98	0.93	0.73	0.70	0.51	0.98	0.97	0.77	0.74	0.53	0.98	0.98	0.80	0.78	0.55
	AMPS*	17.4	17.9	17.9	18.1	18.4	17.7	17.7	17.8	18.0	18.2	18.0	18.0	18.0	18.2	18.5
	HI PR	366	366	367	373	382	368	368	368	374	383	373	373	370	377	386
	LO PR	128	128	129	140	153	131	131	131	141	155	138	138	135	145	158
95	MBh†	39.6	40.1	40.7	44.0	48.3	41.5	41.5	41.7	45.0	49.3	43.0	43.1	42.5	45.8	50.1
	S/T‡	0.98	0.95	0.75	0.72	0.51	0.98	0.98	0.79	0.76	0.54	0.98	0.98	0.82	0.80	0.56
	AMPS*	19.0	19.5	19.5	19.7	20.0	19.3	19.3	19.4	19.6	19.8	19.6	19.7	19.6	19.8	20.1
	HI PR	413	413	413	420	429	415	415	414	421	430	420	420	417	423	432
	LO PR	130	131	131	141	155	133	134	132	143	156	141	141	136	147	160
105	MBh†	37.9	38.0	38.5	41.7	45.7	39.6	39.7	39.4	42.6	46.6	41.1	41.1	40.1	43.3	47.4
	S/T‡	0.98	0.98	0.77	0.74	0.52	0.98	0.98	0.81	0.78	0.55	0.98	0.98	0.85	0.82	0.57
	AMPS*	20.8	21.2	21.3	21.5	21.8	21.1	21.1	21.1	21.3	21.6	21.4	21.4	21.4	21.6	21.9
	HI PR	465	465	464	471	480	467	467	465	472	481	472	472	468	474	483
	LO PR	133	134	133	143	157	136	137	134	145	158	144	144	138	148	162
115	MBh†	36.0	36.1	36.2	39.1	43.0	37.6	37.7	37.0	39.9	43.8	38.9	39.0	37.6	40.6	44.4
	S/T‡	0.98	0.98	0.79	0.76	0.53	0.98	0.98	0.83	0.81	0.56	0.98	0.98	0.88	0.85	0.59
	AMPS*	22.8	23.2	23.2	23.4	23.7	23.1	23.1	23.0	23.3	23.5	23.4	23.4	23.3	23.5	23.8
	HI PR	521	521	520	526	535	523	523	521	527	535	528	528	523	530	538
	LO PR	136	137	134	145	159	139	140	136	146	160	147	147	139	150	163
Air Delivery in CFM - Dry Coil - No Filter (Add .05 Static Press for Wet Coil)																
Speed Tap		External Static Pressure (Inch Water Col)														
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0					
1		1173	1127	1085	1027	983	927	881	821	764	710					
2		1304	1256	1216	1167	1126	1077	1026	979	921	875					
3		1680	1650	1614	1578	1544	1507	1470	1427	1373	1289					
4		1831	1797	1763	1732	1696	1661	1621	1559	1446	1339					
5		2103	2051	2001	1942	1878	1809	1723	1632	1526	1388					

† Net Capacity (BTU/HR / 1000)

‡ Sensible Heat Ratio (Sensible Capacity / Net Capacity)

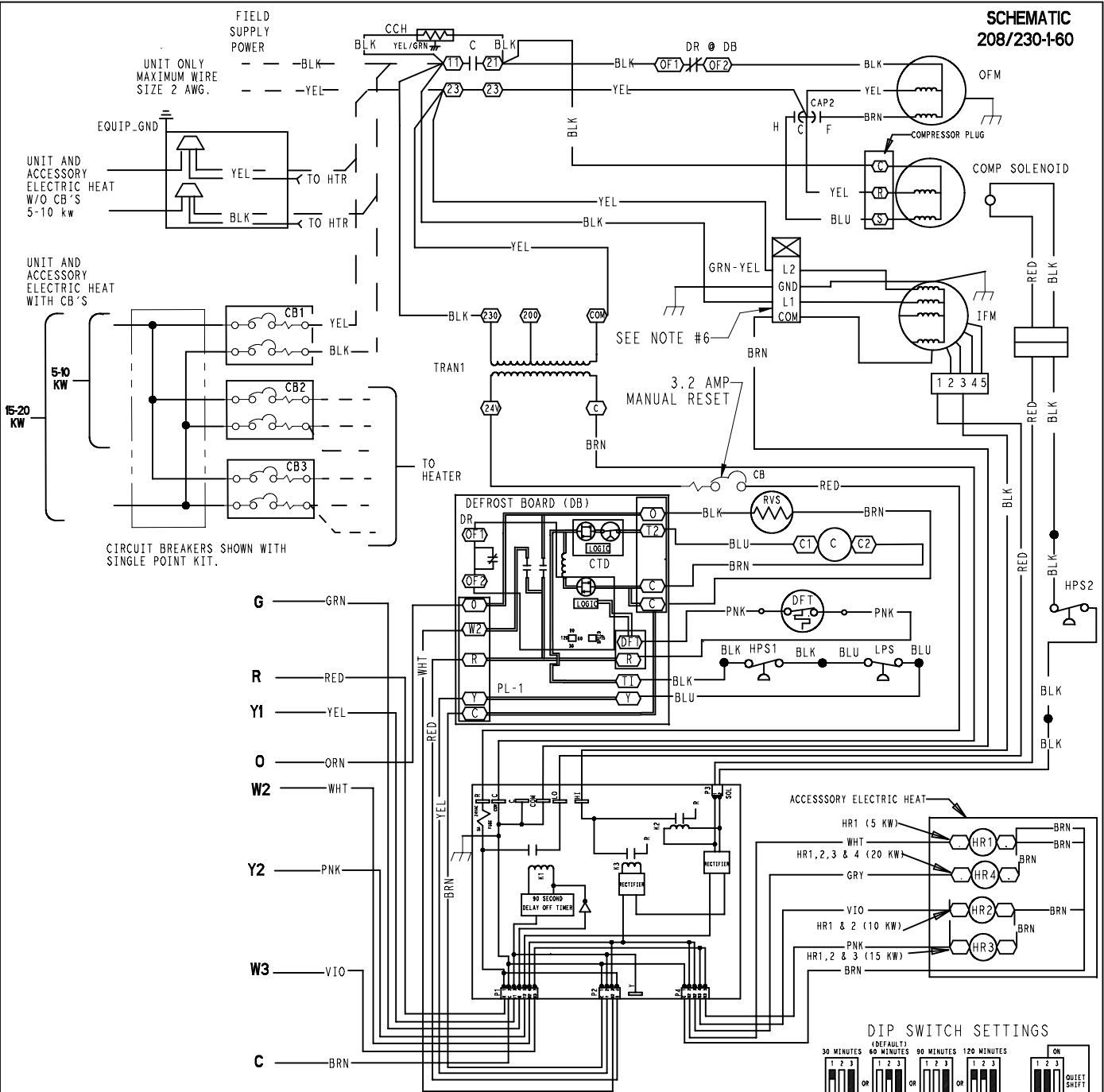
†† At 75°F entering dry bulb - Tennessee Valley Authority [TVA] rating conditions; all others at 80°F entering dry bulb.

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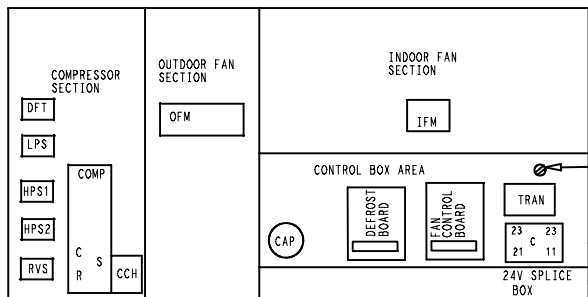


# PHX324-60

**SCHEMATIC  
208/230-1-60**



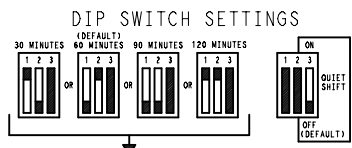
**UNIT COMPONENT ARRANGEMENT**



**LEGEND**

- △ FIELD SPLICE
- TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- SPLICE
- SPLICE (MARKED)
- FACTORY WIRING
- FIELD CONTROL WIRING
- FIELD POWER WIRING
- ACCESSORY OR OPTIONAL WIRING
- TO INDICATE COMMON POTENTIAL ONLY; NOT TO REPRESENT WIRING
- C CONTACTOR
- CAP CAPACITOR
- CB CIRCUIT BREAKER
- CCH CRANK CASE HEATER
- COMP COMPRESSOR MOTOR
- CTD COMPRESSOR TIME DELAY
- DB DEFROST BOARD
- DFT DEFROST THERMOSTAT
- DR FAN CONTROL BOARD
- FCB FAN CONTROL BOARD
- GND GROUND
- HR HEATER RELAY
- IFM INDOOR FAN MOTOR
- LPS LOW PRESSURE SWITCH
- OFM OUTDOOR FAN MOTOR
- RVS REVERSING VALVE SOLENOID
- TRAN TRANSFORMER

- NOTES:**
1. IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, IT MUST BE REPLACED WITH TYPE 90 DEGREE C WIRE OR IT'S EQUIVALENT.
  2. SEE PRICE PAGES FOR THERMOSTAT AND SUBBASES.
  3. USE 75 DEGREE COPPER CONDUCTORS FOR FIELD INSTALLATION.
  4. DEFROST TIMER TO BE SET AT 60 MIN.
  5. RELOCATION OF SPEED TAPS MAY BE REQUIRED WHEN USING FIELD INSTALLED ELECTRIC HEATERS. CONSULT INSTALLATION INSTRUCTIONS TO DETERMINE CORRECT SPEED TAP SETTING.
  6. "DO NOT DISCONNECT PLUG UNDER LOAD."



FIELD SELECTABLE OPTIONS FOR TIME PERIOD BETWEEN DEFROST CYCLES (MINUTES). THE COMPRESSOR WILL SHUT OFF FOR 30 SEC. ON DEFROST INITIATION AND TERMINATION IN THE "QUIET SHIFT" ON POSITION.

FIELD SPEED-UP CYCLE

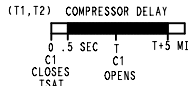
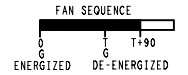
JUMPED TEST PINS (USE METAL OBJECT)

1) MOMENTARILY SHORT PINS AND RELEASE TO BYPASS COMPRESSOR OFF DELAY.

2) SHORT FOR 5 SEC. AND RELEASE FOR FORCED DEFROST.

3) PERMANENT SHORT WILL BE IGNORED.

DEFROST WILL TERMINATE IN 30 SEC. IF DFT OPEN. DEFROST WILL TERMINATE NORMALLY IF DFT IS CLOSED.



50CY501147 7.0