Parts List, Charging Chart, Wiring Diagrams

PHH036 – 072, 3 Phase

PACKAGE HEAT PUMPS

ASHRAE 90.1 COMPLIANT

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ISO 9001:2000

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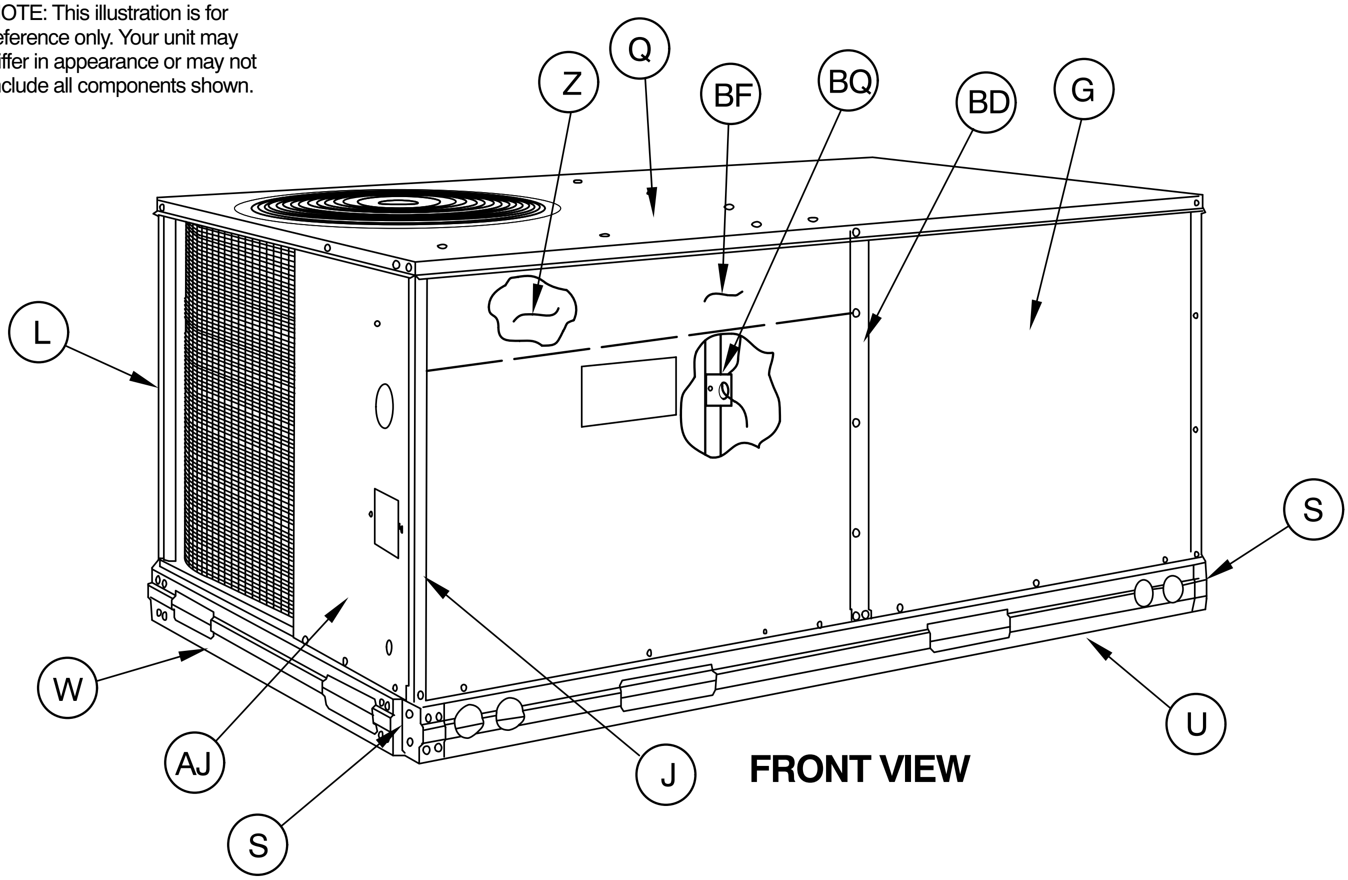
11/03/08

PHH036 – 072 PARTS LIST										
KEY NO.	DESCRIPTION	FAST PARTS NO.	PHH036H0A00AAA	PHH048H0A00AAA	PHH060H0A00AAA	PHH072H0A00AAA	PHH036L0A00AAA	PHH048L0A00AAA	PHH060L0A00AAA	PHH072L0A00AAA
01	CONTACTOR 2P 20A 24V	1171160	*	*	*	*	1	1	1	1
01	CONTACTOR 2P 30A 24V	1171554	1	1	1	1	*	*	*	*
02	TRANS 200/230/460>24 75VA	1171496	1	1	1	1	1	1	1	1
03	CAP RN OV 370V 10 AERO	1171807	*	*	*	1	*	*	*	1
03	CAP RN OV 370V 5	1172149	1	1	1	*	1	1	1	*
03	CAP RN RD 370V 5+60	1172112	*	1	*	*	*	1	*	*
03	CAP RN RD 370V 5+70	1172163	*	*	1	*	*	*	1	*
04	RELAY SPST 6FLA 24V	1174099	*	*	*	*	1	1	1	1
06	KEY	1175300	1	1	*	*	1	1	*	*
07	BEARING	1175424	2	2	2	2	2	2	2	2
08	WHEEL BLOWER	1175318	1	1	1	1	1	1	1	1
09	KEY	1175493	1	1	1	1	1	1	1	1
10	MOTOR BLW 1 230/460 3 1750	1175478	*	*	*	*	*	*	1	*
10	MOTOR BLW 1 460/1 1620	1175848	*	*	*	*	1	1	*	*
10	MTR BLW 1 208/230/1 1620	1176336	1	1	*	*	*	*	*	*
10	MTR BLW 2.4 208/230/460/3 1750	1175478	*	*	1	1	*	*	*	1
11	PULLEY	1175314	1	*	*	*	1	*	*	*
11	PULLEY	1175426	*	*	*	1	*	*	*	1
11	PULLEY	1175830	*	1	1	*	*	1	1	*
12	PULLEY	1175832	*	*	1	1	*	*	1	1
12	PULLEY	1175849	1	1	*	*	1	1	*	*
13	V–BELT	BLTA36	1	1	*	*	1	1	*	*
13	V–BELT	BLTA38	*	*	*	1	*	*	*	1
13	V–BELT	BLTA39	*	*	1	*	*	*	1	*
14	COIL ASY COND 3 TON AL/CU	1176368	1	*	*	*	1	*	*	*
14	COIL ASY COND 4–5 TON AL/CU	1176371	*	1	*	*	*	1	*	*
14	COIL ASY COND 6 TON AL/CU	1175429	*	*	1	1	*	*	1	1
15	COIL ASY EVAP 3 TON AL/CU	1176373	1	*	*	*	1	*	*	*
15	COIL ASY EVAP 4 TON AL/CU	1176374	*	1	*	*	*	1	*	*
15	COIL ASY EVAP 6 TON AL/CU	1175427	*	*	*	1	*	*	*	1
15	COIL ASY EVAP 6 TON AL/CU	1176375	*	*	1	*	*	*	1	*
17	TERMINAL BOARD	1175340	1	1	1	1	1	1	1	1
18	MTR CND 1/230 1/4	1171335	*	*	*	1	*	*	*	*
18	MTR CND 1/230 1/4 1100/1	1173700	*	*	1	*	*	*	*	*
18	MTR CND 1/230 1/8 825/1	1173699	1	1	*	*	*	*	*	*
18	MTR CND 1/4,1100,460V 1PH	1175525	*	*	*	*	*	*	1	*
18	MTR CND 1/460 1/4	1171551	*	*	*	*	*	*	*	1
18	MTR CND 1/8,825,460V 1PH	1176338	*	*	*	*	1	1	*	*
19	FAN C 22” 3B 1/2” 24 INT	1171220	1	1	1	1	1	1	1	1
20	SWITCH LMT 200–M	1171483	1	1	1	1	1	1	1	1
21	COMP SRH682AC	1175325	*	*	*	*	*	*	*	1
21	COMP SRY682AC	1175320	*	*	*	1	*	*	*	*
21	COMP XRH542HA	1176384	*	*	*	*	*	*	1	*
21	COMP XRY542HA	1176367	*	*	1	*	*	*	*	*
21	COMP ZR34K3–TF5–230	ZR34K3TF5230	1	1	*	*	*	*	*	*
21	COMP ZR34K3–TFD–230	ZR34K3TFD230	*	*	*	*	1	1	*	*
22	FREEZE STAT O30 C45	1171252	1	1	1	1	1	1	1	1
23	DEFROST CONTROL BOARD	1171190	1	1	1	1	1	1	1	1
24	HTR CC WP 40W240V 7.28” DIA	1175111	1	1	*	*	*	*	*	*
24	HTR CC WP 40W240V OVL	1175448	*	*	1	1	*	*	*	*
24	HTR CC WP 40W460V 7.17 DIA.	1173513	*	*	*	*	1	1	*	*
24	HTR CC WP 40W460V OVL	1175451	*	*	*	*	*	*	1	1
25	CONTACTOR 1P 40A 24V	1173690	*	*	*	*	1	1	*	*

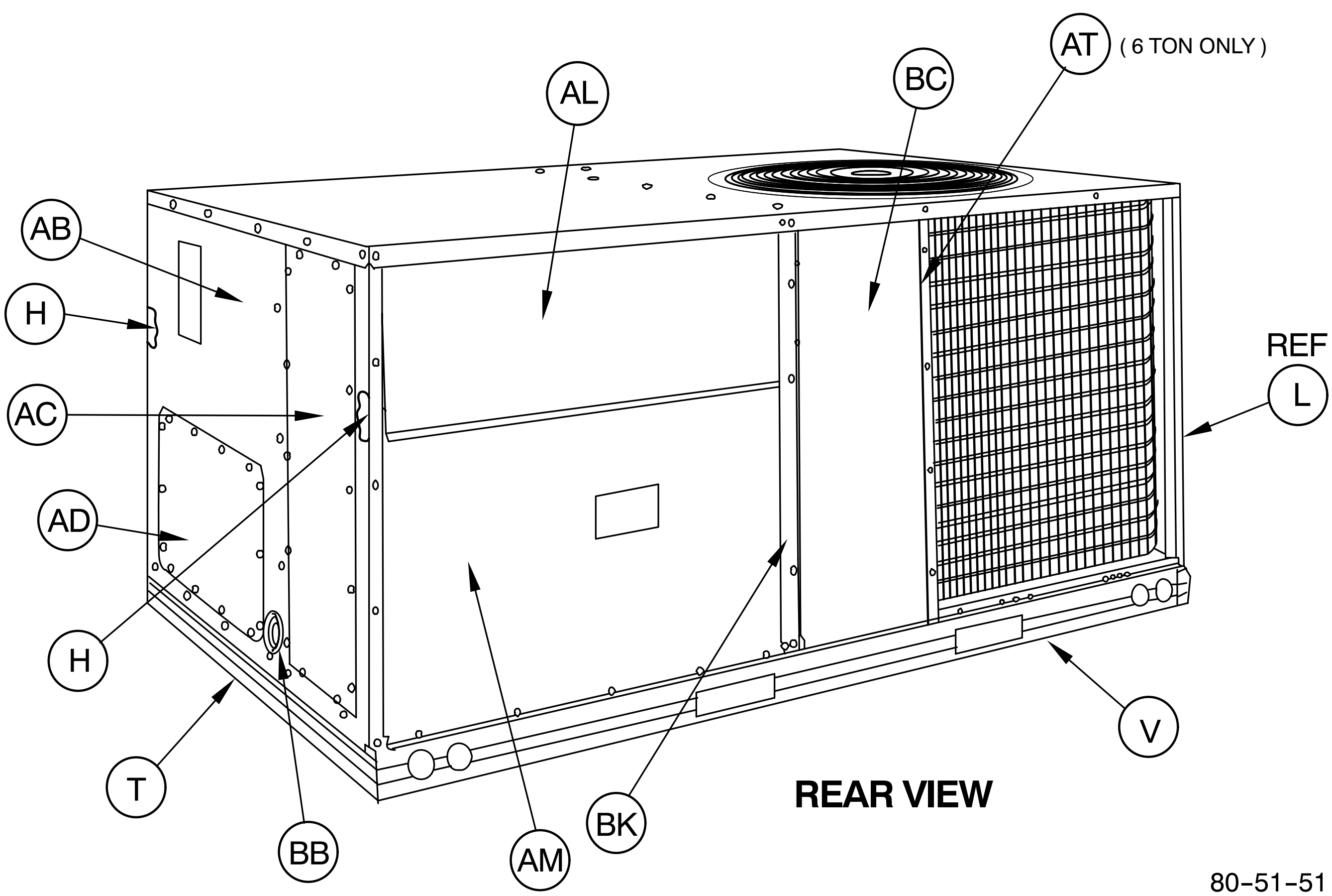
PHH036 – 072 PARTS LIST (continued)										
KEY NO.	DESCRIPTION	FAST PARTS NO.	PHH036H0A00AAA	PHH048H0A00AAA	PHH060H0A00AAA	PHH072H0A00AAA	PHH036L0A00AAA	PHH048L0A00AAA	PHH060L0A00AAA	PHH072L0A00AAA
25	RELAY 24V DPST 9100-211Q28	1171809	*	*	1	1	*	*	1	1
25	RELAY 24V SPST NO	1172422	1	1	*	*	*	*	*	*
26	RELAY DPDT PILOT 24V	1173539	1	1	1	1	1	1	1	1
27	VALVE CHECK 3/8 X 3/8	1171113	1	1	*	*	1	1	*	*
28	VALVE REVERSING	1175367	1	1	*	*	1	1	*	*
28	VALVE REVERSING	1175446	*	*	1	1	*	*	1	1
29	ACCUMULATOR	1172327	1	1	*	*	1	1	*	*
29	ACCUMULATOR	1175447	*	*	1	1	*	*	1	1
30	SENSOR DEFROST O80 C30	1171481	1	1	1	1	1	1	1	1
37	PLUG ASY	1175284	1	1	1	*	1	1	1	*
37	PLUG ASY	1175342	*	*	*	1	*	*	*	1
47	DRIER 08 CI 3/8” IN & OUT	1171555	1	1	1	1	1	1	1	1
52	SWITCH PRESS HI	1171805	1	1	1	1	1	1	1	1
53	SWITCH PRESS LO	1175321	1	1	1	1	1	1	1	1
55	BREAKER 3.2A 1 POLE 250V	1171114	1	1	1	1	1	1	1	1
56	RELAY TIME DELAY	1175841	1	1	1	*	1	1	1	*
57	CAP RN OV 370V 15	1172505	1	1	*	*	1	1	*	*
58	TERMINAL BLOCK 2P 25A 125V	1175339	1	1	1	1	1	1	1	1
61	RELAY SENSING	1171434	1	1	1	1	1	1	1	1
62	SHAFT FAN	1175422	1	1	1	1	1	1	1	1
AA	PANEL BLOCKOFF	1175337	1	1	1	1	1	1	1	1
AB	PANEL ASY	1175226	1	1	*	*	1	1	*	*
AB	PANEL ASY	1175441	*	*	1	1	*	*	1	1
AC	COVER ASY	1175227	1	1	1	1	1	1	1	1
AD	COVER SUPPLY	1175228	1	1	1	1	1	1	1	1
AE	PLATE FAN	1175484	1	1	1	1	1	1	1	1
AF	PLATE FAN	1175299	1	1	1	1	1	1	1	1
AG	PARTITION GAS	1175292	1	1	1	1	1	1	1	1
AH	BRACKET INDOOR	1175262	*	1	*	*	*	1	*	*
AH	BRACKET INDOOR	1175400	*	*	1	1	*	*	1	1
AH	BRACKET INDOOR	1176208	1	*	*	*	1	*	*	*
AJ	PANEL OUTDOOR	1171846	1	1	*	*	1	1	*	*
AJ	PANEL OUTDOOR	1175485	*	*	1	1	*	*	1	1
AK	GROMMET	1171270	4	4	4	4	4	4	4	4
AL	PANEL ASY UPPER	1175241	1	1	*	*	1	1	*	*
AL	PANEL ASY UPPER	1175449	*	*	1	1	*	*	1	1
AM	PANEL ASY LOWER	1175242	1	1	1	1	1	1	1	1
AP	PANEL COIL	1175327	1	1	*	*	1	1	*	*
AP	PANEL COIL	1175488	*	*	1	1	*	*	1	1
AR	PANEL PARTITION (EXTENTION)	1175418	*	*	1	1	*	*	1	1
AS	PANEL PARTITION (EXTENTION)	1175419	*	*	1	1	*	*	1	1
AT	PANEL FILLER	1175486	*	*	1	1	*	*	1	1
AV	COVER TOP	1175487	*	*	1	1	*	*	1	1
AW	SCROLL FAN	1175260	1	1	1	1	1	1	1	1
AX	RACEWAY	1171428	1	1	1	1	1	1	1	1
BA	BOLT COMP MTG	1171056	4	4	4	4	4	4	4	4
BB	DRAIN LINE SEAL (ROUND)	1171447	1	1	1	1	1	1	1	1
BC	PANEL ACCESS	1175293	1	1	*	*	1	1	*	*
BC	PANEL ACCESS	1175442	*	*	1	1	*	*	1	1
BD	POST CENTER	1175331	1	1	*	*	1	1	*	*
BD	POST CENTER	1175445	*	*	1	1	*	*	1	1
BE	BLOWER ASY	1175283	1	1	1	1	1	1	1	1
BF	PANEL ACCESS	1175341	1	1	1	1	1	1	1	1

PHH036 – 072 PARTS LIST (continued)										
KEY NO.	DESCRIPTION	FAST PARTS NO.	PHH036H0A00AAA	PHH048H0A00AAA	PHH060H0A00AAA	PHH072H0A00AAA	PHH036L0A00AAA	PHH048L0A00AAA	PHH060L0A00AAA	PHH072L0A00AAA
BK	POST CENTER	1175254	1	1	*	*	1	1	*	*
BK	POST CENTER	1175665	*	*	1	1	*	*	1	1
BL	FRAME ASY	1175238	1	1	*	*	1	1	*	*
BL	FRAME ASY	1175433	*	*	1	1	*	*	1	1
BP	PLATE ASY MTR MTG	1175664	*	*	1	1	*	*	1	1
BP	PLATE MOTOR	1175844	1	1	*	*	1	1	*	*
BQ	BRACKET MOUNT	1175335	1	1	1	1	1	1	1	1
BS	COVER HEAT	1175332	2	2	2	2	2	2	2	2
BT	BRACKET HEAT	1175333	1	1	1	1	1	1	1	1
A	FILTER AIR	1175312	2	2	*	*	2	2	*	*
A	FILTER AIR	1175440	*	*	4	4	*	*	4	4
B	STRAP CAPACITOR	1171552	2	2	1	1	2	2	1	1
C	CONTROL BOX	1175257	1	1	1	1	1	1	1	1
D	PLATE WIRING	1171373	1	1	1	1	1	1	1	1
E	BRACKET MTR MTG	1175483	*	*	1	1	*	*	1	1
E	BRACKET MTR MTG	1175842	1	1	*	*	1	1	*	*
F	BRACKET ASY	1175423	2	2	2	2	2	2	2	2
G	PANEL ASY	1175229	1	1	*	*	1	1	*	*
G	PANEL ASY	1175431	*	*	1	1	*	*	1	1
H	INSULATION ASY	1175230	2	2	*	*	2	2	*	*
H	INSULATION ASY	1175432	*	*	2	2	*	*	2	2
J	POST CORNER	1175255	1	1	*	*	1	1	*	*
J	POST CORNER	1175438	*	*	1	1	*	*	1	1
K	PAN ASY	1175243	1	1	1	1	1	1	1	1
L	POST CORNER	1175256	1	1	*	*	1	1	*	*
L	POST CORNER	1175439	*	*	1	1	*	*	1	1
M	DECK FAN	1175259	1	1	1	1	1	1	1	1
N	BRACKET COIL	1171070	1	1	1	1	1	1	1	1
P	PLATE ASY	1175843	1	1	1	1	1	1	1	1
Q	COVER ASY	1175280	1	1	1	1	1	1	1	1
R	BASE PAN ASY	1175231	1	1	1	1	1	1	1	1
S	BRACKET BASE	1171071	2	2	2	2	2	2	2	2
T	GUARD BASERAIL	1175263	1	1	1	1	1	1	1	1
U	RAIL BASE	1175265	1	1	1	1	1	1	1	1
V	RAIL BASE	1175266	1	1	1	1	1	1	1	1
W	RAIL BASE (ICP)	1175279	1	1	1	1	1	1	1	1
X	PLATE BLOCKOFF	1175294	1	1	*	*	1	1	*	*
X	PLATE BLOCKOFF	1175437	*	*	1	1	*	*	1	1
Y	GRILLE OUTLET	1171267	1	1	1	1	1	1	1	1
Z	COVER CONTROL	1171169	1	1	1	1	1	1	1	1
PARTS NOT SHOWN										
)(	HARNESS ASY	1175343	*	*	*	1	*	*	*	1
)(	HARNESS ASY	1175344	1	1	1	*	*	*	*	*
)(	HARNESS ASY	1175345	*	*	*	*	1	1	1	*
)(	HARNESS ASY	1175420	*	*	*	1	*	*	*	*
)(	HARNESS ASY	1175450	*	*	*	*	*	*	*	1
)(	HARNESS ASY	1175663	*	*	1	*	*	*	1	*
)(	HARNESS ASY	1175666	*	*	*	1	*	*	*	1
)(	HARNESS ASY	1175838	1	1	*	*	1	1	*	*
)(	HARNESS ASY	1176385	1	1	1	*	1	1	1	*
)(	HARNESS ASY	1176387	1	1	*	*	1	1	*	*
)(	PLUG ASY	1171405	1	1	1	1	1	1	1	1

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



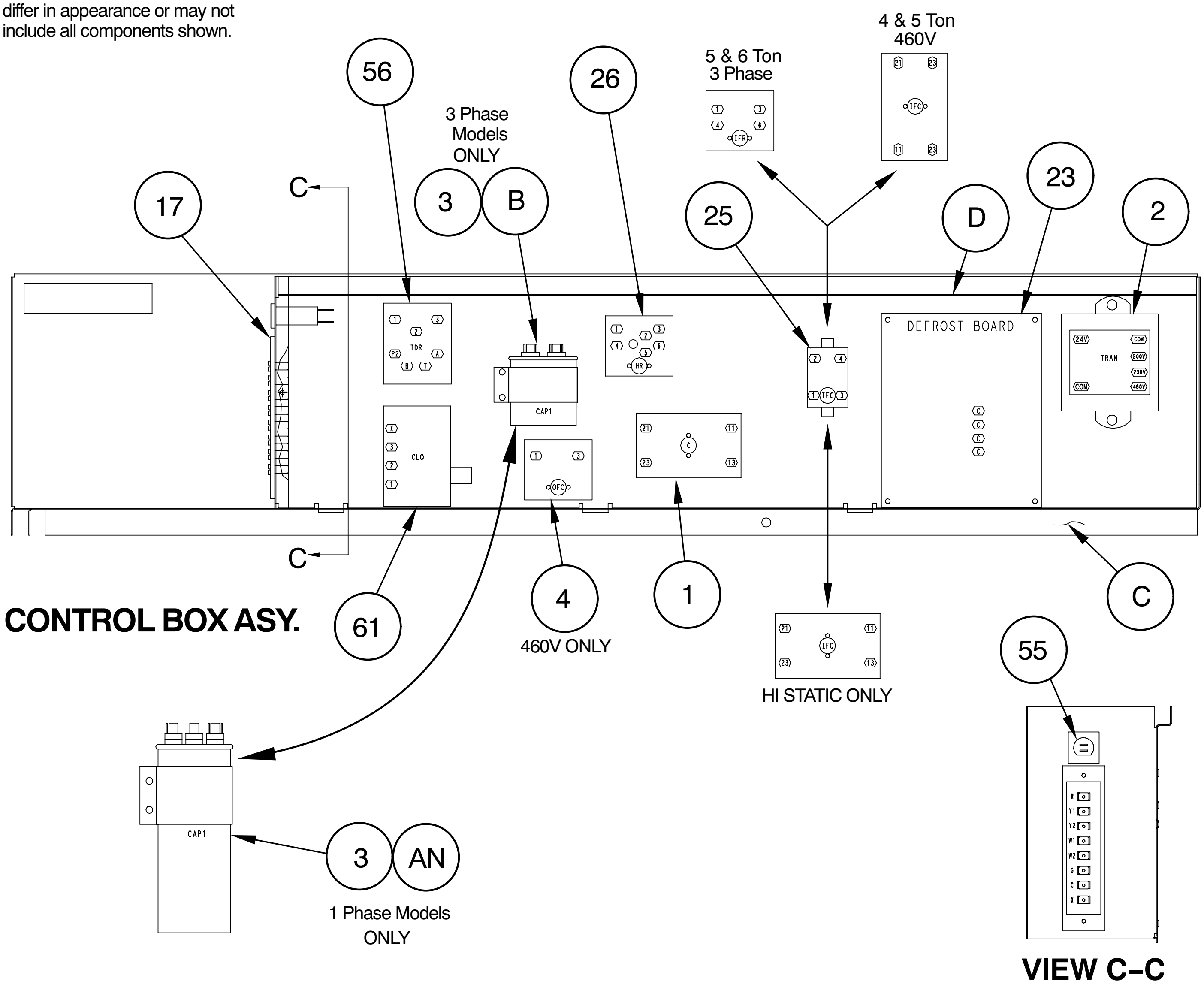
FRONT VIEW

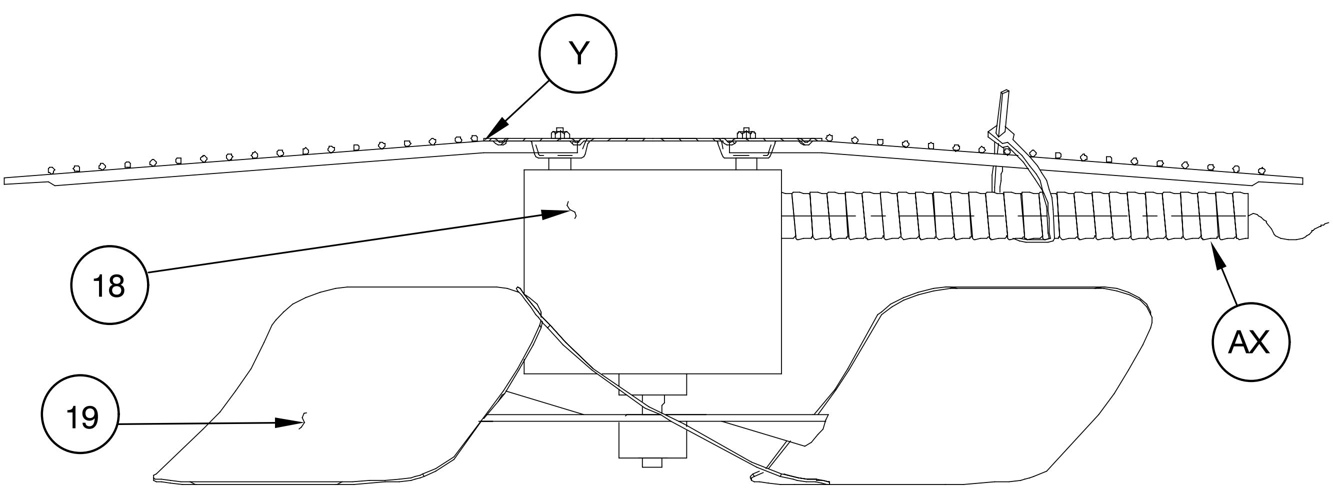


REAR VIEW

80−51−51

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

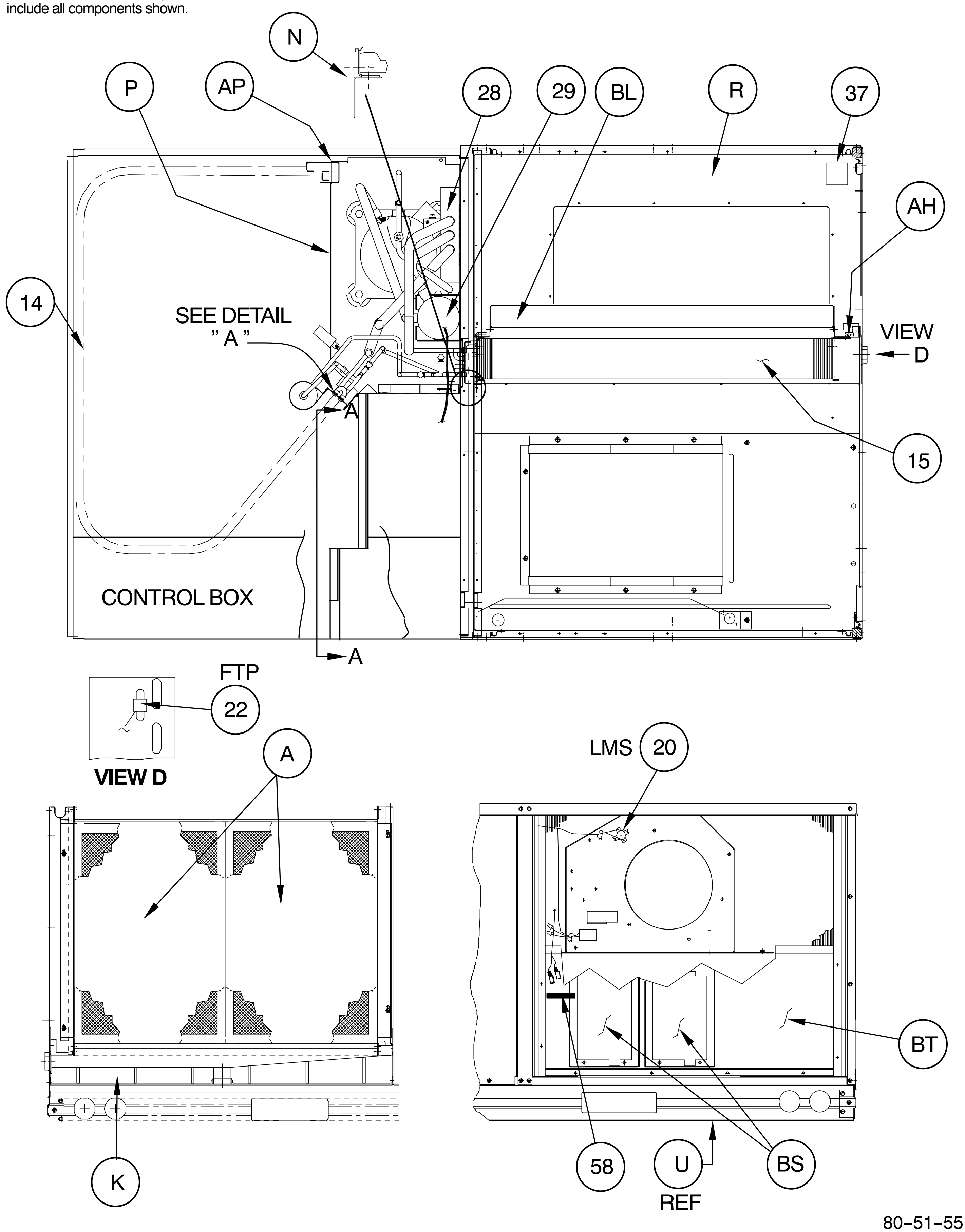




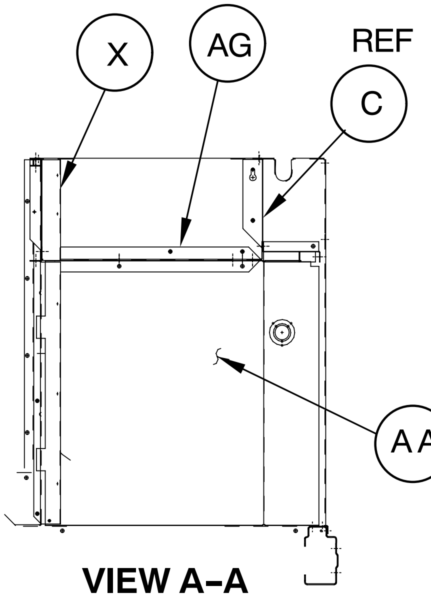
OUTDOOR FAN MOTOR SECTION

80–51–52

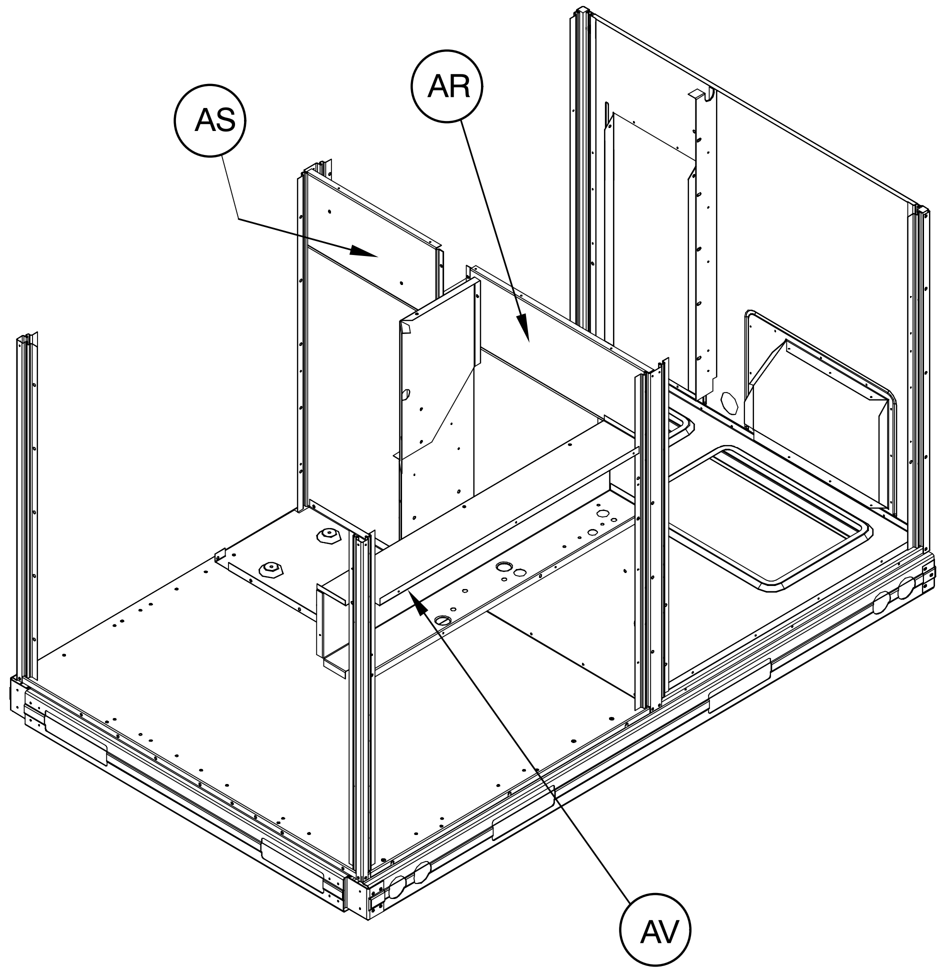
NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.

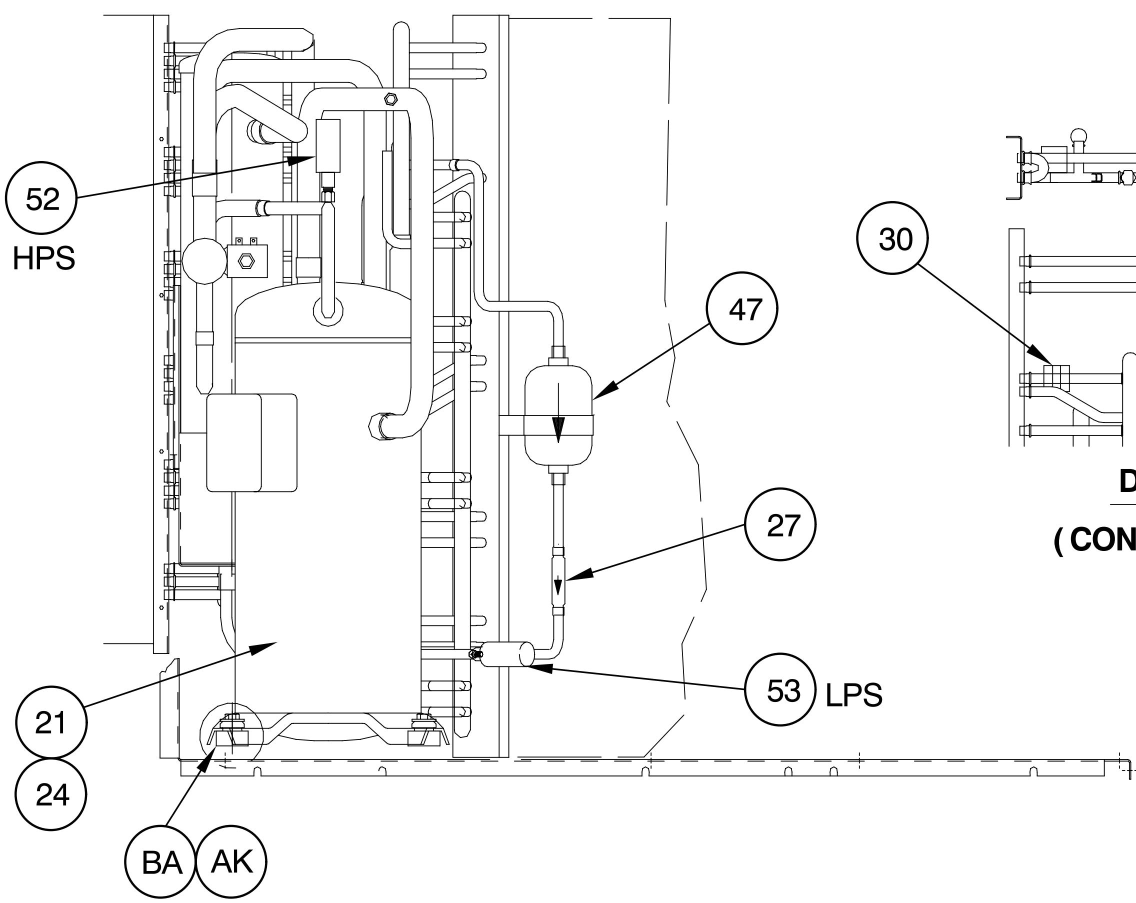


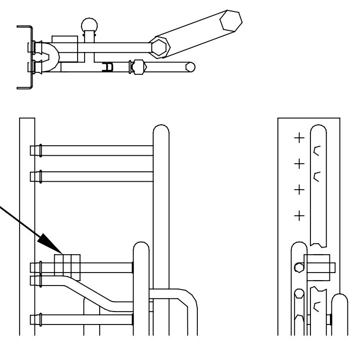
NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.



VIEW A–A





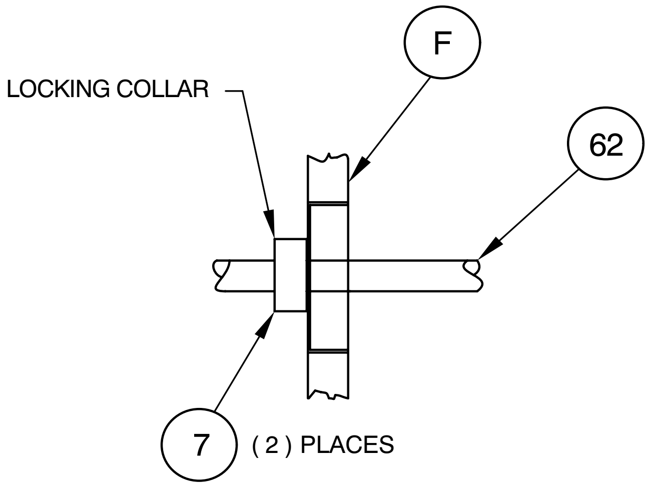


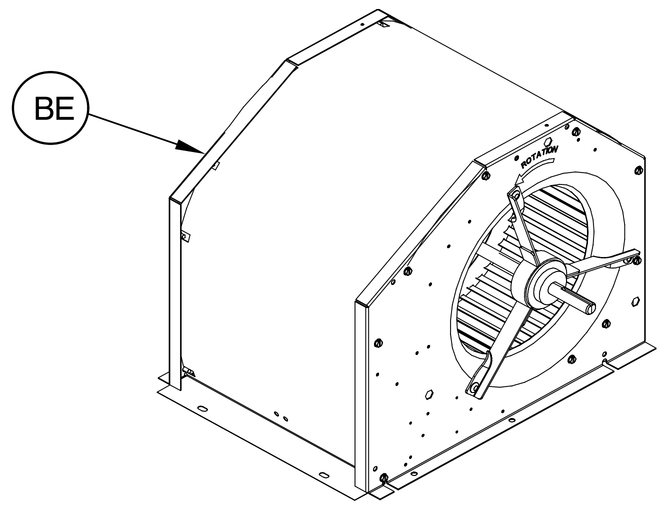
DETAIL A

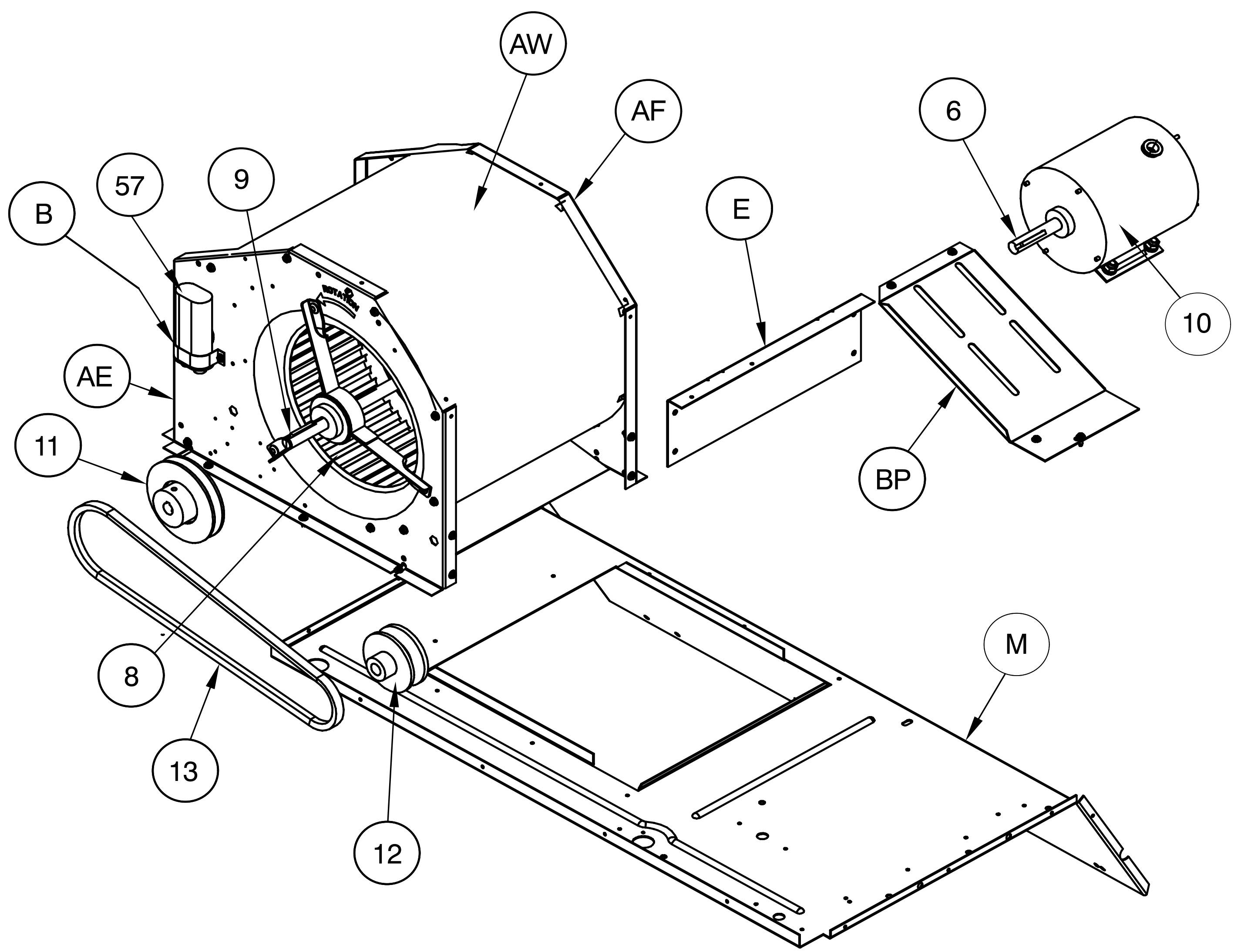
(CONDENSING COIL)

80–51–56

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



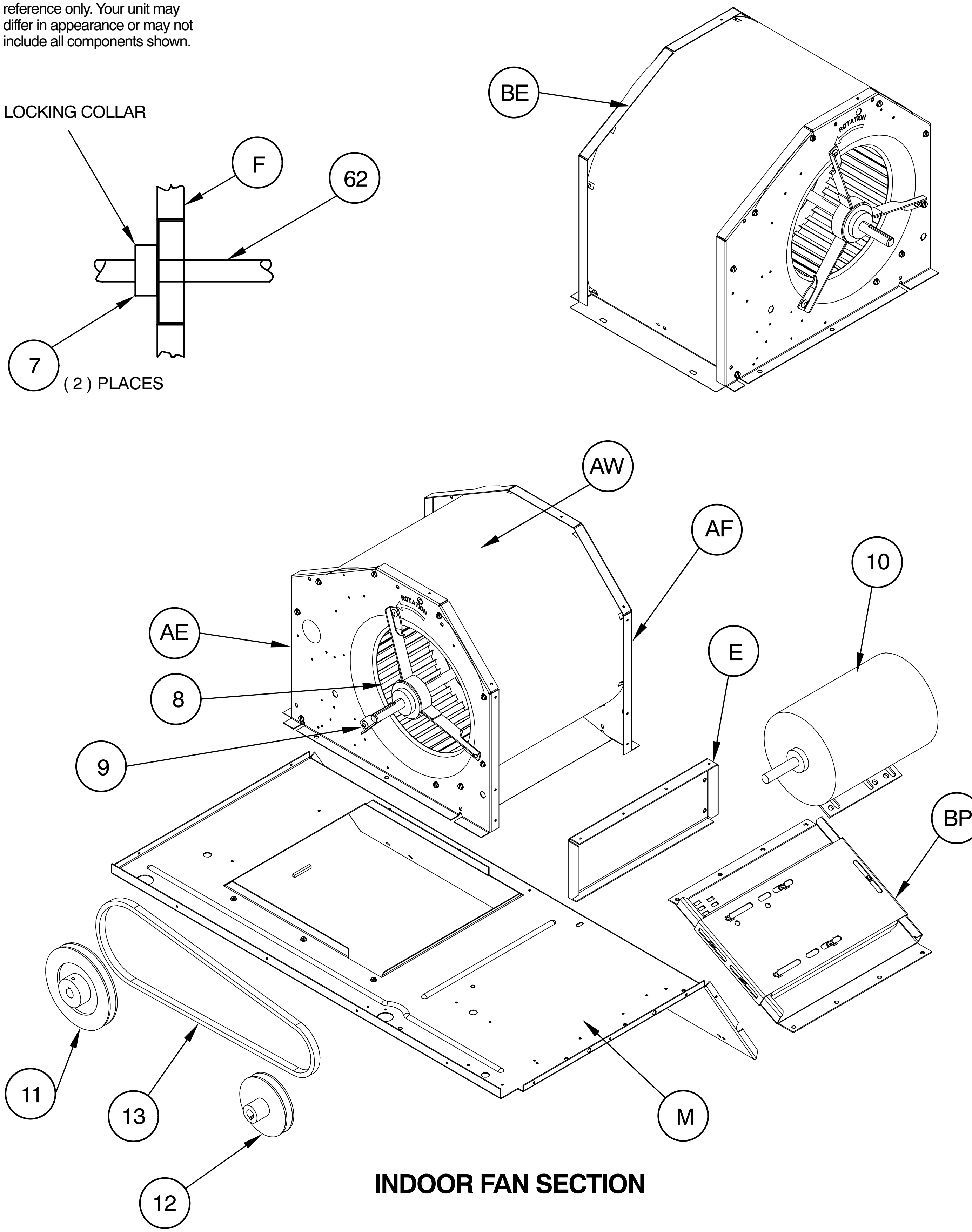




INDOOR FAN SECTION

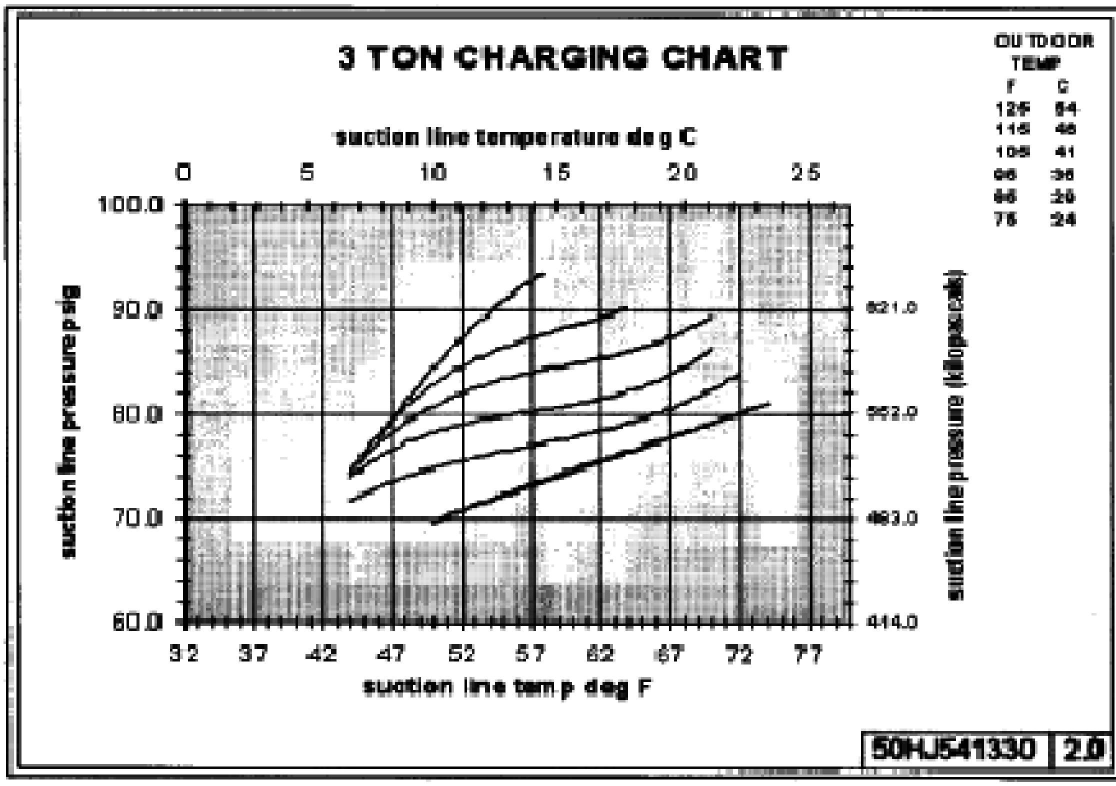
80−51−53

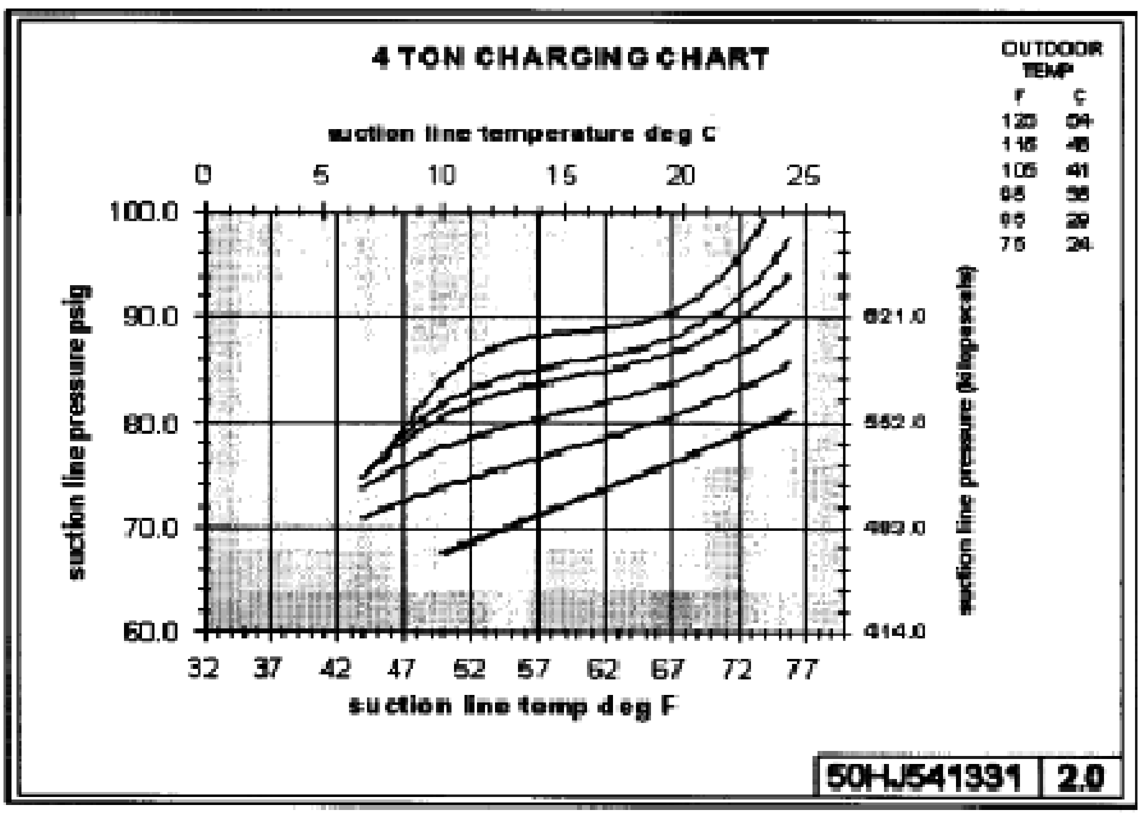
NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.

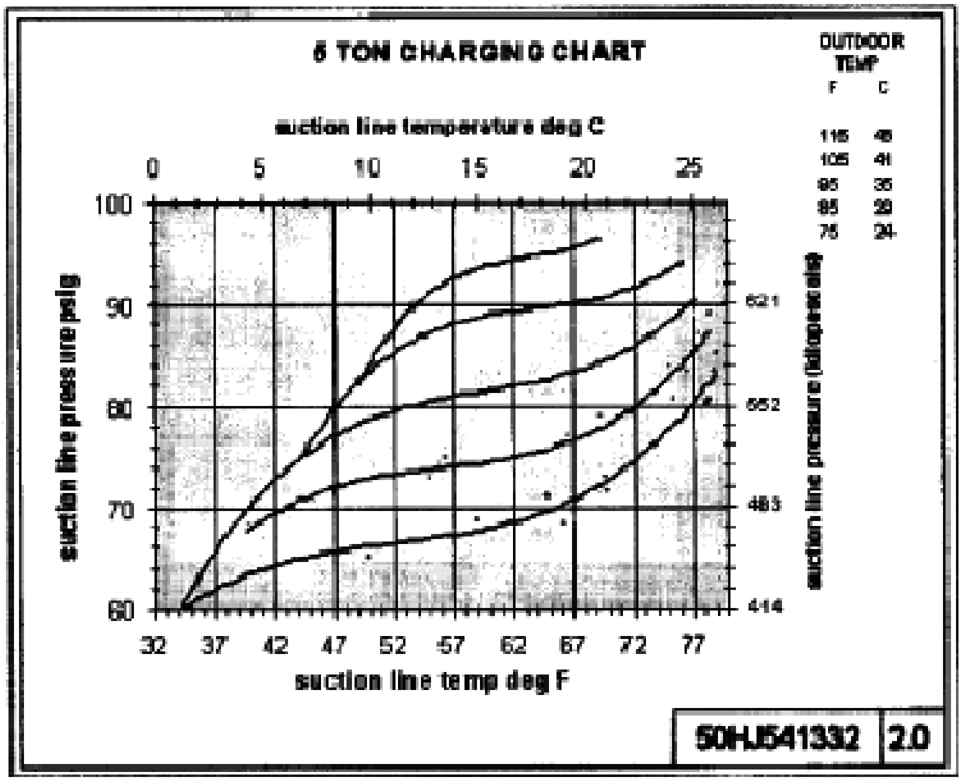


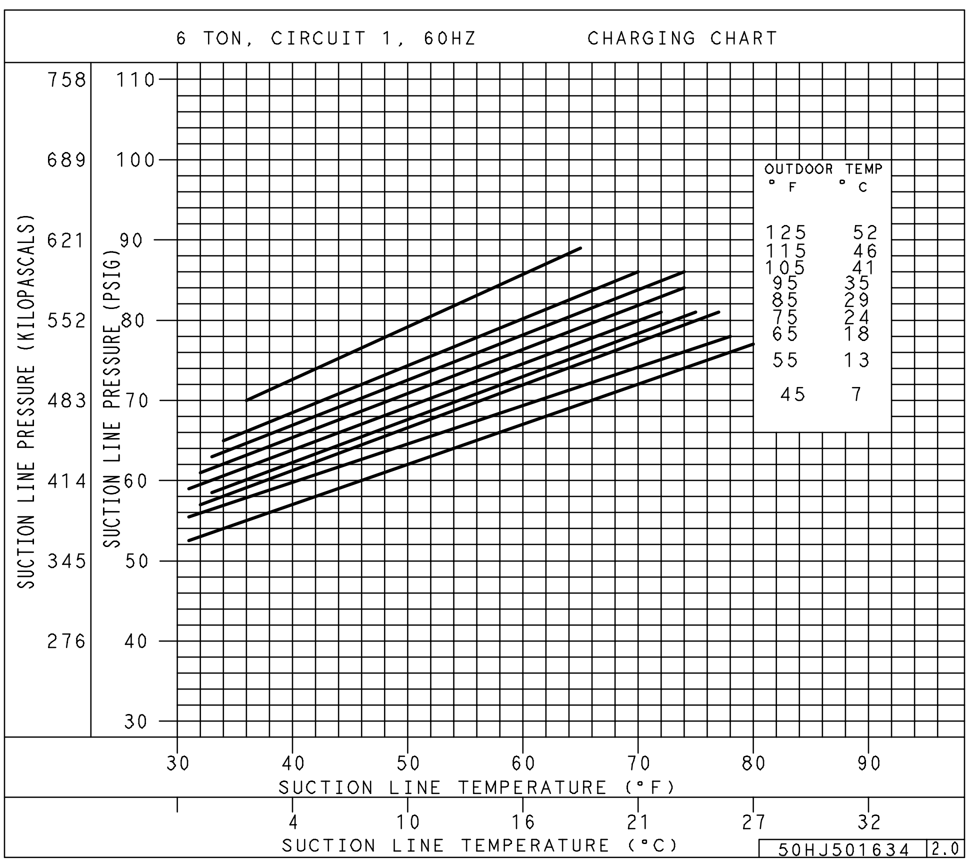
INDOOR FAN SECTION

80–51–54

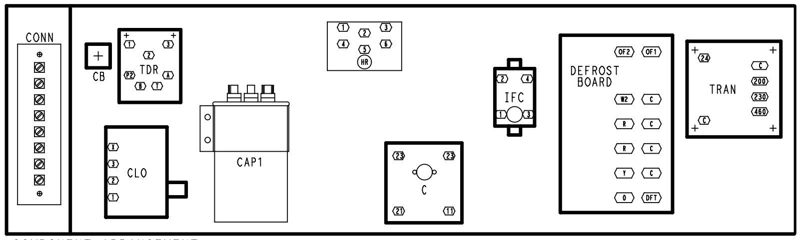

3 TON CHARGING CHART
suction line temperature deg C
suction line pressure psig
suction line pressure (kilopascals)
suction line temp deg F
OUTDOOR TEMP
F C
50HJ541330
2.0


4 TON CHARGING CHART
suction line temperature deg C
suction line pressure psig
suction line pressure (kilopascals)
suction line temp deg F
OUTDOOR TEMP
F C
50HJ541331
2.0


6 TON CHARGING CHART
OUTDOOR TEMP
F C
115 46
105 41
95 35
85 29
75 24
suction line temperature deg C
0 5 10 15 20 25
100 90 80 70 60
suction line pressure psig
621 552 483 414
suction line pressure (kilopascals)
32 37 42 47 52 57 62 67 72 77
suction line temp deg F
50HJ541332 2.0


6 TON, CIRCUIT 1, 60HZ CHARGING CHART
758 689 621 552 483 414 345 276
SUCTION LINE PRESSURE (KILOPASCALS)
110 100 90 80 70 60 50 40 30
SUCTION LINE PRESSURE (PSIG)
OUTDOOR TEMP
° F ° C
125 52
115 46
105 41
95 35
85 29
75 24
65 18
55 13
45 7
30 40 50 60 70 80 90
SUCTION LINE TEMPERATURE (°F)
4 10 16 21 27 32
SUCTION LINE TEMPERATURE (°C)
50HJ501634 2.0

SCHEMATIC 208/230-3-60



COMPONENT ARRANGEMENT

C	CONTACTOR,COMPRESSOR	IFC	INDOOR FAN CAPACITOR
CAP	CAPACITOR	IFM	INDOOR FAN MOTOR
CB	CIRCUIT BREAKER	LA	LOW AMBIENT LOCKOUT
CCH	CRANKCASE HEATER	LSM	LIMIT SWITCH (MANUAL)
CLO	COMPRESSOR LOCKOUT	OARH	OUTDOOR AIR RELATIVE HUMIDITY SEN.
COMP	COMPRESSOR MOTOR	OAT	OUTDOOR AIR TEMP. SEN.
DFT	DEFROST THERMOSTAT	OFM	OUTDOOR FAN MOTOR
FPT	FREEZE UP PROTECTION THERMOSTAT	OLR	OVERLOAD RELAY
FU	FUSE	PL	PLUG ASSEMBLY
GND	GROUND	RAT	RETURN AIR TEMP. SEN.
HC	HEATER CONTACTOR (STRIP HEAT)	RVS	REVERSING VALVE SOLENOID
HPS	HIGH PRESSURE SWITCH	SAT	SUPPLY AIR TEMP. SEN.
HR	HEATER RELAY	TB	TERMINAL BLOCK
IAQ	INDOOR AIR QUALITY SENSOR	TDR	TIME DELAY RELAY
IARH	INDOOR AIR RELATIVE HUMIDITY SEN.	TRAN	TRANSFORMER

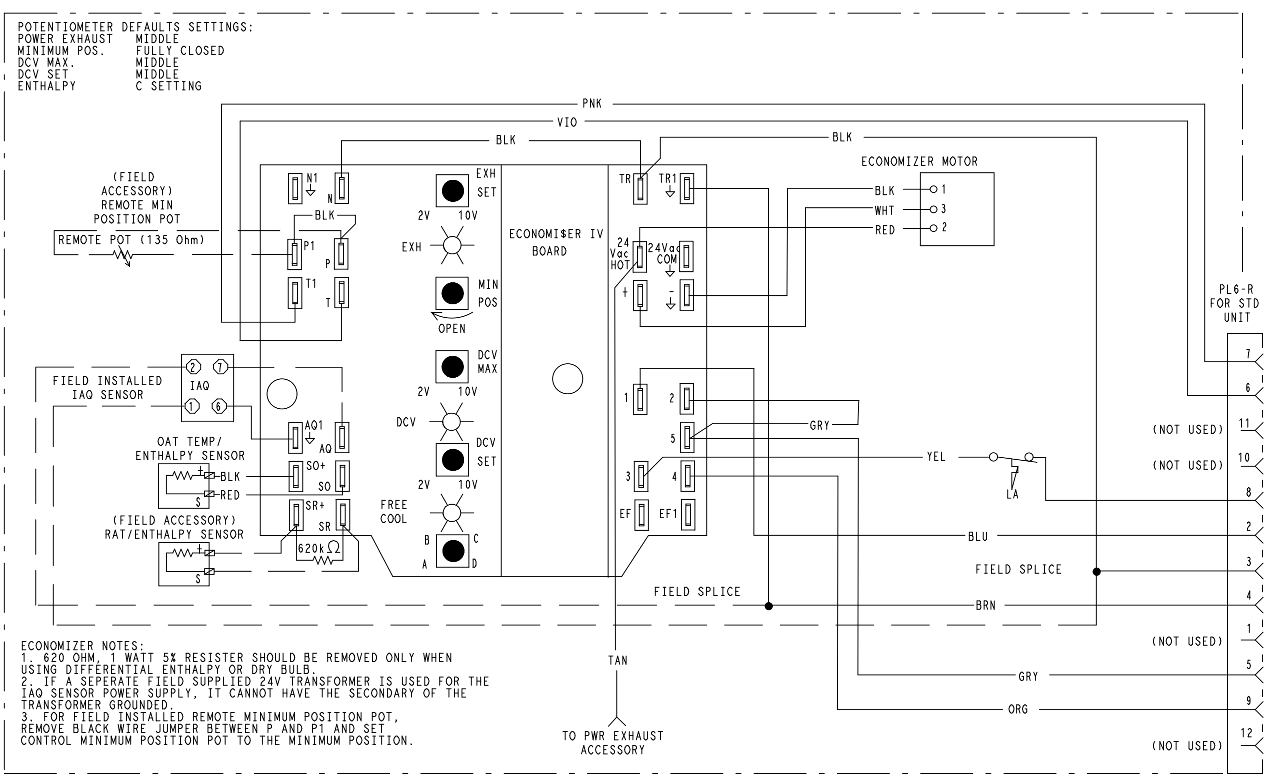
NOTES

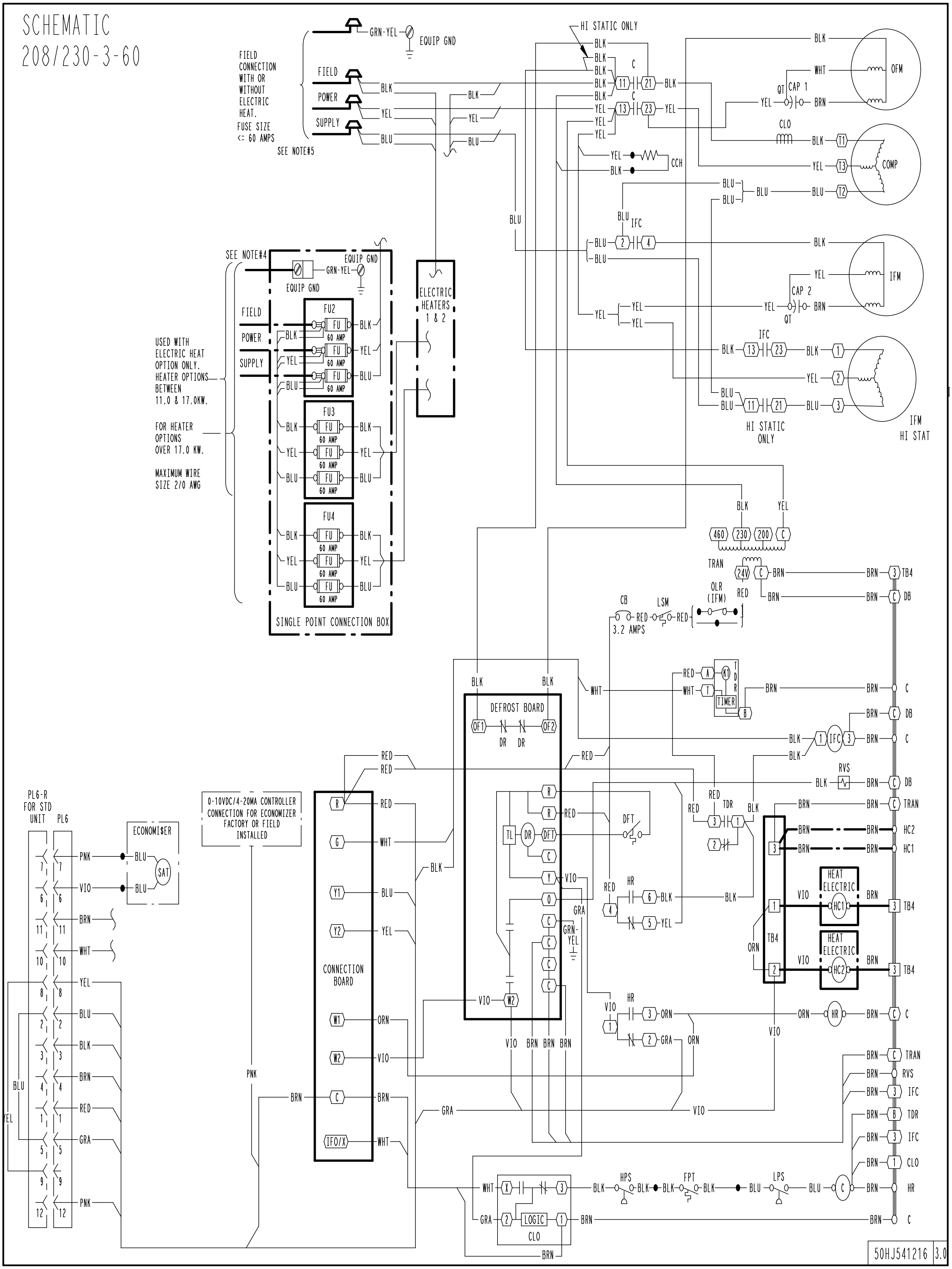
1. IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
2. COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
3. TRAN IS WIRED FOR 230V UNIT. IF UNIT IS TO BE RUN WITH 208V POWER SUPPLY DISCONNECT BLK WIRE FROM 230V TAP (ORN) AND CONNECT TO 208V TAP (RED). INSULATE END OF 230V TAP.
4. USE COPPER, COPPER CLAD ALUMINUM OR ALUMINUM CONDUCTORS.
5. USE COPPER CONDUCTORS ONLY.
6.

VOLTAGE RATING	CB MFG.PT.NO. POTTER & BRUMFIELD	MUST TRIP AMPS
24V	W28X-1024-3.2	3.2

LEGEND

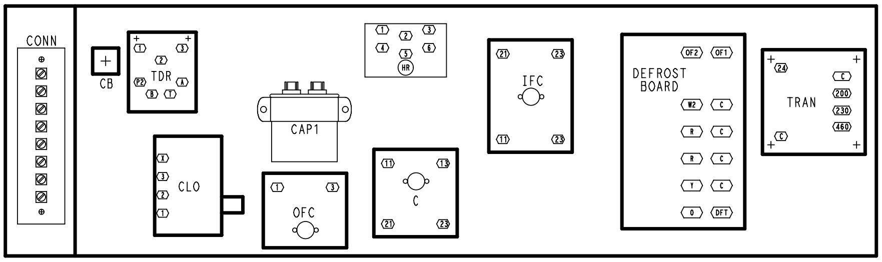
- FIELD SPLICE
- MARKED WIRE
- TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- TERMINAL BLOCK
- SPLICE
- SPLICE (MARKED)
- FACTORY WIRING
- FIELD CONTROL WIRING
- FIELD POWER WIRING
- ACCESSORY OR OPTIONAL WIRING
- TO INDICATE COMMON POTENTIAL ONLY: NOT TO REPRESENT WIRING




SCHEMATIC
208/230-3-60
FIELD CONNECTION WITH OR WITHOUT ELECTRIC HEAT. FUSE SIZE <= 60 AMPS
SEE NOTE#5
EQUIP GND
HI STATIC ONLY
OFM
COMP
IFM
IFM HI STAT
SEE NOTE#4
USED WITH ELECTRIC HEAT OPTION ONLY. HEATER OPTIONS BETWEEN 11.0 & 17.0KW.
FOR HEATER OPTIONS OVER 17.0 KW.
MAXIMUM WIRE SIZE 2/0 AWG
SINGLE POINT CONNECTION BOX
ELECTRIC HEATERS 1 & 2
DEFROST BOARD
CONNECTION BOARD
0-10VDC/4-20MA CONTROLLER CONNECTION FOR ECONOMIZER FACTORY OR FIELD INSTALLED
ECONOMI$ER
PL6-R FOR STD UNIT
PL6
HEAT ELECTRIC
TIMER
LOGIC
CLO
3.2 AMPS
50HJ541216 3.0

SCHEMATIC

460-3-60



COMPONENT ARRANGEMENT

C	CONTACTOR,COMPRESSOR	IFC	INDOOR FAN CAPACITOR
CAP	CAPACITOR	IFM	INDOOR FAN MOTOR
CB	CIRCUIT BREAKER	LA	LOW AMBIENT LOCKOUT
CCH	CRANKCASE HEATER	LSM	LIMIT SWITCH (MANUAL)
CLO	COMPRESSOR LOCKOUT	OARH	OUTDOOR AIR RELATIVE HUMIDITY SEN.
COMP	COMPRESSOR MOTOR	OAT	OUTDOOR AIR TEMP. SEN.
DFT	DEFROST THERMOSTAT	OFM	OUTDOOR FAN MOTOR
FPT	FREEZE UP PROTECTION THERMOSTAT	OLR	OVERLOAD RELAY
FU	FUSE	PL	PLUG ASSEMBLY
GND	GROUND	RAT	RETURN AIR TEMP. SEN.
HC	HEATER CONTACTOR (STRIP HEAT)	RVS	REVERSING VALVE SOLENOID
HPS	HIGH PRESSURE SWITCH	SAT	SUPPLY AIR TEMP. SEN.
HR	HEATER RELAY	TB	TERMINAL BLOCK
IAQ	INDOOR AIR QUALITY SENSOR	TDR	TIME DELAY RELAY
IARH	INDOOR AIR RELATIVE HUMIDITY SEN.	TRAN	TRANSFORMER

NOTES

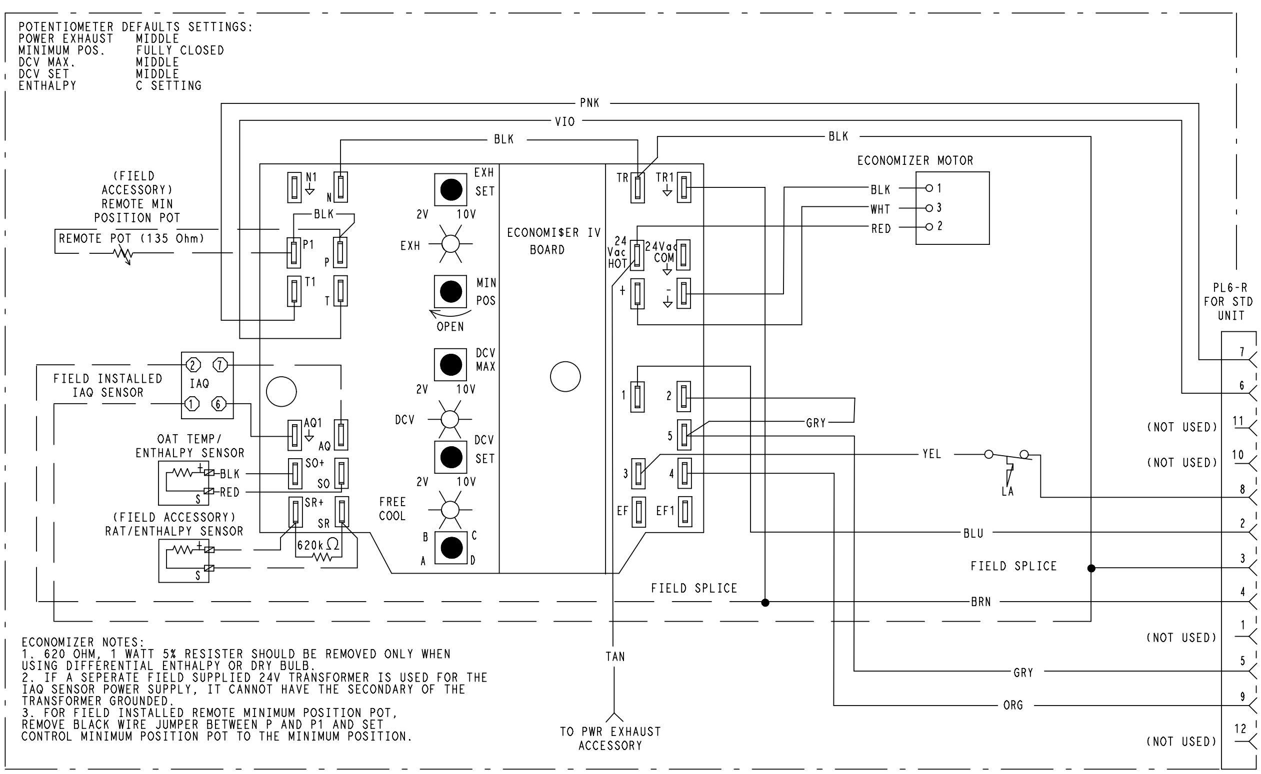
1. IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
2. COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
3. USE COPPER CONDUCTORS ONLY.

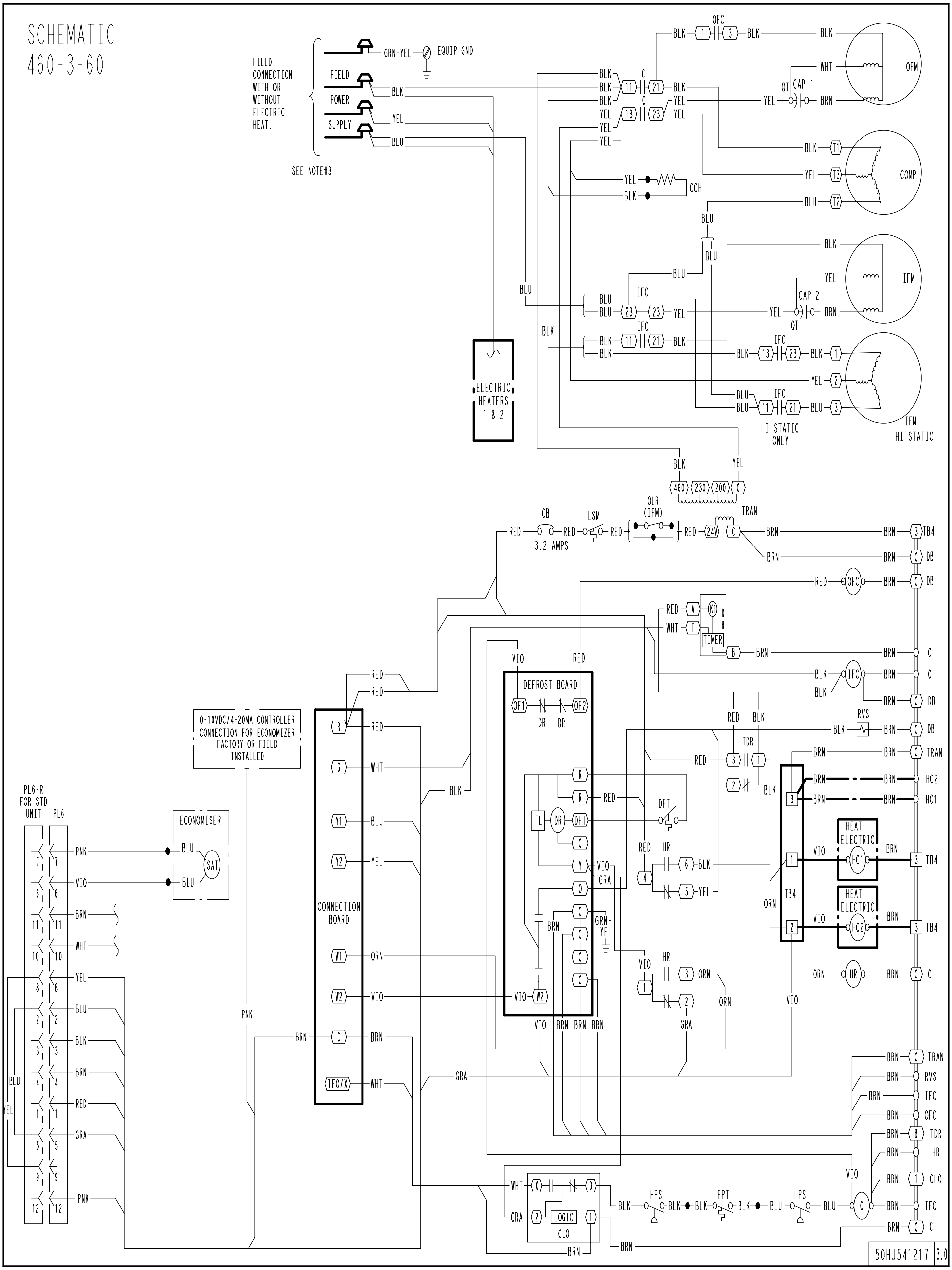
4

VOLTAGE RATING	CB MFG.PT.NO. POTTER & BRUMFIELD	MUST TRIP AMPS
24V	W28X-1024-3.2	3.2

LEGEND

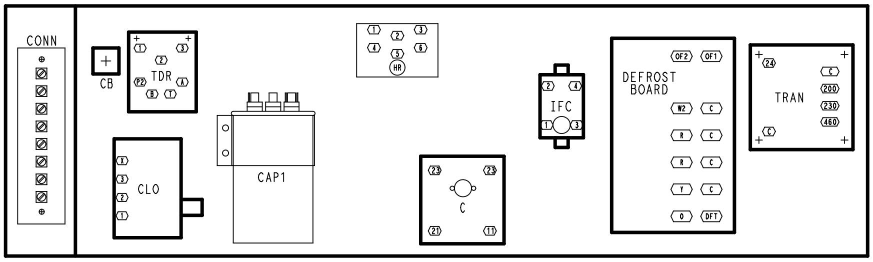
- FIELD SPLICE
- MARKED WIRE
- TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- TERMINAL BLOCK
- SPLICE
- SPLICE (MARKED)
- FACTORY WIRING
- FIELD CONTROL WIRING
- FIELD POWER WIRING
- ACCESSORY OR OPTIONAL WIRING
- TO INDICATE COMMON POTENTIAL ONLY: NOT TO REPRESENT WIRING




SCHEMATIC
460-3-60
FIELD CONNECTION WITH OR WITHOUT ELECTRIC HEAT.
FIELD POWER SUPPLY
SEE NOTE#3
EQUIP GND
ELECTRIC HEATERS 1 & 2
OFM
COMP
IFM
CCH
IFM HI STATIC
HI STATIC ONLY
TRAN
DEFROST BOARD
CONNECTION BOARD
0-10VDC/4-20MA CONTROLLER CONNECTION FOR ECONOMIZER FACTORY OR FIELD INSTALLED
ECONOMI$ER
PL6-R FOR STD UNIT
PL6
HEAT ELECTRIC
TB4
3.2 AMPS
50HJ541217 3.0

SCHEMATIC

208/230-3-60



COMPONENT ARRANGEMENT

C	CONTACTOR,COMPRESSOR
CAP	CAPACITOR
CB	CIRCUIT BREAKER
CCH	CRANKCASE HEATER
CLO	COMPRESSOR LOCKOUT
COMP	COMPRESSOR MOTOR
DFT	DEFROST THERMOSTAT
FPT	FREEZE UP PROTECTION THERMOSTAT
FU	FUSE
GND	GROUND
HC	HEATER CONTACTOR (STRIP HEAT)
HPS	HIGH PRESSURE SWITCH
HR	HEATER RELAY
IAQ	INDOOR AIR QUALITY SENSOR
IARH	INDOOR AIR RELATIVE HUMIDITY SEN.
IFC	INDOOR FAN CAPACITOR
IFM	INDOOR FAN MOTOR
LA	LOW AMBIENT LOCKOUT
LSM	LIMIT SWITCH (MANUAL)
OARH	OUTDOOR AIR RELATIVE HUMIDITY SEN.
OAT	OUTDOOR AIR TEMP. SEN.
OFM	OUTDOOR FAN MOTOR
OLR	OVERLOAD RELAY
PL	PLUG ASSEMBLY
RAT	RETURN AIR TEMP. SEN.
RVS	REVERSING VALVE SOLENOID
SAT	SUPPLY AIR TEMP. SEN.
TB	TERMINAL BLOCK
TDR	TIME DELAY RELAY
TRAN	TRANSFORMER

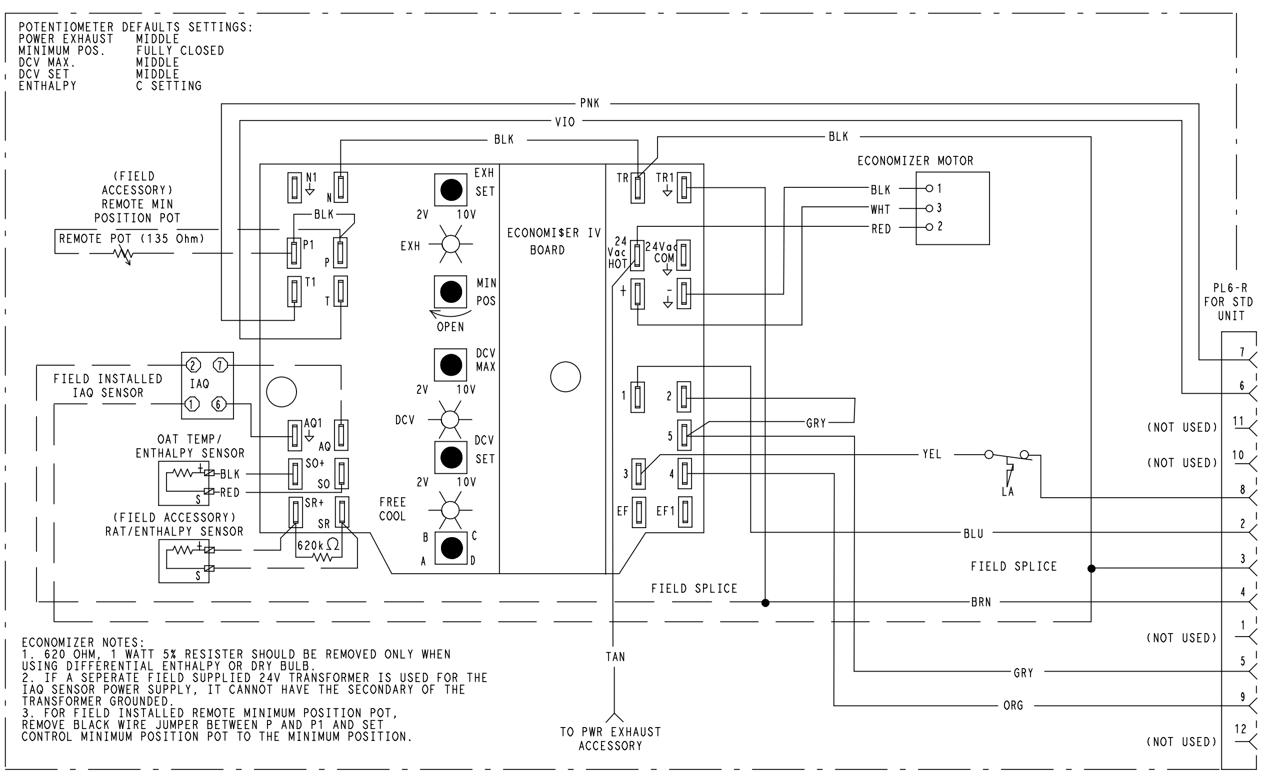
NOTES

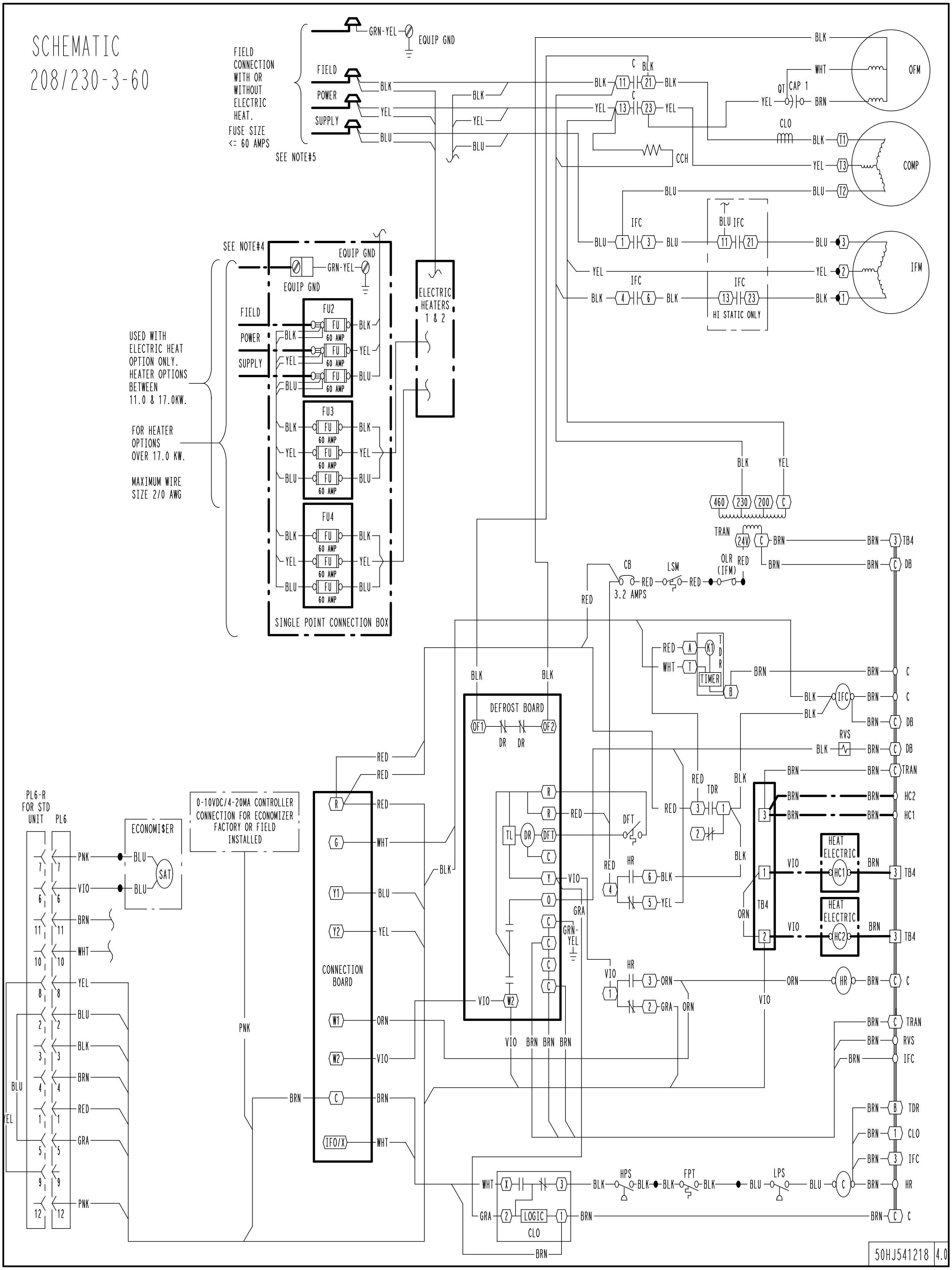
1. IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
2. COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
3. TRAN IS WIRED FOR 230V UNIT. IF UNIT IS TO BE RUN WITH 208V POWER SUPPLY DISCONNECT BLK WIRE FROM 230V TAP (ORN) AND CONNECT TO 208V TAP (RED). INSULATE END OF 230V TAP.
4. USE COPPER, COPPER CLAD ALUMINUM OR ALUMINUM CONDUCTORS.
5. USE COPPER CONDUCTORS ONLY.
6.

VOLTAGE RATING	CB MFG.PT.NO. POTTER & BRUMFIELD	MUST TRIP AMPS
24V	W28X-1024-3.2	3.2

LEGEND

- FIELD SPLICE
- MARKED WIRE
- TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- TERMINAL BLOCK
- SPLICE
- SPLICE (MARKED)
- FACTORY WIRING
- FIELD CONTROL WIRING
- FIELD POWER WIRING
- ACCESSORY OR OPTIONAL WIRING
- TO INDICATE COMMON POTENTIAL ONLY: NOT TO REPRESENT WIRING

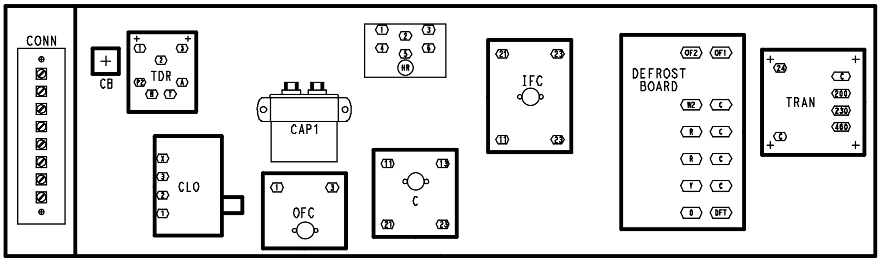




523 04 1201 01

SCHEMATIC

460-3-60



COMPONENT ARRANGEMENT

C	CONTACTOR,COMPRESSOR	IFC	INDOOR FAN CAPACITOR
CAP	CAPACITOR	IFM	INDOOR FAN MOTOR
CB	CIRCUIT BREAKER	LA	LOW AMBIENT LOCKOUT
CCH	CRANKCASE HEATER	LSM	LIMIT SWITCH (MANUAL)
CLO	COMPRESSOR LOCKOUT	OARH	OUTDOOR AIR RELATIVE HUMIDITY SEN.
COMP	COMPRESSOR MOTOR	OAT	OUTDOOR AIR TEMP. SEN.
DFT	DEFROST THERMOSTAT	OFM	OUTDOOR FAN MOTOR
FPT	FREEZE UP PROTECTION THERMOSTAT	OLR	OVERLOAD RELAY
FU	FUSE	PL	PLUG ASSEMBLY
GND	GROUND	RAT	RETURN AIR TEMP. SEN.
HC	HEATER CONTACTOR (STRIP HEAT)	RVS	REVERSING VALVE SOLENOID
HPS	HIGH PRESSURE SWITCH	SAT	SUPPLY AIR TEMP. SEN.
HR	HEATER RELAY	TB	TERMINAL BLOCK
IAQ	INDOOR AIR QUALITY SENSOR	TDR	TIME DELAY RELAY
IARH	INDOOR AIR RELATIVE HUMIDITY SEN.	TRAN	TRANSFORMER

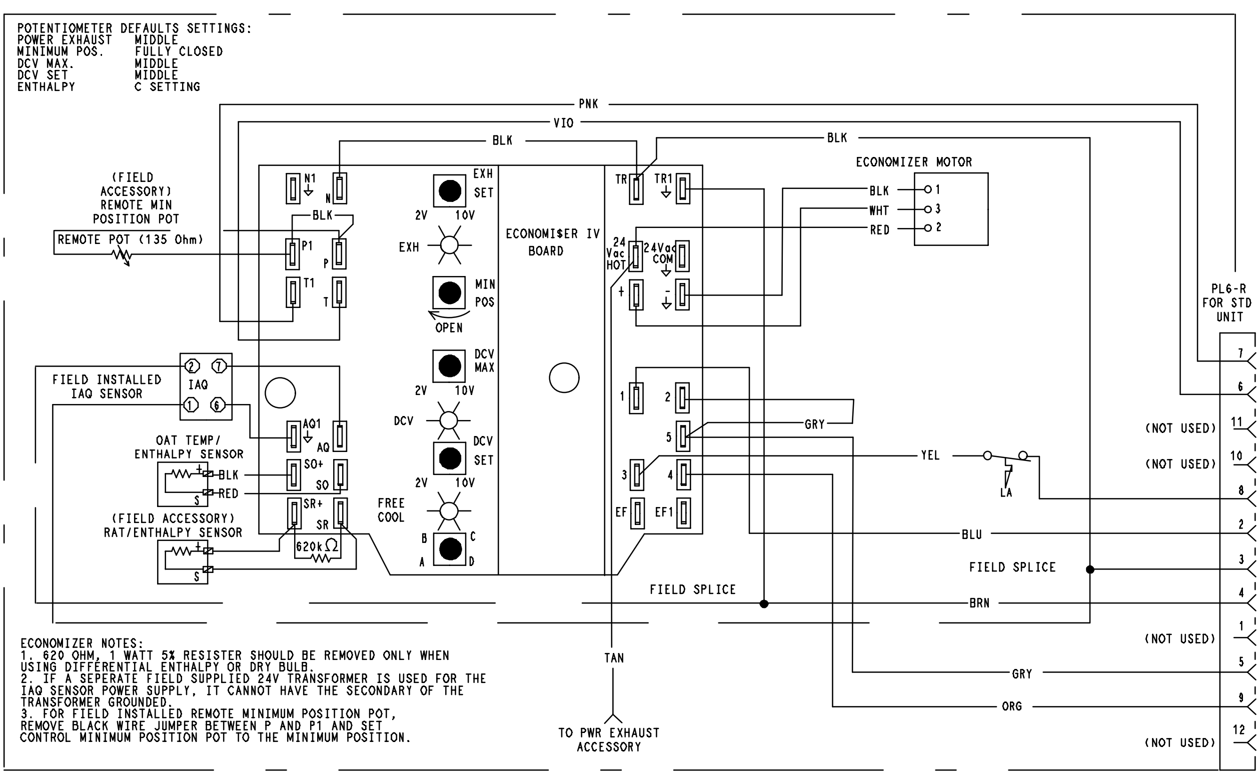
NOTES

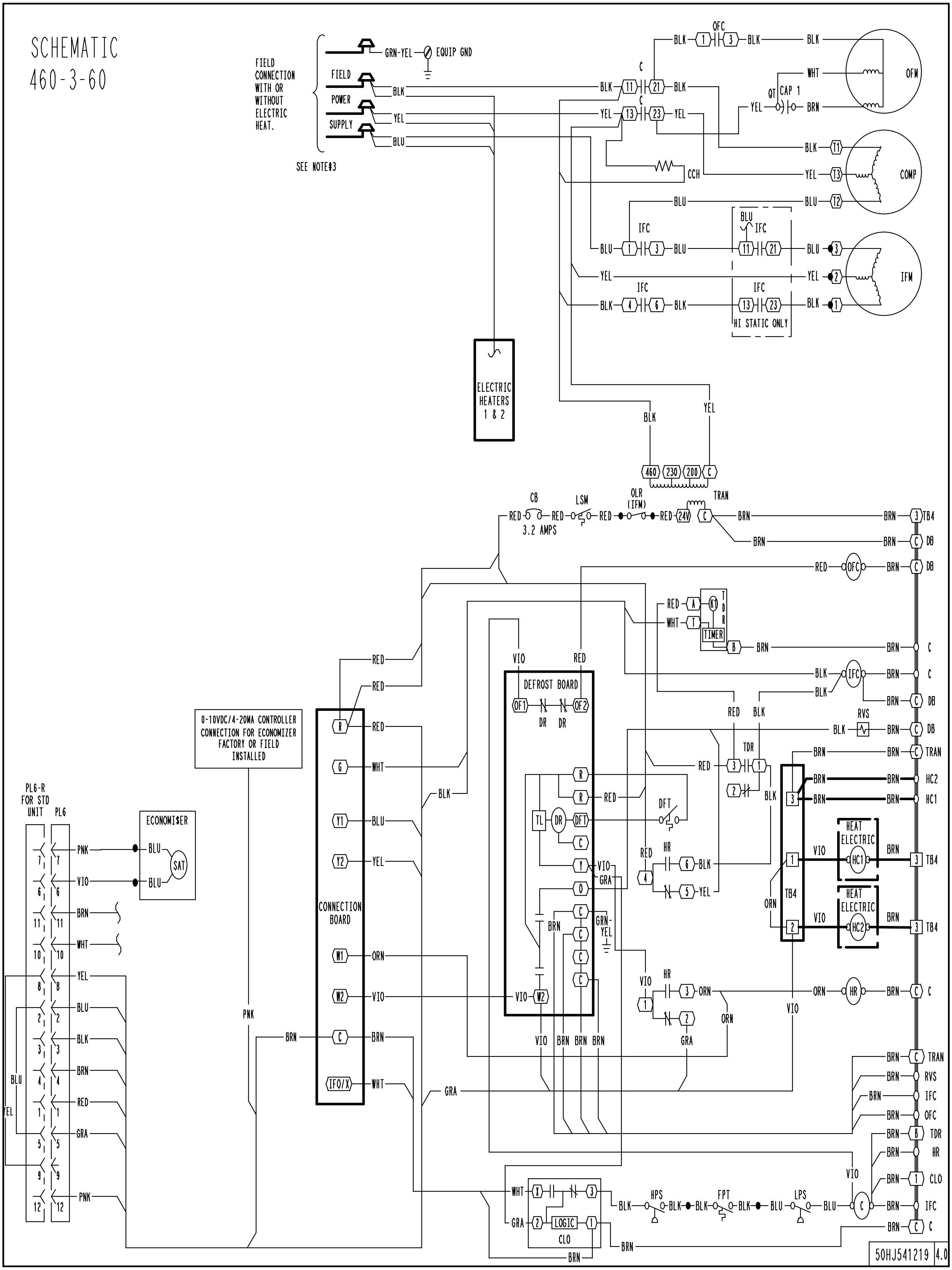
1. IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
2. COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
3. USE COPPER CONDUCTORS ONLY.
4.

VOLTAGE RATING	CB MFG.PT.NO. POTTER & BRUMFIELD	MUST TRIP AMPS
24V	W28X-1024-3.2	3.2

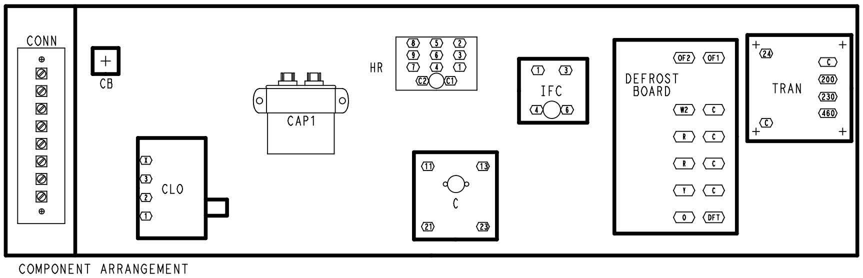
LEGEND

- FIELD SPLICE
- MARKED WIRE
- TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- TERMINAL BLOCK
- SPLICE
- SPLICE (MARKED)
- FACTORY WIRING
- FIELD CONTROL WIRING
- FIELD POWER WIRING
- ACCESSORY OR OPTIONAL WIRING
- TO INDICATE COMMON POTENTIAL ONLY: NOT TO REPRESENT WIRING




SCHEMATIC
460-3-60
FIELD CONNECTION WITH OR WITHOUT ELECTRIC HEAT.
FIELD POWER SUPPLY
SEE NOTE#3
GRN-YEL
EQUIP GND
OFC
OFM
COMP
IFM
CAP 1
QT
CCH
IFC
HI STATIC ONLY
ELECTRIC HEATERS 1 & 2
460 230 200 C
TRAN
CB
3.2 AMPS
LSM
OLR (IFM)
24V
TB4
DB
TDR
TIMER
RVS
DEFROST BOARD
DR
DFT
HR
0-10VDC/4-20MA CONTROLLER CONNECTION FOR ECONOMIZER FACTORY OR FIELD INSTALLED
CONNECTION BOARD
IFO/X
PL6-R FOR STD UNIT
PL6
ECONOMI$ER
SAT
HEAT ELECTRIC
HC1
HC2
HC2
HC1
CLO
LOGIC
HPS
FPT
LPS
50HJ541219
4.0

SCHEMATIC
208/230-3-60

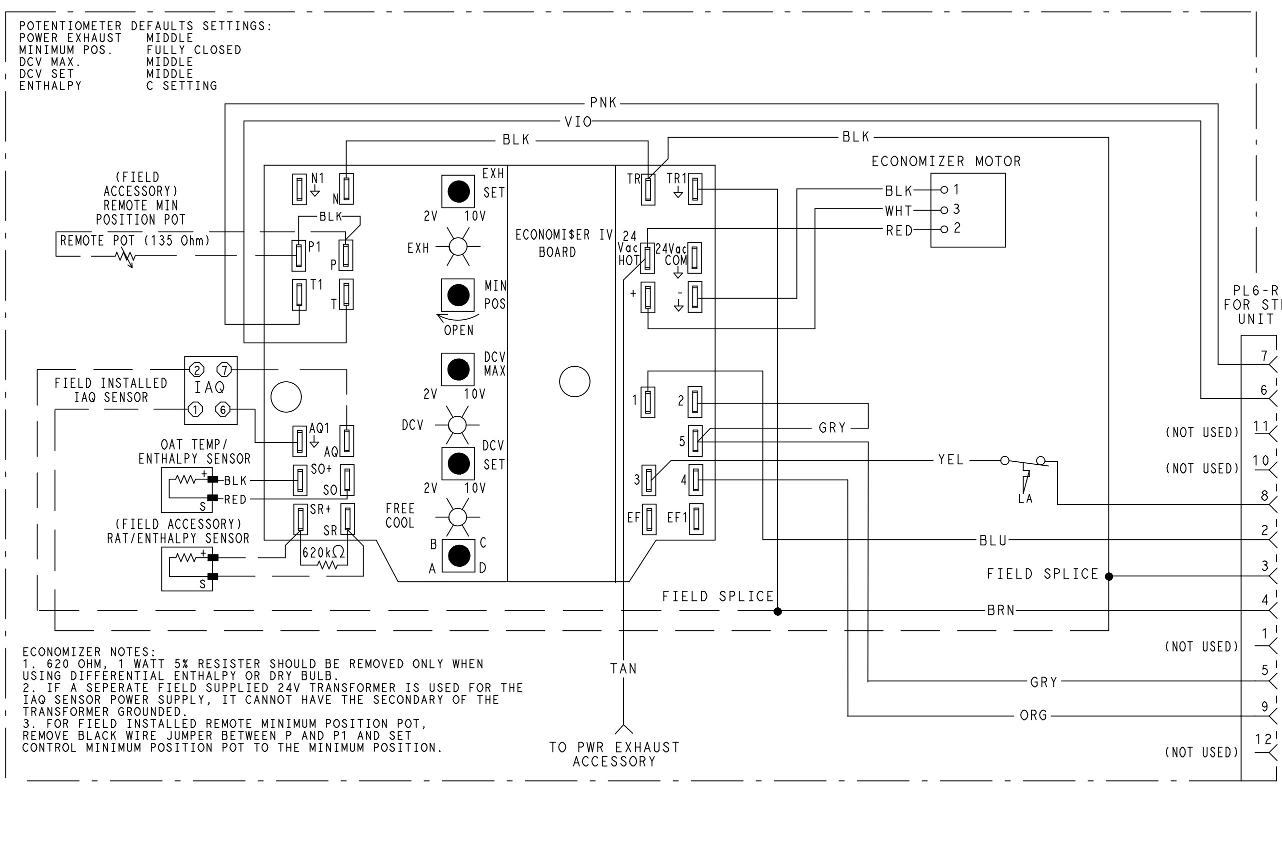


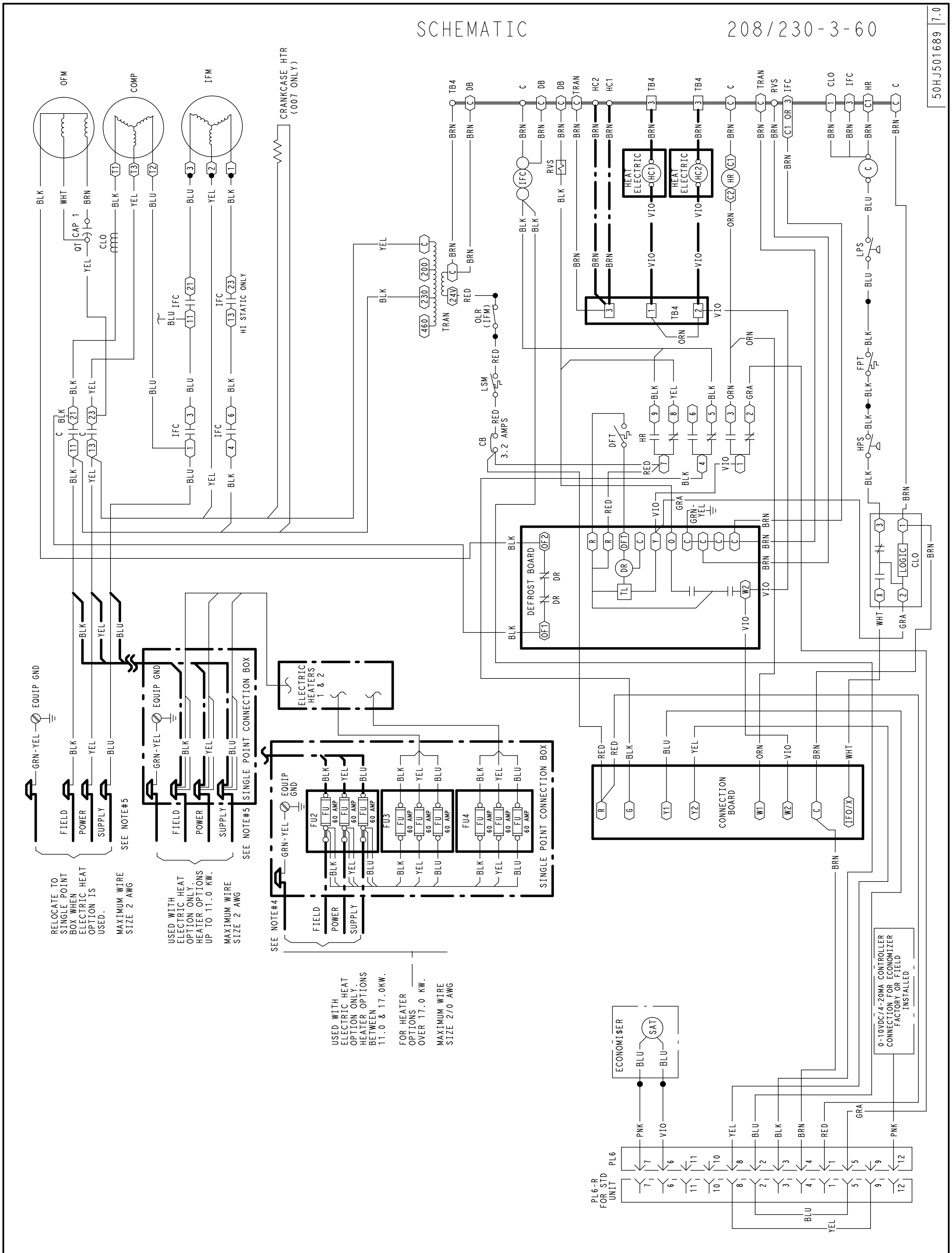
NOTES
1. IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED. IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
2. COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
3. TRAN IS WIRED FOR 230V UNIT. IF UNIT IS TO BE RUN WITH 208V POWER SUPPLY DISCONNECT BLK WIRE FROM 230V TAP (ORN) AND CONNECT TO 208V TAP (RED). INSULATE END OF 230V WIRE.
4. USE COPPER, COPPER CLAD, ALUMINUM OR ALUMINUM CONNECTORS.
5. USE COPPER CONDUCTOR ONLY.
6.

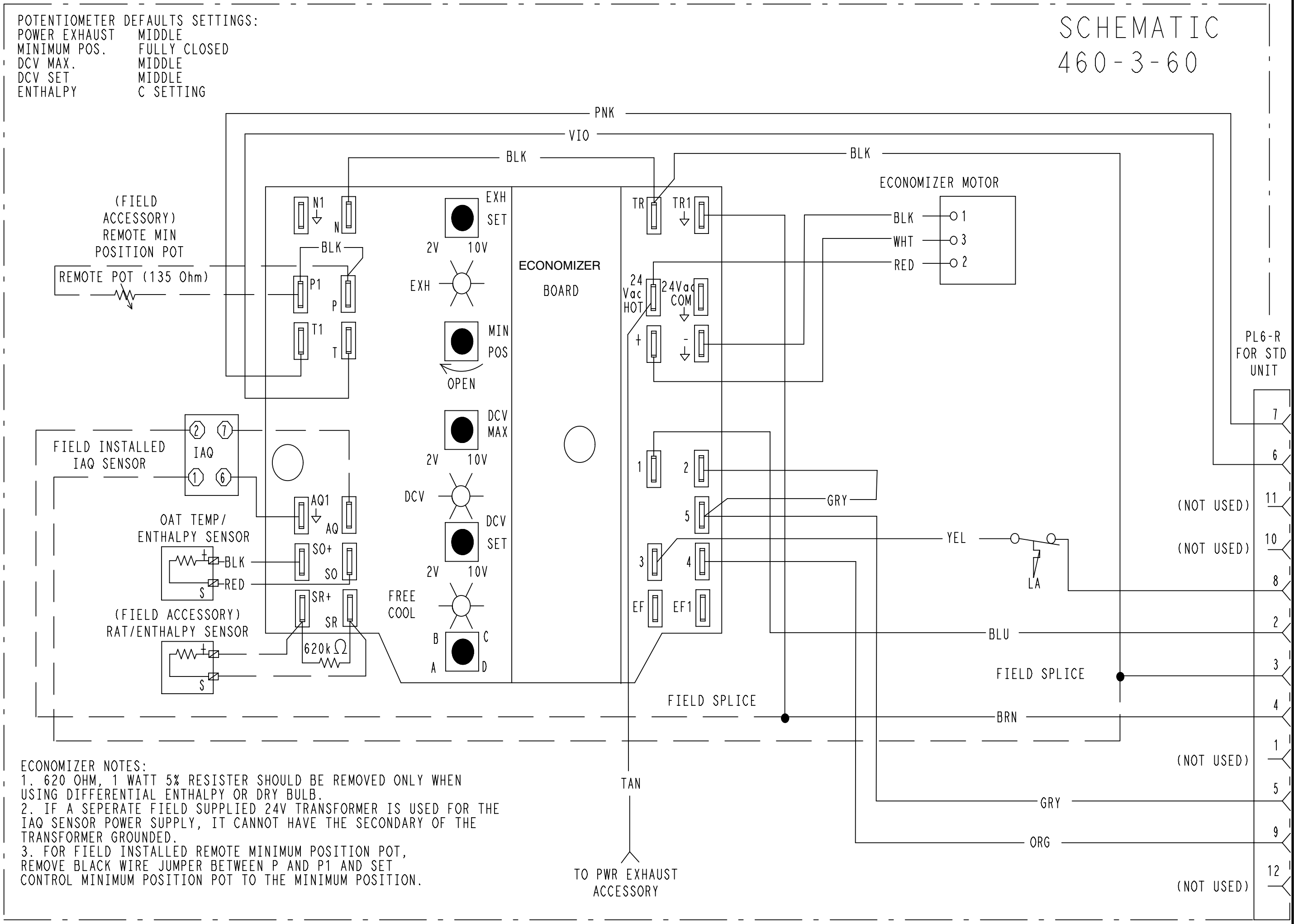
VOLTAGE RATING	CB MFG.PT.NO. POTTER & BRUMFIELD	MUST TRIP AMPS
24V	W28X-1024-3.2	3.2

LEGEND
- FIELD SPLICE
- MARKED WIRE
- TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- TERMINAL BLOCK
- 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,COMPRESSOR
CAP	CAPACITOR
CB	CIRCUIT BREAKER
CC	COOLING COMPENSATOR
CLO	COMPRESSOR LOCKOUT
COMP	COMPRESSOR MOTOR
DB	DEFROST BOARD
DFT	DEFROST THERMOSTAT
FPT	FREEZE UP PROTECTION THERMOSTAT
FU	FUSE
GND	GROUND
HC	HEATER CONTACTOR (STRIP HEAT)
HP	HEAT PUMP
HPS	HIGH PRESSURE SWITCH
HR	HEATER RELAY
IAQ	INDOOR AIR QUALITY SENSORS
IARH	INDOOR AIR RELATIVE HUMIDITY SEN
IFC	INDOOR FAN CONTACTOR
IFM	INDOOR FAN MOTOR
LA	LOW AMBIENT LOCKOUT
LPS	LOW PRESSURE SWITCH
LSM	LIMIT SWITCH (MANUAL RESET)
OARH	OUTDOOR AIR RELATIVE HUMIDITY SEN
OAT	OUTDOOR AIR TEMP. SEN
OFM	OUTDOOR FAN MOTOR
OLR	OVERLOAD RELAY
P	PLUG
PL	PLUG ASSEMBLY
POT	POTENTIOMETER
QT	QUADRUPLE TERMINAL
R	RELAY
RAT	RETURN AIR TEMP. SEN
RVS	REVERSING VALVE SOLENOID
SAT	SUPPLY AIR TEMP. SEN
TB	TERMINAL BLOCK
TDR	TIME DELAY RELAY
TRAN	TRANSFORMER




SCHEMATIC
208/230-3-60
50HJ501689
7.0
DEFROST BOARD
CONNECTION BOARD
SINGLE POINT CONNECTION BOX
ELECTRIC HEATERS 1 & 2
ECONOMI$ER
CRANKCASE HTR (007 ONLY)
RELOCATE TO SINGLE POINT BOX WHEN ELECTRIC HEAT OPTION IS USED.
MAXIMUM WIRE SIZE 2 AWG
USED WITH ELECTRIC HEAT OPTION ONLY. HEATER OPTIONS UP TO 11.0 KW.
USED WITH ELECTRIC HEAT OPTION ONLY. HEATER OPTIONS BETWEEN 11.0 & 17.0KW.
FOR HEATER OPTIONS OVER 17.0 KW.
MAXIMUM WIRE SIZE 2/0 AWG
0-10VDC/4-20MA CONTROLLER CONNECTION FOR ECONOMIZER FACTORY OR FIELD INSTALLED
PL6-R FOR STD UNIT



NOTES

1. IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
2. COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
3. USE COPPER CONDUCTORS ONLY.

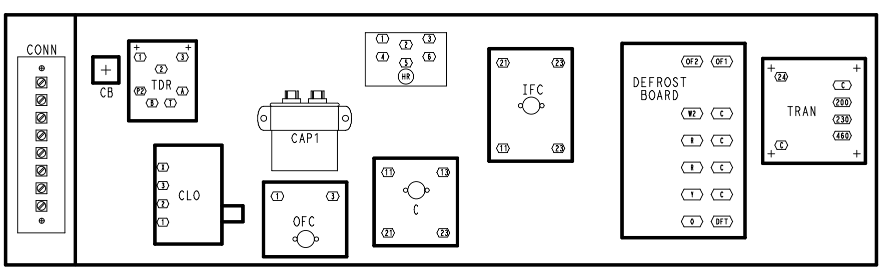
4

VOLTAGE RATING	CB MFG.PT.NO. POTTER & BRUMFIELD	MUST TRIP AMPS
24V	W28X-1024-3.2	3.2

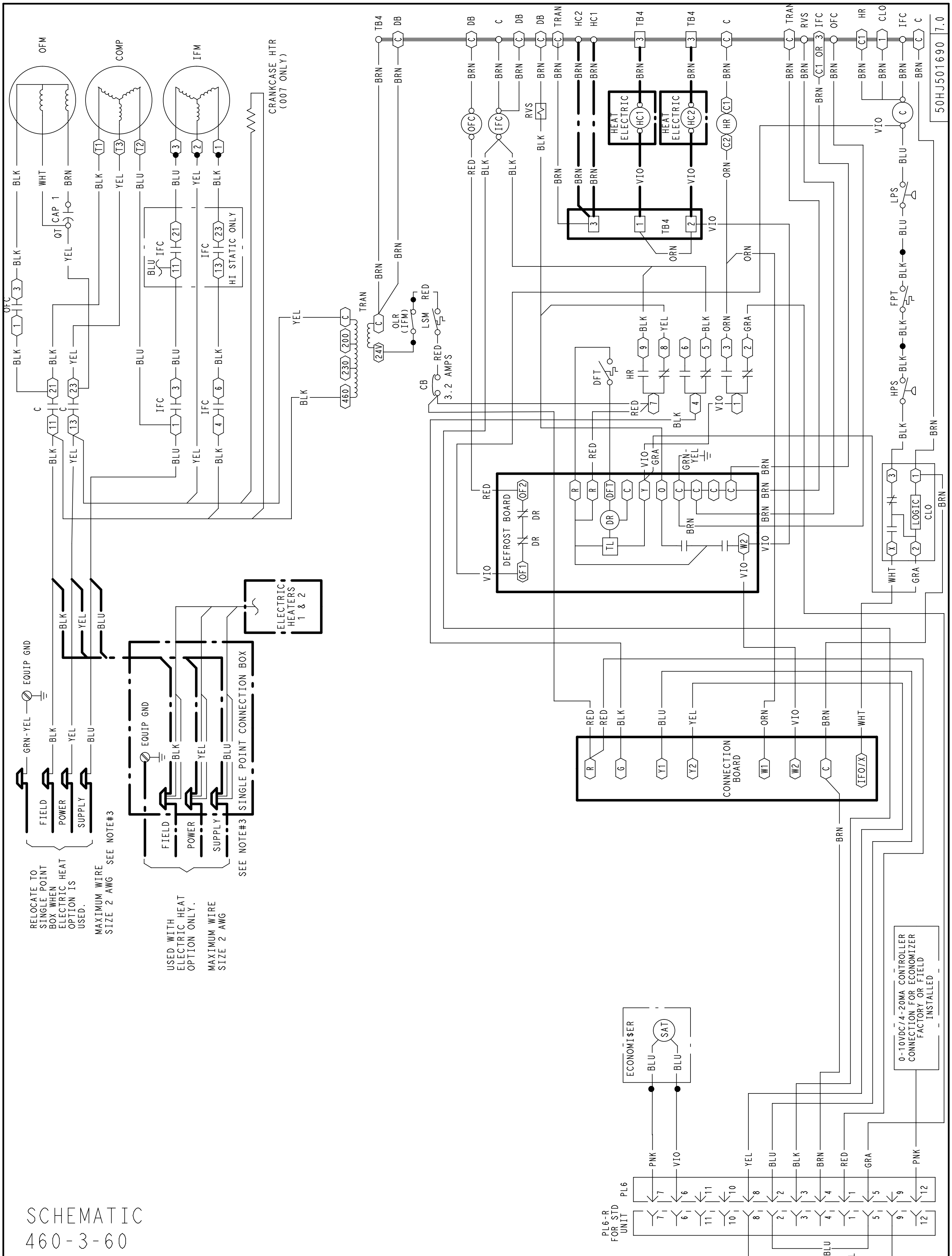
C	CONTACTOR,COMPRESSOR
CAP	CAPACITOR
CB	CIRCUIT BREAKER
CCH	CRANKCASE HEATER
CLO	COMPRESSOR LOCKOUT
COMP	COMPRESSOR MOTOR
DFT	DEFROST THERMOSTAT
FPT	FREEZE UP PROTECTION THERMOSTAT
FU	FUSE
GND	GROUND
HC	HEATER CONTACTOR (STRIP HEAT)
HPS	HIGH PRESSURE SWITCH
HR	HEATER RELAY
IAQ	INDOOR AIR QUALITY SENSOR
IARH	INDOOR AIR RELATIVE HUMIDITY SEN.
IFC	INDOOR FAN CAPACITOR
IFM	INDOOR FAN MOTOR
LA	LOW AMBIENT LOCKOUT
LSM	LIMIT SWITCH (MANUAL)
OARH	OUTDOOR AIR RELATIVE HUMIDITY SEN.
OAT	OUTDOOR AIR TEMP. SEN.
OFM	OUTDOOR FAN MOTOR
OLR	OVERLOAD RELAY
PL	PLUG ASSEMBLY
RAT	RETURN AIR TEMP. SEN.
RVS	REVERSING VALVE SOLENOID
SAT	SUPPLY AIR TEMP. SEN.
TB	TERMINAL BLOCK
TDR	TIME DELAY RELAY
TRAN	TRANSFORMER

LEGEND

- FIELD SPLICE
- X MARKED WIRE
- X TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- X TERMINAL BLOCK
- SPLICE
- SPLICE (MARKED)
- FACTORY WIRING
- FIELD CONTROL WIRING
- FIELD POWER WIRING
- ACCESSORY OR OPTIONAL WIRING
- TO INDICATE COMMON POTENTIAL ONLY: NOT TO REPRESENT WIRING



COMPONENT ARRANGEMENT


SCHEMATIC
460-3-60
DEFROST BOARD
CONNECTION BOARD
ELECTRIC HEATERS 1 & 2
SINGLE POINT CONNECTION BOX
FIELD POWER SUPPLY
SEE NOTE#3
RELOCATE TO SINGLE POINT BOX WHEN ELECTRIC HEAT OPTION IS USED.
MAXIMUM WIRE SIZE 2 AWG
USED WITH ELECTRIC HEAT OPTION ONLY.
ECONOMI$ER
0-10VDC/4-20MA CONTROLLER CONNECTION FOR ECONOMIZER FACTORY OR FIELD INSTALLED
CRANKCASE HTR (007 ONLY)
50HJ501690 7.0