PAD4
Product Specifications

14 SEER, 12 EER PACKAGE AIR CONDITIONER, 2.5 to 5 TONS
208/230−3−60, 460−3−60

REFRIGERATION CIRCUIT

- Environmentally sound R−410A refrigerant
- Copper tube/aluminum fin condenser and evaporator coils
- Scroll compressor standard on all models
- Dehumidification mode (airflow reduction) on all models

EASY TO INSTALL AND SERVICE

- Installs easily on a rooftop or at ground level
- Easy three−panel accessibility for maintenance and installation
- Easily converts to down discharge applications

BUILT TO LAST

- Hail guard (3/8" spacing) wire grilles standard on all models
- Pre−painted steel cabinet
- High efficiency ECM indoor blower motor on all models
- Vertical condenser fan discharge
- Full perimeter steel base rails
- High and low pressure switches provide added reliability for the compressor

WARRANTY

- 5 year compressor limited warranty
- 1 year parts limited warranty

c UL US LISTED

ENERGY STAR PARTNER

As an Energy Star® Partner, International Comfort Products has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

AHRI CERTIFIED™ www.ahridirectory.org

Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org .

UNIT PERFORMANCE DATA

Model Number	COOLING			Unit Dimensions Height x Width x Depth in (mm)	Operating Weight lbs (kg)
	Capacity BTU/h	SEER	EER		
PAD430000H000C	28,600	14.5	12.0	40 x 48 3/16 x 32 5/8 (1016 x 1224 x 829)	300 (136)
PAD436000*000C	34,200	14.5	12.0	46 x 48 3/16 x 32 5/8 (1168 x 1224 x 829)	358 (162)
PAD442000*000C	41,000	14.5	12.0	49 7/8 x 48 3/16 x 44 1/8 (1266 x 1224 x 1123)	412 (187)
PAD448000*000C	47,000	14.2	12.0	49 7/8 x 48 3/16 x 44 1/8 (1266 x 1224 x 1123)	430 (195)
PAD460000*000C	57,000	14.2	12.0	53 7/8 x 48 3/16 x 44 1/8 (1368 x 1224 x 1123)	458 (208)

* H = 208/230−3−60, L = 460−3−60

MODEL NOMENCLATURE

	1	2	3	4	5,6	7,8,9	10	11,12	13	14	15
MODEL SERIES	**P**	**A**	**D**	**4**	**36**	**000**	**H**	**00**	**0**	**C**	**1**

P = Package

A = Air Conditioner

D = Standard

TIER

3 = 13

4 = 14

SEER

30 = 30,000 BTUH = 2.5 Tons

36 = 36,000 BTUH = 3 Tons

42 = 42,000 BTUH = 3.5 Tons

48 = 48,000 BTUH = 4 Tons

60 = 60,000 BTUH = 5 Tons

NOMINAL COOLING CAPACITY

000 = no factory heat

NOMINAL HEATING BTUH (input)

H = 208/230−3−60

L = 460−1−60

VOLTAGE

00 = No options

FACTORY INSTALLED OPTIONS

0 = Standard

FEATURE CODE

Sales Model Digit

Engineering Digit

AHRI* CAPACITIES

COOLING CAPACITIES AND EFFICIENCIES − PAD4

PAD4	NOMINAL TONS	STANDARD CFM	COOLING CAPACITY	EER	SEER
30	2.5	1000	28600	12.0	14.5
36	3	1200	34200	12.0	14.5
42	3.5	1400	41000	12.0	14.5
48	4	1600	47000	12.0	14.2
60	5	1750	57000	12.0	14.2

LEGEND
dB−Sound Levels (decibels)
db—Dry Bulb
SEER—Seasonal Energy Efficiency Ratio
wb—Wet Bulb
COP−Coefficient of Performance
* Air Conditioning, Heating & Refrigeration Institute.
**At "A" conditions−80°F (26.7°C) indoor db/67°F (19.4°C) indoor wb & 95°F (35°C) outdoor db.

† Rated in accordance with U.S. Government DOE Department of Energy) test procedures and/or ARI Standards 210/240−2008.

Notes:
1. Ratings are net values, reflecting the effects of circulating fan heat. Ratings are based on:
Cooling Standard: 80°F (26.7°C) db, 67°Fwb (19.4°C) indoor entering−air temperature and 95°F db (35°C) outdoor entering−air temperature.
2. Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

ELECTRICAL DATA − PAD4

UNIT	Nominal	Voltage Range MIN	Voltage Range MAX	Compressor RLA	Compressor LRA	OFM FLA	IFM FLA	Electric Heat Nominal kW 208/230	Electric Heat FLA 208/230	Power Supply MCA 208/230	Power Supply MOCP 208/230
208/230V – 3 Ph – 60 Hz											
PAD430	208/230-3-60	197	253	8.3	77	0.7	4.1	-/-	-/-	15.2	20
								3.8/5	10.4/12	18.1/20.1	20/25
								7.5/10	20.8/24.1	31.1/35.3	35/40
								11.3/15	31.2/36.1	44.1/50.3	45/60
PAD436	208/230-3-60	197	253	9	77	1.2	6.0	-/-	-/-	18.5	25
								3.8/5	10.4/12	20.5/22.5	25/25
								7.5/10	20.8/24.1	33.5/37.6	35/40
								11.3/15	31.2/36.1	46.5/52.6	50/60
PAD442	208/230-3-60	197	253	13.5	112	1.2	6.0	-/-	-/-	24.1	35
								3.8/5	10.4/12	24.1/24.1	35/35
								7.5/10	20.8/24.1	33.5/37.6	35/40
								11.3/15	31.2/36.1	46.5/52.6	50/60
								15/20	41.4/47.9	59.3/67.4	60/70
PAD448	208/230-3-60	197	253	13.7	117	1.2	7.6	-/-	-/-	25.9	35
								3.8/5	10.4/12	25.9/25.9	35/35
								7.5/10	20.8/24.1	35.5/39.6	40/40
								11.3/15	31.2/36.1	48.5/54.6	50/60
								15/19.91	41.4/47.9	61.3/69.4	70/70
PAD460	208/230-3-60	197	253	16	134	1.2	7.6	-/-	-/-	28.8	40
								3.8/5	10.4/12	28.8/28.8	40/40
								7.5/10	20.8/24.1	35.5/39.6	40/40
								11.315	31.2/36.1	48.5/54.6	50/60
								15/19.91	41.4/47.9	61.3/69.4	70/70
460V – 3 Ph – 60 Hz											
PAD436	460-3-60	414	506	5.6	38	0.5	3.0	-	-	10.5	15
								5	6	11.3	15
								10	12	18.8	20
								15	18	26.3	30
PAD442	460-3-60	414	506	6	44	0.5	3.0	-	-	11.0	15
								5	6	11.3	15
								10	12	18.8	20
								15	18	26.3	30
								20	24.1	33.9	35
PAD448	460-3-60	414	506	6.2	41	0.5	3.8	-	-	12.1	15
								5	6	12.3	15
								10	12	19.8	20
								15	18	27.3	30
								20	24.1	34.9	35
PAD460	460-3-60	414	506	7.8	52	0.5	3.8	-	-	14.1	20
								5	6	14.1	20
								10	12	19.8	20
								15	18	27.3	30
								20	24.1	34.9	35

LEGEND

FLA — Full Load Amps
LRA — Locked Rotor Amps
MCA — Minimum Circuit Amps
MOCP — Maximum Overcurrent Protection
RLA — Rated Load Amps

Notes:

1. In compliance with NEC (National Electrical Co notor and combination load equipment (refer to NE , the overcurrent protective device for the unit sha The CGA (Canadian Gas Association) units may be
2. Minimum wire size is based on 60°C copper wire is used, or if length exceeds wire length from NEC.

PHYSICAL DATA − UNIT PAD4					
UNIT SIZE	**30**	**36**	**42**	**48**	**60**
NOMINAL CAPACITY (ton)	2−1/2	3	3−1/2	4	5
SHIPPING WEIGHT lb. **SHIPPING WEIGHT (kg)**	307 139	365 166	421 191	439 199	467 212
COMPRESSORS	Scroll				
Quantity	1				
REFRIGERANT (R−410A) Quantity lb Quantity (kg)	 5.6 2.5	 9.5 4.3	 8.8 4.0	 9.5 4.3	 12.3 5.6
REFRIGERANT METERING DEVICE	TXV				
OUTDOOR COIL Rows...Fins/in. Face Area (sq ft)	 1...21 13.6	 2...21 15.4	 2...21 13.6	 2...21 17.5	 2...21 21.4
OUTDOOR FAN Nominal Cfm Diameter in. Diameter (mm) Motor HP (Rpm)	 2700 24 609.6 1/10 (810)	 2800 24 609.6 1/5 (810)	 3000 26 660.4 1/5 (810)	 3200 26 660.4 1/5 (810)	 3600 26 660.4 1/5 (810)
INDOOR COIL Rows...Fins/in. Face Area (sq ft)	 3...17 3.7	 3...17 3.7	 3...17 4.7	 3...17 4.7	 3...17 5.7
INDOOR BLOWER Nominal Cooling Airflow (Cfm) Size in. Size (mm.) Motor HP (RPM)	 1000 10x10 254x254 1/2 (1050)	 1200 11x10 279.4x254 3/4 (1000)	 1400 11x10 279.4x254 3/4 (1075)	1600 11x10 279.4x254 1.0 (1075)	1750 11x10 279.4x254 1.0 (1040)
HIGH−PRESSURE SWITCH (psig) Cut−out Reset (Auto)	650 +/− 15 420 +/− 25				
LOSS−OF−CHARGE / LOW−PRESSURE SWITCH (Liquid Line) (psig) cut−out Reset (auto)	20 +/− 5 45 +/− 10				
RETURN−AIR FILTERS†‡ Throwaway Size in. Throwaway Size (mm)	 20x24x1 508x610x25	 24x30x1 610x762x25		 24x36x1 610x914x25	

† Required filter sizes shown are based on the larger of the AHRI (Air Conditioning, Heating, and Refrigeration Institute) rated cooling airflow or the heating airflow velocity of 300 ft/minute for throwaway type or 450 ft/minute for high−capacity type. Air filter pressure drop for non−standard filters must not exceed 0.08 in. W.C.
‡ If using accessory filter rack refer to the filter rack installation instructions for correct filter sizes and quantity.

A−WEIGHTED SOUND POWER LEVEL (dBA)								
MODEL PAD4	**SOUND RATING**	**TYPICAL OCTAVE BAND SPECTRUM (without tone adjustment)**						
		125	**250**	**500**	**1000**	**2000**	**4000**	**8000**
30	73	62.0	64.0	67.5	67.5	65.0	60.0	54.5
36	76	64.5	66.5	70.0	70.0	67.5	61.0	54.0
42	77	70.5	68.0	70.5	70.5	68.0	62.5	58.0
48	77	71.5	65.0	71.0	67.5	67.5	63.0	57.5
60	77	73.5	65.5	68.5	67.5	66.5	62.0	58.0

NOTE: Tested in accordance with AHRI Standard 270 (not listed in AHRI).

DRY COIL AIR DELIVERY* — HORIZONTAL DISCHARGE (CFM)

UNIT	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)								
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
PAD430	Low	Blue	CFM	741	638	547	415	---	---	---	---	---
	Med-Low	Pink	CFM	973	887	823	733	665	538	451	---	---
	Medium	Red	CFM	1088	1023	954	881	800	723	658	563	461
	Med-High[1]	Orange	CFM	1140	1064	996	915	840	758	687	564	480
	High	Black	CFM	1202	1140	1082	1015	961	881	810	732	631
PAD436	Low	Blue	CFM	1234	1168	1093	1021	961	894	825	759	687
	Med-Low	Pink	CFM	1290	1223	1154	1090	1027	977	894	828	762
	Medium[1]	Red	CFM	1354	1290	1226	1158	1102	1046	981	918	843
	Med-High	Orange	CFM	1606	1546	1489	1430	1371	1316	1258	1208	1140
	High	Black	CFM	1630	1580	1517	1463	1407	1339	1277	1210	1131
PAD442	Low	Blue	CFM	1295	1234	1182	1126	1075	1016	955	898	857
	Med-Low	Pink	CFM	1345	1282	1235	1194	1140	1095	1027	974	921
	Medium	Red	CFM	1505	1452	1413	1358	1323	1282	1234	1169	1130
	Med-High[1]	Orange	CFM	1545	1492	1449	1411	1362	1313	1278	1231	1188
	High	Black	CFM	1705	1643	1607	1568	1518	1483	1448	1404	1360
PAD448	Low	Blue	CFM	1402	1351	1311	1263	1224	1172	1136	1080	1041
	Med-Low	Pink	CFM	1457	1404	1367	1318	1284	1233	1197	1144	1104
	Medium[1]	Red	CFM	1736	1695	1642	1601	1553	1512	1465	1427	1381
	Med-High	Orange	CFM	2149	2111	2062	2026	1980	1945	1905	1864	1793
	High	Black	CFM	2344	2306	2259	2203	2141	2070	1991	1902	1803
PAD460	Med-Low	Pink	CFM	1678	1635	1602	1558	1513	1474	1438	1404	1349
	Medium[1]	Red	CFM	1962	1915	1880	1843	1794	1753	1711	1675	1628
	Med-High	Orange	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785
	High	Black	CFM	2461	2409	2339	2286	2192	2140	2062	1968	1874

* Air delivery values are without air filter and are for dry coil (See PAD4 Horizontal Wet Coil Pressure Drop table).

[1] Factory−shipped cooling speed

Note: For horizontal applications deduct field−supplied air filter pressure drop and wet coil pressure drop to obtain external static pressure available for ducting. For downflow applications see Wet Coil Air Delivery table for available static including wet coil, 1−in. filter and economizer.

Shaded areas indicate speed/static combinations that are not permitted for dehumidification speed.

HORIZONTAL WET COIL PRESSURE DROP (IN. W.C.)

UNIT SIZE	STANDARD CFM (S.C.F.M)														
	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
30	–	0.037	0.044	0.053	0.063	0.072	0.081	0.105	–	–	–	–	–	–	–
36	–	–	–	0.055	0.060	0.090	0.100	0.110	0.140	–	–	–	–	–	–
42	–	–	–	–	0.045	0.050	0.060	0.065	0.075	0.080	0.090	0.094	0.110	–	–
48	–	–	–	–	–	–	0.041	0.063	0.085	0.100	0.104	0.110	0.120	0.130	–
60	–	–	–	–	–	–	–	–	–	0.060	0.065	0.072	0.077	0.085	0.100

WET COIL AIR DELIVERY − DOWNFLOW − HIGH SPEED WITH 1-IN. (25 MM) FILTER AND ECONOMIZER

UNIT SIZE	EXTERNAL STATIC PRESSURE (in. W.C.)									
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
36	1333	1289	1256	1214	1152	1118	1076	1035	997	950
42	1612	1569	1527	1481	1451	1393	1351	1317	1278	1242
48	2166	2085	2002	1919	1798	1709	1582	1467	1270	988
60	2298	2239	2180	2110	2044	1951	1862	1777	1697	1591

HORIZONTAL FILTER PRESSURE DROP TABLE (IN. W.C.)

FILTER SIZE in. (mm)	CFM																		
	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
20X24X1 (508X610x25)	—	—	—	.09	.10	.11	.13	.14	.15	.16	—	—	—	—	—	—	—	—	—
24X30X1 (610X762x25)	—	—	—	0.04	0.05	0.06	0.07	0.07	0.08	0.09	0.1	—	—	—	—	—	—	—	—
24X36X1 (610X914X25)	—	—	—	—	—	—	—	0.06	0.07	0.07	0.08	0.09	0.09	0.10	0.11	0.12	0.13	0.14	0.14

ECONOMIZER 1-IN. (25 MM) FILTER PRESSURE DROP (IN. W.C.)	
UNIT PAD4	**PRESSURE DROP**
30–36	0.20
42–60	0.25

MULTIPLICATION FACTORS		
HEATER kW RATING	**VOLTAGE DISTRIBUTION V/3/60**	**MULTIPLICATION FACTOR**
240	200	0.69
	208	0.75
	230	0.92
	240	1.00

ELECTRIC HEAT PRESSURE DROP TABLE (in wc) SMALL CABINET: 30

HEATER CAPACITY	STANDARD CFM (S.C.F.M)											
	500	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**	**1600**
5kw	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.06	0.07
7.5 kw	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.05	0.07	0.08	0.09
10 kw	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.06	0.07	0.09	0.10	0.11
15 kw	0.00	0.00	0.00	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18

ELECTRIC HEAT PRESSURE DROP TABLE (in wc) LARGE CABINET 36–60

HEATER CAPACITY	STANDARD CFM (S.C.F.M)														
	1100	**1200**	**1300**	**1400**	**1500**	**1600**	**1700**	**1800**	**1900**	**2000**	**2100**	**2200**	**2300**	**2400**	**2500**
5kw	0.00	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12
7.5 kw	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13
10 kw	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13
15 kw	0.00	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15
20 kw	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16

MINIMUM AIRFLOW FOR SAFE ELECTRIC HEATER OPERATION (CFM)					
SIZE	**30**	**36**	**42**	**48**	**60**
Cfm	1000	1200	1400	1600	1750

PAD430 COOLING EXTENDED PERFORMANCE TABLE

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM/BF	EWB °F (°C)	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
875/0.03	57(13.8)	26.99	26.99	1.86	26.03	26.03	2.08	24.84	24.84	2.31	23.28	23.28	2.55	21.63	21.63	2.82	19.83	19.83	3.11
	62(16.6)	27.80	26.01	1.87	26.54	25.26	2.08	25.04	24.35	2.31	23.33	23.33	2.55	21.67	21.67	2.82	19.87	19.87	3.11
	63*(17.2)	28.37	21.21	1.87	27.09	20.50	2.09	25.54	19.70	2.32	23.41	18.68	2.55	21.13	17.63	2.81	18.66	16.51	3.08
	67(19.4)	30.73	22.07	1.86	29.48	21.44	2.10	27.98	20.72	2.35	25.91	19.78	2.59	23.61	18.78	2.85	21.10	17.72	3.13
	72(22.2)	33.46	17.78	1.87	32.40	17.30	2.10	31.09	16.72	2.36	29.42	16.04	2.64	27.07	15.10	2.93	24.52	14.14	3.21
1000/0.04	57(13.8)	28.26	28.26	1.89	27.27	27.27	2.12	26.09	26.09	2.36	24.45	24.45	2.59	22.72	22.72	2.87	20.84	20.84	3.16
	62(16.6)	28.57	27.98	1.89	27.32	27.32	2.13	26.13	26.13	2.36	24.49	24.49	2.60	22.76	22.76	2.87	20.87	20.87	3.16
	63*(17.2)	29.05	22.65	1.89	27.73	21.95	2.13	26.16	21.15	2.36	23.97	20.11	2.59	21.65	19.03	2.85	19.13	17.84	3.12
	67(19.4)	31.37	23.54	1.89	30.12	22.95	2.12	28.60	22.25	2.38	26.53	21.33	2.63	24.15	20.29	2.89	21.60	19.20	3.18
	72(22.2)	33.95	18.56	1.90	32.92	18.14	2.14	31.61	17.60	2.39	30.05	16.99	2.68	27.65	16.09	2.98	25.04	15.12	3.26
1125/0.05	57(13.8)	29.32	29.32	1.92	28.31	28.31	2.15	27.10	27.10	2.41	25.45	25.45	2.64	23.65	23.65	2.91	21.70	21.70	3.21
	62(16.6)	29.36	29.36	1.92	28.35	28.35	2.15	27.14	27.14	2.41	25.49	25.49	2.64	23.68	23.68	2.92	21.73	21.73	3.21
	63*(17.2)	29.55	24.01	1.92	28.22	23.33	2.15	26.63	22.53	2.40	24.43	21.47	2.62	22.07	20.33	2.88	19.66	19.66	3.17
	67(19.4)	31.84	24.91	1.92	30.59	24.37	2.15	29.08	23.70	2.41	27.00	22.80	2.68	24.60	21.73	2.93	22.02	20.55	3.22
	72(22.2)	34.29	19.27	1.94	33.28	18.91	2.17	31.97	18.40	2.43	30.44	17.85	2.71	28.11	17.06	3.01	25.43	16.05	3.31

PAD436 COOLING EXTENDED PERFORMANCE TABLE

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM/BF	EWB °F (°C)	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
1050/0.04	57(13.8)	32.04	32.04	2.19	31.05	31.05	2.46	29.67	29.67	2.74	27.89	27.89	3.04	25.97	25.97	3.38	23.86	23.86	3.76
	62(16.6)	32.91	27.48	2.20	31.59	27.24	2.46	29.83	29.66	2.74	27.93	27.93	3.04	26.01	26.01	3.38	23.90	23.90	3.76
	63*(17.2)	33.62	22.38	2.21	32.24	22.10	2.47	30.40	21.63	2.75	27.88	20.90	3.04	25.18	20.09	3.37	22.23	19.16	3.72
	67(19.4)	36.45	23.33	2.21	35.13	23.14	2.49	33.48	22.83	2.80	30.96	22.18	3.09	28.22	21.45	3.42	25.24	20.62	3.78
	72(22.2)	39.67	18.74	2.22	38.63	18.63	2.50	37.24	18.38	2.81	35.25	17.95	3.16	32.48	17.21	3.51	29.45	16.41	3.88
1200/0.05	57(13.8)	33.50	33.50	2.25	32.48	32.48	2.53	31.16	31.16	2.81	29.25	29.25	3.11	27.24	27.24	3.46	25.04	25.04	3.83
	62(16.6)	33.79	29.49	2.25	32.53	32.53	2.53	31.22	31.22	2.82	29.30	29.30	3.11	27.28	27.28	3.46	25.08	25.08	3.84
	63*(17.2)	34.36	23.89	2.25	32.96	23.65	2.53	31.14	23.23	2.81	28.52	22.48	3.10	25.75	21.66	3.43	22.79	20.63	3.79
	67(19.4)	37.19	24.89	2.25	35.85	24.76	2.54	34.20	24.50	2.85	31.64	23.89	3.16	28.84	23.16	3.49	25.80	22.30	3.85
	72(22.2)	40.13	19.52	2.27	39.14	19.50	2.55	37.77	19.31	2.86	35.97	19.03	3.21	33.15	18.34	3.58	30.03	17.54	3.95
1350/0.06	57(13.8)	34.72	34.72	2.30	33.67	33.67	2.58	32.38	32.38	2.89	30.42	30.42	3.18	28.32	28.32	3.53	26.03	26.03	3.91
	62(16.6)	34.77	34.77	2.30	33.72	33.72	2.58	32.42	32.42	2.89	30.47	30.47	3.19	28.36	28.36	3.53	26.07	26.07	3.91
	63*(17.2)	34.95	25.34	2.30	33.50	25.12	2.58	31.73	24.75	2.88	29.03	23.98	3.16	26.24	23.10	3.49	23.49	23.49	3.85
	67(19.4)	37.71	26.36	2.30	36.39	26.30	2.58	34.73	26.08	2.90	32.19	25.52	3.22	29.33	24.77	3.55	26.31	23.80	3.92
	72(22.2)	40.41	20.21	2.32	39.47	20.28	2.60	38.09	20.14	2.91	36.46	20.02	3.26	33.65	19.42	3.64	30.47	18.63	4.02

See Legend and Notes on Page 9.

PAD442 COOLING EXTENDED PERFORMANCE TABLE

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM/BF	EWB °F (°C)	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
1225/0.03	57(13.8)	39.61	39.61	2.72	37.75	37.75	3.11	35.18	35.18	3.47	32.60	32.60	3.87	29.87	29.87	4.29	27.01	27.01	4.72
	62(16.6)	41.07	38.45	2.67	38.75	36.39	3.09	35.55	33.89	3.46	32.66	32.66	3.87	29.92	29.92	4.29	27.06	27.06	4.72
	63*(17.2)	41.95	31.44	2.64	39.60	29.62	3.07	36.33	27.46	3.45	32.90	25.32	3.87	29.27	23.19	4.30	25.42	21.06	4.73
	67(19.4)	45.37	32.67	2.53	43.06	30.92	2.96	39.97	28.94	3.40	36.45	26.82	3.83	32.72	24.71	4.27	28.81	22.62	4.72
	72(22.2)	49.27	26.39	2.42	46.93	24.87	2.85	44.47	23.37	3.31	41.33	21.77	3.74	37.56	19.92	4.23	33.52	18.06	4.71
1400/0.04	57(13.8)	41.50	41.50	2.69	39.58	39.58	3.11	36.97	36.97	3.49	34.25	34.25	3.90	31.39	31.39	4.32	28.40	28.40	4.76
	62(16.6)	42.21	41.36	2.67	39.89	39.13	3.10	37.03	37.03	3.49	34.31	34.31	3.89	31.45	31.45	4.32	28.45	28.45	4.76
	63*(17.2)	42.97	33.53	2.65	40.58	31.68	3.08	37.25	29.48	3.49	33.72	27.26	3.90	29.98	25.02	4.34	26.10	22.75	4.77
	67(19.4)	46.35	34.80	2.54	43.98	33.00	2.97	41.00	31.10	3.42	37.31	28.90	3.87	33.50	26.70	4.31	29.50	24.50	4.76
	72(22.2)	50.00	27.51	2.44	47.63	26.00	2.87	45.07	24.46	3.33	42.19	23.04	3.76	38.40	21.21	4.25	34.25	19.32	4.76
1575/0.05	57(13.8)	43.07	43.07	2.68	41.12	41.12	3.10	38.51	38.51	3.52	35.67	35.67	3.92	32.70	32.70	4.36	29.59	29.59	4.80
	62(16.6)	43.17	43.17	2.68	41.17	41.17	3.10	38.57	38.57	3.52	35.73	35.73	3.92	32.75	32.75	4.36	29.63	29.63	4.80
	63*(17.2)	43.75	35.51	2.67	41.32	33.62	3.10	37.99	31.40	3.52	34.37	29.08	3.94	30.58	26.74	4.37	26.77	26.77	4.81
	67(19.4)	47.03	36.77	2.56	44.64	34.95	2.99	41.77	33.12	3.44	38.00	30.88	3.90	34.12	28.58	4.35	30.10	26.23	4.80
	72(22.2)	50.51	28.53	2.47	48.10	27.01	2.90	45.48	25.44	3.37	42.80	24.21	3.79	39.02	22.42	4.27	34.83	20.52	4.79

PAD448 COOLING EXTENDED PERFORMANCE TABLE

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM/BF	EWB °F (°C)	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
1400/0.04	57(13.8)	45.84	45.84	2.98	43.32	43.32	3.39	40.27	40.27	3.79	36.93	36.93	4.23	33.57	33.57	4.70	30.16	30.16	5.21
	62(16.6)	47.63	42.40	3.00	44.58	40.08	3.40	40.96	37.50	3.80	36.99	36.99	4.23	33.63	33.63	4.70	30.21	30.21	5.21
	63*(17.2)	48.63	34.72	3.00	45.52	32.68	3.41	41.85	30.46	3.82	37.52	28.03	4.23	33.20	25.66	4.69	28.77	23.31	5.18
	67(19.4)	52.66	36.12	2.99	49.43	34.10	3.41	46.02	32.06	3.86	41.50	29.66	4.31	37.03	27.31	4.77	32.47	24.99	5.27
	72(22.2)	57.51	29.34	2.99	54.21	27.62	3.41	50.75	25.85	3.86	46.93	24.09	4.35	42.34	22.07	4.88	37.63	20.03	5.42
1600/0.05	57(13.8)	47.96	47.96	3.06	45.32	45.32	3.47	42.32	42.32	3.89	38.76	38.76	4.32	35.24	35.24	4.80	31.66	31.66	5.31
	62(16.6)	48.90	45.54	3.06	45.80	43.03	3.47	42.41	42.41	3.89	38.82	38.82	4.32	35.30	35.30	4.80	31.72	31.72	5.32
	63*(17.2)	49.79	37.01	3.06	46.56	34.90	3.47	42.93	32.66	3.90	38.42	30.10	4.31	33.97	27.62	4.77	29.47	25.14	5.26
	67(19.4)	53.81	38.48	3.05	50.48	36.40	3.46	47.00	34.30	3.92	42.43	31.88	4.39	37.88	29.44	4.86	33.20	27.00	5.35
	72(22.2)	58.37	30.60	3.05	55.05	28.87	3.47	51.47	27.05	3.93	47.81	25.40	4.41	43.22	23.43	4.94	38.39	21.38	5.50
1800/0.06	57(13.8)	49.74	49.74	3.12	47.00	47.00	3.53	44.06	44.06	3.98	40.29	40.29	4.41	36.64	36.64	4.89	32.92	32.92	5.41
	62(16.6)	50.02	49.61	3.11	47.06	47.06	3.53	44.13	44.13	3.98	40.35	40.35	4.41	36.69	36.69	4.89	32.97	32.97	5.41
	63*(17.2)	50.68	39.21	3.11	47.38	37.03	3.53	43.79	34.77	3.98	39.13	32.09	4.38	34.61	29.48	4.84	30.08	26.75	5.33
	67(19.4)	54.66	40.72	3.10	51.27	38.58	3.52	47.75	36.43	3.97	43.18	34.03	4.47	38.53	31.47	4.93	33.83	28.88	5.44
	72(22.2)	58.98	31.74	3.11	55.61	30.01	3.53	51.97	28.16	3.99	48.35	26.51	4.48	43.87	24.71	4.99	38.98	22.66	5.56

See Legend and Notes on Page 9.

PAD460 COOLING EXTENDED PERFORMANCE TABLE

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM/BF	EWB °F (°C)	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
1750/0.19	57(13.8)	57.97	57.97	3.80	55.02	55.02	4.21	51.93	51.93	4.68	48.68	48.68	5.21	45.23	45.23	5.81	41.56	41.56	6.49
	62(16.6)	59.45	53.94	3.82	55.93	51.73	4.22	52.32	49.43	4.68	48.74	48.74	5.21	45.29	45.29	5.81	41.61	41.61	6.49
	63*(17.2)	60.48	43.88	3.83	56.84	41.90	4.23	53.09	39.89	4.69	49.17	37.85	5.21	45.08	35.75	5.80	40.81	33.61	6.47
	67(19.4)	65.05	45.58	3.88	61.08	43.55	4.29	57.00	41.50	4.75	52.75	39.41	5.27	48.31	37.28	5.86	43.70	35.10	6.52
	72(22.2)	71.36	36.96	3.97	66.97	35.08	4.38	62.43	33.17	4.83	57.72	31.22	5.35	52.82	29.25	5.94	47.74	27.24	6.59
2000/0.23	57(13.8)	60.36	60.36	3.91	57.19	57.19	4.32	53.88	53.88	4.79	50.41	50.41	5.31	46.72	46.72	5.91	42.83	42.83	6.59
	62(16.6)	60.82	57.92	3.91	57.29	57.29	4.32	53.96	53.96	4.79	50.47	50.47	5.32	46.78	46.78	5.92	42.88	42.88	6.59
	63*(17.2)	61.65	46.80	3.92	57.84	44.73	4.33	53.93	42.64	4.78	49.88	40.51	5.30	45.65	38.32	5.89	41.27	36.06	6.56
	67(19.4)	66.24	48.72	3.98	62.11	46.60	4.39	57.86	44.46	4.85	53.47	42.28	5.36	48.88	40.05	5.95	44.14	37.77	6.61
	72(22.2)	72.62	38.94	4.06	68.04	36.99	4.47	63.32	35.02	4.93	58.45	33.03	5.45	53.38	30.99	6.03	48.15	28.93	6.68
2250/0.27	57(13.8)	62.35	62.35	4.01	58.99	58.99	4.43	55.49	55.49	4.89	51.82	51.82	5.42	47.93	47.93	6.02	43.84	43.84	6.69
	62(16.6)	62.44	62.44	4.01	59.07	59.07	4.43	55.56	55.56	4.89	51.88	51.88	5.42	47.99	47.99	6.02	43.88	43.88	6.69
	63*(17.2)	62.51	49.60	4.01	58.59	47.45	4.42	54.57	45.27	4.87	50.40	43.04	5.39	46.08	40.74	5.98	41.62	38.30	6.65
	67(19.4)	67.13	51.74	4.07	62.86	49.53	4.48	58.50	47.31	4.94	53.98	45.03	5.46	49.29	42.69	6.04	44.47	40.24	6.70
	72(22.2)	73.55	40.84	4.16	68.82	38.84	4.57	63.97	36.82	5.02	58.95	34.76	5.54	53.76	32.68	6.12	48.40	30.58	6.77

* At 75°F (24°C) entering dry bulb–Tennessee Valley Authority (TVA) rating conditions; all others at 80°F (27°C) dry bulb.

LEGEND:
BF— Bypass Factor
Edb— Entering Dry–Bulb
Ewb— Entering Wet–Bulb
kW — Total Unit Power Input
SHC— Sensible Heat Capacity (1000 Btuh)
TC — Total Capacity (1000 Btuh) (net)
rh—Relative Humidity

COOLING NOTES:
1. Ratings are net; they account for the effects of the evaporator–fan motor power and heat.
2. Direct interpolation is permissible. Do not extrapolate.
3. The following formulas may be used:

$$t_{Ldb} = t_{Edb} - \frac{\text{Sensible Capacity (Btuh)}}{1.10 \times \text{cfm}} \qquad h_{Lwb} = h_{Ewb} - \frac{\text{Total Capacity (Btuh)}}{4.5 \times \text{cfm}}$$

t_{Lwb} = Wet bulb temperature corresponding to enthalpy of air leaving evaporator coil (h_{Lwb})
Where: h_{Ewb} = Enthalpy of air entering evaporator coil

4. The SHC is based on 80°F Edb temperature of air entering evaporator coil.
   Below 80°F Edb, subtract (corr factor x cfm) from SHC.
   Above 80°F Edb, add (corr factor x cfm) to SHC. Correction Factor = 1.10 x (1 + BF) x (Edb + 80).
5. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

UNIT	ELECTRICAL CHARACTERISTICS	UNIT WT.		UNIT HEIGHT IN/MM	CENTER OF GRAVITY IN/MM					
		LB	KG	"A"	X		Y		Z	
30	208/230/460	300	136.0	39-15/16	1014.4	20-1/2	520.7	15-3/4	400.1	16-5/8	422.3
36	208/230/460	358	162.3	45-15/16	1166.8	20-1/2	520.7	15-3/4	400.1	17-3/8	441.3

UNITS	CORNER WEIGHT LB/KG							
	"1"		"2"		"3"		"4"	
30	60.0	27.2	48.0	21.8	71.9	32.7	119.9	54.4
36	71.6	32.5	57.2	26.0	85.9	39.0	143.1	65.0

REQUIRED CLEARANCES TO COMBUSTIBLE MAT'L. INCHES [MM]

TOP OF UNIT.....14 [355.6]
DUCT SIDE OF UNIT.....2 [50.8]
SIDE OPPOSITE DUCTS.....14 [355.6]
BOTTOM OF UNIT.....0 [0.0]
ELECTRICAL PANEL.....36 [914.4]

NEC. REQUIRED CLEARANCES INCHES [MM]

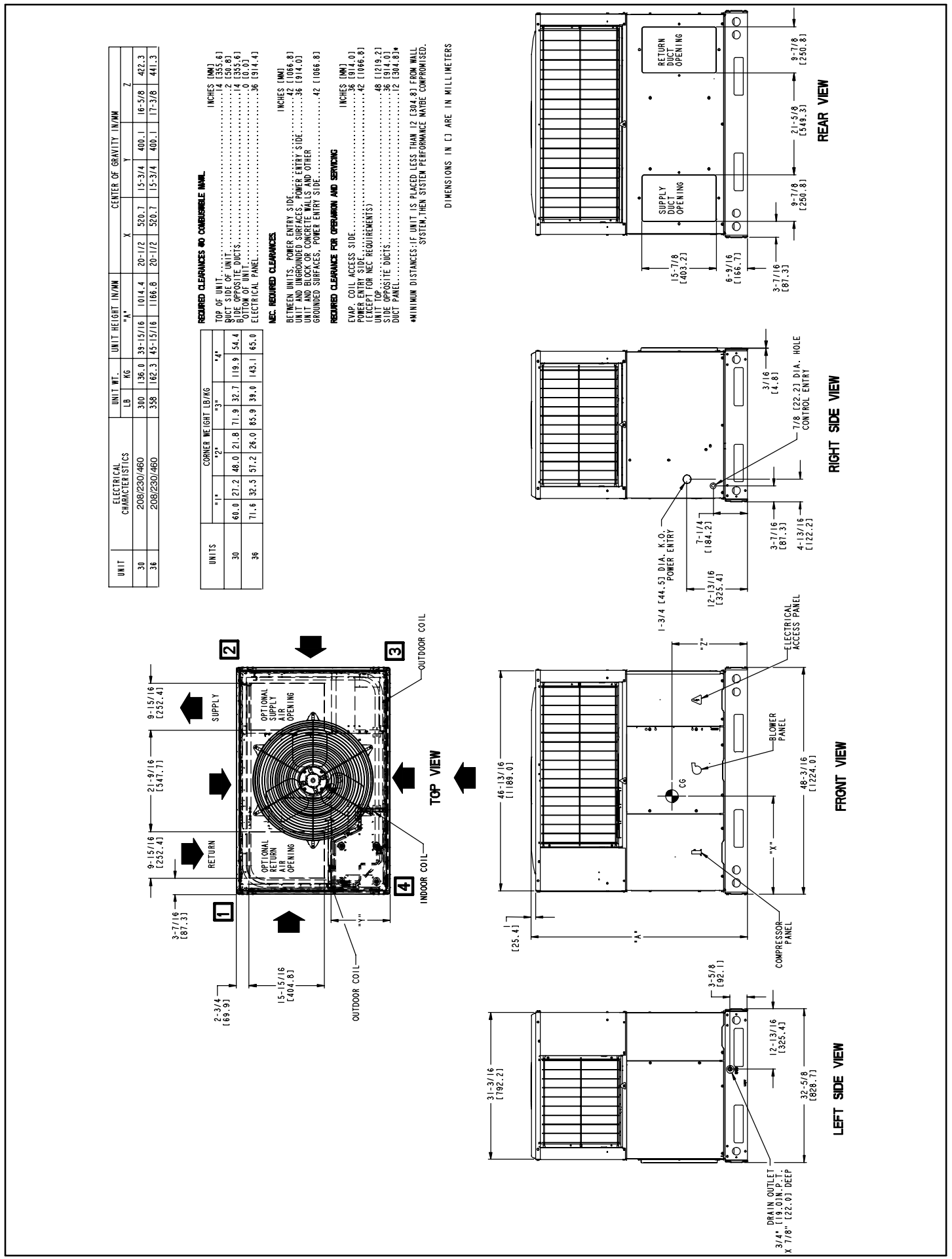
BETWEEN UNITS, POWER ENTRY SIDE.....42 [1066.8]
UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE.....36 [914.0]
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER
GROUNDED SURFACES, POWER ENTRY SIDE.....42 [1066.8]

REQUIRED CLEARANCE FOR OPERATION AND SERVICING INCHES [MM]

EVAP. COIL ACCESS SIDE.....36 [914.0]
POWER ENTRY SIDE.....42 [1066.8]
(EXCEPT FOR NEC REQUIREMENTS)
UNIT TOP.....48 [1219.2]
SIDE OPPOSITE DUCTS.....36 [914.0]
DUCT PANEL.....12 [304.8]*

*MINIMUM DISTANCES:IF UNIT IS PLACED LESS THAN 12 [304.8] FROM WALL SYSTEM,THEN SYSTEM PERFORMANCE MAYBE COMPROMISED.

DIMENSIONS IN [] ARE IN MILLIMETERS



UNIT DIMENSIONS − PAD442 − 60

UNIT	ELECTRICAL CHARACTERISTICS	UNIT WT.		UNIT HEIGHT IN/MM	CENTER OF GRAVITY IN/MM					
		LB	KG	"A"	X		Y		Z	
42	208/230/460	412	187.0	49-7/8	1266.8	20-1/4	514.4	17-1/2	444.5	17-5/8	447.7
48	208/230/460	430	195.2	49-7/8	1266.8	20-1/4	514.4	17-1/2	444.5	17-5/8	447.7
60	208/230/460	458	207.9	53-7/8	1368.4	20-1/4	514.4	17-1/2	444.5	18	457.2

UNITS	CORNER WEIGHTS LB/KG							
	"1"		"2"		"3"		"4"	
42	82.4	37.4	66.0	29.9	98.9	44.9	164.9	74.9
48	86.0	39.1	68.8	31.3	103.3	46.9	172.1	78.1
60	91.6	41.6	73.3	33.3	110.0	49.9	183.3	83.2

REQUIRED CLEARANCES TO COMBUSTIBLE MATERIAL INCHES [MM]

TOP OF UNIT.....14 [355.6]
DUCT SIDE OF UNIT.....2 [50.8]
SIDE OPPOSITE DUCTS.....14 [355.6]
BOTTOM OF UNIT.....0 [0.0]
ELECTRICAL PANEL.....36 [914.4]

NEC. REQUIRED CLEARANCES. INCHES [MM]

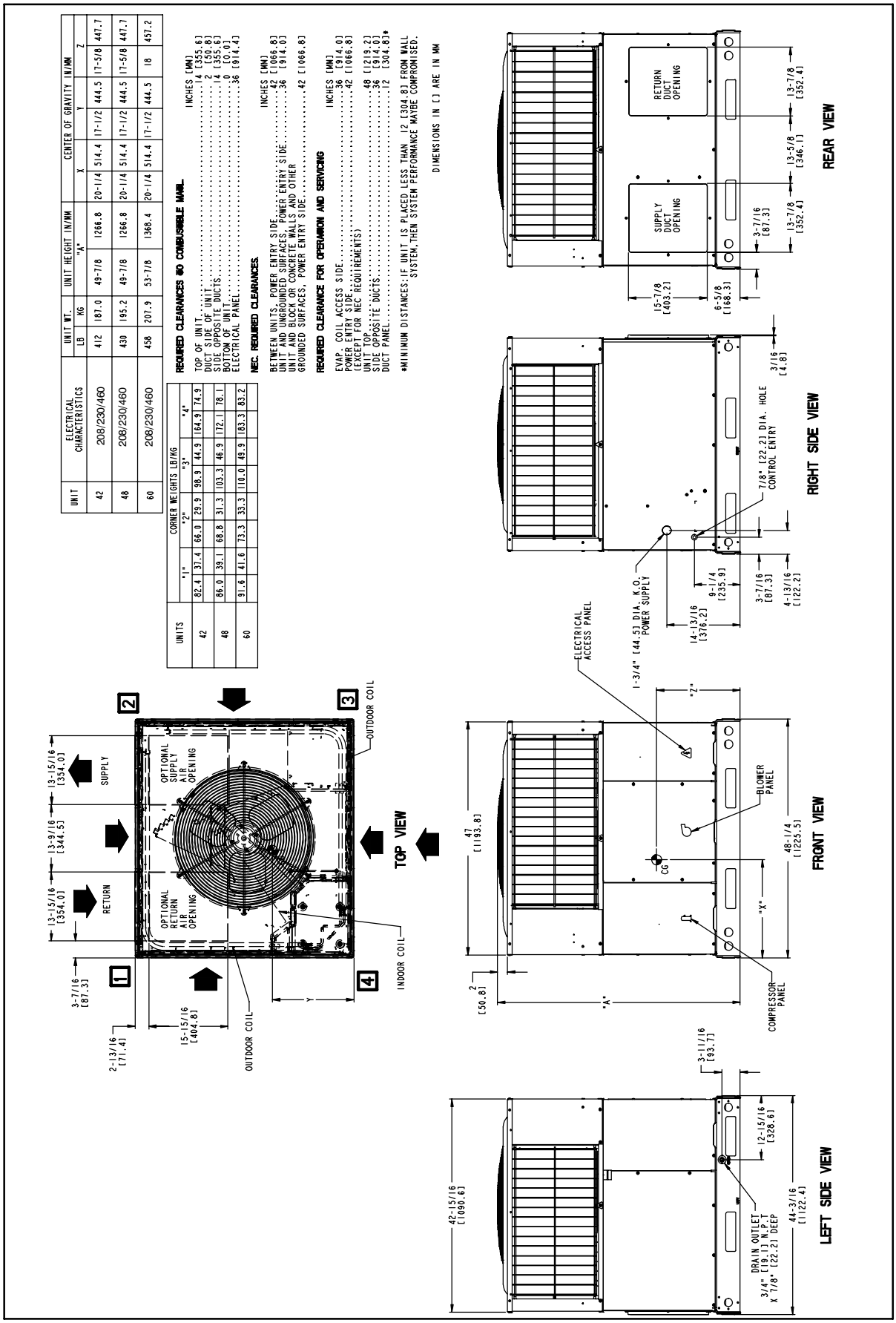
BETWEEN UNITS, POWER ENTRY SIDE.....42 [1066.8]
UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE.....36 [914.0]
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER
GROUNDED SURFACES, POWER ENTRY SIDE.....42 [1066.8]

REQUIRED CLEARANCE FOR OPERATION AND SERVICING INCHES [MM]

EVAP. COIL ACCESS SIDE.....36 [914.0]
POWER ENTRY SIDE.....42 [1066.8]
(EXCEPT FOR NEC REQUIREMENTS)
UNIT TOP.....48 [1219.2]
SIDE OPPOSITE DUCTS.....36 [914.0]
DUCT PANEL.....12 [304.8]*

*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12 [304.8] FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAYBE COMPROMISED.

DIMENSIONS IN [ ] ARE IN MM



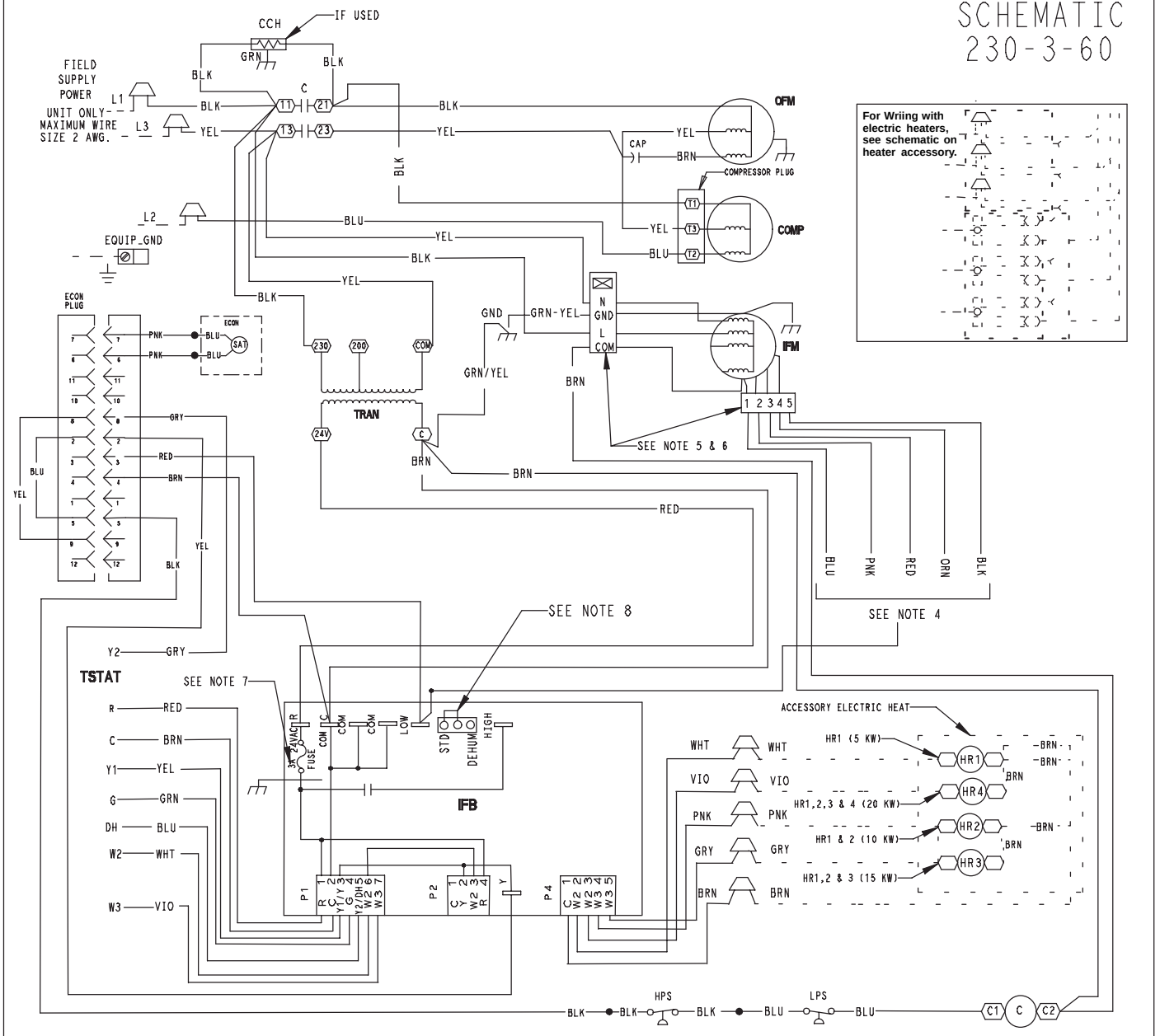
A09116

TYPICAL CONNECTION WIRING SCHEMATIC − 208/230−3−60

CONNECTION WIRING DIAGRAM

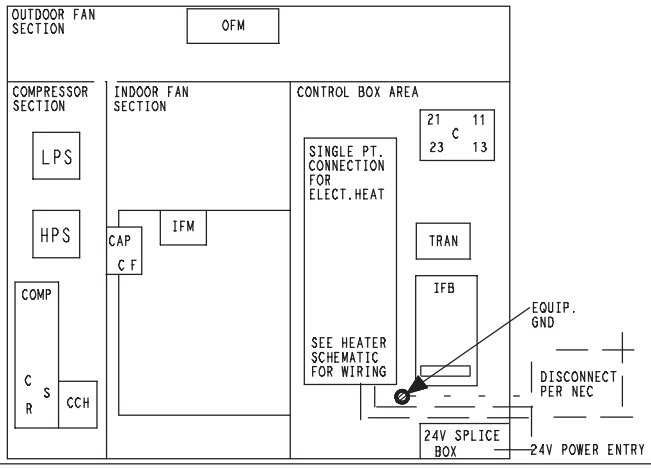
DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC
230-3-60



For Wriing with electric heaters, see schematic on heater accessory.

UNIT COMPONENT ARRANGEMENT



COLOR CODE	
BLK	BLACK
BLU	BLUE
BRN	BROWN
GRY	GRAY
GRN	GREEN
ORN	ORANGE
PNK	PINK
RED	RED
VIO	VIOLET
WHT	WHITE
YEL	YELLOW

LEGEND

- FIELD SPLICE
- TERMINAL (MARKED) ENERGIZED
- 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
CCH	CRANK CASE HEATER
COMP	COMPRESSOR MOTOR
DH	DEHUMIDIFICATION MODE
DEHUM	DEHUMIDIFICATION MODE
ECON	ECONOMIZER
GND	GROUND
HPS	HIGH PRESSURE SWITCH
HR	HEATER RELAY
IFB	INTERFACE FAN BOARD
IFM	INDOOR FAN MOTOR
LPS	LOW PRESSURE SWITCH
OFM	OUTDOOR FAN MOTOR
STD	STANDARD MODE
TRAN	TRANSFORMER

NOTES:

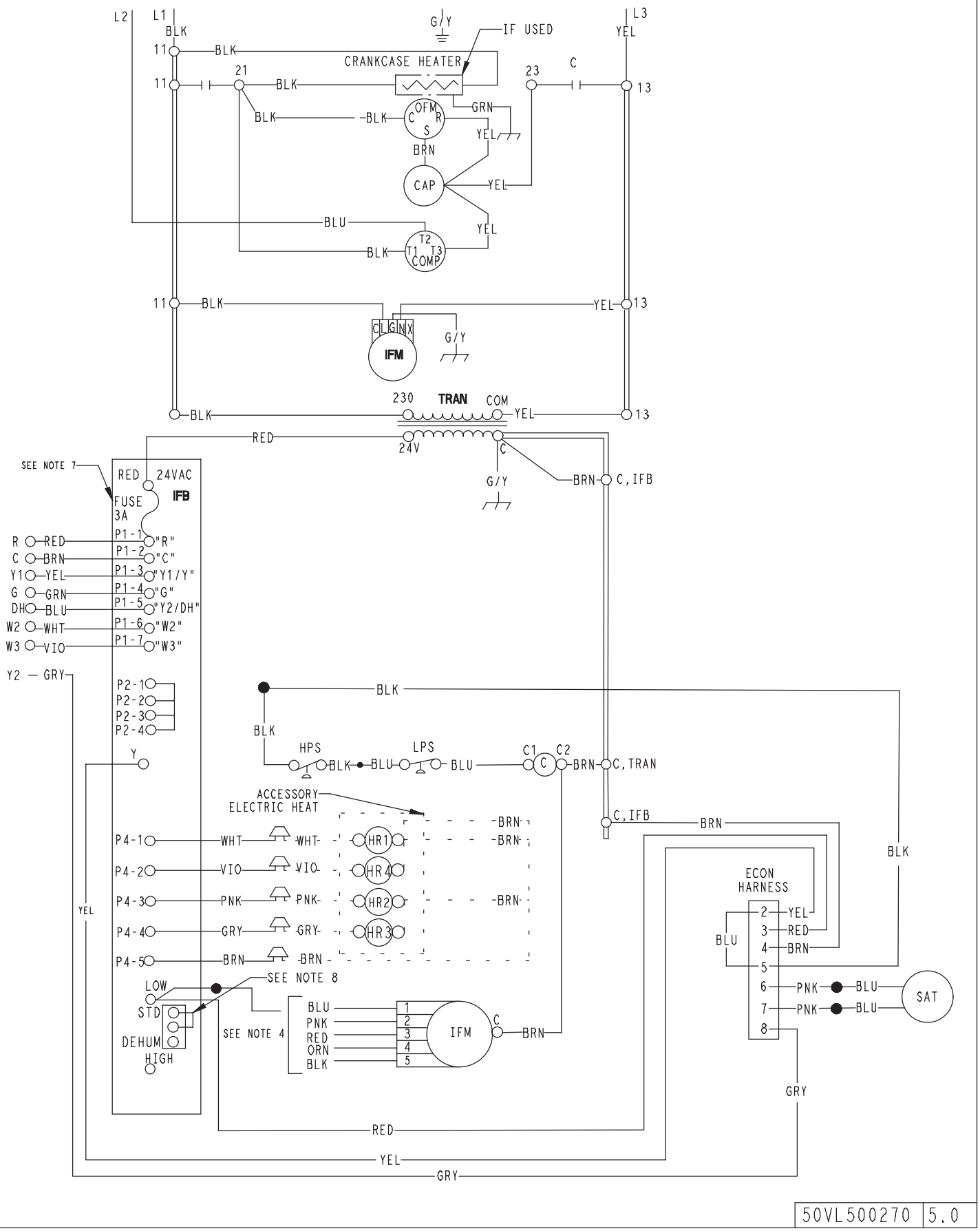
1. IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, THEY MUST BE REPLACED WITH THE SAME WIRE OR IT'S EQUIVALENT.
2. USE 75 DEGREE COPPER CONDUCTORS FOR FIELD INSTALLATION.
3. REFER TO INSTALLATION INSTRUCTIONS FOR CORRECT SPEED SELECTION OF IFM.
4. RELOCATION OF SPEED TAPS MAY BE REQUIRED WHEN USING FIELD INSTALLED ELECTRIC HEATERS, CONSULT INSTALLATION INSTRUCTIONS TO DETERMINE CORRECT SPEED TAP SETTING.
5. "DO NOT DISCONNECT PLUG UNDER LOAD."
6. THIS FUSE IS MANUFACTURED BY LITTELFUSE P/N 257003

50VL500270 | 5.0

TYPICAL LADDER WIRING SCHEMATIC − 208/230−3−60

LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



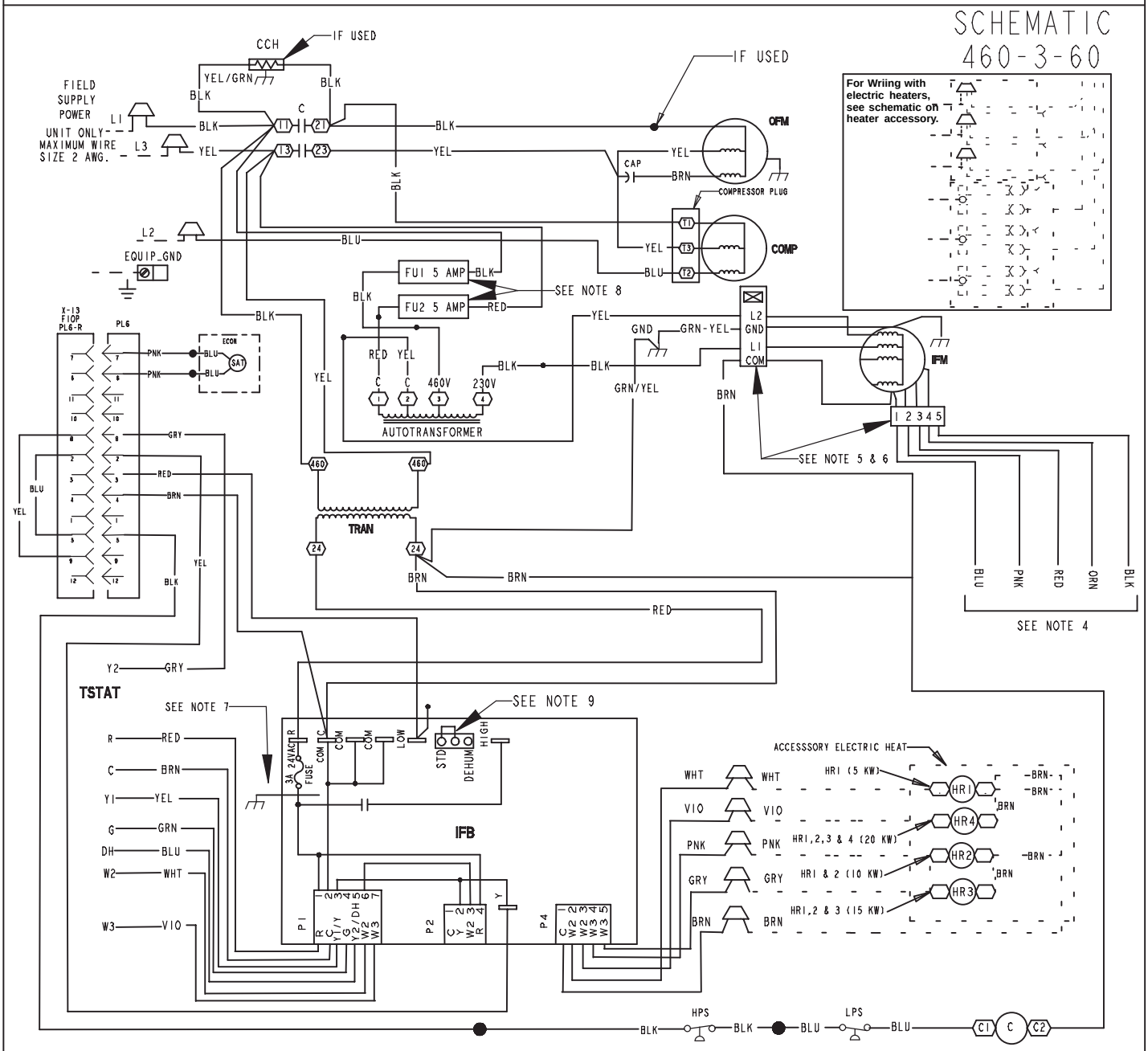
50VL500270 | 5.0

TYPICAL CONNECTION WIRING SCHEMATIC − 460−3−60

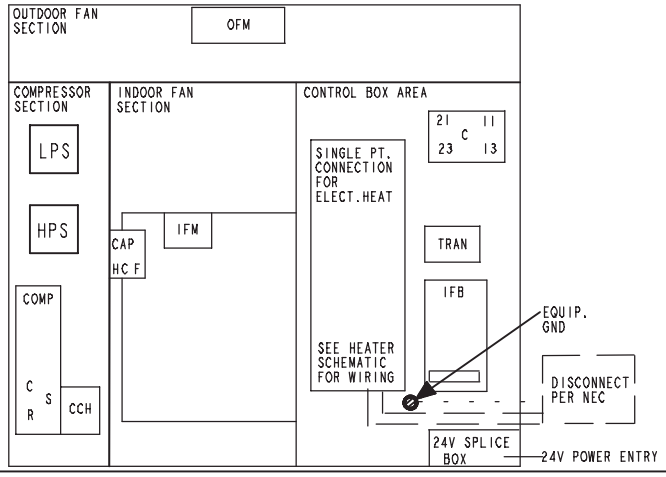
CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC
460-3-60



UNIT COMPONENT ARRANGEMENT



LEGEND

- FIELD SPLICE
- TERMINAL (MARKED) ENERGIZED
- 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

COLOR CODE	
BLK	BLACK
BLU	BLUE
BRN	BROWN
GRY	GRAY
GRN	GREEN
ORN	ORANGE
PNK	PINK
RED	RED
VIO	VIOLET
WHT	WHITE
YEL	YELLOW

C	CONTACTOR
CAP	CAPACITOR
CCH	CRANK CASE HEATER
COMP	COMPRESSOR MOTOR
DH	DEHUMIDIFICATION MODE
DEHUM	DEHUMIDIFICATION MODE
ECON	ECONOMIZER
GND	GROUND
HPS	HIGH PRESSURE SWITCH
HR	HEATER RELAY
IFB	INTERFACE FAN BOARD
IFM	INDOOR FAN MOTOR
LPS	LOW PRESSURE SWITCH
OFM	OUTDOOR FAN MOTOR
STD	STANDARD MODE
TRAN	TRANSFORMER

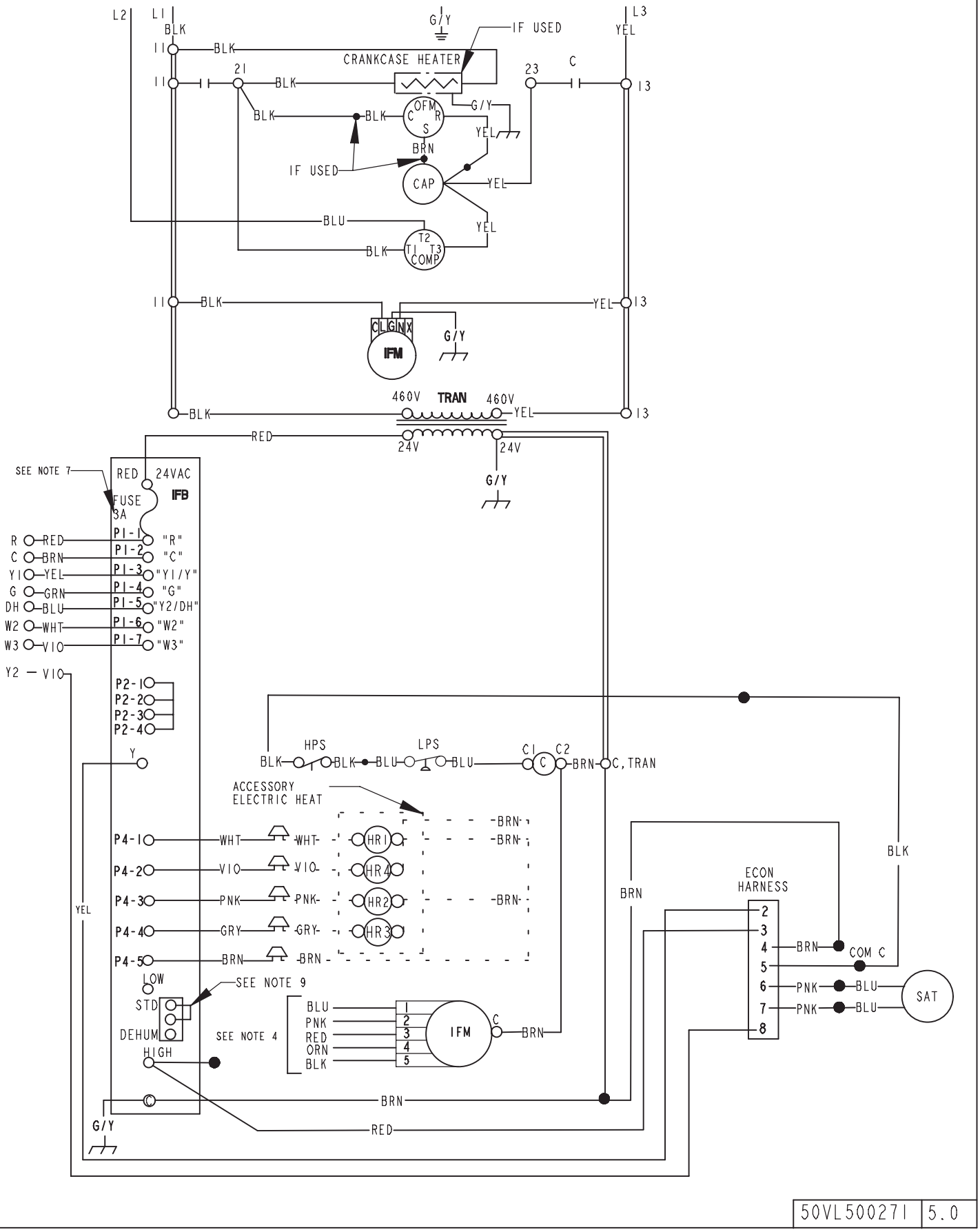
NOTES:

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. USE 75 DEGREE COPPER CONDUCIORS FOR FIELD INSIALLATION.
3. REFER TO INSTALLATION INSTRUCTIONS FOR CORRECT SPEED SELECTION OF IFM.
4. RELOCATION OF SPEED TAPS MAY BE REQUIRED WHEN USING FIELD INSTALLED ELECTRIC HEATERS, CONSULT INSTALLATION INSTRUCTIONS TO DETERMINE CORRECT SPEED TAP SETTING.
5. "DO NOT DISCONNECT PLUG UNDER LOAD."
6. THIS FUSE IS MANUFACTURED BY LITTELFUSE, P/N 257003
7. THESE FUSES ARE MANUFACTURED BY COOPER BUSSMAN, P/N FNQ-R-5

50VL500271 15.0

LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



50VL500271 | 5.0

CONTROLS

Operating sequence

Cooling — When the system thermostat calls for cooling, 24 V is supplied to the “Y” and “G” terminals of the thermostat. This completes the circuit to the contactor coil (C) and indoor (evaporator) fan relay (IFR). The normally open contacts of energized C close and complete the circuit through compressor motor (COMP) to outdoor (condenser) fan motor (OFM). Both motors start instantly. The set of normally open contacts of energized IFR close and complete the circuit through IFM. The IFM starts instantly.

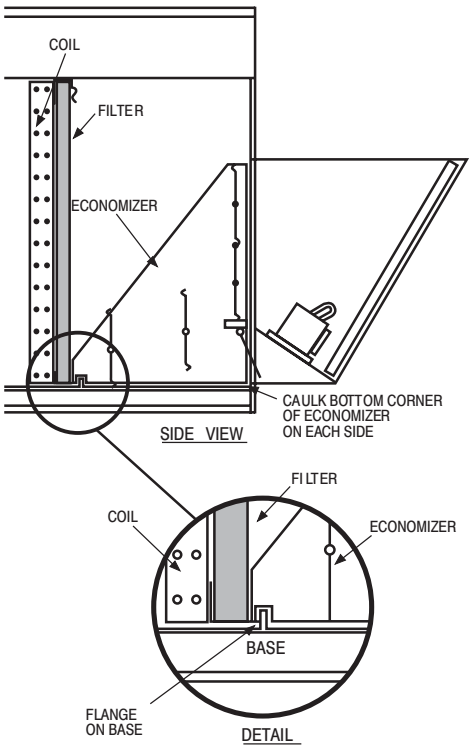
On the loss of the thermostat call for cooling, 24 V is removed from both the “Y” and “G” terminals (provided the fan switch is in the “AUTO” position) de−energizing the compressor contactor and opening the contacts supplying power to compressor/OFM. After a 90−second delay, the IFM shuts off. If the thermostat fan selector switch is in the “ON” position, the IFM will run continuously. For the 460 V units there is a step down autotransformer supplying 230 V to the Indoor Fan Motor.

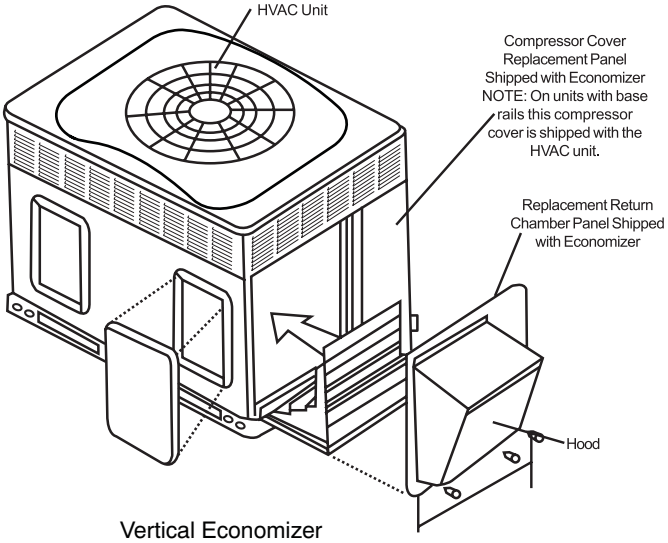
NOTE: On units with anti−cycle timer: Once the compressor has started and then stopped, it cannot be restarted again until 5 minutes have elapsed.

Heating — If accessory electric heaters are installed, on a call for heat, circuit R−W is made through the thermostat contacts. Circuit R−G is made which energizes the IFR. If the heaters are staged, then the thermostat closes a second set of contacts (W2) when second stage is required. When thermostat is satisfied, contacts open, deenergizing the heater relay and the IFR.

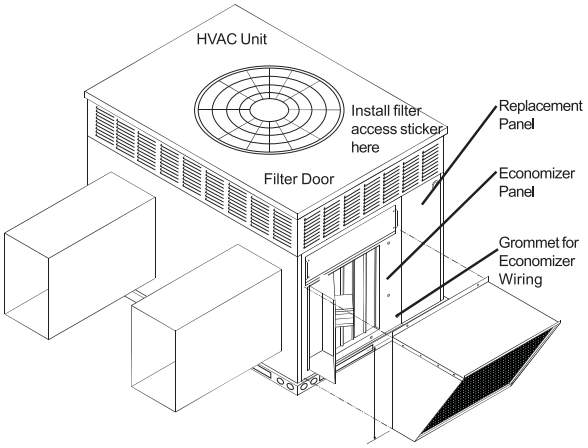
ECONOMIZER, FILTER RACK, and MANUAL OUTSIDE AIR DAMPER

ECONOMIZER



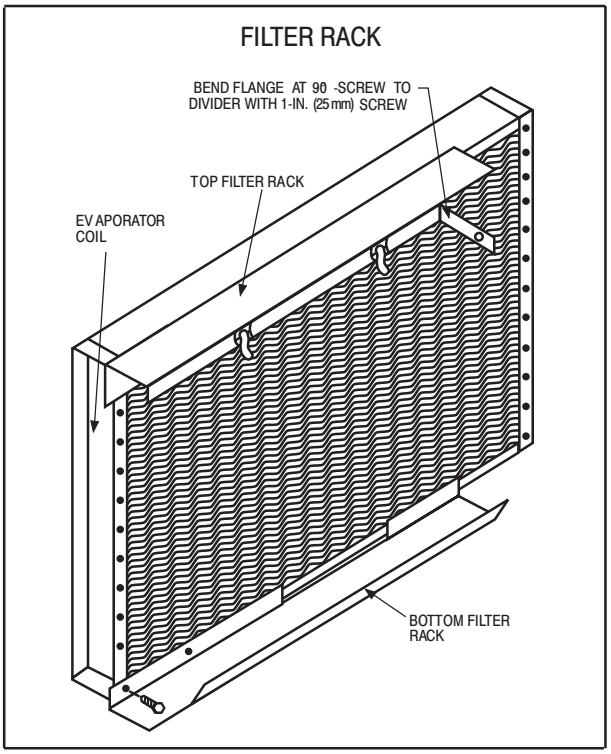


Vertical Economizer

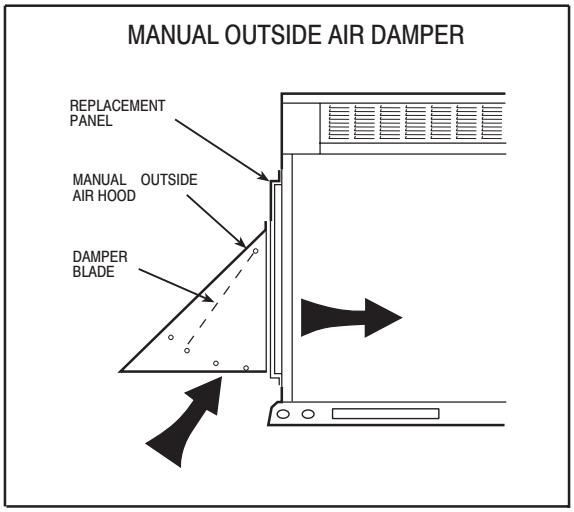


Horizontal Economizer

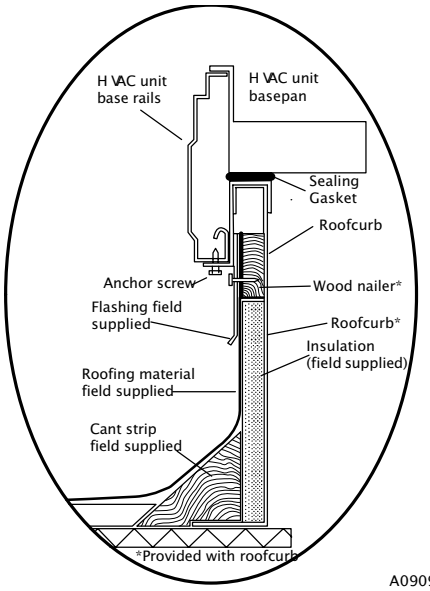
FILTER RACK



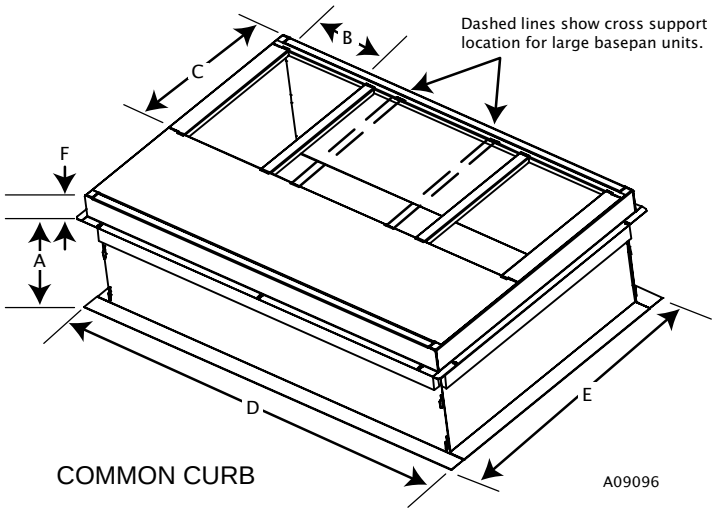
MANUAL OUTSIDE AIR DAMPER



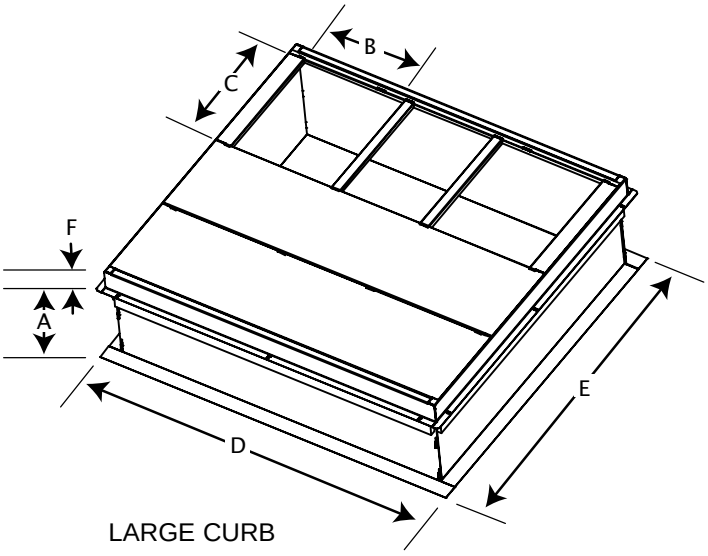
ROOF CURBS



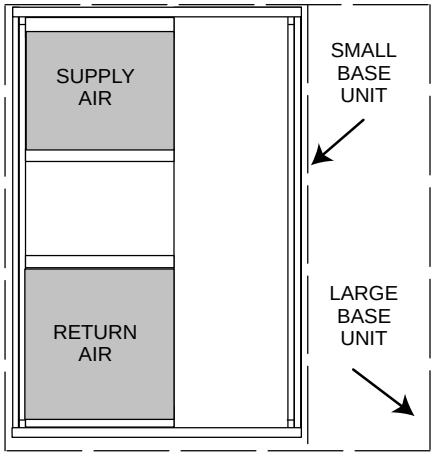
ROOF CURB DETAIL



COMMON CURB



LARGE CURB



UNIT PLACEMENT ON COMMON CURB

SMALL OR LARGE BASE UNIT

UNIT SIZE	CATALOG NUMBER	A IN. (mm)	B (small base) IN. (mm)*	B (large base) IN. (mm)*	C IN. (mm)	D IN. (mm)	E IN. (mm)	F IN. (mm)
Small or Large	CPRFCURB010A00	11 (279)	10 (254)	14 (356)	16 (406)	47.8 (1214)	32.4 (822)	2.7 (69)
	CPRFCURB011A00	14 (356)						
Large	CPRFCURB012A00	11 (279)	N/A				43.9 (1116)	
	CPRFCURB013A00	14 (356)						

***** Part Numbers CPRCURB010A00 and CPRCURB011A00 can be used on both small and large basepan units. The cross supports must be located based on whether the unit is a small basepan or a large basepan.

NOTES:

1. Roof curb must be set up for unit being installed.
2. Seal strip must be applied, as required, to unit being installed.
3. Roof curb is made of 16−gauge steel.
4. Attach ductwork to curb (flanges of duct rest on curb).
5. Insulated panels: 1−in. (25.4 mm) thick fiberglass 1 lb. density.

PAD4 ACCESSORIES (Continued)

Accessory Model Number	Description	Use With
CURBS		
CPRFCURB010A00	Roof Curb, 11” High	30 − 60
CPRFCURB011A00	Roof Curb, 14” High	30 − 60
CPRFCURB012A00	Roof Curb, 11” High	42 − 60
CPRFCURB013A00	Roof Curb, 14” High	42 − 60
Note: CPRFCURB010A00 AND CPRFCURB011A00 can be used with 42−60 size units with some overhang.		
ADAPTER CURBS*		
CPADCURB001A00	Adapter curb for use with NPRFCURB006A00 & NPRFCURB007A00	30 − 36
CPADCURB002A00	Adapter curb for use with NPRFCURB008A00 & NPRFCURB009A00	42 − 60
* Can also be used when replacing other manufacturer’s older generation units that contain a composite base without a metal base rail.		
CONCENTRIC ADAPTERS − (Use with curb only)		
NPCONADP001A00	For 18” round duct (use with curbs CPRFCURB010A00, CPRFCURB011A00)	Small Curb
NPCONADP002A00	For 18” round duct (use with curbs CPRFCURB012A00, CPRFCURB013A00)	Large Curb
CONCENTRIC DIFFUSERS − (Ceiling or under roof)		
AXB020CSA*	Step Down Diffuser − Fits 2’ x 4’ Ceiling Grid (16” round collars for flex conn.)	30 − 42
AXB020CFA*	Flush Mount Diffuser − Fits 2’ x 4’ Ceiling Grid (16” round collars for flex conn.)	30 − 42
AXB030CSA	Step Down Diffuser − Fits 2’ x 4’ Ceiling Grid (18” round collars for flex conn.)	30 − 60
AXB030CFA	Flush Mount Diffuser − Fits 2’ x 4’ Ceiling Grid (18” round collars for flex conn.)	30 − 60
* A field supplied 18” to 16” round reducer required when used with NP concentric adaptor		
ECONOMIZERS		
CPECOMZR007A00	Dedicated Vertical Economizer − Internal with solid state controller, gear driven, fully modulating damper, spring return actuator, up to 50% barometric relief, supply and dry bulb outdoor air sensors. Includes filter rack with 1” filters*.	30, 36
CPECOMZR008A00		42, 48
CPECOMZR009A00		60
CPECOMZR010A00	Dedicated Horizontal Economizer − Internal with solid state controller, fully modulating damper, spring return actuator, supply and dry bulb outdoor air sensor, and low ambient compressor lockout switch included. Includes filter rack with 1−inch filters*.	30, 36
CPECOMZR011A00		42, 48
CPECOMZR012A00		60
AXB078ENT	Outdoor Enthalpy Control	ALL
* Outdoor enthalpy available as field installed accessory; Filter rack and 1” filter, same as CPFILTRK kit		
DAMPERS		
CPMANDPR007A00	Manual Outside Air Damper − (Includes filter rack and 1” filter, same as CPFILTRK kit)	30, 36
CPMANDPR008A00		42, 48
CPMANDPR009A00		60
INTERNAL FILTER RACKS		
CPFILTRK007A00	Internal Filter Rack (includes 1−inch filters)	30, 36
CPFILTRK008A00		42, 48
CPFILTRK009A00		60
LOW AMBIENT, ANTI−CYCLE TIMER		
CPLOWAMB001A00	Low Ambient Control − enables cooling system to operate down to 0 Deg. F by cycling condenser fan on and off.	ALL
NRTIMEGD001A00	Five Minute Compressor Delay	ALL
CRANKCASE HEATER − BELLY BAND TYPE		
NPCRKHTR008A00	240V Crankcase Heater	30, 36
NPCRKHTR004A00	240V Crankcase Heater (Included on 60 size)	42, 48
NPCRKHTR009A00	460V Crankcase Heater	36
NPCRKHTR005A00	460V Crankcase Heater (Included on 60 size)	42, 48
ELECTRIC HEATERS	**Nominal Capacity kW / Fuses**	
208/230−3−60		
EHNA05H0N	3.8 − 5.0 kW / 0	ALL
EHNA10H0N	7.5 − 10.0 kW / 0	ALL
EHNA10H6F	7.5 − 10.0 kW / 6	ALL
EHNA15H0N	11.3 − 15.0 kW / 0	ALL
EHNA15H6F	11.3 − 15.0 kW / 6	ALL
EHNA20H6F	15 − 20.0 kW / 6	42 − 60
460**−3−60**		
EHNA05L0N	5.0 kW / 0	ALL
EHNA10L0N	10.0 kW / 0	ALL
EHNA15L0N	15.0 kW / 0	ALL
EHNA20L0N	20.0 kW / 0	42 − 60

PAD4 ACCESSORIES (Continued)

Accessory Model Number	Description	Use With
DUAL POINT WIRING KIT		
CPDUALPT001A00	Dual Point Wiring kit, 5−20kW Heaters	ALL
DUCT TRANSITIONS		
NPDUCFLG002A00	Square to 14” Round (1 set of 2, use with horizontal duct flanges only)	30−48