PAD3
Product Specifications

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



REFRIGERATION CIRCUIT
- Environmentally sound R−410A refrigerant
- Scroll compressor standard on all models
- Copper tube/aluminum fin condenser and evaporator coils
- 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
- 2” 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

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UNIT PERFORMANCE DATA

Model Number	COOLING			Unit Dimensions Height x Width x Depth in (mm)	Operating Weight lbs (kg)
	Capacity BTU/h	SEER	EER		
PAD330000H000C	28,600	13.5	11.2	40x48 3/16x32 5/8 (1016x1224x829)	277 (125)
PAD336000*000C	34,400	13.0	11.0	46x48 3/16x32 5/8 (1168x1224x829)	283 (128)
PAD342000*000C	40,500	13.2	11.2	40x48 3/16x44 1/8 (1016x1224x1123)	369 (167)
PAD348000*000C	46,500	13.2	11.2	41x48 3/16x44 1/8 (1041x1224x1123)	375 (170)
PAD360000*000C	57,000	13.4	11.0	41x48 3/16x44 1/8 (1041x1224x1123)	397 (180)

* H = 208/230−3−60, L = 460−3−60

MODEL NOMENCLATURE

MODEL SERIES	1	2	3	4	5,6	7,8,9	10	11,12	13	14	15
	P	**A**	**D**	**3**	**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 = 460−3−60

VOLTAGE

00 = No options

FACTORY INSTALLED OPTIONS

0 = Standard

FEATURE CODE

Sales Model Digit

Engineering Digit

AHRI* CAPACITIES

COOLING CAPACITIES AND EFFICIENCIES − PAD3

Unit Size	Nominal Tons	Standard CFM	Net Cooling Capacities (Btuh)	EER**	SEER†
30	2−1/2	1000	28,600	11.2	13.5
36	3	1200	34,400	11.0	13.0
42	3−1/2	1400	40,500	11.2	13.2
48	4	1600	46,500	11.2	13.2
60	5	1750	57,000	11.0	13.4

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 AHRI Standards 210/240−08.

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°F wb (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 PAD3

UNIT	Nominal V−PH−HZ	Voltage Range Min	Voltage Range Max	Compressor RLA	Compressor LRA	OFM FLA	IFM FLA	Nominal kW 208v/230v	FLA 208/230	MCA 208/230	MOCP* 208/230
208/230V − 3 Ph − 60 Hz											
30	208/230−3−60	197	253	8.4	58.0	1.2	4.1	–/–	–	15.8	20
								3.8/5	10.4/12.0	18.1/20.1	20/25
								7.5/10	20.8/24.1	31.1/35.3	35/40
								11.3/15	31.3/36.1	44.3/50.3	45/60
36	208/230−3−60	197	253	10.4	88.0	1.2	6.0	–/–	–/–	20.3	30
								3.8/5	10.4/12.0	20.5/22.5	30/30
								7.5/10	20.8/24.1	33.5/37.6	35/40
								11.3/15	31.3/36.1	46.6/52.6	50/60
42	208/230−3−60	197	253	13.5	88.0	1.2	6.0	–/–	–/–	24.1	35
								3.8/5	10.4/12.0	24.1/24.1	35/35
								7.5/10	20.8/24.1	33.5/37.6	35/40
								11.3/15	31.3/36.1	46.6/52.6	50/60
								15/20	41.4/47.9	59.3/67.4	60/70
48	208/230−3−60	197	253	13.7	83.1	1.2	7.6	–/–	–/–	25.9	35
								3.8/5	10.4/12.0	25.9/25.9	35/35
								7.5/10	20.8/24.1	35.5/39.6	40/40
								11.3/15	31.3/36.1	48.6/54.6	50/60
								15/20	41.4/47.9	61.3/69.4	70/70
60	208/230−3−60	197	253	16.0	110.0	1.2	7.6	–/–	–/–	28.8	40
								3.8/5	10.4/12.0	28.8/28.8	40/40
								7.5/10	20.8/24.1	35.5/39.6	40/40
								11.3/15	31.3/36.1	48.6/54.6	50/60
								15/20	41.4/47.9	61.3/69.4	70/70
460V − 3 Ph − 60 Hz											
36	460−3−60	414	506	5.8	38.0	0.5	3.0	–	–	10.7	15
								5	6.0	11.3	15
								10	12.0	18.8	20
								15	18.0	26.3	30
42	460−3−60	414	506	6.0	44.0	0.5	3.0	–	–	11.0	15
								5	6.0	11.3	15
								10	12.0	18.8	20
								15	18.0	26.3	30
								20	24.1	33.9	35
48	460−3−60	414	506	6.2	41.0	0.5	3.8	–	–	12.1	15
								5	6.0	12.3	15
								10	12.0	19.8	20
								15	18.0	27.3	30
								20	24.1	34.9	35
60	460−3−60	414	506	7.8	52.0	0.5	3.8	–	–	14.0	20
								5	6.0	14.0	20
								10	12.0	19.8	20
								15	18.0	27.3	30
								20	24.1	34.9	35

* FUSE OR CIRCUIT BREAKER

LEGEND

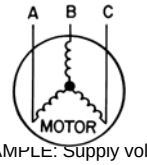
FLA – Full Load Amps
LRA – Locked Rotor Amps
MCA – Minimum Circuit Amps
MOCP – Maximum Overcurrent Protection
RLA – Rated Load Amps

Notes:

1. In compliance with NEC (National Electrical Code) requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be Power Supply fuse. The CGA (Canadian Gas Association) units may be fuse or circuit breaker.
2. Minimum wire size is based on 60°C copper wire. If other than 60°C wire is used, or if length exceeds wire length in table, determine size from NEC.
3. Unbalanced 3-Phase Supply Voltage
   Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percent of voltage imbalance.

% Voltage Imbalance

$$= 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$



EXAMPLE: Supply voltage is 230−3−60.

AB = 228 v
BC = 231 v
AC = 227 v

$$\text{Average Voltage} = \frac{228 + 231 + 227}{3}$$

$$= \frac{686}{3}$$

$$= 229$$

Determine maximum deviation from average voltage.
(AB) 229 – 228 = 1 v
(BC) 231 – 229 = 2 v
(AC) 229 – 227 = 2 v
Maximum deviation is 2 v.
Determine percent of voltage imbalance.

$$\text{\% Voltage Imbalance} = 100 \times \frac{2}{229}$$

$$= 0.8\%$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

UNIT SPECIFICATIONS − UNIT PAD3					
UNIT SIZE	**30**	**36**	**42**	**48**	**60**
NOMINAL CAPACITY (ton)	2−1/2	3	3−1/2	4	5
SHIPPING WEIGHT lb.	284	290	378	384	406
SHIPPING WEIGHT (kg)	129	132	171	174	184
COMPRESSORS	Scroll				
Quantity	1				
REFRIGERANT (R−410A)					
Quantity lb	6.2	6.4	6.1	6.4	10.0
Quantity (kg)	2.8	2.9	2.7	2.9	4.5
REFRIGERANT METERING DEVICE	TXV				
OUTDOOR COIL					
Rows...Fins/in.	1...21	1...21	1...21	1...21	2...21
Face Area (sq ft)	11.9	15.4	13.6	15.5	15.5
OUTDOOR FAN					
Nominal Cfm	3000	3200	3600	4000	3200
Diameter in.	24	24	26	26	26
Diameter (mm)	610	610	660	660	660
Motor Hp (Rpm)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)
INDOOR COIL					
Rows...Fins/in.	3...17	3...17	3...17	3...17	3...17
Face Area (sq ft)	3.7	3.7	4.7	4.7	5.7
INDOOR BLOWER					
Nominal Cooling Airflow (Cfm)	1000	1200	1400	1600	1750
Size in.	10x10	11x10	11x10	11x10	11x10
Size (mm.)	254x254	279.4x254	279.4x254	279.4x254	279.4x254
Motor HP (RPM)	1/2 (1050)	3/4 (1000)	3/4 (1075)	1.0 (1075)	1.0 (1040)
HIGH-PRESSURE SWITCH (psig) Cut−out	650 +/− 15				
Reset (auto)	420 +/− 25				
LOSS-OF-CHARGE/LOW-PRESSURE SWITCH (Liquid Line) (psig)					
Cut−out	20 +/− 5				
Reset (auto)	45 +/− 10				
RETURN-AIR FILTERS†‡					
Throwaway Size in.	20x24x1	24x30x1		24x36x1	
Throwaway Size (mm)	508x610x25	610x762x25		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.

PERFORMANCE DATA − PAD3

DRY COIL AIR DELIVERY* — HORIZONTAL AND DOWNFLOW DISCHARGE (CFM)												
UNIT	**MOTOR SPEED**	**WIRE COLOR**		**0.1**	**0.2**	**0.3**	**0.4**	**0.5**	**0.6**	**0.7**	**0.8**	**0.9**
PAD330	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
PAD336	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
PAD342	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
PAD348	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
PAD360	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 PAD3−A 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 Downflow-Height Speed with 1-in Filter and Economizer Table for available static including wet coil, 1-in. filter and economizer. Shaded areas indicate airflows that are not recommended for dehumidification control.

HORIZONTAL WET COIL PRESSURE DROP (in wc)

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

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

UNIT SIZE	EXTERNAL STATIC PRESSURE (in wc)									
	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

FILTER PRESSURE DROP TABLE (in wc) PAD3

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 wc)

UNIT PAD	PRESSURE DROP
24–36	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 TABLES (in wc)

SMALL CABINET: PAD330–36

	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

LARGE CABINET: PAD342–60

	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	36	42	48	60
CFM	1000	1000	1200	1400	1600	1750

A–WEIGHTED SOUND POWER LEVEL (DBA)

UNIT PAD3	STANDARD RATING (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
30	75	66.0	63.5	68.0	68.5	67.5	61.5	55.0
36	75	64.0	63.5	68.0	70.5	64.5	61.0	61.0
42	77	67.0	67.0	69.5	70.5	68.0	65.5	61.0
48	78	71.5	66.5	73.0	71.5	68.0	64.0	57.0
60	78	74.5	66.5	70.0	70.0	66.5	64.0	57.0

* Tested in accordance with ARI Standard 270 (not listed in AHRI) physical data.

PAD330 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)		
	EWB	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys
CFM/BF	°F (°C)	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW
875/0.03	57 (13.8)	29.20	29.20	2.09	27.20	27.20	2.30	25.19	25.19	2.52	23.18	23.18	2.77	21.16	21.16	3.04	19.13	19.13	3.32
	62 (16.6)	30.09	26.44	2.09	27.78	25.28	2.30	25.48	24.10	2.52	23.22	23.12	2.77	21.16	21.16	3.04	19.12	19.12	3.32
	63* (17.2)	30.75	21.65	2.09	28.36	20.61	2.30	25.99	19.56	2.52	23.63	18.51	2.77	21.26	17.45	3.04	18.90	16.38	3.32
	67 (19.4)	33.12	22.39	2.08	30.58	21.34	2.29	28.05	20.29	2.52	25.52	19.23	2.77	23.00	18.16	3.04	20.48	17.08	3.32
	72 (22.2)	36.50	18.28	2.08	33.73	17.33	2.29	30.97	16.37	2.52	28.22	15.41	2.77	25.48	14.44	3.04	22.73	13.46	3.32
1000/0.03	57 (13.8)	30.51	30.51	2.12	28.39	28.39	2.33	26.27	26.27	2.56	24.14	24.14	2.80	22.01	22.01	3.07	19.87	19.87	3.35
	62 (16.6)	30.85	28.45	2.12	28.49	28.24	2.33	26.26	26.26	2.56	24.14	24.14	2.80	22.01	22.01	3.07	19.86	19.86	3.35
	63* (17.2)	31.44	23.11	2.12	28.97	22.02	2.33	26.51	20.93	2.56	24.07	19.84	2.81	21.63	18.73	3.07	19.21	17.60	3.35
	67 (19.4)	33.86	23.94	2.12	31.22	22.85	2.33	28.60	21.75	2.55	25.99	20.65	2.80	23.40	19.53	3.07	20.80	18.40	3.35
	72 (22.2)	37.30	19.27	2.11	34.43	18.29	2.32	31.58	17.30	2.55	28.74	16.31	2.80	25.91	15.31	3.07	23.07	14.29	3.35
1125/0.04	57 (13.8)	31.61	31.61	2.15	29.39	29.39	2.36	27.17	27.17	2.59	24.95	24.95	2.84	22.72	22.72	3.10	20.48	20.48	3.39
	62 (16.6)	31.61	31.61	2.15	29.39	29.39	2.36	27.17	27.17	2.59	24.95	24.95	2.84	22.72	22.72	3.10	20.48	20.48	3.39
	63* (17.2)	31.97	24.51	2.15	29.43	23.38	2.36	26.91	22.25	2.59	24.41	21.10	2.84	21.92	19.95	3.10	19.45	18.75	3.39
	67 (19.4)	34.42	25.44	2.15	31.71	24.30	2.36	29.02	23.16	2.59	26.35	22.01	2.84	23.69	20.84	3.10	21.05	19.65	3.39
	72 (22.2)	37.91	20.22	2.14	34.96	19.20	2.35	32.03	18.19	2.58	29.12	17.17	2.83	26.22	16.14	3.10	23.32	15.10	3.39

PAD336 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)		
	EWB	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys
CFM/BF	°F (°C)	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW
1050/0.04	57 (13.8)	35.66	35.66	2.38	32.84	32.84	2.71	30.06	30.06	3.07	27.32	27.32	3.47	24.62	24.62	3.91	21.93	21.93	4.39
	62 (16.6)	37.06	32.25	2.39	33.82	30.46	2.71	30.65	28.68	3.07	27.56	26.88	3.47	24.62	24.62	3.91	21.93	21.93	4.39
	63* (17.2)	37.87	26.52	2.39	34.55	24.93	2.71	31.28	23.37	3.08	28.09	21.82	3.48	24.95	20.29	3.91	21.88	18.77	4.39
	67 (19.4)	40.79	27.41	2.39	37.23	25.80	2.72	33.74	24.21	3.08	30.32	22.64	3.48	26.96	21.09	3.92	23.65	19.54	4.39
	72 (22.2)	44.91	22.49	2.39	41.02	21.04	2.72	37.19	19.62	3.09	33.45	18.21	3.49	29.78	16.82	3.93	26.16	15.44	4.40
1200/0.04	57 (13.8)	37.24	37.24	2.43	34.27	34.27	2.76	31.33	31.33	3.12	28.44	28.44	3.52	25.58	25.58	3.96	22.76	22.76	4.44
	62 (16.6)	37.97	34.65	2.43	34.64	32.72	2.76	31.35	31.35	3.12	28.43	28.43	3.52	25.58	25.58	3.96	22.75	22.75	4.44
	63* (17.2)	38.73	28.25	2.43	35.29	26.59	2.76	31.91	24.95	3.12	28.60	23.33	3.52	25.37	21.73	3.96	22.21	20.12	4.44
	67 (19.4)	41.71	29.24	2.44	38.02	27.56	2.76	34.40	25.90	3.13	30.86	24.26	3.53	27.40	22.63	3.97	24.00	21.00	4.44
	72 (22.2)	45.90	23.65	2.44	41.86	22.16	2.77	37.91	20.68	3.13	34.05	19.23	3.54	30.26	17.79	3.98	26.53	16.36	4.45
1350/0.05	57 (13.8)	38.59	38.59	2.48	35.47	35.47	2.81	32.40	32.40	3.17	29.37	29.37	3.57	26.39	26.39	4.01	23.43	23.43	4.49
	62 (16.6)	38.77	36.79	2.48	35.46	35.46	2.81	32.39	32.39	3.17	29.37	29.37	3.57	26.38	26.38	4.01	23.43	23.43	4.49
	63* (17.2)	39.40	29.91	2.48	35.85	28.18	2.81	32.38	26.47	3.17	28.99	24.78	3.57	25.69	23.09	4.01	22.46	21.40	4.49
	67 (19.4)	42.41	31.01	2.48	38.61	29.26	2.81	34.89	27.52	3.18	31.27	25.81	3.58	27.72	24.10	4.02	24.26	22.39	4.49
	72 (22.2)	46.65	24.77	2.49	42.51	23.22	2.82	38.45	21.70	3.18	34.49	20.20	3.58	30.61	18.72	4.03	26.80	17.24	4.50

See Legend and Notes following tables.

PAD342 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)		
	EWB	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys
CFM/BF	°F (°C)	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW
1225/0.03	57 (13.8)	40.45	40.45	3.00	37.98	37.98	3.37	35.49	35.49	3.78	32.98	32.98	4.20	30.44	30.44	4.65	27.84	27.84	5.10
	62 (16.6)	42.06	37.63	2.94	39.15	35.73	3.33	36.25	33.83	3.74	33.37	31.92	4.18	30.48	30.39	4.64	27.88	27.88	5.10
	63* (17.2)	42.93	30.96	2.91	39.95	29.27	3.31	36.96	27.59	3.72	33.97	25.92	4.17	30.95	24.26	4.63	27.90	22.59	5.10
	67 (19.4)	46.12	31.94	2.80	42.92	30.23	3.19	39.72	28.52	3.61	36.53	26.83	4.05	33.31	25.15	4.52	30.04	23.46	4.99
	72 (22.2)	50.58	26.16	2.65	47.09	24.61	3.04	43.59	23.08	3.46	40.11	21.56	3.90	36.60	20.05	4.37	33.04	18.53	4.84
1400/0.04	57 (13.8)	42.24	42.24	2.98	39.61	39.61	3.35	36.97	36.97	3.76	34.32	34.32	4.18	31.63	31.63	4.63	28.88	28.88	5.08
	62 (16.6)	43.11	40.44	2.95	40.11	38.38	3.34	37.15	36.28	3.75	34.31	34.31	4.18	31.62	31.62	4.63	28.88	28.88	5.08
	63* (17.2)	43.91	32.97	2.92	40.81	31.21	3.32	37.71	29.45	3.73	34.61	27.70	4.18	31.49	25.96	4.64	28.35	24.21	5.12
	67 (19.4)	47.15	34.07	2.81	43.82	32.28	3.20	40.50	30.50	3.62	37.19	28.73	4.06	33.86	26.97	4.53	30.50	25.20	5.00
	72 (22.2)	51.67	27.51	2.65	48.05	25.91	3.05	44.42	24.32	3.46	40.81	22.75	3.91	37.19	21.19	4.38	33.51	19.62	4.85
1575/0.05	57 (13.8)	43.75	43.75	2.97	40.99	40.99	3.34	38.22	38.22	3.75	35.43	35.43	4.17	32.62	32.62	4.62	29.74	29.74	5.07
	62 (16.6)	44.02	42.95	2.96	41.01	41.01	3.34	38.21	38.21	3.75	35.43	35.43	4.17	32.61	32.61	4.62	29.74	29.74	5.07
	63* (17.2)	44.67	34.90	2.94	41.47	33.06	3.33	38.28	31.23	3.75	35.10	29.41	4.20	31.91	27.58	4.66	28.70	25.74	5.14
	67 (19.4)	47.93	36.13	2.82	44.51	34.26	3.21	41.09	32.40	3.63	37.69	30.56	4.08	34.28	28.71	4.54	30.85	26.85	5.02
	72 (22.2)	52.51	28.80	2.67	48.78	27.15	3.06	45.05	25.51	3.48	41.34	23.89	3.93	37.63	22.28	4.39	33.86	20.67	4.87

PAD348 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)		
	EWB	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys
CFM/BF	°F (°C)	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW
1400/0.04	57 (13.8)	46.51	46.51	3.29	43.60	43.60	3.68	40.66	40.66	4.11	37.70	37.70	4.56	34.70	34.70	5.05	31.64	31.64	5.55
	62 (16.6)	48.43	41.91	3.29	45.02	40.09	3.68	41.60	38.24	4.10	38.19	36.35	4.56	34.81	34.56	5.05	31.64	31.64	5.55
	63* (17.2)	49.45	34.51	3.29	45.95	32.87	3.68	42.43	31.22	4.10	38.89	29.56	4.56	35.34	27.89	5.05	31.75	26.19	5.55
	67 (19.4)	53.14	35.61	3.29	49.39	33.95	3.68	45.62	32.29	4.10	41.85	30.61	4.55	38.05	28.93	5.04	34.20	27.21	5.55
	72 (22.2)	58.33	29.19	3.28	54.23	27.68	3.67	50.11	26.15	4.09	46.00	24.62	4.55	41.85	23.08	5.03	37.64	21.51	5.54
1600/0.05	57 (13.8)	48.55	48.55	3.35	45.46	45.46	3.74	42.35	42.35	4.16	39.21	39.21	4.61	36.04	36.04	5.10	32.81	32.81	5.60
	62 (16.6)	49.62	44.99	3.35	46.10	43.02	3.74	42.60	40.97	4.16	39.21	39.21	4.61	36.04	36.04	5.10	32.80	32.80	5.60
	63* (17.2)	50.57	36.73	3.35	46.92	35.02	3.74	43.27	33.30	4.16	39.61	31.57	4.61	35.94	29.83	5.10	32.24	28.05	5.60
	67 (19.4)	54.31	37.96	3.34	50.41	36.23	3.73	46.50	34.50	4.15	42.59	32.76	4.61	38.66	30.99	5.09	34.70	29.20	5.60
	72 (22.2)	59.58	30.68	3.34	55.32	29.12	3.73	51.05	27.54	4.15	46.80	25.97	4.60	42.51	24.38	5.08	38.17	22.76	5.59
1800/0.06	57 (13.8)	50.26	50.26	3.40	47.02	47.02	3.79	43.76	43.76	4.21	40.47	40.47	4.66	37.15	37.15	5.15	33.76	33.76	5.65
	62 (16.6)	50.64	47.75	3.40	47.06	47.06	3.79	43.75	43.75	4.21	40.46	40.46	4.66	37.14	37.14	5.15	33.76	33.76	5.65
	63* (17.2)	51.44	38.88	3.40	47.67	37.10	3.79	43.92	35.31	4.21	40.16	33.51	4.67	36.40	31.68	5.15	32.62	29.81	5.66
	67 (19.4)	55.22	40.25	3.40	51.19	38.45	3.79	47.17	36.64	4.21	43.16	34.83	4.66	39.13	32.98	5.14	35.08	31.10	5.65
	72 (22.2)	60.54	32.12	3.40	56.16	30.51	3.78	51.77	28.89	4.20	47.40	27.27	4.65	43.00	25.64	5.13	38.55	23.98	5.64

See Legend and Notes following tables.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

PAD360 − 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)		
	EWB	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys	Capacity MBtuh		Total Sys
CFM/BF	°F (°C)	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW	Total	Sens	KW
1750/0.02	57 (13.8)	57.89	57.89	4.22	54.53	54.53	4.64	51.13	51.13	5.08	47.68	47.68	5.56	44.15	44.15	6.06	40.50	40.50	6.59
	62 (16.6)	59.66	51.98	4.24	55.71	49.84	4.65	51.77	47.68	5.09	47.84	45.44	5.56	44.15	44.15	6.06	40.49	40.49	6.59
	63* (17.2)	60.79	42.58	4.25	56.72	40.64	4.66	52.64	38.69	5.10	48.53	36.74	5.57	44.37	34.78	6.06	40.12	32.78	6.58
	67 (19.4)	65.28	43.94	4.28	60.89	41.97	4.70	56.50	40.00	5.14	52.08	38.03	5.61	47.59	36.03	6.10	43.00	34.00	6.62
	72 (22.2)	71.52	35.78	4.34	66.71	33.95	4.75	61.88	32.13	5.19	57.02	30.30	5.66	52.07	28.45	6.15	47.01	26.57	6.66
2000/0.02	57 (13.8)	60.39	60.39	4.33	56.80	56.80	4.74	53.18	53.18	5.18	49.50	49.50	5.66	45.74	45.74	6.16	41.85	41.85	6.68
	62 (16.6)	61.11	55.94	4.33	57.07	53.59	4.74	53.18	53.18	5.18	49.50	49.50	5.66	45.74	45.74	6.16	41.85	41.85	6.68
	63* (17.2)	62.07	45.41	4.34	57.83	43.39	4.75	53.59	41.36	5.19	49.33	39.33	5.66	45.03	37.28	6.15	40.64	35.18	6.67
	67 (19.4)	66.60	46.95	4.38	62.04	44.89	4.79	57.48	42.84	5.23	52.89	40.78	5.69	48.25	38.70	6.19	43.52	36.58	6.70
	72 (22.2)	72.91	37.66	4.43	67.90	35.78	4.85	62.90	33.90	5.28	57.85	32.01	5.75	52.74	30.11	6.24	47.52	28.18	6.74
2250/0.03	57 (13.8)	62.47	62.47	4.43	58.69	58.69	4.84	54.87	54.87	5.28	51.00	51.00	5.75	47.03	47.03	6.25	42.94	42.94	6.77
	62 (16.6)	62.48	62.48	4.43	58.68	58.68	4.84	54.86	54.86	5.28	50.99	50.99	5.75	47.03	47.03	6.25	42.94	42.94	6.77
	63* (17.2)	63.04	48.14	4.43	58.67	46.04	4.84	54.31	43.93	5.28	49.93	41.81	5.74	45.52	39.67	6.23	41.04	37.45	6.75
	67 (19.4)	67.60	49.85	4.47	62.90	47.72	4.88	58.21	45.59	5.32	53.50	43.44	5.78	48.74	41.27	6.27	43.91	39.04	6.78
	72 (22.2)	73.95	39.47	4.53	68.79	37.54	4.94	63.63	35.61	5.37	58.45	33.68	5.84	53.20	31.73	6.32	47.86	29.75	6.82

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

LEGEND:
BF — Bypass Factor
Edb — Entering Dry Bulb
Ewb — Entering Wet Bulb
kW — Total Unit Power Input
SHC — Sensible Heat Capacity (x1000 Btuh)
TC — Total Capacity (x1000 Btuh) (net)
rh — Relative Humidity

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.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT DIMENSIONS − PAD330−36

UNIT	ELECTRICAL CHARACTERISTICS	UNIT WT.		UNIT HEIGHT	CENTER OF GRAVITY IN/MM					
		LB	KG	"A"	X		Y		Z	
30	208/230-3-60	277	125.5	42 1066.8	20-1/2	520.7	15-3/4	400.1	16-13/16	427.0
36	208/230-3-60	283	128.3	46 1168.4	20-1/2	520.7	15-3/4	400.1	17	431.8
	460-3-60	297	134.6	46 1168.4	20-1/2	520.7	15-3/4	400.1	17	431.8

UNITS	VOLTAGE	CORNER WEIGHT LB/KG							
		"1"		"2"		"3"		"4"	
30	208/230	55.4	25.1	44.3	20.1	66.4	30.2	110.7	50.3
36	208/230	56.6	25.7	45.2	20.5	67.9	30.8	113.1	51.3
	460	56.6	25.7	45.2	20.5	76.9	34.9	118.1	53.6

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

TOP OF UNIT	14 [355.6]
DUCT SIDE OF UNIT	12 [304.8]
SIDE OPPOSITE DUCTS	12 [304.8]
BOTTOM OF UNIT	0 [0.0]
ELECTRICAL PANEL	36 [914.4]

NEC. REQUIRED CLEARANCES. INCHES [MM]

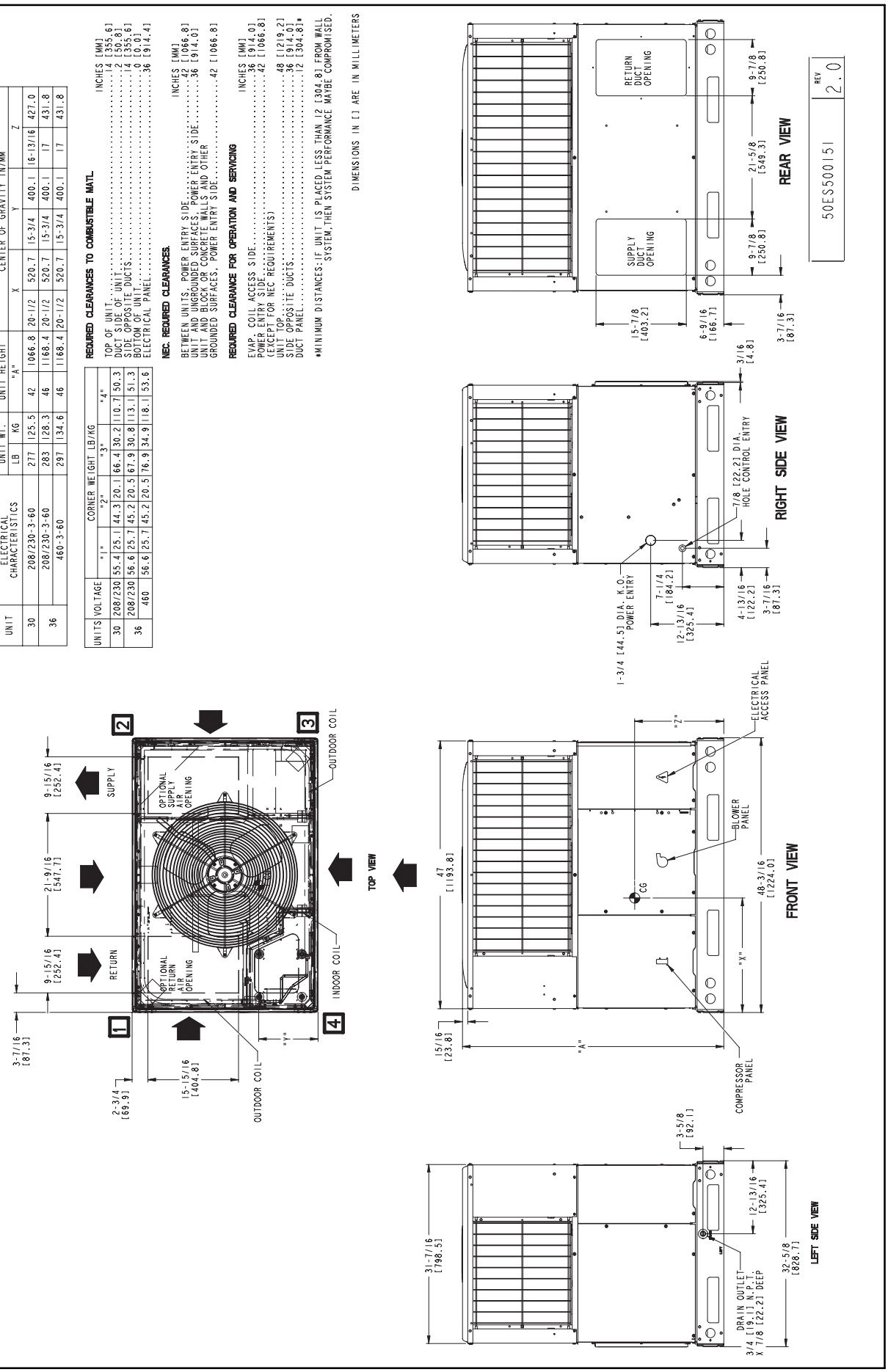
BETWEEN UNITS, POWER ENTRY SIDE	42 [1066.8]
UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE	36 [914.0]
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE	42 [1066.8]

REQUIRED CLEARANCE FOR OPERATION AND SERVICING INCHES [MM]

EVAP. COIL ACCESS SIDE	36 [914.0]
POWER ENTRY SIDE (EXCEPT FOR NEC REQUIREMENTS)	42 [1066.8]
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	ELECTRICAL CHARACTERISTICS	UNIT WT.	UNIT HEIGHT	CENTER OF GRAVITY IN/MM		
		LB / KG	"A"	X	Y	Z
42	208/230-3-60	369 / 167.5	39-15/16 [1014.4]	20-1/4 [514.4]	17-1/2 [444.5]	17-1/8 [435.0]
	460-3-60	383 / 173.8	39-15/16 [1014.4]	20-1/4 [514.4]	17-1/2 [444.5]	17-1/8 [435.0]
48	208/230-3-60	375 / 170.2	41-15/16 [1065.2]	20-1/4 [514.4]	17-1/2 [444.5]	17-3/8 [441.3]
	460-3-60	389 / 176.6	41-15/16 [1065.2]	20-1/4 [514.4]	17-1/2 [444.5]	17-3/8 [441.3]
60	208/230-3-60	397 / 180.2	41-15/16 [1065.2]	20-1/4 [514.4]	17-1/2 [444.5]	17-5/8 [447.7]
	460-3-60	411 / 186.5	41-15/16 [1065.2]	20-1/4 [514.4]	17-1/2 [444.5]	17-5/8 [447.7]

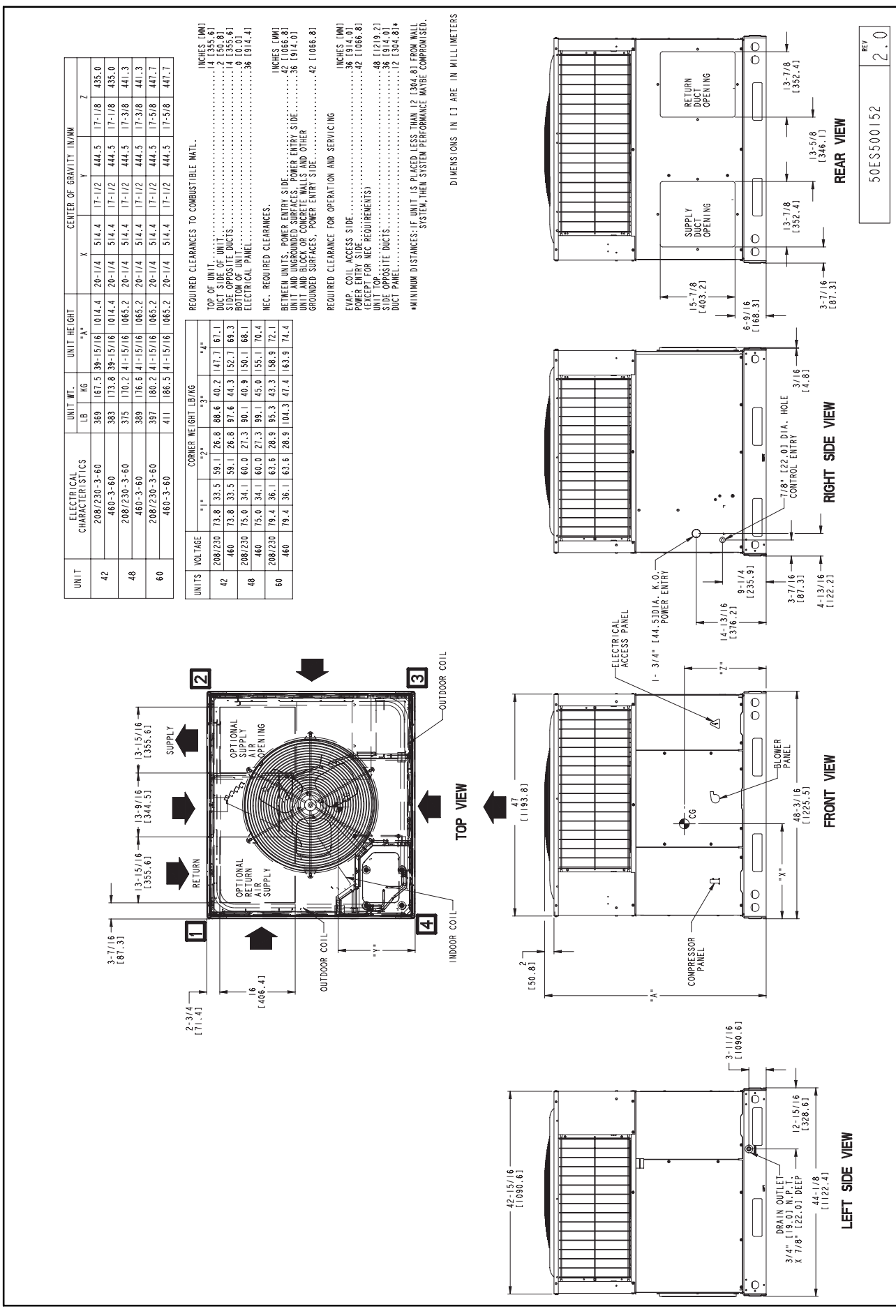
UNITS	VOLTAGE	CORNER WEIGHT LB/KG "1"	"2"	"3"	"4"
42	208/230	73.8	33.5 / 59.1	26.8 / 88.6	40.2 / 147.7 / 67.1
	460	73.8	33.5 / 59.1	26.8 / 97.6	44.3 / 152.7 / 69.3
48	208/230	75.0	34.1 / 60.0	27.3 / 90.1	40.9 / 150.1 / 68.1
	460	75.0	34.1 / 60.0	27.3 / 99.1	45.0 / 155.1 / 70.4
60	208/230	79.4	36.1 / 63.6	28.9 / 95.3	43.3 / 158.9 / 72.1
	460	79.4	36.1 / 63.6	28.9 / 104.3	47.4 / 163.9 / 74.4

REQUIRED CLEARANCES TO COMBUSTIBLE MATL. INCHES [MM]

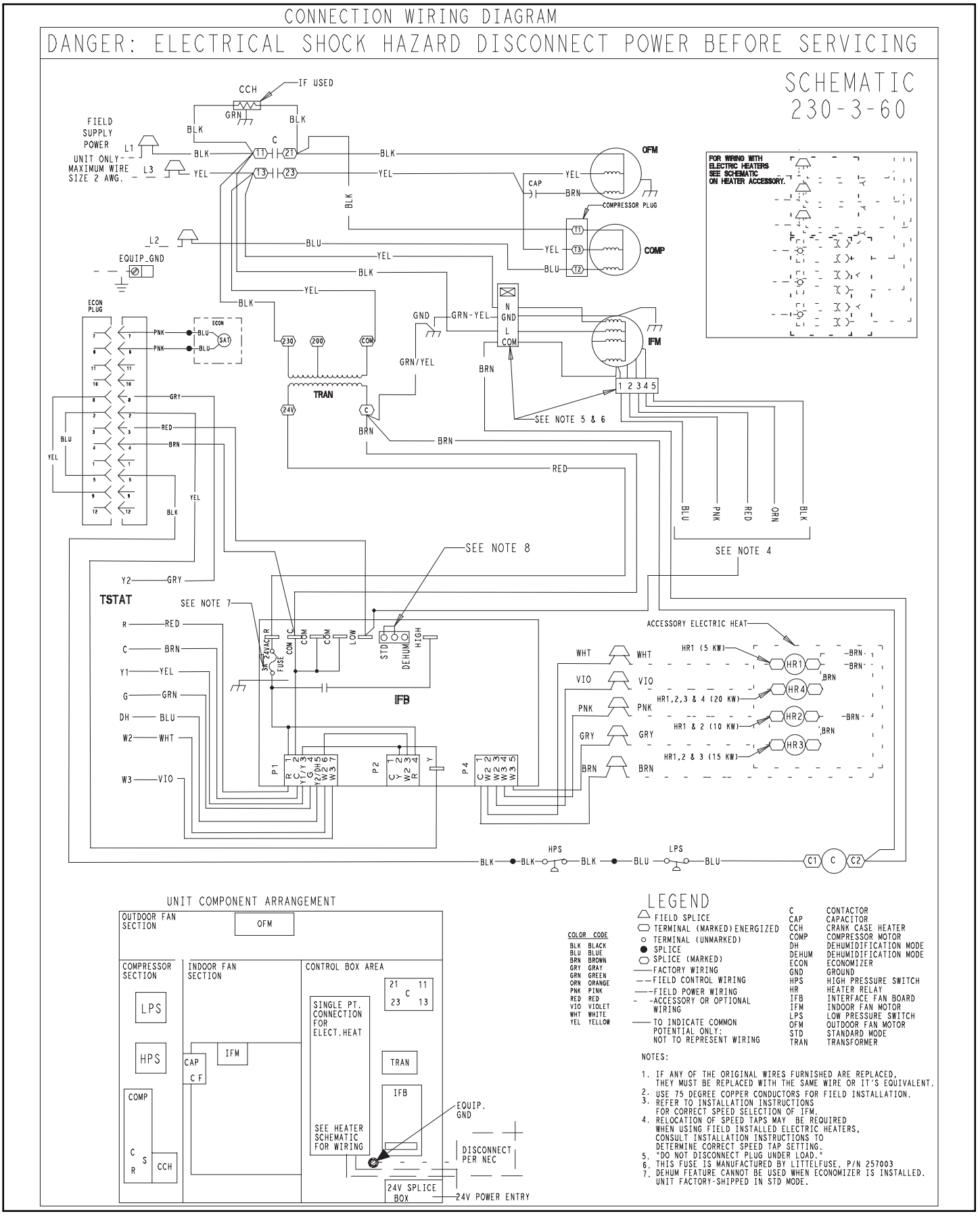
TOP OF UNIT	14 [355.6]
DUCT SIDE OF UNIT	2 [50.8]
SIDE OPPOSITE DUCTS	14 [355.6]
BOTTOM OF UNIT	0 [0.0]
ELECTRICAL PANEL	36 [914.4]
NEC. REQUIRED CLEARANCES.	INCHES [MM]
BETWEEN UNITS, POWER ENTRY SIDE	42 [1066.8]
UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE	36 [914.0]
UNIT AND BLOCK OR CONCRETE WALLS 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 (EXCEPT FOR NEC REQUIREMENTS)	42 [1066.8]
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.

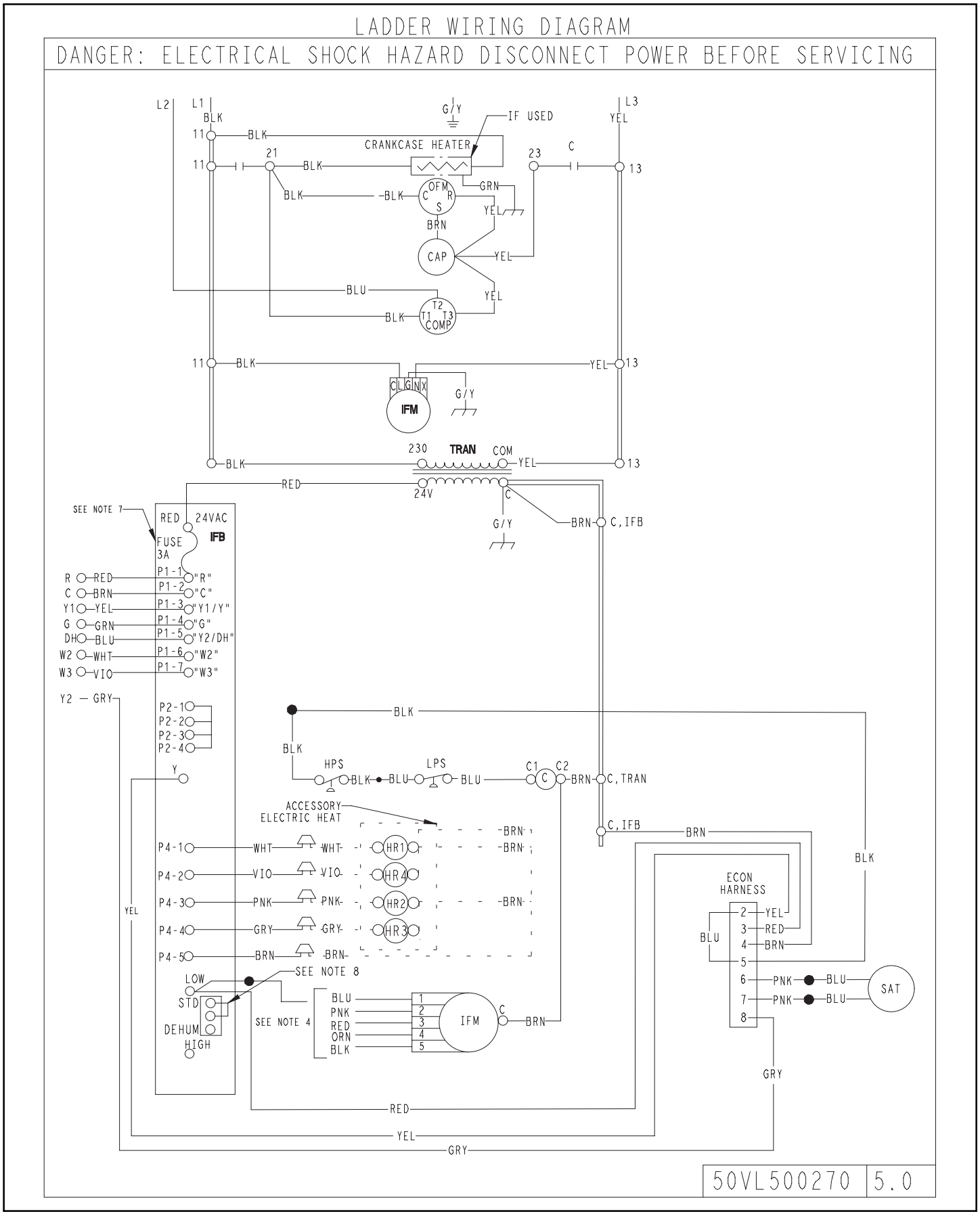
DIMENSIONS IN [ ] ARE IN MILLIMETERS



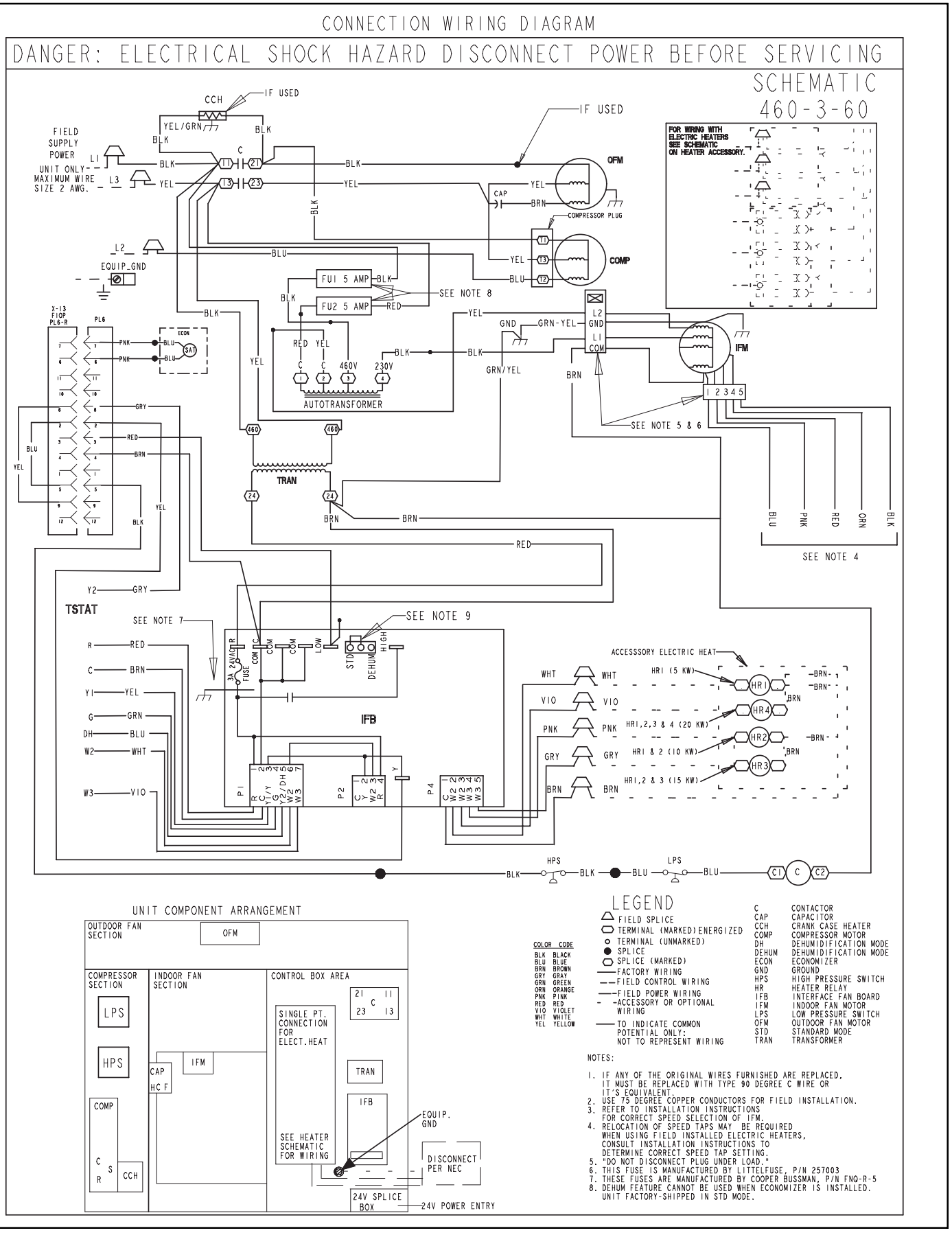
50ES500152 REV 2.0


CONNECTION WIRING DIAGRAM
DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING
SCHEMATIC
230-3-60
FIELD SUPPLY POWER
UNIT ONLY- MAXIMUM WIRE SIZE 2 AWG.
L1
L2
L3
EQUIP GND
CCH
IF USED
GRN
BLK
C
T1
Z1
T3
Z3
OFM
CAP
BRN
YEL
COMPRESSOR PLUG
COMP
T2
BLU
ECON PLUG
ECON
SAT
PNK
GRY
RED
BRN
BLU
YEL
230
200
COM
TRAN
24V
GND
GRN-YEL
GRN/YEL
N
GND
L
COM
IFM
1 2 3 4 5
SEE NOTE 5 & 6
FOR WIRING WITH ELECTRIC HEATERS SEE SCHEMATIC ON HEATER ACCESSORY.
SEE NOTE 4
SEE NOTE 8
SEE NOTE 7
TSTAT
Y2
R
C
Y1
G
DH
W2
W3
24VAC
FUSE
LOW
STD
DEHUM
HIGH
IFB
P1
P2
P4
ACCESSORY ELECTRIC HEAT
HR1 (5 KW)
HR1,2,3 & 4 (20 KW)
HR1 & 2 (10 KW)
HR1,2 & 3 (15 KW)
HR1
HR4
HR2
HR3
WHT
VIO
PNK
GRY
HPS
LPS
C1
C2
UNIT COMPONENT ARRANGEMENT
OUTDOOR FAN SECTION
OFM
COMPRESSOR SECTION
INDOOR FAN SECTION
CONTROL BOX AREA
LPS
HPS
CAP
C F
IFM
COMP
C S R
CCH
SINGLE PT. CONNECTION FOR ELECT.HEAT
SEE HEATER SCHEMATIC FOR WIRING
TRAN
IFB
EQUIP. GND
DISCONNECT PER NEC
24V SPLICE BOX
24V POWER ENTRY
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, 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
7. DEHUM FEATURE CANNOT BE USED WHEN ECONOMIZER IS INSTALLED. UNIT FACTORY-SHIPPED IN STD MODE.

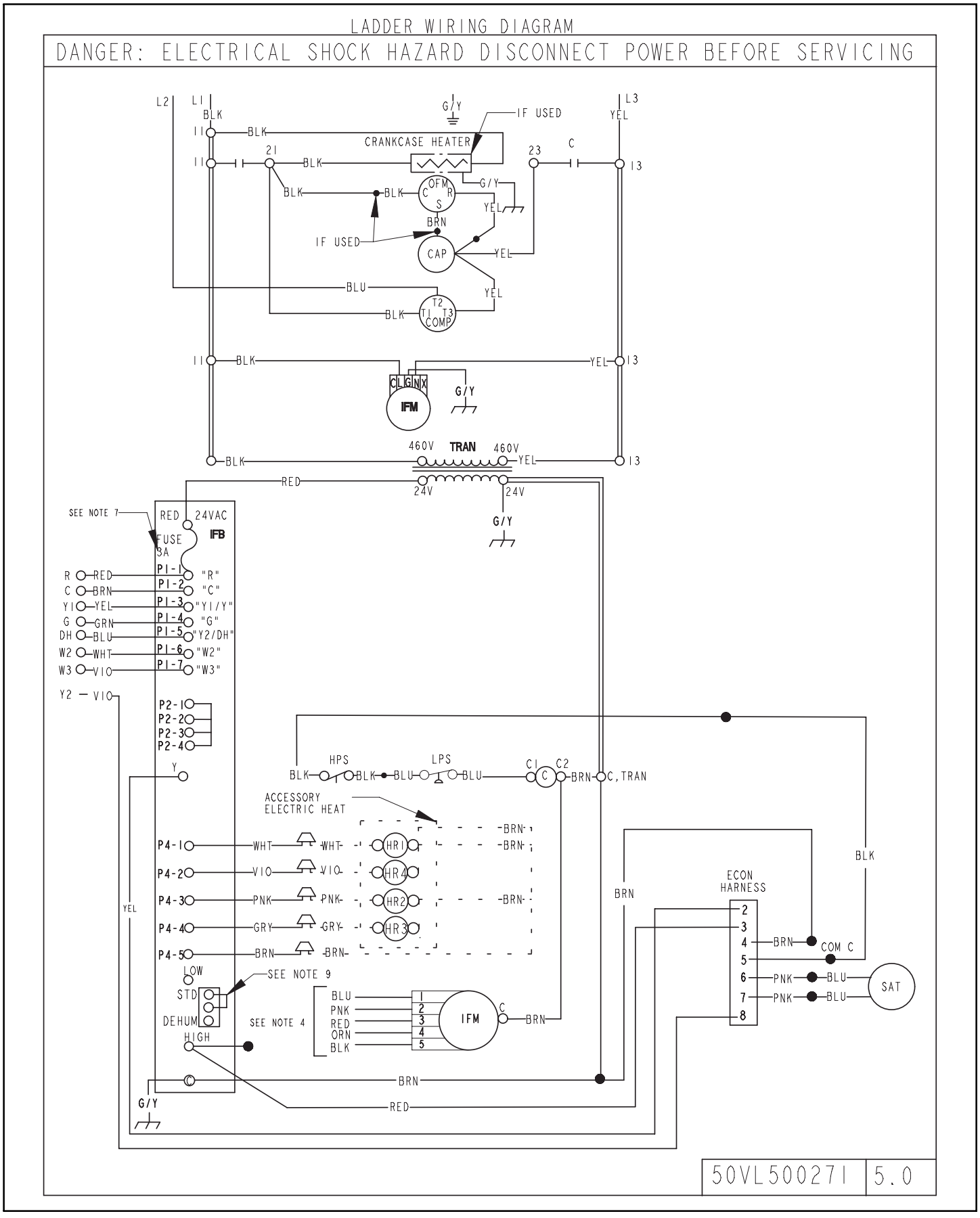
TYPICAL WIRING SCHEMATIC 208/230−3−60



TYPICAL WIRING SCHEMATIC 460−3−60



TYPICAL WIRING SCHEMATIC 460−3−60



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 motor (IFM). The normally open contacts of C close and complete the circuit through compressor motor (COMP) to outdoor (condenser) fan motor (OFM). Both motors start instantly. Simultaneously, 24 volts is supplied through G to the Interface Fan Board (IFB) and to the IFM. The IFM starts instantly.

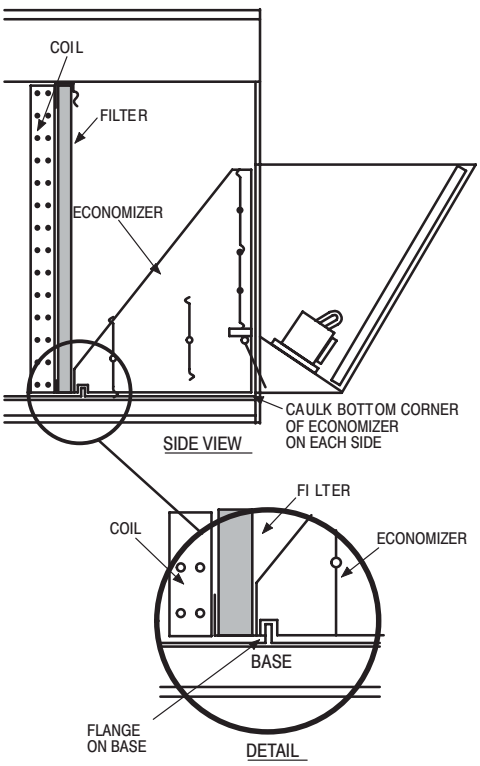
On the loss of the thermostat call for cooling, 24 V is removed from both the “Y” and “G” terminals (provided the fan switch is in the “AUTO” position) de−energizing the compressor contactor and opening the contacts supplying power to compressor/OFM. After a 60−second delay, the IFM shuts off. If the 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.

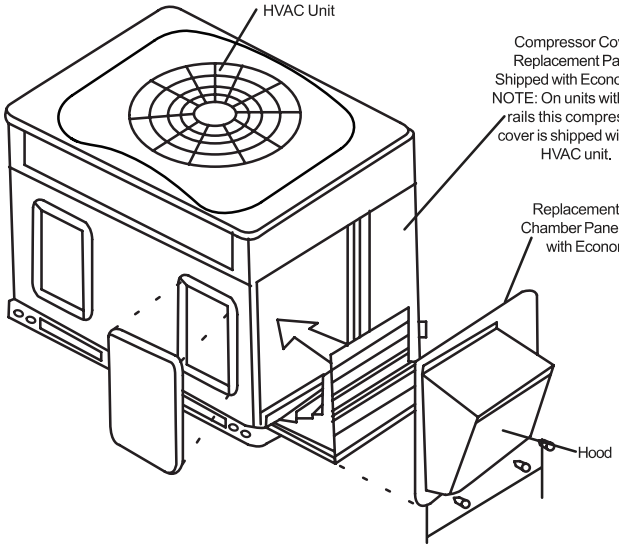
NOTE: On units with an anti-cycle timer: Once the compressor has started and then stopped, it cannot be restarted again until 5 minutes have elapsed.

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 IFM. 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 IFM.

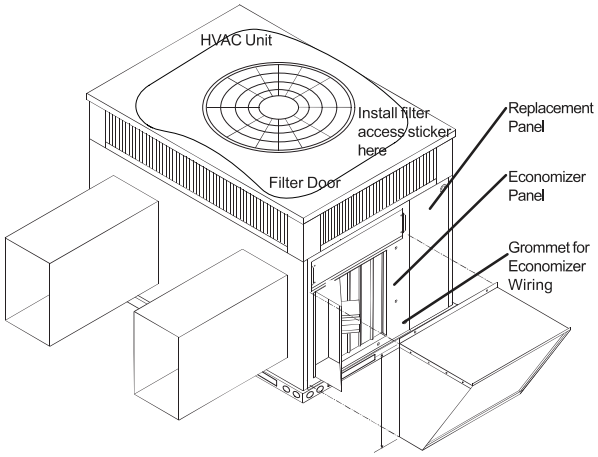
ACCESSORIES

ECONOMIZER



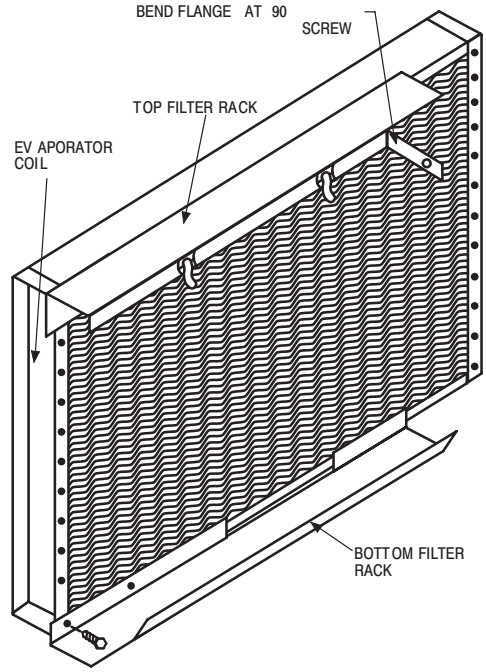


Vertical Economizer

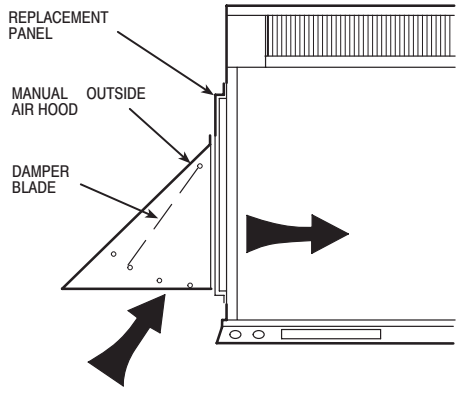


Horizontal Economizer

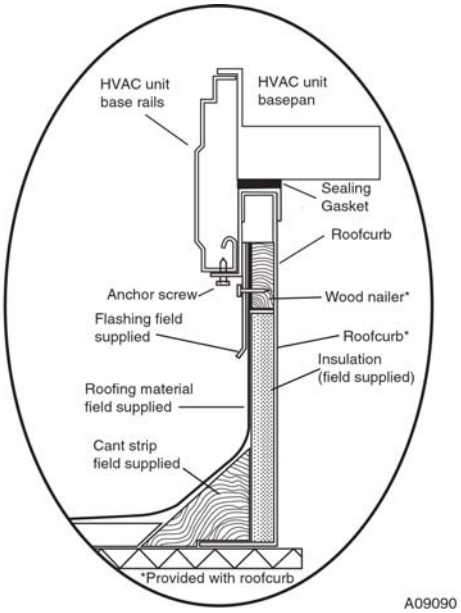
FILTER RACK



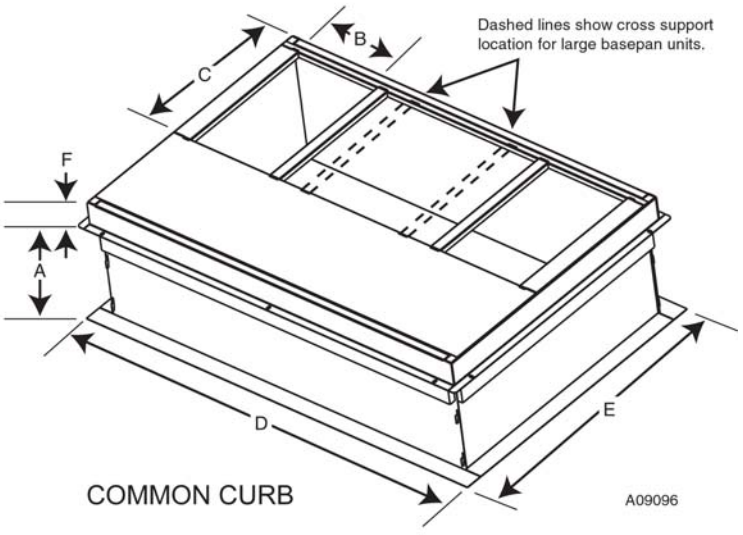
MANUAL OUTSIDE AIR DAMPER

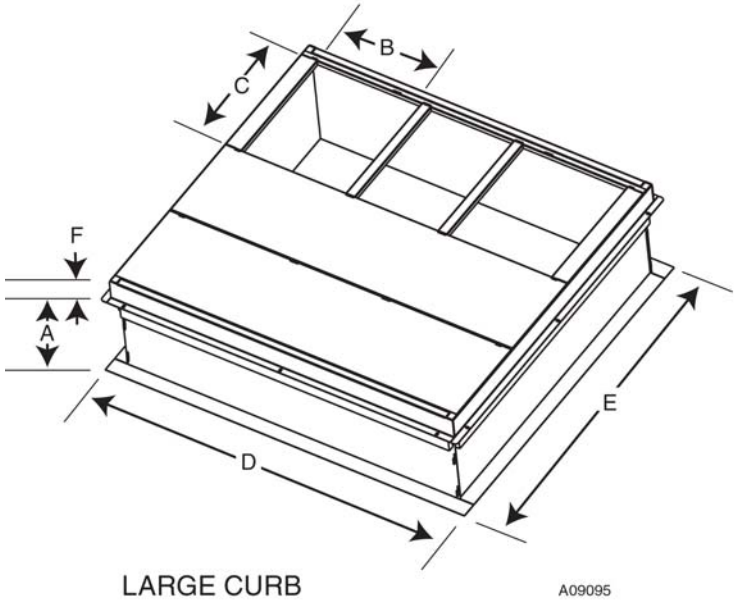


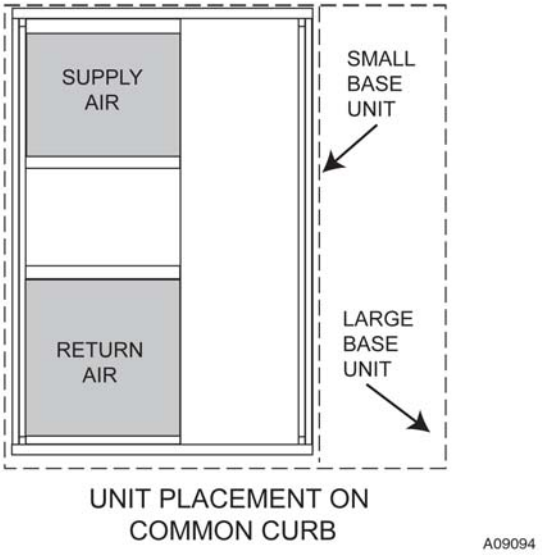
ROOF CURB − PAD330−60



ROOF CURB DETAIL







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.

PAD3 ACCESSORIES (continued)

ROOF CURBS

Model Number	Description	Use With Model Size
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

Model Number	Description	Use With Model Size
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 lock-out 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		

MANUAL FRESH AIR DAMPERS

Model Number	Description	Use With Model Size
CPMANDPR007A00	Manual Outside Air Damper − (Includes filter rack and 1” filter, same as CPFILTRK kit)	30,36
CPMANDPR008A00		42,48
CPMANDPR009A00		60

INTERNAL FILTER RACK and FILTER (shipped with 1” filters)

Model Number	Description	Use With Model Size
CPFILTRK007A00	Internal Filter Rack	30,36
CPFILTRK008A00		42,48
CPFILTRK009A00		60

LOW AMBIENT, ANTI−CYCLE TIMER

Model Number	Description	Use With Model Size
CPLOWAMB001A00	Low ambient Control − enables cooling system to operate down to 0 Deg. F by cycling condenser fan on and off	ALL
NRTIMEGD001A00	5 minute anti−cycle timer (Note: many thermostats have inherent anti−cycle timer logic)	ALL

PAD3 ACCESSORIES (continued)

CRANKCASE HEATER − BELLY BAND TYPE

Model Number	Description	Use With Model Size
NPCRKHTR008A00	240V Crankcase Heater	30, 36
NPCRKHTR004A00	240V Crankcase Heater (included with 60 size models)	42, 48
NPCRKHTR009A00	460V Crankcase Heater	36
NPCRKHTR005A00	460V Crankcase Heater (included with 60 size models)	42, 48

HAIL GUARDS / COIL PROTECTION

NAPA00501GR	3/8” spacing dense wire grilles	30
NAPA00901GR	3/8” spacing dense wire grilles	36
NAPA00601GR	3/8” spacing dense wire grilles	42
NAPA00801GR	3/8” spacing dense wire grilles	48 − 60

ELECTRIC HEATERS	208/240V				
PART NO.	NOMINAL CAPACITY (kW) 208V / 240V	FUSED	# FUSES	STAGES	Use With
EHNA05H0N	3.8 / 5.0	NO	0	1	ALL
EHNA10H0N	7.5 / 10.0	NO	0	2	ALL
EHNA10H6F	7.5 / 10.0	YES	6	2	ALL
EHNA15H0N	11.3 / 15.0	NO	0	2	ALL
EHNA15H6F	11.3 / 15.0	YES	6	2	ALL
EHNA20H6F	15.0 / 20.0	YES	6	2	42 − 60
	460V				
EHNA05L0N	5.0	NO	0	1	ALL
EHNA10L0N	10.0	NO	0	2	ALL
EHNA15L0N	15.0	NO	0	2	ALL
EHNA20L0N	20.0	NO	0	2	42 − 60

DUAL POINT WIRING KIT

Model Number	Description	Use With Model Size
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