

15 SEER, 8.0 HSPF, PACKAGE HEAT PUMP, 2 – 5 TONS 208/230–1–60, Single Phase

REFRIGERATION CIRCUIT

- R-410A refrigerant
- Copper tube/aluminum fin condenser and evaporator coils
- Two stage scroll compressors standard on all models with two stages of cooling and heating
- Short-cycling protection for the compressor is built in the defrost control board

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 with duct covers provided
- Combination electric heating and cooling

BUILT TO LAST

- Hail guard (3/8" spacing) wire grilles standard on PHD5**000KTP models (2" spacing wire grilles on non-tin models)
- Direct drive high efficiency ECM blower motor on all models
- Pre-painted steel cabinet
- Vertical condenser fan discharge
- Full perimeter steel base rails
- High and low pressure switches provide added reliability for the compressor
- Crankcase heaters on all models except 2 ton
- All models available with optional factory installed tin-coated copper evaporator coil (These models are identified with letters TP in the 11th and 12th positions in the model number)

WARRANTY*

- 5 year No Hassle Replacement™ limited warranty for models with tin coated copper evaporator coils
- 5 year parts limited warranty (including compressor and coils)
 - With timely registration, an additional 5 year parts limited warranty (including compressor and coils)

* Applies to original purchaser/homeowner, some limitations may apply. See warranty certificate for complete details.



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



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				Sound Ratings dba †	Unit Dimensions Height x Width x Depth Inches (mm)	Operating Weight lb / kg
	Nominal Tons	Net Capacity High/Low Stage BTU/h	S.E.E.R*	E.E.R**			
PHD524000K000C	2	22,600 / 17,600	15.0	11.4	75	44 ³ / ₄ x48 ³ / ₁₆ x32 ⁵ / ₈ (1137x1224x829)	405 / 184
PHD524000KTP0C	2	22,600 / 17,600	15.0	11.4	75	44 ³ / ₄ x48 ³ / ₁₆ x32 ⁵ / ₈ (1137x1224x829)	405 / 184
PHD536000K000C	3	34,600 / 24,400	15.0	12.0	75	48 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1238x1224x1121)	464 / 211
PHD536000KTP0C	3	34,600 / 24,400	15.0	12.0	75	48 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1238x1224x1121)	464 / 211
PHD548000K000C	4	46,000 / 33,400	15.0	11.0	78	50 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1289x1224x1121)	492 / 223
PHD548000KTP0C	4	46,000 / 33,400	15.0	11.0	78	50 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1289x1224x1121)	492 / 223
PHD560000K000C	5	57,000 / 40,500	14.5	11.0	78	54 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1391x1224x1121)	535 / 243
PHD560000KTP0C	5	57,000 / 40,500	14.5	11.0	78	54 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1391x1224x1121)	535 / 243

UNIT PERFORMANCE DATA (Cont)

Model Number	HEATING				
	High Heat Capacity BTU/h @ 47°F (8.3°C) High/Low Stage	High Heat COP @ 47°F (8.3°C) High/Low Stage	Low Heat Capacity BTU/h @ 17°F (-8.3°C) High/Low Stage	Low Heat COP @ 17°F (-8.3°C) High/Low Stage	HSPF*
PHD524000K000C	20,800 / 16,800	3.3 / 3.2	11,600 / 8,400	2.2 / 1.8	8.0
PHD524000KTP0C	20,800 / 16,800	3.3 / 3.2	11,600 / 8,400	2.2 / 1.8	8.0
PHD536000K000C	33,600 / 23,000	3.4 / 3.4	17,200 / 11,200	2.4 / 1.7	8.0
PHD536000KTP0C	33,600 / 23,000	3.4 / 3.4	17,200 / 11,200	2.4 / 1.7	8.0
PHD548000K000C	45,500 / 32,200	3.3 / 3.5	25,000 / 15,200	2.4 / 1.9	8.0
PHD548000KTP0C	45,500 / 32,200	3.3 / 3.5	25,000 / 15,200	2.4 / 1.9	8.0
PHD560000K000C	56,000 / 39,500	3.2 / 3.3	30,800 / 20,400	2.2 / 1.9	8.0
PHD560000KTP0C	56,000 / 39,500	3.2 / 3.3	30,800 / 20,400	2.2 / 1.9	8.0

* Rated in accordance with U.S. Government DOE (Department of Energy) test procedures and/or AHRI Standards 210/240–2008.

** "A" conditions: 80°F (26.6°C) indoor db/67°F (19.4°C) indoor wb & 95°F (35°C) outdoor db.

† Tested in accordance with AHRI Standard 270–2008 (not listed in AHRI).

MODEL NOMENCLATURE											
MODEL SERIES	1	2	3	4	5,6	7,8,9	10	11,12	13	14	15
	P	H	D	5	36	000	K	00	0	C	1
P = Package H = Heat Pump D = Standard 3 = 13 4 = 14 5 = 15 24 = 24,000 BTUH = 2 Tons 36 = 36,000 BTUH = 3 Tons 48 = 48,000 BTUH = 4 Tons 60 = 60,000 BTUH = 5 Tons 000 = no factory heat K = 208/230-1-60 00 = No options TP = Tin Plated Evaporator Main Tubes 0 = Standard Sales Model Digit Engineering Digit											
TIER SEER NOMINAL COOLING CAPACITY NOMINAL HEATING BTUH (input) VOLTAGE FACTORY INSTALLED OPTIONS FEATURE CODE											

UNIT SPECIFICATIONS – PHD5													
MODEL NUMBER	Electrical Data			Condenser									Sound Ratings (dBA)
				Coil			Fan Motor			Fan			
	208 / 230 Voltage Phase - Hz	HACR Brkr Max Fuse	Minimum Circuit Ampacity	Total Face Area (Sq. Ft.)	Fins Per In. / Rows	Tube Diamete- r (In.)	HP	Full Load Amps	Locked Rotor Amps	Size Diameter (In.)	RPM (Max.)	CFM (Design)	
PHD524000K000C	1–60	35 amps.	24.1	13.6	21 / 2	3 / 8	1 / 8	0.9	1.6	22	825	2700	75
PHD536000K000C	1–60	40 amps.	27.8	17.5	21 / 2	3 / 8	1 / 8	0.9	1.7	22	825	2800	75
PHD548000K000C	1–60	60 amps.	43.9	19.4	21 / 2	3 / 8	1 / 4	1.5	3.2	22	1100	3300	78
PHD560000K000C	1–60	60 amps.	43.6	23.3	21 / 2	3 / 8	1 / 3	1.9	3.7	22	1110	3300	78
MODEL NUMBER	Evaporator								Scroll Compressor		Factory Refrigerant Charge R–410A (lbs.)		
	Coil			Motor		Blower							
	Total Face Area (Sq. Ft.)	Fins Per In. / Rows	Tube Diam. (In.)	HP	Full Load Amps	Size	CFM Rated	Rated Load Amps	Locked Rotor Amps				
PHD524000K000C	3.7	17 / 3	3 / 8	1/2	4.1	10 x 10	800	15.3	52.0	10.3			
PHD536000K000C	4.7	17 / 3	3 / 8	3/4	6.0	11 x 10	1200	16.7	82.0	9.7			
PHD548000K000C	5.7	17 / 3	3 / 8	1.0	7.6	11 x 10	1600	27.8	96.0	15.5			
PHD560000K000C	5.7	17 / 4	3 / 8	1.0	7.6	11 x 10	1850	27.3	118.0	16.0			
UNIT SPECIFICATIONS				PHD524		PHD536		PHD548		PHD560			
HIGH-PRESSURE SWITCH (psig) Cutout Reset (Auto)				670±15 470±25									
LOSS-OF-CHARGE/LOW-PRESSURE SWITCH (Liquid Line) (psig) Cutout Reset (Auto)				23±5 55±5									
RETURN-AIR FILTERS* Throwaway in. (mm)				20x24x1 (508x610x25)		24x30x1 (610x762x25)		24x36x1 (610x914x25)					

A-WEIGHTED SOUND POWER LEVEL (dBA)

MODEL	SOUND RATING	TYPICAL OCTAVE BAND SPECTRUM (without tone adjustment)						
		125	250	500	1000	2000	4000	8000
PHD524000K000C	75	58.8	63.5	67.2	66.9	63.7	58.3	50.0
PHD536000K000C	75	63.7	63.3	66.8	66.5	64.2	60.3	53.0
PHD548000K000C	78	69.9	69.9	71.3	73.4	70.0	66.3	60.1
PHD560000K000C	78	67.6	67.6	71.8	75.5	71.0	68.1	59.9

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

Dry Coil Air Delivery* – Horizontal Discharge CFM

Unit (Voltage)	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
PHD524 (208/230–1–60)	Low ¹	Blue	659	551	440	335	---	---	---	---	---
	Med-Low	Pink	726	625	537	407	---	---	---	---	---
	Medium ²	Red	907	837	759	679	588	474	343	---	---
	Med-High	Orange	953	870	807	718	652	528	443	---	---
PHD536 (208/230–1–60)	High	Black	1179	1118	1061	996	942	864	794	718	619
	Low ¹	Blue	921	740	448	---	---	---	---	---	---
	Med-Low	Pink	1019	849	603	479	---	---	---	---	---
	Medium	Red	1272	1203	1150	1097	1054	996	937	881	841
PHD548 (208/230–1–60)	Med-High ²	Orange	1321	1258	1212	1168	1114	1075	1009	856	904
	High	Black	1478	1426	1387	1334	1292	1247	1212	1148	1108
	Low ¹	Blue	1201	1159	1101	1062	1004	957	897	852	793
	Med-Low	Pink	1419	1364	1318	1258	1214	1160	1118	1053	1009
PHD560 (208/230–1–60)	Medium ²	Red	1678	1635	1602	1558	1513	1474	1438	1404	1349
	Med-High	Orange	1916	1881	1846	1810	1761	1722	1681	1647	1600
	High	Black	2093	2051	2024	1967	1947	1907	1854	1826	1749
	Low ¹	Blue	1320	1256	1211	1142	1096	1028	973	903	835
PHD560 (208/230–1–60)	Med-Low	Pink	1351	1295	1258	1212	1170	1124	1080	1036	992
	Medium ²	Red	1824	1782	1742	1711	1673	1641	1607	1563	1490
	Med-High	Orange	2001	1958	1923	1883	1831	1776	1705	1624	1538
	High	Black	2292	2238	2158	2049	1935	1840	1732	1635	1513

* Air delivery values are without air filter and are for dry coil (See PHD5 Wet Coil Pressure Drop Table).

¹ Factory–shipped low stage cooling speed

² Factory–shipped high stage cooling speed

NOTE: Deduct field–supplied air filter pressure drop and wet coil pressure drop to obtain external static pressure available for ducting.

ELECTRIC HEATER ELECTRICAL DATA

MODEL PHD5	NOMINAL V–PH–HZ	VOLTAGE RANGE		ELECTRIC HEAT		POWER SUPPLY	
		MIN	MAX	NOMINAL kW 208v/230v	Full Load Ampacity 208v/230v	Minimum Circuit Ampacity 208v/230v	Maximum Over– Current Protection 208v/230v
24	208 / 230–1–60	187	253	3.8 / 5	18.1 / 20.8	46.8 / 50.1	50 / 60
				5.4 / 7.2	25.9 / 30	56.5 / 61.6	60 / 70
				7.5 / 10	36.1 / 41.7	69.3 / 76.3	70 / 80
36	208 / 230–1–60	187	253	3.8 / 5	18.1 / 20.8	50.4 / 53.8	60 / 60
				5.4 / 7.2	25.9 / 30	60.2 / 65.3	70 / 70
				7.5 / 10	36.1 / 41.7	72.9 / 79.9	80 / 80
48	208 / 230–1–60	187	253	11.3 / 15	54.2 / 62.5	95.5 / 105.9	100 / 110
				3.8 / 5	18.1 / 20.8	66.5 / 69.9	70 / 70
				5.4 / 7.2	25.9 / 30	76.2 / 81.4	80 / 90
60	208 / 230–1–60	187	253	7.5 / 10	36.1 / 41.7	89.0 / 96.0	90 / 100
				11.3 / 15	54.2 / 62.5	111.6 / 122.0	125 / 125
				15 / 20	72.2 / 83.3	134.1 / 148.0	150 / 150
60	208 / 230–1–60	187	253	3.8 / 5	18.1 / 20.8	66.3 / 69.6	70 / 70
				5.4 / 7.2	25.9 / 30	76.0 / 81.1	80 / 90
				7.5 / 10	36.1 / 41.7	88.8 / 95.8	90 / 100
60	208 / 230–1–60	187	253	11.3 / 15	54.2 / 62.5	111.4 / 121.8	125 / 125
				15 / 20	72.2 / 83.3	133.9 / 147.8	150 / 150

PERFORMANCE DATA-STANDARD ECM INDOOR MOTOR

Cooling Extended Performance Table

PHD524 High Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																		
		75 (23.8 °C)			85 (29.4 °C)			95 (35 °C)			105 (40.5 °C)			115 (46.1 °C)			125 (51.6 °C)			
CFM	EWB	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		
700		57	21.77	21.77	1.61	20.88	20.88	1.79	19.95	19.95	2.00	18.94	18.94	2.23	17.86	17.86	2.48	16.66	16.66	2.77
		62	22.40	18.69	1.61	21.29	18.21	1.80	20.13	17.70	2.00	18.95	18.95	2.23	17.86	17.86	2.48	16.66	16.66	2.77
		63	22.85	15.18	1.62	21.71	14.70	1.80	20.52	14.21	2.01	19.25	13.70	2.23	17.90	13.16	2.48	16.42	12.58	2.77
		67	24.66	15.72	1.64	23.44	15.24	1.83	22.15	14.75	2.03	20.79	14.24	2.26	19.34	13.70	2.51	17.74	13.12	2.79
		72	27.16	12.75	1.67	25.83	12.28	1.86	24.42	11.80	2.06	22.94	11.29	2.29	21.33	10.76	2.54	19.57	10.18	2.83
800		57	22.76	22.76	1.64	21.81	21.81	1.82	20.81	20.81	2.03	19.74	19.74	2.26	18.58	18.58	2.51	17.29	17.29	2.80
		62	22.97	20.16	1.64	21.84	21.76	1.82	20.81	20.81	2.03	19.74	19.74	2.26	18.58	18.58	2.51	17.29	17.29	2.80
		63	23.39	16.20	1.64	22.19	15.71	1.83	20.94	15.21	2.03	19.62	14.69	2.26	18.22	14.14	2.51	16.69	13.54	2.79
		67	25.22	16.81	1.67	23.94	16.32	1.85	22.60	15.82	2.05	21.18	15.30	2.28	19.67	14.74	2.53	18.01	14.14	2.82
		72	27.77	13.43	1.70	26.37	12.96	1.88	24.90	12.48	2.09	23.35	11.95	2.31	21.66	11.41	2.57	20.60	11.05	2.57

PHD524 Low Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																		
		75 (23.8 °C)			85 (29.4 °C)			95 (35 °C)			105 (40.5 °C)			115 (46.1 °C)			125 (51.6 °C)			
CFM	EWB	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total
525		57	16.65	16.65	1.05	15.95	15.95	1.20	15.21	15.21	1.37	14.40	14.40	1.57	13.52	13.52	1.80	12.55	12.55	2.07
		62	17.20	14.47	1.06	16.29	14.07	1.21	15.34	13.65	1.37	14.40	14.40	1.57	13.52	13.52	1.80	12.55	12.55	2.07
		63	17.61	11.75	1.06	16.69	11.36	1.21	15.70	10.96	1.38	14.64	10.53	1.57	13.50	10.07	1.80	12.27	9.58	2.06
		67	19.23	12.26	1.08	18.23	11.87	1.22	17.18	11.47	1.39	16.05	11.03	1.58	14.83	10.58	1.81	13.50	10.09	2.07
		72	21.48	10.05	1.09	20.41	9.66	1.24	19.26	9.26	1.41	18.02	8.84	1.60	16.69	8.39	1.83	15.24	7.90	2.09
600		57	17.52	17.52	1.08	16.77	16.77	1.23	15.96	15.96	1.39	15.10	15.10	1.59	14.15	14.15	1.82	13.11	13.11	2.09
		62	17.71	15.66	1.08	16.78	16.75	1.23	15.96	15.96	1.39	15.10	15.10	1.59	14.15	14.15	1.82	13.12	13.12	2.09
		63	18.10	12.58	1.08	17.12	12.18	1.23	16.09	11.76	1.39	14.98	11.32	1.59	13.80	10.85	1.81	12.51	10.35	2.08
		67	19.75	13.14	1.09	18.71	12.74	1.24	17.60	12.32	1.41	16.41	11.88	1.60	15.14	11.41	1.83	13.76	10.91	2.09
		72	22.06	10.61	1.11	20.93	10.21	1.26	19.72	9.80	1.43	18.41	9.36	1.62	17.03	8.91	1.85	15.51	8.41	2.11

PERFORMANCE DATA-STANDARD ECM INDOOR MOTOR

Heating Extended Performance Table

PHD524 High Heat

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F											
		-10 (-23.3°C)				0 (-17.7°C)				10 (-12.2°C)			
		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW	
EDB	CFM	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ
60	700	4.21	3.88	1.12	6.40	5.89	1.21	9.38	8.61	11.90	10.85	14.22	12.90
	800	4.24	3.90	1.11	6.47	5.95	1.20	9.46	8.69	11.94	10.89	14.27	12.94
	700	3.97	3.65	1.25	6.12	5.63	1.35	9.01	8.27	11.51	10.49	12.36	11.21
70	800	4.02	3.70	1.24	6.20	5.71	1.34	9.12	8.37	11.60	10.58	12.46	11.30
	700	3.77	3.47	1.38	5.83	5.36	1.49	8.62	7.91	11.03	10.06	11.85	10.75
	800	3.82	3.51	1.38	5.91	5.43	1.48	8.74	8.02	11.17	10.19	12.00	10.88
80	700												
	800												

PHD524 High Heat Cont.

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F											
		30 (-1.1°C)				40 (4.4°C)				47 (8.3°C)			
		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW	
EDB	CFM	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ
60	700	16.65	14.60	1.58	19.30	19.30	1.69	21.15	21.15	22.00	22.00	25.14	25.14
	800	16.84	14.76	1.53	19.36	19.36	1.61	21.27	21.27	22.16	22.16	25.40	25.40
	700	16.03	14.05	1.62	18.69	18.69	1.86	20.68	20.68	21.51	21.51	24.54	24.54
70	800	16.25	14.24	1.68	18.95	18.95	1.79	20.80	20.80	21.65	21.65	24.82	24.82
	700	14.91	13.06	1.89	17.97	17.97	2.03	20.04	20.04	20.96	20.96	23.91	23.91
	800	15.10	13.23	1.84	18.27	18.27	1.96	20.30	20.30	21.13	21.13	24.20	24.20
80	700												
	800												

LEGEND

Cap.— Heating Capacity (1000 Btuh) (Includes Indoor–Fan Motor Heat)

db — Dry Bulb

kW — Total Power Input (Includes Compressor Motor Power Input Outdoor–Fan Motor Input, and Indoor–Fan Motor Input)

rh — Relative Humidity

NOTES:

Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA-STANDARD ECM INDOOR MOTOR

Heating Extended Performance Table

PHD524 Low Heat

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F															
		-10 (-23.3°C)			0 (-17.7°C)			10 (-12.2°C)			17 (-8.3°C)			20 (-6.6°C)			
		Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	
EDB	CFM	Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		
60	525	2.95	2.72		1.05	4.89	4.50		1.11	7.22	6.63		1.18	8.74	7.97		1.24
	600	2.99	2.75		1.04	4.97	4.58		1.09	7.31	6.71		1.17	8.89	8.11		1.22
70	525	2.81	2.59		1.22	4.72	4.34		1.29	6.73	6.18		1.35	8.26	7.53		1.40
	600	2.87	2.64		1.21	4.80	4.41		1.28	6.87	6.30		1.34	8.40	7.66		1.38
80	525	2.61	2.41		1.37	4.45	4.09		1.46	6.26	5.75		1.52	7.78	7.10		1.57
	600	2.66	2.46		1.36	4.53	4.16		1.44	6.38	5.86		1.51	7.92	7.22		1.56

PHD524 Low Heat (Cont.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F																			
		30 (−1.1°C)				40 (4.4°C)				47 (8.3°C)				50 (10°C)				60 (15.5°C)			
		Capacity MBtuh		Total System KW	Total System KW	Capacity MBtuh		Total System KW	Total System KW	Capacity MBtuh		Total System KW	Total System KW	Capacity MBtuh		Total System KW	Total System KW				
Total	Integ	Total	Integ	Total		Integ	Total	Integ		Total	Integ	Total		Integ	Total	Integ					
60	525	12.17	10.66	1.30	15.20	15.20	1.37	17.28	17.28	1.41	18.16	18.16	1.44	19.43	19.43	1.44					
	600	12.37	10.84	1.27	15.22	15.22	1.33	16.79	16.79	1.37	16.85	16.85	1.36	16.78	16.78	1.29					
70	525	11.60	10.17	1.46	14.55	14.55	1.54	16.84	16.84	1.61	17.86	17.86	1.64	20.96	20.96	1.71					
	600	11.80	10.34	1.43	14.80	14.80	1.50	16.80	16.80	1.54	17.64	17.64	1.57	18.39	18.39	1.53					
80	525	11.00	9.64	1.64	13.91	13.91	1.72	16.15	16.15	1.79	17.17	17.17	1.83	20.53	20.53	1.91					
	600	11.21	9.83	1.61	14.16	14.16	1.68	16.40	16.40	1.74	17.36	17.36	1.77	20.33	20.33	1.85					

LEGEND

Cap.— Heating Capacity (1000 Btuh) (Includes Indoor—Fan Motor Heat)

db — Dry Bulb

kW — Total Power Input (Includes Compressor Motor Power Input Outdoor—Fan Motor Input, and Indoor—Fan Motor Input)

rh — Relative Humidity

NOTES:

Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA-STANDARD ECM INDOOR MOTOR

Cooling Extended Performance Table

PHD536 High Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F											
		75 (23.8°C)				85 (29.4°C)				95 (35°C)			
		Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
CFM	EWB	Total	Sens		Total	Sens		Total	Sens		Total	Sens	
1050	57	33.64	33.64	2.28	32.32	32.32	2.53	30.90	30.90	2.81	29.36	29.36	3.11
	62	34.47	28.72	2.29	32.83	28.00	2.54	31.11	27.24	2.81	29.36	29.36	3.11
	63	35.12	23.25	2.29	33.44	22.56	2.54	31.65	21.83	2.81	29.73	21.07	3.12
	67	37.76	24.04	2.32	35.94	23.34	2.57	34.00	22.61	2.84	31.91	21.83	3.15
	73	42.16	18.41	2.37	40.12	17.73	2.62	37.93	17.01	2.90	35.58	16.24	3.20
1200	57	35.06	35.06	2.32	33.64	33.64	2.58	32.12	32.12	2.85	30.46	30.46	3.16
	62	35.29	30.91	2.33	33.64	33.64	2.58	32.12	32.12	2.85	30.46	30.46	3.16
	63	35.86	24.79	2.33	34.09	24.08	2.58	32.22	23.34	2.85	30.23	22.56	3.15
	67	38.52	25.68	2.36	36.62	24.97	2.61	34.60	24.22	2.88	32.43	23.43	3.19
	73	42.99	19.31	2.41	40.85	18.61	2.66	38.57	17.87	2.93	36.13	17.09	3.24

PHD536 Low Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F											
		75 (23.8°C)				85 (29.4°C)				95 (35°C)			
		Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
CFM	EWB	Total	Sens		Total	Sens		Total	Sens		Total	Sens	
745	57	23.27	23.27	1.46	22.34	22.34	1.65	21.31	21.31	1.87	20.19	20.19	2.12
	62	23.91	20.06	1.46	22.70	19.54	1.65	21.41	18.97	1.87	20.19	20.19	2.12
	63	24.46	16.28	1.47	23.21	15.77	1.66	21.87	15.23	1.87	20.42	14.65	2.12
	67	26.63	16.96	1.48	25.29	16.45	1.67	23.85	15.90	1.89	22.28	15.32	2.14
	72	29.67	13.86	1.51	28.20	13.35	1.70	26.61	12.81	1.91	24.89	12.23	2.16
850	57	24.45	24.45	1.48	23.43	23.43	1.67	22.33	22.33	1.89	21.11	21.11	2.14
	62	24.61	21.68	1.48	23.43	23.43	1.67	22.33	22.33	1.89	21.12	21.12	2.14
	63	25.11	17.42	1.49	23.80	16.89	1.68	22.39	16.34	1.89	20.88	15.74	2.14
	67	27.33	18.17	1.50	25.92	17.64	1.69	24.40	17.08	1.91	22.76	16.48	2.15
	72	30.44	14.64	1.53	28.89	14.12	1.71	27.21	13.55	1.93	25.40	12.96	2.17

PERFORMANCE DATA-STANDARD ECM INDOOR MOTOR

Heating Extended Performance Table

PHD536 High Heat

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F														
		-10 (-23.3°C)			0 (-17.7°C)			10 (-12.2°C)			17 (-8.3°C)			20 (-6.6°C)		
		Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
EDB	CFM	Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ	
60	1050	8.62	7.93	1.43	11.33	10.43	1.60	14.73	13.52	1.78	17.57	16.02	1.92	18.91	17.15	1.99
	1200	8.70	8.01	1.43	11.45	10.53	1.59	14.88	13.66	1.77	17.76	16.19	1.90	19.11	17.33	1.97
	1050	8.34	7.68	1.59	11.02	10.14	1.77	14.26	13.09	1.97	16.99	15.49	2.12	18.32	16.61	2.19
70	1200	8.44	7.77	1.59	11.14	10.25	1.77	14.42	13.24	1.96	17.20	15.68	2.10	18.53	16.81	2.17
	1050	7.96	7.32	1.74	10.60	9.76	1.95	13.78	12.65	2.17	16.38	14.93	2.33	17.63	15.99	2.40
80	1200	8.07	7.43	1.74	10.74	9.88	1.94	13.93	12.79	2.15	16.59	15.12	2.31	17.86	16.19	2.38

PHD536 High Heat (Cont.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F														
		30 (−1.1°C)			40 (4.4°C)			47 (8.3°C)			50 (10°C)			60 (15.5°C)		
		Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
EDB	CFM	Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ	
60	1050	23.95	20.99	2.22	29.99	29.99	2.51	34.51	34.51	2.69	36.57	36.57	2.79	43.09	43.09	3.12
	1200	24.20	21.21	2.20	30.20	30.20	2.45	34.82	34.82	2.67	36.95	36.95	2.74	43.39	43.39	2.88
70	1050	23.16	20.29	2.44	28.99	28.99	2.73	33.82	33.82	2.98	35.98	35.98	3.08	42.90	42.90	3.44
	1200	23.44	20.54	2.41	29.28	29.28	2.71	33.60	33.60	2.90	35.59	35.59	3.00	43.10	43.10	3.30
80	1050	22.38	19.61	2.67	28.03	28.03	2.99	32.65	32.65	3.24	34.87	34.87	3.37	42.66	42.66	3.75
	1200	22.66	19.86	2.64	28.36	28.36	2.94	33.00	33.00	3.21	34.97	34.97	3.29	42.80	42.80	3.69

PERFORMANCE DATA-STANDARD ECM INDOOR MOTOR

Heating Extended Performance Table

PHD536 Low Heat

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F											
		-10 (-23.3°C)				0 (-17.7°C)				10 (-12.2°C)			
		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW	
EDB	CFM	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ
60	745	3.84	3.53	1.62	6.63	6.10	1.68	9.48	8.70	11.69	10.66	12.69	11.51
	850	3.91	3.60	1.62	6.71	6.17	1.67	9.61	8.82	11.84	10.80	12.85	11.66
	745	3.10	2.86	1.82	5.88	5.41	1.89	8.83	8.10	11.03	10.06	12.02	10.90
70	850	3.23	2.98	1.82	6.01	5.53	1.89	8.98	8.24	11.20	10.21	12.20	11.07
	745	2.22	2.05	2.03	5.00	4.60	2.10	8.01	7.35	10.24	9.33	11.23	10.18
80	850	2.34	2.16	2.04	5.12	4.71	2.11	8.17	7.49	10.42	9.50	11.42	10.36

PHD536 Low Heat(Cont.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F											
		30 (-1.1°C)				40 (4.4°C)				47 (8.3°C)			
		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW	
EDB	CFM	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ
60	745	16.25	14.24	1.78	20.33	20.33	1.81	23.56	23.56	25.01	25.01	30.27	30.27
	850	16.46	14.42	1.74	20.70	20.70	1.76	23.96	23.96	25.46	25.46	30.88	30.88
	745	15.55	13.62	1.99	19.45	19.45	2.02	22.61	22.61	24.02	24.02	29.09	29.09
70	850	15.78	13.82	1.95	19.78	19.78	1.97	23.00	23.00	24.44	24.44	29.68	29.68
	745	14.74	12.91	2.22	18.60	18.60	2.26	21.56	21.56	22.94	22.94	27.95	27.95
80	850	14.98	13.13	2.18	18.90	18.90	2.20	21.95	21.95	23.44	23.44	28.50	28.50

LEGEND

Cap.— Heating Capacity (1000 Btuh) (Includes Indoor—Fan Motor Heat)

db — Dry Bulb

kW — Total Power Input (Includes Compressor Motor Power Input Outdoor—Fan Motor Input, and Indoor—Fan Motor Input)

rh — Relative Humidity

NOTES:

Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA-STANDARD ECM INDOOR MOTOR

Cooling Extended Performance Table

PHD548 High Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																	
		75 (23.8°C)			85 (29.4°C)			95 (35°C)			105 (40.5°C)			115 (46.1°C)			125 (51.6°C)		
CFM	EWB	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
1400	57	44.39	44.39	3.40	42.70	42.70	3.71	40.87	40.87	4.05	38.88	38.88	4.43	36.67	36.67	4.84	34.16	34.16	5.30
	62	45.43	38.20	3.41	43.33	37.29	3.72	41.11	36.31	4.05	38.87	38.87	4.43	36.67	36.67	4.84	35.30	35.30	4.84
	63	46.29	30.85	3.42	44.11	29.95	3.73	41.79	29.00	4.06	39.28	28.00	4.43	36.54	26.91	4.84	33.51	25.73	5.29
	67	50.04	32.01	3.46	47.71	31.11	3.77	45.21	30.16	4.11	42.50	29.14	4.48	41.00	28.60	4.43	36.24	26.85	5.34
	72	55.24	25.88	3.53	52.68	24.98	3.84	49.93	24.04	4.18	46.96	23.04	4.55	45.43	22.53	4.52	40.04	20.75	5.41
1600	57	46.32	46.32	3.48	44.10	44.10	3.79	42.54	42.54	4.13	40.41	40.41	4.51	38.04	38.04	4.92	36.62	36.62	4.93
	62	46.57	41.09	3.48	44.43	44.43	3.79	42.54	42.54	4.13	41.40	41.40	4.51	38.04	38.04	4.92	36.61	36.61	4.93
	63	47.25	32.81	3.49	44.97	31.89	3.80	42.55	30.92	4.13	39.95	29.90	4.50	37.11	28.80	4.91	33.97	27.59	5.36
	67	51.07	34.10	3.53	48.62	33.18	3.84	46.00	32.20	4.18	43.19	31.17	4.55	40.12	30.06	4.96	38.36	29.43	4.97
	72	56.36	27.17	3.60	53.67	26.25	3.91	50.80	25.29	4.25	47.69	24.26	4.62	44.30	23.15	5.03	42.55	22.59	5.06

PHD548 Low Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																	
CFM	EWB	75 (23.8 °C)			85 (29.4 °C)			95 (35 °C)			105 (40.5 °C)			115 (46.1 °C)			125 (51.6 °C)		
		Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
965	57	31.49	31.49	2.22	30.30	30.30	2.49	29.02	29.02	2.78	27.63	27.63	3.12	26.10	26.10	3.51	24.40	24.40	3.96
	62	32.49	27.41	2.21	30.96	26.74	2.48	29.34	26.03	2.78	27.64	27.57	3.12	26.10	26.10	3.51	24.40	24.40	3.97
	63	33.19	22.28	2.21	31.62	21.62	2.48	29.95	20.92	2.78	28.14	20.18	3.12	26.19	19.39	3.52	24.04	18.53	3.97
	67	36.14	23.21	2.21	34.45	22.54	2.47	32.65	21.84	2.77	30.72	21.10	3.10	28.62	20.30	3.49	26.31	19.44	3.94
	72	40.19	19.02	2.21	38.34	18.36	2.46	36.37	17.67	2.75	34.25	16.93	3.08	31.95	16.14	3.46	29.40	15.29	3.90
1100	57	33.04	33.04	2.24	31.76	31.76	2.50	30.39	30.39	2.80	28.90	28.90	3.13	27.27	27.27	3.52	25.45	25.45	3.97
	62	33.42	29.57	2.23	31.85	28.86	2.50	30.39	30.39	2.80	28.90	28.90	3.13	27.27	27.27	3.52	25.45	25.45	3.97
	63	34.05	23.76	2.23	32.40	23.08	2.50	30.64	22.37	2.80	28.77	21.61	3.14	26.73	20.81	3.53	24.50	19.92	3.99
	67	37.06	24.78	2.23	35.29	24.10	2.49	33.40	23.38	2.78	31.39	22.62	3.12	29.20	21.81	3.51	26.79	20.93	3.95
	72	41.21	20.03	2.23	39.26	19.35	2.48	37.19	18.64	2.77	34.96	17.88	3.10	32.54	17.07	3.48	29.89	16.19	3.92

Heating Extended Performance Table

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F																	
		-10 (-23.3°C)				0 (-17.7°C)				10 (-12.2°C)				17 (-8.3°C)				20 (-6.6°C)	
EDB	CFM	Capacity MBTuh		Total System KW	Capacity MBTuh		Total System KW	Capacity MBTuh		Total System KW	Capacity MBTuh		Total System KW	Capacity MBTuh		Total System KW			
		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ				
60	1400	13.33	12.27	2.19	17.37	15.98	2.40	21.89	20.10	2.63	25.47	23.23	2.80	27.14	24.61	2.88			
	1600	13.53	12.45	2.21	17.59	16.18	2.42	22.14	20.32	2.64	25.78	23.51	2.80	27.47	24.92	2.88			
	1400	12.92	11.71	2.39	16.74	15.40	2.62	21.24	19.50	2.87	24.70	22.52	3.05	26.27	23.83	3.13			
	1600	12.74	11.91	2.41	16.98	15.62	2.64	21.52	19.75	2.88	25.00	22.79	3.05	26.61	24.14	3.13			
70	1400	11.86	10.91	2.58	15.90	14.63	2.84	20.40	18.73	3.11	23.85	21.74	3.31	25.40	23.04	3.40			
	1600	12.09	11.12	2.61	16.17	14.88	2.86	20.70	19.00	3.12	24.18	22.05	3.31	25.75	23.36	3.40			

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F																	
		30 (−1.1 °C)				40 (4.4 °C)				47 (8.3 °C)				50 (10 °C)				60 (15.5 °C)	
EDB	CFM	Capacity MBTuh		Total System KW	Capacity MBTuh		Total System KW	Capacity MBTuh		Total System KW	Capacity MBTuh		Total System KW	Capacity MBTuh		Total System KW			
		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ				
60	1400	33.39	29.26	3.16	40.69	40.69	3.49	46.59	46.59	3.77	49.36	49.36	3.91	58.12	58.12	4.29			
	1600	33.83	29.64	3.15	41.16	41.16	3.48	46.62	46.62	3.72	49.42	49.42	3.83	58.16	58.16	4.22			
	1400	32.29	28.29	3.43	39.25	39.25	3.77	44.95	44.95	4.05	47.65	47.65	4.19	57.17	57.17	4.65			
70	1600	32.73	28.68	3.41	39.82	39.82	3.74	45.50	45.50	4.04	48.12	48.12	4.17	57.23	57.23	4.57			
	1400	31.08	27.23	3.71	37.81	37.81	4.07	43.28	43.28	4.37	45.87	45.87	4.51	55.65	55.65	5.07			
80	1600	31.53	27.62	3.69	38.39	38.39	4.04	43.94	43.94	4.33	46.54	46.54	4.48	55.70	55.70	4.92			

maximum capacity

PERFORMANCE DATA-STANDARD ECM INDOOR MOTOR

Heating Extended Performance Table

PHD548 Low Heat

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F																			
		-10 (-23.3°C)				0 (-17.7°C)				10 (-12.2°C)				17 (-8.3°C)				20 (-6.6°C)			
		Capacity MBtuh		Total System KW	Total System KW	Capacity MBtuh		Total System KW	Total System KW	Capacity MBtuh		Total System KW	Total System KW	Capacity MBtuh		Total System KW	Total System KW				
Total	Integ	Total	Integ	Total		Integ	Total	Integ		Total	Integ	Total		Integ	Total	Integ					
60	965	5.86	5.39	1.86	9.04	8.32	1.96	12.71	11.67	2.05	15.64	14.26	2.12	17.00	15.42	2.15					
	1100	5.95	5.47	1.86	9.16	8.42	1.95	12.85	11.79	2.03	15.80	14.41	2.09	17.18	15.58	2.12					
70	965	5.21	4.80	2.08	8.43	7.76	2.19	12.11	11.12	2.30	15.01	13.69	2.37	16.35	14.83	2.41					
	1100	5.32	4.89	2.08	8.56	7.88	2.18	12.27	11.27	2.28	15.20	13.86	2.34	16.55	15.01	2.37					
80	965	4.44	4.09	2.32	7.66	7.05	2.43	11.36	10.42	2.55	14.25	12.99	2.64	15.58	14.13	2.68					
	1100	4.55	4.18	2.33	7.79	7.17	2.43	11.53	10.58	2.54	14.45	13.17	2.61	15.80	14.33	2.64					

PHD548 Low Heat (Cont.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F														
EDB	CFM	30 (−1.1°C)			40 (4.4°C)			47 (8.3°C)			50 (10°C)			60 (15.5°C)		
		Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ	
60	965	21.99	19.27	2.26	27.98	27.98	2.40	32.83	32.83	2.51	35.07	35.07	2.56	43.68	43.68	2.76
	1100	22.24	19.48	2.22	28.40	28.40	2.33	33.33	33.33	2.43	35.65	35.65	2.47	44.63	44.63	2.66
70	965	21.27	18.64	2.53	26.97	26.97	2.66	31.72	31.72	2.78	33.87	33.87	2.84	41.97	41.97	3.05
	1100	21.53	18.87	2.48	27.36	27.36	2.59	32.20	32.20	2.70	34.41	34.41	2.74	42.84	42.84	2.93
80	965	20.45	17.92	2.81	26.04	26.04	2.96	30.48	30.48	3.08	32.72	32.72	3.15	40.41	40.41	3.37
	1100	20.73	18.16	2.76	26.39	26.39	2.89	30.97	30.97	2.99	33.22	33.22	3.04	41.15	41.15	3.24

LEGEND

Cap. — Heating Capacity (1000 Btuh) (Includes Indoor-Fan Motor Heat)

db — Dry Bulb

kW — Total Power Input (Includes Compressor Motor Power Input Outdoor-Fan Motor Input, and Indoor-Fan Motor Input)

rh — Relative Humidity

NOTES:

Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA-STANDARD ECM INDOOR MOTOR

Cooling Extended Performance Table

PHD560 High Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F											
		75 (23.8°C)			85 (29.4°C)			95 (35°C)			105 (40.5°C)		
		Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
2000	CFM												
	EWB												
		58.24	58.24	4.41	55.10	55.10	4.84	54.80	54.80	4.69	52.40	52.40	5.23
		58.46	54.46	4.42	55.79	55.79	4.84	55.36	55.36	4.69	52.73	52.73	5.23
		59.23	43.33	4.42	56.27	42.07	4.85	55.68	41.83	4.69	52.48	40.49	5.22
1750	CFM												
	EWB												
		63.56	44.86	4.50	60.35	43.59	4.92	56.88	42.24	5.38	56.62	42.14	5.33
		69.55	35.33	4.59	66.01	34.07	5.02	62.20	32.73	5.48	58.07	31.30	5.99
		56.01	56.01	4.29	53.76	53.76	4.72	51.30	51.30	5.19	50.80	50.80	5.08
	CFM												
	EWB												
		57.19	50.62	4.31	54.45	49.37	4.73	51.51	48.01	5.19	50.93	47.74	5.08
		58.18	40.75	4.32	55.35	39.51	4.74	52.28	38.20	5.20	51.66	37.95	5.10
		62.48	42.11	4.39	59.41	40.86	4.81	57.00	39.90	5.18	55.71	39.39	5.21
	CFM												
	EWB												
		68.41	33.69	4.48	65.01	32.46	4.91	61.35	31.14	5.37	57.37	29.72	5.88

PHD560 Low Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F											
		75 (23.8°C)			85 (29.4°C)			95 (35°C)			105 (40.5°C)		
		Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
1200	CFM												
	EWB												
		39.88	39.88	2.70	38.34	38.34	3.04	36.64	36.64	3.43	34.74	34.74	3.87
		40.94	35.96	2.69	39.01	35.09	3.04	36.90	34.14	3.43	34.90	34.90	3.87
		41.76	29.14	2.69	39.78	28.27	3.04	37.61	27.34	3.42	35.23	26.33	3.87
	CFM												
	EWB												
		45.04	30.17	2.68	42.87	29.29	3.02	40.50	28.35	3.40	37.91	27.31	3.84
		49.59	24.40	2.68	47.18	23.52	3.01	44.52	22.56	3.38	41.68	21.55	3.80
		41.69	41.69	2.72	40.00	40.00	3.07	37.90	37.90	3.45	35.45	35.45	3.89
	CFM												
	EWB												
		41.98	38.83	2.72	40.02	40.02	3.07	38.18	38.18	3.45	36.13	36.13	3.89
		42.72	31.09	2.72	40.63	30.20	3.07	38.35	29.24	3.45	35.86	28.21	3.89
		46.03	32.23	2.72	43.75	31.34	3.05	41.27	30.36	3.43	38.55	29.32	3.86
	CFM												
	EWB												
		50.62	25.68	2.71	48.09	24.78	3.04	45.37	23.83	3.41	42.32	22.77	3.83

PERFORMANCE DATA-STANDARD ECM INDOOR MOTOR

Heating Extended Performance Table

PHD560 High Heat

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F (°C)																			
		-10 (-23.3)				0 (-17.7)				10 (-12.2)				17 (-8.3)				20 (-6.6)			
		Capacity MBtuh		Total System KW	Total System KW	Capacity MBtuh		Total System KW	Total System KW	Capacity MBtuh		Total System KW	Total System KW	Capacity MBtuh		Total System KW	Total System KW				
Total	Integ	Total	Integ	Total		Integ	Total	Integ		Total	Integ	Total		Integ	Total	Integ					
60	1750	17.01	15.65	3.08	21.62	19.89	3.31	27.05	24.83	31.57	28.78	33.69	30.55	3.82							
	2000	17.24	15.86	3.12	21.87	20.13	3.34	27.37	25.12	31.93	29.11	34.08	30.90	3.83							
70	1750	16.62	15.29	3.40	21.22	19.53	3.65	26.51	24.33	30.80	28.08	32.92	29.86	4.19							
	2000	16.88	15.53	3.44	21.50	19.78	3.69	26.82	24.62	31.18	28.43	33.32	30.22	4.20							
80	1750	16.04	14.75	3.72	20.64	18.99	4.01	25.93	23.80	30.06	27.41	31.99	29.01	4.59							
	2000	16.31	15.01	3.77	20.95	19.27	4.04	26.26	24.11	30.42	27.74	32.41	29.39	4.59							

PHD560 High Heat (Cont.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F (°C)																					
		30 (−1.1)				40 (4.4)				47 (8.3)				50 (10)				60 (15.5)					
		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW			
EDB	CFM	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ		
60	1750	41.80	36.62	4.14	50.24	50.24	4.44	56.80	56.80	59.20	59.20	64.80	64.80	4.67	59.20	59.20	64.80	64.80	4.75	59.20	59.20	64.80	64.80
	2000	41.90	36.71	4.12	50.80	50.80	4.36	56.90	56.90	59.50	59.50	65.10	65.10	4.42	59.50	59.50	65.10	65.10	4.50	59.50	59.50	65.10	65.10
70	1750	40.71	35.67	4.52	49.81	49.81	4.91	56.00	56.00	58.75	58.75	63.56	63.56	5.13	58.75	58.75	63.56	63.56	5.44	58.75	58.75	63.56	63.56
	2000	41.19	36.09	4.53	50.10	50.10	4.84	56.40	56.40	59.10	59.10	64.30	64.30	4.99	59.10	59.10	64.30	64.30	5.11	59.10	59.10	64.30	64.30
80	1750	39.61	34.70	4.93	48.50	48.50	5.35	55.46	55.46	58.45	58.45	62.90	62.90	5.63	58.45	58.45	62.90	62.90	5.78	58.45	58.45	62.90	62.90
	2000	40.12	35.15	4.92	48.79	48.79	5.29	55.90	55.90	58.90	58.90	63.50	63.50	5.56	58.90	58.90	63.50	63.50	5.78	58.90	58.90	63.50	63.50

LEGEND

Cap.— Heating Capacity (1000 Btuh) (Includes Indoor—Fan Motor Heat)

db — Dry Bulb

kW — Total Power Input (Includes Compressor Motor Power Input Outdoor—Fan Motor Input, and Indoor—Fan Motor Input)

rh — Relative Humidity

NOTES:

Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA-STANDARD ECM INDOOR MOTOR

Heating Extended Performance Table

PHD560 Low Heat

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F (°C)											
		-10 (-23.3)				0 (-17.7)				10 (-12.2)			
		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW	
EDB	CFM	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ
60	1200	9.91	9.11	2.55	13.43	12.36	2.64	17.58	16.14	20.92	19.07	22.45	20.36
	1370	10.02	9.22	2.55	13.56	12.48	2.62	17.73	16.28	21.10	19.23	22.64	20.54
	1200	9.46	8.70	2.89	12.98	11.94	2.99	17.10	15.69	20.40	18.60	21.92	19.88
70	1370	9.59	8.82	2.89	13.13	12.08	2.97	17.29	15.87	20.61	18.79	22.14	20.08
	1200	8.82	8.11	3.25	12.35	11.36	3.36	16.47	15.12	19.75	18.01	21.27	19.29
	1370	8.96	8.24	3.25	12.52	11.52	3.34	16.67	15.30	19.98	18.22	21.51	19.51
80	1200	8.82	8.11	3.25	12.35	11.36	3.36	16.47	15.12	19.75	18.01	21.27	19.29
	1370	8.96	8.24	3.25	12.52	11.52	3.34	16.67	15.30	19.98	18.22	21.51	19.51
	1200	8.82	8.11	3.25	12.35	11.36	3.36	16.47	15.12	19.75	18.01	21.27	19.29

PHD560 Low Heat (Cont.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg F (°C)											
		30 (-1.1)				40 (4.4)				47 (8.3)			
		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW		Capacity MBtuh		Total System KW	
EDB	CFM	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ
60	1200	28.14	24.66	2.91	35.04	35.04	3.03	40.62	40.62	43.31	43.31	53.58	53.58
	1370	28.41	24.90	2.84	35.43	35.43	2.94	41.18	41.18	43.95	43.95	54.06	54.06
	1200	27.54	24.13	3.28	34.06	34.06	3.40	39.50	39.50	42.04	42.04	51.83	51.83
70	1370	27.81	24.37	3.21	34.46	34.46	3.31	40.01	40.01	42.63	42.63	52.74	52.74
	1200	26.82	23.50	3.69	33.24	33.24	3.82	38.34	38.34	40.91	40.91	50.19	50.19
	1370	27.11	23.76	3.61	33.60	33.60	3.71	38.85	38.85	41.41	41.41	51.04	51.04
80	1200	26.82	23.50	3.69	33.24	33.24	3.82	38.34	38.34	40.91	40.91	50.19	50.19
	1370	27.11	23.76	3.61	33.60	33.60	3.71	38.85	38.85	41.41	41.41	51.04	51.04
	1200	26.82	23.50	3.69	33.24	33.24	3.82	38.34	38.34	40.91	40.91	50.19	50.19

LEGEND

Cap. — Heating Capacity (1000 Btuh) (Includes Indoor-Fan Motor Heat)
db — Dry Bulb
kW — Total Power Input (Includes Compressor Motor Power Input Outdoor-Fan Motor Input, and Indoor-Fan Motor Input)
rh — Relative Humidity

NOTES:
Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

UNIT DIMENSIONS – PHD524

Unit PHD5	ELECTRICAL CHARACTERISTICS	UNIT WT.		UNIT HEIGHT IN/MM	CENTER OF GRAVITY IN/MM						
		LB	KG		"A"	X	Y	Z			
24	208/230-1-60	428	194.0	44-3/4	1136.7	19-3/4	501.7	14-3/4	374.7	16-5/8	422.3

Unit PHD5	VOLTAGE	CORNER WEIGHT LB/KG		
		"1"	"2"	"3"
24	208/230	85.6	38.8	68.4
		31.1	102.7	46.6
		171.1	77.7	

REQUIRED CLEARANCES NO COMBUSTIBLE MAINT.

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.

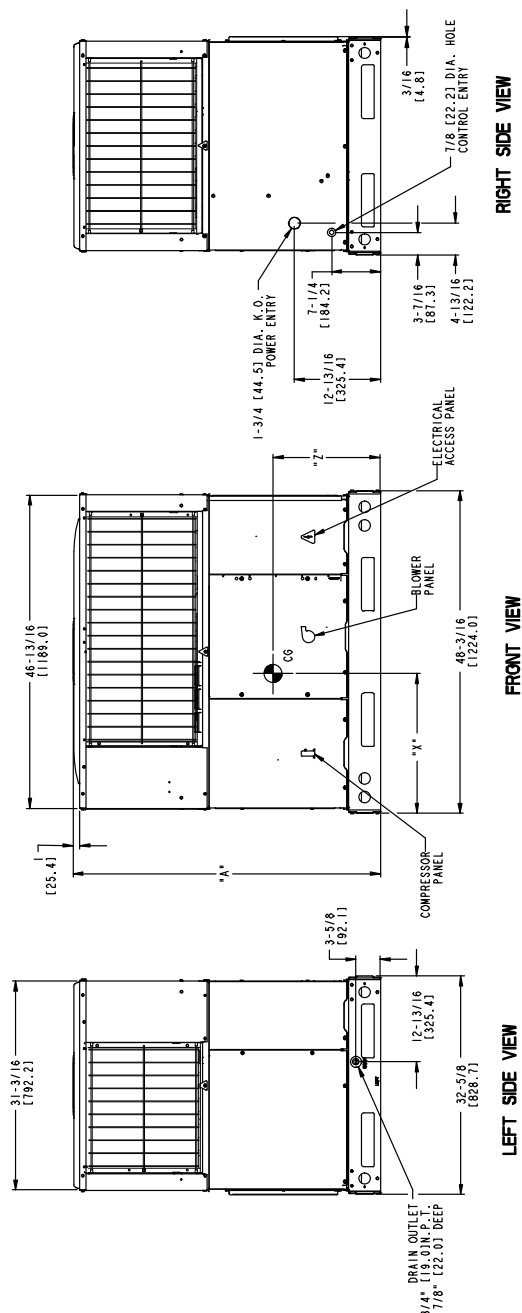
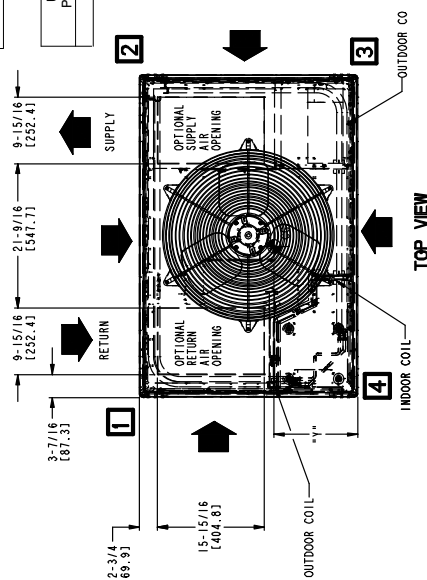
BETWEEN UNITS, POWER ENTRY SIDE.....	42	[1066.8]
UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE.....	36	[914.0]
UNIT AND BLOCK OF CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE.....	42	[1066.8]

REQUIRED CLEARANCE FOR OPERATION AND SERVICING

REAR COIL ACCESS SIDE.....	36 [914.0]	INCHES [MM]
POWER ENTRY SIDE.....	36 [914.0]	
DUCT PANEL.....	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

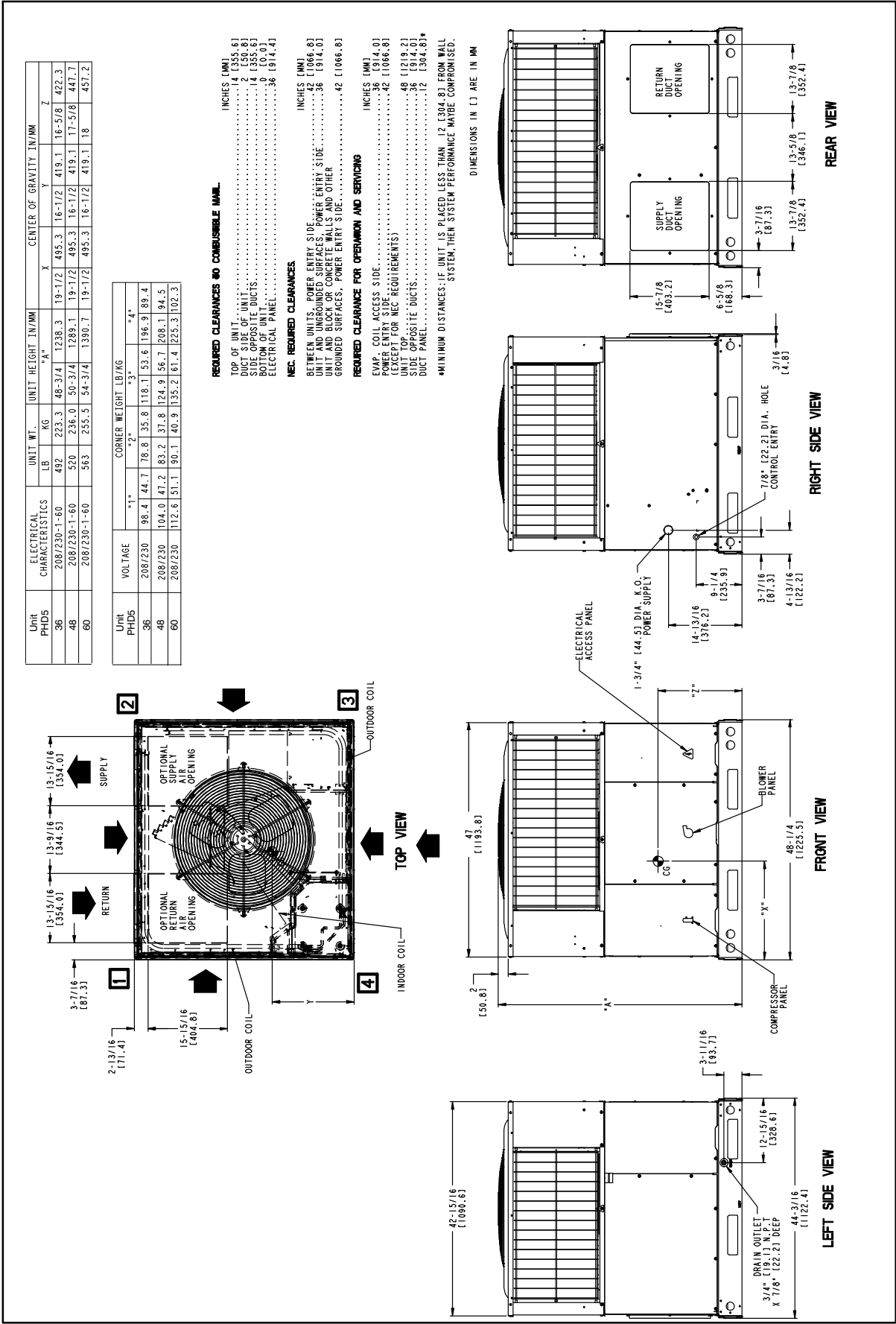


RIGHT SIDE VIEW

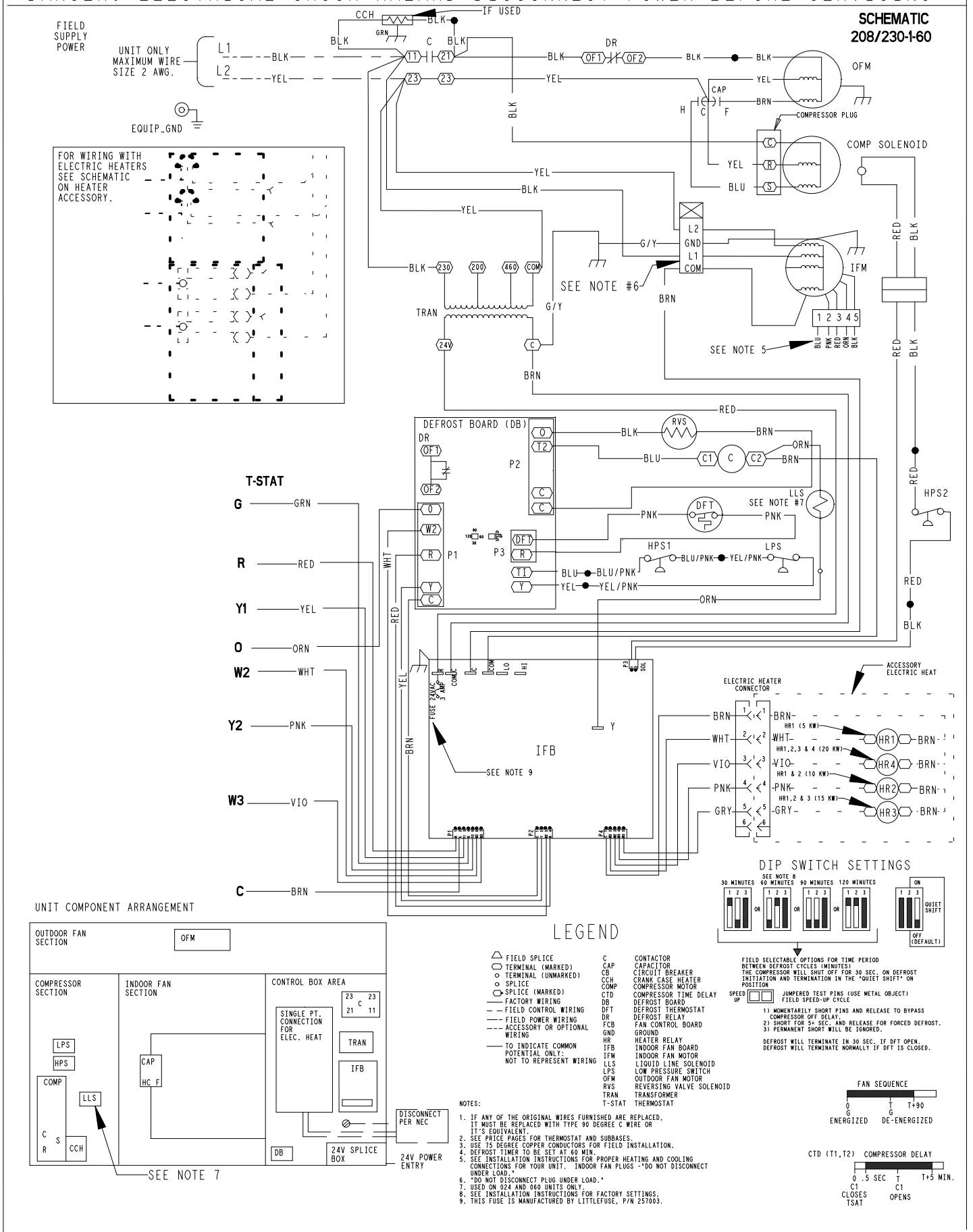
FRONT VIEW

LEFT SIDE VIEW

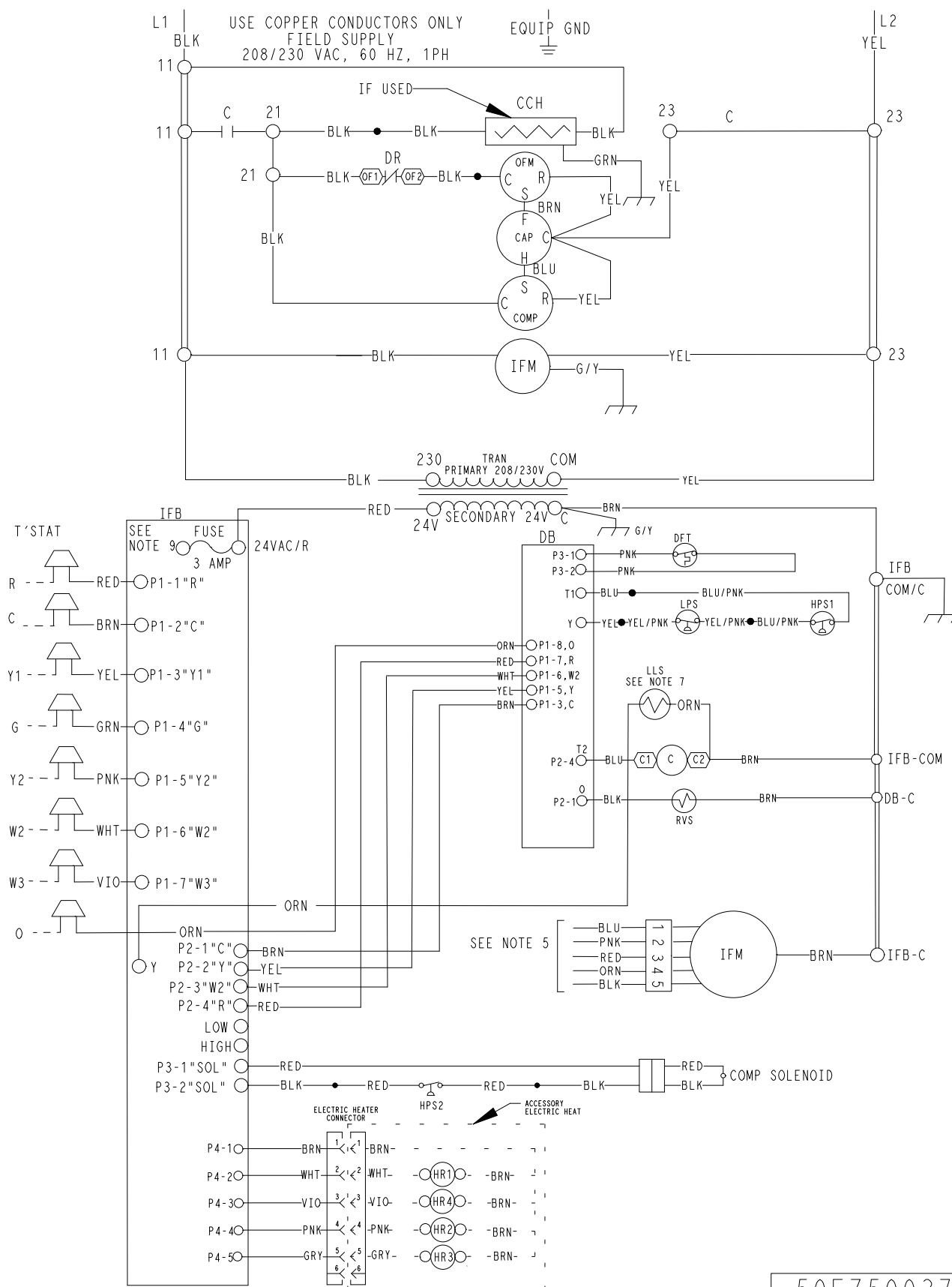
REAR VIEW



DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



50EZ500378	D
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CONTROLS, OPERATING SEQUENCE

Operating Sequence

Cooling/Heating Operation – With a call for first stage cooling/heating, the outdoor fan and low-stage compressor are energized. If low-stage cannot satisfy cooling/heating demand, high-stage is energized by the thermostat. After second stage is satisfied, the unit returns to low-stage operation until first stage is satisfied or until second stage is required again. When both first stage and second stage cooling/heating are satisfied, the compressor will shut off.

Defrost —

Defrost board (DB) is a time and temperature control, which includes a field-selectable time period (dip switch 1 and 2 on the board) between checks for defrost (30, 60, 90, or 120 minutes). Electronic timer and defrost cycle start only when contactor is energized and defrost thermostat (DFT) is closed.

The defrost board is also equipped with a third dip switch for selecting Quiet Shift operation. The Quiet Shift operation turns compressor off at defrost initiation and termination. Unit is factory shipped with quiet shift turned off.

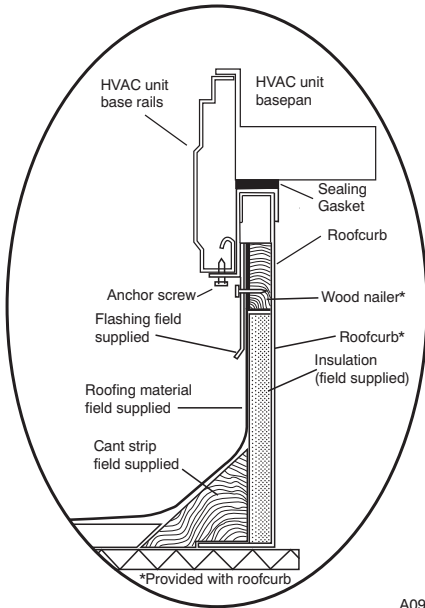
Defrost mode is identical to cooling mode, except outdoor fan motor stops and a bank of optional electric heat turns on to warm air supplying the conditioned space.

NOTE:

1. Compressor time delay occurs through the defrost control board.
2. Defrost control board has built in 5 minute compressor delay; once the compressor has started and stopped, it cannot be restarted again until 5 minutes have elapsed.

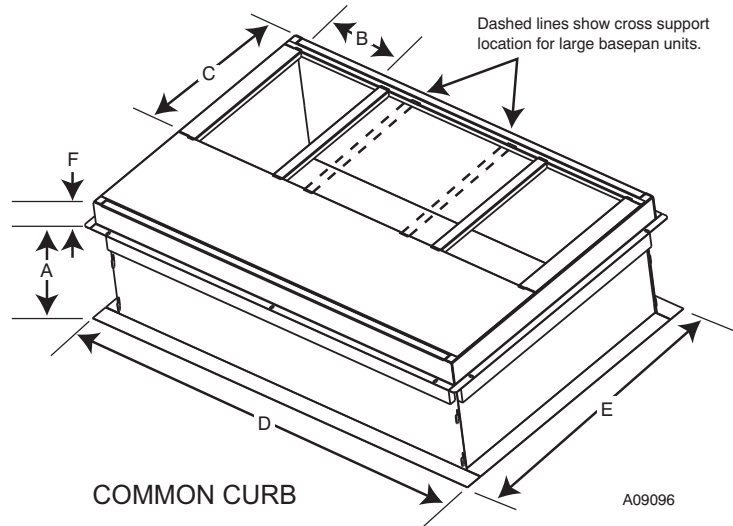
ACCESSORIES

ROOF CURBS



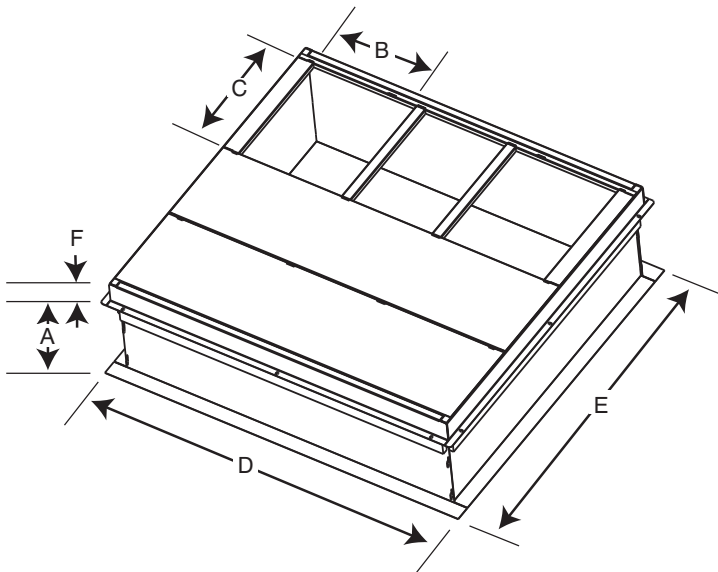
A09090

ROOF CURB DETAIL



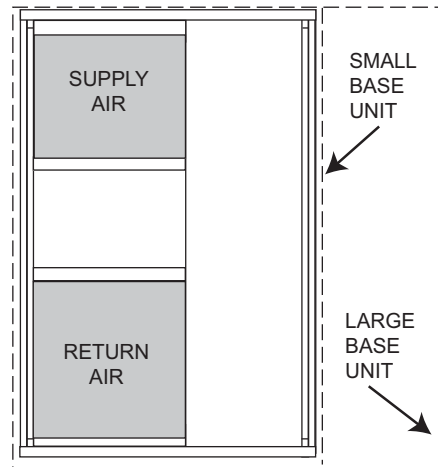
A09096

COMMON CURB



A09095

LARGE CURB



A09094

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)	14 (356)						43.9 (1116)	
	CPRFCURB013A00	14 (356)								

* Part Numbers CPRFCURB010A00 and CPRFCURB011A00 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 mm) thick fiberglass 1 lb. density.

PHD5 ACCESSORIES (Continued)						
Accessory Model Number		Description			Use With	
CURBS						
CPRFCURB010A00		Roof Curb, 11" High			24 – 60	
CPRFCURB011A00		Roof Curb, 14" High			24 – 60	
CPRFCURB012A00		Roof Curb, 11" High			36 – 60	
CPRFCURB013A00		Roof Curb, 14" High			36 – 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			24	
CPADCURB002A00		Adapter curb for use with NPRFCURB008A00 & NPRFCURB009A00			36 – 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.)			24 – 42	
AXB020CFA*		Flush Mount Diffuser – Fits 2' x 4' Ceiling Grid (16" round collars for flex conn.)			24 – 42	
AXB030CSA		Step Down Diffuser – Fits 2' x 4' Ceiling Grid (18" round collars for flex conn.)			24 – 60	
AXB030CFA		Flush Mount Diffuser – Fits 2' x 4' Ceiling Grid (18" round collars for flex conn.)			24 – 60	
* A field supplied 18" to 16" round reducer required when used with NP concentric adaptor						
DAMPERS						
CPMANDPR007A00		Manual Outside Air Damper – (Includes filter rack and 1" filter, same as CPFILTRK kit)			24	
CPMANDPR008A00					36	
CPMANDPR009A00					48, 60	
INTERNAL FILTER RACKS						
CPFILTRK007A00		Internal Filter Rack (includes 1–inch filters)			24	
CPFILTRK008A00					36	
CPFILTRK009A00					48, 60	
LOW AMBIENT, ANTI-CYCLE TIMER, COMPRESSOR START ASSIST						
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	
CPHSTART002A00		PTC Compressor Start Assist Kit			ALL	
CRANKCASE HEATER						
CPCRKHTR004A00		Crankcase Heater			24	
HAIL GUARDS / COIL PROTECTION (Factory installed on PHD**000KTP models)						
NAPA00701GR		3/8" spacing dense wire grilles			24	
NAPA01001GR		3/8" spacing dense wire grilles			36	
NAPA01101GR		3/8" spacing dense wire grilles			48	
NAPA01301GR		3/8" spacing dense wire grilles			60	
ELECTRIC HEATER USAGE CHART						
Electric Heater Model Number	Nominal Capacity (kW)	Fuses	Used With Model Sizes			
			24	36	48	60
ELECTRIC HEATERS (208 / 230 — SINGLE PHASE — 60 Hz)						
EHNA05K0N	5.0	0	✓	✓		
EHNA05K4F	5.0	4	✓	✓	✓	✓
EHNA07K4F	7.2	4	✓	✓	✓	✓
EHNA10K4F	10.0	4	✓	✓	✓	✓
EHNA15K6F	15.0	6		✓	✓	✓
EHNA20K6F	20.0	6			✓	✓
DUAL POINT WIRING KIT						
CPDUALPT001A00		Dual Point Wiring kit, 5–20kW Heaters			ALL	
DUCT TRANSITIONS						
NPDUCLG002A00		Square to Round (1 set of 2, use with horizontal duct flanges only)			24–48	