



14 SEER PACKAGE DUAL FUEL HEAT PUMP, 2 to 5 TONS

Single Phase, 208/230 V, 60 Hz

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
- Combination gas heating, heat pump heating, and electric cooling

- Low NOx units available

BUILT TO LAST

- Hail guard (3/8" spacing) wire grilles standard on PDS models (2" spacing wire grilles on PDD models)
- Induced-draft combustion and venting
- Pre-painted steel cabinet
- Aluminized steel tubular heat exchanger on PDD4 models, Stainless Steel tubular heat exchanger on PDS4 models
- Direct spark ignition
- 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
- PDS4 models come with tin-coated copper evaporator coil standard

WARRANTY*

- 5 year No Hassle Replacement™ limited warranty for PDS4 models
- 15 year heat exchanger limited warranty for PDD4, Lifetime heat exchanger limited warranty for PDS4 models
- 5 year parts limited warranty (including compressor and coils)– With timely registration, an additional 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.



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.



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

UNIT PERFORMANCE DATA										
Aluminized Steel Heat Exchanger	Stainless Steel Heat Exchanger	COOLING			HEAT PUMP HEATING		GAS HEATING		Unit Dimensions Height x Width x Depth in (mm)	Operating Weight lbs (kg)
		Capacity BTU/h	SEER	EER	Capacity BTU/h	HSPF	Input BTU/h	Efficiency AFUE %		
PDD424040K00°C	PDS424040KGP°C	23,000	14.2	12.0	23,000	8.0	40,000	80.0	44 ¹ / ₈ x48 ³ / ₁₆ x32 ⁵ / ₈ (1121x1224x829)	368 (167)
PDD424060K00°C	PDS424060KGP°C	23,000	14.2	12.0	23,000	8.0	60,000	80.0	44 ¹ / ₈ x48 ³ / ₁₆ x32 ⁵ / ₈ (1121x1224x829)	368 (167)
PDD430040K00°C	PDS430040KGP°C	28,600	14.2	12.0	29,600	8.0	40,000	80.0	44 ¹ / ₈ x48 ³ / ₁₆ x32 ⁵ / ₈ (1121x1224x829)	360 (163)
PDD430060K00°C	PDS430060KGP°C	28,600	14.2	12.0	29,600	8.0	60,000	80.0	44 ¹ / ₈ x48 ³ / ₁₆ x32 ⁵ / ₈ (1121x1224x829)	360 (163)
PDD436060K00°C	PDS436060KGP°C	35,800	14.5	12.0	35,800	8.0	60,000	78.5	44 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1137x1224x1122)	440 (200)
PDD436090K00°C	PDS436090KGP°C	35,800	14.5	12.0	35,800	8.0	90,000	80.4	44 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1137x1224x1122)	440 (200)
PDD442060K00°C	PDS442060KGP°C	40,500	14.5	12.0	41,500	8.0	60,000	78.5	48 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1238x1224x1122)	486 (220)
PDD442090K00°C	PDS442090KGP°C	40,500	14.5	12.0	41,500	8.0	90,000	80.4	48 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1238x1224x1122)	486 (220)
PDD448090K00°C	PDS448090KGP°C	46,500	14.5	12.0	45,500	8.0	90,000	80.4	48 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1238x1224x1122)	506 (230)
PDD448115K00°C	PDS448115KGP°C	46,500	14.5	12.0	45,500	8.0	115,000	80.3	48 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1238x1224x1122)	506 (230)
PDD448130K00°C	PDS448130KGP°C	46,500	14.5	12.0	45,500	8.0	130,000	78.9	48 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1238x1224x1122)	506 (230)
PDD460090K00°C	PDS460090KGP°C	57,000	14.5	12.0	59,000	8.0	90,000	80.4	54 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1391x1224x1122)	540 (245)
PDD460115K00°C	PDS460115KGP°C	57,000	14.5	12.0	59,000	8.0	115,000	80.3	54 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1391x1224x1122)	540 (245)
PDD460130K00°C	PDS460130KGP°C	57,000	14.5	12.0	59,000	8.0	130,000	78.9	54 ³ / ₄ x48 ³ / ₁₆ x44 ¹ / ₈ (1391x1224x1122)	540 (245)

* - 0 = Standard, 1 = Low NOx

MODEL NOMENCLATURE											
MODEL SERIES	1	2	3	4	5,6	7,8,9	10	11,12	13	14	15
	P	D	D	4	36	090	K	00	0	C	1
TYPE P = Package A = Air Conditioner H = Heat Pump G = Gas/Electric D = Dual Fuel											
TIER D = Standard S = Mainline w/ SS HX											
SEER 3 = 13 4 = 14 5 = 15 24 = 24,000 BTUH = 2 Tons 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 040 = 40,000 BTU/hr 060 = 60,000 BTU/hr 090 = 90,000 BTU/hr 115 = 115,000 BTU/hr 130 = 130,000 BTU/hr											
NOMINAL HEATING BTUH (input) K = 208/230-1-60 H = 208/230-3-60											
VOLTAGE 00 = No options GP = Tin Plated Evap Main Tubes plus Stainless Steel Heat Exchanger											
FACTORY INSTALLED OPTIONS 0 = Standard 1 = Low NOx											
FEATURE CODE Sales Model Digit Engineering Digit											

AHRI* CAPACITIES

COOLING CAPACITIES AND EFFICIENCIES					
UNIT	NOMINAL TONS	STANDARD CFM	COOLING CAPACITIES (Btuh)	EER**	SEER†
24	2	800	23,000	12.0	14.2
30	2-1/2	1000	28,600	12.0	14.2
36	3	1200	35,800	12.0	14.5
42	3-1/2	1400	40,500	12.0	14.5
48	4	1600	46,500	12.0	14.5
60	5	1750	57,000	12.0	14.5

HEAT PUMP HEATING CAPACITIES AND EFFICIENCIES					
UNIT	HEATING CAPACITY (Btuh) @ 47°F (8.3°C)	COP @ 47°F (8.3°C)	HEATING CAPACITY (Btuh) @ 17°F (-8.3°C)	COP @ 17°F (-8.3°C)	HSPF†
24	23,000	3.5	11,400	2.2	8.0
30	29,600	3.5	15,400	2.1	8.0
36	35,800	3.5	19,800	2.4	8.0
42	41,500	3.4	23,000	2.3	8.0
48	45,500	3.4	26,000	2.4	8.0
60	59,000	3.4	32,000	2.4	8.0

See LEGEND on next page.

LEGEND

dba—Sound Levels (decibels)
db—Dry Bulb
SEER—Seasonal Energy Efficiency Ratio
wb—Wet Bulb
COP—Coefficient of Performance
HSPF—Heating Season Performance Factor
 * 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.

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 (19.4°C) wb indoor entering—air temperature and 95°F (35°C) db outdoor entering—air temperature.
 2. Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

GAS HEATING CAPACITIES AND EFFICIENCIES				
UNIT PDD/S4	HEATING INPUT (Btuh)	OUTPUT CAPACITY (Btuh)	TEMPERATURE RISE RANGE °F (°C)	AFUE (%)
24040 30040	40,000	32,000	30–60 (16.7–33.3)	80.0
24060 30060 36060 42060	60,000	48,000 48,000 47,000 47,000	25–55 (13.9–30.6)	80.0 80.0 78.5 78.5
36090 42090 48090 60090	90,000	73,000 73,000 73,000 73,000	35–65 (19.4–36.1)	80.4 80.4 80.4 80.4
48115 48115	115,000	93,000	30–60 (16.7–33.3)	80.3
48130 60130	130,000	103,000	35–65 (19.4–36.1)	78.9

LEGEND

AFUE—Annual Fuel Utilization Efficiency

NOTE: Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

UNIT ELECTRICAL SPECIFICATIONS										
Model Number PDD/S4	NOMINAL V-PH-HZ	Voltage Range		Compressor		OFM	IFM	IDM	Power Supply	
		Min.	Max.	RLA	LRA	FLA	FLA	FLA	MCA	MOCP
24040	208/230-1-60	187	253	13.5	58.3	0.7	4.1	0.65	21.7	30
24060		187	253	13.5	58.3	0.7	4.1	1.65	21.7	30
30040		187	253	14.1	73.0	1.2	4.1	0.65	22.9	35
30060		187	253	14.1	73.0	1.2	4.1	1.65	22.9	35
36060		187	253	17.1	79.0	1.2	6.0	1.65	28.6	40
36090		187	253	17.1	79.0	1.2	6.0	0.65	28.6	40
42060		187	253	20.6	112.0	1.2	6.0	1.65	33.0	50
42090		187	253	20.6	112.0	1.2	6.0	0.65	33.0	50
48090		187	253	20.6	109	1.2	7.6	0.65	34.6	50
48115		187	253	20.6	109	1.2	7.6	1.65	34.6	50
48130		187	253	20.6	109	1.2	7.6	0.52	34.6	50
60090		187	253	26.4	134	1.2	7.6	0.65	41.8	60
60115		187	253	26.4	134	1.2	7.6	1.65	41.8	60
60130		187	253	26.4	134	1.2	7.6	0.52	41.8	60

See Legend and Notes below.

LEGEND

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

NOTES

- 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.
- Minimum wire size is based on 60°C copper wire. If other than 60°C copper wire is used, or if length exceeds wire length in table, determine size from NEC.

A-WEIGHTED SOUND POWER LEVEL (dba)								
PDD/S4	Standard Rating (dba)	TYPICAL OCTAVE BAND SPECTRUM (dba) (without tone adjustment)						
		125	250	500	1000	2000	4000	8000
24	74	63.5	64.5	69.0	69.5	65.0	59.5	50.0
30	75	63.5	66.0	71.0	69.5	66.5	61.0	54.0
36	74	64.0	66.0	68.0	68.0	66.5	60.5	52.0
42	73	63.5	63.5	66.5	67.0	64.5	60.0	52.5
48	74	68.5	65.0	67.0	67.5	65.0	60.5	53.0
60	75	68.0	64.5	68.5	69.0	65.5	62.0	58.0

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

PHYSICAL DATA – 2 to 3 Ton						
PDD/S4	24040	24060	30040	30060	36060	36090
Unit Size (Ton)	2	2	2.5	2.5	3	3
Shipping Weight (lb) (kg)	354 161	354 161	346 157	346 157	426 193	426 193
Compressor Quantity	1					
Type	Scroll					
Refrigerant	R-410A					
Refrigerant Quantity (lb) Quantity (kg)	11.1 5.0	11.1 5.0	10.3 4.7	10.3 4.7	9.9 4.5	9.9 4.5
Refrigerant Metering Device	Indoor TXV, Outdoor Dual Fixed Orifice					
Orifice OD (in) (mm)	0.032 (2) 0.81 (2)	0.032 (2) 0.81 (2)	0.037 (2) 0.94 (2)	0.037 (2) 0.94 (2)	0.038 (2) 0.97 (2)	0.038 (2) 0.97 (2)
Outdoor Coil Rows... Fins/in, face area (sq. ft.)	2...21 13.6	2...21 13.6	2...21 13.6	2...21 13.6	2...21 13.6	2...21 13.6
Outdoor Fan Nominal Airflow (cfm) Diameter (in.) Diameter (mm) Motor hp (rpm)	2500 24 610 1/10 (810)	2500 24 610 1/10 (810)	2700 24 610 1/5 (810)	2700 24 610 1/5 (810)	3100 26 660 1/5 (810)	3100 26 660 1/5 (810)
Indoor Coil Rows... Fins/in, face area (sq. ft.)	3...17 3.7	3...17 3.7	3...17 3.7	3...17 3.7	3...17 4.7	3...17 4.7
Indoor Blower Nominal Airflow (cfm) Size (in.) Size (mm) Motor hp	800 10 x 10 254 x 254 1/2	800 10 x 10 254 x 254 1/2	1000 10 x 10 254 x 254 1/2	1000 10 x 10 254 x 254 1/2	1200 11 x 10 279 x 254 3/4	1200 11 x 10 279 x 254 3/4
Furnace Section* Burner Orifice Natural Gas Qty...Drill Size (Factory Installed) Propane Gas Qty...Drill Size	2...44 2...55	2...38 2...53	2...44 2...55	2...38 2...53	2...38 2...53	3...38 3...53
High Pressure Switch (psig) Cutout Reset (Auto)	650 +/- 15 420 +/- 25					
Loss-of-Charge/Low Pressure Switch (psig) Cutout Reset (Auto)	20 +/- 5 45 +/- 10					
Return Air Filters†‡ disposable (in) (mm)	20x20x1 508x508x25		20x24x1 508x610x25		24x30x1 610x762x25	

*Based on altitude of 0 to 2000 ft (0–610 m).

†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 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 filter rack installation instructions for correct filter size and quantity.

PHYSICAL DATA – 3.5 to 6 Ton									
PDD/S4	42060	42090	48090	48115	48130	60090	60115	60130	
Unit Size	3.5	3.5	4	4	4	5	5	5	
Shipping Weight (lb)	472	472	460	460	460	506	506	506	
(kg)	214	214	209	209	209	230	230	230	
Compressor Quantity	1								
Type	Scroll								
Refrigerant	R-410A								
Refrigerant Quantity (lb)	11.3	11.3	12.5	12.5	12.5	15.2	15.2	15.2	
Quantity (kg)	5.1	5.1	5.7	5.7	5.7	6.9	6.9	6.9	
Refrigerant Metering Device	Indoor TXV, Outdoor Dual Fixed Orifice								
Orifice OD (in)	0.040 (2)	0.040 (2)	0.040 (2)	0.040 (2)	0.040 (2)	0.049 (2)	0.049 (2)	0.049 (2)	
(mm)	1.02 (2)	1.02 (2)	1.02 (2)	1.02 (2)	1.02 (2)	1.24 (2)	1.24 (2)	1.24 (2)	
Outdoor Coil Rows... Fins/in, face area (sq. ft.)	2...21 17.5	2...21 17.5	2...21 17.5	2...21 17.5	2...21 17.5	2...21 23.3	2...21 23.3	2...21 23.3	
Outdoor Fan Nominal Airflow (cfm)	3100	3100	3100	3100	3100	3500	3500	3500	
Diameter (in.)	26	26	26	26	26	26	26	26	
Diameter (mm)	660	660	660	660	660	660	660	660	
Motor hp (rpm)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/4 (810)	1/4 (810)	1/4 (810)	
Indoor Coil Rows... Fins/in, face area (sq. ft.)	3...17 4.7	3...17 4.7	3...17 5.6	3...17 5.6	3...17 5.6	3...17 5.6	3...17 5.6	3...17 5.6	
Indoor Blower Nominal Airflow (cfm)	1400	1400	1600	1600	1600	1750	1750	1750	
Size (in.)	11 x 10	11 x 10	11 x 10	11 x 10	11 x 10	11 x 10	11 x 10	11 x 10	
Size (mm)	279x254	279x254	279x254	279x254	279x254	279x254	279x254	279x254	
Motor hp	3/4	3/4	1	1	1	1	1	1	
Furnace Section* Burner Orifice Natural Gas Qty...Drill Size (Factory Installed)	2...38	3...38	3...38	3...33	3...31	3...38	3...33	3...31	
Propane Gas Qty...Drill Size	2...53	3...53	3...53	3...51	3...49	3...53	3...51	3...49	
High Pressure Switch (psig) Cutout Reset (Auto)	650 +/- 15 420 +/- 25								
Loss-of-Charge/Low Pressure Switch (psig) Cutout Reset (Auto)	20 +/- 5 45 +/- 10								
Return Air Filters†‡ disposable (in) (mm)	24x30x1 610x762x25			24x36x1 610x914x25					

*Based on altitude of 0 to 2000 ft (0–610 m).

†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 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 filter rack installation instructions for correct filter size and quantity.

DRY COIL AIR DELIVERY* – HORIZONTAL AND DOWNFLOW DISCHARGE

UNIT PDD/S4	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (in wc)								
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
24040	30 – 60°F (17 – 33°C)	Low	Blue	CFM	754	650	536	429	---	---	---	---	---
				Heating Rise (°F)	40	46	56	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	22	26	31	NA	NA	NA	NA	NA	NA
		Med-Low	Pink	CFM	851	777	675	591	475	---	---	---	---
				Heating Rise (°F)	36	39	45	51	NA	NA	NA	NA	NA
				Heating Rise (°C)	20	22	25	28	NA	NA	NA	NA	NA
		Medium ²	Red	CFM	941	851	774	684	576	479	---	---	---
				Heating Rise (°F)	32	36	39	44	52	NA	NA	NA	NA
				Heating Rise (°C)	18	20	22	25	29	NA	NA	NA	NA
		Med-High ¹	Orange	CFM	1009	917	840	759	667	577	447	---	---
				Heating Rise (°F)	30	33	36	40	45	52	NA	NA	NA
				Heating Rise (°C)	17	18	20	22	25	29	NA	NA	NA
High	Black	CFM	1241	1167	1111	1036	969	881	818	731	640		
		Heating Rise (°F)	NA	NA	NA	NA	31	34	37	41	47		
		Heating Rise (°C)	NA	NA	NA	NA	17	19	21	23	26		
24060	25 – 55°F (14 – 31°C)	Low	Blue	CFM	754	650	536	429	---	---	---	---	---
				Heating Rise (°F)	NA	NA	NA	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med-Low	Pink	CFM	851	777	675	591	475	---	---	---	---
				Heating Rise (°F)	52	NA	NA	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	29	NA	NA	NA	NA	NA	NA	NA	NA
		Medium ²	Red	CFM	941	851	774	684	576	479	---	---	---
				Heating Rise (°F)	47	52	NA	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	26	29	NA	NA	NA	NA	NA	NA	NA
		Med-High	Orange	CFM	1009	917	840	759	667	577	447	---	---
				Heating Rise (°F)	44	48	53	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	24	27	29	NA	NA	NA	NA	NA	NA
High ¹	Black	CFM	1241	1167	1111	1036	969	881	818	731	640		
		Heating Rise (°F)	36	38	40	43	46	50	54	NA	NA		
		Heating Rise (°C)	20	21	22	24	25	28	30	NA	NA		
30040	30 – 60°F (17 – 33°C)	Low	Blue	CFM	741	638	547	415	---	---	---	---	---
				Heating Rise (°F)	41	47	55	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	23	26	31	NA	NA	NA	NA	NA	NA
		Med-Low ¹	Pink	CFM	973	887	823	733	665	538	451	---	---
				Heating Rise (°F)	31	34	37	41	45	56	NA	NA	NA
				Heating Rise (°C)	17	19	20	23	25	31	NA	NA	NA
		Medium	Red	CFM	1088	1023	954	881	800	723	658	563	461
				Heating Rise (°F)	28	30	32	34	38	42	46	54	NA
				Heating Rise (°C)	15	16	18	19	21	23	26	30	NA
		Med-High ²	Orange	CFM	1140	1064	996	915	840	758	687	564	480
				Heating Rise (°F)	NA	NA	30	33	36	40	44	54	NA
				Heating Rise (°C)	NA	NA	17	18	20	22	24	30	NA
High	Black	CFM	1202	1140	1082	1015	961	881	810	732	631		
		Heating Rise (°F)	NA	NA	NA	30	31	34	37	41	48		
		Heating Rise (°C)	NA	NA	NA	17	17	19	21	23	27		
30060	25 – 55°F (14 – 31°C)	Low	Blue	CFM	741	638	547	415	---	---	---	---	---
				Heating Rise (°F)	NA	NA	NA	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med-Low	Pink	CFM	973	887	823	733	665	538	451	---	---
				Heating Rise (°F)	46	50	54	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	25	28	30	NA	NA	NA	NA	NA	NA
		Medium	Red	CFM	1088	1023	954	881	800	723	658	563	461
				Heating Rise (°F)	41	43	47	50	NA	NA	NA	NA	NA
				Heating Rise (°C)	23	24	26	28	NA	NA	NA	NA	NA
		Med-High ²	Orange	CFM	1140	1064	996	915	840	758	687	564	480
				Heating Rise (°F)	39	42	45	49	53	NA	NA	NA	NA
				Heating Rise (°C)	22	23	25	27	29	NA	NA	NA	NA
High ¹	Black	CFM	1202	1140	1082	1015	961	881	810	732	631		
		Heating Rise (°F)	37	39	41	44	46	50	55	NA	NA		
		Heating Rise (°C)	21	22	23	24	26	28	30	NA	NA		

DRY COIL AIR DELIVERY* – HORIZONTAL AND DOWNFLOW DISCHARGE

UNIT PDD/S4	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (in wc)								
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
36060	25 – 55°F (14 – 31°C)	Low	Blue	CFM	1176	1121	1079	1019	974	920	877	826	754
				Heating Rise (°F)	38	40	41	44	46	48	51	54	NA
				Heating Rise (°C)	21	22	23	24	25	27	28	30	NA
		Med-Low ¹	Pink	CFM	1295	1234	1182	1126	1075	1016	955	898	857
				Heating Rise (°F)	34	36	38	39	41	44	47	49	52
				Heating Rise (°C)	19	20	21	22	23	24	26	27	29
		Medium ²	Red	CFM	1345	1282	1235	1194	1140	1095	1027	974	921
				Heating Rise (°F)	33	35	36	37	39	41	43	46	48
				Heating Rise (°C)	18	19	20	21	22	23	24	25	27
		Med-High	Orange	CFM	1505	1452	1413	1358	1323	1282	1234	1169	1130
				Heating Rise (°F)	30	31	31	33	34	35	36	38	39
				Heating Rise (°C)	16	17	17	18	19	19	20	21	22
High	Black	CFM	1705	1643	1607	1568	1518	1483	1448	1404	1360		
		Heating Rise (°F)	26	27	28	28	29	30	31	32	33		
		Heating Rise (°C)	14	15	15	16	16	17	17	18	18		
36090	35 – 65°F (19 – 36°C)	Low	Blue	CFM	1176	1121	1079	1019	974	920	877	826	754
				Heating Rise (°F)	58	61	63	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	32	34	35	NA	NA	NA	NA	NA	NA
		Med-Low	Pink	CFM	1295	1234	1182	1126	1075	1016	955	898	857
				Heating Rise (°F)	53	55	58	60	63	NA	NA	NA	NA
				Heating Rise (°C)	29	31	32	34	35	NA	NA	NA	NA
		Medium ²	Red	CFM	1345	1282	1235	1194	1140	1095	1027	974	921
				Heating Rise (°F)	51	53	55	57	60	62	NA	NA	NA
				Heating Rise (°C)	28	29	31	32	33	35	NA	NA	NA
		Med-High ¹	Orange	CFM	1505	1452	1413	1358	1323	1282	1234	1169	1130
				Heating Rise (°F)	45	47	48	50	51	53	55	58	60
				Heating Rise (°C)	25	26	27	28	29	29	31	32	33
High	Black	CFM	1705	1643	1607	1568	1518	1483	1448	1404	1360		
		Heating Rise (°F)	40	41	42	43	45	46	47	48	50		
		Heating Rise (°C)	22	23	24	24	25	25	26	27	28		
42060	25 – 55°F (14 – 31°C)	Low ¹	Blue	CFM	1295	1234	1182	1126	1075	1016	955	898	857
				Heating Rise (°F)	34	36	38	39	41	44	47	49	52
				Heating Rise (°C)	19	20	21	22	23	24	26	27	29
		Med-Low	Pink	CFM	1345	1282	1235	1194	1140	1095	1027	974	921
				Heating Rise (°F)	33	35	36	37	39	41	43	46	48
				Heating Rise (°C)	18	19	20	21	22	23	24	25	27
		Medium	Red	CFM	1505	1452	1413	1358	1323	1282	1234	1169	1130
				Heating Rise (°F)	30	31	31	33	34	35	36	38	39
				Heating Rise (°C)	16	17	17	18	19	19	20	21	22
		Med-High ²	Orange	CFM	1545	1492	1449	1411	1362	1313	1278	1231	1188
				Heating Rise (°F)	29	30	31	31	33	34	35	36	37
				Heating Rise (°C)	16	17	17	17	18	19	19	20	21
High	Black	CFM	1705	1643	1607	1568	1518	1483	1448	1404	1360		
		Heating Rise (°F)	26	27	28	28	29	30	31	32	33		
		Heating Rise (°C)	14	15	15	16	16	17	17	18	18		
42090	35 – 65°F (19 – 36°C)	Low	Blue	CFM	1295	1234	1182	1126	1075	1016	955	898	857
				Heating Rise (°F)	53	55	58	60	63	NA	NA	NA	NA
				Heating Rise (°C)	29	31	32	34	35	NA	NA	NA	NA
		Med-Low	Pink	CFM	1345	1282	1235	1194	1140	1095	1027	974	921
				Heating Rise (°F)	51	53	55	57	60	62	NA	NA	NA
				Heating Rise (°C)	28	29	31	32	33	35	NA	NA	NA
		Medium ¹	Red	CFM	1505	1452	1413	1358	1323	1282	1234	1169	1130
				Heating Rise (°F)	45	47	48	50	51	53	55	58	60
				Heating Rise (°C)	25	26	27	28	29	29	31	32	33
		Med-High ²	Orange	CFM	1545	1492	1449	1411	1362	1313	1278	1231	1188
				Heating Rise (°F)	44	46	47	48	50	52	53	55	57
				Heating Rise (°C)	24	25	26	27	28	29	30	31	32
High	Black	CFM	1705	1643	1607	1568	1518	1483	1448	1404	1360		
		Heating Rise (°F)	40	41	42	43	45	46	47	48	50		
		Heating Rise (°C)	22	23	24	24	25	25	26	27	28		

DRY COIL AIR DELIVERY* – HORIZONTAL AND DOWNFLOW DISCHARGE

UNIT PDD/S4	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (in wc)								
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
48090	35 – 65°F (19 – 36°C)	Low	Blue	CFM	1430	1374	1327	1267	1223	1176	1127	1061	1016
				Heating Rise (°F)	48	49	51	54	56	58	60	64	NA
				Heating Rise (°C)	26	27	28	30	31	32	34	36	NA
		Med– Low ¹	Pink	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027
				Heating Rise (°F)	47	49	51	53	55	57	60	63	NA
				Heating Rise (°C)	26	27	28	29	31	32	33	35	NA
		Medium ²	Red	CFM	1678	1635	1602	1558	1513	1474	1438	1404	1349
				Heating Rise (°F)	41	42	42	44	45	46	47	48	50
				Heating Rise (°C)	23	23	24	24	25	26	26	27	28
		Med– High	Orange	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785
				Heating Rise (°F)	NA	NA	NA	NA	NA	35	36	37	38
				Heating Rise (°C)	NA	NA	NA	NA	NA	19	20	20	21
		High	Black	CFM	2461	2409	2339	2286	2192	2140	2062	1968	1874
				Heating Rise (°F)	NA	NA	NA	NA	NA	NA	NA	35	36
				Heating Rise (°C)	NA	NA	NA	NA	NA	NA	NA	19	20
48115	30 – 60°F (17 – 33°C)	Low	Blue	CFM	1430	1374	1327	1267	1223	1176	1127	1061	1016
				Heating Rise (°F)	61	NA	NA	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	34	NA	NA	NA	NA	NA	NA	NA	NA
		Med– Low	Pink	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027
				Heating Rise (°F)	60	NA	NA	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	33	NA	NA	NA	NA	NA	NA	NA	NA
		Medium ²	Red	CFM	1678	1635	1602	1558	1513	1474	1438	1404	1349
				Heating Rise (°F)	52	53	54	56	57	59	60	NA	NA
				Heating Rise (°C)	29	30	30	31	32	33	34	NA	NA
		Med– High ¹	Orange	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785
				Heating Rise (°F)	41	42	42	43	44	45	46	47	49
				Heating Rise (°C)	23	23	23	24	24	25	26	26	27
		High	Black	CFM	2461	2409	2339	2286	2192	2140	2062	1968	1874
				Heating Rise (°F)	35	36	37	38	40	41	42	44	46
				Heating Rise (°C)	20	20	21	21	22	23	23	25	26
48130	35 – 65°F (19 – 36°C)	Low	Blue	CFM	1430	1374	1327	1267	1223	1176	1127	1061	1016
				Heating Rise (°F)	NA	NA	NA	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med– Low	Pink	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027
				Heating Rise (°F)	NA	NA	NA	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Medium ²	Red	CFM	1678	1635	1602	1558	1513	1474	1438	1404	1349
				Heating Rise (°F)	57	59	60	62	64	65	NA	NA	NA
				Heating Rise (°C)	32	33	33	34	35	36	NA	NA	NA
		Med– High ¹	Orange	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785
				Heating Rise (°F)	45	46	47	48	49	50	51	52	54
				Heating Rise (°C)	25	26	26	27	27	28	28	29	30
		High	Black	CFM	2461	2409	2339	2286	2192	2140	2062	1968	1874
				Heating Rise (°F)	39	40	41	42	44	45	47	49	51
				Heating Rise (°C)	22	22	23	23	24	25	26	27	29

DRY COIL AIR DELIVERY* – HORIZONTAL AND DOWNFLOW DISCHARGE

UNIT PDD/S4	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (in wc)									
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
60090	35 – 65°F (19 – 36°C)	Low ¹	Blue	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027
				Heating Rise (°F)	47	49	51	53	55	57	60	63	NA
				Heating Rise (°C)	26	27	28	29	31	32	33	35	NA
		Med–Low	Pink	CFM	1678	1635	1602	1558	1513	1474	1438	1404	1349
				Heating Rise (°F)	41	42	42	44	45	46	47	48	50
				Heating Rise (°C)	23	23	24	24	25	26	26	27	28
		Medium ²	Red	CFM	1962	1915	1880	1843	1794	1753	1711	1675	1628
				Heating Rise (°F)	35	36	36	37	38	39	40	41	42
				Heating Rise (°C)	19	20	20	20	21	22	22	23	23
		Med–High	Orange	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785
				Heating Rise (°F)	NA	NA	NA	NA	NA	35	36	37	38
				Heating Rise (°C)	NA	NA	NA	NA	NA	19	20	20	21
High	Black	CFM	2461	2409	2339	2286	2192	2140	2062	1968	1874		
		Heating Rise (°F)	NA	NA	NA	NA	NA	NA	NA	35	36		
		Heating Rise (°C)	NA	NA	NA	NA	NA	NA	NA	19	20		
60115	30 – 60°F (17 – 33°C)	Low	Blue	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027
				Heating Rise (°F)	60	NA	NA	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	33	NA	NA	NA	NA	NA	NA	NA	NA
		Med–Low	Pink	CFM	1678	1635	1602	1558	1513	1474	1438	1404	1349
				Heating Rise (°F)	52	53	54	56	57	59	60	NA	NA
				Heating Rise (°C)	29	30	30	31	32	33	34	NA	NA
		Medium ²	Red	CFM	1962	1915	1880	1843	1794	1753	1711	1675	1628
				Heating Rise (°F)	44	45	46	47	48	50	51	52	53
				Heating Rise (°C)	25	25	26	26	27	28	28	29	30
		Med–High ¹	Orange	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785
				Heating Rise (°F)	41	42	42	43	44	45	46	47	49
				Heating Rise (°C)	23	23	23	24	24	25	26	26	27
High	Black	CFM	2461	2409	2339	2286	2192	2140	2062	1968	1874		
		Heating Rise (°F)	35	36	37	38	40	41	42	44	46		
		Heating Rise (°C)	20	20	21	21	22	23	23	25	26		
60130	35 – 65°F (19 – 36°C)	Low	Blue	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027
				Heating Rise (°F)	NA	NA	NA	NA	NA	NA	NA	NA	NA
				Heating Rise (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med–Low	Pink	CFM	1678	1635	1602	1558	1513	1474	1438	1404	1349
				Heating Rise (°F)	57	59	60	62	64	65	NA	NA	NA
				Heating Rise (°C)	32	33	33	34	35	36	NA	NA	NA
		Medium ²	Red	CFM	1962	1915	1880	1843	1794	1753	1711	1675	1628
				Heating Rise (°F)	49	50	51	52	54	55	56	57	59
				Heating Rise (°C)	27	28	28	29	30	31	31	32	33
		Med–High ¹	Orange	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785
				Heating Rise (°F)	45	46	47	48	49	50	51	52	54
				Heating Rise (°C)	25	26	26	27	27	28	28	29	30
High	Black	CFM	2461	2409	2339	2286	2192	2140	2062	1968	1874		
		Heating Rise (°F)	39	40	41	42	44	45	47	49	51		
		Heating Rise (°C)	22	22	23	23	24	25	26	27	29		

* Air delivery values are without air filter and are for dry coil (See PDD/S4–A Wet Coil Pressure Drop table).

¹ Factory–shipped gas heating speed

² Factory–shipped heat pump speed

NA – Not allowed for gas heating speed

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

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

Note: Deduct 10% for 208 volt operation.

DRY COIL AIR DELIVERY – DOWNFLOW DISCHARGE

UNIT PDD/S4	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	1
24(040,060)	High	Black	1050	1000	950	900	850	-	-	-	-	-
30(040,060)	High	Black	1050	1000	950	900	850	-	-	-	-	-
36(060,090)	High	Black	1775	1710	1670	1630	1580	1540	1505	1460	1415	-
42(060,090)	High	Black	1775	1710	1670	1630	1580	1540	1505	1460	1415	-
48(090,115,130)	High	Black	2530	2445	2380	2325	2250	2155	2080	1965	1880	-
60(090,115,130)	High	Black	2530	2445	2380	2325	2250	2155	2080	1965	1880	-

HORIZONTAL AND DOWNFLOW FILTER PRESSURE DROP TABLE (in wc)									
Filter Size in. (mm)	Cooling Tons	STANDARD CFM (SCFM)							
		600	700	800	900	1000	1100	1200	1300
600-1400 cfm (12x20x1+12x20x1)	2.0, 2.5	0.05	0.07	0.08	0.09	0.10	0.11	0.13	0.14
1200-1800 cfm (16x24x1+14x24x1)	3.0, 3.5	-	-	-	-	-	-	0.07	0.08
1500-2200 cfm (16x24x1+18x24x1)	4.0, 5.0	-	-	-	-	-	-	-	-
Filter Size in. (mm)	Cooling Tons	STANDARD CFM (SCFM)							
		1400	1500	1600	1700	1800	1900	2000	2100
600-1400 cfm (12x20x1+12x20x1)	2.0, 2.5	0.15	-	-	-	-	-	-	-
1200-1800 cfm (16x24x1+14x24x1)	3.0, 3.5	0.09	0.10	0.11	0.11	0.12	-	-	-
1500-2200 cfm (16x24x1+18x24x1)	4.0, 5.0	-	0.08	0.10	0.10	0.11	0.12	0.13	0.14

HORIZONTAL AND DOWNFLOW DISCHARGE WET COIL PRESSURE DROP (in wc)									
UNIT PDD/S4	STANDARD CFM (SCFM)								
	600	700	800	900	1000	1100	1200	1300	
24	0.030	0.037	0.044	0.053	0.063	-	-	-	
30	-	-	-	0.053	0.063	0.072	0.081	0.105	
36	-	-	-	-	0.045	0.050	0.060	0.065	
42	-	-	-	-	0.045	0.050	0.060	0.065	
48	-	-	-	-	-	-	-	-	
60	-	-	-	-	-	-	-	-	
UNIT PDD/S4	STANDARD CFM (SCFM)								
	1400	1500	1600	1700	1800	1900	2000	2100	2200
24	-	-	-	-	-	-	-	-	
30	-	-	-	-	-	-	-	-	
36	0.075	0.080	0.090	0.094	0.110	-	-	-	
42	0.075	0.080	0.090	0.094	0.110	-	-	-	
48	-	0.060	0.065	0.007	0.077	0.085	0.100	0.115	
60	-	0.060	0.065	0.007	0.077	0.085	0.100	0.115	

HORIZONTAL AND DOWNFLOW ECONOMIZER WITH 1-IN. FILTER PRESSURE DROP (in wc)									
HORIZONTAL AND DOWN- FLOW ECONOMIZER + INCLUDED FILTERS	COOLING TONS	STANDARD CFM (SCFM)							
		600	700	800	900	1000	1100	1200	1300
600-1400 cfm (12x20x1+12x20x1)	2.0, 2.5	0.07	0.08	0.10	0.14	0.17	0.21	0.25	0.31
1200-1800 cfm (16x24x1+14x24x1)	3.0, 3.5	-	-	-	-	-	-	0.10	0.12
1500-2200 cfm (16x24x1+18x24x1)	4.0, 5.0	-	-	-	-	-	-	-	-
HORIZONTAL AND DOWN- FLOW ECONOMIZER + INCLUDED FILTERS	COOLING TONS	STANDARD CFM (SCFM)							
		1400	1500	1600	1700	1800	1900	2000	2100
600-1400 cfm (12x20x1+12x20x1)	2.0, 2.5	0.35	-	-	-	-	-	-	-
1200-1800 cfm (16x24x1+14x24x1)	3.0, 3.5	0.13	0.15	0.17	0.19	0.22	-	-	-
1500-2200 cfm (16x24x1+18x24x1)	4.0, 5.0	-	0.10	0.12	0.13	0.15	0.17	0.18	0.20

NATURAL GAS ORIFICE SIZES AND MANIFOLD PRESSURE

Nameplate Input (Btu/hr)	Orifice Size (Qty) Manifold Press (in wc)	ALTITUDE OF INSTALLATION (FT. ABOVE SEA LEVEL) U.S.A.*				
		0 to 2000 (0–610 m)	2001 to 3000* (611 to 914 m)	3001 to 4000 (915 to 1219 m)	4001 to 5000 (1220 to 1524 m)	5001 to 6000 (1524 to 1829 m)
40000	Orifice No. (Qty)	44 (2)	45 (2)†	48 (2)†	48 (2)†	48 (2)†
	Manifold Press. (in wc)	3.2	3.2	3.8	3.5	3.2
60000	Orifice No. (Qty)	38 (2)	41 (2)†	41 (2)†	42 (2)†	42 (2)†
	Manifold Press. (in wc)	3.6	3.8	3.4	3.4	3.2
90000	Orifice No. (Qty)	38 (3)	41 (3)†	41 (3)†	42 (3)†	42 (3)†
	Manifold Press. (in wc)	3.6	3.8	3.4	3.4	3.2
115000	Orifice No. (Qty)	33 (3)	36 (3)†	36 (3)†	36 (3)†	38 (3)†
	Manifold Press. (in wc)	3.8	3.8	3.6	3.3	3.6
130000	Orifice No. (Qty)	31 (3)	31 (3)	33 (3)†	33 (3)†	34 (3)†
	Manifold Press. (in wc)	3.8	3.2	3.7	3.4	3.3

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above Sea level.
 In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.
 For Canadian Installations from 2000 to 4500 ft, use U.S.A. column 2001 to 3000 ft.
 Note: Orifice sizes and manifold pressure settings are based on natural gas with a heating value of 1025 Btu/ft³ and a specific gravity of .6.
 † Orifices available through your distributor.

PROPANE GAS ORIFICE SIZES AND MANIFOLD PRESSURE

Nameplate Input (Btu/hr)	Orifice Size (Qty) Manifold Press (in wc)	ALTITUDE OF INSTALLATION (FT. ABOVE SEA LEVEL) U.S.A.*				
		0 to 2000 (0–610 m)	2001 to 3000* (611 to 914 m)	3001 to 4000 (915 to 1219 m)	4001 to 5000 (1220 to 1524 m)	5001 to 6000 (1524 to 1829 m)
40000	Orifice No. (Qty)	55 (2)	56 (2)	56 (2)	56 (2)	56 (2)
	Manifold Press. (in wc)	10.0	11.0	11.0	11.0	10.7
60000	Orifice No. (Qty)	53 (2)	54 (2)	54 (2)	54 (2)	54 (2)
	Manifold Press. (in wc)	10.0	11.0	11.0	11.0	11.0
90000	Orifice No. (Qty)	53 (3)	54 (3)	54 (3)	54 (3)	54 (3)
	Manifold Press. (in wc)	10.0	11.0	11.0	11.0	11.0
115000	Orifice No. (Qty)	51 (3)	52 (3)	52 (3)	53 (3)	53 (3)
	Manifold Press. (in wc)	10.0	11.0	10.6	11.0	11.0
130000	Orifice No. (Qty)	49 (3)	50 (3)	51 (3)	52 (3)	52 (3)
	Manifold Press. (in wc)	10.0	11.0	11.0	11.0	11.0

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above Sea level.
 In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.
 For Canadian Installations from 2000 to 4500 ft (610–1372 m), use U.S.A. column 2001 to 3000 ft (611 to 914 m).
 †Use Kit No. NPLPCONV013A00 (0–2000 ft [0–610 m] above sea level). Use Kit No. NPLPCONV014A00 (2001–6000 ft [611–1829 m] above sea level).

HIGH ALTITUDE COMPENSATION, NATURAL GAS

Nameplate Input (Btu/hr)	Rated Heating Input (Btu/hr), Natural Gas at Installation Altitude Above Sea Level, U.S.A.*				
	0 to 2000 ft (0–610 m)	2001 to 3000 ft* (611 to 914 m)	3001 to 4000 ft (915 to 1219 m)	4001 to 5000 ft (1220 to 1524 m)	5001 to 6000 ft (1524 to 1829 m)
40000	38000	31700	31700	31700	31200
60000	53000	45900	45900	45800	45800
90000	79000	68900	68900	68600	68600
115000	103000	100400	98900	83000	83000
130000	116000	115500	111800	101300	100400

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above sea level.
 In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.
 For Canadian Installations from 2000 to 4500 ft (610–1372 m), use U.S.A. column 2001 to 3000 ft (611 to 914 m).

HIGH ALTITUDE COMPENSATION, PROPANE GAS

Nameplate Input (Btu/hr)	Rated Heating Input (Btu/hr), LP Gas at Installation Altitude Above Sea Level, U.S.A.*				
	0 to 2000 ft (0–610 m)	2001 to 3000 ft* (611 to 914 m)	3001 to 4000 ft (915 to 1219 m)	4001 to 5000 ft (1220 to 1524 m)	5001 to 6000 ft (1524 to 1829 m)
40000	40000	36000	34400	32800	31200
60000	60000	54000	51600	49200	46800
90000	90000	81000	77400	73800	70200
115000	115000	103500	98900	94300	89700
130000	130000	117000	111800	106600	101400

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above Sea level.
 In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.
 For Canadian Installations from 2000 to 4500 ft (610–1372 m), use U.S.A. column 2001 to 3000 ft (611 to 914 m).

CONDENSER ENTERING AIR TEMPERATURES °F (°C)																			
EVAPORATOR AIR		75 (23.9)			85 (29.4)			95 (35)			105 (40.5)			115 (46.1)			125 (51.7)		
CFM	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			
		Total	Sens	Total	Sens	Total	Sens	Total	Sens	Total	Sens	Total	Sens	Total	Sens				
700	57 (13.9)	21.90	21.90	1.50	21.04	21.04	1.68	20.11	20.11	1.88	19.10	19.10	2.10	18.03	18.03	2.35	16.87	16.87	2.64
	62 (16.7)	22.70	20.36	1.50	21.63	19.79	1.68	20.49	19.17	1.88	19.30	18.47	2.10	18.08	18.08	2.35	16.90	16.90	2.64
	63 (17.2)	23.06	16.63	1.50	21.94	16.09	1.68	20.75	15.53	1.88	19.50	14.94	2.11	18.17	14.31	2.36	16.75	13.64	2.64
	67 (19.4)	24.96	17.37	1.50	23.75	16.83	1.69	22.46	16.26	1.89	21.12	15.67	2.12	19.68	15.04	2.37	18.16	14.37	2.65
	72 (22.2)	27.48	14.25	1.51	26.12	13.75	1.70	24.71	13.19	1.91	23.23	12.61	2.14	21.65	12.00	2.39	19.99	11.36	2.67
800	57 (13.9)	22.97	22.97	1.52	22.03	22.03	1.70	21.03	21.03	1.90	19.95	19.95	2.13	18.79	18.79	2.38	17.55	17.55	2.66
	62 (16.7)	23.39	21.91	1.52	22.27	21.26	1.70	21.10	21.08	1.90	19.98	19.98	2.13	18.82	18.82	2.38	17.58	17.58	2.66
	63 (17.2)	23.69	17.76	1.52	22.51	17.20	1.70	21.26	16.61	1.91	19.94	15.99	2.13	18.56	15.33	2.38	17.09	14.61	2.66
	67 (19.4)	25.63	18.59	1.52	24.34	18.02	1.71	23.00	17.43	1.92	21.58	16.80	2.14	20.09	16.14	2.39	18.51	15.43	2.67
	72 (22.2)	28.18	15.05	1.53	26.77	14.50	1.73	25.28	13.93	1.93	23.72	13.32	2.16	22.08	12.68	2.41	20.35	12.02	2.69
900	57 (13.9)	23.89	23.89	1.54	22.88	22.88	1.72	21.81	21.81	1.93	20.66	20.66	2.15	19.43	19.43	2.40	18.11	18.11	2.69
	62 (16.7)	24.03	23.26	1.54	22.92	22.92	1.72	21.85	21.85	1.93	20.69	20.69	2.15	19.46	19.46	2.40	18.14	18.14	2.69
	63 (17.2)	24.20	18.85	1.54	22.96	18.26	1.72	21.66	17.64	1.93	20.30	16.99	2.15	18.86	16.29	2.40	17.35	15.52	2.68
	67 (19.4)	26.16	19.77	1.54	24.82	19.18	1.73	23.42	18.55	1.94	21.95	17.89	2.16	20.41	17.19	2.41	18.78	16.43	2.69
	72 (22.2)	28.76	15.79	1.55	27.27	15.22	1.75	25.73	14.62	1.95	24.11	14.00	2.18	22.41	13.34	2.43	20.62	12.64	2.71

*At 75°F (23.9 °C) entering dry bulb—Tennessee Valley Authority [TVA] rating conditions; all others at 80°F (26.7 °C) entering dry bulb. See Legend and Notes.

OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)																									
INDOOR AIR		-10 (-23.3)			0 (-17.8)			10 (-12.2)			20 (-6.7)			30 (-1.1)			40 (4.4)			50 (10)			60 (15.6)		
EDB °F (°C)	CFM	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	Capacity MBtuh		Total Sys KW			
		Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ				
65 (18.3)	700	7.13	6.56	1.48	9.45	8.70	1.55	12.07	11.08	1.62	14.83	13.45	1.68	17.57	15.40	1.74	20.64	20.64	1.81	24.12	24.12	1.90	28.24	28.24	2.03
	800	7.23	6.65	1.49	9.58	8.81	1.55	12.45	11.43	1.62	14.96	13.57	1.67	17.75	15.55	1.72	20.87	20.87	1.78	24.44	24.44	1.86	28.65	28.65	1.98
	900	7.32	6.74	1.50	9.68	8.91	1.56	12.55	11.52	1.61	15.09	13.68	1.66	17.90	15.68	1.71	21.07	21.07	1.76	24.69	24.69	1.84	28.85	28.85	1.95
70 (21.1)	700	6.86	6.31	1.55	9.18	8.45	1.62	11.73	10.77	1.69	14.64	13.28	1.76	17.32	15.17	1.83	20.33	20.33	1.90	23.72	23.72	1.99	27.75	27.75	2.12
	800	6.97	6.41	1.55	9.31	8.57	1.62	11.89	10.92	1.68	14.77	13.40	1.75	17.50	15.33	1.80	20.57	20.57	1.87	24.04	24.04	1.95	28.17	28.17	2.07
	900	7.06	6.50	1.56	9.42	8.67	1.62	12.03	11.04	1.68	14.90	13.51	1.74	17.65	15.47	1.79	20.76	20.76	1.85	24.29	24.29	1.93	28.44	28.44	2.04
75 (23.9)	700	6.56	6.03	1.62	8.88	8.17	1.69	11.42	10.48	1.76	14.43	13.09	1.85	17.06	14.95	1.91	20.03	20.03	1.99	23.35	23.35	2.09	27.26	27.26	2.22
	800	6.67	6.13	1.62	9.02	8.30	1.69	11.57	10.62	1.75	14.57	13.22	1.83	17.24	15.11	1.89	20.26	20.26	1.96	23.65	23.65	2.04	27.67	27.67	2.17
	900	6.76	6.22	1.63	9.13	8.40	1.70	11.71	10.75	1.75	14.69	13.32	1.82	17.40	15.24	1.87	20.45	20.45	1.94	23.89	23.89	2.02	27.96	27.96	2.14

See LEGEND following tables.

PD(D,S)430 COOLING EXTENDED PERFORMANCE TABLE

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.5)			115 (46.1)			125 (51.7)		
		CFM	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	
Total	Sens			Total	Sens		Total	Sens		Total	Sens		Total	Sens					
875	57 (13.9)	27.14	27.14	1.89	26.11	26.11	2.10	25.02	25.02	2.33	23.84	23.84	2.59	22.53	22.53	2.89	21.09	21.09	3.23
	62 (16.7)	28.06	25.60	1.90	26.77	24.93	2.10	25.43	24.20	2.33	24.02	23.37	2.59	22.57	22.57	2.89	21.13	21.13	3.23
	63 (17.2)	28.55	20.86	1.90	27.21	20.23	2.10	25.81	19.58	2.33	24.31	18.88	2.59	22.68	18.13	2.89	20.91	17.30	3.23
	67 (19.4)	30.91	21.79	1.91	29.46	21.16	2.12	27.96	20.50	2.35	26.35	19.81	2.61	24.61	19.06	2.90	22.72	18.24	3.24
	72 (22.2)	34.14	17.72	1.93	32.54	17.12	2.14	30.88	16.51	2.37	29.10	15.87	2.63	27.19	15.17	2.92	25.11	14.39	3.25
	57 (13.9)	28.46	28.46	1.93	27.34	27.34	2.14	26.16	26.16	2.37	24.89	24.89	2.63	23.49	23.49	2.92	21.96	21.96	3.26
	62 (16.7)	28.88	27.57	1.93	27.56	26.80	2.14	26.22	26.22	2.37	24.94	24.94	2.63	23.53	23.53	2.92	21.99	21.99	3.26
1000	63 (17.2)	29.30	22.31	1.93	27.88	21.66	2.14	26.41	20.97	2.37	24.85	20.24	2.63	23.15	19.45	2.92	21.31	18.57	3.26
	67 (19.4)	31.70	23.35	1.95	30.18	22.69	2.15	28.60	22.00	2.38	26.91	21.27	2.64	25.10	20.49	2.93	23.14	19.62	3.27
	72 (22.2)	35.00	18.77	1.97	33.30	18.15	2.18	31.53	17.52	2.41	29.69	16.82	2.66	27.70	16.07	2.95	25.53	15.25	3.28
	57 (13.9)	29.59	29.59	1.97	28.40	28.40	2.17	27.13	27.13	2.40	25.78	25.78	2.66	24.30	24.30	2.96	22.67	22.67	3.30
	62 (16.7)	29.65	29.65	1.97	28.45	28.45	2.17	27.18	27.18	2.40	25.83	25.83	2.66	24.34	24.34	2.96	22.71	22.71	3.30
1125	63 (17.2)	29.89	23.70	1.97	28.41	23.02	2.17	26.89	22.31	2.40	25.26	21.54	2.66	23.52	20.70	2.95	21.64	19.77	3.29
	67 (19.4)	32.31	24.86	1.98	30.72	24.17	2.19	29.08	23.46	2.42	27.34	22.70	2.67	25.48	21.86	2.97	23.46	20.93	3.30
	72 (22.2)	35.63	19.78	2.01	33.88	19.11	2.21	32.06	18.43	2.44	30.14	17.70	2.70	28.08	16.92	2.99	25.85	16.08	3.31

*At 75°F (23.9 °C) entering dry bulb—Tennessee Valley Authority [TVA] rating conditions; all others at 80°F (26.7 °C) entering dry bulb. See Legend and Notes.

PD(D,S)430 HEATING EXTENDED PERFORMANCE TABLE -10-60°F (-23.3-15.6°C)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)																							
		-10 (-23.3)			0 (-17.8)			10 (-12.2)			20 (-6.7)			30 (-1.1)			40 (4.4)			50 (10)			60 (15.6)		
		EDB °F (°C)	CFM	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	Capacity MBtuh		Total Sys KW	
Total	Integ			Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		
65 (18.3)	875	9.56	8.79	1.94	12.51	11.51	2.01	16.03	14.71	2.09	19.18	17.39	2.16	22.61	19.81	2.23	26.50	26.50	2.32	31.02	31.02	2.44	36.42	36.42	2.60
	1000	9.74	8.96	1.96	12.71	11.70	2.02	16.27	14.93	2.09	19.37	17.57	2.15	22.86	20.03	2.22	26.81	26.81	2.30	31.42	31.42	2.41	36.91	36.91	2.56
	1125	9.89	9.10	1.98	12.89	11.86	2.04	16.43	15.08	2.10	19.55	17.73	2.15	23.07	20.21	2.21	27.06	27.06	2.29	31.72	31.72	2.39	37.19	37.19	2.54
70 (21.1)	875	9.13	8.40	2.02	12.12	11.15	2.10	15.35	14.09	2.17	18.92	17.16	2.26	22.31	19.55	2.34	26.15	26.15	2.43	30.55	30.55	2.55	35.85	35.85	2.71
	1000	9.31	8.57	2.04	12.32	11.34	2.11	15.60	14.31	2.17	19.13	17.35	2.25	22.56	19.77	2.32	26.45	26.45	2.40	30.95	30.95	2.51	36.34	36.34	2.67
	1125	9.47	8.72	2.06	12.50	11.51	2.12	15.85	14.55	2.18	19.31	17.51	2.25	22.77	19.95	2.31	26.70	26.70	2.39	31.25	31.25	2.50	36.67	36.67	2.66
75 (23.9)	875	8.67	7.98	2.11	11.69	10.76	2.19	14.93	13.70	2.27	18.68	16.94	2.37	22.01	19.29	2.45	25.79	25.79	2.54	30.10	30.10	2.67	35.28	35.28	2.83
	1000	8.85	8.14	2.12	11.90	10.95	2.20	15.16	13.92	2.27	18.88	17.12	2.36	22.25	19.50	2.43	26.09	26.09	2.51	30.49	30.49	2.63	35.76	35.76	2.78
	1125	9.01	8.29	2.15	12.08	11.12	2.21	15.36	14.10	2.28	19.05	17.27	2.36	22.46	19.68	2.42	26.33	26.33	2.50	30.79	30.79	2.61	36.10	36.10	2.77

See LEGEND following tables.

CONDENSER ENTERING AIR TEMPERATURES °F (°C)																				
EVAPORATOR AIR			75 (23.9)			85 (29.4)			95 (35)			105 (40.5)			115 (46.1)			125 (51.7)		
CFM	EDB °F (°C)	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				
1050	57 (13.9)	33.80	32.51	32.51	2.62	31.13	31.13	29.64	29.64	3.26	28.00	28.00	28.00	28.00	26.21	26.21	4.10			
	62 (16.7)	35.12	33.51	30.56	2.62	31.82	29.63	30.03	28.60	3.26	28.11	28.06	28.06	28.06	26.26	26.26	4.10			
	63 (17.2)	35.63	33.98	24.84	2.63	32.23	24.00	30.35	23.10	3.26	28.32	22.12	22.12	22.12	21.07	21.07	4.10			
	67 (19.4)	38.56	36.80	25.98	2.65	34.93	25.15	32.93	24.26	3.28	30.76	23.29	23.29	23.29	22.24	22.24	4.11			
	72 (22.2)	42.38	40.45	21.27	2.68	38.42	20.46	36.23	19.60	3.31	33.88	18.68	18.68	18.68	17.68	17.68	4.14			
1200	57 (13.9)	35.46	34.08	34.08	2.66	32.59	32.59	30.99	30.99	3.30	29.24	29.24	29.24	29.24	27.32	27.32	4.13			
	62 (16.7)	36.21	33.75	32.85	2.66	32.81	31.79	31.05	31.05	3.30	29.29	29.29	29.29	27.37	27.37	4.13				
	63 (17.2)	36.62	34.89	26.53	2.66	33.05	25.66	31.08	24.72	3.30	28.96	23.70	23.70	23.70	22.59	22.59	4.13			
	67 (19.4)	39.61	37.76	27.82	2.69	35.80	26.95	33.70	26.01	3.32	31.44	25.00	25.00	25.00	23.90	23.90	4.15			
	72 (22.2)	43.49	41.47	22.43	2.72	39.34	21.59	37.05	20.70	3.35	34.60	19.74	19.74	19.74	18.70	18.70	4.17			
1350	57 (13.9)	36.89	36.89	35.42	2.70	33.84	33.84	32.14	32.14	3.34	30.28	30.28	30.28	28.26	28.26	4.17				
	62 (16.7)	37.18	35.89	35.49	2.70	33.90	33.90	32.19	32.19	3.34	30.33	30.33	30.33	28.31	28.31	4.17				
	63 (17.2)	37.42	29.04	28.17	2.70	33.71	27.26	31.67	26.28	3.33	29.48	25.20	25.20	25.20	24.02	24.02	4.16			
	67 (19.4)	40.44	30.46	29.60	2.72	36.49	28.69	34.31	27.70	3.36	31.98	26.64	26.64	26.64	25.47	25.47	4.18			
	72 (22.2)	44.37	24.36	24.36	2.75	40.06	22.67	37.69	21.74	3.39	35.15	20.74	20.74	20.74	19.67	19.67	4.21			

*At 75°F (23.9 °C) entering dry bulb—Tennessee Valley Authority [TVA] rating conditions; all others at 80°F (26.7 °C) entering dry bulb. See Legend and Notes.

OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)																										
INDOOR AIR			-10 (-23.3)			0 (-17.8)			10 (-12.2)			20 (-6.7)			30 (-1.1)			40 (4.4)			50 (10)			60 (15.6)		
EDB °F (°C)	CFM	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	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW			
			Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ	
65 (18.3)	1050	12.06	11.10	2.28	15.34	14.11	2.37	19.31	17.73	2.48	22.99	20.85	2.57	27.20	23.83	2.67	32.01	27.9	37.62	37.62	2.96	44.15	44.15	3.17		
	1200	12.24	11.26	2.28	15.55	14.31	2.37	19.49	17.89	2.46	23.21	21.05	2.54	27.49	24.09	2.63	32.36	32.36	38.06	38.06	2.92	43.75	43.75	3.10		
	1350	12.40	11.41	2.29	15.73	14.47	2.37	19.66	18.05	2.46	23.40	21.22	2.53	27.72	24.29	2.62	32.62	32.62	38.08	38.08	2.88	42.98	42.98	3.07		
70 (21.1)	1050	11.60	10.67	2.40	14.89	13.70	2.49	19.02	17.45	2.61	22.66	20.55	2.69	26.81	23.49	2.80	31.55	31.55	37.02	37.02	3.10	43.57	43.57	3.32		
	1200	11.79	10.84	2.40	15.10	13.89	2.49	19.22	17.64	2.59	22.88	20.75	2.67	27.09	23.74	2.76	31.91	31.91	37.47	37.47	3.05	43.39	43.39	3.24		
75 (23.9)	1050	11.95	10.99	2.41	15.28	14.06	2.49	19.39	17.80	2.59	23.08	20.93	2.66	27.33	23.94	2.74	32.17	32.17	37.72	37.72	3.02	42.75	42.75	3.21		
	1200	11.10	10.21	2.52	14.41	13.26	2.62	18.18	16.69	2.72	22.35	20.27	2.83	26.42	23.15	2.94	31.08	31.08	36.44	36.44	3.24	42.87	42.87	3.48		
	1350	11.29	10.38	2.53	14.62	13.46	2.62	18.52	17.00	2.71	22.56	20.46	2.81	26.70	23.40	2.90	31.43	31.43	36.87	36.87	3.18	42.98	42.98	3.39		
1350	11.45	10.53	2.54	14.81	13.62	2.62	18.95	17.40	2.71	22.75	20.64	2.79	26.93	23.60	2.88	31.71	31.71	37.19	37.19	3.17	42.46	42.46	3.36			

See LEGEND following tables.

PD(D,S)442 COOLING EXTENDED PERFORMANCE TABLE

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.5)			115 (46.1)			125 (51.7)		
		CFM	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	
Total	Sens			Total	Sens		Total	Sens		Total	Sens		Total	Sens					
1225	57 (13.9)	38.52	38.52	36.98	36.98	2.93	35.30	35.30	3.27	33.49	33.49	3.66	31.53	31.53	4.11	29.35	29.35	4.64	
	62 (16.7)	40.25	36.53	38.38	35.40	2.95	36.38	34.18	3.28	34.25	32.85	3.67	31.99	31.37	4.12	29.51	29.51	4.64	
	63 (17.2)	40.42	29.59	38.51	28.53	2.95	36.47	27.40	3.28	34.29	26.19	3.67	31.96	24.88	4.12	29.43	23.45	4.64	
	67 (19.4)	43.85	31.00	41.76	29.93	2.98	39.56	28.79	3.32	37.21	27.56	3.71	34.68	26.23	4.17	31.95	24.78	4.70	
	72 (22.2)	47.65	25.61	45.34	24.58	3.02	42.92	23.50	3.37	40.32	22.34	3.77	37.55	21.10	4.23	34.58	19.76	4.76	
1400	57 (13.9)	40.25	40.25	38.58	38.58	2.99	36.77	36.77	3.33	34.83	34.83	3.72	32.71	32.71	4.18	30.39	30.39	4.71	
	62 (16.7)	41.40	39.06	39.43	37.83	3.00	37.36	36.48	3.33	35.17	34.96	3.73	32.82	32.82	4.18	30.43	30.43	4.71	
	63 (17.2)	41.51	31.29	39.49	30.16	3.00	37.35	28.97	3.33	35.07	27.69	3.72	32.62	26.30	4.17	29.99	24.80	4.70	
	67 (19.4)	45.01	32.87	42.81	31.72	3.04	40.50	30.50	3.37	38.03	29.20	3.77	35.38	27.79	4.23	32.54	26.26	4.76	
	72 (22.2)	48.85	26.74	46.43	25.66	3.08	43.87	24.51	3.42	41.16	23.30	3.83	38.26	21.99	4.29	35.16	20.59	4.82	
1575	57 (13.9)	41.72	41.72	39.93	39.93	3.05	38.01	38.01	3.39	35.94	35.94	3.78	33.69	33.69	4.24	31.24	31.24	4.77	
	62 (16.7)	42.39	41.37	40.36	39.99	3.05	38.18	38.18	3.39	36.02	36.02	3.78	33.74	33.74	4.24	31.28	31.28	4.77	
	63 (17.2)	42.38	32.88	40.28	31.70	3.05	38.04	30.44	3.38	35.68	29.10	3.77	33.14	27.65	4.23	30.42	26.06	4.75	
	67 (19.4)	45.94	34.61	43.65	33.40	3.09	41.24	32.12	3.43	38.67	30.74	3.83	35.92	29.27	4.28	32.99	27.66	4.81	
	72 (22.2)	49.80	27.78	47.28	26.65	3.14	44.62	25.45	3.48	41.80	24.18	3.88	38.81	22.81	4.35	35.62	21.35	4.88	

*At 75°F (23.9 °C) entering dry bulb—Tennessee Valley Authority [TVA] rating conditions; all others at 80°F (26.7 °C) entering dry bulb. See Legend and Notes.

PD(D,S)442 HEATING EXTENDED PERFORMANCE TABLE -10-60°F (-23.3-15.6°C)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)																							
		-10 (-23.3)			0 (-17.8)			10 (-12.2)			20 (-6.7)			30 (-1.1)			40 (4.4)			50 (10)			60 (15.6)		
		EDB °F (°C)	CFM	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	Capacity MBtuh		Total Sys KW	
Total	Integ			Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		
65 (18.3)	1225	13.77	12.67	2.42	17.68	16.26	2.58	21.89	20.09	2.72	25.94	23.53	2.83	30.55	26.77	2.94	35.85	35.85	3.08	42.16	42.16	3.29	48.46	48.46	3.55
	1400	13.95	12.83	2.44	17.89	16.46	2.59	22.07	20.26	2.72	26.18	23.74	2.82	30.86	27.04	2.92	36.22	36.22	3.06	42.20	42.20	3.24	47.82	47.82	3.50
	1575	14.11	12.98	2.46	18.12	16.68	2.61	22.25	20.42	2.73	26.38	23.93	2.82	31.11	27.26	2.92	36.53	36.53	3.07	41.84	41.84	3.24	47.22	47.22	3.49
	1225	13.46	12.38	2.56	17.32	15.93	2.72	21.69	19.91	2.86	25.65	23.26	2.96	30.15	26.42	3.08	35.34	35.34	3.22	41.53	41.53	3.44	48.06	48.06	3.71
	1400	13.65	12.56	2.57	17.54	16.14	2.72	21.88	20.08	2.86	25.89	23.48	2.95	30.46	26.69	3.06	35.70	35.70	3.19	41.84	41.84	3.39	47.53	47.53	3.67
75 (23.9)	1225	13.82	12.72	2.59	17.73	16.32	2.74	22.04	20.23	2.86	26.11	23.68	2.95	30.72	26.91	3.05	36.01	36.01	3.20	41.57	41.57	3.39	46.99	46.99	3.65
	1400	13.07	12.03	2.69	16.92	15.57	2.85	21.46	19.70	3.00	25.36	23.00	3.11	29.77	26.09	3.22	34.82	34.82	3.37	40.89	40.89	3.60	47.64	47.64	3.89
	1575	13.27	12.21	2.71	17.15	15.78	2.86	21.67	19.89	3.00	25.60	23.21	3.09	30.06	26.34	3.20	35.19	35.19	3.34	41.34	41.34	3.56	47.18	47.18	3.84
	1225	13.45	12.38	2.73	17.36	15.97	2.88	21.83	20.04	3.01	25.80	23.40	3.09	30.32	26.56	3.19	35.47	35.47	3.34	41.27	41.27	3.54	46.71	46.71	3.83
	1400	13.45	12.38	2.73	17.36	15.97	2.88	21.83	20.04	3.01	25.80	23.40	3.09	30.32	26.56	3.19	35.47	35.47	3.34	41.27	41.27	3.54	46.71	46.71	3.83

See LEGEND following tables.

CONDENSER ENTERING AIR TEMPERATURES °F (°C)																				
EVAPORATOR AIR			75 (23.9)			85 (29.4)			95 (35)			105 (40.5)			115 (46.1)			125 (51.7)		
CFM	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			
1400	57 (13.9)	44.75	44.75	3.06	42.98	42.98	3.39	41.06	41.06	3.77	39.00	39.00	4.20	36.79	36.79	4.67	34.42	34.42	5.18	
	62 (16.7)	46.12	41.54	3.07	43.97	40.35	3.40	41.69	39.04	3.78	39.29	37.55	4.20	36.86	36.86	4.67	34.48	34.48	5.18	
	63 (17.2)	46.70	33.68	3.07	44.47	32.60	3.41	42.08	31.45	3.78	39.54	30.23	4.20	36.87	28.94	4.67	34.05	27.58	5.18	
	67 (19.4)	50.55	35.24	3.10	48.13	34.15	3.43	45.54	32.98	3.81	42.81	31.75	4.23	39.93	30.45	4.70	36.89	29.07	5.21	
	72 (22.2)	55.52	28.74	3.13	52.82	27.67	3.47	49.97	26.55	3.84	46.97	25.36	4.26	43.81	24.12	4.73	40.47	22.80	5.24	
1600	57 (13.9)	46.77	46.77	3.13	44.87	44.87	3.47	42.79	42.79	3.85	40.57	40.57	4.27	38.20	38.20	4.74	35.66	35.66	5.25	
	62 (16.7)	47.44	44.50	3.14	45.22	43.17	3.47	42.89	42.89	3.85	40.63	40.63	4.27	38.26	38.26	4.74	35.71	35.71	5.25	
	63 (17.2)	47.85	35.90	3.14	45.50	34.77	3.47	42.99	33.55	3.85	40.33	32.27	4.27	37.54	30.91	4.73	34.62	29.45	5.24	
	67 (19.4)	51.78	37.65	3.17	49.22	36.50	3.50	46.50	35.26	3.88	43.64	33.97	4.30	40.64	32.61	4.76	37.48	31.13	5.27	
	72 (22.2)	56.83	30.24	3.20	53.99	29.12	3.53	51.00	27.94	3.91	47.86	26.71	4.33	44.56	25.40	4.80	41.08	24.03	5.30	
1800	57 (13.9)	48.51	48.51	3.20	46.46	46.46	3.54	44.24	44.24	3.92	41.88	41.88	4.34	39.36	39.36	4.81	36.67	36.67	5.32	
	62 (16.7)	48.63	48.63	3.20	46.54	46.54	3.54	44.31	44.31	3.92	41.95	41.95	4.34	39.42	39.42	4.81	36.72	36.72	5.32	
	63 (17.2)	48.76	38.03	3.20	46.31	36.85	3.54	43.69	35.57	3.91	40.94	34.21	4.33	38.07	32.76	4.80	35.07	31.19	5.30	
	67 (19.4)	52.73	39.96	3.23	50.06	38.75	3.56	47.24	37.47	3.94	44.28	36.10	4.36	41.18	34.64	4.83	37.93	33.06	5.33	
	72 (22.2)	57.85	31.65	3.26	54.90	30.49	3.60	51.79	29.26	3.97	48.53	27.98	4.39	45.11	26.62	4.86	41.53	25.19	5.36	

*At 75°F (23.9 °C) entering dry bulb— Tennessee Valley Authority [TVA] rating conditions; all others at 80°F (26.7 °C) entering dry bulb. See Legend and Notes.

OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)																										
INDOOR AIR			-10 (-23.3)			0 (-17.8)			10 (-12.2)			20 (-6.7)			30 (-1.1)			40 (4.4)			50 (10)			60 (15.6)		
EDB °F (°C)	CFM	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	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW		
				Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ		Total	Integ
65 (18.3)	1400	15.24	14.02	3.00	20.15	18.54	3.09	25.29	23.21	3.21	29.94	27.15	3.32	35.20	30.84	3.45	41.16	41.16	3.62	48.10	48.10	3.83	54.59	54.59	4.07	
	1600	15.50	14.26	3.04	20.44	18.80	3.12	25.55	23.45	3.23	30.25	27.43	3.33	35.57	31.17	3.45	41.64	41.64	3.63	47.73	47.73	3.81	53.60	53.60	4.04	
	1800	15.74	14.48	3.09	20.70	19.05	3.16	25.78	23.66	3.26	30.52	27.68	3.35	35.88	31.43	3.47	41.86	41.86	3.63	47.20	47.20	3.82	52.65	52.65	4.03	
70 (21.1)	1400	14.75	13.57	3.12	19.66	18.09	3.22	25.02	22.96	3.36	29.60	26.84	3.47	34.73	30.43	3.61	40.57	40.57	3.79	47.52	47.52	4.02	54.22	54.22	4.26	
	1600	15.01	13.81	3.16	19.94	18.34	3.25	25.26	23.19	3.37	29.91	27.12	3.48	35.11	30.76	3.61	41.02	41.02	3.78	47.42	47.42	3.96	53.38	53.38	4.23	
	1800	15.27	14.04	3.21	20.24	18.62	3.29	25.51	23.41	3.40	30.18	27.37	3.50	35.42	31.04	3.63	41.43	41.43	3.80	46.98	46.98	3.99	52.55	52.55	4.22	
75 (23.9)	1400	14.22	13.08	3.25	19.13	17.60	3.36	24.68	22.65	3.51	29.23	26.51	3.64	34.26	30.02	3.78	39.96	39.96	3.96	46.79	46.79	4.21	53.79	53.79	4.46	
	1600	14.48	13.32	3.29	19.44	17.89	3.39	24.97	22.92	3.53	29.54	26.79	3.64	34.63	30.34	3.78	40.40	40.40	3.95	47.06	47.06	4.16	53.09	53.09	4.42	
	1800	14.73	13.55	3.34	19.71	18.14	3.43	25.22	23.15	3.56	29.82	27.04	3.66	34.95	30.62	3.79	40.82	40.82	3.98	46.70	46.70	4.17	52.35	52.35	4.42	

See LEGEND following tables.

CONDENSER ENTERING AIR TEMPERATURES °F (°C)																			
EVAPORATOR AIR		75 (23.9)			85 (29.4)			95 (35)			105 (40.5)			115 (46.1)			125 (51.7)		
		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
CFM	EWB °F (°C)	Total	Sens	Total	Sens	Total	Sens	Total	Sens	Total	Sens	Total	Sens	Total	Sens	Total	Sens	Total	Sens
		1750	57 (13.9)	56.58	56.58	3.82	54.25	54.25	4.23	51.74	51.74	4.69	49.03	49.03	5.20	46.02	46.02	5.80	42.74
62 (16.7)	58.15		58.15	3.84	49.87	49.87	4.24	52.31	48.23	4.69	49.14	49.14	5.21	46.10	46.10	5.80	42.80	42.80	6.47
63 (17.2)	58.96		58.96	3.85	41.68	40.35	4.25	52.93	38.94	4.70	49.57	37.43	5.21	45.96	35.80	5.79	42.09	34.04	6.46
67 (19.4)	63.58		63.58	3.90	43.48	42.13	4.30	57.00	40.70	4.75	53.35	39.18	5.26	49.42	37.52	5.84	45.21	35.73	6.50
72 (22.2)	69.81		69.81	3.96	35.09	33.84	4.37	62.44	32.52	4.82	58.39	31.04	5.33	54.03	29.43	5.90	49.34	27.71	6.55
2000	57 (13.9)	59.07	59.07	3.93	56.53	56.53	4.33	53.81	53.81	4.79	50.87	50.87	5.31	47.61	47.61	5.89	44.07	44.07	6.56
	62 (16.7)	59.71	59.71	3.93	55.08	56.79	4.34	53.90	53.90	4.79	50.94	50.94	5.31	47.68	47.68	5.90	44.13	44.13	6.56
	63 (17.2)	60.33	60.33	3.94	44.49	43.10	4.34	53.93	41.62	4.79	50.41	40.03	5.30	46.64	38.29	5.88	42.63	36.38	6.54
	67 (19.4)	64.95	64.95	3.99	46.50	45.09	4.39	58.02	43.59	4.84	54.20	41.98	5.35	50.08	40.22	5.93	45.71	38.29	6.58
	72 (22.2)	71.19	71.19	4.06	37.15	35.74	4.46	63.50	34.29	4.91	59.27	32.74	5.42	54.69	31.06	5.99	49.83	29.27	6.63
2250	57 (13.9)	61.14	61.14	4.03	58.43	58.43	4.43	55.52	55.52	4.89	52.36	52.36	5.40	48.89	48.89	5.99	45.23	45.23	6.65
	62 (16.7)	61.25	61.25	4.03	58.52	58.52	4.43	55.60	55.60	4.89	52.43	52.43	5.40	48.95	48.95	5.99	45.28	45.28	6.65
	63 (17.2)	61.37	61.37	4.03	47.18	45.72	4.43	54.69	44.17	4.88	51.04	42.48	5.38	47.15	40.61	5.96	43.03	38.53	6.62
	67 (19.4)	65.96	65.96	4.08	49.40	47.93	4.48	58.79	46.35	4.93	54.82	44.65	5.44	50.57	42.76	6.01	46.07	40.65	6.66
	72 (22.2)	72.28	72.28	4.15	38.89	37.47	4.55	64.28	35.97	5.00	59.88	34.37	5.51	55.14	32.63	6.08	50.13	30.78	6.71

*At 75 °F (23.9 °C) entering dry bulb—Tennessee Valley Authority [TVA] rating conditions; all others at 80 °F (26.7 °C) entering dry bulb. See Legend and Notes.

OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)																									
INDOOR AIR		-10 (-23.3)			0 (-17.8)			10 (-12.2)			20 (-6.7)			30 (-1.1)			40 (4.4)			50 (10)			60 (15.6)		
		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	Capacity MBtuh		Total Sys KW	Capacity MBtuh		Total Sys KW
EDB °F (°C)	CFM	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ	Total	Integ		
		65 (18.3)	1750	21.10	19.41	3.70	26.76	24.62	3.86	32.87	30.17	4.02	39.65	35.96	4.20	46.23	40.51	4.36	53.69	53.69	4.55	62.45	62.45	4.80	72.83
2000	21.50		19.78	3.75	27.19	25.02	3.90	33.42	30.68	4.05	40.05	36.32	4.20	46.75	40.96	4.35	54.33	54.33	4.52	63.26	63.26	4.75	73.85	73.85	5.06
2250	21.87		20.12	3.81	27.58	25.37	3.95	34.54	31.70	4.11	40.41	36.65	4.23	47.21	41.37	4.36	54.88	54.88	4.52	63.92	63.92	4.74	74.66	74.66	5.04
70 (21.1)	1750	20.30	18.67	3.85	26.01	23.93	4.02	32.15	29.51	4.19	39.25	35.59	4.39	45.69	40.03	4.56	52.98	52.98	4.76	61.58	61.58	5.02	71.76	71.76	5.35
	2000	20.71	19.05	3.90	26.46	24.34	4.06	32.62	29.94	4.22	39.63	35.94	4.39	46.19	40.47	4.55	53.62	53.62	4.73	62.37	62.37	4.96	72.76	72.76	5.27
	2250	21.08	19.39	3.96	26.85	24.71	4.11	33.01	30.30	4.25	40.01	36.29	4.42	46.63	40.86	4.56	54.16	54.16	4.73	63.03	63.03	4.95	73.56	73.56	5.26
75 (23.9)	1750	19.43	17.88	4.01	25.22	23.21	4.19	31.39	28.81	4.38	38.81	35.20	4.60	45.13	39.54	4.78	52.29	52.29	4.98	60.72	60.72	5.24	70.71	70.71	5.58
	2000	19.85	18.26	4.06	25.67	23.62	4.23	31.88	29.26	4.40	39.22	35.57	4.60	45.64	39.99	4.76	52.90	52.90	4.95	61.50	61.50	5.18	71.69	71.69	5.50
	2250	20.22	18.61	4.12	26.07	23.98	4.28	32.31	29.65	4.44	39.61	35.92	4.62	46.08	40.37	4.77	53.44	53.44	4.94	62.15	62.15	5.16	72.44	72.44	5.47

- Bypass Factor
- Entering Dry-Bulb
- Entering Wet-Bulb
- Total Unit Power Input
- Sensible Heat Capacity (1000 Btuh)
- Total Capacity (1000 Btuh) (net)
- 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:

$$t_{ldb} = t_{edb} - \frac{\text{Sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

$$t_{lwb} = \text{Wet-bulb temperature corresponding to enthalpy air leaving evaporator coil (} t_{lwb} \text{)}$$

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where: h_{ewb} = Enthalpy of air entering evaporator coil

4. The SHC is based on 80°F (26.7°C) edb temperature of air entering evaporator coil. Below 80°F (26.7°C) edb, subtract (corr factor x cfm) from SHC. Above 80°F (26.7°C) edb, add (corr factor x cfm) to SHC. Correction Factor = 1.10 x (1 + BF) x (edb + 80).

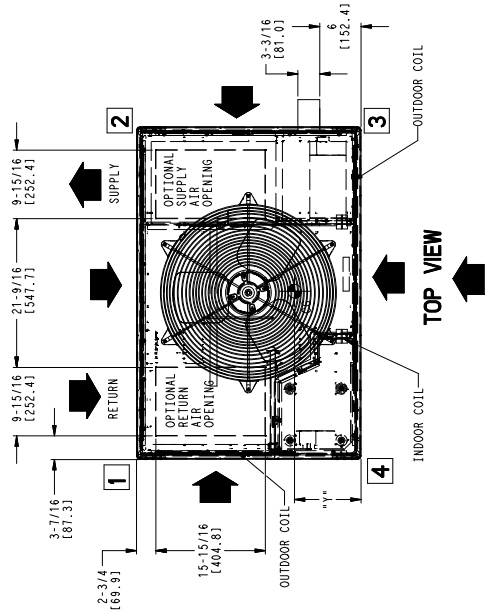
5. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

UNIT DIMENSIONS, PDD/S424 - 30

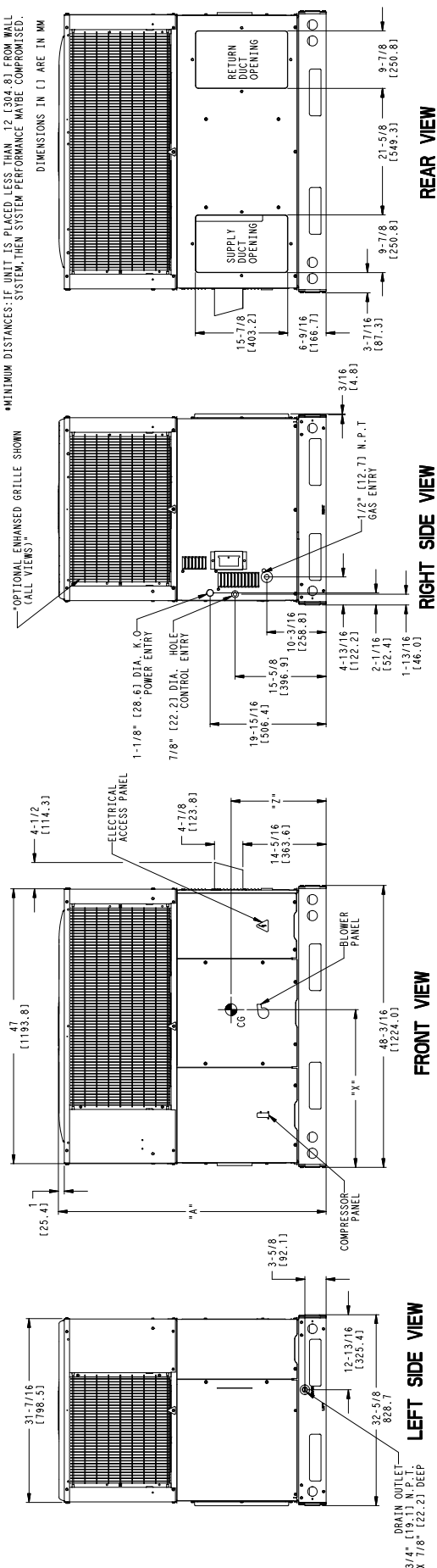
UNIT	SERIES	ELECTRICAL CHARACTERISTICS	UNIT WT.		UNIT HEIGHT IN/MM		CENTER OF GRAVITY IN/MM					
			LB	KG	"A"	"B"	X	Y	Z			
P.D.D. S14241(040,060)	1	208/230-1-60	368	167	44-1/8	1121	22-3/4	578	15-1/2	394	16-1/4	387
P.D.D. S14301(040,060)	1	208/230-1-60	360	163	44-1/8	1121	22-3/4	578	15-1/2	394	16-1/4	387

UNITS	CORNER WEIGHT, LB/KG		
	"1"	"2"	"3"
P.D.D. S14241(040,060) / 208/230	94	42	83
P.D.D. S14301(040,060) / 208/230	92	42	81

NOTE: ALL TABLE DATA RELEVANT FOR ALL FACTORY INSTALLED OPTIONS EXCEPT ECONOMIZER



- REQUIRED CLEARANCES TO COMBUSTIBLE MATL.**
- TOP OF UNIT..... 14 [355.6]
 - DUCT SIDE OF UNIT..... 2 [50.8]
 - FLUE SIDE OF UNIT..... 14 [355.6]
 - SIDE OPPOSITE DUCTS..... 14 [355.6]
 - BOTTOM OF UNIT..... 12 [304.8]
 - FLUE 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 OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE..... 42 [1066.8]
- REQUIRED CLEARANCE FOR OPERATION AND SERVICING**
- 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.

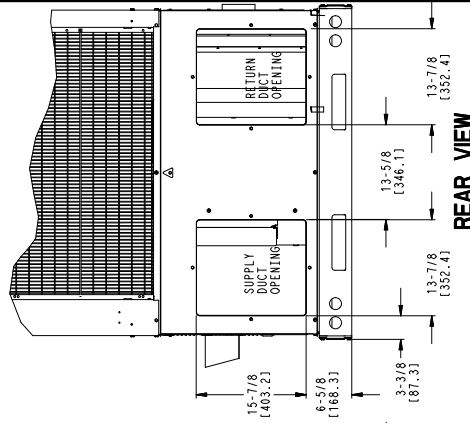
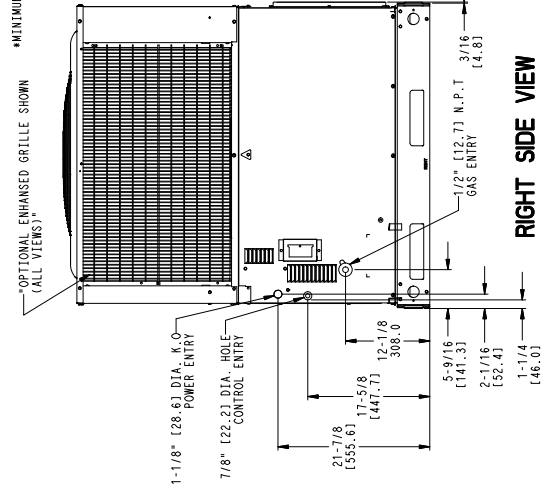
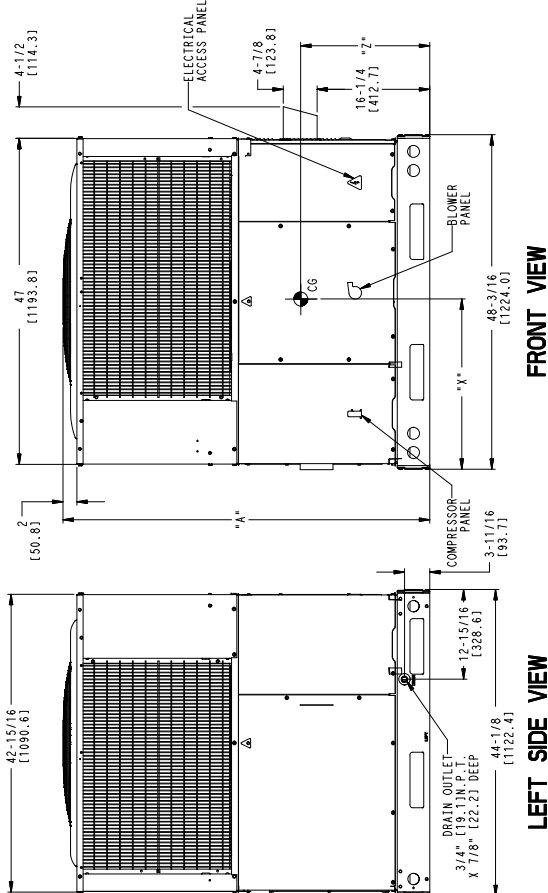
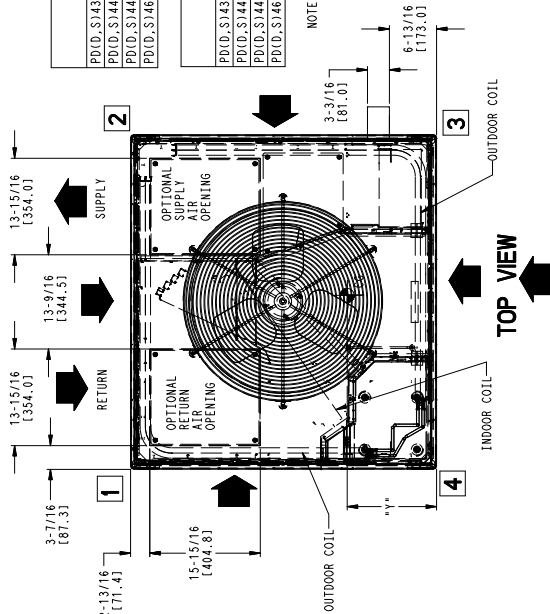


REV A
48VT500077

UNIT	SERIES	ELECTRICAL CHARACTERISTICS	UNIT WT.		UNIT HEIGHT IN/MM							
			LB	KG	"A"	X	Y	Z				
PDD.S1436(060,090)	1	208/230-1-60	440	200	44-3/4	1137	22-3/4	518	18	457	17-1/8	435
PDD.S1442(060,090)	1	208/230-1-60	486	220	48-3/4	1238	22-3/4	518	18	457	17-3/8	435
PDD.S1448(090,115,130)	1	208/230-1-60	506	230	48-3/4	1238	22-3/4	518	18	457	17-3/8	435
PDD.S1460(090,115,130)	1	208/230-1-60	540	245	54-3/4	1391	22-3/4	518	18	457	17-3/4	435

UNITS	VOLTAGE	CORNER WEIGHT LB/KG							
		"1"	"2"	"3"	"4"				
PDD.S1436(060,090)	208/230	96	43	85	38	122	55	138	62
PDD.S1442(060,090)	208/230	106	48	94	42	135	61	152	69
PDD.S1448(090,115,130)	208/230	110	50	88	44	140	64	158	72
PDD.S1460(090,115,130)	208/230	117	53	104	47	150	68	168	77

NOTE: ALL TABLE DATA RELEVANT FOR ALL FACTORY INSTALLED OPTIONS EXCEPT ECONOMIZER



REV A
48VT500078

- REQUIRED CLEARANCES TO COMBUSTIBLE MATL.**
- TOP OF UNIT..... 12 [304.8]
 - DUCT SIDE OF UNIT..... 12 [304.8]
 - DUCT OPPOSITE DUCTS..... 14 [355.6]
 - BOTTOM OF UNIT..... 12 [304.8]
 - FLUE PANEL..... 36 [914.4]
- NEE. REQUIRED CLEARANCES.**
- BETWEEN UNITS, POWER ENTRY SIDE..... 42 [1066.8]
 - AN UNITS, POWER ENTRY SIDE..... 42 [1066.8]
 - UNIT AND BUC FOR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE..... 36 [914.0]
 - POWER ENTRY SIDE..... 42 [1066.8]
- REQUIRED CLEARANCE FOR OPERATION AND SERVICING**
- EVAP. COIL ACCESS SIDE..... 36 [914.0]
 - POWER ENTRY SIDE..... 42 [1066.8]
 - (EXCEPT FOR NEC REQUIREMENTS)
 - FLUE PANEL..... 48 [1219.2]
 - DUCT 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 MAY BE COMPROMISED.
- DIMENSIONS IN [] ARE IN MM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

NOTES:

- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, THEY MUST BE REPLACED WITH THE SAME WIRE OR ITS EQUIVALENT.
- USE 75 DEG. COPPER CONDUCTORS FOR FIELD INSTALLATION.
- SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT. INDOOR FAN MOTOR PLUGS - "DO NOT DISCONNECT UNDER LOAD"
- ON SMALL BASE MODELS LS1 AND LS2 ARE WIRED IN SERIES. LARGE BASE MODELS HAVE LS1 ONLY.
- INDUCER CAPACITOR AND WIRING ON CERTAIN MODELS ONLY. IF CAP2 IS PRESENT, YELLOW WIRES FROM IGC AND IDM CONNECT ON SAME SIDE OF CAP2.
- THIS FUSE IS MANUFACTURED BY LITTELFUSE, P/N 257003.
- THIS FUSE IS MANUFACTURED BY LITTELFUSE, P/N 257005.

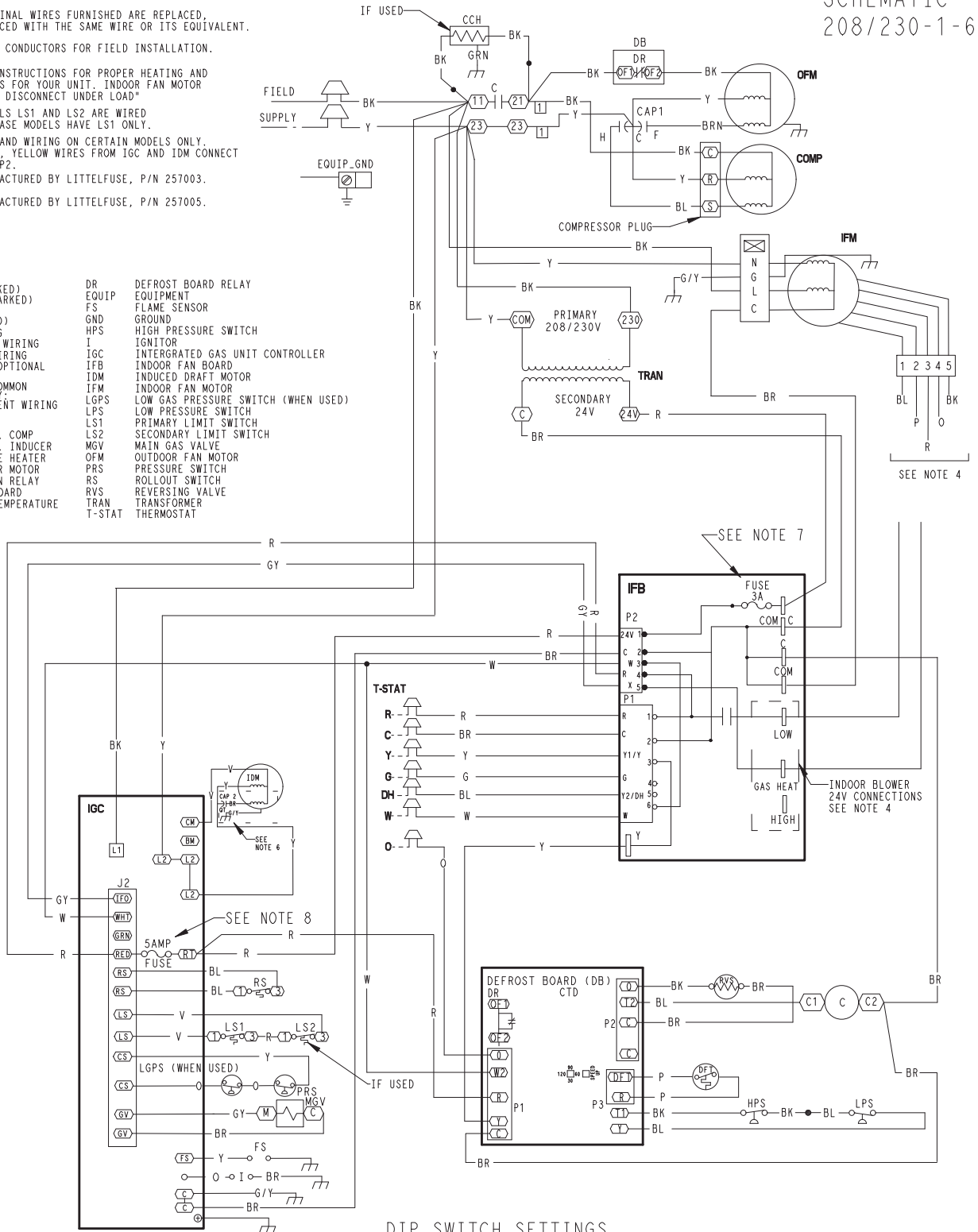
SCHMATIC
208/230-1-60

LEGEND

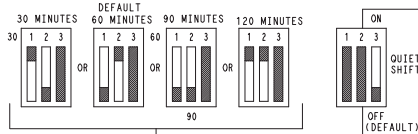
- | | | | |
|------------------------|------------------------------|--------|-------------------------------------|
| △ | FIELD SPLICE | DR | DEFROST BOARD RELAY |
| ○ | TERMINAL (MARKED) | EQ | EQUIPMENT |
| ○ | TERMINAL (UNMARKED) | FS | FLAME SENSOR |
| ● | SPLICE | GND | GROUND |
| ○ | SPLICE (MARKED) | HPS | HIGH PRESSURE SWITCH |
| --- | FACTORY WIRING | I | IGNITOR |
| --- | FIELD CONTROL WIRING | IGC | INTERGRATED GAS UNIT CONTROLLER |
| --- | FIELD POWER WIRING | IFB | INDOOR FAN BOARD |
| --- | ACCESSORY OR OPTIONAL WIRING | IDM | INDUCED DRAFT MOTOR |
| --- | TO INDICATE COMMON | IFM | INDOOR FAN MOTOR |
| P2 IN PARENTHESIS ONLY | NOT TO REPRESENT WIRING | LGPS | LOW GAS PRESSURE SWITCH (WHEN USED) |
| C | CONTACTOR | LPS | LOW PRESSURE SWITCH |
| CAP 1 | CAPACITOR, COMP | LS1 | PRIMARY LIMIT SWITCH |
| CAP 2 | CAPACITOR, INDUCER | LS2 | SECONDARY LIMIT SWITCH |
| CCH | CRANK CASE HEATER | MGV | MAIN GAS VALVE |
| COMP | COMPRESSOR MOTOR | OFM | OUTDOOR FAN MOTOR |
| CR | COMBUSTION RELAY | PRS | PRESSURE SWITCH |
| DB | DEFROST BOARD | RS | ROLLOUT SWITCH |
| DFT | DEFROST TEMPERATURE SWITCH | RVS | REVERSING VALVE |
| | | TRAN | TRANSFORMER |
| | | T-STAT | THERMOSTAT |

COLOR CODE

- | | |
|----|--------|
| BK | BLACK |
| BL | BLUE |
| BR | BROWN |
| GY | GRAY |
| G | GREEN |
| O | ORANGE |
| P | PINK |
| R | RED |
| V | VIOLET |
| W | WHITE |
| Y | YELLOW |



DIP SWITCH SETTINGS



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

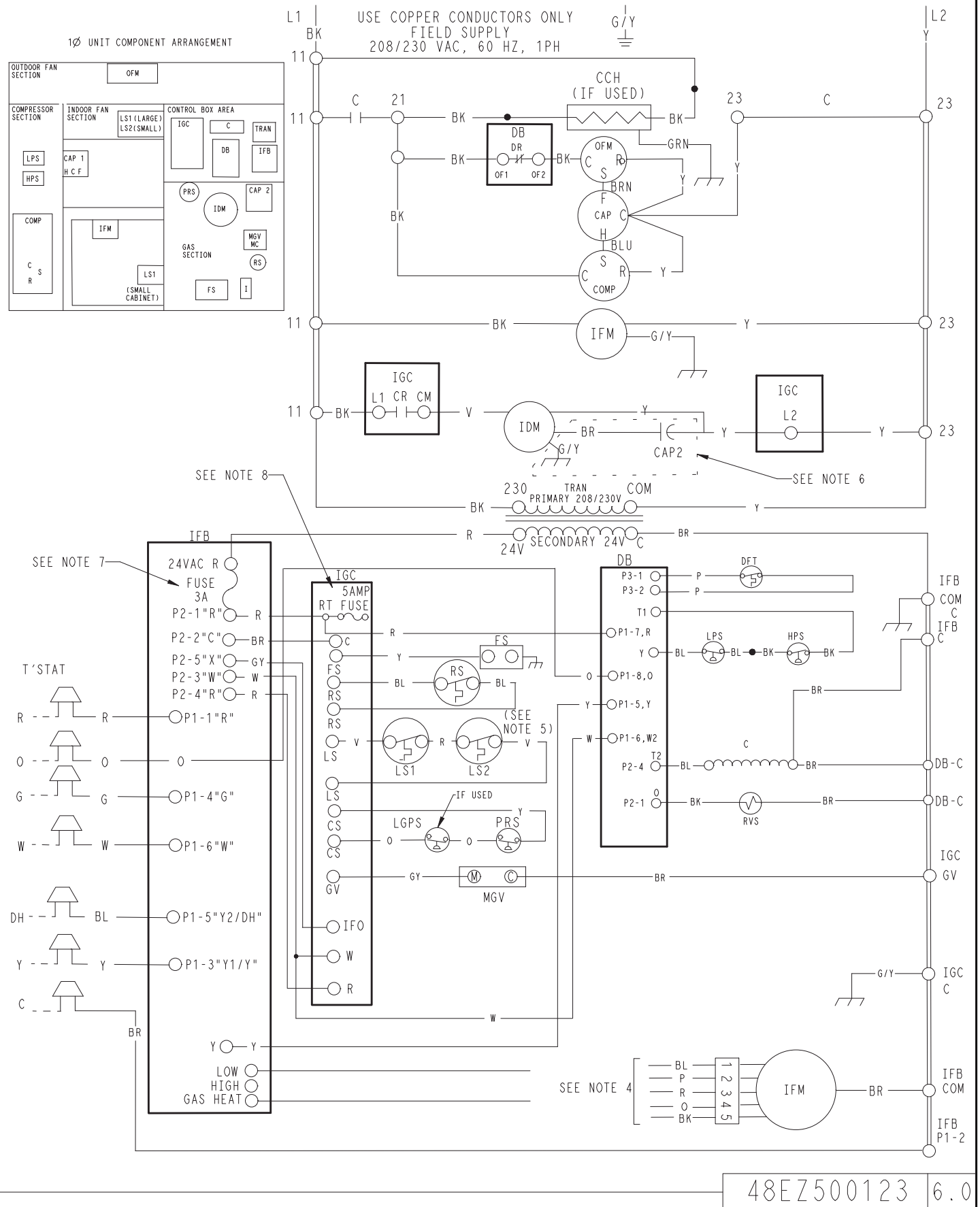
SPEED UP JUMPERED TEST PINS (USE METAL OBJECT) FIELD SPEED-UP CYCLE

- MOMENTARILY SHORT PINS AND RELEASE TO BYPASS COMPRESSOR OFF DELAY.
- SHORT FOR 5+ SEC. AND RELEASE FOR FORCED DEFROST.
- PERMANENT SHORT WILL BE IGNORED.

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

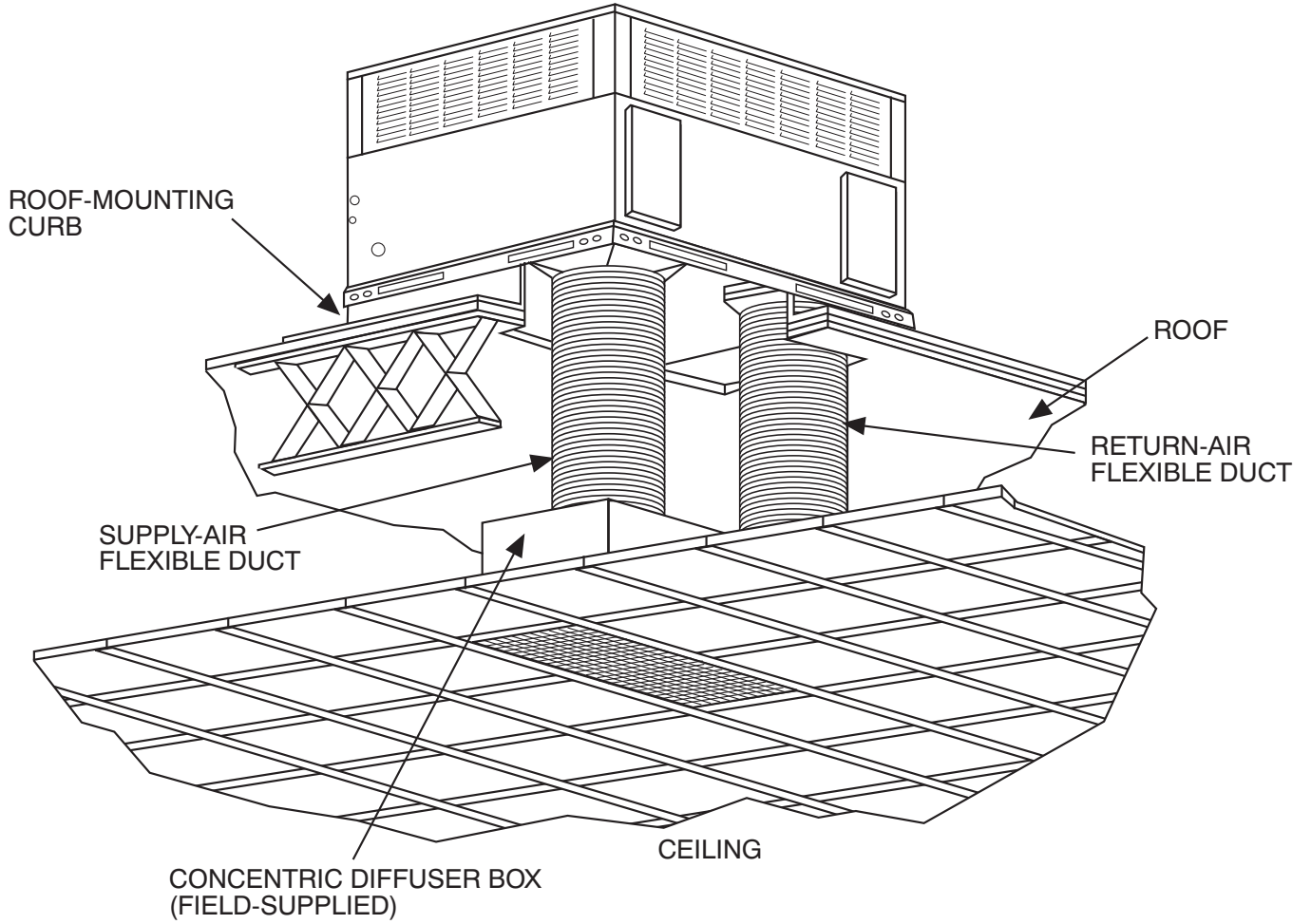
LADDER WIRING DIAGRAM, 208/230-1-60

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

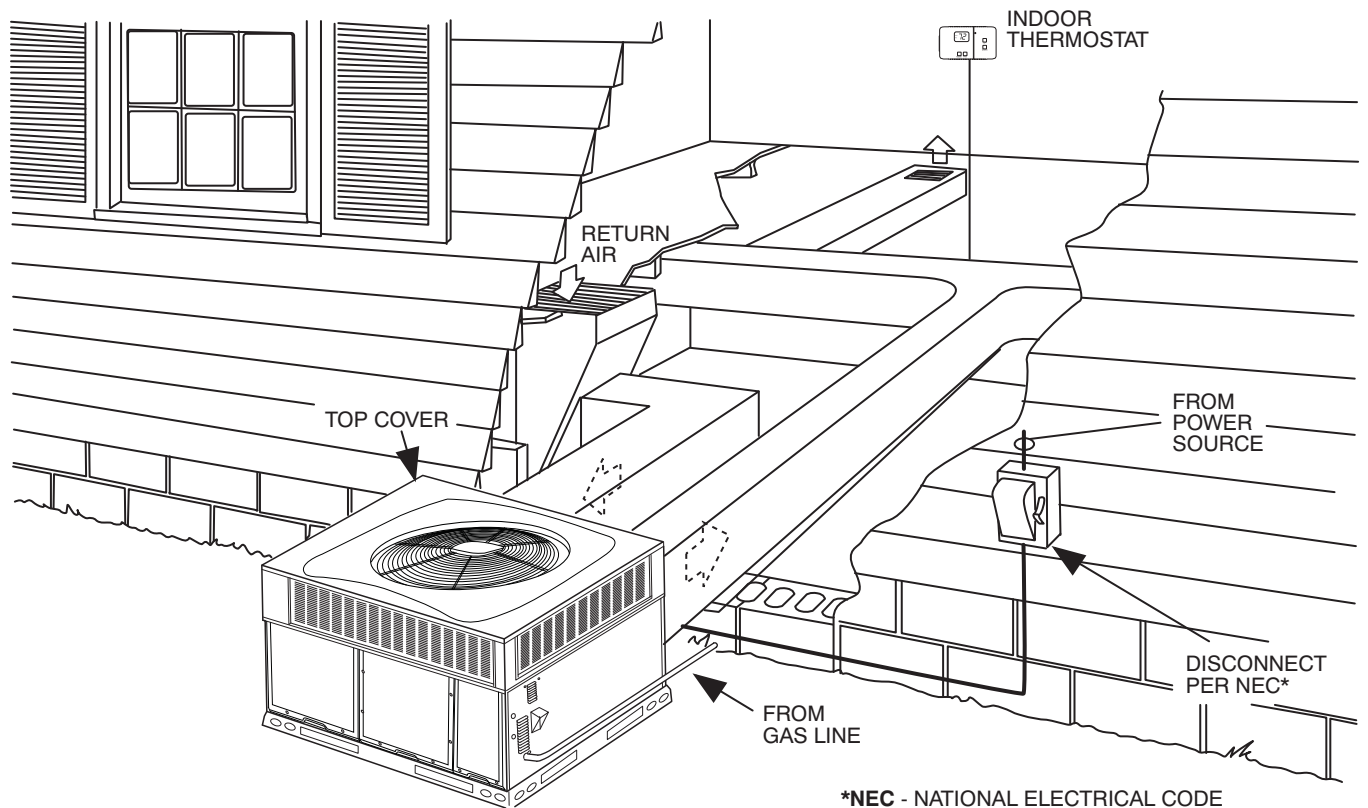


48EZ500123 6.0

TYPICAL PIPING AND WIRING



A09226

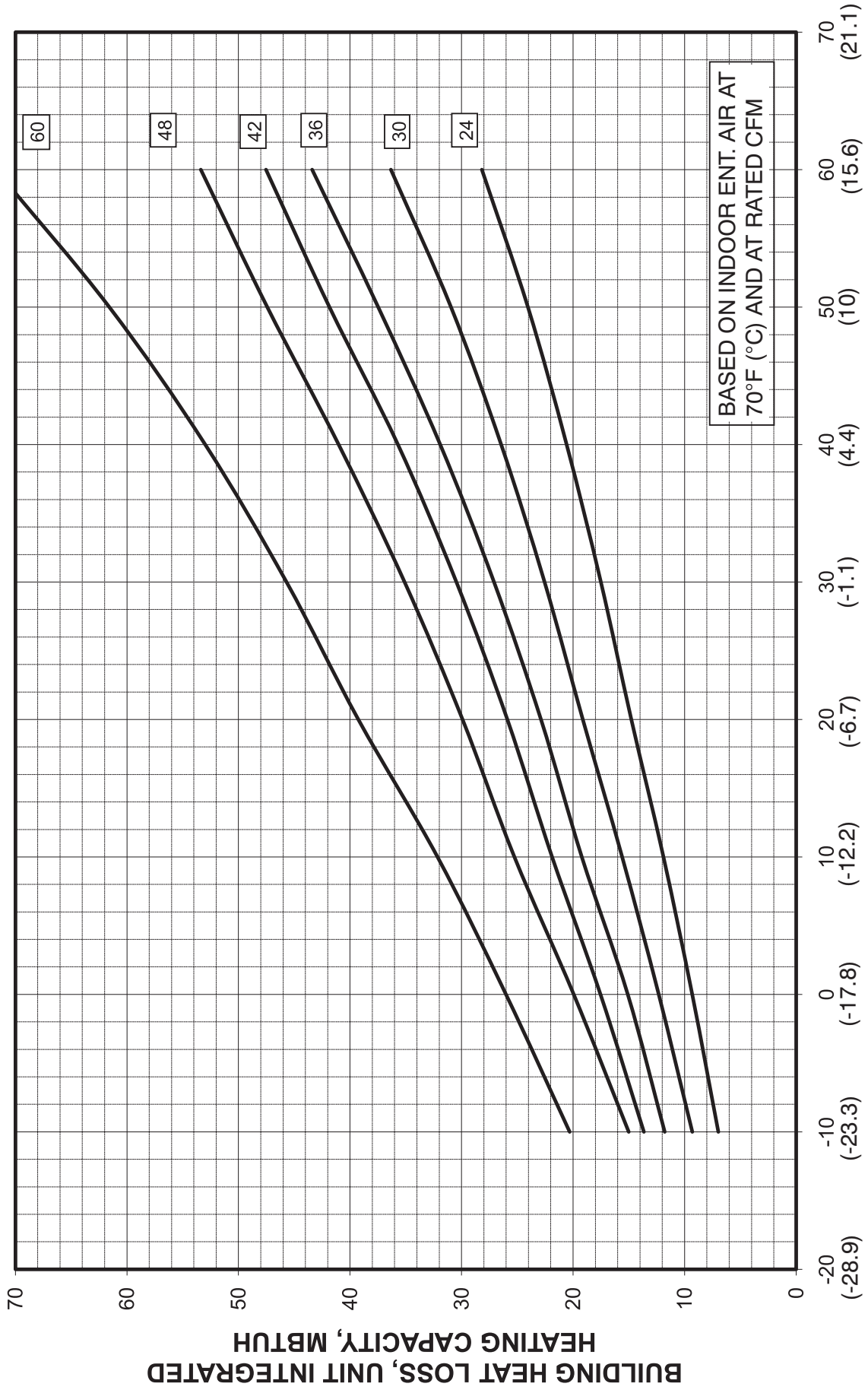


*NEC - NATIONAL ELECTRICAL CODE

A09234

BALANCE POINT WORKSHEET

BALANCE POINT WORKSHEET



OUTDOOR TEMPERATURE, °F (°C)

SELECTION PROCEDURE (WITH EXAMPLE)

1. Determine cooling and heating requirements at design conditions:

Given:

Required Cooling Capacity (TC) 34,500 Btuh
Sensible Heat Capacity (SHC) 26,000 Btuh
Required Heating Capacity 60,000 Btuh
Condenser Entering Air Temperature . . . 95°F (35°C)
Indoor–Air Temperature 80°F (27°C) edb 67°F (19°C) ewb
Evaporator Air Quantity 1200 CFM
External Static Pressure 0.200 IN. W.C.
Electrical Characteristics 208–1–60

2. Select unit based on required cooling capacity.

Enter Net Cooling Capacities table at condenser entering temperature of 95°F (35°C). Unit 036 at 1200 CFM and 67°F (19°C) ewb (entering wet bulb) will provide a total capacity of 35,800 Btuh and a SHC of 26,950 Btuh. Calculate SHC correction, if required, using Note 4 under Cooling Capacities tables.

3. Select heating capacity of unit to provide design condition requirement.

In the Heating Capacities and Efficiencies table, note that the unit 36090 will provide 73,000 Btuh with an input of 90,000 Btuh.

4. Determine fan speed and power requirements at design conditions.

Before entering the air delivery tables, calculate the total static pressure required. From the given example, the Wet Coil Pressure Drop Table, and the Filter Pressure Drop Table:

External Static Pressure	0.200 IN. W.C.
Filter	0.130 IN. W.C.
Wet Coil Pressure Drop	<u>0.180 IN. W.C.</u>
Total Static Pressure	0.510 IN. W.C.

Enter the table for Dry Coil Air Delivery—horizontal and downflow Discharge. At 0.5 ESP (external static pressure), in cooling the fan will deliver 1140 cfm with the MED–LOW speed tap selected. To achieve 1200 CFM a higher speed tap is required.

5. Select unit that corresponds to power source available.

The Electrical Data Table shows that the unit is designed to operate at 208–1–60.

APPLICATION DATA

Condensate trap — A 2-in. (51 mm) condensate trap must be field supplied.

Ductwork — Secure downflow discharge ductwork to roof curb. For horizontal discharge applications, attach ductwork to unit with flanges.

To convert a unit to downflow discharge — Units are equipped with factory–installed inserts in the down–flow openings. Removal of the inserts is similar to removing an electrical knock–out. The unit is factory equipped with duct covers to seal the horizontal discharge openings in the unit. Units installed in horizontal discharge orientation do not require duct covers.

Maximum cooling airflow — To minimize the possibility of condensate blow–off from the evaporator, airflow through the units should not exceed 450 cfm per ton.

Minimum cooling airflow — Minimum cooling airflow is 350 cfm per ton in cooling mode. Airflow can be lower in certain modes when humidity removal is an issue.

Minimum ambient cooling operation temperature — All standard units have a minimum ambient cooling operating temperature of 40°F (4.4°C). With accessory low ambient temperature kit, units can operate at temperatures down to 0°F (–17.8°C).

Maximum operating outdoor air temperature for cooling is 125°F (51.7°C).

CONTROLS

Operating sequence

When power is supplied to unit, the transformer (TRAN) is energized.

On units with crankcase heater, heater is also energized.

Cooling — With the thermostat subbase in the cooling position, the thermostat makes circuit “R” to “O”. This energizes the reversing valve solenoid (RVS) and places the unit in standby condition for cooling.

As the space temperature rises, the thermostat closes circuit “R” to “Y1/Y”. A circuit is made to contactor (C), starting the compressor (COMP) and outdoor-fan motor (OFM). Circuit “R” to “G” is made at the same time and starts the indoor-fan motor (IFM).

On the loss of the thermostat call for cooling, 24 V is removed from both the “Y1/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.

Heating – On a call for heating, terminal “W” of the thermostat is energized, starting the induced-draft motor. When the pressure switch senses that the induced-draft motor is moving sufficient combustion air, the burner sequence begins. This function is performed by the integrated gas unit controller (IGC). The indoor (evaporator)-fan motor is energized 45 sec after flame is established. When the thermostat is satisfied and “W” is de-energized, the burners stop firing and the indoor (evaporator) fan motor shuts off after a 45-sec time-off delay. Please note that the IGC has the capability to automatically reduce the indoor fan motor on delay and increase the indoor fan motor off delay in the event of high duct static and/or partially-clogged filter.

Heat Pump Heating — On a call for heat, thermostat makes circuits “R” to “Y1/Y” and “R” to “G”.

A circuit is made to C, starting COMP and OFM. Circuit “R” to “G” is also completed, starting IFM.

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 gas heat turns on to warm air supplying the conditioned space. After defrost cycle, gas heat stays on to meet the demand cycle.

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 then stopped, it cannot be restarted again until 5 minutes have elapsed.

GUIDE SPECIFICATIONS

Packaged Dual Fuel Units

HVAC Guide Specifications

Size Range: **2 to 5 Tons, Nominal Cooling
40,000 to 130,000 Btuh,
Nominal Heating Input**

Model Number: **PDD4 / PDS4**

Part 1—General

SYSTEM DESCRIPTION

Outdoor, packaged, air-to-air heat pump unit utilizing a hermetic scroll compressor for cooling duty and optional electric heating. Unit shall discharge supply air vertically or horizontally as shown on contract drawings. Outdoor fan/coil section shall have a draw-thru design with vertical discharge for minimum sound levels.

QUALITY ASSURANCE

- A. Unit shall be rated in accordance with AHRI Standards 210/240 and 270.**
- B. Unit shall be designed in accordance with UL Standard 1995 and ANSI Z21.47.**
- C. Unit shall be manufactured in a facility registered to ISO 9001 manufacturing quality standard.**
- D. Unit shall be UL listed and c-UL certified as a total package for safety requirements.**
- E. Roof curb shall be designed to conform to NRCA Standards.**
- F. Insulation and adhesives shall meet NFPA 90A requirements for flame spread and smoke generation.**
- G. Cabinet insulation shall meet ASHRAE Standard 62P.**

DELIVERY, STORAGE AND HANDLING

Unit shall be stored and handled per manufacturer's recommendations.

Part 2 — Products

EQUIPMENT

A. General:

Factory-assembled, single-piece, heat pump unit. Contained within the enclosure shall be all factory wiring, piping, controls, refrigerant charge (R-410A), and special features required prior to field start-up.

B. Unit Cabinet:

- 1. Unit cabinet shall be constructed of phosphated, zinc-coated, pre-painted steel capable of withstanding 500 hours of salt spray.
- 2. Normal service shall be through three removable cabinet panels.
- 3. The unit shall be constructed on a rust proof unit base that has an externally trapped, integrated sloped drain.
- 4. Indoor fan compartment top surface shall be insulated with a minimum 1/2-in. (13 mm) thick, flexible fiberglass insulation, coated on the air side and retained by adhesive and mechanical means. The indoor wall sections will be insulated with a minimum semi-rigid, foil-faced board capable of being wiped clean. Aluminum foil-faced fiberglass insulation shall be used in the entire indoor air cavity section.
- 5. Unit shall have a field-supplied condensate trap.
- 6. Metal Insulated Duct Covers for side discharge will be standard on all sizes.
- 7. Unit insulation conforms to ASHRAE 62P.

C. Fans:

- 1. The evaporator fan motor shall be a ECM Motor.
- 2. Fan wheel shall be made from steel, be double-inlet type with forward curved blades with corrosion resistant finish. Fan wheel shall be dynamically balanced.
- 3. Condenser fan shall be direct drive propeller type with aluminum blades riveted to corrosion resistant steel spiders, be dynamically balanced, and discharge air vertically.

D. Compressor:

- 1. Fully hermetic compressors with factory-installed vibration isolation.
- 2. Scroll compressors shall be standard on all units.
- 3. Compressor Protection:
Defrost control shall protect compressor by preventing "short cycling."

E. Coils:

Indoor and outdoor coils shall have aluminum plate fins mechanically bonded to seamless copper tubes with all joints brazed. (Copper/copper and vinyl-coated construction available as option.) Tube sheet openings shall be belled to prevent tube wear.

F. Refrigerant Metering Device:

Refrigerant metering device shall be thermostatic expansion valve for cooling, and fixed orifice for heating.

G. Filters:

Filter section shall consist of field-installed, throwaway, 1-in. (25 mm)- thick fiberglass filters of commercially available sizes.

H. Controls and Safeties:

- 1. Unit controls shall be complete with a self-contained, low-voltage control circuit.
- 2. Units shall incorporate an internal compressor protector that provides reset capability.

I. Operating Characteristics:

- 1. Unit shall be capable of starting and running at 125°F (51.7°C) ambient outdoor temperature.
- 2. Compressor with standard controls shall be capable of operation down to 40°F (4.4°C) ambient outdoor temperature in cooling mode.
- 3. Unit shall be provided with 90-second fan time delay after the thermostat is satisfied.

J. Electrical Requirements:

All unit power wiring shall enter the unit cabinet at a single location.

K. Motors:

- 1. Compressor motors shall be of the refrigerant-cooled type with line-break thermal and current overload protection.
- 2. All fan motors shall have permanently lubricated bearings, and inherent, automatic reset, thermal overload protection.
- 3. Condenser fan motor shall be totally enclosed.
- 4. Evaporator Fan Motor to be ECM Motor.

GUIDE SPECIFICATIONS (CONT)

L. Compressor Protection:

Solid-state control shall protect compressor by preventing "short cycling."

M. Low NOx:

Shall provide NOx reduction to values below 40 nanograms/joule to meet California's and other localities' emission requirements as shipped from factory.

N. Special Features Available:

1. Coil Options

Tin plated indoor coil hairpins available.

2. Compressor Start Kit

Shall provide additional starting torque for single-phase compressors.

3. Thermostat:

To provide dual fuel multiple stage heating and one stage cooling in addition to manual or automatic changeover and indoor fan control.

4. Crankcase Heater:

Shall provide anti-floodback protection for lowload cooling applications.

5. Economizer:

a. Economizer controls capable of providing free cooling using outside air.

b. Equipped with low leakage dampers not to exceed 3% leakage, at 1.0 IN. W.C. pressure differential.

c. Spring return motor shuts off outdoor damper on power failure.

6. Filter Rack Kit:

Shall provide filter mounting for downflow applications.

7. Flat Roof Curb:

Curbs shall have seal strip and a wood nailer for flashing and shall be installed per manufacturer's instructions.

8. Flue Discharge Deflector

Directs flue gas exhaust 90 degrees upward from current discharge.

9. Heat Exchanger

Stainless Steel Heat Exchanger available.

10. High Altitude Propane conversion Kit

Shall consist of all required hardware to convert to propane gas heat operation at 2001 to 6000 ft (611 to 1829 m) above sea level.

11. Low Ambient Package:

Shall consist of a solid-state control and outdoor coil temperature sensor for controlling outdoor-fan motor operation, which shall allow unit to operate down to 0°F (17.7°C) outdoor ambient temperature.

12. Manual Outdoor Air Damper:

Package shall consist of damper, birdscreen, and rainhood which can be preset to admit outdoor air for year-round ventilation.

13. Natural-to-Propane Conversion Kit:

Shall be complete with all required hardware to convert to propane gas operation at standard altitude (0 to 2000 ft [0-610 m] above sea level).

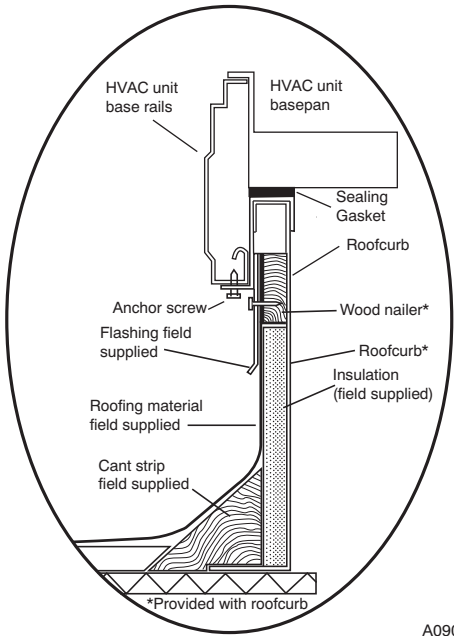
14. Propane-to-Natural Conversion Kit:

Shall be complete with all hardware to convert to natural gas at standard altitude (0 to 2000 ft [0 to 610 m] above sea level).

15. Square-To-Round Duct Transitions (24-48 models):

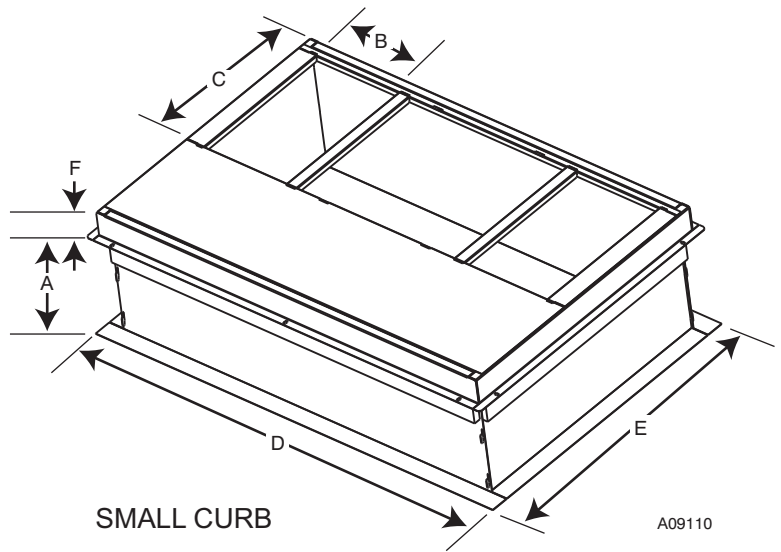
Shall have the ability to convert the supply and return openings from rectangular to round.

ROOF CURBS



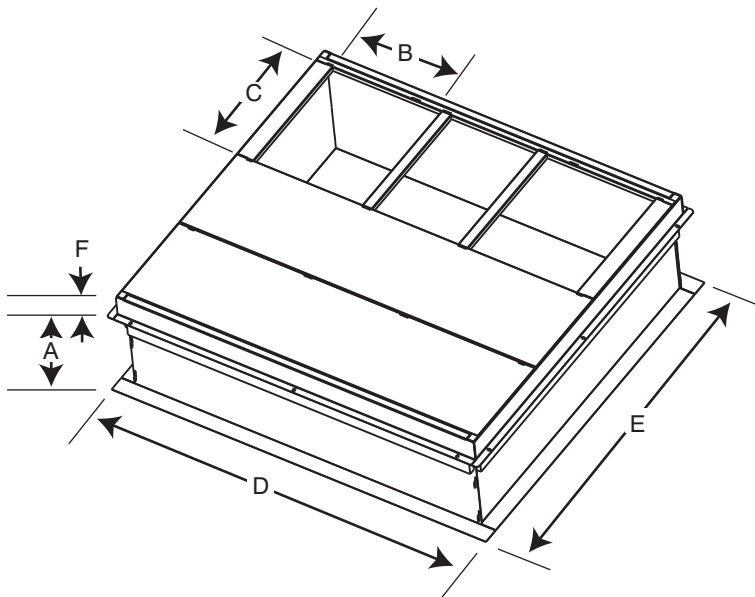
ROOF CURB DETAIL

A09090



SMALL CURB

A09110



LARGE CURB

A09095

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

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.

IMPORTANT: Do not install large base pan Dual Fuel units onto the small base pan (common curb). The center of gravity on a large base pan Dual Fuel unit could overhang the curb causing an unsafe condition. Before installing any large base pan unit onto the common curb, check the "Y" distance in the dimensional drawing to ensure that "Y" is greater than 14 in. (356 mm). Do not install any large base pan unit onto the common curb with a "Y" dimension(center of gravity) less than 14 in. (356 mm).

PDD/S4 ACCESSORIES (continued)

ROOF CURBS

Model Number	Description	Use With Model Size
CPRFCURB010A00	Roof Curb, 11" High	24 – 30
CPRFCURB011A00	Roof Curb, 14" High	24 – 30
CPRFCURB012A00	Roof Curb, 11" High	36 – 60
CPRFCURB013A00	Roof Curb, 14" High	36 – 60

ADAPTER CURBS*

CPADCURB001A00	Adapter curb for use with NPRFCURB006A00 & NPRFCURB007A00	24 – 30
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

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*.	24 – 30
CPECOMZR008A00		36 – 42
CPECOMZR009A00		48 – 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*.	24 – 30
CPECOMZR011A00		36 – 42
CPECOMZR012A00		48 – 60
CPRLYKIT001A00	Economizer relay for heat pumps	ALL
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)	24 – 30
CPMANDPR008A00		36 – 42
CPMANDPR009A00		48 – 60

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

Model Number	Description	Use With Model Size
CPFILTRK007A00	Internal Filter Rack	24 – 30
CPFILTRK008A00		36 – 42
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
NPHSTART002A00	PTC Compressor Start Assist Kit	ALL

ACCESSORIES (continued)

CRANKCASE HEATER – BELLY BAND TYPE

NPCRKHTR008A00	240V Crankcase Heater	36
NPCRKHTR004A00	240V Crankcase Heater (included on 48 & 60 size)	N/A

*Relay 1184479 is required with this Low Ambient Control when used in heat pump application.

PDD/S4 ACCESSORIES (continued)

GAS CONVERSION KITS

Model Number	Description	Use With Model Size
NPLPCONV013A00	Natural Gas to Propane Conversion Kit (0 – 2000')	ALL
NPLPCONV014A00	Natural Gas to Propane Conversion Kit (2001' – 6000)	
NPNGCONV004A00	Propane to Natural Gas Conversion Kit (0 – 2000')	

FLUE DISCHARGE DEFLECTOR

Model Number	Description	Heat Input (BTU/h)
CRFLUEDS001A00	Directs flue gas exhaust 90 degrees upward from current discharge. Designed to allow tighter distances between unit and combustible surfaces. 24 inch Height. AGA certified.	40,000 – 130,000

HAIL GUARD / COIL PROTECTION (Factory installed on PDS models)

Model Number	Description	Use With Model Size
NAPA00701GR	3/8" spacing dense wire grilles	24 – 30
NAPA00601GR	3/8" spacing dense wire grilles	36
NAPA01001GR	3/8" spacing dense wire grilles	42 – 48
NAPA01301GR	3/8" spacing dense wire grilles	60

DUCT TRANSITIONS

Model Number	Description	Use With Model Size
NPDUFCFLG002A00	Square to Round (1 set of 2, use with horizontal duct flanges only)	24 – 48