

PHB Series 3 thru 5 Ton



**12 SEER
6.8 TO 7.1 HSPF**



Rated in accordance
with ARI Standard 240.



Listed By
Underwriters'
Laboratories

CONVERTIBLE SINGLE PACKAGE HEAT PUMP

FEATURES

SINGLE PACKAGE, 3 THRU 5 TON COOLING

- Single package heat pump, self contained with optional electric heat accessory for year round comfort. Systems installed on rooftop or ground level. The unit is shipped in the horizontal position and can easily be converted to downflow.

CONSTRUCTION

- 20 gauge hot dipped galvanized-painted cabinet. One piece weather resistant top. Access panels for easy service. Side by side supply and return. Heavy gauge base with rails.

CABINET

- Sturdy galvanized steel, phosphate-coated with a tough acrylic finish.

INDOOR BLOWER

- Standard direct-drive systems.
- "No Difference" Design—Unit will operate at the same rated External Static Pressure in the down shot or horizontal duct position.
- Specially designed track enhances evaporator motor and blower serviceability.

IMPROVED INSULATION

- Dual density insulation improves temperature separation.

COPPER TUBE/ALUMINUM FIN COILS

- Aluminium fins mechanically bonded to rifled copper tubes for improved heat transfer.

SCROLL COMPRESSORS ON ALL MODELS

EXTERNALLY-MOUNTED GAUGE PORTS

- Allows for more accurate reading of operating conditions while servicing. Internal ports are also provided for quicker charging and recovery

INTEGRAL BASE RAILS

- Fork-lift access on three sides. Holes provided for lifting lugs makes rooftop installation easier.

ELECTRIC HEAT ACCESSORY

- 10 thru 30 KW

THERMOSTATIC EXPANSION VALVES

- Thermostatic expansion valves for heating and cooling refrigerant metering. The valves are protected by refrigerant strainers.

LOSS OF CHARGE PRESSURE SWITCH

- Prevents system damage due to a loss of charge.

ELECTRONIC DEFROST CONTROL

- Insures fast efficient defrost cycle.

FREEZE THERMOSTAT

- Protects indoor coil from freeze-ups.

PRE-WIRED FOR ECONOMIZER

- Allows easy trouble free installation

FACTORY INSTALLED FILTERS

- Units are shipped with filters installed.

RESIDENTIAL AND COMMERCIAL SYSTEMS • SPLIT SYSTEMS • PACKAGED AIR CONDITIONERS
• COMBINATION GAS / ELECTRIC UNITS • HEAT PUMPS • AIR HANDLERS • MANUFACTURED
HOME AIR CONDITIONERS • GAS, OIL AND ELECTRIC FURNACES

International Comfort Products
650 Heil-Quaker Avenue, Lewisburg, TN 37091

UNIT SPECIFICATIONS

MODEL NUMBER	Electrical Data				Condenser Data								
					Coil			Fan Motor			Fan		
	Voltage Ph. - Hz.	Time Delay Fuse Size	HACR Brkr / Max. Fuse	Min. Circuit Ampacity	Total Face Area (Sq. Ft.)	Fins Per In. / Rows	Tube Dia. (In.)	HP	Full Load Amps	Locked Rotor Amps	Size Diameter (In.)	RPM (Max.)	CFM (Max.)
PHB036N1H	208/230-3-60	25 amps.	25 amps.	18.5	17.2	16 / 2	3/8	1/3	1.7	3.57	22.0	1140	3340
PHB036N1L	460-3-60	15 amps.	15 amps.	8.6	17.2	16 / 2	3/8	1/3	.8	3.57	22.0	1140	3340
PHB048N1H	208/230-3-60	30 amps.	35 amps.	23.5	17.20	16 / 2	3/8	1/3	1.7	5.00	22.0	1140	3340
PHB048N1L	460-3-60	15 amps.	15 amps.	12.2	17.20	16 / 2	3/8	1/3	.8	5.00	22.0	1140	3340
PHB060N1H	208/230-3-60	35 amps	45 amps	29.2	17.20	16 / 2	3/8	3/4	2.6	9.52	22.0	1150	4100
PHB060N1L	460-3-60	20 amps	20 amps	14.8	17.20	16 / 2	3/8	3/4	1.4	9.52	22.0	1150	4100

MODEL NUMBER	Evaporator Coil									Compressor		Factory Refrigerant		
	Coil			Blower H.P. / Type / Speeds	Motor		Blower							
	Total Face Area (Sq. Ft.)	Fins Per In. / Rows	Tube Dia. (In.)		Full Load Amps	Locked Rotor Amps				Type & Size	RPM (Max.)			
	PHB036N1H	8.20	14 / 3	3/8	1/2 / PSC / 4	4.0	7.09	DD10-8A	1100	1350	10.3	77.0	239	8.0
PHB036N1L	8.20	14 / 3	3/8	1 / PSC / 4	1.4	7.09	DD10-8A	1100	1350	5.1	39.0	239	8.0	564
PHB048N1H	8.20	14 / 4	3/8	1 / PSC / 4	5.0	8.75	DD11-11A	1095	1600	13.5	120.0	265	8.0	624
PHB048N1L	8.20	14 / 4	3/8	1 / PSC / 4	2.1	8.75	DD11-11A	1095	1600	7.4	49.5	265	8.0	624
PHB060N1H	8.20	14 / 4	3/8	1 / PSC / 4	5.0	8.75	DD11-11A	1095	2000	17.3	123.0	260	8.0	624
PHB060N1L	8.20	14 / 4	3/8	1 / PSC / 4	2.1	8.75	DD11-11A	1095	2000	9.0	62.0	260	8.0	624

PERFORMANCE DATA: COOLING AND HEATING

MODEL NUMBER	Rated Capacity BTUH Heating @ 47°F	COP @ 47°F	Rated Capacity BTUH Heating @ 17°F	COP @ 17°F	HSPF	Rated Capacity ¹ BTUH Cooling	S / T Ratio	S.E.E.R.	E.E.R. ³	Power Input Watts	Evaporator Rated Airflow (SCFM)	Ext. Static Pressure Drop ² Wet
PHB036N1H	35,800	3.42	19,800	1.98	6.95	34,600	.79	12.35	10.15	3408	1250	.30
PHB036N1L	35,800	3.42	19,800	1.98	6.95	34,600	.79	12.35	10.15	3408	1250	.30
PHB048N1H	43,500	3.12	24,400	1.92	6.90	47,500	.78	12.00	10.15	4679	1600	.30
PHB048N1L	43,500	3.12	24,400	1.92	6.90	47,500	.78	12.00	10.15	4679	1600	.30
PHB060N1H	53,000	3.20	29,000	1.90	6.80	57,000	.78	12.05	9.75	5846	2000	.30
PHB060N1L	53,000	3.20	29,000	1.90	6.80	57,000	.78	12.05	9.75	5846	2000	.30

¹ Rated Capacity @ 230 Volts. For applications at 208 volts deduct 1000 BTU. ² Includes a .08 drop for a filter. ³ For reference only.

MODEL NUMBER IDENTIFICATION GUIDE

MODEL NUMBER	P	H	B	036	N	1	H
Product Family P = Single Package							Electrical Characteristics H = 208 / 230-3-60 L = 460-3-60
Fuel Type A = Air Conditioner							Blower Options For 036 - 060 1 = Standard Direct Drive
Design Series B = Indicates color change to Architectural Stone							Heat Input N = No Heat Installed Optional electric heat accessory available.
Capacity (Nominal BTU) 036 = 3 Ton 048 = 4 Ton 060 = 5 Ton							

BLOWER PERFORMANCE DATA

Model Number	Motor Speed	Air Delivery in CFM * External Static Pressure (In. W.C.)					
		.20	.30	.40	.50	.60	.70
PHB036N1H PHB036N1L	HI	1572	1524	1469	1406	1332	1245
	MD HI	1473	1433	1387	1333	1266	1186
	MD LO	1374	1342	1300	1248	1185	1112
	LO	1301	1273	1234	1184	1124	1054
PHB048N1H PHB048N1L	HI	2222	2165	2103	2037	1967	1891
	MD HI	2066	2019	1968	1912	1850	1784
	MD LO	1611	1591	1566	1535	1496	1449
	LO	1298	1281	1259	1233	1203	1171
PHB060N1H PHB060N1L	HI	2222	2165	2103	2037	1967	1891
	MD HI	2066	2019	1968	1912	1850	1784
	MD LO	1611	1591	1566	1535	1496	1449
	LO	1298	1281	1259	1233	1203	1171

Air delivery against shown external static pressures taken with 230V to unit, dry coil and largest available electric heater. For wet coil subtract approximately 25 CFM. Add .08 static for internal filters.

* Dry coil, no filter

ELECTRICAL DATA: ELECTRIC HEAT ACCESSORY

Heater Model	Supply Voltage (Volts-Phase-Hz)	Nominal BTU/h	KW Rating	Supply Circuit Number	Heater Amps	Minimum Circuit Ampacity	Max. Fuse or NEC HACR Breaker (Amps)	Used On
AEB010CHA	240-3-60	34,130	10.0	L4-L5-L6	24.1	30.1	35	PHB036-60N1H
	208-3-60	25,598	7.5	L4-L5-L6	20.8	26.1	30	
AEB010CLA	480-3-60	34,130	10.0	L7-L8-L9	12.0	15.0	15	PHB036-60N1L
				L4-L5-L6	12.0	15.0	15	
AEB015CHA	240-3-60	51,195	15.0	L4-L5-L6	36.1	45.2	50	PHB036-60N1H
	208-3-60	38,567	11.3	L4-L5-L6	31.4	39.3	40	
AEB015CLA	480-3-60	51,195	15.0	L4-L5-L6	18.1	22.6	25	PHB036-60N1L
AEB020CHA	240-3-60	68,260	20.0	L4-L5-L6	24.1	30.1	35	PHB036-60N1H
				L7-L8-L9	24.1	30.1	35	
	208-3-60	51,195	15.0	L4-L5-L6	20.8	26.1	30	
				L7-L8-L9	20.8	26.1	30	
AEB020CLA	480-3-60	68,260	20.0	L4-L5-L6	12.0	15.0	15	PHB036-60N1L
				L7-L8-L9	12.0	15.0	15	
AEB025CHA	240-3-60	85,325	25.0	L4-L5-L6	30.1	37.6	40	PHB048-60N1H
				L7-L8-L9	30.1	37.6	40	
	208-3-60	64,164	18.8	L4-L5-L6	26.1	32.7	35	
				L7-L8-L9	26.1	32.7	35	
AEB025CLA	480-3-60	85,325	25.0	L4-L5-L6	15.1	18.8	20	PHB048-60N1L
				L7-L8-L9	15.1	18.8	20	
AEB030CHA	240-3-60	102,390	30.0	L4-L5-L6	36.1	45.2	50	PHB048-60N1H
				L7-L8-L9	36.1	45.2	50	
	208-3-60	76,793	22.5	L4-L5-L6	31.4	39.3	40	
				L7-L8-L9	31.4	39.3	40	
AEB030CLA	480-3-60	102,390	30.0	L4-L5-L6	18.1	22.6	25	PHB048-60N1L
				L7-L8-L9	18.1	22.6	25	

PERFORMANCE DATA: ELECTRIC HEAT ACCESSORY TEMPERATURE RISE¹

Heater Model#	Supply Voltage	KW	Total Heating Btu/h	Temperature Rise in °F @ CFM							
				1200	1400	1600	1800	2000	2200	2400	2600
AEB010C*A	240/480-3-60	10.0	34,130	26.3	22.6	19.8	17.8	15.8	14.4	13.2	12.2
	208-3-60	7.5	25,598	19.8	16.9	14.8	13.2	11.9	10.8	9.9	9.1
AEB015C*A	240/480-3-60	15.0	51,195	39.5	33.9	29.6	26.3	23.7	21.5	19.8	18.2
	208-3-60	11.3	38,567	29.8	25.5	22.3	19.8	17.9	16.2	14.9	13.7
AEB020C*A	240/480-3-60	20.0	68,260	52.6	45.1	39.5	35.1	31.6	28.7	26.3	24.3
	208-3-60	15.0	51,195	39.5	33.9	29.6	26.3	23.7	21.5	19.8	18.2
AEB025C*A	240/480-3-60	25	85,325	---	---	49.4	43.9	39.5	35.9	32.9	30.4
	208-3-60	18.8	64,164	---	---	37.3	33.0	29.7	27.0	24.8	22.8
AEB030C*A	240/480-3-60	30	102,390	---	---	59.3	52.7	47.4	43.1	39.5	36.5
	208-3-60	22.5	76,793	---	---	44.4	39.5	35.6	32.3	29.6	27.3

¹NOTE: Temperature rise above 60° F (33.3° C) not permitted * Represents H or L voltages (240, 280 and 480 Volt)

EXPANDED PERFORMANCE DATA (COOLING) - PHB036N1H/L

Airflow IDB* CFM			Outdoor Ambient Temperature - Degrees F. Dry Bulb																							
			65				75				85				95				105				115			
			Entering Indoor Temperature - Degrees F. Wet Bulb																							
			59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71
70	1400	MBh	33.9	35.1	38.5	-	33.1	34.3	37.6	-	32.3	33.5	36.7	-	31.5	32.7	35.8	-	30.0	31.1	34.0	-	27.8	28.8	31.5	-
		S/T	0.79	0.66	0.46	-	0.82	0.69	0.48	-	0.84	0.70	0.49	-	0.87	0.73	0.50	-	0.90	0.75	0.52	-	0.91	0.76	0.53	-
		KW	2.74	2.79	2.87	-	2.92	2.98	3.06	-	3.08	3.14	3.23	-	3.23	3.29	3.38	-	3.34	3.41	3.51	-	3.45	3.52	3.62	-
	1250	MBh	32.9	34.1	37.4	-	32.2	33.3	36.5	-	31.4	32.5	35.6	-	30.6	31.7	34.8	-	29.1	30.2	33.0	-	26.9	27.9	30.6	-
		S/T	0.76	0.63	0.44	-	0.78	0.66	0.45	-	0.80	0.67	0.47	-	0.83	0.69	0.48	-	0.86	0.72	0.50	-	0.87	0.73	0.50	-
		KW	2.73	2.77	2.85	-	2.90	2.96	3.04	-	3.06	3.12	3.21	-	3.20	3.26	3.36	-	3.32	3.39	3.48	-	3.42	3.49	3.59	-
	1100	MBh	31.3	32.4	35.5	-	30.5	31.7	34.7	-	29.8	30.9	33.9	-	29.1	30.2	33.0	-	27.6	28.6	31.4	-	25.6	26.5	29.1	-
		S/T	0.72	0.61	0.42	-	0.75	0.63	0.43	-	0.77	0.64	0.45	-	0.80	0.66	0.46	-	0.83	0.69	0.48	-	0.83	0.70	0.48	-
		KW	2.69	2.74	2.81	-	2.86	2.92	3.00	-	3.02	3.08	3.16	-	3.16	3.22	3.31	-	3.27	3.34	3.43	-	3.37	3.44	3.54	-
75	1400	MBh	34.5	35.5	38.4	41.2	33.7	34.7	37.5	40.3	32.9	33.8	36.6	39.3	32.1	33.0	35.7	38.4	30.5	31.4	34.0	36.4	28.2	29.1	31.5	33.8
		S/T	0.90	0.81	0.61	0.39	0.93	0.84	0.63	0.41	0.96	0.86	0.65	0.42	0.99	0.88	0.67	0.43	1.00	0.92	0.70	0.45	1.00	0.93	0.70	0.45
		KW	2.76	2.81	2.89	2.97	2.95	3.00	3.08	3.17	3.11	3.17	3.26	3.35	3.25	3.31	3.41	3.51	3.37	3.44	3.54	3.64	3.47	3.54	3.65	3.76
	1250	MBh	33.5	34.5	37.3	40.0	32.7	33.7	36.4	39.1	31.9	32.9	35.6	38.2	31.1	32.1	34.7	37.2	29.6	30.5	33.0	35.4	27.4	28.2	30.5	32.8
		S/T	0.86	0.77	0.58	0.37	0.89	0.80	0.60	0.39	0.91	0.82	0.62	0.40	0.94	0.84	0.64	0.41	0.98	0.88	0.66	0.43	0.99	0.88	0.67	0.43
		KW	2.74	2.79	2.87	2.95	2.93	2.98	3.06	3.15	3.08	3.14	3.23	3.33	3.23	3.29	3.38	3.48	3.35	3.41	3.51	3.62	3.45	3.52	3.62	3.73
	1100	MBh	31.8	32.7	35.4	38.0	31.1	32.0	34.6	37.2	30.3	31.2	33.8	36.3	29.6	30.5	33.0	35.4	28.1	28.9	31.3	33.6	26.0	26.8	29.0	31.1
		S/T	0.82	0.74	0.56	0.36	0.85	0.76	0.58	0.37	0.88	0.78	0.59	0.38	0.90	0.81	0.61	0.39	0.94	0.84	0.64	0.41	0.95	0.85	0.64	0.41
		KW	2.71	2.76	2.83	2.91	2.88	2.94	3.02	3.10	3.04	3.10	3.19	3.28	3.18	3.24	3.33	3.43	3.30	3.36	3.46	3.56	3.40	3.46	3.57	3.67
80	1400	MBh	35.1	35.9	38.3	41.0	34.3	35.0	37.4	40.0	33.5	34.2	36.5	39.0	32.6	33.4	35.6	38.1	31.0	31.7	33.9	36.2	28.7	29.4	31.4	33.5
		S/T	1.00	0.93	0.76	0.56	1.00	0.96	0.78	0.58	1.00	1.00	0.80	0.60	1.00	1.00	0.83	0.62	1.00	1.00	0.86	0.64	1.00	1.00	0.87	0.65
		KW	2.78	2.83	2.91	2.99	2.97	3.02	3.11	3.20	3.13	3.19	3.28	3.38	3.27	3.34	3.43	3.54	3.40	3.46	3.56	3.67	3.50	3.57	3.68	3.79
	1250	MBh	34.1	34.8	37.2	39.8	33.3	34.0	36.3	38.8	32.5	33.2	35.5	37.9	31.7	32.4	34.6	37.0	30.1	30.8	32.9	35.1	27.9	28.5	30.4	32.5
		S/T	0.94	0.88	0.72	0.54	0.98	0.92	0.75	0.56	1.00	0.94	0.77	0.57	1.00	0.97	0.79	0.59	1.00	1.00	0.82	0.61	1.00	1.00	0.83	0.62
		KW	2.76	2.81	2.89	2.97	2.95	3.00	3.08	3.17	3.11	3.17	3.26	3.35	3.25	3.31	3.41	3.51	3.37	3.44	3.54	3.64	3.47	3.54	3.65	3.76
	1100	MBh	32.4	33.1	35.3	37.8	31.6	32.3	34.5	36.9	30.9	31.5	33.7	36.0	30.1	30.8	32.9	35.1	28.6	29.2	31.2	33.4	26.5	27.1	28.9	30.9
		S/T	0.90	0.85	0.69	0.52	0.94	0.88	0.71	0.53	0.96	0.90	0.73	0.55	0.99	0.93	0.76	0.57	1.03	0.96	0.79	0.59	1.04	0.97	0.79	0.59
		KW	2.73	2.77	2.85	2.93	2.90	2.96	3.04	3.13	3.06	3.12	3.21	3.30	3.20	3.26	3.36	3.46	3.32	3.39	3.48	3.59	3.42	3.49	3.59	3.70
85	1400	MBh	35.7	36.4	38.1	40.7	34.9	35.6	37.2	39.7	34.0	34.7	36.3	38.8	33.2	33.9	35.5	37.8	31.6	32.2	33.7	35.9	29.2	29.8	31.2	33.3
		S/T	1.00	1.00	0.90	0.73	1.00	1.00	0.94	0.76	1.00	1.00	0.96	0.78	1.00	1.00	0.99	0.80	1.00	1.00	1.00	0.83	1.00	1.00	1.00	0.84
		KW	2.80	2.85	2.93	3.01	2.99	3.04	3.13	3.22	3.15	3.21	3.30	3.40	3.30	3.36	3.46	3.56	3.42	3.49	3.59	3.70	3.53	3.60	3.70	3.82
	1250	MBh	34.7	35.3	37.0	39.5	33.9	34.5	36.1	38.6	33.1	33.7	35.3	37.6	32.2	32.9	34.4	36.7	30.6	31.2	32.7	34.9	28.4	28.9	30.3	32.3
		S/T	0.99	0.95	0.86	0.70	1.00	0.99	0.89	0.72	1.00	1.00	0.92	0.74	1.00	1.00	0.94	0.77	1.00	1.00	0.98	0.80	1.00	1.00	0.99	0.80
		KW	2.78	2.83	2.91	2.99	2.97	3.02	3.11	3.20	3.13	3.19	3.28	3.38	3.27	3.34	3.43	3.54	3.40	3.46	3.56	3.67	3.50	3.57	3.68	3.79
	1100	MBh	32.9	33.6	35.2	37.5	32.2	32.8	34.3	36.6	31.4	32.0	33.5	35.8	30.6	31.2	32.7	34.9	29.1	29.7	31.1	33.1	27.0	27.5	28.8	30.7
		S/T	0.95	0.91	0.83	0.67	0.98	0.95	0.86	0.69	1.00	0.97	0.88	0.71	1.00	1.00	0.91	0.73	1.00	1.00	0.94	0.76	1.00	1.00	0.95	0.77
		KW	2.74	2.79	2.87	2.95	2.92	2.98	3.06	3.15	3.08	3.14	3.23	3.33	3.23	3.29	3.38	3.48	3.34	3.41	3.51	3.62	3.45	3.52	3.62	3.73

* Entering Indoor Temperature - Degrees F. Dry Bulb



Standard Rating

EXPANDED PERFORMANCE DATA (HEATING) - PHB036N1H/L

	Outdoor Ambient Temperature - Degrees F. Dry Bulb																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	45.0	42.6	40.1	37.5	35.8	34.7	32.2	29.7	24.0	22.2	20.4	19.3	18.6	16.7	14.8	12.9	11.0	9.0
T/R	30.9	29.2	27.5	25.7	24.6	23.8	22.1	20.4	16.5	15.2	14.0	13.2	12.7	11.4	10.1	8.8	7.5	6.2
KW	3.27	3.21	3.16	3.10	3.07	3.04	2.99	2.93	3.01	2.95	2.89	2.86	2.83	2.77	2.71	2.65	2.59	2.53
COP	4.03	3.88	3.72	3.54	3.42	3.34	3.15	2.97	2.34	2.20	2.07	1.98	1.92	1.76	1.60	1.42	1.24	1.04
EER	13.8	13.3	12.7	12.1	11.7	11.4	10.8	10.1	8.0	7.5	7.1	6.8	6.6	6.0	5.5	4.9	4.2	3.6

EXPANDED PERFORMANCE DATA (COOLING) - PHB048N1H/L

Airflow IDB* CFM			Outdoor Ambient Temperature - Degrees F. Dry Bulb																							
			65				75				85				95				105				115			
			Entering Indoor Temperature - Degrees F. Wet Bulb																							
			59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71
70	1792	MBh	46.5	48.2	52.9	-	45.5	47.1	51.6	-	44.4	46.0	50.4	-	43.3	44.9	49.2	-	41.1	42.6	46.7	-	38.1	39.5	43.3	-
		S/T	0.78	0.65	0.45	-	0.81	0.68	0.47	-	0.83	0.70	0.48	-	0.86	0.72	0.50	-	0.89	0.74	0.52	-	0.90	0.75	0.52	-
		KW	3.68	3.76	3.87	-	3.95	4.04	4.16	-	4.19	4.28	4.42	-	4.40	4.50	4.64	-	4.58	4.68	4.83	-	4.74	4.84	5.00	-
	1600	MBh	45.2	46.8	51.3	-	44.1	45.7	50.1	-	43.1	44.7	48.9	-	42.0	43.6	47.7	-	39.9	41.4	45.4	-	37.0	38.3	42.0	-
		S/T	0.75	0.62	0.43	-	0.77	0.65	0.45	-	0.79	0.66	0.46	-	0.82	0.68	0.47	-	0.85	0.71	0.49	-	0.86	0.72	0.50	-
		KW	3.66	3.73	3.84	-	3.92	4.01	4.13	-	4.16	4.25	4.38	-	4.37	4.46	4.60	-	4.55	4.65	4.79	-	4.70	4.80	4.96	-
	1408	MBh	42.9	44.5	48.8	-	41.9	43.5	47.6	-	40.9	42.4	46.5	-	39.9	41.4	45.4	-	37.9	39.3	43.1	-	35.1	36.4	39.9	-
		S/T	0.72	0.60	0.41	-	0.74	0.62	0.43	-	0.76	0.64	0.44	-	0.79	0.66	0.45	-	0.81	0.68	0.47	-	0.82	0.69	0.48	-
		KW	3.60	3.67	3.78	-	3.86	3.94	4.06	-	4.10	4.18	4.31	-	4.30	4.39	4.53	-	4.47	4.57	4.72	-	4.62	4.72	4.88	-
75	1792	MBh	47.3	48.7	52.8	56.6	46.2	47.6	51.5	55.3	45.1	46.5	50.3	54.0	44.0	45.3	49.1	52.7	41.8	43.1	46.6	50.0	38.7	39.9	43.2	46.3
		S/T	0.89	0.80	0.60	0.39	0.92	0.83	0.62	0.40	0.95	0.85	0.64	0.41	0.98	0.87	0.66	0.43	1.00	0.91	0.69	0.44	1.00	0.91	0.69	0.45
		KW	3.71	3.79	3.90	4.02	3.99	4.07	4.19	4.33	4.23	4.32	4.45	4.59	4.44	4.54	4.68	4.83	4.62	4.72	4.87	5.03	4.78	4.88	5.04	5.21
	1600	MBh	46.0	47.3	51.2	55.0	44.9	46.2	50.0	53.7	43.8	45.1	48.8	52.4	42.8	44.0	47.6	51.1	40.6	41.8	45.3	48.6	37.6	38.7	41.9	45.0
		S/T	0.85	0.76	0.57	0.37	0.88	0.79	0.60	0.38	0.90	0.81	0.61	0.39	0.93	0.83	0.63	0.41	0.97	0.86	0.65	0.42	0.98	0.87	0.66	0.42
		KW	3.68	3.76	3.87	3.99	3.96	4.04	4.16	4.29	4.19	4.28	4.42	4.56	4.41	4.50	4.64	4.79	4.58	4.68	4.83	4.99	4.74	4.84	5.00	5.16
	1408	MBh	43.7	45.0	48.7	52.2	42.6	43.9	47.5	51.0	41.6	42.9	46.4	49.8	40.6	41.8	45.3	48.6	38.6	39.7	43.0	46.1	35.7	36.8	39.8	42.7
		S/T	0.81	0.73	0.55	0.35	0.84	0.75	0.57	0.37	0.86	0.77	0.59	0.38	0.89	0.80	0.60	0.39	0.93	0.83	0.63	0.40	0.93	0.84	0.63	0.41
		KW	3.63	3.70	3.81	3.93	3.89	3.97	4.10	4.22	4.13	4.21	4.35	4.48	4.34	4.43	4.57	4.71	4.51	4.61	4.75	4.91	4.66	4.76	4.92	5.08
80	1792	MBh	48.2	49.2	52.6	56.2	47.1	48.1	51.4	54.9	45.9	46.9	50.1	53.6	44.8	45.8	48.9	52.3	42.6	43.5	46.5	49.7	39.4	40.3	43.1	46.0
		S/T	1.00	0.92	0.75	0.56	1.00	0.95	0.77	0.58	1.00	1.00	0.79	0.59	1.00	1.00	0.82	0.61	1.00	1.00	0.85	0.63	1.00	1.00	0.86	0.64
		KW	3.74	3.82	3.93	4.05	4.02	4.10	4.23	4.36	4.26	4.35	4.49	4.63	4.48	4.57	4.72	4.87	4.66	4.76	4.91	5.07	4.82	4.92	5.08	5.25
	1600	MBh	46.8	47.8	51.1	54.6	45.7	46.7	49.9	53.3	44.6	45.6	48.7	52.0	43.5	44.5	47.5	50.8	41.3	42.2	45.1	48.2	38.3	39.1	41.8	44.7
		S/T	0.93	0.87	0.71	0.53	0.97	0.91	0.74	0.55	0.99	0.93	0.76	0.56	1.00	0.96	0.78	0.58	1.00	0.99	0.81	0.61	1.00	1.00	0.82	0.61
		KW	3.71	3.79	3.90	4.02	3.99	4.07	4.19	4.33	4.23	4.32	4.45	4.59	4.44	4.54	4.68	4.83	4.62	4.72	4.87	5.03	4.78	4.88	5.04	5.21
	1408	MBh	44.4	45.4	48.5	51.9	43.4	44.3	47.4	50.7	42.4	43.3	46.3	49.4	41.3	42.2	45.1	48.2	39.3	40.1	42.9	45.8	36.4	37.2	39.7	42.4
		S/T	0.89	0.84	0.68	0.51	0.92	0.87	0.71	0.53	0.95	0.89	0.72	0.54	0.98	0.92	0.75	0.56	1.02	0.95	0.78	0.58	1.02	0.96	0.78	0.58
		KW	3.66	3.73	3.84	3.96	3.92	4.01	4.13	4.26	4.16	4.25	4.38	4.52	4.37	4.46	4.60	4.75	4.55	4.65	4.79	4.95	4.70	4.80	4.96	5.12
85	1792	MBh	49.0	50.0	52.3	55.8	47.9	48.8	51.1	54.5	46.7	47.6	49.9	53.2	45.6	46.5	48.7	51.9	43.3	44.2	46.2	49.3	40.1	40.9	42.8	45.7
		S/T	1.00	0.99	0.89	0.72	1.00	1.00	0.92	0.75	1.00	1.00	0.95	0.77	1.00	1.00	0.98	0.79	1.00	1.00	1.00	0.82	1.00	1.00	1.00	0.83
		KW	3.77	3.85	3.96	4.09	4.05	4.13	4.26	4.40	4.30	4.39	4.52	4.67	4.51	4.61	4.76	4.91	4.70	4.80	4.95	5.12	4.86	4.96	5.12	5.29
	1600	MBh	47.6	48.5	50.8	54.2	46.5	47.4	49.6	52.9	45.4	46.3	48.4	51.7	44.3	45.1	47.3	50.4	42.1	42.9	44.9	47.9	39.0	39.7	41.6	44.4
		S/T	0.98	0.94	0.85	0.69	1.00	0.98	0.88	0.72	1.00	1.00	0.90	0.73	1.00	1.00	0.93	0.76	1.00	1.00	0.97	0.79	1.00	1.00	0.98	0.79
		KW	3.74	3.82	3.93	4.05	4.02	4.10	4.23	4.36	4.26	4.35	4.49	4.63	4.48	4.57	4.72	4.87	4.66	4.76	4.91	5.07	4.82	4.92	5.08	5.25
	1408	MBh	45.2	46.1	48.3	51.5	44.2	45.0	47.1	50.3	43.1	43.9	46.0	49.1	42.1	42.9	44.9	47.9	40.0	40.7	42.7	45.5	37.0	37.7	39.5	42.2
		S/T	0.94	0.90	0.81	0.66	0.97	0.94	0.84	0.68	0.99	0.96	0.87	0.70	1.00	0.99	0.89	0.72	1.00	1.00	0.93	0.75	1.00	1.00	0.94	0.76
		KW	3.68	3.76	3.87	3.99	3.95	4.04	4.16	4.29	4.19	4.28	4.42	4.56	4.40	4.50	4.64	4.79	4.58	4.68	4.83	4.99	4.74	4.84	5.00	5.16

* Entering Indoor Temperature - Degrees F. Dry Bulb



Standard Rating

EXPANDED PERFORMANCE DATA (HEATING) - PHB048N1H/L

		Outdoor Ambient Temperature - Degrees F. Dry Bulb															
		65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0
MBh		54.7	51.8	48.8	45.5	43.5	42.2	39.2	36.1	30.4	28.1	25.8	24.4	23.5	21.1	18.7	16.3
T/R		31.6	30.0	28.2	26.4	25.2	24.4	22.7	20.9	17.6	16.2	15.0	14.1	13.6	12.2	10.8	9.4
KW		4.38	4.30	4.22	4.13	4.09	4.05	3.97	3.89	3.94	3.86	3.77	3.72	3.69	3.60	3.51	3.43
COP		3.65	3.52	3.38	3.23	3.12	3.05	2.89	2.72	2.26	2.13	2.01	1.92	1.87	1.71	1.56	1.39
EER		12.5	12.0	11.6	11.0	10.6	10.4	9.9	9.3	7.7	7.3	6.9	6.6	6.4	5.9	5.3	4.8

EXPANDED PERFORMANCE DATA (COOLING) - PHB060N1H/L

Airflow IDB* CFM			Outdoor Ambient Temperature - Degrees F. Dry Bulb																							
			65				75				85				95				105				115			
			Entering Indoor Temperature - Degrees F. Wet Bulb																							
			59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71
70	2240	MBh	55.9	57.9	63.4	-	54.6	56.5	62.0	-	53.3	55.2	60.5	-	52.0	53.9	59.0	-	49.4	51.2	56.1	-	45.7	47.4	51.9	-
		S/T	0.78	0.65	0.45	-	0.81	0.68	0.47	-	0.83	0.70	0.48	-	0.86	0.72	0.50	-	0.89	0.74	0.52	-	0.90	0.75	0.52	-
		KW	4.64	4.73	4.87	-	4.97	5.07	5.22	-	5.26	5.36	5.53	-	5.51	5.63	5.80	-	5.73	5.85	6.03	-	5.92	6.04	6.23	-
	2000	MBh	54.2	56.2	61.6	-	53.0	54.9	60.1	-	51.7	53.6	58.7	-	50.4	52.3	57.3	-	47.9	49.7	54.4	-	44.4	46.0	50.4	-
		S/T	0.75	0.62	0.43	-	0.77	0.65	0.45	-	0.79	0.66	0.46	-	0.82	0.68	0.47	-	0.85	0.71	0.49	-	0.86	0.72	0.50	-
		KW	4.60	4.69	4.83	-	4.93	5.03	5.18	-	5.22	5.32	5.48	-	5.47	5.58	5.75	-	5.69	5.80	5.98	-	5.87	5.99	6.18	-
	1760	MBh	51.5	53.4	58.5	-	50.3	52.2	57.1	-	49.1	50.9	55.8	-	47.9	49.7	54.4	-	45.5	47.2	51.7	-	42.2	43.7	47.9	-
		S/T	0.72	0.60	0.41	-	0.74	0.62	0.43	-	0.76	0.64	0.44	-	0.79	0.66	0.45	-	0.81	0.68	0.47	-	0.82	0.69	0.48	-
		KW	4.54	4.62	4.76	-	4.86	4.95	5.10	-	5.14	5.24	5.40	-	5.39	5.50	5.66	-	5.60	5.71	5.89	-	5.78	5.90	6.08	-
75	2240	MBh	56.8	58.5	63.3	67.9	55.5	57.1	61.8	66.4	54.2	55.8	60.4	64.8	52.8	54.4	58.9	63.2	50.2	51.7	55.9	60.0	46.5	47.9	51.8	55.6
		S/T	0.89	0.80	0.60	0.39	0.92	0.83	0.62	0.40	0.95	0.85	0.64	0.41	0.98	0.87	0.66	0.43	1.00	0.91	0.69	0.44	1.00	0.91	0.69	0.45
		KW	4.67	4.76	4.90	5.05	5.00	5.10	5.26	5.42	5.30	5.41	5.57	5.74	5.56	5.67	5.85	6.03	5.78	5.90	6.08	6.27	5.97	6.09	6.28	6.48
	2000	MBh	55.1	56.8	61.5	66.0	53.9	55.5	60.0	64.4	52.6	54.1	58.6	62.9	51.3	52.8	57.2	61.4	48.7	50.2	54.3	58.3	45.1	46.5	50.3	54.0
		S/T	0.85	0.76	0.57	0.37	0.88	0.79	0.60	0.38	0.90	0.81	0.61	0.39	0.93	0.83	0.63	0.41	0.97	0.86	0.65	0.42	0.98	0.87	0.66	0.42
		KW	4.64	4.73	4.87	5.01	4.97	5.07	5.22	5.38	5.26	5.36	5.53	5.70	5.51	5.63	5.80	5.98	5.73	5.85	6.03	6.22	5.92	6.04	6.23	6.43
	1760	MBh	52.4	53.9	58.4	62.7	51.2	52.7	57.0	61.2	50.0	51.4	55.7	59.7	48.7	50.2	54.3	58.3	46.3	47.7	51.6	55.4	42.9	44.2	47.8	51.3
		S/T	0.81	0.73	0.55	0.35	0.84	0.75	0.57	0.37	0.86	0.77	0.59	0.38	0.89	0.80	0.60	0.39	0.93	0.83	0.63	0.40	0.93	0.84	0.63	0.41
		KW	4.57	4.66	4.79	4.94	4.89	4.99	5.14	5.29	5.18	5.28	5.44	5.61	5.43	5.54	5.71	5.89	5.64	5.76	5.94	6.12	5.83	5.95	6.13	6.33
80	2240	MBh	57.8	59.1	63.1	67.5	56.5	57.7	61.6	65.9	55.1	56.3	60.2	64.3	53.8	55.0	58.7	62.8	51.1	52.2	55.8	59.6	47.3	48.4	51.7	55.2
		S/T	1.00	0.92	0.75	0.56	1.00	0.95	0.77	0.58	1.00	1.00	0.79	0.59	1.00	1.00	0.82	0.61	1.00	1.00	0.85	0.63	1.00	1.00	0.86	0.64
		KW	4.71	4.80	4.94	5.09	5.04	5.14	5.30	5.46	5.34	5.45	5.61	5.79	5.60	5.72	5.89	6.08	5.82	5.94	6.13	6.32	6.01	6.14	6.33	6.54
	2000	MBh	56.1	57.4	61.3	65.5	54.8	56.0	59.9	64.0	53.5	54.7	58.4	62.5	52.2	53.4	57.0	60.9	49.6	50.7	54.2	57.9	45.9	46.9	50.2	53.6
		S/T	0.93	0.87	0.71	0.53	0.97	0.91	0.74	0.55	0.99	0.93	0.76	0.56	1.00	0.96	0.78	0.58	1.00	0.99	0.81	0.61	1.00	1.00	0.82	0.61
		KW	4.67	4.76	4.90	5.05	5.00	5.10	5.26	5.42	5.30	5.41	5.57	5.74	5.56	5.67	5.85	6.03	5.78	5.90	6.08	6.27	5.97	6.09	6.28	6.48
	1760	MBh	53.3	54.5	58.2	62.2	52.1	53.2	56.9	60.8	50.8	52.0	55.5	59.3	49.6	50.7	54.2	57.9	47.1	48.2	51.4	55.0	43.6	44.6	47.7	50.9
		S/T	0.89	0.84	0.68	0.51	0.92	0.87	0.71	0.53	0.95	0.89	0.72	0.54	0.98	0.92	0.75	0.56	1.02	0.95	0.78	0.58	1.02	0.96	0.78	0.58
		KW	4.60	4.69	4.83	4.97	4.93	5.03	5.18	5.33	5.22	5.32	5.48	5.65	5.47	5.58	5.75	5.93	5.69	5.80	5.98	6.17	5.87	5.99	6.18	6.38
85	2240	MBh	58.8	60.0	62.8	67.0	57.5	58.6	61.3	65.4	56.1	57.2	59.9	63.9	54.7	55.8	58.4	62.3	52.0	53.0	55.5	59.2	48.2	49.1	51.4	54.8
		S/T	1.00	0.99	0.89	0.72	1.00	1.00	0.92	0.75	1.00	1.00	0.95	0.77	1.00	1.00	0.98	0.79	1.00	1.00	1.00	0.82	1.00	1.00	1.00	0.83
		KW	4.74	4.83	4.98	5.13	5.08	5.18	5.34	5.50	5.38	5.49	5.66	5.83	5.64	5.76	5.94	6.13	5.87	5.99	6.18	6.38	6.06	6.19	6.38	6.59
	2000	MBh	57.1	58.2	61.0	65.0	55.8	56.9	59.6	63.5	54.5	55.5	58.1	62.0	53.1	54.2	56.7	60.5	50.5	51.4	53.9	57.5	46.7	47.7	49.9	53.2
		S/T	0.98	0.94	0.85	0.69	1.00	0.98	0.88	0.72	1.00	1.00	0.90	0.73	1.00	1.00	0.93	0.76	1.00	1.00	0.97	0.79	1.00	1.00	0.98	0.79
		KW	4.71	4.80	4.94	5.09	5.04	5.14	5.30	5.46	5.34	5.45	5.61	5.79	5.60	5.72	5.89	6.08	5.82	5.94	6.13	6.32	6.01	6.14	6.33	6.54
	1760	MBh	54.3	55.3	57.9	61.8	53.0	54.0	56.6	60.4	51.7	52.7	55.2	58.9	50.5	51.4	53.9	57.5	47.9	48.9	51.2	54.6	44.4	45.3	47.4	50.6
		S/T	0.94	0.90	0.81	0.66	0.97	0.94	0.84	0.68	0.99	0.96	0.87	0.70	1.00	0.99	0.89	0.72	1.00	1.00	0.93	0.75	1.00	1.00	0.94	0.76
		KW	4.64	4.73	4.87	5.01	4.97	5.07	5.22	5.38	5.26	5.36	5.53	5.70	5.51	5.63	5.80	5.98	5.73	5.85	6.03	6.22	5.92	6.04	6.23	6.43

* Entering Indoor Temperature - Degrees F. Dry Bulb



Standard Rating

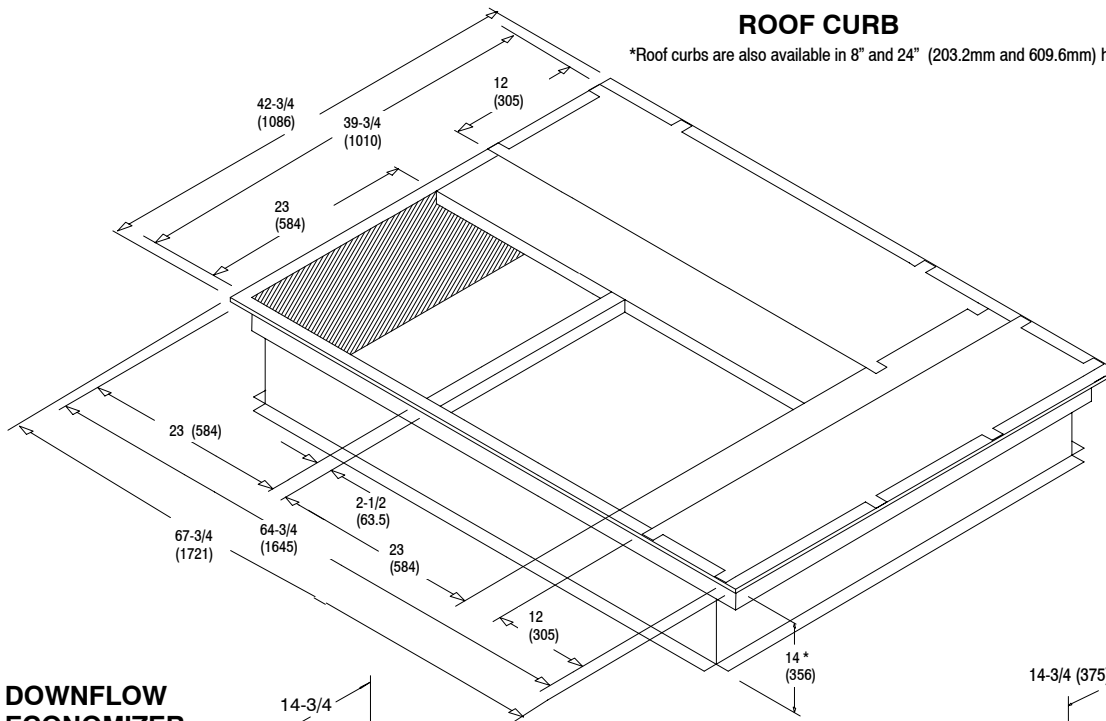
EXPANDED PERFORMANCE DATA (HEATING) - PHB060N1H/L

	Outdoor Ambient Temperature - Degrees F. Dry Bulb																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	66.6	63.1	59.4	55.5	53.0	51.4	47.7	44.0	36.1	33.4	30.7	29.0	27.9	25.1	22.2	19.4	16.5	13.5
T/R	30.8	29.2	27.5	25.7	24.5	23.8	22.1	20.4	16.7	15.4	14.2	13.4	12.9	11.6	10.3	9.0	7.7	6.3
KW	5.18	5.09	4.99	4.90	4.85	4.81	4.72	4.62	4.72	4.62	4.52	4.47	4.43	4.33	4.23	4.13	4.03	3.94
COP	3.76	3.63	3.48	3.31	3.20	3.13	2.96	2.79	2.24	2.11	1.99	1.90	1.85	1.69	1.54	1.37	1.20	1.01
EER	12.9	12.4	11.9	11.3	10.9	10.7	10.1	9.5	7.7	7.2	6.8	6.5	6.3	5.8	5.3	4.7	4.1	3.4

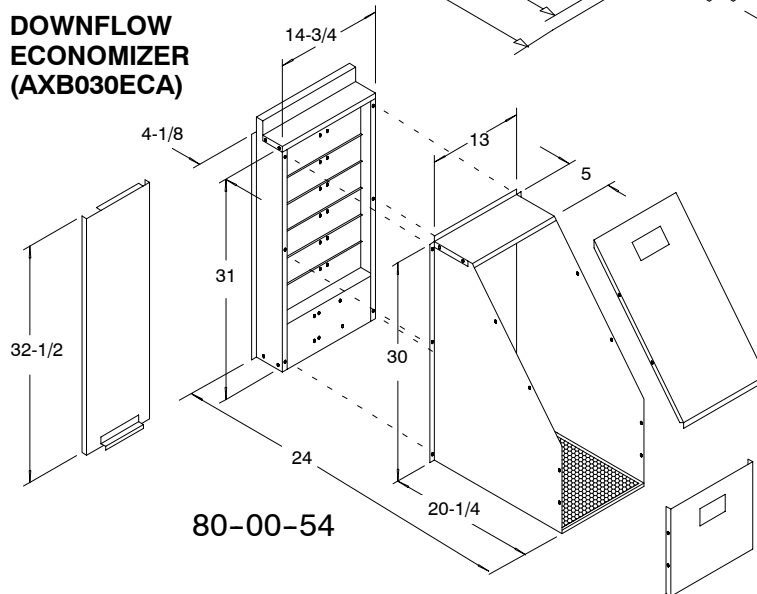
ACCESSORIES

ROOF CURB

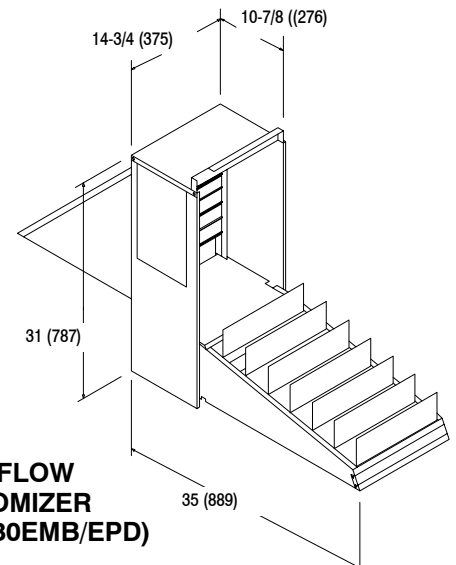
*Roof curbs are also available in 8" and 24" (203.2mm and 609.6mm) heights



DOWNFLOW ECONOMIZER (AXB030ECA)



DOWNFLOW ECONOMIZER (AXB030EMB/EPD)



ROOF CURBS

Description	Model Number	Used on
8"	AXB030CLA	ALL
14"	AXB030CMA	ALL
24"	AXB030CHA	ALL
Roof Curb Transition to Round Duct	AXB030CTA	ALL

ECONOMIZERS - DOWNFLOW

Description	Model Number	Used on
Fully Modulating with Enthalpy Control	AXB030EMB	ALL
Three Position with w/ Relief Damper * Ambient Controlled ⁽¹⁾	AXB030EPD	ALL
Three Position w/o Relief and Return Dampers * Ambient Controlled ⁽¹⁾	AXB030ECA	ALL

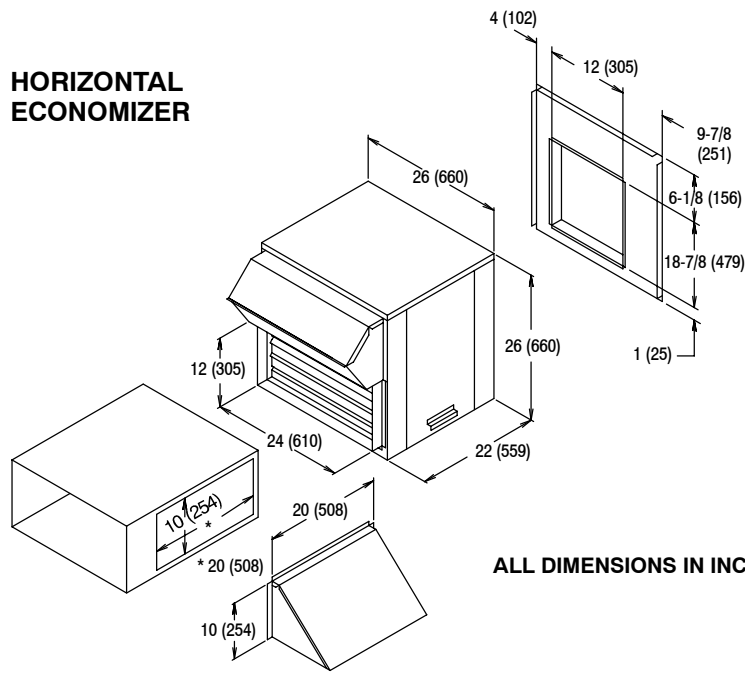
NOTES:

* 2 Filters field supplied 20" x 30" x 2" (2 needed). Filters retainers (2 required) can be ordered thru Service Parts, part number 1054517.

(1) If Enthalpy Control required, order part number 1480975 from service parts.

ACCESSORIES (CONTINUED...)

HORIZONTAL ECONOMIZER



ALL DIMENSIONS IN INCHES

ECONOMIZERS - HORIZONTAL

Description	Model Number	Used on
Fully Modulating Enthalpy Control ⁽¹⁾	AXB030HEB	ALL
Three Position * Ambient Controlled ⁽¹⁾	AXB030HPC	ALL

NOTES:

* 2 Filters field supplied 20" x 30" x 2" (2 needed). Filters retainers (2 required) can be ordered thru Service Parts, part number 1054517.

(1) If Enthalpy CControl required, order part number 1480975 from service parts.

OUTDOOR AIR DAMPERS

Description	Model Number	Used on
Manual - 25%	AXB030FAB	ALL
Motorized - 25%	AXB030FMB	ALL

COIL PROTECTION

Description	Model Number	Used on
Coil Guard	1149486*	ALL
Hail Guard	AXB030HGB	ALL
* Available from Service Parts		

CONCENTRIC DUCT KIT

Description	Model Number	Used on
Grille, Flush Mount	AXB030CFA	ALL
Grille, Step Down	AXB030CSA	ALL

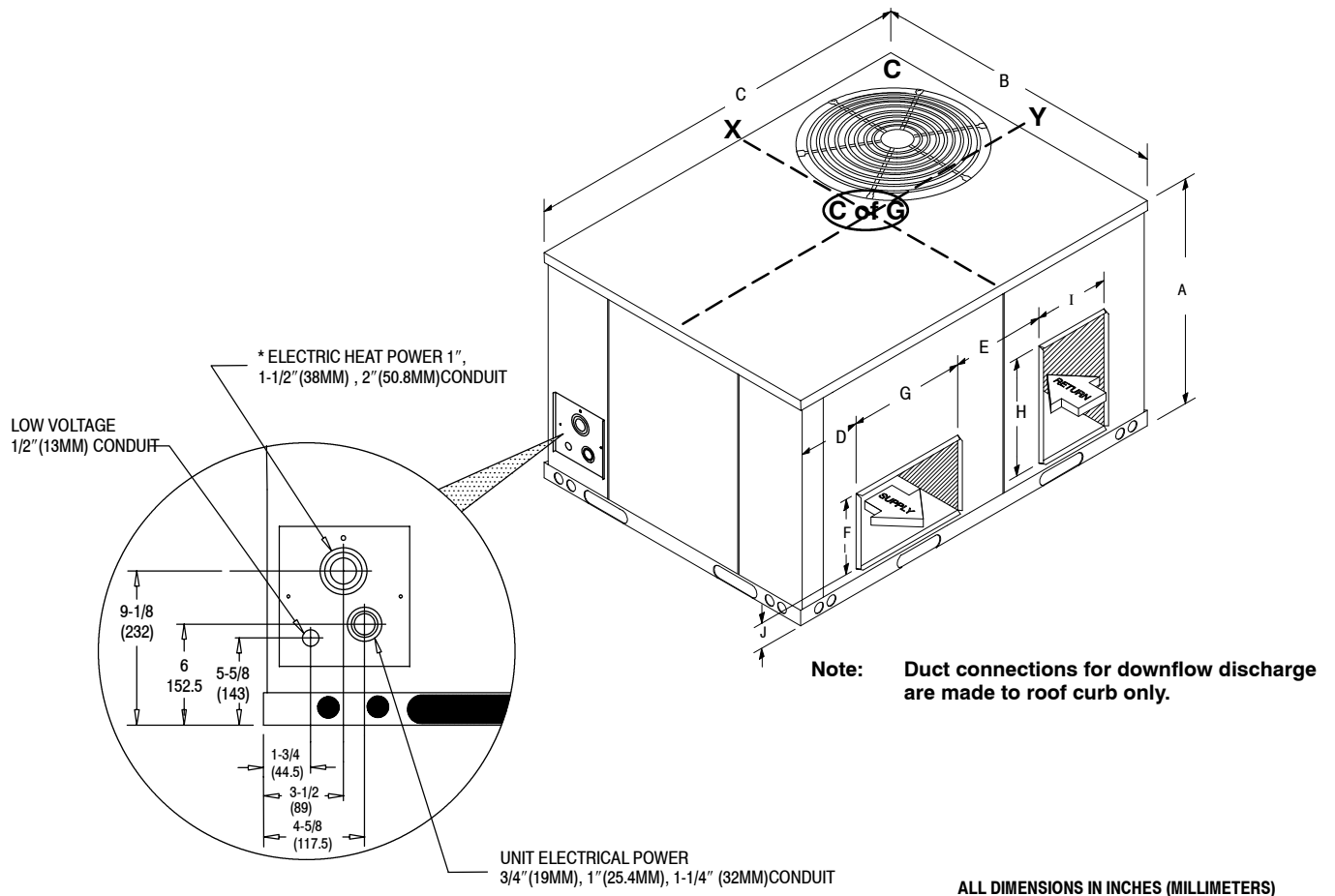
LOW AMBIENT CONTROLS

Description	Service Parts Numbers *	Used on
To 0° F	1148233	ALL

OUTDOOR THERMOSTAT

Outdoor Thermostat (Two-Stage)	AMA001OTB	Electric Heat Accessory 15 KW and Above
Outdoor Thermostat (Four-Stage)	AMA002OTB	Electric Heat Accessory 25 KW and 30 KW

UNIT DIMENSIONS AND CENTER OF GRAVITY INFORMATION



Model No.	A	B	C	D	E	F	G	H	I	J	K	Inside Base Rail
PHB36 - 60	36 (914)	47-3/8 (1203.5)	73 (1854)	4-5/8 (117.5)	15 (381)	12 (305)	18-3/4 (476)	18-3/4 (476)	12 (305)	4 (102)	*	68-3/4 x 43-1/8 (1746 x 1095.5)

*NOTE: The base rail width is 2-1/8 inches (55MM).

Center of Gravity (Inches/MM)		
Model	X axis	Y axis
PHB036	35(889)	21(533.5)
PHB048	34(864)	20(508)
PHB060	34(864)	20(508)

Note: To determine Center of Gravity, get appropriate measurements from the table above, then measure from the corner of the unit marked "C", making sure to use the correct measurement for the axis you are measuring. See example of typical center of gravity determination on dimensional drawing to the right.

GUIDE SPECIFICATION

CABINET

The cabinet shall be made of sturdy G-90 triple-coated galvanized steel. Base rails shall be 18 gauge steel have fork lift slots and holes provided for lifting shackles. Unit shall be designed with convertible airflow and shipped ready for downflow applications with conversion to horizontal airflow being accomplished by relocating two panels.

Return air compartments shall be insulated with not less than 1" (25.4MM) of water resistant coated glass fiber and not less than 1" (25.4MM) of aluminum foil faced glass fiber in the furnace/supply compartments.

COOLING SECTION

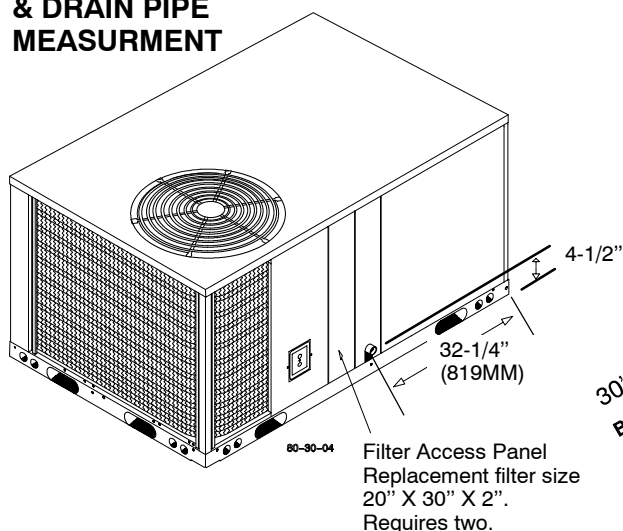
Units shall be factory charged and operationally ready. Each refrigerant circuit shall have a compressor with internal overload protection, high and low pressure switches, filter drier, and copper tube/aluminum fin evaporator and condenser coils.

Units shall be capable of cooling operation down to 40°F as shipped from the factory.

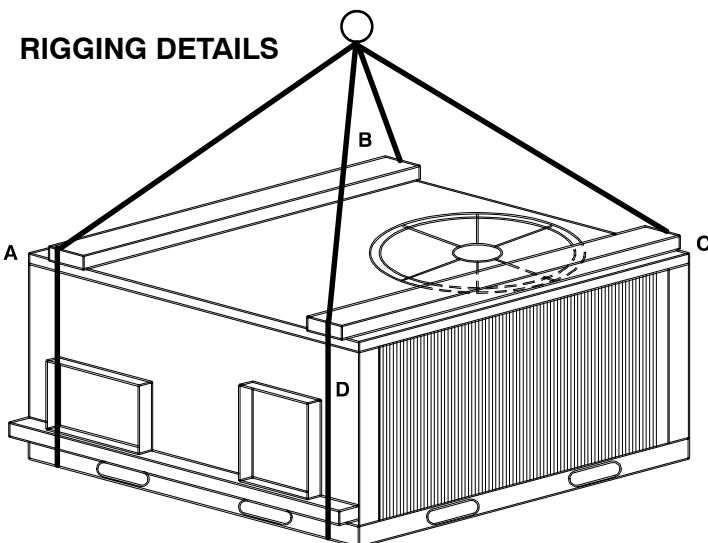
COILS

The evaporator and condenser coils shall be fabricated with aluminum fins mechanically bonded to copper tubing. Both coils shall be pressure tested prior to assembly into the unit and electronically leak tested after assembly into the unit. The evaporator coil shall be protected from dust and debris on the return air side by factory installed 2" (50.8MM) air filters.

FILTER REPLACEMENT & DRAIN PIPE MEASUREMENT



RIGGING DETAILS



CONDENSER FAN

The unit shall have a single direct drive propeller fan/motor assembly mounted directly to a vertical-discharge grille panel that is easily removable. Motors shall be 1075 RPM with permanently lubricated sleeve bearings and inherent overload protection.

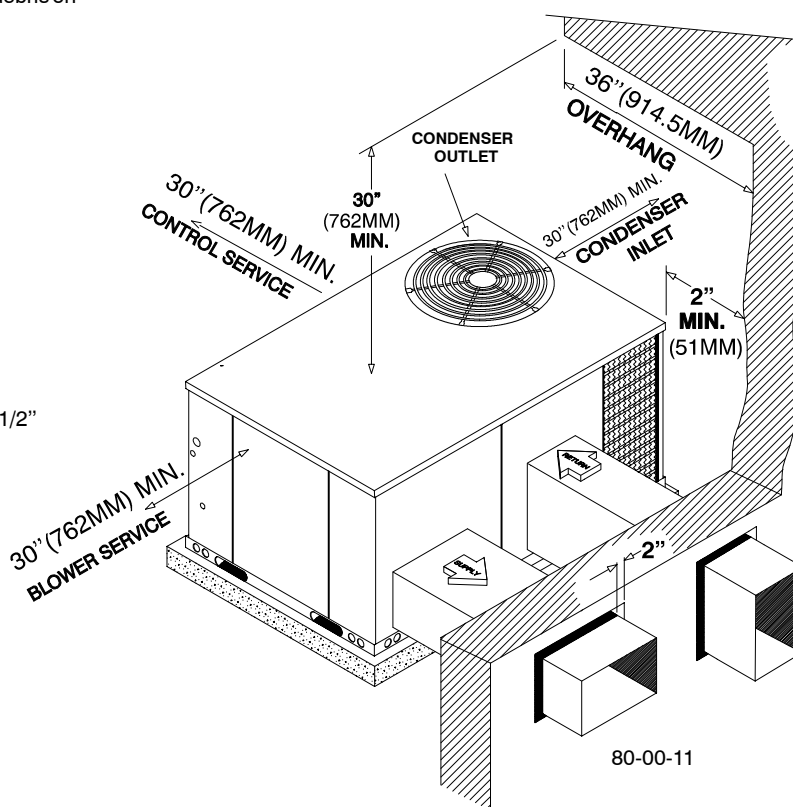
EVAPORATOR BLOWER

The standard direct drive blower for the PYMD36-60 shall have the motor mounted inside a single, double inlet centrifugal wheel and have internal overload protection and permanently lubricated ball bearings and/or sleeve bearings with oilers provided.

HEATING SECTION

The heating compartment shall be easily accessible and accept the optional slide-in electric heat accessory packages.

INSTALLATION CLEARANCES



CORNER WEIGHTS [LBS(KGS)]

MODEL	A	B	C	D	OP. WEIGHT TOTAL
PHB036N1H	117 (53)	128 (58)	164 (74.5)	151 (68.5)	560 (254)
PHB036N1L	129 (58.5)	140 (63.5)	176 (80)	163 (74)	608 (276)
PHB048N1H	124 (56)	134 (61)	173 (78.5)	159 (72)	590 (267.5)
PHB048N1L	136 (62)	146 (66)	185 (84)	171 (77.5)	638 (289.5)
PHB060N1H	128 (58)	139 (63)	179 (81)	164 (74.5)	610 (276.5)
PHB060N1L	140 (63.5)	151 (68.5)	191 (86.5)	176 (80)	658 (298.5)

