PHB SERIES
7-1/2 and 10 TON

TEMPSTAR®
Heating and Cooling Products

50 Hz

Representative photo only, some models may vary in appearance.

COMMERCIAL SINGLE PACKAGE HEAT PUMPS

COMMERCIAL PACKAGE HEAT PUMP FEATURES

SINGLE PACKAGE
- Single package cooling and heating. Self contained for year-round comfort. Systems can be installed on rooftop or ground level with the new convertible design.

CONSTRUCTION
- G-90 galvanized steel, phosphate coated with an epoxy based primer and a polyester finish coat for long lasting weatherproof construction. Access panels for easy service. Side by side supply and return. Heavy 16 gauge base with rails.

CABINET
- Sturdy galvanized steel, phosphate coated with a tough Electro Powder Coated Polyester finish.

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

IMPROVED INSULATION
- Dual density insulation improves temperature separation.

COPPER TUBE/ALUMINUM FIN COILS
- Enhanced aluminium fins mechanically bonded to copper tubes for improved heat transfer.

FILTER DRIERS
- To insure refrigerant cleanliness.

HIGH & LOW PRESSURE SWITCHES
- To provide excellent compressor protection.

EXTERNALLY-MOUNTED GAUGE PORTS
- Allows for easy, accurate reading of operating conditions while servicing.

INNOVATIVE EVAPORATOR BLOWER DESIGN
- "No Difference" Design allows the evaporator blower to deliver the same static capability for either horizontal or down discharge applications.

INTERNAL AIR FILTERS
- Easy access air filters to maintain a clean evaporator coil.

PRE-WIRED FOR ECONOMIZER
- Designed for slide-in, plug-in economizer installation.

International Comfort Products Corporation (USA)
650 Heil-Quaker Avenue, Lewisburg, TN 37091

516 21 1102 00

Printed in U.S.A.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

November, 1997

UNIT SPECIFICATIONS

Model Number				PHB090N2L	PHB120N2L
Electrical Data	Volts-PHBse-Hz			380/420-3-50	380/420-3-50
	Voltage Utilization Range			342 - 462	
	Ampacity			18.2	29.0
Condenser Data	Coil	Total Face Area (Sq. Ft.)		23	23
		Fins Per In. / Rows		20 / 2	20 / 2
		Tube Diameter (In.)		3/8	3/8
	Fan Motor	Horsepower / Quantity		3/4 / 1	3/4 / 2
		Full Load Amps.		3.5	3.5
		Locked Rotor Amps.		10	10
	Fan	Size Diameter (In.)		24	24
		RPM (Maximum)		1100	1100
		CFM (Maximum)		5800 x 1	4600 x 2
Evaporator Coil	Coil	Total Face Area (Sq. Ft.)		23.0	23.0
		Fins Per In. / Rows		16 / 2	16 / 2
		Tube Diameter (In.)		3/8	3/8
	Blower Motor	H.P.		2	2
		Full Load Amps.		3.4	5.2
		Locked Rotor Amps.		28.9	28.9
	Blower	Type & Size		12 x 12 Belt	12 x 12 Belt
		RPM (Maximum)		1750	1750
Compressor	Quantity / Type			2 / Recip	2 / Scroll
	Rated Load Amps.		#1	5.7	9.0
			#2	5.7	9.0
	Lock Rotor Amps.		#1	42	62
			#2	42	62
Factory Refrigerant Charge R-22 oz. per Circuit				#1 - 193	#1 - 200
Weight	Shipping (Lbs.) (Kg)			1100 (498)	1150 (521)

NET PERFORMANCE DATA: COOLING

Model	Rated Cap. Btuh (Kw)	S/T	EER	I.P.L.V.	Capacity Stages % Cooling	Evaporator Rated Airflow
PHB090N2L	80,500 (23.5)	.80	9.2	10.4	50 / 100	2600 SCFM (4420 CMH)
PHB120N2L	104,500 (30.6)	.78	9.8	10.3	50 / 100	3000 SCFM (5100 CMH)

Cooling Based on 95 °F (35 °C) Ambient, 80 °F (26.7 °C) DB, 67 °F (19.4 °C) WB

NET PERFORMANCE DATA: HEATING

	Heating @ 47 °F, (8.3 °C)		Heating @ 17 °F, (-8.3 °C)		
Model	Rated Cap. Btuh (Kw)	COP	Rated Cap. Btuh (Kw)	COP	Evaporator Rated Airflow
PHB090N2L	76,300 (22.3)	3.09	40,000 (11.7)	2.05	2600 SCFM (4420 CMH)
PHB120N2L	104,700 (30.6)	3.20	60,500 (17.7)	2.05	3000 SCFM (5100 CMH)

Heating Based on 67 °F (19.5 °C) DB, 57 °F (13.8 °C) WB

MODEL NUMBER IDENTIFICATION GUIDE

MODEL NUMBER	P	H	B	090	N	2	L
Product Family P = Single Package							Electrical Characteristics L = 380 / 420-3-50
Fuel Type H = Heat Pump							Blower Options 2 = Standard Belt Drive
Design Series							Heat Input N = No Heat Installed
Capacity (Nominal BTU) 090 = 7 1/2 Ton 120 = 10 Ton							

EXPANDED PERFORMANCE DATA (NET COOLING) – 7 1/2 Ton

			Outdoor Ambient Temperature - Degrees F. Dry Bulb																							
	Airflow		65				75				85				95				105				115			
			Entering Indoor Temperature - Degrees F. Wet Bulb																							
IDB*	CFM		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	2912	MBh	78.9	81.8	89.6	-	77.0	79.9	87.5	-	75.2	78.0	85.4	-	73.4	76.1	83.3	-	69.7	72.3	79.2	-	64.6	66.9	73.3	-
		S/T	0.80	0.67	0.46	-	0.83	0.70	0.48	-	0.85	0.71	0.49	-	0.88	0.74	0.51	-	0.91	0.76	0.53	-	0.92	0.77	0.53	-
		KW	6.86	7.01	7.22	-	7.38	7.53	7.77	-	7.83	8.00	8.25	-	8.23	8.41	8.68	-	8.57	8.76	9.04	-	8.86	9.06	9.35	-
	2600	MBh	76.6	79.4	87.0	-	74.8	77.5	84.9	-	73.0	75.7	82.9	-	71.2	73.8	80.9	-	67.7	70.1	76.9	-	62.7	65.0	71.2	-
		S/T	0.77	0.64	0.44	-	0.79	0.66	0.46	-	0.81	0.68	0.47	-	0.84	0.70	0.49	-	0.87	0.73	0.50	-	0.88	0.73	0.51	-
		KW	6.81	6.95	7.16	-	7.32	7.47	7.71	-	7.77	7.93	8.18	-	8.16	8.34	8.61	-	8.50	8.68	8.97	-	8.79	8.98	9.27	-
	2288	MBh	72.8	75.4	82.6	-	71.1	73.7	80.7	-	69.4	71.9	78.8	-	67.7	70.1	76.9	-	64.3	66.6	73.0	-	59.6	61.7	67.6	-
		S/T	0.73	0.61	0.42	-	0.76	0.64	0.44	-	0.78	0.65	0.45	-	0.81	0.67	0.47	-	0.84	0.70	0.48	-	0.84	0.70	0.49	-
		KW	6.71	6.84	7.05	-	7.20	7.35	7.58	-	7.64	7.81	8.05	-	8.03	8.20	8.47	-	8.36	8.54	8.82	-	8.65	8.83	9.12	-
75	2912	MBh	80.2	82.6	89.4	96.0	78.4	80.7	87.3	93.7	76.5	78.8	85.2	91.5	74.6	76.8	83.2	89.3	70.9	73.0	79.0	84.8	65.7	67.6	73.2	78.5
		S/T	0.91	0.82	0.62	0.40	0.95	0.85	0.64	0.41	0.97	0.87	0.66	0.42	1.00	0.90	0.68	0.44	1.00	0.93	0.70	0.45	1.00	0.94	0.71	0.46
		KW	6.92	7.06	7.28	7.51	7.44	7.59	7.83	8.08	7.89	8.06	8.32	8.59	8.30	8.48	8.75	9.04	8.64	8.83	9.12	9.42	8.94	9.13	9.43	9.75
	2600	MBh	77.9	80.2	86.8	93.2	76.1	78.3	84.8	91.0	74.3	76.5	82.8	88.8	72.5	74.6	80.7	86.7	68.8	70.9	76.7	82.3	63.8	65.6	71.1	76.3
		S/T	0.87	0.78	0.59	0.38	0.90	0.81	0.61	0.39	0.93	0.83	0.63	0.40	0.96	0.85	0.65	0.42	0.99	0.89	0.67	0.43	1.00	0.89	0.68	0.44
		KW	6.87	7.01	7.22	7.45	7.38	7.53	7.77	8.02	7.83	8.00	8.25	8.52	8.23	8.41	8.68	8.96	8.57	8.76	9.04	9.34	8.86	9.06	9.35	9.66
	2288	MBh	74.0	76.2	82.5	88.5	72.3	74.4	80.5	86.4	70.5	72.6	78.6	84.4	68.8	70.9	76.7	82.3	65.4	67.3	72.9	78.2	60.6	62.4	67.5	72.4
		S/T	0.83	0.75	0.56	0.36	0.86	0.77	0.59	0.38	0.89	0.79	0.60	0.39	0.92	0.82	0.62	0.40	0.95	0.85	0.64	0.41	0.96	0.86	0.65	0.42
		KW	6.76	6.90	7.11	7.33	7.26	7.41	7.64	7.89	7.71	7.87	8.12	8.38	8.10	8.27	8.54	8.81	8.43	8.61	8.89	9.18	8.72	8.91	9.20	9.50
80	2912	MBh	81.6	83.4	89.1	95.3	79.7	81.5	87.1	93.1	77.8	79.5	85.0	90.9	76.0	77.6	82.9	88.6	72.2	73.7	78.8	84.2	66.8	68.3	73.0	78.0
		S/T	1.00	0.94	0.76	0.57	1.00	1.00	0.79	0.59	1.00	1.00	0.81	0.61	1.00	1.00	0.84	0.63	1.00	1.00	0.87	0.65	1.00	1.00	0.88	0.66
		KW	6.97	7.12	7.34	7.57	7.50	7.65	7.89	8.15	7.96	8.13	8.39	8.66	8.36	8.55	8.82	9.11	8.71	8.90	9.19	9.50	9.01	9.21	9.51	9.83
	2600	MBh	79.3	81.0	86.5	92.5	77.4	79.1	84.5	90.4	75.6	77.2	82.5	88.2	73.7	75.3	80.5	86.1	70.1	71.6	76.5	81.8	64.9	66.3	70.8	75.7
		S/T	0.96	0.90	0.73	0.55	0.99	0.93	0.76	0.56	1.00	0.95	0.78	0.58	1.00	0.98	0.80	0.60	1.00	1.00	0.83	0.62	1.00	1.00	0.84	0.63
		KW	6.92	7.06	7.28	7.51	7.44	7.59	7.83	8.08	7.89	8.06	8.32	8.59	8.30	8.48	8.75	9.04	8.64	8.83	9.12	9.42	8.94	9.13	9.43	9.75
	2288	MBh	75.3	76.9	82.2	87.9	73.6	75.2	80.3	85.8	71.8	73.4	78.4	83.8	70.1	71.6	76.5	81.8	66.5	68.0	72.7	77.7	61.6	63.0	67.3	71.9
		S/T	0.92	0.86	0.70	0.52	0.95	0.89	0.72	0.54	0.97	0.91	0.74	0.55	1.00	0.94	0.77	0.57	1.04	0.98	0.80	0.59	1.05	0.99	0.80	0.60
		KW	6.81	6.95	7.16	7.39	7.32	7.47	7.71	7.95	7.77	7.93	8.18	8.45	8.16	8.34	8.61	8.89	8.50	8.68	8.97	9.26	8.79	8.98	9.27	9.58
85	2912	MBh	83.1	84.7	88.7	94.6	81.1	82.7	86.6	92.4	79.2	80.7	84.6	90.2	77.3	78.8	82.5	88.0	73.4	74.8	78.4	83.6	68.0	69.3	72.6	77.5
		S/T	1.00	1.00	0.91	0.74	1.00	1.00	0.95	0.77	1.00	1.00	0.97	0.79	1.00	1.00	1.00	0.81	1.00	1.00	1.00	0.84	1.00	1.00	1.00	0.85
		KW	7.03	7.17	7.39	7.63	7.55	7.71	7.96	8.21	8.02	8.19	8.45	8.73	8.43	8.62	8.89	9.19	8.78	8.98	9.27	9.58	9.08	9.29	9.59	9.91
	2600	MBh	80.7	82.2	86.1	91.9	78.8	80.3	84.1	89.7	76.9	78.4	82.1	87.6	75.0	76.5	80.1	85.5	71.3	72.7	76.1	81.2	66.0	67.3	70.5	75.2
		S/T	1.00	0.97	0.87	0.71	1.00	1.00	0.90	0.73	1.00	1.00	0.93	0.75	1.00	1.00	0.96	0.78	1.00	1.00	0.99	0.81	1.00	1.00	1.00	0.81
		KW	6.97	7.12	7.34	7.57	7.50	7.65	7.89	8.15	7.96	8.13	8.39	8.66	8.36	8.55	8.82	9.11	8.71	8.90	9.19	9.50	9.01	9.21	9.51	9.83
	2288	MBh	76.6	78.1	81.8	87.3	74.8	76.3	79.9	85.2	73.1	74.5	78.0	83.2	71.3	72.7	76.1	81.2	67.7	69.0	72.3	77.1	62.7	63.9	67.0	71.4
		S/T	0.96	0.93	0.84	0.68	0.99	0.96	0.87	0.70	1.00	0.98	0.89	0.72	1.00	1.00	0.92	0.74	1.00	1.00	0.95	0.77	1.00	1.00	0.96	0.78
		KW	6.86	7.01	7.22	7.45	7.38	7.53	7.77	8.01	7.83	8.00	8.25	8.52	8.23	8.41	8.68	8.96	8.57	8.76	9.04	9.34	8.86	9.06	9.35	9.66

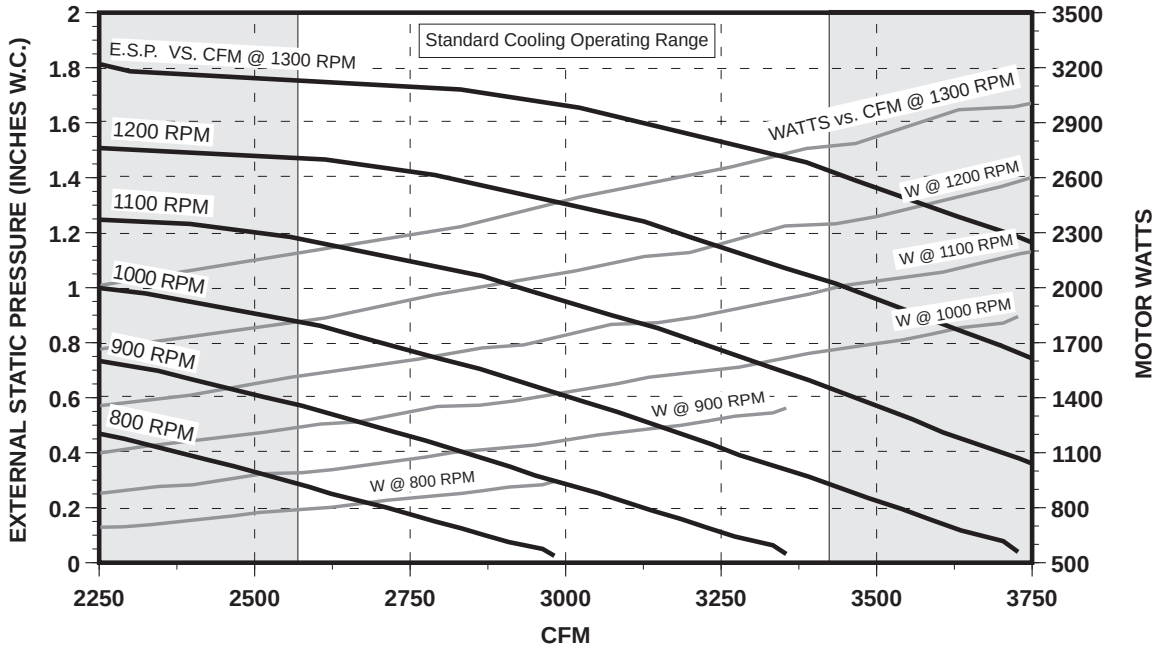
* Entering Indoor Temperature - Degrees F. Dry Bulb Standard Rating

EXPANDED PERFORMANCE DATA (NET COOLING) – 10 Ton

			Outdoor Ambient Temperature - Degrees F. Dry Bulb																							
	Airflow		65				75				85				95				105				115			
			Entering Indoor Temperature - Degrees F. Wet Bulb																							
IDB*	CFM		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	3360	MBh	102.4	106.1	116.3	-	100.0	103.7	113.6	-	97.6	101.2	110.9	-	95.3	98.7	108.2	-	90.5	93.8	102.8	-	83.8	86.9	95.2	-
		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	8.71	8.88	9.14	-	9.33	9.52	9.81	-	9.88	10.09	10.39	-	10.37	10.58	10.91	-	10.78	11.01	11.35	-	11.14	11.37	11.73	-
	3000	MBh	99.4	103.0	112.9	-	97.1	100.6	110.3	-	94.8	98.3	107.6	-	92.5	95.9	105.0	-	87.9	91.1	99.8	-	81.4	84.4	92.4	-
		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	8.65	8.82	9.08	-	9.26	9.45	9.73	-	9.81	10.01	10.31	-	10.29	10.50	10.83	-	10.70	10.92	11.26	-	11.05	11.28	11.64	-
	2640	MBh	94.4	97.9	107.3	-	92.3	95.6	104.8	-	90.1	93.3	102.3	-	87.9	91.1	99.8	-	83.5	86.5	94.8	-	77.3	80.1	87.8	-
		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	8.52	8.69	8.94	-	9.12	9.31	9.58	-	9.66	9.85	10.15	-	10.13	10.34	10.66	-	10.53	10.75	11.08	-	10.87	11.10	11.45	-
75	3360	MBh	104.1	107.2	116.1	124.6	101.7	104.7	113.4	121.7	99.3	102.2	110.7	118.8	96.9	99.7	108.0	115.9	92.0	94.8	102.6	110.1	85.2	87.8	95.0	102.0
		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	8.78	8.95	9.21	9.49	9.41	9.60	9.88	10.19	9.96	10.17	10.48	10.80	10.45	10.67	11.00	11.35	10.87	11.10	11.44	11.81	11.23	11.46	11.83	12.21
	3000	MBh	101.1	104.1	112.7	120.9	98.8	101.7	110.1	118.1	96.4	99.3	107.4	115.3	94.1	96.8	104.8	112.5	89.3	92.0	99.6	106.9	82.8	85.2	92.2	99.0
		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	8.71	8.88	9.15	9.42	9.34	9.52	9.81	10.11	9.88	10.09	10.40	10.72	10.37	10.59	10.91	11.26	10.78	11.01	11.35	11.72	11.14	11.37	11.73	12.11
	2640	MBh	96.0	98.9	107.0	114.9	93.8	96.6	104.6	112.2	91.6	94.3	102.1	109.5	89.3	92.0	99.6	106.9	84.9	87.4	94.6	101.5	78.6	81.0	87.6	94.0
		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	8.58	8.75	9.01	9.28	9.19	9.38	9.66	9.95	9.73	9.93	10.23	10.55	10.21	10.42	10.74	11.08	10.61	10.83	11.17	11.53	10.96	11.19	11.54	11.91
80	3360	MBh	106.0	108.3	115.7	123.7	103.5	105.8	113.0	120.8	101.1	103.3	110.3	117.9	98.6	100.7	107.6	115.1	93.7	95.7	102.3	109.3	86.8	88.7	94.7	101.3
		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	8.84	9.02	9.28	9.56	9.48	9.67	9.96	10.27	10.04	10.25	10.56	10.89	10.53	10.75	11.09	11.44	10.95	11.18	11.54	11.91	11.32	11.56	11.92	12.31
	3000	MBh	102.9	105.1	112.3	120.1	100.5	102.7	109.7	117.3	98.1	100.3	107.1	114.5	95.7	97.8	104.5	111.7	90.9	92.9	99.3	106.1	84.2	86.1	92.0	98.3
		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	8.78	8.95	9.21	9.49	9.41	9.60	9.89	10.19	9.96	10.17	10.48	10.80	10.45	10.67	11.00	11.35	10.87	11.10	11.44	11.81	11.23	11.47	11.83	12.21
	2640	MBh	97.8	99.9	106.7	114.1	95.5	97.6	104.2	111.4	93.2	95.2	101.8	108.8	90.9	92.9	99.3	106.1	86.4	88.3	94.3	100.8	80.0	81.8	87.4	93.4
		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	8.65	8.82	9.08	9.35	9.26	9.45	9.73	10.03	9.81	10.01	10.31	10.63	10.29	10.50	10.83	11.17	10.70	10.92	11.26	11.62	11.05	11.28	11.64	12.01
85	3360	MBh	107.8	109.9	115.1	122.8	105.3	107.4	112.5	120.0	102.8	104.8	109.8	117.1	100.3	102.3	107.1	114.3	95.3	97.1	101.7	108.5	88.3	90.0	94.2	100.5
		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	8.91	9.09	9.35	9.64	9.55	9.74	10.04	10.35	10.12	10.32	10.64	10.98	10.62	10.84	11.18	11.53	11.04	11.27	11.63	12.00	11.41	11.65	12.02	12.41
	3000	MBh	104.7	106.7	111.8	119.2	102.3	104.2	109.2	116.5	99.8	101.8	106.6	113.7	97.4	99.3	104.0	110.9	92.5	94.3	98.8	105.4	85.7	87.4	91.5	97.6
		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	8.84	9.02	9.28	9.56	9.48	9.67	9.96	10.27	10.04	10.25	10.56	10.89	10.53	10.75	11.09	11.44	10.95	11.18	11.54	11.91	11.32	11.56	11.92	12.31
	2640	MBh	99.5	101.4	106.2	113.3	97.2	99.0	103.7	110.7	94.8	96.7	101.2	108.0	92.5	94.3	98.8	105.4	87.9	89.6	93.8	100.1	81.4	83.0	86.9	92.7
		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	8.71	8.88	9.14	9.42	9.33	9.52	9.81	10.11	9.88	10.09	10.39	10.72	10.37	10.58	10.91	11.26	10.78	11.01	11.35	11.71	11.14	11.37	11.73	12.11

* Entering Indoor Temperature - Degrees F. Dry Bulb Standard Rating

CIRCULATING BLOWER PERFORMANCE DATA - 7.5 TON UNITS



NOTES: 1) Maximum motor Watts is 3200 Watts for 2 HP. 2) Maximum blower wheel speed is 1800 RPM. 3) Contact factory for applications requiring operation outside standard cooling operating range. 4) Airflow data is based on dry coil with filters. For wet coil add 0.08 inches to ESP. Downflow has the same ESP as horizontal flow. 5) Pulley turns refers to turns out. In other words, 0 turns is a narrower sheave than 5 turns. 6) Blower speed MUST be set to give the correct air temperature rise through the unit as marked on the Rating Plate or in the *Technical Support Manual*.

CFM	EXTERNAL STATIC PRESSURE IN INCHES WATER COLUMN (PASCALS)									
	.25 (62)		.50 (124)		.75 (186)		1.0 (249)		1.25 (311)	
	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
2500					950	1100	1030	1300	1120	1550
2750					990	1300	1060	1500	1145	1750
3000			960	1350	1040	1600	1120	1800		
3250	960	1375	1025	1600	1100	1850	1160	2050		
3500	1010	1525	1075	1850	1145	2100				

PULLEY TURNS OPEN		0	1	2	3	4	5
FAN RPM	2 HP STD PULLEY	1025	945	923	877	830	784
	2 HP HI STATIC PULLEY	1160	1108	1062	1016	970	924

FACTORY SETTING TURNS OPEN	
2 HP STD PULLEY	4
2 HP HI STATIC PULLEY	See NOTE

NOTE: High static pulleys are field installed and MUST be adjusted by the installing technician. See Page 9 for approved high static motor/pulley combinations.

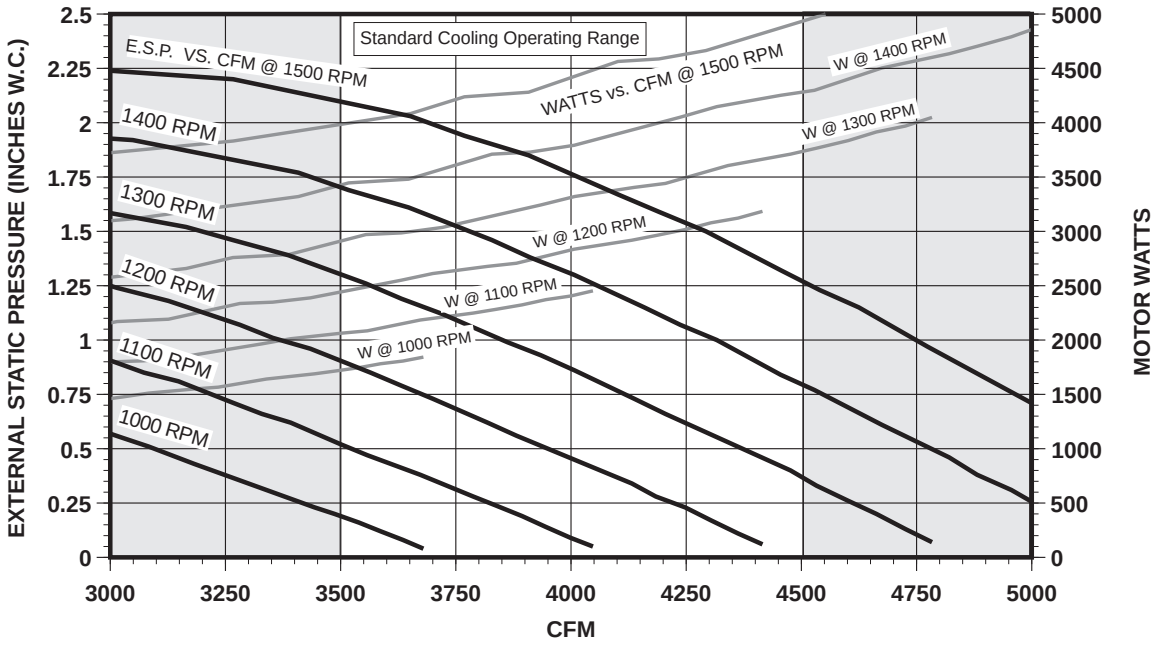
Not Applicable High Static Data W = Watts

AIRFLOW CORRECTION FACTORS - 7 1/2 TON

CFM - ACTUAL	2600	2800	3000	3200	3400
TOTAL MBH	0.97	0.98	1.00	1.02	1.03
SENSIBLE MBH	0.93	0.97	1.00	1.03	1.07
POWER KW	0.99	0.99	1.00	1.01	1.01

NOTES: 1. Multiply correction factor times performance data.
2. Resulting sensible capacity cannot exceed total capacity.

CIRCULATING BLOWER PERFORMANCE DATA - 10 TON UNITS



NOTES: 1) Maximum motor Watts is 4250 Watts for 2 HP and 4900 Watts for 3 HP. 2) Maximum blower wheel speed is 1800 RPM. 3) Contact factory for applications requiring operation outside standard cooling operating range. 4) Airflow data is based on dry coil with filters. For wet coil add 0.08 inches to ESP. Downflow has the same ESP as horizontal flow. 5) Pulley turns refers to turns out. In other words, 0 turns is a narrower sheave than 5 turns. 6) Blower speed MUST be set to give the correct air temperature rise through the unit as marked on the Rating Plate or in the *Technical Support Manual*.

CFM	EXTERNAL STATIC PRESSURE IN INCHES WATER COLUMN (PASCALS)									
	.25 (62)		.50 (124)		.75 (186)		1.0 (249)		1.25 (311)	
	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
3500	1010	1760	1100	2050	1160	2300	1240	2600	1300	2900
3750	1080	2100	1150	2400	1210	2750	1290	2900	1340	3300
4000	1150	2550	1210	2900	1275	3150	1340	3500		
4250	1200	3050	1275	3350	1330	3650				
4500	1260	3500	1325	3850						

PULLEY TURNS OPEN		0	1	2	3	4	5
FAN RPM	2 HP STD PULLEY	1200	1108	1062	1015	970	924
	3 HP HI STATIC PULLEY	1340	1247	1200	1154	1108	1062

FACTORY SETTING TURNS OPEN	
2 HP STD PULLEY	4
3 HP HI STATIC PULLEY	(See NOTE)

NOTE: High static pulley are field installed and MUST be adjusted by the installing technician. See Page 9 for approved high static motor/pulley combinations.

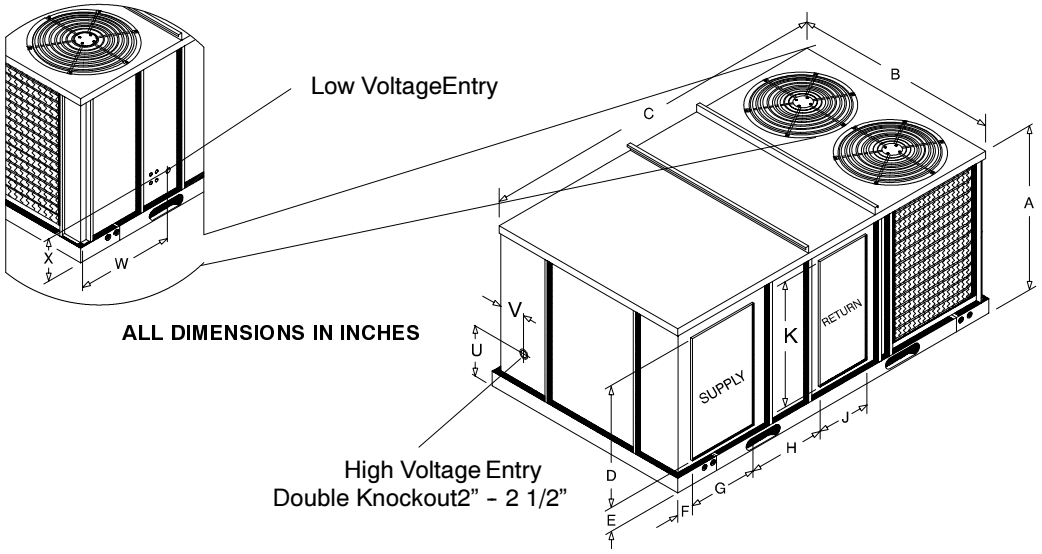
Not Applicable 3 HP Data W = Watts

AIRFLOW CORRECTION FACTORS - 10 TON

CFM - ACTUAL	3200	3600	4000	4400	4800
TOTAL MBH	0.95	0.97	1.00	1.03	1.05
SENSIBLE MBH	0.89	0.95	1.00	1.05	1.11
POWER KW	0.98	0.99	1.00	1.01	1.02

NOTES: 1. Multiply correction factor times performance data.
2. Resulting sensible capacity cannot exceed total capacity.

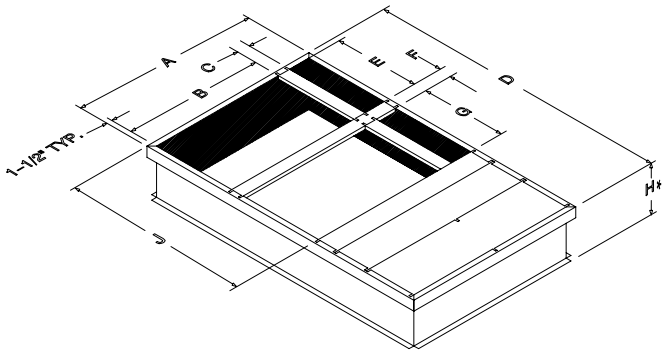
UNIT DIMENSIONS



Unit Size	A	B	C	D	E	F	G	H	J	K
7-1/2 & 10 Ton	44-13/16	57-9/16	90-11/16	32-1/16	5-1/8	4-5/16	18-1/4	16-7/16	14-9/16	36-1/16

ACCESSORIES

ROOF CURB



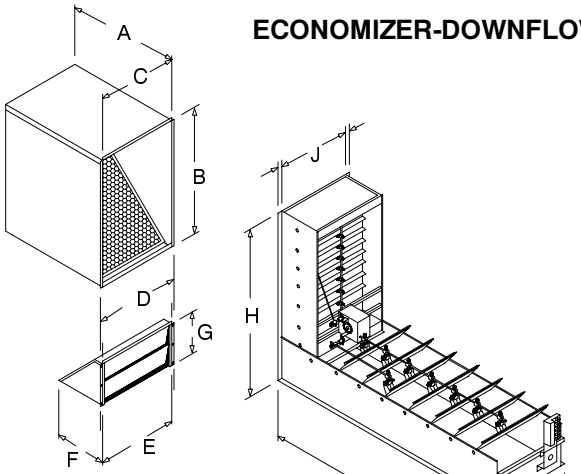
ROOF CURB DIMENSIONS										
Model No.	Unit Size	A	B	C	D	E	F	G	H	J
AXB040C*A	7-1/2 & 10 Ton	51	38-1/2	3-1/2	84-1/8	23-3/4	3-1/2	23-3/4	*	52-1/2

*Roof curbs are available in three heights:

Model # Letter	Height
L	8"
M	14"
H	24"

ACCESSORIES (CONT...)

ECONOMIZER-DOWNFLOW



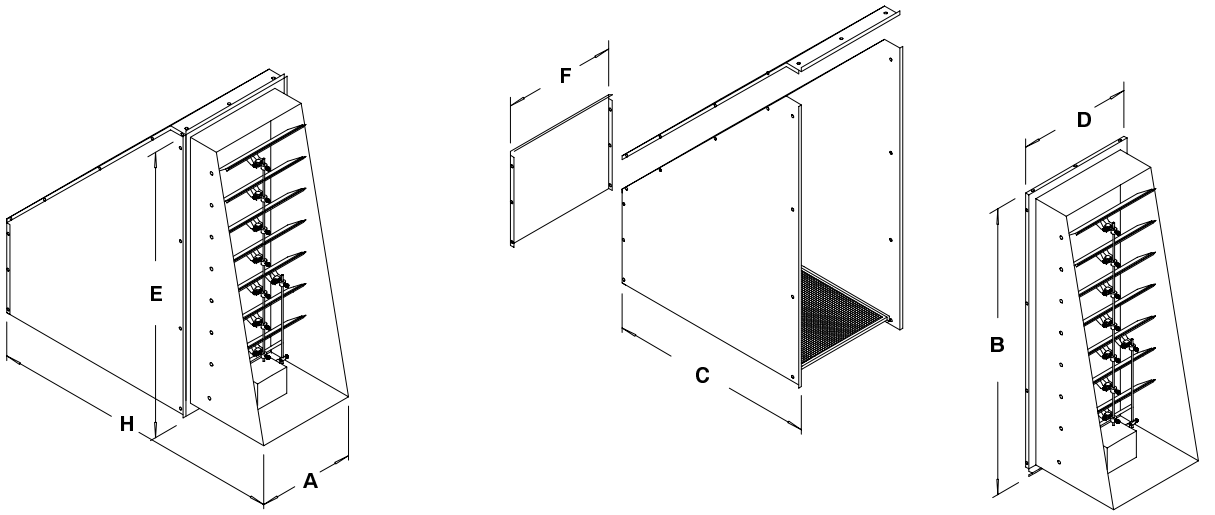
ALL DIMENSIONS IN INCHES

80-50-19

ECONOMIZER DIMENSIONS - DOWNFLOW											
Model No.	A	B	C	D	E	F	G	H	J	K	L
AXB040E**	25-1/2	28-7/8	17-9/16	19-1/2	17-9/16	11-1/2	9-1/2	38-1/8	14-3/4	44-5/8	16-3/4

**SEE PAGE 9 FOR COMPLETE MODEL NUMBER LISTING

ECONOMIZER-DOWNFLOW (WITHOUT RELIEF AND RETURN AIR DAMPERS)



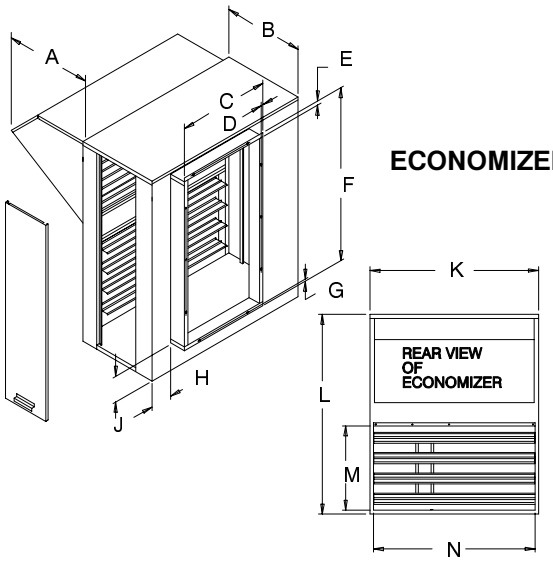
80-00-53

ECONOMIZER DIMENSIONS - DOWNFLOW								
Model No.	A	B	C	D	E	F	G	H
AXB040ECA	12-7/16	36-5/8	26	14-5/16	37-3/8	14-7/16	2-3/8	37

STATIC ADDITIONS DUE TO EITHER HORIZONTAL OR DOWNFLOW ECONOMIZER OR MANUAL AIR DAMPER ADDED ACCESSORY		
Unit Size	7-1/2 TON	10 TON
Static Addition	.05″	.10″

PART NUMBERS FOR APPROVED HIGH STATIC CONVERSIONS				
Unit	Motor	Motor Pulley	Blower Pulley	Belt
7-1/2 TON	No Change	1071319	No Change	No Change
10 TON	1070646	1071718	No Change	No Change

ACCESSORIES (CONT...)



ECONOMIZER-HORIZONTAL

ECONOMIZER DIMENSIONS - HORIZONTAL														
Model No.	Unit Size	A	B	C	D	E	F	G	H	J	K	L	M	N
AXB040H**	7-1/2 & 10 Ton	20-7/8	20-1/8	15-27/32	1/2	1	37-17/64	1/2	2-1/2	3	30-5/8	46-3/8	21-1/4	28-15/16

ROOF CURBS

Description	Model Number	Used on
8”	AXB040CLA	7-1/2 & 10 TON
14”	AXB040CMA	7-1/2 & 10 TON
24”	AXB040CHA	7-1/2 & 10 TON

ECONOMIZERS-DOWNFLOW

Description	Model Number	Used on
Fully Modulating	AXB040EMB	7-1/2 & 10 TON
Three Position with Air Damper	AXB040EPC	7-1/2 & 10 TON
Three Position without Air Damper	AXB040ECA	7-1/2 & 10 TON

ECONOMIZERS-HORIZONTAL

Description	Model Number	Used on
Fully Modulating	AXB040HEB	7-1/2 & 10 TON
Three Position	AXB040HPC	7-1/2 & 10 TON

OUTDOOR AIR DAMPERS

Description	Model Number	Used on
Manual 0- 25%	AXB040FAB	7-1/2 & 10 TON
Motorized- 25%	AXB040FMB	7-1/2 & 10 TON

LOW AMBIENT CONTROLS

Description	Model Number	Used on
To 0º F	NACB050ZLA	7-1/2 & 10 TON

COIL PROTECTION

Description	Model Number	Used on
Coil Guard	AXB040GCB	7-1/2 & 10 TON
Hail Guard	AXB040GHB	7-1/2 & 10 TON

GUIDE SPECIFICATION

CABINET

The cabinet shall be made of sturdy G-90 galvanized steel, phosphate coated with an epoxy based primer and a polyester finish coat for long lasting weatherproof construction. Base rails shall be 16 gauge steel and have fork lift slots plus holes provided for lifting shackles. The unit shall be designed with convertible airflow for horizontal or downflow applications with conversion to horizontal airflow being accomplished by relocating two panels. The indoor blower compartment interior cabinet surfaces shall be insulated with a minimum 1/2" thick, flexible glass fiber insulation, coated on the air side. Aluminum foil faced glass fiber insulation shall be used in the furnace compartment.

COOLING SECTION

The unit shall be factory charged and operationally ready upon delivery. The unit shall have two independent refrigerant systems providing two stage cooling operation. Each refrigerant circuit shall have a high efficiency, fully hermetic compressor with internal overload protection, high and low pressure switches, filter drier, and copper tube / aluminum fin evaporator and condenser coils. The unit shall be designed for two-stage cooling operation down to 40^0 F. as shipped and pre-wired for economizer type accessories 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 low velocity, 2" thick glass fiber air filters. Filter face velocity shall not exceed 220 FPM for 7-1/2 and 10 ton units at nominal airflows.

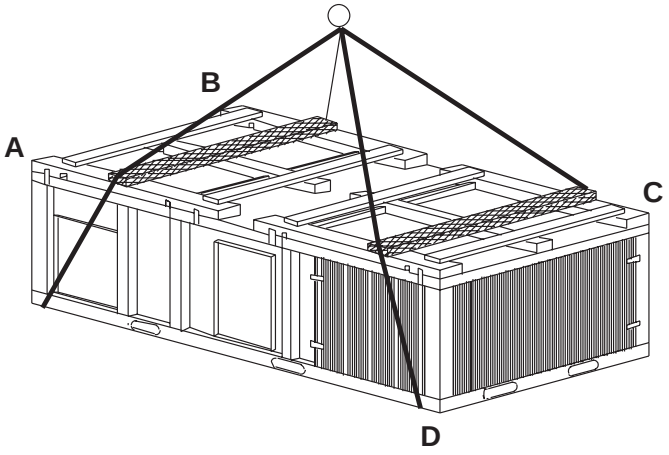
CONDENSER FAN(S)

The 7-1/2 Ton units shall have a single direct-drive propeller-fan/motor assembly and the 10 Ton units shall have two condenser fan assemblies. The assemblies shall be mounted directly to a vertical-discharge grille that is easily removed for service. Motors are 1100 RPM with permanently lubricated ball bearings and internal overload protection.

EVAPORATOR BLOWER

The 7-1/2 and 10 Ton units shall have a single belt driven evaporator blower. The evaporator blower motor (56 frame) shall have permanently lubricated ball bearings and internal overload protection. An adjustable motor drive sheave for matching air flow requirements shall be standard. Additionally, high static kits shall be available for air flows above the standard requirement. The external static capability of the unit shall be the same for horizontal and downflow discharge.

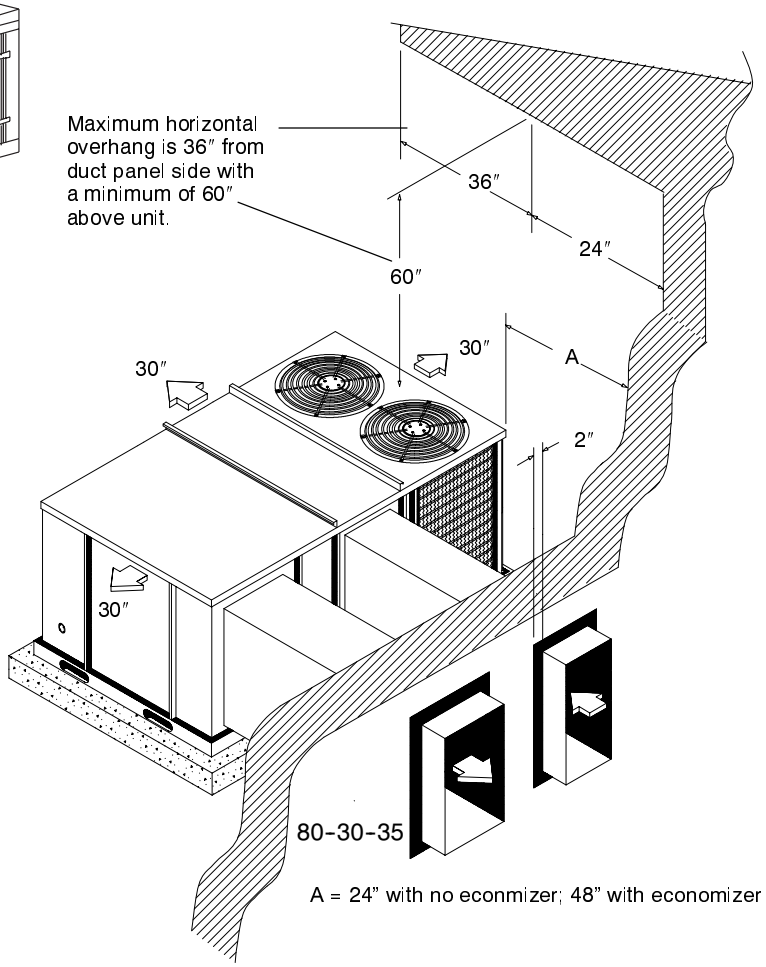
RIGGING DETAILS



CORNER WEIGHTS (LBS)

MODEL	A	B	C	D	OPERATING WEIGHT TOTAL
7-1/2 TON	219	303	295	213	1,030
10 TON	229	317	308	223	1,075

INSTALLATION CLEARANCES



A = 24" with no econmizer; 48" with economizer