

13 SEER PACKAGE HEAT PUMP UNIT (3 Phase) 3 - 4 TONS

REFRIGERATION CIRCUIT

- All models are equipped with high efficiency Copeland scroll compressor, 4 ton has 2 stage scroll compressor.
- Thermal Expansion Valve (TXV) controls cooling refrigerant flow, piston controls heating flow.
- High Efficiency indoor motors on all models.
- Factory charged with R-22 refrigerant.



BUILT TO LAST

- Galvanized-painted cabinet. One piece weather resistant top. Access panels for easy service. Side by side supply and return. Heavy gauge base rails.
- Triple-coated steel, consisting of a polyester top coat, a urethane primer coat preceded by an oxide pretreatment.
- Integral base rails with fork-lift access. Holes provided for lifting lugs makes rooftop installation easier.
- The condenser coil has a sturdy wire inlet grille and UV rated vinyl mesh installed on the surface of the coil for additional protection.
- Electronic Defrost Control
- Drawn fan orifice and swept fan blades on most models for quieter operation.



EASY TO INSTALL AND SERVICE

- Combination electric cooling with electric heat accessory, self contained 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.
- Externally-mounted gauge ports allow for more accurate reading of operating conditions while servicing.
- Electrical controls located behind one exterior panel for easier maintenance.
- Pre-wired for economizer.

ELECTRIC HEAT

- 5 to 20 kW.

WARRANTY

- 5 year limited compressor warranty
- 1 year limited parts warranty

UNIT PERFORMANCE DATA (208/230V - 3 Phase - 60 Hz)

Model Number	COOLING		HEATING		Voltage/Phase/Hz	Unit Dimensions H x W x L	Ship Weight
	Nominal Capacity BTUH	S.E.E.R	Nominal Capacity BTUH	HSPF			
PHF336000H00A	35,000	13.2	34,000	7.7	208/230-3-60	37-1/2 X 47-1/2 X 47-1/2	320
PHF336000L00A	35,000	13.2	34,000	7.7	460-3-60	37-1/2 X 47-1/2 X 47-1/2	320
PHF342000H00A	40,000	13.2	39,000	7.7	208/230-3-60	37-1/2 X 47-1/2 X 47-1/2	342
PHF342000L00A	40,000	13.2	39,000	7.7	460-3-60	37-1/2 X 47-1/2 X 47-1/2	342
PHF348000H00A	44,500	13.2	44,000	7.7	208/230-3-60	37-1/2 X 47-1/2 X 47-1/2	394
PHF348000L00A	44,500	13.2	44,000	7.7	460-3-60	37-1/2 X 47-1/2 X 47-1/2	394

UNIT SPECIFICATIONS

MODEL NUMBER	Electrical Data			Condenser Data									Sound Ratings (db)
	Voltage 3 Ph - 60 Hz	Circuit Breaker Max. Fuse	Ampacity	Coil			Fan Motor			Fan			
				Total Face Area (Sq. Ft.)	Fins Per In. / Rows	Tube Dia. (In.)	Horse power	Full Load Amps	Locked Rotor Amps	Size Diameter (In.)	RPM Max.	CFM (Max.)	
PHF336000H00A	208/230	35 amps.	23.8	14.60	18 / 2	3/8	1/4	1.5	3.7	20	1100	2700	76
PHF336000L00A	460	20 amps.	14.7	14.60	18 / 2	3/8	1/4	0.8	1.9	20	1100	2700	76
PHF342000H00A	208/230	30 amps.	22.3	14.60	18 / 2	3/8	1/4	1.5	3.7	20	1100	2700	78
PHF342000L00A	460	15 amps.	13.6	14.60	18 / 2	3/8	1/4	0.8	1.9	20	1100	2700	78
PHF348000H00A	208/230	40 amps.	28.2	13.50	18 / 2	3/8	1/4	1.5	3.7	20	1100	3000	78
PHF348000L00A	460	20 amps.	17.5	13.50	18 / 2	3/8	1/4	0.8	3.5	20	1100	3000	78

MODEL NUMBER	Evaporator Coil											Refrigerant Charge R-22 (lbs)	Shipping Weight (Lbs/kg)
	Coil			Motor			Blower			Compressor			
	Total Face Area (Sq. Ft.)	Fins Per In. / Rows	Tube Diameter (In.)	H.P.	Full Load Amps	No. of Speed Taps	Size	RPM (Max.)	CFM Rated	Rated Load Amps	Locked Rotor Amps		
PHF336000H00A	5.33	14 / 3	3/8	3/4	6.0	4	11 x 9	1050	1200	13.1	77	11.2	320
PHF336000L00A	5.33	14 / 3	3/8	3/4	6.0	4	11 x 9	1050	1200	6.3	39	11.2	320
PHF342000H00A	5.33	14 / 4	3/8	3/4	6.0	4	11 x 9	1050	1400	11.9	77	12.0	347
PHF342000L00A	5.33	14 / 4	3/8	3/4	6.0	4	11 x 9	1050	1400	5.4	39	12.0	347
PHF348000H00A	5.33	14 / 4	3/8	1.0	7.7	4	11 x 10	1050	1600	24.7	91	13.2	392
PHF348000L00A	5.33	14 / 4	3/8	1.0	7.7	4	11 x 10	1050	1600	7.2	46	13.2	392

PERFORMANCE DATA: COOLING

MODEL NUMBER	Cooling Data			Heating Data						Power Input Watts	Evaporator Rated Airflow (SCFM)	Ext. Static Pressure Drop ³ Wet
	Rated Capacity ² BTUH Cooling	S.E.E.R.	E.E.R.	Rated Capacity ¹ BTUH @ 47°F	Rated Capacity BTUH @ 17°F	HSPF	S / T Ratio	COP				
								@ 47°F	17°F			
PHF336000(H,L)00A	35,000	13.2	11.0	34,000	18,600	7.7	.78	3.4	2.3	3182	1200	0.23
PHF342000(H,L)00A	40,000	13.2	11.0	39,000	21,400	7.7	.76	3.4	2.3	3636	1400	0.28
PHF348000(H,L)00A	44,500	13.2	10.2	44,000	24,200	7.7	.76	3.5	2.3	4363	1600	0.28

¹ Rated Capacity @ 47° F.

² Rated Capacity @ 230 Volts. For applications at 208 volts deduct 1000 BTU.

³ Includes a .08 in. wc drop for a filter.

BLOWER PERFORMANCE DATA

Model Number	PHF336000(H,L)00A				PHF342000(H,L)00A				PHF348000(H,L)00A				
Speed Tap	1	2	3	4	1	2	3	4	1	2	3	4	
Air Delivery in CFM @ Varying External Static Pressure (in. w.c.)	0.1	1162	1278	1529	1652	1138	1240	1505	1643	1154	1245	1750	1908
	0.2	1118	1233	1484	1607	1087	1189	1467	1609	1084	1170	1696	1864
	0.3	1062	1191	1440	1574	1041	1145	1431	1577	1005	1110	1643	1819
	0.4	1014	1149	1402	1541	989	1104	1398	1541	940	1034	1592	1770
	0.5	958	1108	1364	1501	940	1063	1363	1509	880	972	1547	1720
	0.6	892	1060	1326	1462	865	1010	1324	1476	832	924	1497	1678
	0.7	826	1005	1284	1426	806	952	1283	1439	780	875	1443	1632
	0.8	780	943	1238	1384	752	891	1234	1402	713	836	1400	1586
	0.9	735	892	1179	1338	694	828	1175	1352	663	773	1354	1538
	1	675	844	1123	1277	646	773	1120	1264	613	720	1302	1494

Notes: Air Delivery @ listed external static pressure are taken at 230Volts with Dry coil, no filter and approved heater.

For wet coil add .05 in. wc. to Static Pressure measurement. Note for 208 Volts applications, reduce airflow by 15%.

COOLING EXPANDED PERFORMANCE

PH336000(H,L)00A

OD Ambient (°F)	ID Airflow (SCFM)	1050					1200					1350				
		Entering Indoor Temperature - Degrees F, Wet Bulb														
		57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72
75	MBh†	32.9	34.1	34.8	37.6	40.5	36.3	36.3	36.7	38.9	41.2	37.4	37.4	37.4	39.2	41.3
	S/T	0.97	0.89	0.84	0.68	0.50	0.97	0.97	0.94	0.75	0.53	0.97	0.97	0.97	0.78	0.55
	kW*	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.6	2.5	2.5	2.6	2.6	2.6
85	MBh†	31.8	32.7	33.3	36.1	39.8	35.0	35.0	35.1	37.7	40.9	36.1	36.2	36.2	38.1	41.1
	S/T	0.97	0.90	0.86	0.69	0.51	0.97	0.97	0.96	0.77	0.54	0.97	0.97	0.97	0.80	0.56
	kW*	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.9
95	MBh†	30.7	31.2	31.8	34.5	38.4	33.6	33.6	33.6	35.0	39.7	34.7	34.7	34.7	36.4	40.0
	S/T	0.97	0.93	0.88	0.70	0.51	0.97	0.97	0.97	0.78	0.55	0.97	0.97	0.97	0.82	0.57
	kW*	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.2	3.2
105	MBh†	29.4	29.7	30.2	32.8	36.7	32.2	32.3	32.3	34.2	38.0	33.2	33.3	33.3	34.6	38.3
	S/T	0.97	0.95	0.90	0.72	0.52	0.97	0.97	0.97	0.81	0.56	0.97	0.97	0.97	0.85	0.59
	kW*	3.2	3.2	3.2	3.3	3.3	3.3	3.4	3.4	3.4	3.5	3.4	3.4	3.4	3.5	3.5
115	MBh†	28.1	28.1	28.5	31.0	34.8	30.7	30.7	30.8	32.2	36.1	31.7	31.7	31.7	32.6	36.4
	S/T	0.97	0.97	0.93	0.74	0.53	0.97	0.97	0.97	0.83	0.58	0.97	0.97	0.97	0.87	0.60
	kW*	3.5	3.5	3.6	3.6	3.7	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.9
125	MBh†	26.6	26.6	26.7	29.1	32.7	29.1	29.1	29.1	30.2	33.9	30.0	30.0	30.0	30.5	34.2
	S/T	0.97	0.97	0.96	0.76	0.54	0.97	0.97	0.97	0.86	0.59	0.97	0.97	0.97	0.91	0.62
	kW*	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.1	4.2	4.1	4.1	4.1	4.2	4.3

PHF342000(H,L)00A

OD Ambient (°F)	ID Airflow (SCFM)	1225					1400					1575				
		Entering Indoor Temperature - Degrees F, Wet Bulb														
		57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72
75	MBh†	38.0	38.8	39.4	42.6	47.0	39.7	39.8	40.3	43.3	47.8	41.0	41.1	41.1	43.9	48.4
	S/T	0.96	0.91	0.86	0.69	0.51	0.96	0.96	0.91	0.73	0.52	0.96	0.96	0.96	0.76	0.54
	kW*	2.8	2.8	2.8	2.9	2.9	2.8	2.9	2.9	2.9	3.0	2.9	2.9	3.0	3.0	3.1
85	MBh†	36.9	37.3	38.0	41.0	45.3	38.4	38.5	38.8	41.7	46.0	39.7	39.8	39.8	42.2	46.5
	S/T	0.96	0.93	0.88	0.71	0.51	0.96	0.96	0.93	0.74	0.53	0.96	0.96	0.96	0.78	0.55
	kW*	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.2	3.2	3.3	3.4	3.4
95	MBh†	35.7	35.9	36.5	39.3	43.5	37.1	37.2	37.3	40.0	44.2	38.3	38.4	38.4	40.4	44.6
	S/T	0.96	0.95	0.90	0.72	0.52	0.96	0.96	0.95	0.76	0.54	0.96	0.96	0.96	0.80	0.56
	kW*	3.4	3.5	3.5	3.5	3.6	3.5	3.5	3.5	3.6	3.7	3.6	3.6	3.6	3.7	3.8
105	MBh†	34.4	34.4	34.9	37.6	41.7	35.8	35.8	35.9	38.2	42.3	36.9	37.0	37.0	38.6	42.6
	S/T	0.96	0.96	0.92	0.73	0.53	0.96	0.96	0.96	0.77	0.55	0.96	0.96	0.96	0.82	0.57
	kW*	3.8	3.8	3.9	3.9	4.0	3.9	3.9	3.9	4.0	4.1	4.0	4.0	4.0	4.1	4.2
115	MBh†	33.1	33.1	33.3	35.9	39.7	34.4	34.4	34.4	36.4	40.3	35.4	35.5	35.5	36.7	40.6
	S/T	0.96	0.96	0.94	0.75	0.53	0.96	0.96	0.96	0.79	0.56	0.96	0.96	0.96	0.84	0.58
	kW*	4.2	4.3	4.3	4.3	4.4	4.3	4.3	4.3	4.4	4.5	4.4	4.4	4.4	4.5	4.6
125	MBh†	31.7	31.7	31.7	34.0	37.7	32.9	32.9	32.9	34.5	38.2	33.9	33.9	33.9	34.8	38.4
	S/T	0.96	0.96	0.96	0.77	0.54	0.96	0.96	0.96	0.82	0.57	0.96	0.96	0.96	0.86	0.59
	kW*	4.7	4.7	4.7	4.8	4.9	4.8	4.8	4.8	4.9	5.0	4.9	4.9	4.9	5.0	5.1

Notes: When the required data fall between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

† Total capacities are net capacities. Blower heat has been subtracted

†† At TVA rating indoor condition (75 F db/ 63 F wb), All other indoor air temperatures are at 80 F db

* System kW is total unit kW

Key: Standard Rating

S/T are based on 80°F db entering air at the indoor coil. For sensible capacities at other than 80°F db, deduct 835 Btuh per 1000 cfm of indoor coil air from MBhxS/T for each degree below 80°F, or add 835 Btuh per 1000 cfm of indoor coil air from MBhxS/T for each degree above 80°F.

COOLING EXPANDED PERFORMANCE

PHF348000(H,L)00A (High Capacity)

OD Ambient (°F)	ID Airflow (SCFM)	1400					1600					1800				
		Entering Indoor Temperature - Degrees F, Wet Bulb														
		57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72
75	MBh†	42.4	43.6	44.3	47.7	52.3	44.4	44.8	45.3	48.7	53.4	46.0	46.0	46.1	49.5	54.3
	S/T	0.98	0.91	0.72	0.70	0.51	0.98	0.95	0.76	0.73	0.53	0.98	0.98	0.79	0.77	0.55
	kW*	3.6	3.6	3.6	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8
85	MBh†	41.2	42.0	42.6	45.9	50.5	43.0	43.2	43.6	46.9	51.5	44.5	44.6	44.4	47.7	52.3
	S/T	0.98	0.92	0.73	0.71	0.52	0.98	0.97	0.77	0.75	0.54	0.98	0.98	0.80	0.78	0.56
	kW*	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.2
95	MBh†	39.8	40.4	40.9	44.1	48.5	41.6	41.6	41.8	44.5	49.4	43.0	43.1	42.5	45.7	50.2
	S/T	0.98	0.94	0.75	0.72	0.52	0.98	0.98	0.78	0.76	0.54	0.98	0.98	0.82	0.80	0.57
	kW*	4.3	4.3	4.3	4.3	4.4	4.4	4.4	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5
105	MBh†	38.4	38.7	39.1	42.2	46.4	40.1	40.1	40.0	43.0	47.3	41.4	41.5	40.6	43.7	48.0
	S/T	0.98	0.96	0.76	0.74	0.53	0.98	0.98	0.80	0.78	0.55	0.98	0.98	0.84	0.82	0.58
	kW*	4.7	4.7	4.7	4.7	4.8	4.8	4.8	4.8	4.8	4.9	4.9	4.9	4.9	4.9	4.9
115	MBh†	36.9	37.0	37.3	40.2	44.3	38.5	38.5	38.1	41.0	45.1	39.8	39.8	38.7	41.6	45.7
	S/T	0.98	0.98	0.78	0.75	0.54	0.98	0.98	0.82	0.80	0.56	0.98	0.98	0.86	0.84	0.59
	kW*	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.3	5.3	5.3	5.3	5.4	5.4
125	MBh†	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	S/T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	kW*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PHF348000(H,L)00A (Low Capacity)

OD Ambient (°F)	ID Airflow (SCFM)	950					1100					1250				
		Entering Indoor Temperature - Degrees F, Wet Bulb														
		57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72
75	MBh†	29.4	30.3	30.8	33.1	36.3	30.9	31.1	31.5	33.9	37.1	32.1	32.2	32.2	34.5	37.7
	S/T	0.98	0.90	0.72	0.70	0.51	0.98	0.96	0.76	0.73	0.53	0.98	0.98	0.80	0.77	0.55
	kW*	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.4
85	MBh†	28.6	29.3	29.8	32.0	35.1	30.0	30.2	30.5	32.7	35.8	31.2	31.3	31.0	33.3	36.4
	S/T	0.98	0.92	0.73	0.71	0.52	0.98	0.97	0.77	0.75	0.54	0.98	0.98	0.81	0.79	0.56
	kW*	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.7
95	MBh†	27.8	28.2	28.7	30.8	33.8	29.1	29.2	29.4	31.5	34.5	30.2	30.3	29.9	32.0	35.1
	S/T	0.98	0.94	0.74	0.72	0.52	0.98	0.98	0.78	0.76	0.55	0.98	0.98	0.82	0.80	0.57
	kW*	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	3.0	3.0
105	MBh†	26.9	27.1	27.5	29.6	32.5	28.2	28.2	28.2	30.2	33.1	29.2	29.3	28.7	30.7	33.6
	S/T	0.98	0.95	0.75	0.73	0.53	0.98	0.98	0.80	0.78	0.55	0.98	0.98	0.84	0.82	0.58
	kW*	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3
115	MBh†	25.9	26.0	26.3	28.3	31.1	27.1	27.2	26.9	28.9	31.7	28.1	28.2	27.4	29.4	32.1
	S/T	0.98	0.97	0.77	0.75	0.54	0.98	0.98	0.82	0.79	0.56	0.98	0.98	0.86	0.84	0.59
	kW*	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.7
125	MBh†	24.9	24.9	25.0	26.9	29.6	26.0	26.1	25.6	27.5	30.1	26.9	27.0	26.0	27.9	30.5
	S/T	0.98	0.98	0.79	0.76	0.55	0.98	0.98	0.84	0.81	0.58	0.98	0.98	0.88	0.86	0.60
	kW*	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.2

Notes: When the required data fall between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.
 † Total capacities are net capacities. Blower heat has been subtracted
 †† At TVA rating indoor condition (75 F db/ 63 F wb), All other indoor air temperatures are at 80 F db
 * System kW is total unit kW

Key: Standard Rating

S/T are based on 80°F db entering air at the indoor coil. For sensible capacities at other than 80°F db, deduct 835 Btuh per 1000 cfm of indoor coil air from MBhxS/T for each degree below 80°F, or add 835 Btuh per 1000 cfm of indoor coil air from MBhxS/T for each degree above 80°F.

HEATING EXPANDED PERFORMANCE

PHF336000(H,L)00A

Return Air (°F db)	CFM (Std. Air)	Air Temperature Entering Outdoor Coil (°F db at 70% rh)																				
		-10		0		10		17		20		30		40		47		50		60		
60	1050	TC	10.6	9.8	13.7	12.6	16.8	15.4	19.1	17.4	20.3	18.4	24.9	21.8	30.2	30.2	34.5	34.5	36.2	36.2	42.3	42.3
		kW	1.89		2.00		2.11		2.18		2.22		2.39		2.58		2.72		2.76		2.93	
	1200	TC	10.8	10.0	13.9	12.8	17.0	15.6	19.2	17.5	20.4	18.5	25.1	22.0	30.5	30.5	34.8	34.8	36.5	36.5	42.6	42.6
		kW	1.93		2.04		2.13		2.19		2.23		2.39		2.55		2.68		2.71		2.88	
	1350	TC	11.4	10.5	14.4	13.3	17.4	16.0	19.7	17.9	20.9	18.9	25.6	22.4	31.0	31.0	35.4	35.4	37.3	37.3	41.2	41.2
		kW	2.01		2.13		2.21		2.26		2.30		2.45		2.60		2.70		2.71		2.76	
70	1050	TC	9.7	9.0	13.0	11.9	16.2	14.9	18.6	17.0	19.8	18.0	24.3	21.3	29.4	29.4	33.6	33.6	35.4	35.4	41.3	41.3
		kW	1.98		2.14		2.27		2.36		2.42		2.60		2.81		2.98		3.03		3.20	
	1200	TC	9.8	9.1	13.1	12.1	16.4	15.1	18.8	17.1	20.0	18.2	24.5	21.4	29.7	29.7	34.0	34.0	35.7	35.7	41.7	41.7
		kW	2.02		2.18		2.30		2.38		2.43		2.60		2.79		2.93		2.97		3.13	
	1350	TC	10.3	9.5	13.6	12.5	16.9	15.5	19.3	17.6	20.5	18.6	25.0	21.9	30.2	30.2	34.6	34.6	36.3	36.3	42.3	42.3
		kW	2.12		2.26		2.38		2.45		2.50		2.66		2.83		2.96		2.99		3.15	
80	1050	TC	8.6	7.9	11.8	10.9	15.5	14.2	18.0	16.4	19.2	17.4	23.8	20.8	28.7	28.7	32.8	32.8	34.5	34.5	40.3	40.3
		kW	2.05		2.28		2.44		2.54		2.61		2.84		3.06		3.24		3.30		3.49	
	1200	TC	9.0	8.3	12.2	11.2	15.7	14.4	18.2	16.6	19.5	17.7	23.9	21.0	28.9	28.9	33.1	33.1	34.8	34.8	40.8	40.8
		kW	2.08		2.30		2.46		2.56		2.62		2.83		3.04		3.20		3.25		3.41	
	1350	TC	9.6	8.9	12.7	11.7	16.2	14.9	18.7	17.1	20.0	18.1	24.4	21.4	29.5	29.5	33.7	33.7	35.4	35.4	41.3	41.3
		kW	2.15		2.39		2.54		2.64		2.70		2.89		3.08		3.23		3.27		3.42	

PHF342000(H,L)00A

Return Air (°F db)	CFM (Std. Air)	Air Temperature Entering Outdoor Coil (°F db at 70% rh)																				
		-10		0		10		17		20		30		40		47		50		60		
60	1225	TC	13.0	12.0	16.0	14.7	19.2	17.7	21.7	19.8	23.2	21.1	28.6	25.0	34.8	34.8	37.3	37.3	39.1	39.1	45.3	45.3
		kW	2.27		2.40		2.51		2.59		2.64		2.81		2.95		3.07		3.13		3.35	
	1400	TC	13.0	12.1	16.1	14.8	19.3	17.7	21.9	20.0	23.4	21.2	28.8	25.2	34.9	34.9	37.6	37.6	39.4	39.4	45.3	45.3
		kW	2.25		2.37		2.47		2.55		2.60		2.73		2.90		2.99		3.04		3.23	
	1575	TC	13.1	12.1	16.8	15.5	19.4	17.8	22.0	20.1	23.5	21.3	28.9	25.3	33.2	33.2	37.7	37.7	39.4	39.4	45.2	45.2
		kW	2.24		2.35		2.44		2.52		2.56		2.68		2.80		2.92		2.96		3.15	
70	1225	TC	12.3	11.4	15.5	14.3	18.9	17.3	21.3	19.4	22.7	20.6	28.0	24.5	34.0	34.0	38.8	38.8	40.6	40.6	44.7	44.7
		kW	2.40		2.57		2.72		2.81		2.86		3.05		3.24		3.39		3.46		3.64	
	1400	TC	12.4	11.5	15.6	14.4	19.0	17.4	21.4	19.5	22.8	20.7	28.1	24.6	34.3	34.3	39.0	39.0	38.6	38.6	44.8	44.8
		kW	2.39		2.54		2.68		2.76		2.81		2.98		3.13		3.29		3.30		3.51	
	1575	TC	12.5	11.5	15.7	14.5	19.0	17.5	21.5	19.6	22.9	20.8	28.3	24.8	34.4	34.4	37.0	37.0	38.8	38.8	44.8	44.8
		kW	2.38		2.52		2.65		2.73		2.77		2.92		3.08		3.17		3.23		3.42	
80	1225	TC	11.2	10.4	14.8	13.6	18.4	16.9	21.0	19.1	22.3	20.2	27.4	24.0	33.3	33.3	38.1	38.1	39.9	39.9	44.0	44.0
		kW	2.49		2.74		2.93		3.05		3.11		3.31		3.53		3.68		3.75		3.96	
	1400	TC	11.4	10.5	15.0	13.8	19.0	17.4	21.1	19.2	22.4	20.3	27.6	24.2	33.6	33.6	38.3	38.3	40.1	40.1	44.2	44.2
		kW	2.48		2.72		2.89		3.00		3.05		3.24		3.43		3.57		3.64		3.82	
	1575	TC	11.5	10.6	15.1	13.9	18.7	17.1	21.1	19.3	22.5	20.4	27.7	24.3	33.7	33.7	38.9	38.9	40.9	40.9	44.7	44.7
		kW	2.48		2.70		2.86		2.96		3.01		3.18		3.35		3.44		3.47		3.63	

LEGEND:

- TC - Heating Capacity (1000 Btuh) (Includes Indoor-Fan Motor Heat)
- db - Dry Bulb
- kW - Total Power Input (Includes Compressor Motor Power Input)
- rh - Relative Humidity

NOTES:

- 1 Indicates integrated ratings
- 2 Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it

HEATING EXPANDED PERFORMANCE

PHF348000(H,L)00A (High Capacity)

Return Air (°F db)	CFM (Std. Air)	Air Temperature Entering Outdoor Coil (°F db at 70% rh)																				
		-10		0		10		17		20		30		40		47		50		60		
60	1400	TC	13.7	12.6	17.3	15.9	21.4	19.7	24.6	22.4	26.3	23.8	32.4	28.3	39.1	39.1	44.5	44.5	46.7	46.7	54.5	54.5
		kW	2.54		2.70		2.85		2.95		2.99		3.18		3.36		3.50		3.58		3.87	
	1600	TC	14.1	13.0	17.8	16.3	21.9	20.1	25.1	22.8	26.7	24.2	32.8	28.7	39.7	39.7	45.0	45.0	47.2	47.2	55.0	55.0
		kW	2.60		2.74		2.87		2.97		3.02		3.18		3.34		3.46		3.53		3.82	
	1800	TC	14.4	13.3	18.1	16.6	22.2	20.4	25.4	23.1	27.0	24.5	33.1	29.0	40.0	40.0	45.3	45.3	47.7	47.7	52.5	52.5
		kW	2.63		2.76		2.89		2.98		3.03		3.18		3.31		3.43		3.44		3.59	
70	1400	TC	12.6	11.7	16.4	15.1	20.5	18.8	23.7	21.6	25.4	23.0	31.5	27.6	38.2	38.2	43.4	43.4	45.6	45.6	53.3	53.3
		kW	2.68		2.89		3.08		3.20		3.25		3.46		3.68		3.84		3.92		4.22	
	1600	TC	13.1	12.1	16.9	15.6	21.0	19.3	24.2	22.1	25.9	23.5	32.0	28.0	38.7	38.7	44.0	44.0	46.2	46.2	53.9	53.9
		kW	2.74		2.94		3.11		3.22		3.27		3.46		3.66		3.79		3.87		4.16	
	1800	TC	13.4	12.4	17.2	15.8	21.3	19.6	24.5	22.4	26.2	23.8	32.3	28.3	39.0	39.0	44.4	44.4	46.5	46.5	54.3	54.3
		kW	2.78		2.96		3.12		3.23		3.28		3.46		3.63		3.75		3.82		4.11	
80	1400	TC	11.4	10.5	15.4	14.2	19.6	17.9	22.7	20.7	24.3	22.0	30.4	26.6	37.2	37.2	42.4	42.4	44.5	44.5	52.1	52.1
		kW	2.79		3.07		3.30		3.45		3.51		3.73		4.01		4.19		4.28		4.60	
	1600	TC	11.8	10.9	15.8	14.6	20.1	18.4	23.2	21.1	24.8	22.5	30.9	27.1	37.7	37.7	42.9	42.9	45.1	45.1	52.8	52.8
		kW	2.85		3.12		3.34		3.48		3.53		3.74		3.99		4.15		4.23		4.49	
	1800	TC	12.1	11.2	16.2	14.9	20.4	18.7	23.5	21.4	25.2	22.9	31.4	27.5	38.1	38.1	43.3	43.3	45.5	45.5	53.1	53.1
		kW	2.89		3.15		3.36		3.49		3.54		3.74		3.96		4.11		4.18		4.46	

PHF348000(H,L)00A (Low Capacity)

Return Air (°F db)	CFM (Std. Air)	Air Temperature Entering Outdoor Coil (°F db at 70% rh)																				
		-10		0		10		17		20		30		40		47		50		60		
60	950	TC	10.5	9.7	13.0	11.9	15.7	14.4	17.8	16.2	19.0	17.2	23.6	20.6	27.7	27.7	31.8	31.8	33.3	33.3	38.4	38.4
		kW	2.04		2.16		2.28		2.34		2.37		2.44		2.49		2.56		2.59		2.72	
	1100	TC	10.6	9.8	13.1	12.0	15.8	14.5	17.8	16.2	19.1	17.3	23.6	20.7	27.8	27.8	32.0	32.0	33.4	33.4	39.4	39.4
		kW	2.02		2.14		2.25		2.30		2.32		2.37		2.42		2.47		2.50		2.56	
	1250	TC	10.6	9.8	13.1	12.1	15.8	14.5	17.9	16.3	19.1	17.4	22.7	19.9	27.9	27.9	32.0	32.0	33.4	33.4	38.5	38.5
		kW	2.00		2.12		2.22		2.26		2.27		2.31		2.37		2.41		2.44		2.54	
70	950	TC	10.3	9.5	12.6	11.6	15.3	14.1	17.4	15.9	18.7	16.9	23.2	20.3	28.5	28.5	31.4	31.4	32.8	32.8	37.9	37.9
		kW	2.21		2.30		2.44		2.54		2.58		2.67		2.76		2.81		2.84		2.99	
	1100	TC	10.3	9.5	12.6	11.6	15.4	14.1	17.5	16.0	18.7	17.0	23.3	20.4	28.6	28.6	31.5	31.5	32.9	32.9	38.0	38.0
		kW	2.18		2.27		2.41		2.50		2.52		2.60		2.68		2.72		2.75		2.87	
	1250	TC	10.3	9.5	12.7	11.7	14.9	13.7	16.4	15.0	17.5	15.9	21.5	18.8	26.2	26.2	33.0	33.0	38.0	38.0	38.0	38.0
		kW	2.15		2.25		2.39		2.46		2.49		2.55		2.60		2.65		2.68		2.79	
80	950	TC	10.0	9.3	12.2	11.2	14.9	13.7	17.0	15.5	18.2	16.5	22.8	20.0	28.1	28.1	32.2	32.2	34.2	34.2	37.3	37.3
		kW	2.22		2.47		2.61		2.73		2.77		2.91		3.04		3.13		3.15		3.28	
	1100	TC	10.3	9.5	12.3	11.3	15.0	13.7	17.1	15.6	18.3	16.6	22.9	20.1	28.2	28.2	32.7	32.7	32.5	32.5	37.5	37.5
		kW	2.20		2.43		2.57		2.68		2.73		2.85		2.95		2.98		3.02		3.15	
	1250	TC	10.3	9.5	12.3	11.3	15.0	13.8	17.2	15.6	18.5	16.7	23.0	20.2	28.3	28.3	31.2	31.2	32.6	32.6	37.5	37.5
		kW	2.17		2.41		2.55		2.66		2.70		2.79		2.88		2.91		2.94		3.06	

LEGEND:

- TC - Heating Capacity (1000 Btuh) (Includes Indoor-Fan Motor Heat)
- db - Dry Bulb
- kW - Total Power Input (Includes Compressor Motor Power Input)
- rh - Relative Humidity

NOTES:

- 1 Indicates integrated ratings
- 2 Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it

ELECTRIC HEATER USAGE CHART

	240V-3PH-60HZ					480V-3PH-60HZ		
	EHAA Heater Model No's (Example: EHAA10HN)					EHAA Heater Model No's (Example: EHAA10LN)		
Without Circuit Breakers	10HN		15HN			10LN	15LN	20LN
With Circuit Breakers		10HB		15HB	20HB			
Unit kW	10kW		15kW		20kW	10kW	15kW	20kW
PHF3	USED ON					USED ON		
36	X	X		X	X	X	X	X
42	X	X		X	X	X	X	X
48	X	X		X	X	X	X	X

PHF3 - ELECTRICAL DATA: ELECTRIC HEAT ACCESSORY

Heater Model EHAA	Used With	Supply Voltage	KW Rating	Nom. Heating BTUH	Supply Circuit No.	Heater Amps	Min. Circuit Ampacity	Max Overcurrent Protective Device
10HN 10HB	3-4 Ton	240-3	10.0	34130	L4-L5-L6	24.1	30.1	30
		208-3	7.5	25598	L4-L5-L6	20.8	26.0	30
15HB	3-4 Ton	240-3	15.0	51195	L4-L5-L6	36.1	45.1	45
		208-3	11.3	38567	L4-L5-L6	31.4	39.3	40
20HB	3-4 Ton	240-3	19.8	67577	L4-L5-L6	47.9	59.9	60
		208-3	14.9	50854	L4-L5-L6	41.4	51.8	60
10LN	3-4 Ton	480-3	10.0	34130	L4-L5-L6	12.0	15.0	15
15LN	3-4 Ton	480-3	15.0	51195	L4-L5-L6	18.0	22.5	25
20LN	3-4 Ton	480-3	20.0	68260	L4-L5-L6	24.1	30.1	30

PHF3 - PERFORMANCE DATA: ELECTRIC HEAT ACCESSORY

Heater Model EHAA	Used With	Supply Voltage	KW Rating	Nom. Heating BTUH	Temperature Rise F @ CFM								
					600	800	1000	1200	1400	1600	1800	2000	2200
10HN 10HB	3-4 Ton	240-3	10.0	34130	52.7	39.5	31.6	26.4	22.6	19.8	17.6	15.8	14.4
		208-3	7.5	25598	39.5	29.6	23.7	19.8	17.0	14.8	13.1	11.9	10.7
15HB	3-4 Ton	240-3	15.0	51195	-	59.3	47.4	39.5	33.9	29.6	26.4	23.7	21.2
		208-3	11.3	38567	59.3	44.5	35.5	27.3	25.4	22.2	19.8	17.8	16.1
20HB	3-4 Ton	240-3	19.8	67577	-	-	-	52.2	44.6	39.1	34.7	31.3	28.4
		208-3	14.9	50854	-	58.9	47.1	39.2	33.7	29.4	26.2	23.5	21.1
10LN	3-4 Ton	480-3	10.0	34130	52.7	39.5	31.6	26.4	22.6	19.8	17.6	15.8	14.4
15LN	3-4 Ton	480-3	15.0	51195	-	59.3	47.4	39.5	33.9	29.6	26.4	23.7	21.2
20LN	3-4 Ton	480-3	20.0	68260	-	-	-	52.7	45.1	39.5	35.1	31.6	28.7

ACCESSORIES

ROOF CURBS

Model Number	Height (K)	Use With
ACL01FB0A	8"	PHF3 - ALL MODELS
ACM01FB0A	14"	
ACH01FB0A	24"	

ROOF CURB DIMENSIONS (inches)

Model Number	A	B	C	D	E	F	G	H	K (ACL)	K (ACM)	K (ACH)
AC(L,M,H)01FB0A	42-1/2	39-1/2	16	21-1/2	3-3/4	45-3/4	42-3/4	20	8	14	24

SQUARE to ROUND TRANSITION

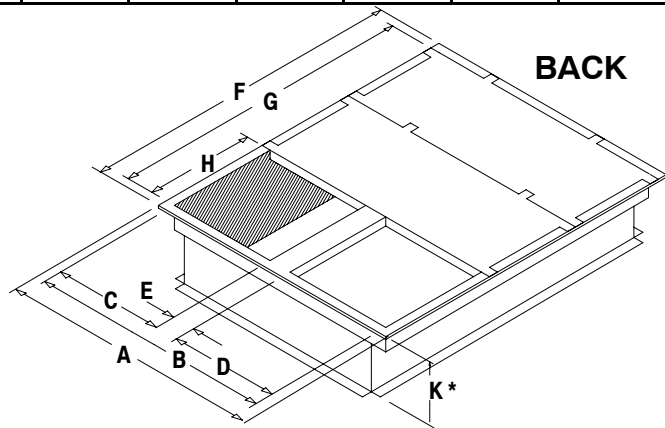
Model Number	Round Size	Use With Roof Curb
ACT01FB0A	16"	ACL01FB0A, ACM01FB0A, ACH01FB0A

CONCENTRIC GRILLE - FLUSH MOUNT

Model Number	Use With Roof Curb
AXB020CFA	ACL01FB0A, ACM01FB0A, ACH01FB0A

CONCENTRIC GRILLE - STEP DOWN

Model Number	Use With Roof Curb
AXB020CSA	ACL01FB0A, ACM01FB0A, ACH01FB0A



Curb Dimensions

Roof Curbs available in 8", 14" and 24" Heights (K Dimensions)

ECONOMIZERS (ALL FULLY MODULATING)*

Model Number	Application	Motion	Control	Use With Model Size
AHE02FB0B	Horizontal	Fully Modulating w/ Return Air Damper w/ Relief Damper	Enthalpy	36, 42, 48
AEM03FB0B	Downflow			
AHP02FB0B	Horizontal	Fully Modulating w/ Return Air Damper w/ Relief Damper	Dry Bulb Only	36, 42, 48
AEP03FB0B	Downflow			

* Three position economizers no longer available.

0% - 35% FRESH AIR DAMPERS (use in DOWNFLOW application only) *

Model Number	Control	Use With Model Size
AFA02FB0A	Manual	36, 42, 48
AFM02FB0A	Motorized	36, 42, 48

* Unit must have internal filters to protect evaporator coil when Fresh Air Damper is installed.

REPLACEMENT FILTER KIT, INTERNAL (use in HORIZONTAL or DOWNFLOW application)

Model Number	Filter Size (filters NOT supplied in kit)	Use With Model Size
AKF12FB0A	14 x 25 x 1 (2 required)	36, 42, 48

HAIL GUARD

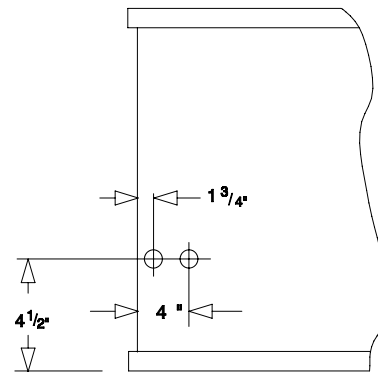
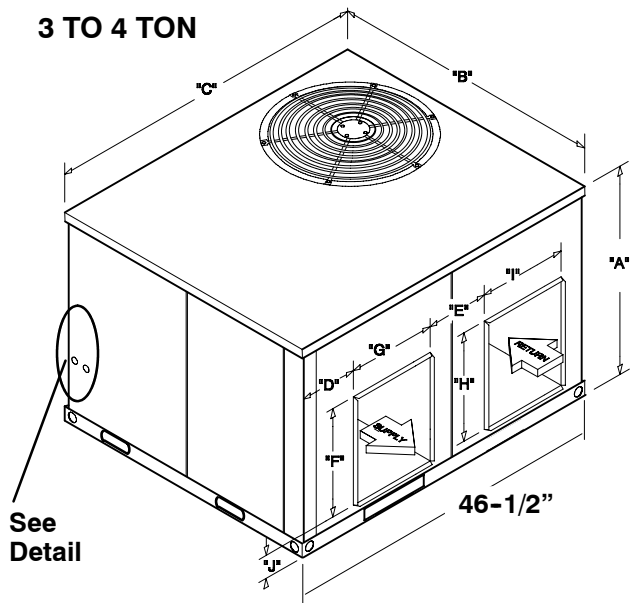
Model Number	Use With Model Size
AGH02FB0A	30, 36, 42, 48

OUTDOOR THERMOSTAT

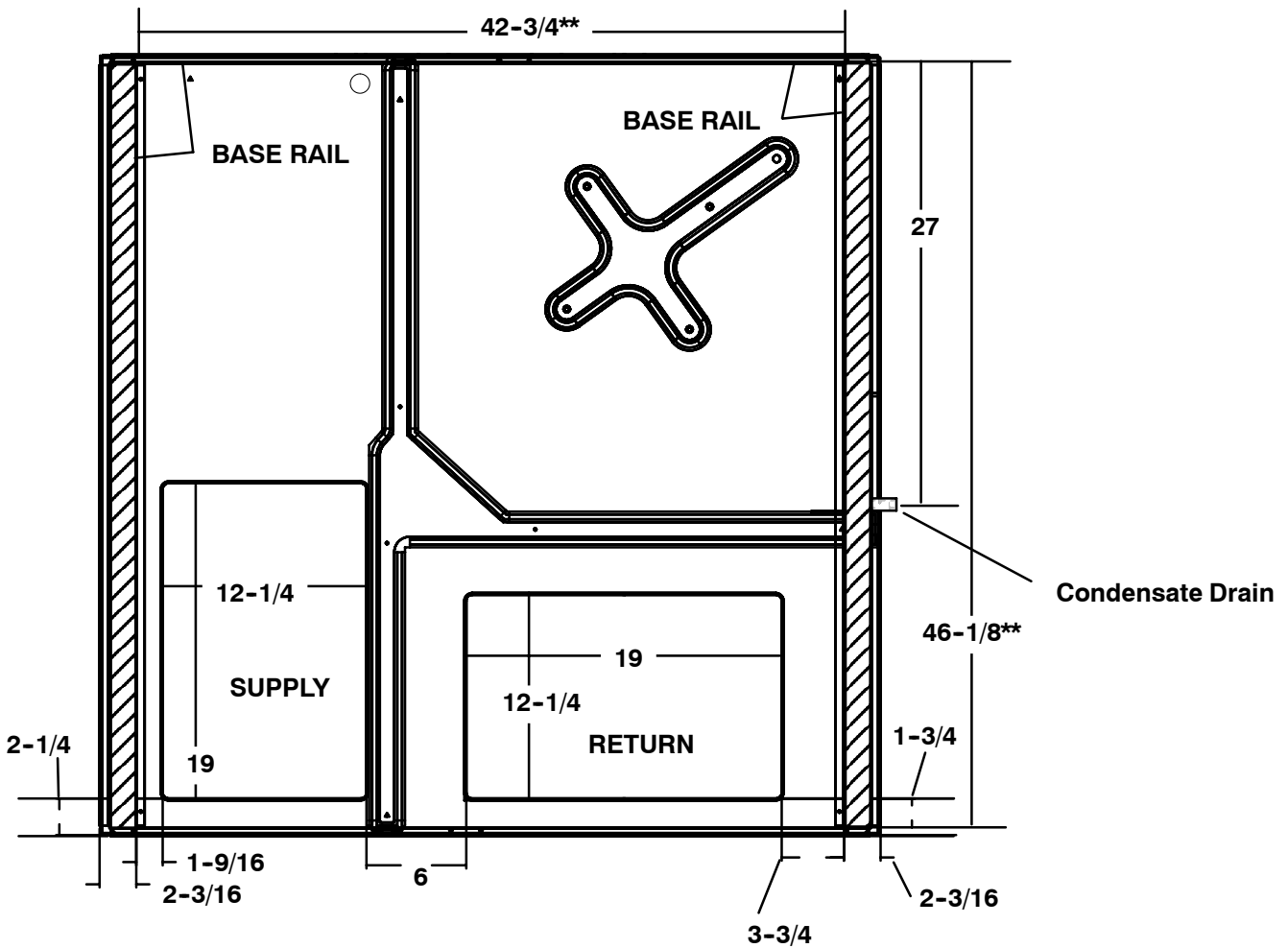
Model Number	Description	Use With
AMF002OTA	2 Stage, Electronic	ALL

UNIT DIMENSIONS

3 TO 4 TON



BASE PAN - CHASSIS



UNIT SIZE	A	B	C	D	E	F	G	H	I	J
3 to 4 Ton	37-1/2	47-1/2	47-1/2	4	6-1/2	19	12	12	19	4-1/2

**** Measured from inside to inside on base rails.**

MODEL NUMBER IDENTIFICATION GUIDE

Product Family	SEER	Nominal Cooling Capacity Btuh	Heating Input Btuh	Voltage	Option Code	Design Code	Eng. Rev. Code
PHF - Package Heat Pump	3 = 13	36 = 36,000 42 = 42,000 48 = 48,000	000 = N/A	H = 208/230-3-60 L = 460-3-60	00 = N/A	A	1
Example: PHF	3	36	000	H	00	A	1

GUIDE SPECIFICATION

CABINET

The cabinet is made of triple-coated steel, consisting of a Polyester top coat, a urethane primer coat preceded by an oxide pretreatment. One piece weather resistant top. The base rails are 16 gauge steel with fork lift slots and holes provided for lifting shackles. The unit is designed with convertible airflow for either horizontal or downflow applications with conversion accomplished by relocating two panels. Indoor blower compartment interior cabinet surfaces are insulated with a minimum 1/2" thick, flexible glass insulation, coated on the air side.

COOLING SECTION

The unit is factory charged and operationally ready upon delivery. The unit refrigerant circuit has a high efficiency scroll compressor with internal overload protection, and copper tube / aluminum fin evaporator and condenser coils. The unit is designed for cooling operation to 40° F and will be capable of being wired for field installed economizer type accessories.

COILS

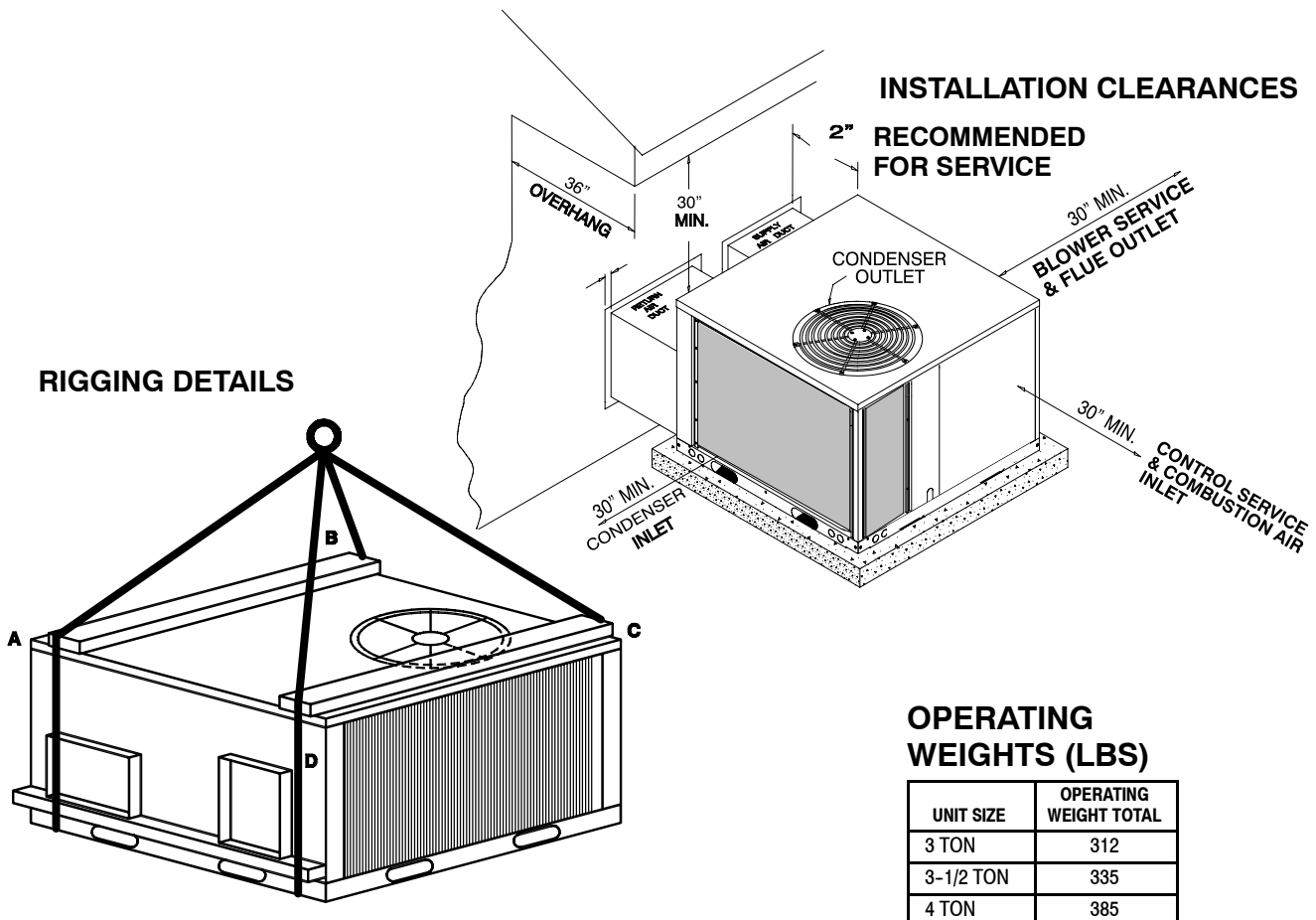
The evaporator and condenser coils are fabricated with aluminum fins mechanically bonded to copper tubing. Both coils are pressure tested prior to the unit and electronically leak tested after assembly into the unit.

CONDENSER FAN

The unit has a single direct-drive propeller-fan / motor assembly. The assembly is mounted directly to a vertical-discharge grille that is easily removed for service. Motors are 1100 RPM with sleeve or ball bearings and internal overload protection.

EVAPORATOR BLOWER

All units have a direct-drive evaporator blower motor as a standard. The direct-drive evaporator blower motor has sleeve bearings and internal overload protection.



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