

PAE SERIES 3 - 5 TON

TEMPSTAR[®]
Heating and Cooling Products

**12+ SEER
Three Phase**



Unit shipped with Coil Guard installed.



Rated in accordance
with ARI Standard 210.



CONVERTIBLE SINGLE PACKAGE A/C

CONSTRUCTION

- Triple-coated steel, consisting of a polyester top coat, a urethane primer coat preceded by an oxide pre-treatment.

CONVERTIBLE DISCHARGE

- Units have side-by-side supply and return air openings for either horizontal or downflow applications. Simply relocate duct cover panels.

COILS

- Both the condenser and evaporator coils have aluminum fins and copper tubes to promote efficient heat transfer. The refrigerant circuit is sealed, tested and fully charged at the factory.

EVAPORATOR BLOWER

- All model sizes are equipped with multiple speed direct drive blower motors to provide proper air flow for both heating and cooling requirements.

FILTER DRIERS

- To insure refrigerant cleanliness.

COMPRESSOR

- The high efficiency compressor has external rubber mounts to help minimize system noise and features an automatic reset current / temperature sensing overload protection system. All models feature scroll compressors.

METERING DEVICE

- The refrigerant flow is controlled with a Thermostatic Expansion Valve (TXV).

SERVICEABILITY

- All electrical controls are behind one easy access panel. Externally mounted gauge ports provides easier servicing and allows for more accurate reading of operating conditions.

CONTROLS

- High and low pressure switches to provide compressor protection.
- 0 degrees F. low ambient fan control device.
- Anti-cycle timer for compressor protection.
- Crankcase heater for compressor protection in low ambient conditions.
- Freeze thermostat mounted to evaporator prevents coil freeze-up.
- Transformer (65VA) with re-settable circuit breaker.

DEPENDABLE WARRANTY

- Standard five (5) year limited warranty on the compressor.
- Standard one (1) limited warranty on all parts.

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

513 21 1701 01

2/4/04

UNIT SPECIFICATIONS						
	MODELS					
Cooling	PAE036H00A	PAE036L00A	PAE048H00A	PAE048L00A	PAE060H00A	PAE060L00A
ARI Rated Capacity BTUH	34,400	34,400	48,000	48,000	58,500	58,500
SEER	12.05	12.05	12.10	12.10	12.05	12.05
Stages	1	1	1	1	1	1
Electrical						
Volts - Phase - Hertz	208/230-3-60	460-3-60	208/230-3-60	460-3-60	208/230-3-60	460-3-60
Voltage Range Min. - Max	187 - 253	414 - 506	187 - 253	414 - 506	187 - 253	414 - 506
Total Unit Amps	16.2	7.3	20.3	10.3	24.1	11.9
Minimum Circuit Ampacity	18.7	8.5	23.6	12.1	28.4	14.1
Minimum Fuse Size	25	15	30	15	35	20
Max. Fuse / HACR Breaker Size	25	15	35	15	45	20
Compressor						
Number of Independent Circuits	1	1	1	1	1	1
RLA	10.26	5.13	13.46	7.37	17.31	8.97
LRA	77	39	120	49.5	123	62
Type	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
Condenser Fan Data						
Quantity	1	1	1	1	1	1
Volts - Phase - Hertz	208/230-1-60/50	460-1-60/50	208/230-1-60	460-1-60	208/230-1-60	460-1-60
FLA	1.9	0.74	1.8	0.8	1.8	0.8
LRA	3.7	2.15	6.42	3.4	6.42	3.4
Blades - Diameter - Pitch	4 - 20 - 26	4 - 22 - 26	4 - 22 - 22	4 - 22 - 22	4 - 22 - 22	4 - 22 - 22
HP- Rpm - Speeds	1/3 - 1075 - 1	1/3 - 1100 - 1	1/2 - 1140 - 1	1/2 - 1140 - 1	1/2 - 1140 - 1	1/2 - 1140 - 1
Bearing Type	SLEEVE	SLEEVE	SLEEVE	SLEEVE	SLEEVE	SLEEVE
Rotation (Shaft End)	CW	CW	CCW	CCW	CCW	CCW
WATTS	246	246	295	295	356	356
Nominal CFM	3000	3000	3500	3500	3500	3500
Condenser Coil						
Rows - Fins per Inch	2 - 20	2 - 20	2 - 20	2 - 20	2 - 20	2 - 20
Total Face Area (FT. ²)	11.30	11.30	16.78	16.78	16.78	16.78
Tube Diameter - Type	3/8" Smooth	3/8" Smooth	3/8" Smooth	3/8" Smooth	3/8" Smooth	3/8" Smooth
Refrigerant						
Type	R-22	R-22	R-22	R-22	R-22	R-22
Ounces	122	122	215	215	215	215
Expansion Device	TXV	TXV	TXV	TXV	TXV	TXV
Evaporator Coil						
Rows - Fins per Inch	4 - 15	4 - 15	4 - 14	4 - 14	4 - 14	4 - 14
Total Face Area (FT. ²)	3.57	3.57	8.24	8.24	8.24	8.24
Tube Diameter - Type	3/8" Rifled	3/8" Rifled	3/8" Rifled	3/8" Rifled	3/8" Rifled	3/8" Rifled

UNIT SPECIFICATIONS

	MODELS					
Evaporator Fan	PAE036H00A	PAE036L00A	PAE048H00A	PAE048L00A	PAE060H00A	PAE060L00A
Quantity, Blowers / Motors	1	1	1	1	1	1
Volts - Phase - Hertz	208/230-1-60	460-1-60	208/230-1-60	460-1-60	208/230-1-60	460-1-60
FLA	4	1.39	5.0	2.12	5	2.12
LRA	7.09	3.75	8.75	4.23	8.75	4.23
Type Drive (Belt or Direct)	Direct	Direct	Direct	Direct	Direct	Direct
Housing Size	10-8	10-8	11-11	11-11	11-11	11-11
HP - RPM - Speeds	1/2-1075-4	1/2-1075-4	1-1000-4	1-1000-4	1-1000-4	1-1000-4
Bearing Type	SLEEVE	SLEEVE	SLEEVE	SLEEVE	SLEEVE	SLEEVE
Rotation	CCW	CCW	CCW	CCW	CCW	CCW
Total Watts	560	560	717	717	819	819
Total Standard CFM	1200	1200	1650	1650	1800	1800
Controls						
Transformer VA	65	65	65	65	65	65
Compressor IPR Valve (psi)	450	450	450	450	450	450
High Press. Switch Auto Reset - Open - Close (psi)	420 - 300	420 - 300	420 - 300	420 - 300	420 - 300	420 - 300
Low Press. Switch Auto Reset - Open - Close (psi)	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20
Compressor Anti Cycle Timer	n/a	n/a	n/a	n/a	n/a	n/a
Evaporator Freeze Thermostat Open - Close (F)	30 - 50	30 - 50	30 - 50	30 - 50	30 - 50	30 - 50
Misc.						
Air Filter Size - Qty.	18"x24"x2"-1	18"x24"x2"-1	20"x30"x2"-2	20"x30"x2"-2	20"x30"x2"-2	20"x30"x2"-2
Unit Operating Weight	472	472	492	492	515	515

STANDARD (DIRECT DRIVE) BLOWER PERFORMANCE DATA

UNIT SIZE	Motor Speed	Air Delivery in CFM * External Static Pressure (In. W.C.)					
		.20	.30	.40	.50	.60	.70
3 TON	HI	1665	1617	1566	1507	1437	1353
	MD HI	1558	1522	1480	1428	1365	1285
	MD LO	1430	1408	1375	1332	1275	1205
	LO	----	1235	1173	1158	1152	1115
4 TON	HI	2124	2062	1997	1928	1854	1773
	MD HI	1990	1936	1877	1814	1746	1672
	MD LO	1614	1584	1549	1507	1457	1398
	LO	1277	1263	1242	1212	1174	1127
5 TON	HI	2124	2062	1997	1928	1854	1773
	MD HI	1990	1936	1877	1814	1746	1672
	MD LO	1614	1584	1549	1507	1457	1398
	LO	1277	1263	1242	1212	1174	1127

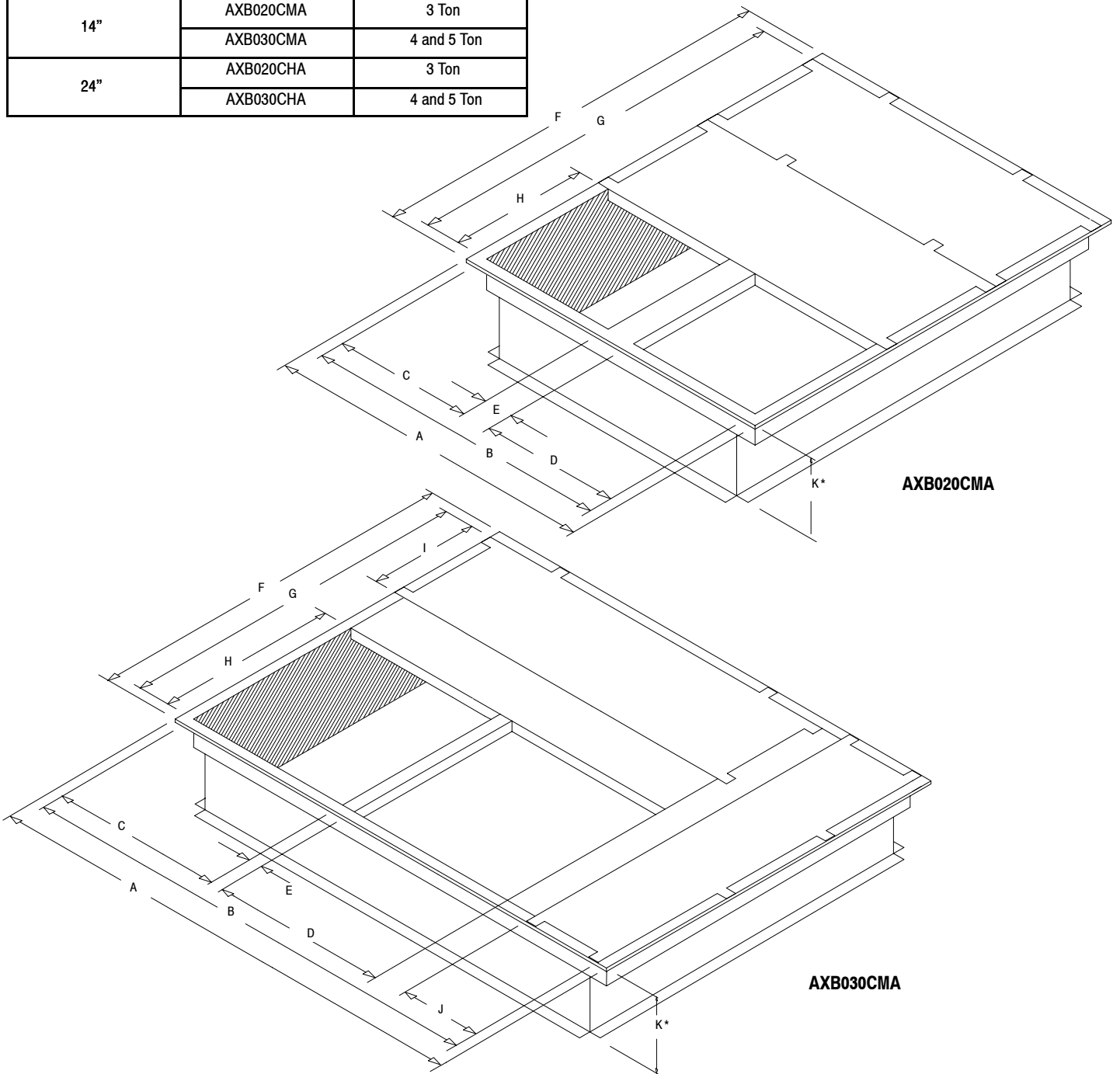
Air delivery against shown external static pressures taken with 230V to unit, dry coil. For wet coil subtract approx. .25 CFM. Will operate at rated ESP in either horizontal or downflow duct position.

* Dry coil, with filter

ACCESSORIES: ROOF CURBS

These curbs are designed specifically for use with our single package air units. They are constructed of heavy gauge steel and designed for water-tight installation.

Description	Mainline Model Number	Used on
8"	AXB020CLA	3 Ton
	AXB030CLA	4 and 5 Ton
14"	AXB020CMA	3 Ton
	AXB030CMA	4 and 5 Ton
24"	AXB020CHA	3 Ton
	AXB030CHA	4 and 5 Ton



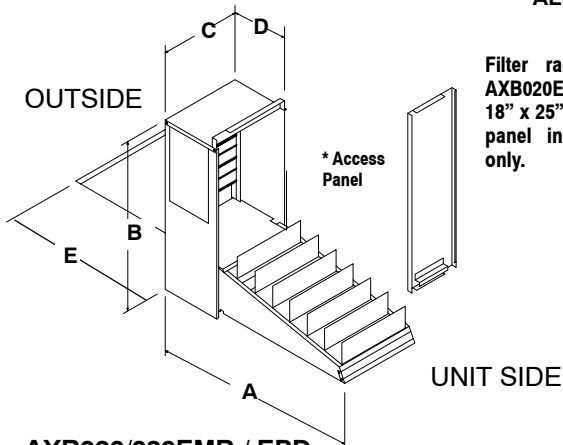
ROOF CURB DIMENSIONS (INCHES)

Model No.	A	B	C	D	E	F	G	H	I	J	K(CLA)	K(CMA)	K(CHA)
AXB020	42-3/4	39-3/4	18	18	3-3/4	42-3/4	39-3/4	18	-	-	8	14	24
AXB030	67-3/4	64-3/4	23	23	2-1/2	42-3/4	39-3/4	23	12	12	8	14	24

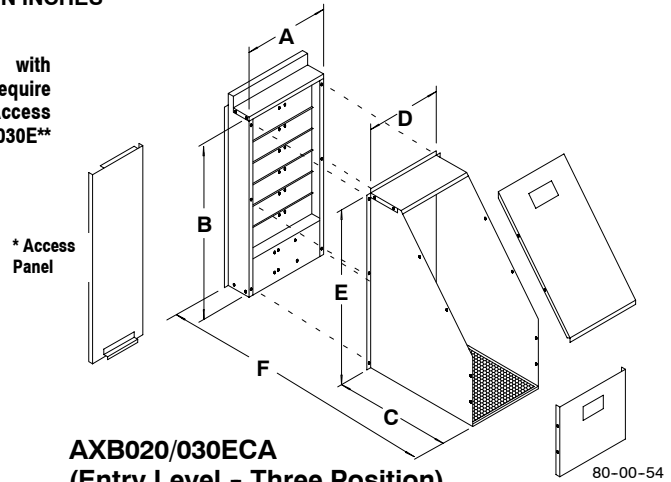
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ECONOMIZERS/DOWNFLOW

ALL DIMENSIONS IN INCHES



Filter racks are included with AXB020E**. Economizers require 18" x 25" x 1" or 2" filters. Access panel included with AXB030E** only.



AXB020/030ECA
(Entry Level - Three Position)

80-00-54

AXB020/030EMB / EPD
(Modulating or Three Position)

Economizer Model No.	A	B	C	D	E
AXB020EMC/PD	29	27-1/2	12-3/4	10-7/8	22
AXB030EMC/PD	35	31	14-3/4	10-7/8	22

Economizer Model No.	A	B	C	D	E	G
AXB020ECA	12-3/4	27-1/2	20-1/4	11	28-1/2	24
AXB030ECA	14-3/4	31	20-1/4	13	30	24

Description	Model Number	Used on
Fully Modulating (1)	AXB020EMC	3 Ton
Three Position (2)	AXB020EPD	
Entry Level Three Position (3)	AXB020ECA	

Description	Model Number (4)	Used on
Fully Modulating (1)	AXB030EMC	4 and 5 Ton
Three Position (2)	AXB030EPD	
Entry Level Three Position (3)	AXB030ECA	

NOTES:

- (1) - Ambient/Enthalpy Control; Includes Return Air Damper & Relief Damper.
- (3) - Ambient Control Only; No Return Air Damper; No Relief Damper.

- (2) - Ambient Control Only; Includes Return Air Damper & Relief Damper.
- (4) - On AXB030, Filters not supplied. Filter retainers and filters can be ordered thru Service Parts, retainer part number 1054517. Filters (20x30x2) part number 1054503.

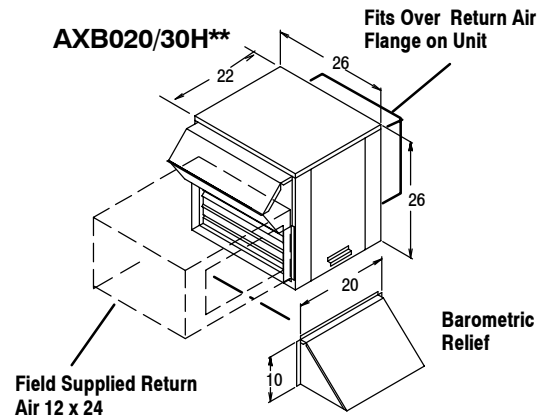
All Economizers Feature Enthalpy and/or ambient temperature control providing outdoor air ventilation and "free cooling" when outdoor conditions are favorable.

Return Air and Pressure Relief dampers for proper air balance, on most models.

Interconnecting wiring furnished.

Center controlled dual action dampers with gaskets to provide proper seal.

ECONOMIZERS/HORIZONTAL



Description	Model Number	Used on
Fully Modulating (1)	AXB020HEC	3 Ton
Three Position (2)	AXB020HPD	

Description	Model Number	Used on
Fully Modulating (1)	AXB030HEC	4 and 5 Ton
Three Position (2)	AXB030HPD	

NOTES:

- (1) - Ambient/Enthalpy Control; Includes Return Air Damper & Relief Damper.
- (2) - Ambient Control Only; Includes Return Air Damper & Relief Damper.

ACCESSORIES (CONT...)

OUTDOOR AIR DAMPERS

Description	Model Number	Used on
Manual - 25%	AXB020FAC	3 TON
	AXB030FAC	4 and 5 TON
Motorized - 25%	AXB020FMC	3 TON
	AXB030FMC	4 and 5 TON

COIL PROTECTION

Description	Service Parts Number *	Used on
Coil Guard	1149485	3 TON
	1149486	4 and 5 TON
Hail Guard	1068133	3 TON
	1068134	4 and 5 TON

* Available through Service Parts only.

FILTER RACK - must use with 3 ton, for horizontal duct applications only.

Description	Model Number	Used on
* Horizontal	AXB020FHC	3 TON

* Requires 1 field supplied 18 x 25" filter.

CONCENTRIC DUCT KITS

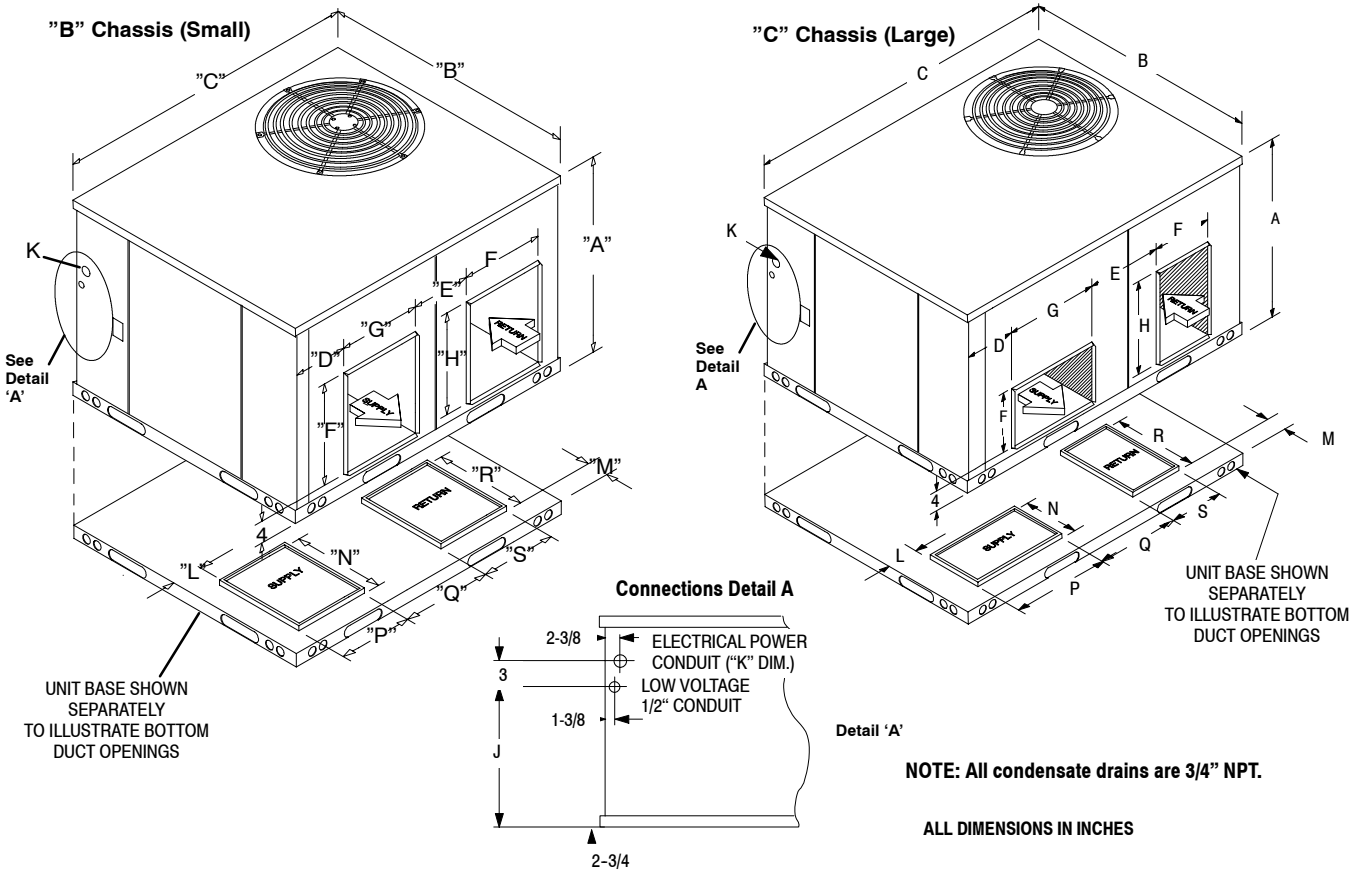
Description	Mainline Model Number	Used on
Transition	AXB020CTA	3 TON
	AXB030CTA	4 and 5 TON
Grille, Flush Mount *	AXB020CFA	3 TON
	AXB030CFA	4 and 5 TON
Grille, Step Down *	AXB020CSA	3 TON
	AXB030CFA	4 and 5 TON

* Includes grille and diffuser / transition box.

ELECTRICAL DATA - ELECTRIC HEATING ACCESSORY

Heater Model #	Use With	Supply Voltage (Volts-Phase-Hz)	Nominal Btu/h	1 st / 2 nd Stage kW Rating	Supply Circuit Number	Heater Amps	Minimum Circuit Ampacity	Max. Fuse or NEC HACR Breaker (Amps)
AEB010CHA	3 to 5 Ton	240-3-60	34,130	10.0	L4-L5-L6	24.1	30.1	35
		208-3-60	25,598	7.5	L4-L5-L6	20.8	26.1	30
AEB015CHA	3 to 5 Ton	240-3-60	51,195	15.0	L4-L5-L6	36.1	45.2	50
		208-3-60	38,567	11.3	L4-L5-L6	31.4	39.3	40
AEB020CHA	3 to 5 Ton	240-3-60	68,260	10.0 / 20.0	L4-L5-L6 L7-L8-L9	24.1 24.1	30.1 30.1	35 35
			51,195	15.0	L4-L5-L6 L7-L8-L9	20.8 20.8	26.1 26.1	30 30
		208-3-60	85,325	12.5 / 25.0	L4-L5-L6 L7-L8-L9	30.1 30.1	37.6 37.6	40 40
			64,164	9.4 / 18.8	L4-L5-L6 L7-L8-L9	26.1 26.1	32.7 32.7	35 35
AEB025CHA	4 to 5 Ton	240-3-60	85,325	12.5 / 25.0	L4-L5-L6 L7-L8-L9	30.1 30.1	37.6 37.6	40 40
			64,164	9.4 / 18.8	L4-L5-L6 L7-L8-L9	26.1 26.1	32.7 32.7	35 35
		208-3-60	102,390	15.0 / 30.0	L4-L5-L6 L7-L8-L9	36.1 36.1	45.2 45.2	50 50
			76,793	11.25 / 22.5	L4-L5-L6 L7-L8-L9	31.4 31.4	39.3 39.3	40 40
AEB030CHA	4 to 5 Ton	240-3-60	102,390	15.0 / 30.0	L4-L5-L6 L7-L8-L9	36.1 36.1	45.2 45.2	50 50
AEB030CHA	4 to 5 Ton	208-3-60	76,793	11.25 / 22.5	L4-L5-L6 L7-L8-L9	31.4 31.4	39.3 39.3	40 40
AEB010CLA	3 to 5 Ton	480-3-60	34,130	10.0	L4-L5-L6	12.0	15.0	15
AEB015CLA	3 to 5 Ton	480-3-60	51,195	15.0	L4-L5-L6	18.1	22.6	25
AEB020CLA	3 to 5 Ton	480-3-60	68,260	10.0 / 20.0	L4-L5-L6 L7-L8-L9	12.0	15.0	15
						12.0	15.0	15
AEB025CLA	4 to 5 Ton	480-3-60	85,325	12.5 / 25.0	L4-L5-L6 L7-L8-L9	15.1 15.1	18.8 18.8	20 20
AEB030CLA	4 to 5 Ton	480-3-60	102,390	15.0 / 30.0	L4-L5-L6 L7-L8-L9	18.1	22.6	25
						18.1	22.6	25

UNIT DIMENSIONS



Model No.	A	B	C	D	E	F	G	H	J	K	L	M	N**	P**	Q	R	S	Inside Base Rail
3 Ton	32-1/2	47-3/8	47-3/8	3-1/8	11-1/8	12	14-1/4	14-1/4	21-1/2	3/4 - 1	4-1/4	4-3/8	14-1/2	12-1/4	12-1/8	14-1/4	12-1/4	43-1/8 x 43-1/8
4 and 5 Ton	36	47-3/8	73	4-5/8	15	12	18-3/4	18-3/4	25-1/2	1 - 1-1/4	4-1/4	5-1/4	12-1/4	19	15	19	12-1/4	68-3/4 x 43-1/8

* NOTE: The base rail width is 2-1/8 inches, all around base of unit.

MODEL NUMBER IDENTIFICATION GUIDE

MODEL NUMBER	P	A	E	036	L	00	A	Sales Code
P = Single Package								Options
A = Air Conditioning								ELECTRICAL CHARACTERISTICS
Design Series								H = 208 / 230-3-60 L = 460-3-60
								COOLING CAPACITY (NOMINAL BTUH)
								036 = 3 Ton
								048 = 4 Ton 060 = 5 Ton

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

GUIDE SPECIFICATIONS

CABINET

The cabinet is made of G-90 galvanized steel, phosphate coated with a tough acrylic finish coat for long lasting weatherproof construction. The base rails are 18 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 3/4" 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 assembly into the unit and electronically leak tested after assembly into the unit.

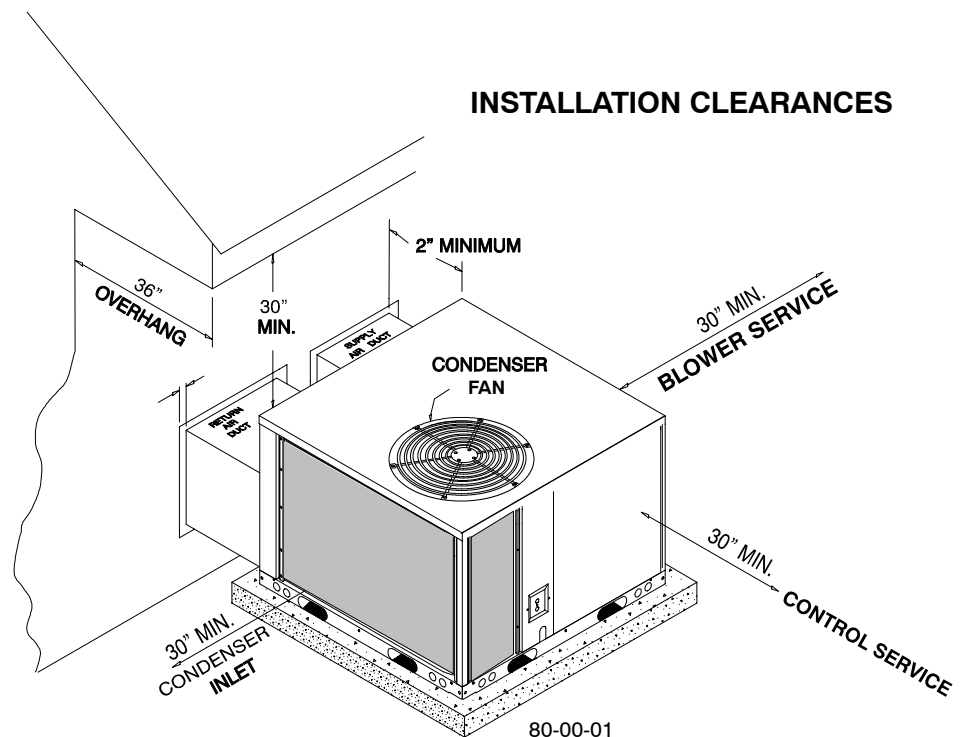
CONDENSER FAN

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.

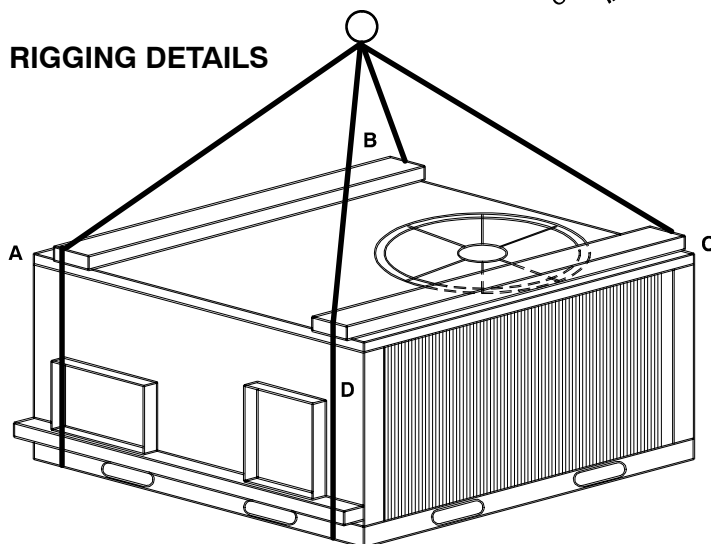
EVAPORATOR BLOWER

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.

INSTALLATION CLEARANCES



RIGGING DETAILS



CORNER WEIGHTS (LBS)

MODEL	A	B	C	D	OPERATING WEIGHT TOTAL
PAE036H00A	98	122	141	111	472
PAE036L00A	98	122	141	111	472
PAE048H00A	102	128	148	115	492
PAE048L00A	102	128	148	115	492
PAE060H00A	107	134	154	121	515
PAE060L00A	107	134	154	121	515