PAH
Product Specifications

COMMERCIAL HIGH EFFICIENCY PACKAGE AIR CONDITIONER UNITS R–22 SINGLE PACKAGE ROOFTOP 3 – 5 TONS (3–Phase – 575 Volt)

BUILT TO LAST, EASY TO INSTALL AND SERVICE

- One–piece, high efficiency electric cooling with a low profile, prewired, tested, and charged at the factory
- Field convertible supply and return openings are intended for installation on a roof top or ground level
- Hermetic–type single scroll compressor
- Compressor anti–cycle protection
- Refrigerant circuits contain a filter drier to trap dirt and moisture
- Non–corrosive condensate pan with choice of bottom or side drain connections. All models have self draining, sloping design
- Loss–of–charge, freeze protection, and high pressure safety switches
- Adjustable belt drive indoor fan standard on all units, with permanently lubricated motors
- Direct–drive propeller outdoor fan totally enclosed with permanently lubricated bearings
- Prepainted, galvanized steel cabinet, primer inner panels, certified at 500–hr salt spray test and noncorrosive screws
- Easily removable panels provide ready access to unit components for rapid removal or maintenance
- Two inch disposable fiberglass type return air filters in dedicated rack
- Filter access door for filter access and maintenance requires no tools
- Outdoor temperature cooling operation from 25°F to 125°F
- Fixed orifice metering devices to precisely control refrigerant flow
- Indoor and outdoor coils constructed of aluminum fins mechanically bonded to seamless copper tubes
- Factory–run test printout included in each rooftop
- 24–Volt control circuit with circuit breaker
- Thru–the–bottom power entry capability

WARRANTY

- 5 Year compressor limited warranty
- 1 Year parts limited warranty

ASHRAE 90.1 COMPLIANT

ISO 9001:2000

ENERGY STAR

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

UNIT PERFORMANCE DATA

UNIT PAH 3—Phase	NOMINAL TONS	COOLING			Unit Dimensions H x W x L	Unit Weight
		Net Cap. (Btuh)	SEER	Total kW		
PAH036S0A00AA	3	36,000	13.0	3.21	33–5/16" x 73–11/16" x 45"	435
PAH048S0A00AA	4	46,000	13.0	4.25	33–5/16" x 73–11/16" x 45"	445
PAH060S0A00AA	5	61,000	13.0	5.55	33–5/16" x 73–11/16" x 45"	465

Table of Contents

MODEL NOMENCLATURE

COMMERCIAL PACKAGE UNITS

MODEL SERIES	P	A	H	036	S	0	A	00	A	A	A
P = Package											
A = Air Conditioner											
G = Gas/Electric											
H = Hi Efficiency											
036 = 36,000			NOMINAL								
048 = 48,000			COOLING								
060 = 60,000			BTU/h								
S = 575–3–60				VOLTAGE							
0 = No Heat				HEATING BTU/h							
A = Standard Motor					MOTOR OPTION						
00 = No Factory Installed Options						FACTORY INSTALLED OPTIONS					
A = Aluminum/Copper Outdoor Coil							OUTDOOR COIL OPTION				
Sales Model Digit											
Engineering Digit											

UNIT SPECIFICATIONS – MODELS			
COOLING	**PAH036S**	**PAH048S**	**PAH060S**
ARI Rated Capacity Btuh (Net)	36,000	46,000	61,000
Nominal Tons	3	4	5
SEER	13.0	13.0	13.0
EER	11.2	11.1	11.0
Sound Rating (Bels)	7.6	7.6	8.0
Base Unit Operating Weights (lbs)	435	445	465
ELECTRICAL			
Volts/ 3 Phase/ 60Hertz	575	575	575
Voltage Range Min/Max	518 / 632	518 / 632	518 / 632
Power Supply MCA	7.3	10.3	11.5
Power Supply MOCP*	20	15	15
COMPRESSOR		SCROLL	
Quantity...Model	1...ZR34	1...GC06	1...ZR57
No. of Circuits	1	1	1
RLA / LRA	4.2 / 31	6.4 / 40	7.1 / 50
Oil (Oz.)	42	53	50
REFRIGERATION TYPE		R-22	
Expansion Device		Fixed Metering Device	
Operating Charge (lb. oz.)	5-8	10-2	10-0
CONDENSER FAN		Propeller Type	
Nominal CFM	3500	3500	4100
Quantity..Diameter (in.)	1...22	1...22	1...22
Motor Hp...RPM	1/8...825	1/8...825	1/4...1100
Watts Input (Total)	180	180	320
FLA	0.4	0.4	0.6
CONDENSER COIL		Enhanced Copper tubes, Aluminum Lanced Fins	
Rows...Fin/In.	1...17	2...17	2...17
Total Face Area (sq. ft.)	14.6	16.5	16.5
EVAPORATOR COIL		Enhanced Copper Tubes, Aluminum Double-Wavy Fins	
Rows...Fins/Inch	2...15	2...15	4...15
Total Face Area (sq. ft.)	5.5	5.5	5.5
EVAPORATOR FAN		Centrifugal Type	
Quantity...Size (in.)	1...10 x 10	1...10 x 10	1...10 x 10
Type Drive	Belt	Belt	Belt
Nominal CFM	1200	1600	2000
RPM, Max. Continuous Bhp	1620, 1.2	1620, 1.2	1725, 2.4
FLA	1.9	1.9	2.0
Motor Frame Size	48	48	56
Fan RPM Range	680 - 1044	770 – 1185	1035 – 1460
Motor Bearing	Ball	Ball	Ball
Maximum Allowable RPM	2100	2100	2100
Motor Pulley Pitch / Diameter Min/Max. (in.)	1.9/2.9	1.9/2.9	2.4–3.4
Motor Shaft Diameter (in.)	1/2	1/2	5/8
Fan Pulley Pitch Diam (in)	4.5	4.0	4.0
Belt, Quantity...Type... Length (in.)	1...A...36	1...A...36	1...A...40
Pulley Center Line Distance (in)	10.0–12.4	10.0–12.4	14.7–15.5
Speed Change per Full Turn of Movable Pulley Flange (RPM)	65	70	75
Pulley Max. full Turns From Closed Position	5	5	6
Factory Setting	3	3	3
Factory Speed Setting RPM	826	936	1248
Fan Shaft Diam. at Pulley	5/8	5/8	5/8

SEE LEGENDS AND NOTES ON FOLLOWING PAGE

UNIT SPECIFICATIONS (CONT)	MODELS		
	PAH036S	PAH048S	PAH060S
HIGH–PRESSURE SWITCH (psig)			
Internal Relief (Differential) Cutout	428	428	428
Reset (Auto.)	320	320	320
LOSS–OF–CHARGE SWITCH (psig) (LOW–PRESS.)			
Cutout	7+/–3	7+/–3	7+/–3
Reset (Auto.)	22+/–5	22+/–5	22+/–5
FREEZE PROTECTION THERMOSTAT (F)			
Opens	30 +/– 5	30 +/– 5	30 +/– 5
Closes	45 +/– 5	45 +/– 5	45 +/– 5
RETURN–AIR FILTERS (THROWAWAY)			
Quantity...Size (in.)	2...16 x 25 x 2	2...16 x 25 x 2	2...16 x 25 x 2

LEGENDS AND NOTES

LEGEND
Bhp = Brake Horsepower
TXV = Thermostatic Expansion Valve
* Fuse or HACR Circuit breaker

Bels	–	Sound Levels
EER	–	Energy Efficiency Ratio
IPLV	–	Integrated Part Load Values
MCA	–	Minimum Circuit Amps
MOCP	–	Maximum Over–current Protection
FLA	–	Full Load Amps
LRA	–	Locked Rotor Amps
RLA	–	Rated Load Amps

+Rollout switch is manual reset.
NOTE: The PAH units have a low–pressure switch (standard) located on the suction side.

NOTES:

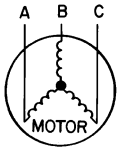
1. In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the over–current protective device for the unit shall be fuse or HACR breaker . Canadian units may be fuse or circuit breaker .
2. **Unbalanced 3–Phase Supply Voltage**
   Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percent voltage imbalance.

   % Voltage Imbalance

   $$= 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

NOTES: 1. Rated in accordance with ARI Standards 210/240, revision
2. ARI ratings are net values, reflecting the effects of circulating fan heat.
3. Ratings are based on:
Cooling Standard: 80F db, 67F wb indoor entering air temperature and 95F db air entering outdoor unit.
IPLV Standard: 80F db, 67F wb indoor entering air temperature
and 80F db entering air temperature.

EXAMPLE: Supply voltage is 460–3–60.



AB = 452 v
BC = 464 v
AC = 455 v

$$\text{Average Voltage} = \frac{452 + 464 + 455}{3} = \frac{1371}{3} = 457$$

Determine maximum deviation from average voltage.
(AB) 457 – 452 = 5 V
(BC) 464 – 457 = 7 V
(AB) 457 – 455 = 2 V
Maximum deviation is 7 v.
Determine percent voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{7}{457} = 1.53\%$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately .

Unit PAH	STD. UNIT WEIGHT LB	KG	(A) CORNER WEIGHT LB	KG	(B) CORNER WEIGHT LB	KG	(C) CORNER WEIGHT LB	KG	(D) CORNER WEIGHT LB	KG	"J" FT -IN.	MM
036	435	197	124	56.2	106	48.1	95	43.1	110	49.9	2'-9 5/16"	846.5
048	445	202	127	57.6	108	49.0	97	44.0	113	51.3		
060	465	211	133	60.3	113	51.3	101	45.8	118	53.5		

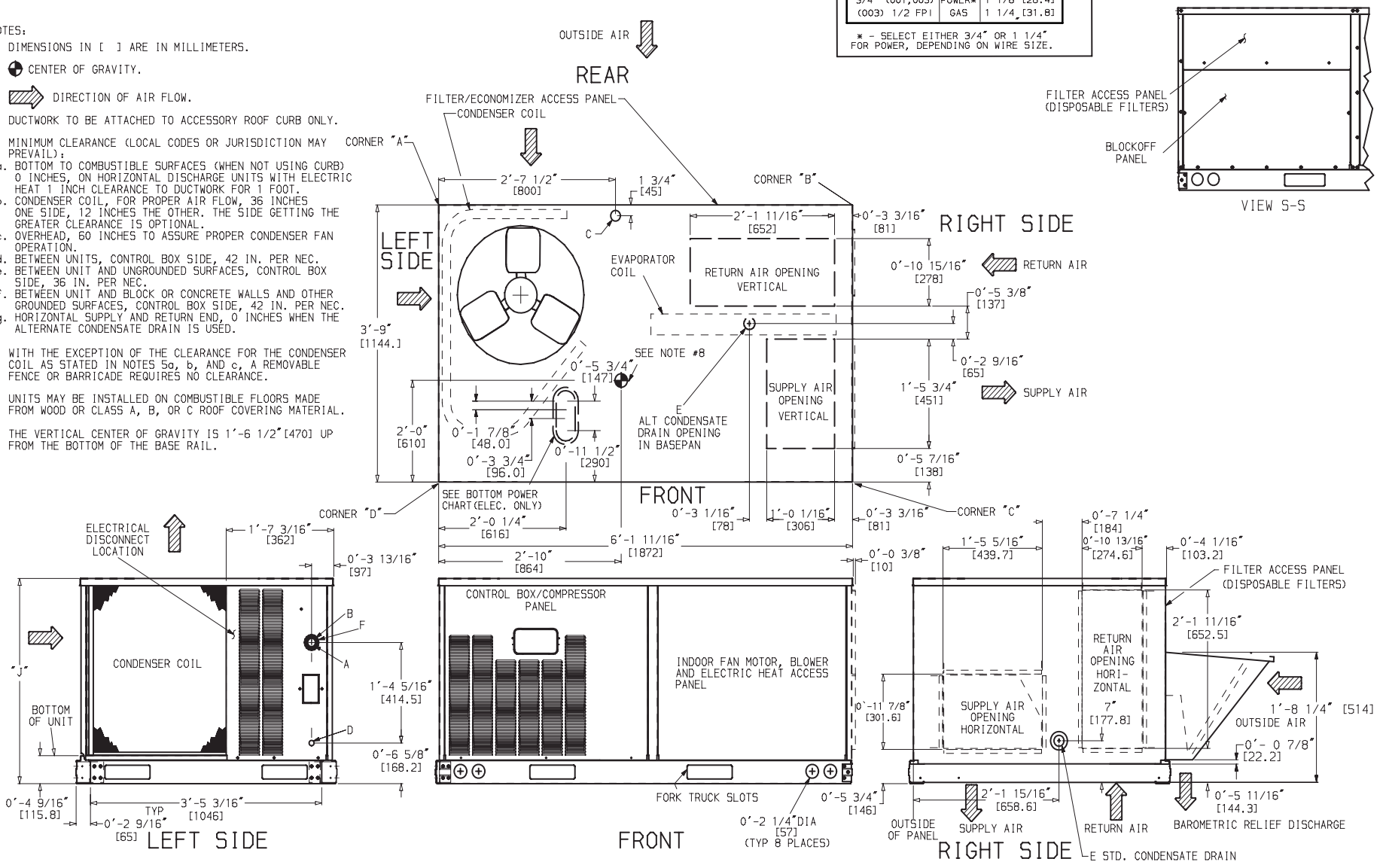
BOTTOM POWER CHART:
THESE HOLES REQ'D FOR USE WITH ACCESSORY PACKAGES
DNBTMPWR001A01
DNBTMPWR003A01

THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZES (MAX.)
1/2"	ACC.	7/8" [22.2]
1/2"	24V	7/8" [22.2]
3/4" (001,003)	POWER*	1 1/8" [28.4]
(003) 1/2 FPI	GAS	1 1/4" [31.8]

* - SELECT EITHER 3/4" OR 1 1/4" FOR POWER, DEPENDING ON WIRE SIZE.

	CONNECTION SIZES
A	1 3/8" DIA. [35] FIELD POWER SUPPLY HOLE
B	2" DIA. [51] POWER SUPPLY KNOCK-OUT
C	1 3/4" DIA. [44] CHARGING PORT HOLE
D	7/8" DIA. [22] FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
F	2 1/2" DIA. [64] POWER SUPPLY KNOCK-OUT

NOTES:
1. DIMENSIONS IN [ ] ARE IN MILLIMETERS.
2. ⊕ CENTER OF GRAVITY.
3. DIRECTION OF AIR FLOW.
4. DUCTWORK TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY.
5. MINIMUM CLEARANCE (LOCAL CODES OR JURISDICTION MAY PREVAIL):
   a. BOTTOM TO COMBUSTIBLE SURFACES (WHEN NOT USING CURB) 0 INCHES, ON HORIZONTAL DISCHARGE UNITS WITH ELECTRIC HEAT 1 INCH CLEARANCE TO DUCTWORK FOR 1 FOOT.
   b. CONDENSER COIL, FOR PROPER AIR FLOW, 36 INCHES ONE SIDE, 12 INCHES THE OTHER. THE SIDE GETTING THE GREATER CLEARANCE IS OPTIONAL.
   c. OVERHEAD, 60 INCHES TO ASSURE PROPER CONDENSER FAN OPERATION.
   d. BETWEEN UNITS, CONTROL BOX SIDE, 42 IN. PER NEC.
   e. BETWEEN UNIT AND UNGROUNDED SURFACES, CONTROL BOX SIDE, 36 IN. PER NEC.
   f. BETWEEN UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, CONTROL BOX SIDE, 42 IN. PER NEC.
   g. HORIZONTAL SUPPLY AND RETURN END, 0 INCHES WHEN THE ALTERNATE CONDENSATE DRAIN IS USED.
6. WITH THE EXCEPTION OF THE CLEARANCE FOR THE CONDENSER COIL AS STATED IN NOTES 5a, b, AND c, A REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE.
7. UNITS MAY BE INSTALLED ON COMBUSTIBLE FLOORS MADE FROM WOOD OR CLASS A, B, OR C ROOF COVERING MATERIAL.
8. THE VERTICAL CENTER OF GRAVITY IS 1'-6 1/2"[470] UP FROM THE BOTTOM OF THE BASE RAIL.



COOLING CAPACITIES

PAH036 (3 TONS)

Temp (F) Air Ent Condenser (Edb)		Temp (F) Air Entering Evaporator — CFM/BF											
		900/0.14				1200/0.17				1500/0.20			
		Temp (F) Air Entering Evaporator — Ewb											
		78	72	67	62	78	72	67	62	78	72	67	62
75	TC	45.6	41.9	38.7	35.7	46.8	43.5	40.8	37.7	48.1	44.8	41.8	39.0
	SHC	14.5	20.4	25.2	29.7	14.7	21.8	28.2	33.8	14.8	23.3	30.7	37.0
	kW	2.24	2.19	2.16	2.12	2.26	2.21	2.18	2.15	2.28	2.23	2.19	2.16
85	TC	44.4	40.7	37.5	34.5	45.7	42.1	39.3	36.4	47.0	43.5	40.4	37.6
	SHC	14.1	19.9	24.7	29.2	14.4	21.5	27.7	33.2	14.8	23.2	30.3	36.4
	kW	2.51	2.46	2.42	2.39	2.53	2.47	2.44	2.41	2.54	2.50	2.45	2.42
95	TC	42.9	39.3	36.1	33.1	44.6	40.8	37.8	34.9		42.0	38.9	36.1
	SHC	13.6	19.5	24.1	28.4	14.0	21.1	27.2	32.5		22.8	29.9	35.6
	kW	2.80	2.75	2.71	2.66	2.83	2.77	2.73	2.69		2.79	2.74	2.71
105	TC	41.3	37.7	34.6	31.7		39.3	36.2	33.4		40.1	37.2	34.7
	SHC	13.0	18.8	23.5	27.8		20.7	26.6	31.8		22.1	29.3	34.7
	kW	3.11	3.06	3.02	2.98		3.09	3.04	3.01		3.10	3.06	3.03
115	TC		36.0	33.0	29.7		37.4	34.5	31.5		38.1	35.5	33.2
	SHC		18.3	22.9	26.7		19.9	26.1	30.9		21.3	28.7	33.2
	kW		3.41	3.36	3.31		3.43	3.39	3.34		3.44	3.41	3.37
125	TC		34.2	31.3	27.8		35.6	32.7	29.4		36.3	33.6	31.9
	SHC		17.6	22.2	25.8		19.4	25.4	29.4		20.8	28.0	31.8
	kW		3.78	3.73	3.66		3.80	3.76	3.71		3.81	3.78	3.75

PAH048 (4 TONS)

Temp (F) Air Ent Condenser (Edb)		Temp (F) Air Entering Evaporator — CFM/BF															
		1200/0.17				1450/0.19				1600/0.21				2000/0.24			
		Temp (F) Air Entering Evaporator — Ewb															
		78	72	67	62	78	72	67	62	78	72	67	62	78	72	67	62
75	TC	58.6	54.0	50.7	44.2	59.6	55.9	52.2	47.7	59.9	56.4	52.8	49.1	61.5	58.1	54.5	50.6
	SHC	18.3	26.1	32.7	37.5	18.7	27.6	35.1	41.8	18.7	28.2	36.2	43.8	19.2	30.2	39.5	47.5
	kW	2.80	2.80	2.80	2.80	2.90	2.80	2.80	2.80	2.90	2.80	2.80	2.80	2.90	2.80	2.80	2.80
85	TC	56.4	52.2	48.9	41.9	57.3	54.1	50.4	45.9	58.1	54.5	51.0	47.2	59.5	55.3	52.3	48.7
	SHC	17.6	25.4	32.0	36.4	17.9	26.9	34.5	40.8	18.2	27.5	35.7	42.8	18.5	28.6	38.5	46.6
	kW	3.30	3.20	3.20	3.20	3.30	3.20	3.20	3.20	3.30	3.20	3.20	3.20	3.30	3.20	3.20	3.20
95	TC	54.2	50.7	46.9	39.5	55.0	51.9	48.4	43.5	56.3	52.5	48.9	45.2	57.5	53.9	50.1	46.7
	SHC	16.9	24.9	31.1	35.0	17.2	26.1	33.6	39.6	17.6	26.8	34.7	41.8	17.8	28.8	37.5	45.6
	kW	3.70	3.60	3.60	3.60	3.70	3.70	3.60	3.60	3.70	3.70	3.60	3.60	3.70	3.70	3.60	3.60
105	TC	52.0	48.8	44.5	36.7	52.7	49.8	46.2	40.7	53.8	50.2	46.7	42.1	54.7	51.5	48.2	44.7
	SHC	16.2	24.3	30.2	33.6	16.5	25.3	32.8	38.2	16.8	26.0	33.9	40.3	17.1	27.9	37.4	44.4
	kW	4.20	4.10	4.10	4.00	4.20	4.10	4.10	4.10	4.20	4.10	4.10	4.10	4.20	4.10	4.10	4.10
115	TC	49.9	46.5	41.1	34.3	50.4	47.7	43.3	37.0	41.3	48.0	44.4	38.5	51.9	48.9	45.7	42.0
	SHC	15.5	23.4	28.9	32.4	15.8	24.9	31.8	36.3	16.0	25.4	33.4	38.3	16.3	27.1	36.9	42.0
	kW	4.70	4.60	4.60	4.50	4.70	4.70	4.60	4.60	4.70	4.60	4.60	4.60	4.70	4.70	4.60	4.60
125	TC	47.5	43.8	37.5	32.4		45.1	39.0	33.8		45.3	40.1	35.4		46.3	42.6	38.8
	SHC	15.0	22.5	27.4	31.5		24.1	30.2	33.7		24.7	31.9	35.4		26.5	35.9	38.8
	kW	5.20	5.20	5.10	5.10		5.20	5.20	5.10		5.20	5.20	5.10		5.20	5.20	5.20

PAH060 (5 TONS)

Temp (F) Air Ent Condenser (Edb)		Temp (F) Air Entering Evaporator — CFM/BF															
		1500/0.08				1750/0.09				2000/0.11				2500/0.13			
		Temp (F) Air Entering Evaporator — Ewb															
		78	72	67	62	78	72	67	62	78	72	67	62	78	72	67	62
75	TC	80.4	70.8	65.4	58.5	82.5	72.5	67.3	61.1	83.7	73.0	68.4	62.8		74.8	70.3	64.8
	SHC	25.6	34.1	42.7	49.9	26.1	35.7	45.5	54.2	26.3	36.8	48.0	57.8		39.6	53.0	63.4
	kW	3.65	3.53	3.49	3.44	3.68	3.55	3.50	3.46	3.70	3.55	3.51	3.47		3.57	3.54	3.48
85	TC	78.5	68.9	63.2	55.3		70.5	65.1	57.9		72.2	66.4	60.2		73.2	68.1	62.9
	SHC	25.1	33.5	41.8	48.4		35.0	44.8	52.8		37.0	47.6	56.8		39.3	52.5	62.4
	kW	4.20	3.98	3.94	3.87		4.00	3.96	3.90		4.03	3.97	3.92		4.04	3.99	3.94
95	TC		66.8	60.6	52.4		68.3	62.5	54.3		69.3	63.8	56.6		71.2	65.6	60.6
	SHC		32.8	40.7	47.0		34.5	43.8	51.1		36.0	46.7	55.0		39.1	51.8	60.5
	kW		4.48	4.43	4.35		4.50	4.45	4.37		4.51	4.46	4.40		4.55	4.48	4.44
105	TC		64.3	57.7	49.9		65.9	59.8	51.7		66.9	61.1	54.1		68.4	62.8	58.4
	SHC		32.0	39.6	45.8		33.7	42.8	49.7		35.3	45.7	53.5		38.4	51.0	58.4
	kW		5.03	4.96	4.87		5.05	4.99	4.90		5.06	5.00	4.93		5.08	5.02	4.98
115	TC		61.5	54.8	47.3		62.8	56.7	49.1		64.0	58.2	51.6		65.4	59.9	56.1
	SHC		31.0	38.4	44.5		32.5	41.6	48.2		34.4	44.6	51.6		37.4	50.0	56.1
	kW		5.61	5.55	5.46		5.62	5.58	5.49		5.65	5.60	5.52		5.67	5.61	5.57
125	TC		58.7	51.6	44.5		59.9	53.4	46.2		60.8	54.9	49.0		62.2	56.8	53.5
	SHC		30.0	37.2	43.1		31.7	40.4	46.2		33.3	43.4	48.9		36.4	48.9	53.4
	kW		6.27	6.19	6.09		6.28	6.21	6.13		6.29	6.24	6.17		6.31	6.27	6.22

– Do not operate at these conditions.

LEGEND

BF — Bypass Factor
Edb — Entering Dry Bulb
Ewb — Entering Wet Bulb
kW — Compressor Motor Power Input
SHC — Sensible Heat Capacity (1000 Btuh) Gross
TC — Total Capacity (1000 Btuh) Gross

NOTES:

1. Direct interpolation is permissible. Do not extrapolate.
2. The following formulas may be used:

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

t_{lwb} = Wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil (h_{lwb})

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

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

3. The SHC is based on 80°F edb temperature of air entering evaporator coil. Below 80°F db, subtract (corr factor x cfm) from SHC.

Above 80°F db, add (corr factor x cfm) to SHC.

Correction Factor = 1.10 x (1 – BF) x (db – 80)

Fan Rpm at Motor Pulley Setting With Standard Motor*													
UNIT PAH	MOTOR PULLEY TURNS OPEN												
	0	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6
036	1455	1423	1392	1360	1328	1297	1265	1233	1202	1170	1138	1107	1075
048	1455	1423	1392	1360	1328	1297	1265	1233	1202	1170	1138	1107	1075
060	1685	1589	1557	1525	1493	1460	1428	1396	1364	1332	1300	–	–

*Approximate fan rpm shown (standard motor/drive).

Evaporator-Fan Motor Data — Standard Motor					
UNIT PAH	UNIT PHASE	MAXIMUM CONTINUOUS BHP*	MAXIMUM OPERATING WATTS*	UNIT VOLTAGE	MAXIMUM AMP DRAW
036	Three	1.20	1000	575	2.2
048	Three	1.20	1000	575	2.2
060	Three	2.40	2120	575	3.0

LEGEND

Bhp — Brake Horsepower

*Extensive motor and electrical testing on these units ensures that the full horsepower and watts range of the motors can be utilized with confidence. Using the fan motors up to the ratings shown in this table will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.

Outdoor Sound Power (Total Unit)								
UNIT PAH	ARI RATING (decibels)	OCTAVE BANDS						
		63	125	250	500	1000	2000	4000	8000
036 – 048	76	55.9	66.0	64.0	66.2	68.4	64.5	61.7	57.3
060	80	59.1	68.9	68.7	71.9	74.0	68.9	65.7	59.0

LEGEND

ARI – Air Conditioning and Refrigeration Institute

LEGEND

*The static pressure must be added to external static pressure. The sum and the indoor entering-air cfm should be used in conjunction with the Fan Performance tables to determine indoor blower rpm and watts.

Evaporator-Fan Motor Efficiency	
MOTOR PAH	EFFICIENCY
036 & 48	75
060	84

GENERAL FAN PERFORMANCE NOTES

1. Values include losses for filters, unit casing, and wet coils.
2. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using the fan motors up to the ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.
3. Use of a field-supplied motor may affect wire sizing.
4. Interpolation is permissible. Do not extrapolate.
5. Performance includes clean filter and wet coil.

Fan Performance PAH036 — Vertical Discharge Units; Standard Motor (Belt Drive)*

AIRFLOW	EXTERNAL STATIC PRESSURE (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
CFM	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	**566**	**0.14**	**142**	690	0.23	228	791	0.32	320	879	0.42	418	957	0.52	522
1000	**598**	**0.17**	**173**	718	0.27	267	817	0.37	366	903	0.47	471	981	0.58	581
1100	**632**	**0.21**	**210**	748	0.31	311	844	0.42	418	929	0.53	530	1006	0.65	646
1200	**666**	**0.25**	**252**	778	0.36	361	873	0.48	476	956	0.60	594	1031	0.72	718
1300	701	0.30	300	809	0.42	418	902	0.54	540	983	0.67	665	**1057**	**0.80**	**796**
1400	737	0.36	355	842	0.48	481	932	0.61	610	1012	0.75	744	**1085**	**0.89**	**881**
1500	774	0.42	417	875	0.55	551	962	0.69	689	1041	0.83	830	**1112**	**0.98**	**974**

Fan Performance PAH036 — Vertical Discharge Units; Standard Motor (Belt Drive)* (Cont.)

AIRFLOW	EXTERNAL STATIC PRESSURE (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
CFM	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	1029	0.63	630	**1095**	**0.75**	**742**	**1157**	**0.86**	**859**	**1216**	**0.99**	**980**	**1272**	**1.11**	**1105**
1000	**1052**	**0.70**	**695**	**1118**	**0.82**	**814**	**1179**	**0.94**	**937**	**1237**	**1.07**	**1064**	**1293**	**1.20**	**1195**
1100	**1076**	**0.77**	**767**	**1141**	**0.90**	**892**	**1202**	**1.03**	**1021**	**1260**	**1.16**	**1154**	—	—	—
1200	**1100**	**0.85**	**845**	**1165**	**0.98**	**977**	**1225**	**1.12**	**1112**	—	—	—	—	—	—
1300	**1126**	**0.94**	**930**	**1189**	**1.07**	**1069**	—	—	—	—	—	—	—	—	—
1400	**1152**	**1.03**	**1023**	**1215**	**1.17**	**1168**	—	—	—	—	—	—	—	—	—
1500	**1179**	**1.13**	**1123**	—	—	—	—	—	—	—	—	—	—	—	—

NOTES:
1. **Bold cells** indicate field-supplied drive is required.
2. Maximum continuous bhp is 1.20.
3. See general fan performance notes.

LEGEND
Bhp — Brake Horsepower
Watts — Input Watts to Motor
*Motor drive range: 680 to 1044 rpm. All other rpms require field-supplied drive.

Fan Performance PAH048 — Vertical Discharge Units; Standard Motor (Belt Drive)*

AIRFLOW	EXTERNAL STATIC PRESSURE (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
CFM	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	**666**	**0.25**	**252**	778	0.36	361	873	0.48	476	956	0.60	594	1031	0.72	718
1300	**701**	**0.30**	**300**	809	0.42	418	902	0.54	540	983	0.67	665	1057	0.80	796
1400	**737**	**0.36**	**355**	842	0.48	481	932	0.61	610	1012	0.75	744	1085	0.89	881
1500	774	0.42	417	875	0.55	551	962	0.69	689	1041	0.83	830	1112	0.98	974
1600	811	0.49	487	909	0.63	629	994	0.78	774	1071	0.93	923	1141	1.08	1076
1700	849	0.57	565	943	0.72	715	1026	0.87	869	1101	1.03	1025	1170	1.19	1185
1800	887	0.65	651	978	0.81	810	1059	0.98	972	1133	1.14	1136	—	—	—
1900	926	0.75	746	1014	0.92	914	1092	1.09	1084	—	—	—	—	—	—
2000	965	0.86	852	1050	1.03	1028	—	—	—	—	—	—	—	—	—

Fan Performance PAH048 — Vertical Discharge Units; Standard Motor (Belt Drive)* (Cont.)

AIRFLOW	EXTERNAL STATIC PRESSURE (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
CFM	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	1100	0.85	845	1165	0.98	977	**1225**	**1.12**	**1112**	—	—	—	—	—	—
1300	1126	0.94	930	**1189**	**1.07**	**1069**	—	—	—	—	—	—	—	—	—
1400	1152	1.03	1023	**1215**	**1.17**	**1168**	—	—	—	—	—	—	—	—	—
1500	1179	1.13	1123	—	—	—	—	—	—	—	—	—	—	—	—
1600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTES:
1. **Bold cells** indicate field-supplied drive is required.
2. Maximum continuous bhp is 2.40.
3. See general fan performance notes.

LEGEND
Bhp — Brake Horsepower
Watts — Input Watts to Motor
*Motor drive range: 770 to 1185 rpm. All other rpms require field-supplied drive.

Fan Performance PAH060 — Vertical Discharge Units; Standard Motor (Belt Drive)*

AIRFLOW CFM	EXTERNAL STATIC PRESSURE (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	**790**	**0.40**	**353**	**897**	**0.53**	**471**	**991**	**0.68**	**600**	1075	0.83	739	1152	1.00	888
1600	**828**	**0.46**	**412**	**931**	**0.60**	**536**	**1022**	**0.75**	**670**	1104	0.92	813	1180	1.09	966
1700	**866**	**0.54**	**478**	**966**	**0.68**	**608**	1054	0.84	747	1134	1.01	895	1208	1.19	1053
1800	**905**	**0.62**	**551**	**1001**	**0.77**	**687**	1087	0.94	832	1165	1.11	985	1238	1.29	1148
1900	**944**	**0.71**	**633**	1037	0.87	774	1120	1.04	925	1197	1.22	1084	1268	1.41	1251
2000	**983**	**0.81**	**723**	1073	0.98	870	1154	1.16	1026	1229	1.34	1190	1299	1.53	1362
2100	**1023**	**0.92**	**821**	1110	1.10	975	1189	1.28	1137	1262	1.47	1306	1330	1.67	1483
2200	1063	1.05	929	1147	1.23	1089	1224	1.41	1256	1295	1.61	1431	1362	1.82	1614
2300	1104	1.18	1046	1185	1.37	1212	1260	1.56	1386	1329	1.76	1567	1395	1.98	1754
2400	1145	1.32	1174	1223	1.52	1346	1296	1.72	1526	1364	1.93	1712	1428	2.15	1905
2500	1185	1.48	1311	1262	1.68	1490	1333	1.89	1676	1399	2.10	1868	**1462**	**2.33**	**2067**

Fan Performance PAH060 — Vertical Discharge Units; Standard Motor (Belt Drive)* (Cont.)

AIRFLOW CFM	EXTERNAL STATIC PRESSURE (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	1224	1.18	1045	1291	1.36	1212	1354	1.56	1387	1414	1.77	1570	**1472**	**1.98**	**1761**
1600	1250	1.27	1128	1316	1.46	1299	1379	1.66	1478	1438	1.87	1664	**1495**	**2.09**	**1858**
1700	1278	1.37	1219	1343	1.57	1394	1405	1.77	1576	**1463**	**1.99**	**1766**	**1520**	**2.21**	**1964**
1800	1306	1.48	1318	1370	1.69	1497	1431	1.90	1683	**1489**	**2.11**	**1877**	**1545**	**2.34**	**2078**
1900	1335	1.61	1426	1398	1.81	1609	1458	2.03	1799	**1515**	**2.25**	**1997**	—	—	—
2000	1364	1.74	1542	1427	1.95	1730	**1486**	**2.17**	**1925**	**1542**	**2.39**	**2126**	—	—	—
2100	1395	1.88	1668	1456	2.09	1860	**1514**	**2.32**	**2060**	—	—	—	—	—	—
2200	1426	2.03	1804	**1486**	**2.25**	**2001**	—	—	—	—	—	—	—	—	—
2300	1457	2.19	1949	—	—	—	—	—	—	—	—	—	—	—	—
2400	**1489**	**2.37**	**2106**	—	—	—	—	—	—	—	—	—	—	—	—
2500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTES:
1. **Bold cells** indicate field-supplied drive is required.
2. Maximum continuous bhp is 2.40.
3. See general fan performance notes.

LEGEND
Bhp — Brake Horsepower
Watts — Input Watts to Motor
*Motor drive range: 1035 to 1460 rpm. All other rpms require field-supplied drive.

Fan Performance PAH036 — Horizontal Discharge Units; Standard Motor (Belt Drive)*

AIRFLOW CFM	EXTERNAL STATIC PRESSURE (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	**554**	**0.14**	**134**	681	0.22	222	783	0.32	316	870	0.42	416	947	0.53	523
1000	**583**	**0.16**	**163**	707	0.26	257	808	0.36	358	894	0.47	465	971	0.58	578
1100	**612**	**0.20**	**195**	735	0.30	298	834	0.41	406	919	0.52	519	995	0.64	638
1200	**643**	**0.23**	**233**	762	0.35	344	860	0.46	459	944	0.58	579	1020	0.71	705
1300	**674**	**0.28**	**276**	791	0.40	395	887	0.52	517	970	0.65	645	**1045**	**0.78**	**777**
1400	706	0.33	324	820	0.45	451	914	0.59	582	997	0.72	717	**1071**	**0.86**	**857**
1500	738	0.38	379	849	0.52	515	942	0.66	653	1024	0.80	796	**1097**	**0.95**	**942**

Fan Performance PAH036 — Horizontal Discharge Units; Standard Motor (Belt Drive)* (Cont.)

AIRFLOW CFM	EXTERNAL STATIC PRESSURE (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
900	1017	0.64	635	**1082**	**0.76**	**753**	**1143**	**0.88**	**876**	**1200**	**1.01**	**1004**	**1254**	**1.14**	**1136**
1000	1041	0.70	696	**1105**	**0.82**	**820**	**1166**	**0.95**	**948**	**1223**	**1.09**	**1081**	—	—	—
1100	**1065**	**0.77**	**763**	**1129**	**0.90**	**892**	**1189**	**1.03**	**1026**	**1245**	**1.17**	**1165**	—	—	—
1200	**1089**	**0.84**	**835**	**1153**	**0.98**	**971**	**1212**	**1.12**	**1111**	—	—	—	—	—	—
1300	**1114**	**0.92**	**915**	**1177**	**1.06**	**1056**	—	—	—	—	—	—	—	—	—
1400	**1139**	**1.01**	**1000**	**1202**	**1.15**	**1149**	—	—	—	—	—	—	—	—	—
1500	**1164**	**1.10**	**1093**	—	—	—	—	—	—	—	—	—	—	—	—

NOTES:
1. **Bold cells** indicate field-supplied drive is required.
2. Maximum continuous bhp is 1.20.
3. See general fan performance notes.

LEGEND
Bhp — Brake Horsepower
Watts — Input Watts to Motor
*Motor drive range: 680 to 1044 rpm. All other rpms require field-supplied drive.

Fan Performance PAH048 — Horizontal Discharge Units; Standard Motor (Belt Drive)*

AIRFLOW CFM	EXTERNAL STATIC PRESSURE (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	**643**	**0.23**	**233**	**762**	**0.35**	**344**	860	0.46	459	944	0.58	579	1020	0.71	705
1300	**674**	**0.28**	**276**	791	0.40	395	887	0.52	517	970	0.65	645	1045	0.78	777
1400	**706**	**0.33**	**324**	820	0.45	451	914	0.59	582	997	0.72	717	1071	0.86	857
1500	**738**	**0.38**	**379**	849	0.52	515	942	0.66	653	1024	0.80	796	1097	0.95	942
1600	771	0.44	440	879	0.59	584	971	0.74	731	1051	0.89	881	1124	1.04	1035
1700	804	0.51	507	910	0.66	661	1000	0.82	816	1079	0.98	974	1151	1.14	1136
1800	837	0.59	582	941	0.75	745	1029	0.91	909	1107	1.08	1075	—	—	—
1900	871	0.67	665	972	0.84	837	1059	1.02	1010	1136	1.19	1184	—	—	—
2000	906	0.76	756	1004	0.94	938	1089	1.12	1119	—	—	—	—	—	—

Fan Performance PAH048 — Horizontal Discharge Units; Standard Motor (Belt Drive)* (Cont.)

AIRFLOW CFM	EXTERNAL STATIC PRESSURE (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1200	1089	0.84	835	1153	0.98	971	**1212**	**1.12**	**1111**	—	—	—	—	—	—
1300	1114	0.92	915	1177	1.06	1056	—	—	—	—	—	—	—	—	—
1400	1139	1.01	1000	**1202**	**1.15**	**1149**	—	—	—	—	—	—	—	—	—
1500	1164	1.10	1093	—	—	—	—	—	—	—	—	—	—	—	—
1600	**1190**	**1.20**	**1193**	—	—	—	—	—	—	—	—	—	—	—	—
1700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTES:
1. **Bold cells** indicate field-supplied drive is required.
2. Maximum continuous bhp is 1.20.
3. See general fan performance notes.

LEGEND
Bhp — Brake Horsepower
Watts — Input Watts to Motor
*Motor drive range: 770 to 1185 rpm. All other rpms require field-supplied drive.

Fan Performance PAH060 — Horizontal Discharge Units; Standard Motor (Belt Drive)*

AIRFLOW CFM	EXTERNAL STATIC PRESSURE (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	**724**	**0.33**	**295**	**837**	**0.45**	**402**	**937**	**0.59**	**524**	**1028**	**0.74**	**660**	1111	0.91	808
1600	**757**	**0.39**	**343**	**866**	**0.51**	**455**	**962**	**0.65**	**580**	1050	0.81	719	1132	0.98	870
1700	**790**	**0.45**	**398**	**894**	**0.58**	**514**	**988**	**0.72**	**643**	1074	0.88	784	1154	1.06	938
1800	**823**	**0.52**	**458**	**924**	**0.65**	**579**	**1015**	**0.80**	**712**	1099	0.96	857	1177	1.14	1013
1900	**857**	**0.59**	**525**	**955**	**0.73**	**650**	1043	0.89	787	1125	1.05	936	1201	1.23	1096
2000	**892**	**0.67**	**599**	**986**	**0.82**	**729**	1072	0.98	870	1151	1.15	1022	1226	1.33	1185
2100	**927**	**0.77**	**680**	**1017**	**0.92**	**815**	1101	1.08	960	1178	1.26	1116	1251	1.44	1283
2200	**962**	**0.87**	**769**	1050	1.02	909	1131	1.19	1059	1206	1.37	1218	1277	1.56	1389
2300	**997**	**0.97**	**865**	1082	1.14	1010	1161	1.31	1165	1235	1.50	1329	1304	1.69	1503
2400	**1033**	**1.09**	**970**	1115	1.26	1120	1192	1.44	1279	1264	1.63	1448	1332	1.83	1625
2500	1069	1.22	1084	1149	1.39	1239	1223	1.58	1403	1293	1.77	1576	1360	1.98	1757

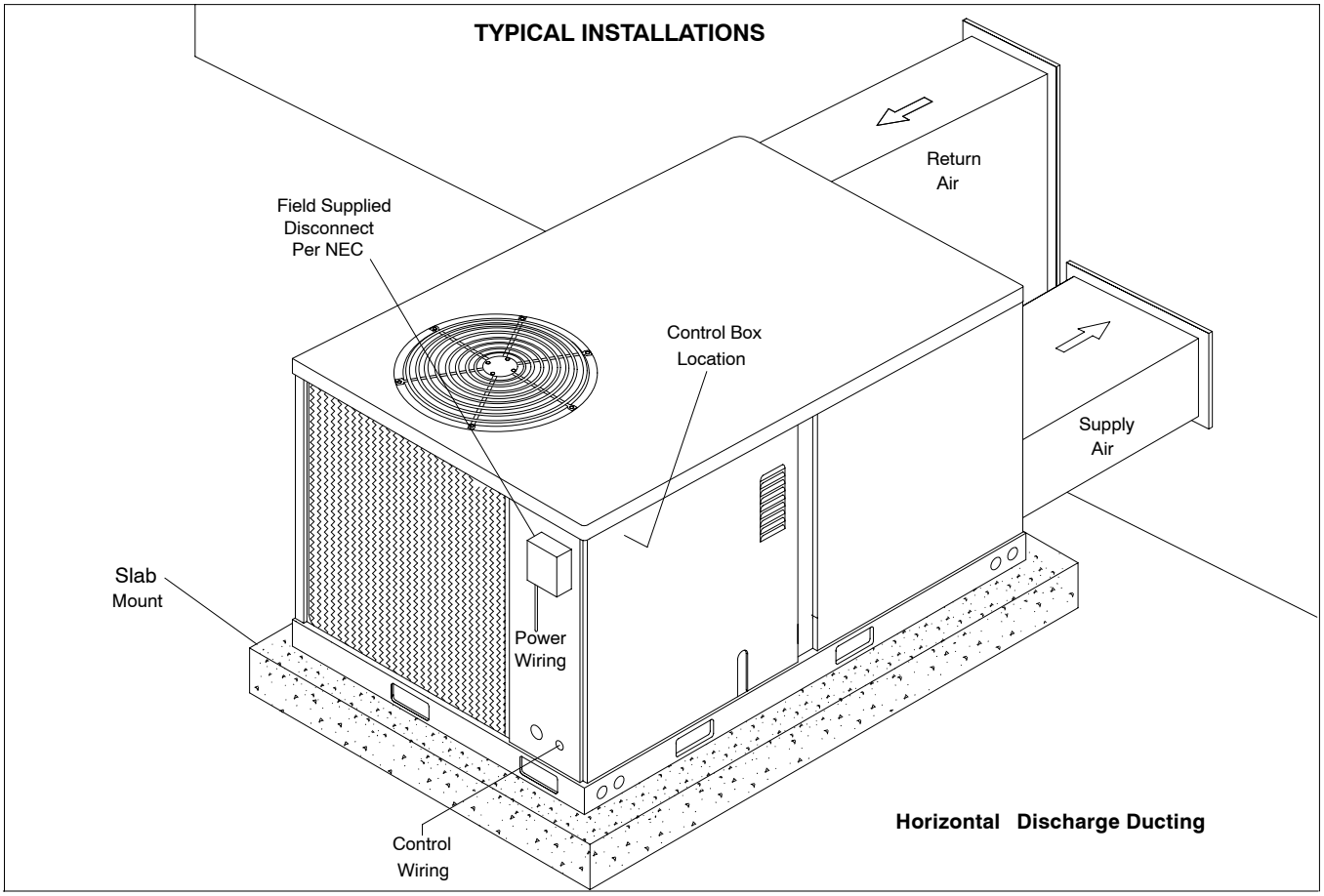
Fan Performance PAH060 — Horizontal Discharge Units; Standard Motor (Belt Drive)* (Cont.)

AIRFLOW CFM	EXTERNAL STATIC PRESSURE (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1500	1188	1.09	970	1261	1.29	1143	1330	1.49	1327	1395	1.71	1523	1457	1.95	1729
1600	1208	1.16	1033	1279	1.36	1208	1347	1.57	1394	1412	1.79	1590	**1474**	**2.02**	**1797**
1700	1229	1.24	1103	1299	1.44	1280	1366	1.65	1468	1429	1.88	1665	**1490**	**2.11**	**1873**
1800	1250	1.33	1181	1319	1.53	1360	1385	1.74	1549	1448	1.97	1748	**1508**	**2.20**	**1957**
1900	1273	1.43	1266	1341	1.63	1447	1405	1.84	1638	**1467**	**2.07**	**1839**	**1527**	**2.31**	**2050**
2000	1296	1.53	1359	1363	1.74	1542	1427	1.95	1736	**1488**	**2.18**	**1939**	—	—	—
2100	1320	1.64	1459	1386	1.85	1646	1448	2.07	1842	**1508**	**2.30**	**2047**	—	—	—
2200	1345	1.77	1568	1409	1.98	1758	**1471**	**2.20**	**1956**	—	—	—	—	—	—
2300	1371	1.90	1686	1434	2.11	1878	**1494**	**2.34**	**2080**	—	—	—	—	—	—
2400	1397	2.04	1812	1459	2.26	2008	—	—	—	—	—	—	—	—	—
2500	1424	2.19	1948	—	—	—	—	—	—	—	—	—	—	—	—

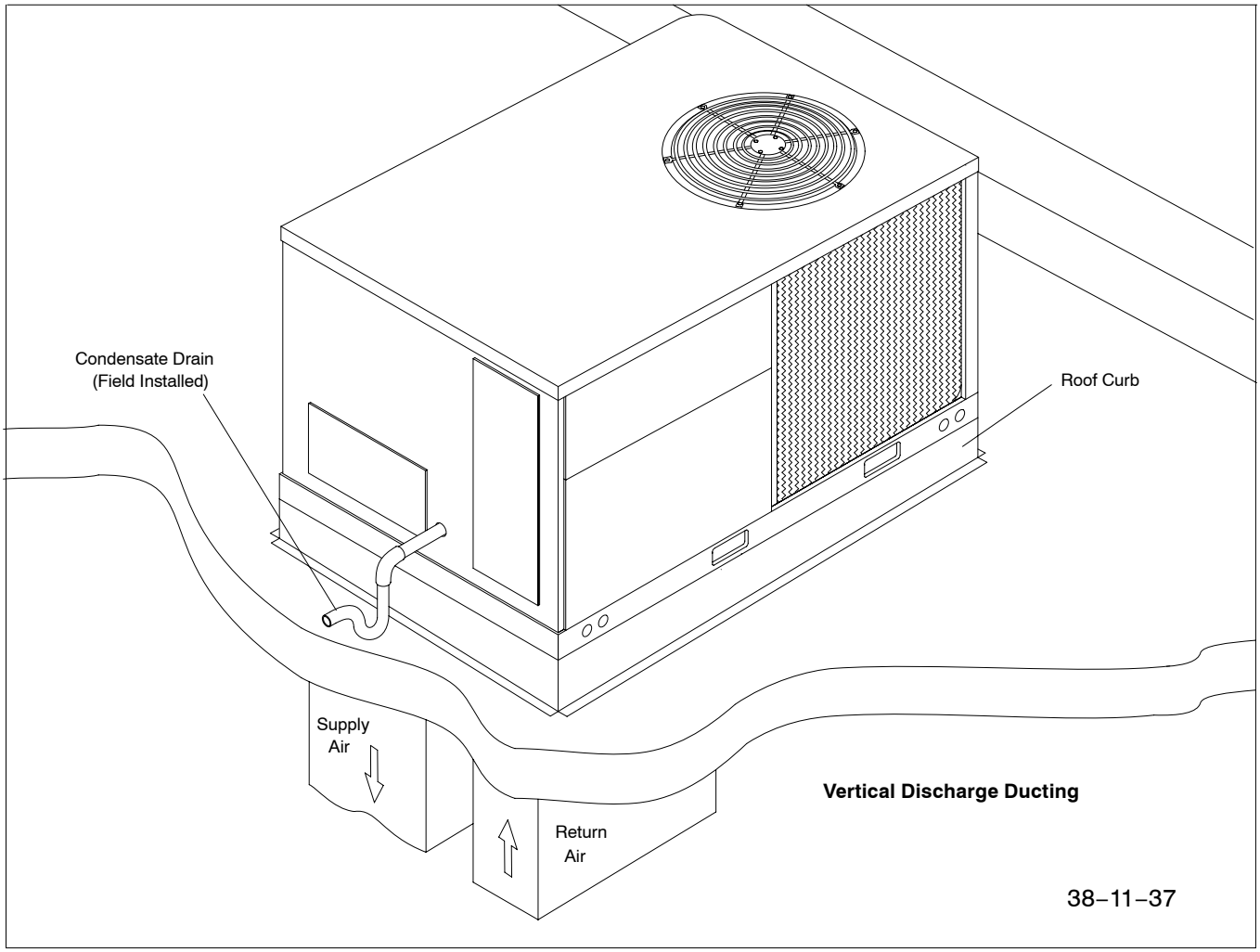
NOTES:
1. **Bold cells** indicate field-supplied drive is required.
2. Maximum continuous bhp is 2.40.
3. See general fan performance notes.

LEGEND
Bhp — Brake Horsepower
Watts — Input Watts to Motor
*Motor drive range: 1035 to 1460 rpm. All other rpms require field-supplied drive.

TYPICAL INSTALLATIONS



Horizontal Discharge Ducting



Vertical Discharge Ducting

38–11–37

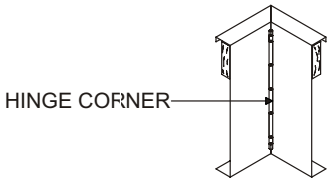
ACCESSORIES: PAH036 – 060 (575 V Only)

ROOF CURBS

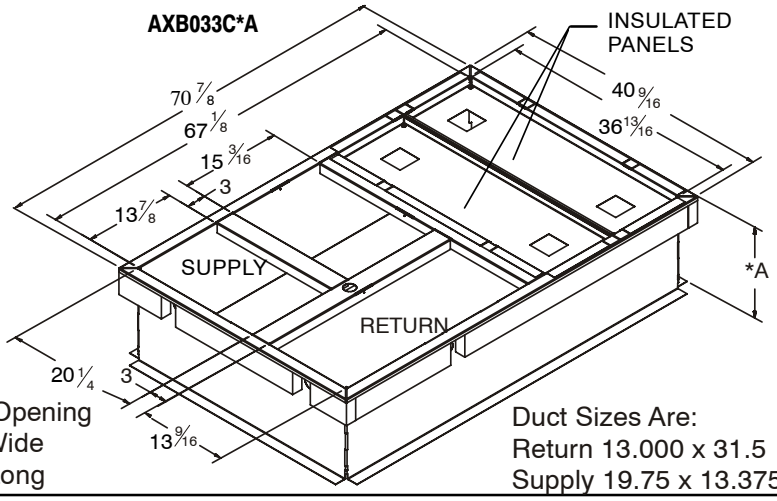
Description	Model Number	Where Used
8" High	AXB033CLA	3 – 5 Ton
14" High	AXB033CMA	3 – 5 Ton
24" High	AXB033CHA	3 – 5 Ton

CURB ADAPTORS (Used with AXB030C*A CURB)

Description	Model Number	Where Used
Without Ducts	AXB033CAA	3 – 5 Ton
With Ducts	AXB033CBA	3 – 5 Ton



AXB033C*A



Roof Opening
40" Wide
37" Long

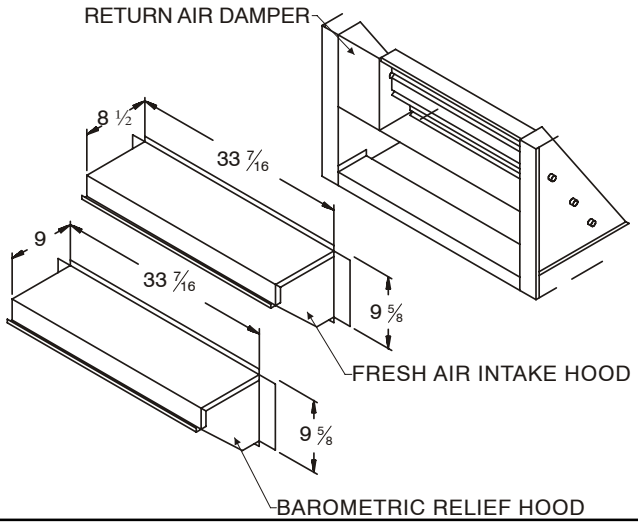
Duct Sizes Are:
Return 13.000 x 31.5
Supply 19.75 x 13.375

ECONOMIZER – DOWNFLOW

Description	Model Number	Where Used
Fully Modulating	AXB035EMA	3 – 5 Ton
Three Position	AXB035EPA	3 – 5 Ton
Three Position	DNECOMZR020A02 *	3 – 5 Ton

* Not Shown

AXB035E*A

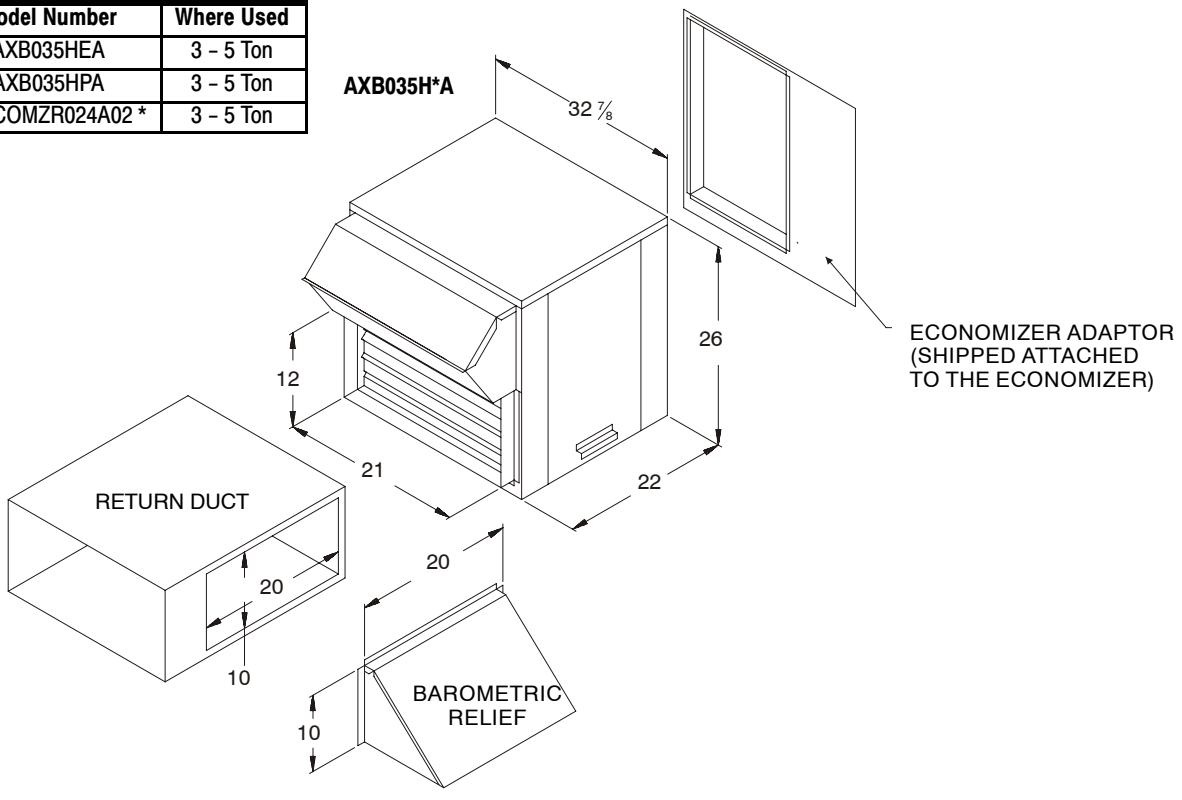


ECONOMIZER – HORIZONTAL

Description	Model Number	Where Used
Fully Modulating	AXB035HEA	3 – 5 Ton
Three Position	AXB035HPA	3 – 5 Ton
Three Position	DNECOMZR024A02 *	3 – 5 Ton

* Not Shown

AXB035H*A

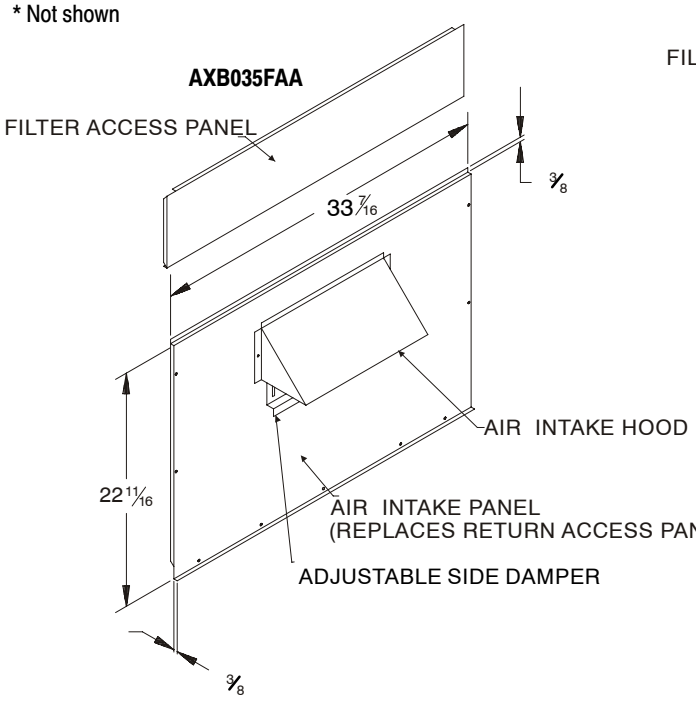


ACCESSORIES: PGH036 – 060 (575 V Only)

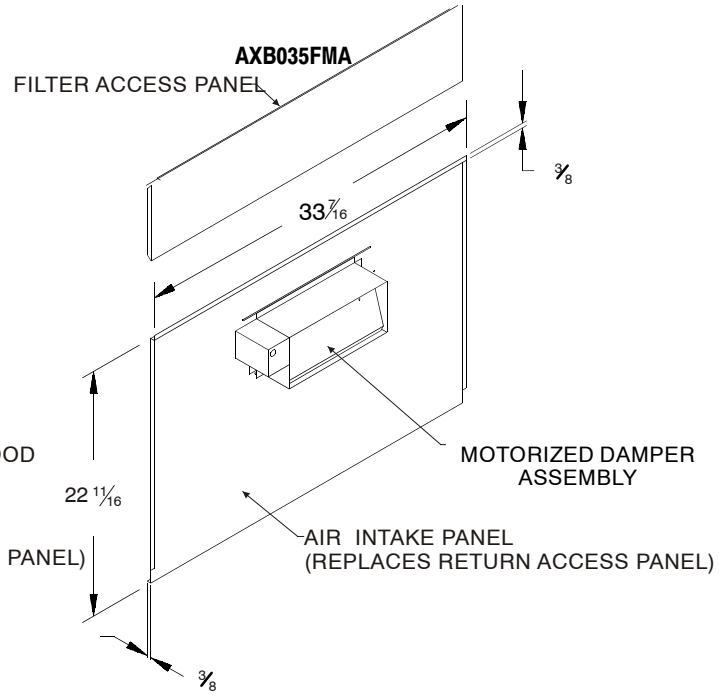
FRESH AIR DAMPER		
Description	**Model Number**	**Where Used**
Manual	AXB035FAA	3 – 5 Ton
Motorized	AXB035FMA	3 – 5 Ton
Manual	DNMANDPR001A03*	3 – 5 Ton

* Not shown

AXB035FAA

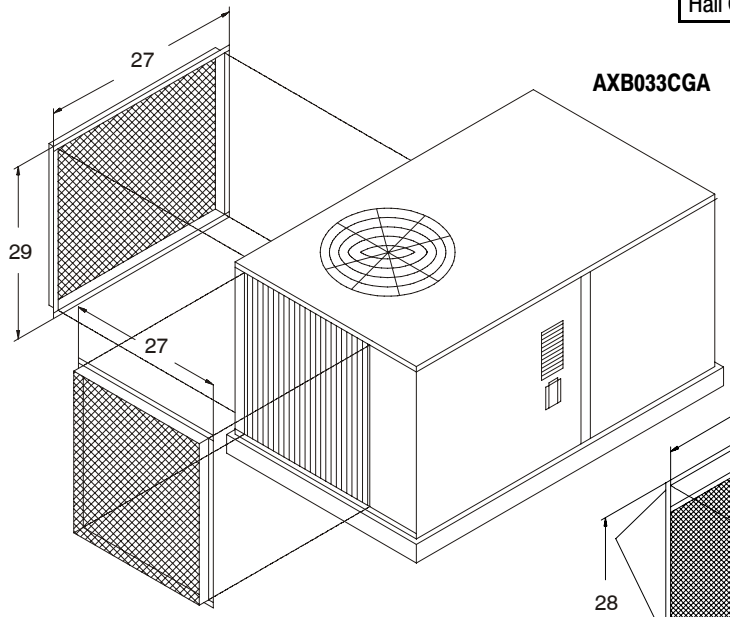


AXB035FMA

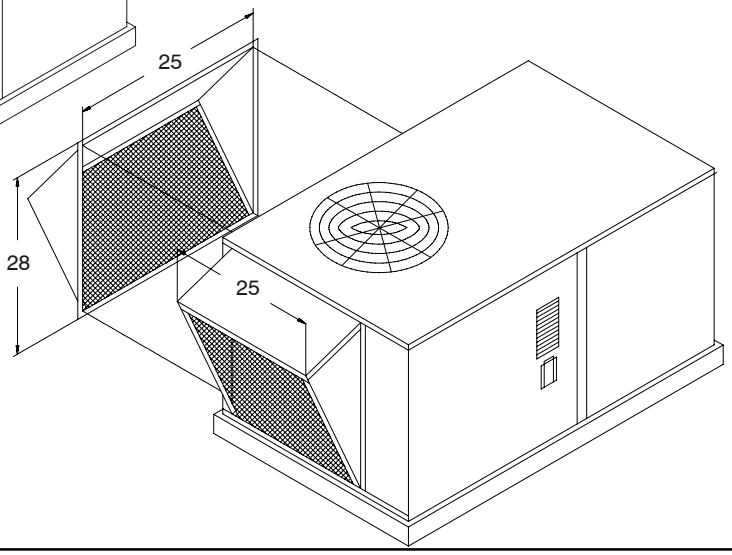


COIL PROTECTION		
Description	**Model Number**	**Where Used**
Coil Guard	AXB033CGA	3 – 5 Ton
Hail Guard	AXB033HGA	3 – 5 Ton

AXB033CGA



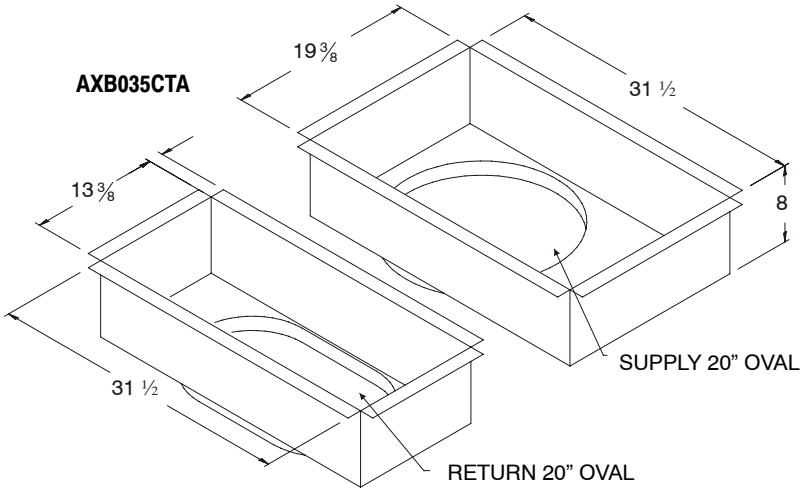
AXB033HGA



ACCESSORIES: PAH036 – 060 (575 V Only)

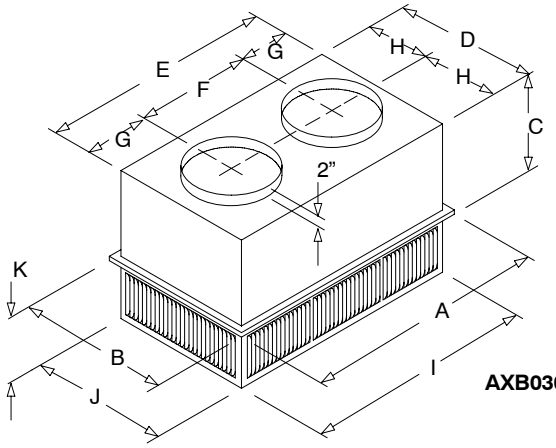
CONCENTRIC DUCT KIT		
Description	**Model Number**	**Where Used**
20" Round.	AXB035CTA	3 – 5 Ton

AXB035CTA



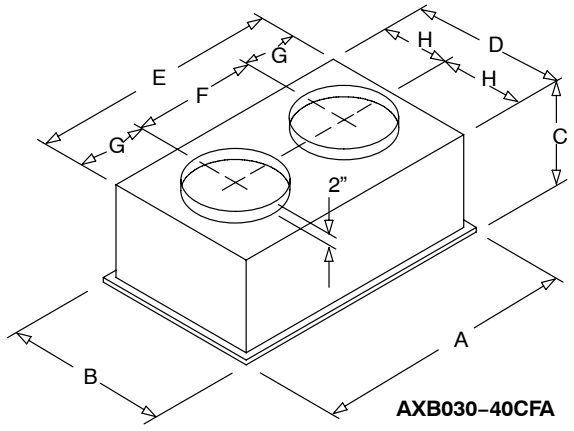
PERFORMANCE DATA ON NEXT PAGE

CONCENTRIC DIFFUSER		
Description	**Model Number**	**Used With**
Flush Mount	AXB030CFA	3 – 5 Ton
Flush Mount	AXB040CFA	3 – 5 Ton
Step Down	AXB030CSA	3 – 5 Ton
Step Down	AXB040CSA	3 – 5 Ton



AXB030–40CSA

CONCENTRIC DIFFUSER (Step Down)												
Model Number	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**Duct Size**
AXB030CSA	47-5/8	23-5/8	11-3/8	21-1/2	45-1/2	22-1/2	11-1/2	10-3/4	45-1/2	21-1/2	7-1/8	18" RD
AXB040CSA	47-5/8	29-5/8	14-3/8	27-1/2	45-1/2	22-1/2	11-1/2	13-3/4	45-1/2	27-1/2	8-1/8	20" RD



AXB030–40CFA

CONCENTRIC DIFFUSER (Flush Mount)									
Model Number	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**Duct Size**
AXB030CFA	47-5/8	23-5/8	13-1/2	21	45	22-1/2	11-1/4	10-1/2	18" RD
AXB040CFA	47-5/8	29-5/8	16-5/8	27	45	22-1/2	11-1/4	13-1/2	20" RD

ACCESSORIES: PAH036 – 060 (575 V Only)

CSA SERIES STEP–DOWN PERFORMANCE

Part No. AXB	CFM	Static Pressure In. WC	Throw Feet	Neck / Jet Velocity FPM	db Sound Levels
030CSA	1200	.17	11–18	421	20
	1400	.20	12–19	491	20
	1600	.24	12–20	561	20
	1800	.30	13–21	632	20
	2000	.36	14–23	702	20
	2200	.40	16–25	772	20
040CSA	2600	.17	24-29	669	20
	2800	.20	25-30	720	25
	3000	.25	27-33	772	25
	3200	.31	28-35	823	25
	3400	.37	30-37	874	30

CSA/CFA NOTES:
1. All data is based on the Air Diffusion Council guidelines.
2. Throw data is based on Terminal Velocities of 75 FPM using isothermal air.
3. Throw is based on diffuser blades being directed in a straight pattern.
4. Actual sound levels are less than those shown.
5. Minimum height 9' above floor.

CFA SERIES FLUSH MOUNT PERFORMANCE

Part No. AXB	CFM	Static Pressure In. WC	Throw Feet	Neck Velocity FPM	Jet Velocity FPM	db Sound Level
030CFA	1000	.14	15–20	391	694	20
	1200	.17	16–22	469	833	25
	1400	.20	17–24	547	972	30
	1600	.24	18–25	625	1111	30
	1800	.30	20–28	703	1250	35
	2000	.36	21–29	781	1389	40
	2200	.40	22–30	859	1528	40
040CFA	2600	.17	19-24	663	1294	30
	2800	.20	20-28	714	1393	35
	3000	.25	21-29	765	1492	35
	3200	.31	22-29	816	1592	40
	3400	.37	22-30	867	1692	40

LOW AMBIENT CONTROLS

Model Number	Description	Used With
AXB035LAA	Low Ambient Kit (0 Deg. F)	3 – 5 Ton

WINTER START KIT

Model Number	Description	Used With
DNWINSTR001A00	Low pressure switch bypass (time delay)	3 – 5 Ton

PHASE MONITOR CONTROL

Model Number	Description	Used With
DNPHASE3001A01	Electronic phase monitor breaks "R" control signal if trouble is detected	3 – 5 Ton

THROUGH–THE–BOTTOM CURB/POWER CONNECTION

Model Number	Description	Used With
DNBTMPWR001A01	Thru–the–bottom electrical	3 – 5 Ton
DNBTMPWR003A01	Thru–the–bottom electrical (AXB035PKA)	3 – 5 Ton

ECONOMIZER SENSORS*

Model Number	Description	Used With
DNTEMPSN002A00	Single or Differential Temp (dry bulb) Control	ALL Economizers With W7212 Controller
DNCBDIOX005A00	Single or Differential Temp (dry bulb) Control	ALL Economizers With W7212 Controller
DNENTDIF004A00	Return Air Enthalpy Sensor	ALL Economizers With W7212 Controller
AXB078ENT	Enthalpy Control	3 – 5 Ton

*For use with "DN" model economizers

ANTI–CYCLE TIMER

Model Number	Description	Used With
DNTIMEGD001A00	Five minute compressor delay	3 – 5 Ton

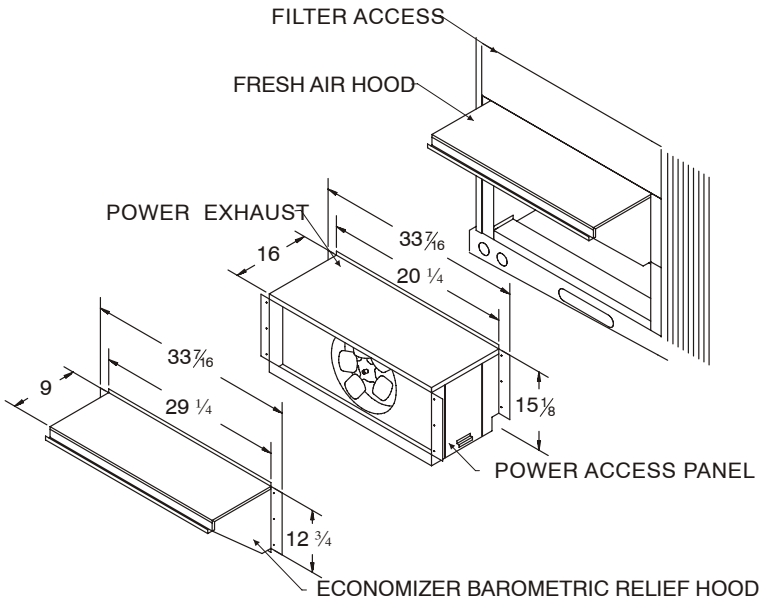
ACCESSORIES: PAH036 – 060 (575 V Only)

POWER EXHAUST		
Description	**Model Number**	**Where Used**
575 Volt	AXB035PES	3 – 5 Ton

POWER EXHAUST PERFORMANCE DATA

		Motor			Unit					@0.0		@0.3	
Model	**Volt/Phase/ Hertz**	**Qty**	**HP**	**RPM**	**Cir. Qty**	**LRA**	**FLA**	**MCA**	**Fuse Size**	**CFM**	**RPM**	**CFM**	**RPM**
AXB035PES	575/1/60	1	1	1625	1	4.1	1.7	2.2	4	2300	1625	2000	1625

NOTE: Power exhaust is wired single phase, drop third leg when installing.



OPERATING SEQUENCE

Cooling, Units Without Economizer When thermostat calls for cooling, terminals G and Y1 are energized. The indoor−fan contactor (IFC) and compressor contactor are energized and indoor− fan motor, compressor, and outdoor fan starts. The outdoor−fan motor runs continuously while unit is cooling.

APPLICATION DATA

1. **DUCTWORK** Secure vertical discharge ductwork to roof curb. For horizontal discharge applications, attach ductwork to unit, or field−supplied flanges can be attached to horizontal discharge openings and all ductwork attached to flanges.
2. **THRU−THE−BOTTOM UTILITY CONNECTIONS** An accessory kit is required for proper installation of thru−the−bottom connections.
3. **THERMOSTAT** Use of 2−stage cooling thermostat is recommended for all units with an economizer.
4. **AIRFLOW** Units are draw−thru on cooling and blow−thru on heating.
5. **MAXIMUM AIRFLOW** To minimize the possibility of condensate blow−off from evaporator, airflow through units should not exceed 500 cfm/ton.
6. **MINIMUM AIRFLOW** The minimum airflow for cooling is 300 cfm/ton.
7. **MINIMUM AMBIENT COOLING OPERATION TEMPERATURE** The cooling temperature for all units is 25 F.
8. **MAXIMUM OPERATING OUTDOOR−AIR TEMPERATURE** For cooling, this temperature is 125 F.
9. **INTERNAL UNIT DESIGN** Due to the PAH internal unit design (draw−thru over the motor), air path, and specially designed motors, the full horsepower (maximum continuous bhp) listed in the Physical Data table and the notes following each Fan Performance table can be utilized with extreme confidence. Using PAH motors with the values listed in the Physical and Fan Performance Data tables will not result in nuisance tripping or premature motor failure. The unit warranty will not be affected.

CABINET:

The cabinet shall be made of sturdy baked enamel coated galvanized steel. Base rails shall be 16 gauge steel and 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 air flow accomplished by relocating two panels.

Return air compartments shall be insulated with not less than 1/2” of water resistant coated glass fiber and not less than 1/2” of aluminum foil faced glass fiber in the furnace/supply compartments.

COOLING SECTION:

Units shall be factory charged and operationally ready. Each refrigeration 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 25ºF 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 onto the unit. The evaporator coil shall be protected from dust and debris on the return air side by factory installed 2” air filters.

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 have permanently lubricated sleeve bearings and inherent overload protection.

EVAPORATOR BLOWER:

The units shall have a single belt driven evaporator blower. The motor shall have permanently lubricated ball bearings and internal overload protection. An adjustable motor drive sheave for matching air flow requirements shall be standard.

International Comfort Products, LLC
Lewisburg, TN 37091 U.S.A.