

10 SEER R-22 PACKAGE AIR CONDITIONER, 3 – 5 Ton Single & Three Phase, 208/230-1-60, 208/230-3-60

REFRIGERATION CIRCUIT

- High efficiency compressors standard on all models
- Copper tube/aluminum fin condenser and evaporator coils

EASY TO INSTALL AND SERVICE

- Installs easily on a rooftop or at ground level
- Easy service access from side and rear

BUILT TO LAST

- Cleanable, foil-faced insulation
- Direct Drive PSC Fan motors with internal overload protection
- Pre-painted steel cabinet
- Vertical condenser fan discharge
- Rust-proof base with integral sloping drain



Model Number	Volt.-Ph-Hz	COOLING		Unit Dimensions H x W x D in [mm]	Operating Weight lbs [kg]
		Nominal Capacity BTU/h	SEER		
PAT036K00A	208/230-1-60	34,200	10.0	23 x 51 x 32 [584 x 1295 x 813]	250 [114]
PAT036H00A	208/230-3-60	34,200	10.0	23 x 51 x 32 [584 x 1295 x 813]	250 [114]
PAT048K00A	208/230-1-60	45,500	10.0	30 x 51 x 32 [762 x 1295 x 813]	310 [140]
PAT048H00A	208/230-3-60	45,500	10.0	30 x 51 x 32 [762 x 1295 x 813]	310 [140]
PAT060K00A	208/230-1-60	58,000	10.0	34 x 51 x 32 [867 x 1295 x 813]	350 [159]
PAT060H00A	208/230-3-60	58,000	10.0	34 x 51 x 32 [867 x 1295 x 813]	350 [159]

MODEL NUMBER IDENTIFICATION GUIDE

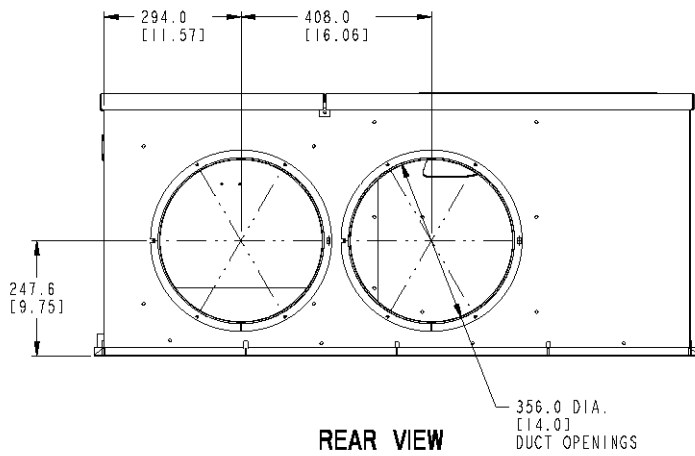
Product Family	SEER	Nominal Cooling Capacity BTU/h	Voltage	Option Code	Design Code	Eng. Rev. Code
PAT – Package Air Conditioner	0= 10	36 = 36,000 48 = 48,000 60 = 60,000	K = 208/230-1-60 H = 208/230-3-60	00 = Standard	A	1
Example: PAT	0	36	K	00	A	1

Physical data

UNIT SIZE	PAT0	36	48	60
OPERATING WEIGHT (lb/kg)		250 / 114	310 / 140	350 / 159
COMPRESSOR		Reciprocating	Scroll	Reciprocating
REFRIGERANT (R-22) QUANTITY (lb/kg)		4.2/1.9	5.5/2.5	6.9/3.1
REFRIGERANT METERING DEVICE		Fixed Orifice		
OUTDOOR FAN				
Nominal CFM		2800	2800	3300
Diameter (in./mm)		22/559	22/559	22/559
Motor HP (RPM)		1/8 (825)	1/8 (825)	1/4 (1100)
OUTDOOR COIL		Copper Tubes, Aluminum Plate Fins		
Rows...Fins/in		2...17	2...17	2...17
Face Area (sq. ft.)		6.2	8.6	10.7
CONDENSER-FAN TYPE		Propellor		
Condenser Fan Motor CFM		2000	2600	2800
Nominal RPM		1100	1100	1100
Motor Hp		1/4	1/4	1/4
Diameter in. (mm)		20	20	20
INDOOR COIL		Copper Tubes, Aluminum Plate Fins		
Rows...Fins/in		3...15	3...15	4...15
Face Area (sq. ft.)		3.1	4.3	4.9
INDOOR BLOWER		Direct Drive		
Blower Wheel Size – in. x in. (mm x mm)		10x8 (254x203)	10x9 (254x229)	10x10 (254x254)
Nominal Airflow (CFM)		1200	1650	1700
RPM Range		800-1050	1000-1100	950-1100
Number of Speeds		3	2	3
Factory Speed Setting		Low	Low	Low
Motor HP		1/2	3/4	1
CONNECTING DUCT SIZES		Round		Square
Supply Air – in.(mm)		14 (356)		14x14 (356x356)
Return Air – in. (mm)		14 (356)		14x28 (356x711)
RETURN-AIR FILTERS (in.) Throwaway*		24x24x1	24x30x1	24x30x1
RETURN-AIR FILTERS (mm) Throwaway*		610x610x25	610x762x25	610x762x25

*Required filter sizes shown are based on the ARI (Air Conditioning and Refrigeration Institute) rated airflow at a velocity of 300 ft/min for throwaway type or 450 ft/min for high capacity type. Recommended filters are 1-in. thick.

UNIT DIMENSIONS – PAT036



REQUIRED CLEARANCE TO COMBUSTIBLE MATL.

	INCHES [mm]
TOP OF UNIT.....	.0
DUCT SIDE OF UNIT.....	.0
SIDE OPPOSITE DUCTS.....	.0
BOTTOM OF UNIT.....	.0

NEC. REQUIRED CLEARANCES.

	INCHES [mm]
BETWEEN UNITS, POWER ENTRY SIDE.....	42.00 [1066.8]
UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE.....	36.00 [914.0]
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE.....	42.00 [1066.8]

REQUIRED CLEARANCE FOR OPERATION AND SERVICING

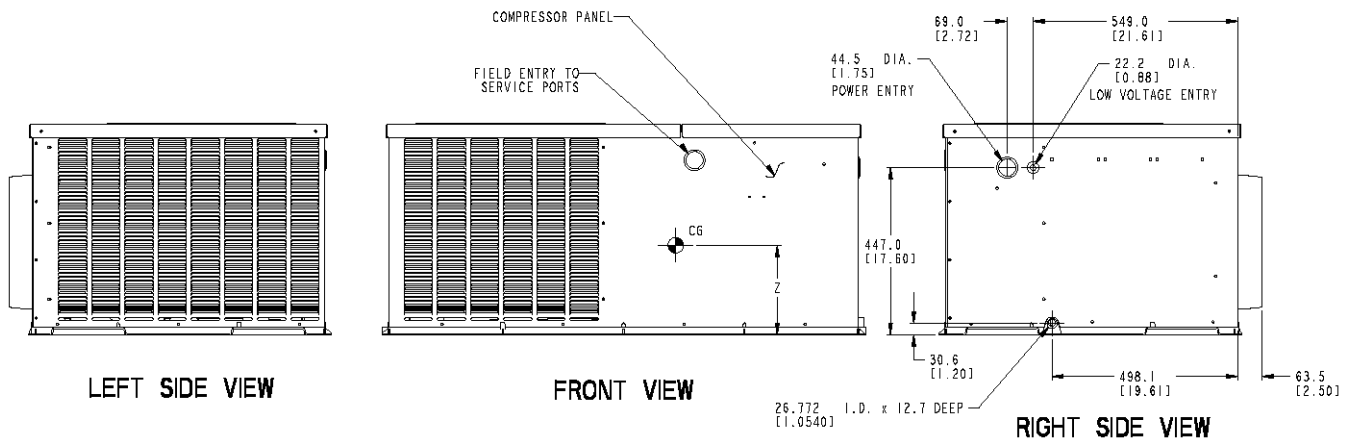
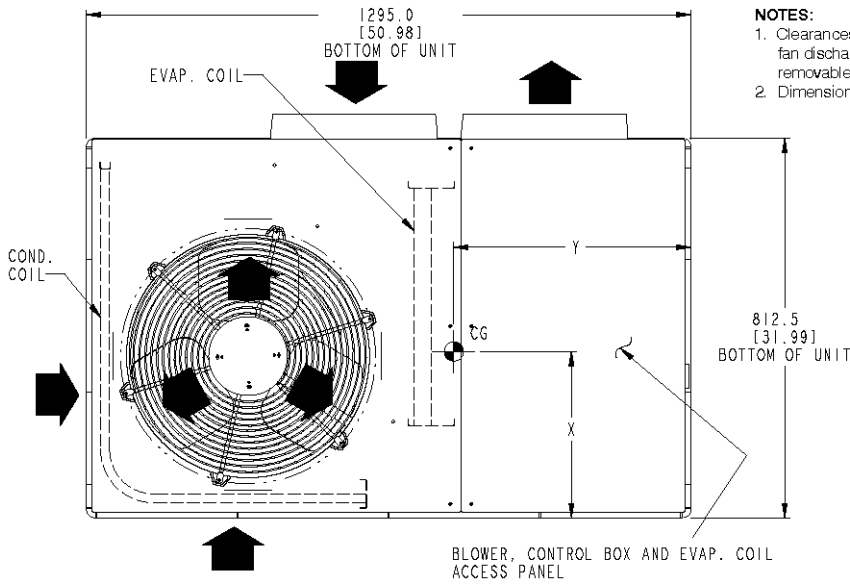
	INCHES [mm]
CONDENSER COIL ACCESS SIDE.....	30.00 [762.0]
POWER ENTRY SIDE.....	30.00 [762.0]
(EXCEPT FOR NEC REQUIREMENTS)	
UNIT TOP.....	48.00 [1219.2]
SIDE OPPOSITE DUCTS.....	30.00 [762.0]

LEGEND

NEC – National Electrical Code

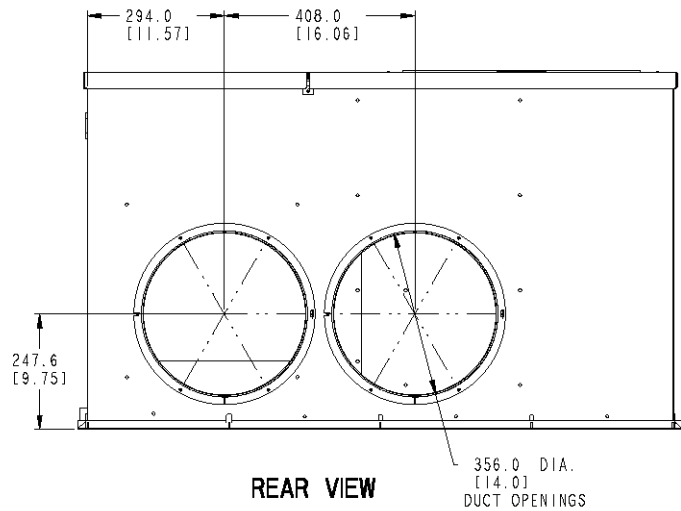
NOTES:

- Clearances must be maintained to prevent recirculation of air from outdoor-fan discharge, with the exception of the condenser coil (36.00 in [914.0 mm]). A removable fence or barricade requires no clearance.
- Dimensions are in inches. Dimensions in [] are in millimeters.



Model PATO	ELECTRICAL CHARACTERISTICS	UNIT WEIGHT		CENTER OF GRAVITY inches [mm]		
		lbs	kg	X	Y	Z
36	208/230-1-60, 208/230-3-60	250	114	14.0 [356]	20.0 [508]	19.5 [241]

UNIT DIMENSIONS – PAT048



REQUIRED CLEARANCE TO COMBUSTIBLE MATL.

TOP OF UNIT.....	INCHES [mm]
DUCT SIDE OF UNIT.....	0
SIDE OPPOSITE DUCTS.....	0
BOTTOM OF UNIT.....	0

NEC. REQUIRED CLEARANCES.

BETWEEN UNITS, POWER ENTRY SIDE.....	INCHES [mm]
UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE.....	42.00 [1066.8]
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE.....	42.00 [1066.8]

REQUIRED CLEARANCE FOR OPERATION AND SERVICING

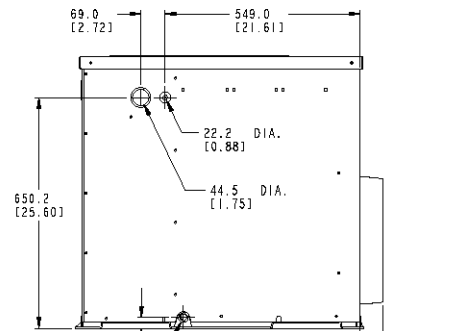
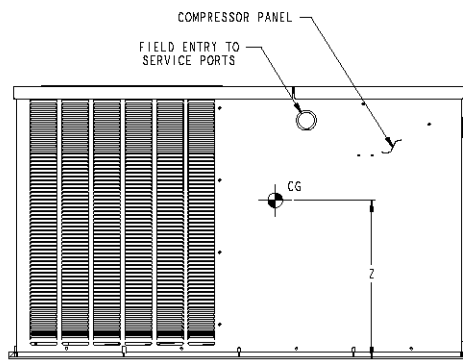
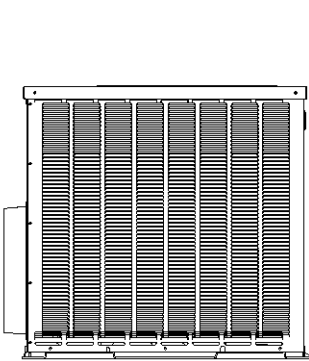
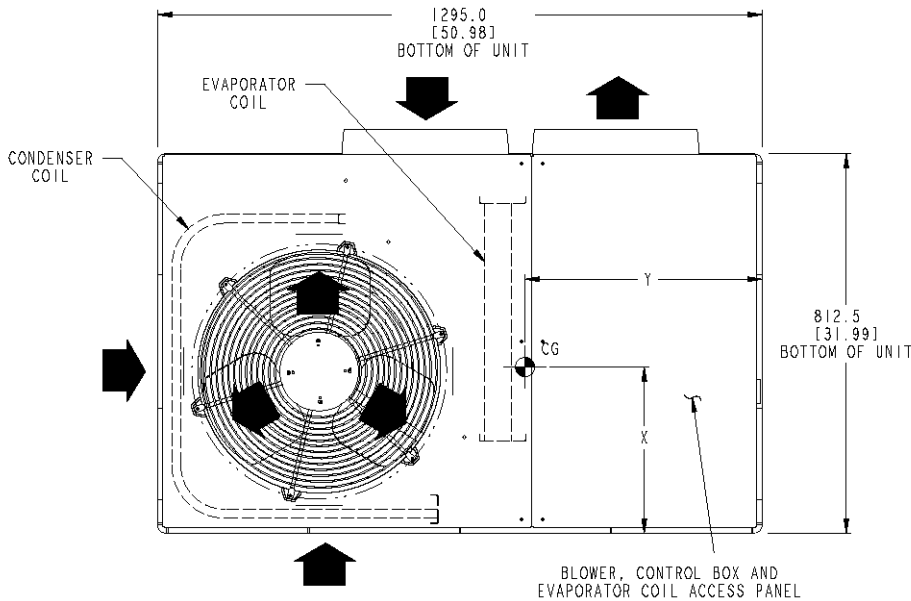
CONDENSER COIL ACCESS SIDE.....	INCHES [mm]
POWER ENTRY SIDE.....	30.00 [762.0]
(EXCEPT FOR NEC REQUIREMENTS)	
UNIT TOP.....	48.00 [1219.2]
SIDE OPPOSITE DUCTS.....	30.00 [762.0]

LEGEND

NEC – National Electrical Code

NOTES:

- Clearances must be maintained to prevent recirculation of air from outdoor-fan discharge, with the exception of the condenser coil (36.00 in [914.0 mm]). A removable fence or barricade requires no clearance.
- Dimensions are in inches. Dimensions in [] are in millimeters.

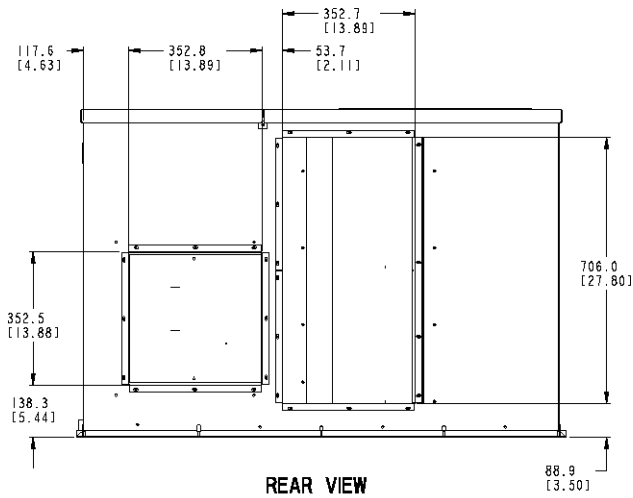


RIGHT SIDE VIEW

Model PATO	ELECTRICAL CHARACTERISTICS	UNIT WEIGHT		CENTER OF GRAVITY inches [mm]		
		lbs	kg	X	Y	Z
48	208/230-1-60, 208/230-3-60	310	141	14.0 [356]	20.0 [508]	12 [305]

UNIT DIMENSIONS – PAT060

DIMENSIONS IN [] ARE IN INCHES



REQUIRED CLEARANCE TO COMBUSTIBLE MATL.

	INCHES [mm]
TOP OF UNIT.....	0
DUCT SIDE OF UNIT.....	0
SIDE OPPOSITE DUCTS.....	0
BOTTOM OF UNIT.....	0

NEC. REQUIRED CLEARANCES.

	INCHES [mm]
BETWEEN UNITS, POWER ENTRY SIDE.....	42.00 [1066.8]
UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE.....	36.00 [914.0]
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE.....	42.00 [1066.8]

REQUIRED CLEARANCE FOR OPERATION AND SERVICING

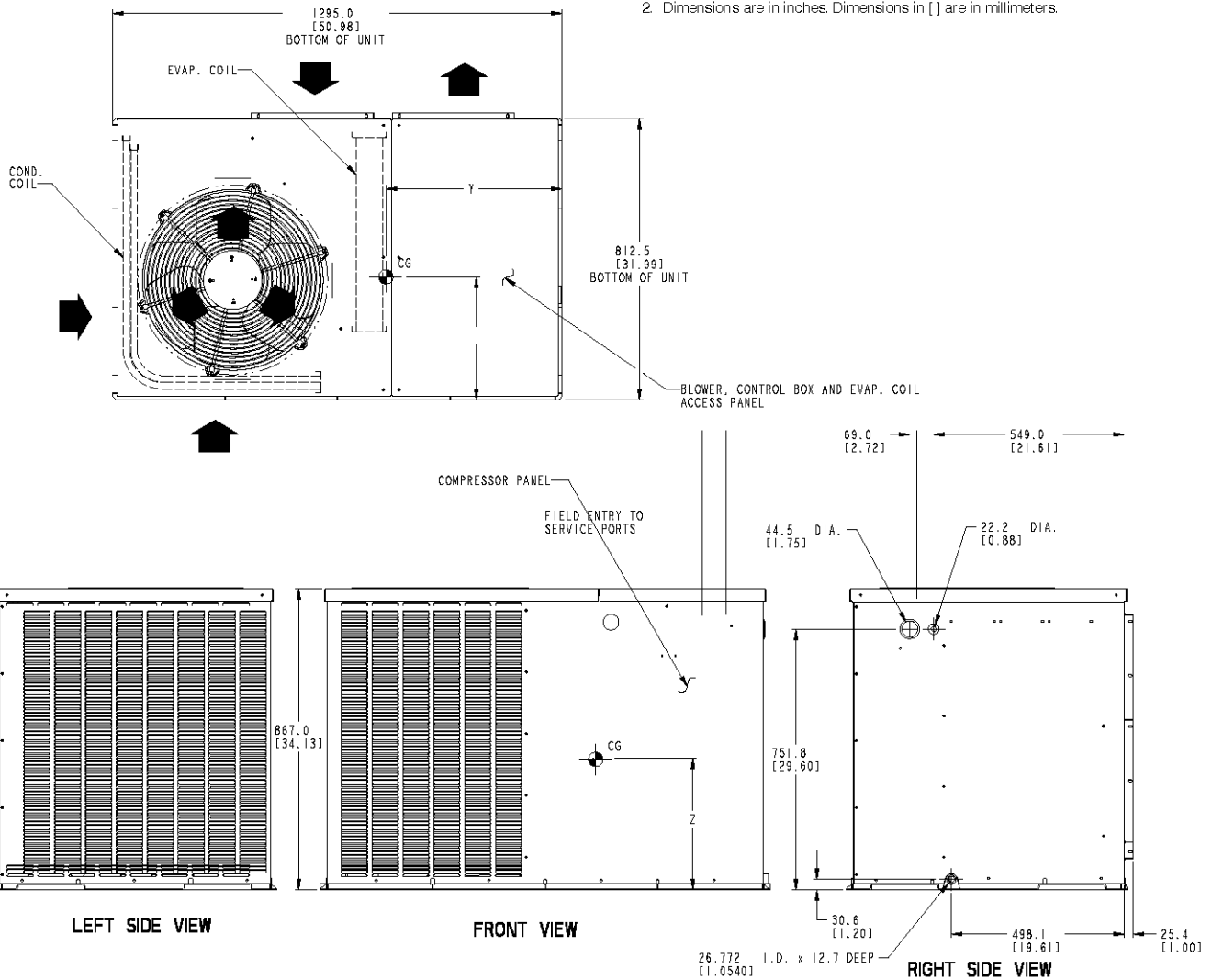
	INCHES [mm]
CONDENSER COIL ACCESS SIDE.....	30.00 [762.0]
POWER ENTRY SIDE.....	30.00 [762.0]
(EXCEPT FOR NEC REQUIREMENTS)	
UNIT TOP.....	48.00 [1219.2]
SIDE OPPOSITE DUCTS.....	30.00 [762.0]

LEGEND

NEC – National Electrical Code

NOTES:

- Clearances must be maintained to prevent recirculation of air from outdoor-fan discharge, with the exception of the condenser coil (36.00 in [914.0 mm]). A removable fence or barricade requires no clearance.
- Dimensions are in inches. Dimensions in [] are in millimeters.



Model PAT0	ELECTRICAL CHARACTERISTICS	UNIT WEIGHT		CENTER OF GRAVITY inches [mm]		
		lbs	kg	X	Y	Z
60	208/230-1-60, 208/230-3-60	350	159	14.0 [356]	20.0 [508]	14.0 [356]

Cooling capacities

PAT036														
EVAPORATOR AIR			CONDENSER AIR TEMPERATURE (F)											
			85		Comp kw	95		Comp kw	105		Comp kw	115		Comp kw
Cfm	BF	F Ewb	Capacity MBtuh			Capacity MBtuh			Capacity MBtuh			Capacity MBtuh		
			Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible				
1050	0.08	72	38.8	18.9	3.65	36.9	18.2	3.83	34.9	17.6	4.02	32.8	17.0	4.20
		67	35.7	24.5	3.53	33.7	23.8	3.71	31.7	23.0	3.88	29.7	22.4	4.05
		62	32.3	29.6	3.42	30.5	28.7	3.59	28.6	27.7	3.75	26.8	26.7	3.91
1200	0.10	72	39.6	19.7	3.74	37.5	19.1	3.92	35.5	18.6	4.11	33.0	17.7	4.27
		67	36.2	26.0	3.61	34.2	25.3	3.79	32.1	24.5	3.96	30.1	23.8	4.14
		62	33.0	31.5	3.15	31.1	30.5	3.67	29.3	29.3	3.84	27.7	27.7	4.03
1350	0.11	72	39.7	20.3	3.80	37.8	19.9	3.99	35.6	19.1	4.17	33.4	18.5	4.36
		67	36.8	27.6	3.70	34.6	26.7	3.87	32.5	25.9	4.03	30.4	25.2	4.21
		62	33.5	33.2	3.59	31.8	31.8	3.76	30.2	30.2	3.94	28.5	28.5	4.13

PAT048														
EVAPORATOR AIR			CONDENSER AIR TEMPERATURE (F)											
			85		Comp kw	95		Comp kw	105		Comp kw	115		Comp kw
Cfm	BF	F Ewb	Capacity MBtuh			Capacity MBtuh			Capacity MBtuh			Capacity MBtuh		
			Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible				
1400	0.06	72	45.0	20.7	4.42	46.7	22.8	4.88	45.5	23.1	5.23	42.6	22.3	5.48
		67	43.8	29.4	4.41	43.6	30.8	4.77	41.1	30.1	5.03	38.1	29.2	5.26
		62	41.7	37.8	4.34	39.6	37.4	4.60	37.1	36.4	4.85	34.6	34.6	5.09
1600	0.07	72	43.2	19.8	4.42	45.9	22.1	4.89	45.8	23.9	5.33	42.9	23.4	5.59
		67	42.2	28.4	4.42	45.5	32.1	4.86	41.5	32.0	5.14	38.5	31.2	5.38
		62	41.5	38.9	4.42	40.1	39.5	4.72	38.0	38.0	4.98	35.7	35.7	5.25
1800	0.08	72	41.5	19.8	4.44	43.6	21.4	4.90	45.1	24.1	5.38	43.2	24.4	5.70
		67	40.7	27.6	4.43	42.7	32.1	3.90	41.7	33.7	5.25	38.7	33.0	5.49
		62	40.1	37.4	4.44	40.5	40.4	4.83	38.9	38.8	5.12	36.7	36.6	5.39

PAT060														
EVAPORATOR AIR			CONDENSER AIR TEMPERATURE (F)											
			85		Comp kw	95		Comp kw	105		Comp kw	115		Comp kw
Cfm	BF	F Ewb	Capacity MBtuh			Capacity MBtuh			Capacity MBtuh			Capacity MBtuh		
			Total	Sensible	Total	Sensible	Total	Sensible	Total	Sensible				
1750	0.06	72	65.5	30.8	6.22	65.0	31.4	6.78	61.7	30.4	7.22	57.9	29.2	7.60
		67	62.2	41.7	6.16	58.6	40.5	6.55	55.3	39.0	6.87	51.7	37.8	7.27
		62	54.5	48.2	5.80	52.4	47.8	6.21	49.5	46.9	6.60	46.3	45.6	6.97
2000	0.07	72	63.4	30.3	6.23	65.3	32.4	6.90	62.5	32.0	7.38	58.5	30.5	7.75
		67	63.0	44.1	6.30	59.0	43.2	6.72	55.7	41.2	7.01	52.5	40.4	7.43
		62	52.8	47.4	5.82	53.0	50.7	6.35	50.4	49.8	6.76	47.7	47.6	7.17
2250	0.08	72	61.2	29.2	6.23	64.3	32.5	6.95	62.9	33.2	7.51	58.9	31.8	7.88
		67	63.7	46.5	6.43	60.3	45.7	6.86	56.0	43.2	7.14	52.8	42.9	7.57
		62	50.8	46.1	5.84	53.1	52.3	6.47	51.4	51.3	6.93	49.0	49.0	7.37

LEGEND
 BF — Bypass Factor
 Ewb — Entering Wet-Bulb
 kW — Total Unit Power Input
 SHC — Sensible Heat Capacity (1000 Btuh)
 TC — Total Capacity (1000 Btuh) (net)

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

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

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

Where: h_{ewb} = Enthalpy of air entering evaporator coil. The SHC is based on 80° F (26.7°C) edb temperature of air entering indoor coil.
 Below 80° F (26.7°C) edb, subtract (corr factor x cfm) from SHC.
 Above 80° F (26.7°C) edb, add (corr factor x cfm) to SHC.
 Correction Factor = 1.10 x (1 - BF) x (edb - 80).

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

Wet Coil Pressure Drop		
UNIT PATO	AIRFLOW (CFM)	PRESSURE DROP (IN. WG)
36	1000	0.07
	1200	0.09
	1400	0.11
	1600	0.12
48	1400	0.07
	1600	0.08
	1800	0.09
60	1700	0.07
	1800	0.08
	2100	0.09
	2300	0.10

Filter Pressure Drop							
FILTER SIZE	CFM						
	1000	1100	1200	1300	1400	1500	1600
	Pressure Drop (inches water column)						
24 x 24 x 1	0.09	0.09	0.10	0.11	0.12	0.14	0.15
24 x 30 x 1	—	—	—	0.08	0.09	0.10	0.11
FILTER SIZE	CFM						
	1700	1800	1900	2000	2100	2200	2300
	Pressure Drop (inches water column)						
24 x 24 x 1	—	—	—	—	—	—	—
24 x 30 x 1	0.12	0.13	0.14	0.15	0.16	0.17	0.18

Dry Coil Air Delivery* Horizontal Discharge (Deduct 10% for 208 Volt Operation)											
Unit PATO	Motor Speed	Air Delivery	External Static Pressure (in. wg)								
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
36	Low	Watts	450	435	420	400	380	335	326	311	-
		Cfm	1231	1218	1204	1120	1008	950	863	751	-
	Med	Watts	470	450	445	410	388	359	338	321	-
		Cfm	1302	1264	1205	1163	1081	940	873	783	-
	High	Watts	660	635	610	575	540	505	485	460	-
		Cfm	1700	1660	1581	1450	1297	1190	1095	999	-
48	Low	Watts	-	-	801	760	730	688	650	600	570
		Cfm	-	-	1898	1841	1757	1682	1564	1429	1365
	High	Watts	-	-	870	842	818	782	696	632	628
		Cfm	-	-	2000	1903	1799	1718	1625	1446	1333
60	Low	Watts	890	850	810	790	735	680	580	480	422
		Cfm	1834	1820	1791	1762	1703	1640	1415	1159	950
	Med	Watts	1040	1018	1000	950	890	835	790	650	580
		Cfm	2230	2102	2025	1960	1901	1855	1752	1468	1121
	High	Watts	1073	1038	1001	958	896	840	800	691	575
		Cfm	2230	2202	2160	2122	2052	1926	1791	1588	1202

* Air delivery values are based on operating voltage of 230 v, dry coil, without filter or electric heater. Deduct wet coil, filter and electric heater pressure drops

Do not operate the unit at a cooling airflow that is less than 350 cfm for each 12,000 Btuh of rated cooling capacity. Evaporator coil frosting may occur at airflows below this point.

Dashes indicate portions of the table that are beyond the blower motor capacity or are not recommended.

Electrical Data											
UNIT PATO	V-Ph-Hz	VOLTAGE RANGE		COMPRESSOR		OFM	IFM	POWER SUPPLY		DISCONNECT SIZE	
		Min	Max	RLA	LRA	FLA	FLA	MCA	MOCP	FLA	LRA
36	208/230-1-60	187	254	16.0	82	1.5	2.8	24.3	40	23/23	96
	208/230-3-60	187	254	10.6	78	1.5	2.8	17.6	25	15/15	74
48	208/230-1-60	187	254	20.4	137	1.5	3.2	30.4	50	31/31	121
	208/230-3-60	187	254	13.9	83	1.5	3.2	22.1	30	21/21	87
60	208/230-1-60	207	254	28.8	147	1.5	5.8	43.3	60	41	164
	208/230-3-60	187	254	19.7	114	1.5	5.8	31.9	40	27/27	131

LEGEND

- FLA — Full Load Amps
- HACR — Heating, Air Conditioning and Refrigeration
- IFM — Indoor-Fan Motor
- LRA — Locked Rotor Amps
- MCA — Minimum Circuit Amps
- MOCP — Maximum Overcurrent Protection (fuses or HACR-type circuit breaker)
- NEC — National Electrical Code
- OFM — Outdoor-Fan Motor
- RLA — Rated Load Amps
- UL — Underwriters Laboratories

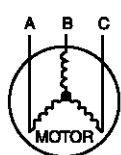
NOTES:

1. In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. The UL, Canada, 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 of voltage imbalance.

% Voltage imbalance

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

EXAMPLE: Supply voltage is 460-3-60.



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

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

Determine maximum deviation from average voltage.

- (AB) 457 - 452 = 5 v
- (BC) 464 - 457 = 7 v
- (AC) 457 - 455 = 2 v

Maximum deviation is 7 v.

Determine percent of voltage imbalance.

$$\begin{aligned} \% \text{ Voltage Imbalance} &= 100 \times \frac{7}{457} \\ &= 1.53\% \end{aligned}$$

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.



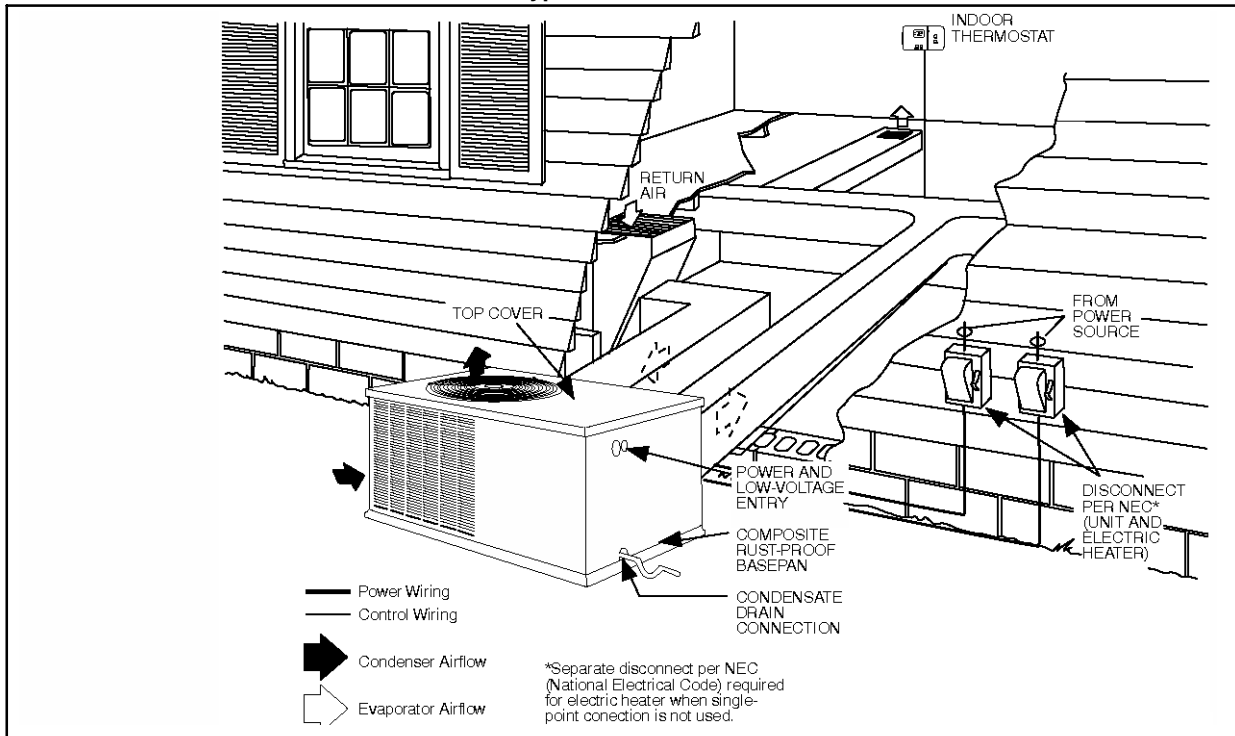
Operating sequence

COOLING

NOTE: With the FAN switch in the ON position, 24 v is supplied to the time-delay relay (TDR) through the G terminal on the thermostat. This voltage energizes the coil of the relay, closing the normally-open set of contacts which provide continuous power to the indoor (evaporator) fan motor (IFM). Moving the FAN switch back to the AUTO position (providing there is not a call for cooling) de-energizes the TDR (when applicable) which de-energizes the IFM after a 30-second delay. The FAN switch in AUTO position cycles upon a call for cooling.

On a call for cooling, 24 v is supplied to the compressor contactor (C) and TDR simultaneously through the Y and G terminals of the thermostat, respectively. On units with a compressor TDR, there is a built-in, 5-minute 45 seconds delay between compressor starts. Energizing the contactor closes the normally-open set of contacts supplying power to both the compressor and outdoor (condenser) fan motor (OFM). Energizing the TDR closes the normally-open set of contacts providing power to the IFM. On the loss of the call for cooling, 24 v is removed from both the Y and G terminals of the thermostat (providing the FAN switch is in the AUTO position), de-energizing both the compressor and TDR and opening both the contacts supplying power to compressor/OFM. IFM has a 30-second delay.

Typical Installation



Engineers' Specification Guide

GENERAL: Furnish and install outdoor package, electrically controlled, air conditioner utilizing a reciprocating compressor for cooling duty. Unit shall discharge supply air horizontally or vertically as shown on contract drawings.

Nominal unit electrical characteristics shall be _____ v, _____ ph, 60 Hz. The unit shall be capable of satisfactory operation within voltage limits of _____ v to _____ v. Unit power wiring shall enter unit cabinet at a single location. Separate power supply shall not be required for electric heat.

COOLING CAPACITY: Total cooling capacity of the unit shall be _____ Btuh or greater, and sensible capacity shall be _____ Btuh or greater at conditions of _____ cfm indoor air entering unit at _____ °F dry bulb, _____ °F wet bulb and outdoor entering air of _____ °F dry bulb. Total design conditions shall be a minimum of _____ Btuh/Watt. The unit shall be capable of cooling operation down to 40° F as shipped from the factory.

CABINET: Unit cabinet shall be constructed of phosphated, bonderized, zinc-coated, prepainted steel. Basepan shall be made of a single-piece non-corrosive, composite material.

Evaporator-fan compartment interior cabinet surfaces shall be insulated with a minimum 1/2-in. thick, flexible fiberglass insulation, coated on the air side with aluminum foil.

Cabinet panels shall be easily removable for servicing.

Outdoor coil shall be protected by metal louvered panels.

COMPRESSOR: Compressor shall be fully hermetic type with external vibration isolation.

CONDENSER SECTION: Condenser fan shall be of the direct-driven propeller type with aluminum blades, riveted to corrosion-resistant steel spiders, and shall be dynamically balanced and discharge air horizontally or vertically upwards.

Condenser coils shall have aluminum-plate fins mechanically bonded to seamless copper tubes with all joints brazed.

Tube sheet openings shall be belled to prevent tube wear.

EVAPORATOR SECTION: Fan shall be 2 or 3-speed with direct drive motor as shown on the equipment drawings.

Fan wheel shall be made from steel, be double-inlet type with forward-curved blades with a corrosion-resistant finish and dynamically balanced.

Evaporator coils shall have aluminum-plate fins mechanically bonded to seamless copper tubes with all joints brazed.

Tube sheet openings shall be belled to prevent tube wear.

MOTORS: Compressor motors shall be of the refrigerant-cooled type with line break thermal and current overload protection.

All fan motors shall have permanently lubricated bearings, and inherent automatic reset thermal overload protection.

Condenser fan motor shall be open drip-proof.

REFRIGERANT SYSTEM: Refrigerant system shall include fixed orifice metering system.

CONTROLS: Unit shall be complete with self-contained low-voltage control circuit.

APPROVALS: Unit shall be UL listed as a total package for safety requirements. All wiring shall be in accordance with NEC.

Unit shall be rated in accordance with ARI Standards 210/240.

Cabinet insulation shall conform to ASHRAE No. 62P.

Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

Unit shall have a sloped drain pan that conforms to ASHRAE Standard 62-89.