



# HIGH EFFICIENCY PACKAGED AIR CONDITIONERS

Cooling Capacities: 23,000 to 56,500 BTUH  
SEER: 10.00 to 11.00

## Cooling Efficiency Ratings

MODEL	PHASE	BTUH	SEER
P1124A3	1	23,000	11.0
P1130A2	1	30,000	11.0
P1136A2	1	35,500	11.0
P1136A1	3	35,500	11.0
P1142A3	1	40,500	11.0
P1148A2	1 and 3	46,500	11.0
P1060A1	1 and 3	56,500	10.0

Tested and Certified in accordance with ARI Standard 210/240-2003.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.



Basic model P1136A2 shown with Electric Heater Package



P11 SERIES



P10 SERIES



CERTIFIED



## Engineered Features

### Optional Field Installed Electric Heat Strips:

With automatic limit and thermal cut-off.

- Field-installed heater package for all models.
- Features slide-in field assembly with various BTUH outputs.
- Permits stocking of only one unit.

### Aluminum Finned Copper Coil:

Surfaces expel heat efficiently as required by system.

### Electrical Components and Controls

Accessible for easier service.

### 20 Gauge Zinc Coated Galvanneal Steel Cabinet:

Heavily insulated for sound absorption and more efficiency. Cleaned, rinsed, sealed and dried before the polyurethane primer is applied. The cabinet is handsomely finished with a baked on textured enamel which allows it to withstand 1000 hours of salt spray exposure.

### High Pressure Switch:

Built-in with a lock out circuit that resets from the room thermostat.

### High Efficiency Scroll Compressor:

**Energy Efficient** - The scroll compressor offers a smooth, continuous compression process with very few flow losses. In addition, it requires no valves and, therefore, eliminates all valve losses. Finally, unlike a piston, the scroll compressor's suction and discharge gas are separate. The net result is higher energy efficiency than piston technology.

**Volumetric Efficiency:** Scroll has no re-expansion volume, which increases compressor capacity in high compression ratio operating conditions.

**Sound:** Scroll's low gas pulses, combined with the elimination of valves (and associated valve noise), result in a smooth and quiet compression process.

### 5 Minute Compressor

#### Time Delay:

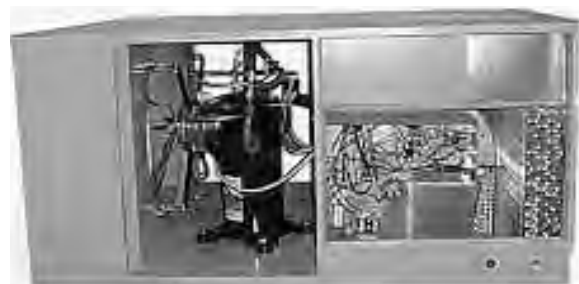
Provides short cycle protection. There is a 5-minute delay on break that prevents short cycling and assures pressures are equalized before trying to restart the compressor.

### Outdoor Fan:

Efficiently moves air quietly for effective heat exchange.

### Solid State Blower Control:

Controls indoor blower to provide maximum efficiency.



**NOTE:** All models have controls and electrical components on this side.

## Specifications – 2 through 3-1/2 Ton

MODEL	P1124A3	P1130A2	P1136A2	P1136A1-B	P1136A1-C	P1142A3
Cooling Capacity BTUH	23,000	30,000	35,500	35,500	35,500	40,500
Heating Capacity BTUH	SEE ELECTRIC HEAT TABLE NO. 1 AND NO. 2					
<b>Electric Rating - Volts &amp; Phase - 60Hz - Ckt. A</b>	230/208-1	230/208-1	230/208-1	230/208-3	460-3	230/208-1
Operating Voltage Range	197-253	197-253	197-253	187-253	414-506	197-253
Minimum Circuit Ampacity	16	21	25	18	12	29
Branch Circuit Selection Current	10.3	13.6	16	11	6	18.5
Field Wire Supply **	12	10	10	12	14	8
Max. Fuse or HACR Circuit Breaker Size*	25	30	40	25	15	45
Total Unit Amps -- 230/208	11.8/12.3	15.4/16.9	17.1/18.7	12.3/12.9	7.3	23.1/24.2
<b>Compressor -- Circuit A</b>						
Volts	230/208	230/208	230/208	230/208	460	230/208
Rated Load Amps -- 230/208	8.5/9.0	12.1/13.6	13.8/15.4	9.0/9.6	4.9	17.0/18.5
Lock Rotor Amps -- 230/208	54/54	72.5/72.5	88/88	77/77	39	104/104
<b>Fan Motor and Condenser</b>						
Fan Motor -- HP-RPM	1/5 - 1090	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/2 - 1075
Fan Motor -- Amps	1.2	1.6	1.6	1.6	1.0	2.5
Fan -- DIA./CFM	20"/1975	20"/2400	20"/2100	20"/2000	20"/2000	24"/2850
Face Area Sq. Ft./Rows/Fins per in.	5.04/2/13	5.04/2/13	5.04/4/13	5.04/3/12	5.04/3/12	7.7/2/17
<b>Motor and Evaporator</b>						
Blower Motor -- HP-RPM	1/3 - 1075	1/3 - 1075	1/3 - 1075	1/3 - 1075	1/3 - 1075	1/2 - 1075
Blower Motor -- Amps	2.1	2.6	2.6	2.6	1.4	3.7
CFM Cooling w/Filter (Rated-Wet Coil)	800 @ .35	1150 @ .35	1250 @ .30	1275 @ .30	1275 @ .30	1400 @ .20
Face Area Sq. Ft./Rows/Fins per in.	3.21/2/13	3.21/2/13	3.21/3/14	3.21/3/12	3.21/3/12	3.6/3/13
<b>Refrigerant 22 - oz.</b>	52	64	93	93	93	89
<b>Shipping Weight - lbs.</b>	300	310	330	330	330	390

## Specifications – 4 and 5 Ton

MODEL	P1148A2	P1148A2-B	P1148A2-C	P1060A1	P1060A1-B	P1060A1-C
Cooling Capacity BTUH	46,500	46,500	46,500	56,500	56,500	56,500
Heating Capacity BTUH	SEE ELECTRIC HEAT TABLE NO. 1 AND NO. 2					
<b>Electric Rating - Volts &amp; Phase - 60Hz - Ckt. A</b>	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
Operating Voltage Range	197-253	187-253	414-506	197-253	187-253	414-506
Minimum Circuit Ampacity	32	25	12	43	29	14
Branch Circuit Selection Current	20.5	14.7	7	29	12	9
Field Wire Supply **	8	10	12	8	10	12
Max. Fuse or HACR Circuit Breaker Size*	50	35	15	60	45	20
Total Unit Amps -- 230/208	24.2/26.2	17.9/19.1	8.8	30.9/33.7	21.7/23.7	11.2
<b>Compressor -- Circuit A</b>						
Volts	230/208	230/208	460	230/208	230/208	460
Rated Load Amps -- 230/208	18.5/20.5	12.2/13.4	6	25.2/28.2	16/18	8.4
Lock Rotor Amps -- 230/208	137/137	91/91	50	148/148	123/123	62
<b>Fan Motor and Condenser</b>						
Fan Motor -- HP-RPM	1/3 - 850	1/3 - 850	1/3 - 850	1/3 - 850	1/3 - 850	1/3 - 850
Fan Motor -- Amps	2.5	2.5	1.2	2.5	2.5	1.2
Fan -- DIA./CFM	24"/3100	24"/3100	24"/3100	24"/3100	24"/3100	24"/3100
Face Area Sq. Ft./Rows/Fins per in.	7.7/3/12	7.7/3/12	7.7/3/12	7.7/3/12	7.7/3/12	7.7/3/12
<b>Motor and Evaporator</b>						
Blower Motor -- HP-RPM	1/2 - 1075	1/2 - 1075	1/2 - 1075	1/2 - 1075	1/2 - 1075	1/2 - 1075
Blower Motor -- Amps	3.7	3.7	1.8	3.7	3.7	1.8
CFM Cooling w/Filter (Rated-Wet Coil)	1550 @ .40	1550 @ .40	1550 @ .40	1700 @ .20	1700 @ .20	1700 @ .20
Face Area Sq. Ft./Rows/Fins per in.	4.75/4/14	4.75/4/14	4.75/4/14	4.75/4/14	4.75/4/14	4.75/4/14
<b>Refrigerant 22 - oz.</b>	111	111	111	120	120	120
<b>Shipping Weight - lbs.</b>	430	430	430	425	425	425

\*Maximum time delay fuse or HACR type circuit breaker, basic unit only.  
HACR type circuit breaker not applicable for 460V.

\*\*75°C copper wire size, basic unit only.

**Optional Field-Installed Heater Packages Are Only To Be Used With The Air Conditioning Models As Indicated Below**

HEATER PACKAGE MODEL NO.	VOLTS and PHASE	P1124A3	P1130A2	P1136A2	P1136A1-B	P1136A1-C	P1142A3	P1148A2	P1148A2-B	P1148A2-C	P1060A1	P1060A1-B	P1060A1-C
		EH3PB-A05	240/208-1	S	S	S	A	A					
EH3PB-A08	S	S		S	A	A							
EH3PB-A10	S	S		S	A	A							
EH3PB-A15	S	S		S	A	A							
EH3PB-B09	240/208-3	A	A	A	S	A							
EH3PB-B15		A	A	A	S	A							
EH3PB-C09	480-3				A	S							
EH3PB-C15					A	S							
EH5PB-A05	240/208-1						S	S	A	A	S	A	A
EH5PB-A10							S	S	A	A	S	A	A
EH5PB-A15							S	S	A	A	S	A	A
EH5PB-A20							S	S	A	A	S	A	A
EH5PB-B09	240/208-3						A	A	S	A	A	S	A
EH5PB-B15							A	A	S	A	A	S	A
EH5PB-B18							A	A	S	A	A	S	A
EH5PC-C09	480-3						A	A	A	S	A	A	S
EH5PC-C15							A	A	A	S	A	A	S
EH5PC-C18								A	A	A	S	A	A

S - Standard Application - Heater volts and phase same as basic unit.  
A - Alternate Application - Heater volts and phase different from basic unit.

**Optional Field-Installed Electric Heater Table – 2 through 5 Ton**

HEATER PACKAGE MODEL NO.	HEATER PACKAGE VOLTS PHASE	HTR. KW & CAPACITY @ 240V (or 480V if applicable)		HEATER KW & CAPACITY @ 208V (or 460V if applicable)		HEATER AMPS @ 240/208V (or 480/460V if applicable)	CIRCUIT B					
		KW	BTUH	KW	BTUH		HEATER INTERNAL FUSES	NUMBER FIELD CKTS.	MINIMUM CIRCUIT AMPACITY	MAX. OVER-CURRENT PROTECTION	FIELD POWER WIRING	GROUND WIRE SIZE
EH3PB-A08	8	27,300	6.00	20,500	33.3/28.8		1	42/36	45/40	8/8	10	
EH3PB-A10	10	34,100	7.50	26,000	41.6/36.2		1	53/46	60/50	6/8	10	
EH3PB-A15	15	51,200	11.25	38,400	62.5/54.1	30/60	1	79/68	80/70	4/4	8	
EH3PB-B09	240/208-3	9	30,700	6.75	23,000	21.7/18.7		1	28/24	30/25	10/10	10
EH3PB-B15		15	51,200	11.25	38,400	36.2/31.2		1	46/39	50/40	8/8	10
EH3PB-C09	480-3	9	30,700	8.26	28,200	10.8/9.9		1	15	15	14	14
EH3PB-C15		15	51,200	13.77	47,000	18.0/16.6		1	23	25	10	10
EH5PB-A05	240/208-1	5	17,100	3.75	12,800	20.8/18.1		1	26/23	30/25	10/10	10
EH5PB-A10		10	34,100	7.50	26,000	41.6/36.2		1	53/46	60/50	6/8	10
EH5PB-A15		15	51,200	11.25	38,400	62.5/54.1	30/60	1	79/68	80/70	4/4	8
EH5PB-A20		20	68,200	15.00	51,200	83.2/72.1	60/60	1	104/91	110/100	2/3	6
EH5PB-B09	240/208-3	9	30,700	6.75	23,000	21.7/18.7		1	28/24	30/25	10/10	10
EH5PB-B15		15	51,200	11.25	38,400	36.2/31.2		1	46/39	50/40	8/8	10
EH5PB-B18		18	61,400	13.50	46,100	43.4/37.5		1	55/47	60/50	6/8	10
EH5PC-C09	480-3	9	30,700	8.26	28,200	10.8/9.9		1	15	15	14	14
EH5PC-C15		15	51,200	13.77	47,000	18.0/16.6		1	23	25	10	10
EH5PC-C18		18	61,400	16.53	56,400	21.7/20.0		1	28	30	10	10

① Time delay fuses or "HACR Type" circuit breakers must be used for 60 and smaller sizes. Standard fuses or circuit breakers are suitable for sizes 70 and larger.

② Based on wire suitable for 75°C. Other wiring materials must be marked "Minimum Circuit Ampacity" or greater.

③ Based upon Table 250-95 of National Electrical Code latest edition.

④ A separate power supply must be provided for use with optional heater packages. See electrical data for basic air conditioning for Circuit A wiring specification requirements.

**Optional Field-Installed Electric Heater Packages**

Optional field-installed electric heater packages are available for 5 through 20Kw capacities. The heater packages are UL listed to be field-installed into the basic unit. They feature prewired control circuit wiring with plug-in connector. Simply slide the heater into the unit, plug in the pretested control circuit and connect the separate high voltage circuit wiring.

**IMPORTANT:** While this electrical data is presented as a guide, it is important to electrically connect properly sized fuses and conductor wires in accordance with the National Electrical Code and all existing local codes.



### Cooling Application Data - Outdoor Temperature ①

Model	D.B./W.B.②	Cooling Capacity	Outdoor Temperature °F										
			75°	80°	85°	90°	95°	100°	105°	110°	115°	120°	125°
P1124A3	75/ 62	Total Cooling	24,800	23,300	22,200	21,100	20,100	19,300	18,600	18,000	17,500	17,100	16,800
		SensibleCooling	18,100	17,900	17,700	17,400	17,100	16,600	16,200	15,600	15,000	14,400	13,700
	80/ 67	Total Cooling	26,400	25,400	24,600	23,800	23,000	22,500	21,900	21,400	21,000	20,700	20,400
		SensibleCooling	17,500	17,500	17,500	17,400	17,200	16,900	16,600	16,100	15,600	15,000	14,400
	85/ 68	Total Cooling	31,500	29,700	28,300	26,900	25,600	24,600	23,600	22,800	22,100	21,500	21,000
		SensibleCooling	18,000	17,800	17,600	17,300	16,900	16,400	15,900	15,100	14,400	13,600	12,800
P1130A2	75/ 62	Total Cooling	31,300	29,800	28,400	27,200	26,100	25,300	24,500	23,900	23,400	23,000	22,800
		SensibleCooling	23,300	23,200	23,000	22,600	22,200	21,700	21,200	20,500	19,800	19,000	18,200
	80/ 67	Total Cooling	33,400	32,400	31,500	30,700	30,000	29,400	28,900	28,500	28,100	27,900	27,700
		SensibleCooling	22,600	22,700	22,700	22,600	22,400	22,100	21,700	21,200	20,600	19,900	19,100
	85/ 68	Total Cooling	39,800	37,900	36,200	34,700	33,400	32,200	31,200	30,300	29,600	29,000	28,500
		SensibleCooling	23,200	23,100	22,800	22,500	22,000	21,400	20,700	19,900	19,000	18,000	16,900
P1136A2	75/ 62	Total Cooling	38,000	36,000	34,200	32,500	30,900	29,600	28,400	27,300	26,300	25,400	24,600
		SensibleCooling	28,200	27,700	27,200	26,500	25,900	25,100	24,300	23,400	22,400	21,400	20,300
	80/ 67	Total Cooling	40,500	39,200	37,900	36,700	35,500	34,500	33,500	32,500	31,600	30,800	30,000
		SensibleCooling	27,300	27,100	26,900	26,500	26,100	25,500	24,900	24,200	23,300	22,400	21,300
	85/ 68	Total Cooling	48,300	45,900	43,500	41,500	39,500	37,800	36,100	34,600	33,200	32,000	30,900
		SensibleCooling	28,000	27,500	27,000	26,300	25,600	24,700	23,800	22,700	21,500	20,300	18,900
P1142A3	75/ 62	Total Cooling	41,500	40,000	38,500	36,900	35,300	33,800	32,100	30,500	28,900	27,200	25,500
		SensibleCooling	33,000	32,100	31,100	30,300	29,500	28,800	28,100	27,500	26,900	26,500	26,000
	80/ 67	Total Cooling	44,300	43,600	42,700	41,700	40,500	39,300	37,900	36,400	34,700	32,900	31,000
		SensibleCooling	32,000	31,400	30,800	30,300	29,700	29,300	28,800	28,400	28,000	27,700	27,400
	85/ 68	Total Cooling	52,800	51,000	49,100	47,100	45,000	43,000	40,900	38,700	36,500	34,200	31,900
		SensibleCooling	32,800	31,900	31,000	30,100	29,200	28,400	27,500	26,600	25,800	25,000	24,300
P1148A2	75/ 62	Total Cooling	47,400	45,900	44,200	42,400	40,500	38,600	36,500	34,400	32,200	29,800	27,300
		SensibleCooling	35,200	35,200	35,100	34,700	34,100	33,300	32,500	31,400	30,100	28,600	27,000
	80/ 67	Total Cooling	50,600	50,000	49,100	47,900	46,500	44,900	43,100	41,000	38,700	36,100	33,300
		SensibleCooling	34,100	34,500	34,700	34,700	34,400	33,900	33,300	32,400	31,300	29,900	28,400
	85/ 68	Total Cooling	60,300	58,500	56,400	54,100	51,700	49,100	46,500	43,600	40,700	37,500	34,300
		SensibleCooling	34,900	35,000	34,900	34,500	33,800	32,800	31,800	30,400	28,800	27,000	25,100
P1060A1	75/ 62	Total Cooling	57,300	55,400	53,500	51,400	49,200	47,000	44,700	42,300	39,800		
		Sensible Cooling	41,000	40,000	39,000	38,000	37,100	36,100	35,000	34,100	33,100		
	80/ 67	Total Cooling	61,200	60,400	59,400	58,100	56,500	54,800	52,700	50,400	47,900		
		Sensible Cooling	39,700	39,200	38,600	38,000	37,400	36,700	35,900	35,200	34,400		
	85/ 68	Total Cooling	72,900	70,600	68,200	65,600	62,800	60,000	56,800	53,600	50,300		
		Sensible Cooling	40,700	39,800	38,800	37,800	36,700	35,500	34,200	33,000	31,700		

① Below 65°F (18.3C) unit requires a factory or field installed low ambient control.  
 ② Return air temperature

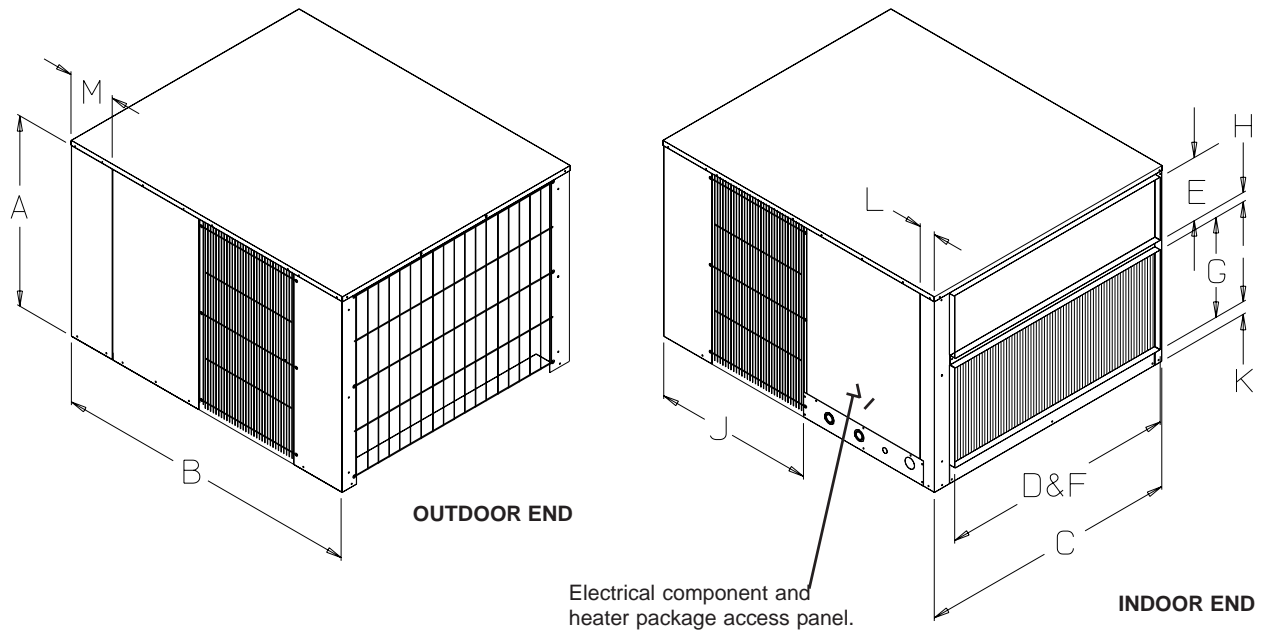
CAPACITY MULTIPLIER FACTORS			
% of Rated Airflow	-10	Rated	+10
Total Btuh	0.975	1.0	1.02
Sensible Btuh	0.950	1.0	1.05

### Indoor Blower Performance CFM – Dry Coil With Filter

ESP In H <sub>2</sub> O	P1124	P1130	P1136	P1142	P1148	P1060
0.0	1025	1350	1465	1690	1840	1850
.10	935	1300	1430	1600	1785	1800
.20	865	1240	1385	1565	1730	1725
.30	835	1175	1340	1400	1670	1675
.40	800	1120	1275	1280	1600	1600
.50	750	1050	1190	--	1520	1550

## Optional Control Modules - Field-Installed

FIELD INSTALLED PART	APPLICABLE TO	DESCRIPTION
CMA-6	All Models	Low Ambient Control
CMA-16A	All Models	Low Pressure Control, Auto Reset
CMA-18A	All Models	Low Ambient Control & Low Pressure Control, Auto Reset



MIS-1305

## Dimensions for All Models

MODEL	NOMINAL CABINET DIMENSIONS (INCHES)								DUCT OPENINGS (IN)				
	A	B	C	H	J	K	L	M	DISCHARGE	RETURN AIR		H	
P1124 P1130 P1136	24-1/4	48-3/16	38-1/8	7/8	26-1/8	2-1/8	9/16	9/16	33	6	33	14	7/8
P1142 P1148 P1060	31-1/4	50	42	1-3/8	26	3	2-3/4	7-9/16	38	10	38	16	1-3/8

**NOTE:** For roof application, roof hoods & roof curbs are available. See the Bard Commercial Products Pricing Guide, Form No. F1402, or S3002, Prefabricated Roof Curb/Roof Hood Accessory spec sheet.



Bard Manufacturing Company, Inc.  
BRYAN, OHIO 43506

*Since 1914 . . . Moving ahead,  
just as planned*

**Due to our continuous product improvement policy,  
all specifications subject to change without notice.**

Before purchasing this appliance, read important energy  
cost and efficiency information available from your retailer.

**Form No.  
S3337  
February, 2005**

Supersedes S3337-603