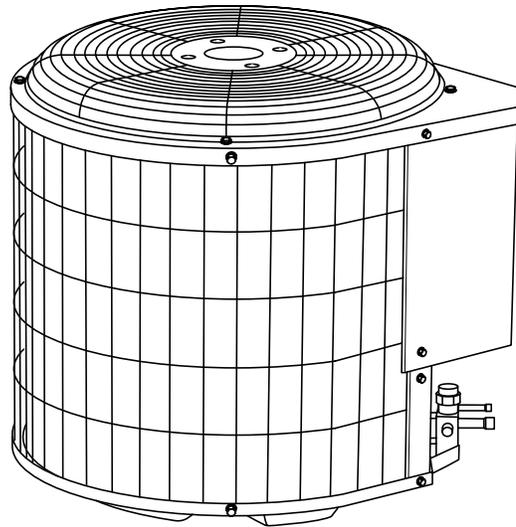




Heating & Cooling



Model PH12

SPLIT-SYSTEM HEAT PUMP UNIT

### FEATURES

- AVAILABLE SIZES:** Nominal sizes are available from 018 through 060 to meet the needs of residential and light commercial applications.
- EFFICIENCY:** With SEERs of at least 12.0 and HSPF of 7.5, these heat pump systems provide economy of operation through energy conservation. They recover heat for indoor comfort from outdoor air during the heating season and, by automatically reversing the refrigerant system, remove indoor heat and excess humidity during the cooling season.
- CERTIFICATION:** All models are listed with UL (U.S. and Canada), ARI, and CEC. The quality systems of this facility have been Registered by UL to the ISO 9000 Series Standards.
- ELECTRICAL RANGE:** Units are offered in 208-230v, single phase.
- FAN MOTOR:** The totally enclosed fan motor means greater reliability under rain conditions and dependable performance for many years. Permanent split capacitor type motors provide more economical operation.
- CABINET:** A weather protective cabinet of pre-painted steel is protected underneath by a galvanized coating and treated with a layer of zinc phosphate for a finish that will last for many years. All screws on cabinet exterior are coated for a long-lasting, rust-resistant, quality appearance.
- UNIT DESIGN:** The copper tube, enhanced sine wave, aluminum fin coil is designed for optimum heat transfer. Vertical air discharge carries sound and hot condenser air up and away from adjacent patio areas and foliage. The base pan is designed for easy removal of water, dirt, and leaves.
- COMPONENTS:** Includes a suction-tube accumulator that minimizes the amount of liquid refrigerant reaching the compressor; a low-pressure switch that stops the compressor if refrigerant charge is lost; a crankcase heater to keep the compressor oil warm and free of refrigerant for maximum lubricity (060 size); an internal compressor relief valve on 030-060 sizes and a high-pressure switch on 030-060 sizes.
- DEFROST CONTROL BOARD:** Incorporates a defrost relay, defrost timer, and low-voltage terminations. The defrost control is a time/temperature initiation/termination control which includes 3 field-selectable time periods of 30, 50, and 90 minutes.
- COMPRESSOR:** Designed specifically for heat pump duty, with energy efficiency during heating and cooling operation. Each compressor is hermetically sealed against contamination to assure long life and dependable performance and externally mounted on rubber isolators for quiet operation. Continuous compressor operation is approved down to -30°F (-34.4°C) in the heating mode and down to 55°F (12.8°C) in the cooling mode. (See heating and cooling performance tables.) For improved serviceability, all models are equipped with a compressor terminal plug.
- SERVICE VALVES:** Both service valves are brass, front seating type with sweat connections. Valves are externally located so refrigerant tube connections can be made quickly and easily. Each valve has a service port for ease of checking operating refrigerant pressures.
- SERVICEABILITY:** One access panel provides access to electrical controls. Removal of top gives access to fan motor, compressor, and condenser coil.



## SPECIFICATIONS

UNIT SIZE-SERIES	018-G	024-G	030-G	036-G
<b>ELECTRICAL</b>				
Unit Volts—Hertz—Phase	208-230—60—1	208-230—60—1	208-230—60—1	208-230—60—1
Operating Voltage Range	187—253			
Unit Ampacity for Wire Sizing (MCA)	14.5	16.6	18.8	23.3
Min Wire Size (60°C/75°C Copper) (AWG)*	14/14	14/14	14/14	12/12
Maximum Length (60°C/75°C) (Ft)†	54/52	58/55	39/37	54/51
Max Branch Circuit Fuse Size (Amps)‡	25	25	30	40
Compressor Rated Load Amps	11.2	12.4	14.3	17.9
Locked Rotor Amps	45.0	54.0	72.5	88.0
Fan Motor HP and RPM	1/12 and 1125		1/5 and 1125	
Full Load Amps	0.5		1.1	
<b>COMPRESSOR AND REFRIGERANT</b>				
Compressor Type	Scroll			
Refrigerant Charge (Lb)	5.50	6.75	8.00	11.50
Refrigerant Tubes (In. OD) Vapor and Liquid (Up to 50 Ft)	5/8 3/8	3/4 3/8	3/4 3/8	
<b>OUTDOOR COIL AND FAN</b>				
Coil Face Area (Sq Ft)	10.9	15.0	19.3	17.1
Rated Airflow (CFM)	1800		2800	
<b>OPTIONAL EQUIPMENT</b>				
Time-Delay Relay	KAATD0101TDR			
Outdoor Thermostat	KHAOT0301FST			
Secondary Outdoor Thermostat	KHAOT0201SEC			
Cycle Protector	KSACY0101AAA			
Crankcase Heater	KAACH1401AAA	KAACH1201AAA		
Compressor Start Assist— Capacitor/Relay	KSAHS1501AAA			
Sound Hood	KSASH1801COP			KSASH0601COP
TXV Kits (Hard Shutoff)	KSATX0601HSO			
Low Pressure Switch	Standard			
High-Pressure Switch	KHAHI0101HPS		Standard	
Low-Ambient Pressure Switch***	KSALA0201R22			
MotorMaster®—Low-Ambient Controller†††	KSALA0401AAA			
Ball Bearing Fan Motor	HC34GE232	HC38GE231		
Liquid Line Filter Drier (RCD)	P504-8083S			
Evaporator Freeze Thermostat‡‡	KAAFT0101AAA			
Isolation Relay‡‡	KHAIR0101AAA			
Liquid Solenoid Valve	KHALS0401LLS			
Coastal Filter Kit	KAACF1001MED	KAACF1101LRG		
Thermostat, Manual Changeover, Non-Programmable, °F/°C, 2-Stage Heat, 1-Stage Cool	TSTATPPBHP01-B			
Thermostat, Auto Changeover, 7-Day Programmable, °F/°C, 1-Stage Heat, 1-Stage Cool	TSTATPPSHP01			
Outdoor Sensor (For Programmable Thermostat)	TSTATXXSEN01-B			
Backplate for Non-Programmable Thermostat	TSTATXXBBP01			
Backplate for Programmable Thermostat	TSTATXXPBP01			

See notes on page 4.

**SPECIFICATIONS Continued**

<b>UNIT SIZE-SERIES</b>	<b>042-G</b>	<b>048-G</b>	<b>060-G</b>
<b>ELECTRICAL</b>			
Unit Volts—Hertz—Phase	208-230—60—1		
Operating Voltage Range	187—253		
Unit Ampacity for Wire Sizing (MCA)	31.5	32.1	38.7
Min Wire Size (60°C/75°C Copper) (AWG)*	8/8	8/10	6/8
Maximum Length (60°C/75°C) (Ft)†	86/82	97/59	120/68
Max Branch Circuit Fuse Size (Amps)‡	50		60
Compressor Rated Load Amps	24.3	24.8	29.8
Locked Rotor Amps	104.0	137.0	148.0
Fan Motor HP and RPM	1/5 & 1125		1/4 & 1125
Full Load Amps	1.1		1.4
<b>COMPRESSOR AND REFRIGERANT</b>			
Compressor Manufacturer	Scroll		
Refrigerant Charge (Lb)	11.50	12.75	14.17
Refrigerant Tubes (In. OD) Vapor and Liquid (Up to 50 Ft)	7/8 3/8		1-1/8
<b>OUTDOOR COIL AND FAN</b>			
Coil Face Area (Sq Ft)	16.1	18.21	19.3
Rated Airflow (CFM)	2800		3400
<b>OPTIONAL EQUIPMENT</b>			
Time-Delay Relay	KAATD0101TDR		
Outdoor Thermostat	KHAOT0301FST		
Secondary Outdoor Thermostat	KHAOT0201SEC		
Cycle Protector	KSACY0101AAA		
Crankcase Heater	KAACH1201AAA		Standard
Compressor Start Assist— Capacitor/Relay	KSAHS1501AAA	KSAHS1701AAA	KSAHS1601AAA
Sound Hood	KSASH0601COP	KSASH2101COP	
TXV Kits (Hard Shutoff)	KSATX0601HSO	KSATX0701HSO	KSATX1001HSO
Low-Pressure Switch	Standard		
High-Pressure Switch	Standard		
Low-Ambient Pressure Switch***	KSALA0201R22		
MotorMaster®—Low-Ambient Controller†††	KSALA0401AAA		
Ball Bearing Fan Motor	HC38GE231		HC40GE232
Liquid Line Filter Drier (RCD)	P504-8163S		
Evaporator Freeze Thermostat‡‡	KAAFT0101AAA		
Isolation Relay‡‡	KHAIR0101AAA		
Liquid Solenoid Valve	KHALS0401LLS		
Coastal Filter Kit	KAACF1101LRG		
Thermostat, Manual Changeover, Non-Programmable, °F/°C, 2-Stage Heat, 1-Stage Cool	TSTATPPBHP01-B		
Thermostat, Auto Changeover, 7-Day Programmable, °F/°C, 1-Stage Heat, 1-Stage Cool	TSTATPPSHP01		
Outdoor Sensor (For Programmable Thermostat)	TSTATXXSEN01-B		
Backplate for Non-Programmable Thermostat	TSTATXXBBP01		
Backplate for Programmable Thermostat	TSTATXXPBP01		

\* The ampacity of non-metallic (NM) sheathed cable shall be that of 60°C (140°F) conductors per NEC 1999, Article 336-26. If wire used is other than specified in chart, refer to applicable tables available in 1999 NEC. Copper wire must be used from disconnect to unit.

† Length shown is as measured 1 way along the wire path between the unit and the service panel for a voltage drop not to exceed 2%.

‡ Units may use fuses or circuit breakers (U.S. only).

‡‡ Consult low-ambient control Installation Instructions for application.

\*\*\* Isolation relay required.

††† Fan motor with ball bearings required.

## RECOMMENDED TUBE DIAMETERS

UNIT SIZE	TUBE LENGTH (Ft)*	LIQUID TUBE DIAMETER (In.)	VAPOR TUBE DIAMETER (In.)
018	0 to 50	3/8	5/8
024, 030, 036			3/4
042, 048			7/8
060			1-1/8

\* For tube set over 50 ft horizontal and/or 20 ft vertical differential, consult Residential Split System Long-Line Application Guidelines.

## METERING DEVICE

UNIT SIZE	SERIES	OUTDOOR PISTON	INDOOR TXV*
018	G	42	KSATX0601HSO
024	G	52	KSATX0601HSO
030	G	55	KSATX0601HSO
036	G	63	KSATX0601HSO
042	G	65	KSATX0601HSO
048	G	73	KSATX0701HSO
060	G	78	KSATX1001HSO

\* TXV must be ordered separately when indoor coil is not equipped with a TXV. TXV listed is for any approved combination. All TXVs are bi-flow, hard shutoff.

## SOUND RATING (dBA)

UNIT SIZE-SERIES	STANDARD RATING
018-G	78
024-G	78
030-G	78
036-G	78
042-G	78
048-G	78
060-G	78



**CERTIFICATION APPLIES ONLY  
WHEN THE COMPLETE SYSTEM  
IS LISTED WITH ARI.**



APPROVALS  
ISO 9001  
EN 29001  
BS 5750 PART 1  
ANSI/ASQC Q91

CERTIFICATE NO. FM 28768

## OPTIONAL EQUIPMENT USAGE GUIDELINE

ACCESSORY	REQUIRED FOR LOW-AMBIENT APPLICATIONS (Below 55°F)	REQUIRED FOR LONG-LINE APPLICATIONS* (Over 50 Ft)
Crankcase Heater	Yes	Yes
Evaporator Freeze Thermostat	Yes	No
Accumulator	No	No
Compressor Start Assist Capacitor and Relay	Yes	Yes
MotorMaster®—Low-Ambient Controller	Yes	No
Wind Baffle	See Low-Ambient Instructions	No
Liquid-Line Solenoid Valve or Hard Shutoff TXV	No	See Long-Line Application Guideline
Ball Bearing Fan Motor	Yes	No

\* For tubing line sets between 50 and 175 ft, refer to Residential's Split Systems Long-Line Application Guidelines.

### OPTIONAL EQUIPMENT DESCRIPTION AND USAGE (Listed Alphabetically)

#### 1. Ball-Bearing Fan Motor

A fan motor with ball bearings which permits speed reduction while maintaining bearing lubrication.

Usage Guideline:

Required on all units when MotorMaster®—Low-Ambient Controller is installed.

#### 2. Coastal Filter

A mesh screen inserted under the top cover and inside the base pan to protect the condenser coil from salt damage without restricting airflow.

#### 3. Compressor Start Assist – Capacitor and Relay

Start capacitor and relay gives a "hard" boost to compressor motor at each start up.

Usage Guideline:

Required for single-phase reciprocating compressors in the following applications:

- Long line
- Low ambient cooling
- Hard shut off expansion valve on indoor coil
- Liquid line solenoid on indoor coil

Required for single-phase scroll compressors in the following applications:

- Long line
- Low ambient cooling

Suggested for all compressors in areas with a history of low voltage problems

#### 4. Compressor Start Assist – PTC Type

Solid-state electrical device which gives a "soft" boost to the compressor motor at each start up.

Usage Guideline:

Suggested when compressor power supply is marginal.

Suggested in reciprocating compressor applications with rapid pressure balance (RPB) expansion valve on indoor coil.

#### 5. Crankcase Heater

An electric resistance heater which mounts to the base of the compressor to keep the lubricant warm during off cycles. Improves compressor lubrication on restart and minimizes the chance of liquid slugging.

**Note:** Some heat pumps are factory supplied with a crankcase heater. See accessory list for units that come standard with a crankcase heater. For units that do not, use the guideline below.

Usage Guideline:

Required in low ambient cooling applications.

Required in long line applications.

Suggested in all commercial applications.

#### 6. Cycle Protector

Solid-state timing device which prevents compressor rapid recycling. This control provides an approximate 5-minute delay after power to the compressor has been interrupted for any reason, including normal room thermostat cycling.

Usage Guideline:

Suggested in the following applications:

- Installations in areas where power interruptions are frequent.
- Where user is likely to "play" with the room thermostat.
- All commercial installations.
- Long line applications.
- High-rise applications.

#### 7. Evaporator Freeze Thermostat

An SPST temperature-actuated switch that stops unit operation when evaporator reaches freeze-up conditions.

Usage Guideline:

Required when low-ambient kit has been added.

#### 8. Filter Drier

A device for removing contaminants from refrigerant circulating in a heat pump system: two-direction flow.

Usage Guideline:

Suggested in all field-connected split-system heat pumps.

## OPTIONAL EQUIPMENT DESCRIPTION AND USAGE (Listed Alphabetically) Continued

### 9. High-Pressure Switch

Auto reset SPST switch activated by refrigerant pressure on high side of refrigerant circuit. Cycles compressor off if refrigerant pressure rises to  $426 \pm 10$  psig and resets at  $320 \pm 20$  psig. Provides protection against compressor damage due to loss of outdoor airflow.

#### Usage Guideline:

Suggested in installations exposed to "very dirty" outdoor air.

Suggested in installations where condenser inlet air temperature exceeds 125°F (51.7°C).

### 10. Isolation Relay

An SPDT relay which switches the low-ambient controller out of the outdoor fan motor circuit when the heat pump switches to heating mode.

#### Usage Guideline:

Required in all heat pumps where low-ambient kit has been added.

### 11. Liquid-Line Solenoid Valve (LLS)

An electrically operated shutoff valve which stops and starts refrigerant liquid flow in response to compressor operation. It maintains a column of refrigerant liquid ready for action at next compressor operation cycle. It also provides system protection against off-cycle refrigerant migration.

**Note:** When LLS is used with reciprocating compressors, Compressor Start Assist — Capacitor and Relay is required.

#### Usage Guideline:

Required in all heat pump long line applications to control refrigerant off cycle migration in the heating mode. A second LLS or hard shut off TXV is required in heat pump long line applications for refrigerant off cycle migration in the cooling mode. See Long Line Application Guideline.

### 12. Low-Ambient Pressure Switch

A long life pressure switch which is mounted to outdoor unit service valve. It is designed to cycle the outdoor fan motor in order to maintain head pressure within normal operating limits (approximately 100 psig to 225 psig). The control will maintain working head pressure at low-ambient temperatures down to 0°F (-17.8°C) when properly installed.

#### Usage Guideline:

A Low-Ambient Pressure Switch or MotorMaster®—Low-Ambient Controller must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

### 13. MotorMaster®—Low-Ambient Controller

A fan speed control device activated by a temperature sensor. Designed to control condenser fan motor speed in response to the saturated, condensing temperature during operation in cooling mode only. For outdoor temperatures down to -20°F (-28.9°C), it maintains condensing temperature at  $100^{\circ}\text{F} \pm 10^{\circ}\text{F}$  ( $37.8^{\circ}\text{C} \pm 12^{\circ}\text{C}$ ).

#### Usage Guideline:

A MotorMaster®—Low-Ambient Controller or Low-Ambient Pressure Switch must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

Suggested for all commercial applications.

### 14. Outdoor Air Temperature Sensor

Designed for use with Bryant Thermostats listed in this publication. This device enables the thermostat to display the outdoor temperature. This device also is required to enable special thermostat features such as auxiliary heat lock out.

#### Usage Guideline:

Suggested for all Bryant thermostats listed in this publication.

### 15. Outdoor Thermostat

An SPDT temperature-actuated switch which turns on supplemental electric heaters when outdoor air temperature drops below a user-selected set point.

#### Usage Guideline:

Electric supplemental heat applications in non-variable speed indoor units when electric heat staging is desired.

### 16. Secondary Outdoor Thermostat

An SPDT temperature-actuated switch which turns on third-stage of supplemental electric heaters when outdoor air temperature drops below the second-stage set point.

#### Usage Guideline:

Outdoor Thermostat applications where electric heater is capable of 3-stage operation.

### 17. Sound Hood

Wraparound sound reducing cover for the compressor. Reduces the sound level by about 2 dBA.

#### Usage Guideline:

Suggested when unit is installed closer than 15 ft to quiet areas—bedrooms, etc.

Suggested when unit is installed between two houses less than 10 ft apart.

### 18. Thermostatic Expansion Valve (TXV) Bi-Flow

A modulating flow-control valve which meters refrigerant liquid flow rate into the evaporator in response to the superheat of the refrigerant gas leaving the evaporator. Kit includes valve, adapter tubes, and external equalizer tube. Both hard shutoff and RPB valves are available.

**Note:** When using a hard shut off TXV with single phase reciprocating compressors, a Compressor Start Assist — Capacitor and Relay is required

#### Usage Guideline:

Required to achieve ARI ratings in certain equipment combinations. Refer to combination ratings.

Required for use on all zoning systems.

See long line guideline.

### 19. Time-Delay Relay

An SPST delay relay which briefly continues operation of indoor blower motor to provide additional cooling after the compressor cycles off.

**Note:** Most indoor unit controls include this feature. For those that do not, use the guideline below.

#### Usage Guideline:

For improved efficiency ratings for certain combinations of indoor and outdoor units. Refer to ARI Unitary Directory.

## COMBINATION RATINGS

OUTDOOR UNIT SIZE	INDOOR UNIT	ARI STANDARD RATINGS**											
		Cooling						Heating					
		SEER						EER	High-Temp		Low-Temp		Seasonal Efficiency HSPF
		TC	Factory-Supplied Enhancement	Standard Rating	Accessory TXV‡	TXV+TDR‡			TC	COP	TC	COP	
018-G	*PF1MN(A,B)024	18,600	TDR	—	12.00	—	10.40	17,000	3.34	10,800	2.22	7.5	
	CC5A/CD5AA018	17,600	NONE	—	—	11.50	9.90	17,000	2.98	10,700	2.06	7.0	
	CC5A/CD5AA024	18,200	NONE	—	—	11.80	10.10	17,000	3.16	10,700	2.14	7.3	
	CC5A/CD5AW024	18,200	NONE	—	—	11.80	10.10	17,000	3.16	10,700	2.14	7.3	
	CE3AA024	18,300	NONE	—	—	12.00	10.30	16,800	3.22	10,800	2.16	7.4	
	CF5AA024	18,300	NONE	—	—	12.00	10.20	16,800	3.22	10,800	2.16	7.4	
	CK3BA024	18,500	NONE	—	—	12.00	10.40	17,000	3.36	10,800	2.22	7.5	
	CK5A/CK5BA018	17,900	NONE	—	—	11.50	10.05	17,000	3.26	10,800	2.18	7.4	
	CK5A/CK5BA024	18,500	NONE	—	—	12.00	10.35	17,000	3.38	10,900	2.22	7.5	
	CK5A/CK5BW024	18,500	NONE	—	—	12.00	10.35	17,000	3.38	10,900	2.22	7.5	
	FF1DNA018	17,800	TDR	—	11.50	—	10.30	16,400	3.20	10,600	2.18	7.2	
	FF1DNA024	18,600	TDR	—	12.00	—	10.35	17,000	3.34	10,900	2.22	7.5	
	FF1DNE018	17,800	TDR&TXV	11.50	—	—	10.30	16,400	3.20	10,600	2.18	7.2	
	FF1DNE024	18,600	TDR&TXV	12.00	—	—	10.35	17,000	3.34	10,900	2.22	7.5	
	PF1MN(A,B)018	17,600	TDR	—	11.50	—	9.95	16,400	3.14	10,700	2.12	7.2	
024-G	*PF1MN(A,B)030	23,000	TDR	—	12.10	—	11.15	23,600	3.42	14,300	2.30	7.5	
	CC5A/CD5AA024	22,400	NONE	—	—	11.50	10.70	23,600	3.22	14,200	2.20	7.5	
	CC5A/CD5AA030	22,600	NONE	—	—	12.00	10.75	23,600	3.22	14,300	2.22	7.5	
	CC5A/CD5AW024	22,600	NONE	—	—	11.50	10.70	23,600	3.22	14,200	2.20	7.5	
	CC5A/CD5AW030	22,600	NONE	—	—	12.00	10.75	23,600	3.22	14,300	2.22	7.5	
	CE3AA024	22,600	NONE	—	—	12.00	10.80	23,600	3.30	14,300	2.24	7.3	
	CE3AA030	23,000	NONE	—	—	12.00	10.95	23,600	3.38	14,300	2.26	7.5	
	CF5AA024	22,600	NONE	—	—	11.50	10.70	23,600	3.22	14,200	2.20	7.3	
	CK3BA024	22,600	NONE	—	—	11.50	10.90	23,600	3.46	14,400	2.30	7.5	
	CK3BA030	22,600	NONE	—	—	12.00	10.80	23,600	3.34	14,300	2.28	7.5	
	CK5A/CK5BA024	22,600	NONE	—	—	11.50	10.90	23,600	3.46	14,400	2.30	7.5	
	CK5A/CK5BA030	22,800	NONE	—	—	12.00	10.35	23,600	3.34	14,400	2.28	7.5	
	CK5A/CK5BW024	22,600	NONE	—	—	11.50	10.90	23,600	3.46	14,400	2.30	7.5	
	CK5A/CK5BW030	22,600	NONE	—	—	12.00	10.80	23,600	3.34	14,400	2.28	7.5	
	FF1DNA024	22,600	TDR	—	11.50	—	10.80	23,600	3.38	14,400	2.26	7.4	
FF1DNA030	23,000	TDR	—	12.00	—	10.95	23,600	3.42	14,400	2.28	7.5		
FF1DNE024	22,600	TDR&TXV	11.50	—	—	10.80	23,600	3.38	14,400	2.26	7.4		
FF1DNE030	23,000	TDR&TXV	12.00	—	—	10.95	23,600	3.42	14,400	2.28	7.5		
PF1MN(A,B)024	22,800	TDR	—	11.80	—	11.00	23,600	3.40	14,300	2.28	7.5		
030-G	*PF1MN(A,B)036	28,400	TDR	—	12.10	—	10.50	29,600	3.28	18,800	2.32	7.6	
	CC5A/CD5AA030	28,000	NONE	—	—	12.00	10.45	29,600	3.12	18,500	2.26	7.5	
	CC5A/CD5AA036	28,600	NONE	—	—	12.00	10.80	29,600	3.30	18,700	2.34	7.6	
	CC5A/CD5AW030	28,000	NONE	—	—	12.00	10.45	29,600	3.12	18,500	2.26	7.5	
	CC5A/CD5AW036	28,600	NONE	—	—	12.00	10.80	29,600	3.32	18,700	2.34	7.6	
	CE3AA030	28,000	NONE	—	11.90	—	12.00	10.55	29,400	3.28	18,600	2.32	7.5
	CE3AA036	28,400	NONE	—	12.00	12.20	10.65	29,400	3.28	18,600	2.32	7.5	
	CF5AA036	28,400	NONE	—	—	12.00	10.75	29,400	3.30	18,600	2.32	7.6	
	CK3BA030	28,200	NONE	—	11.50	—	12.00	10.45	29,600	3.24	18,700	2.30	7.6
	CK3BA036	28,600	NONE	—	11.50	—	12.00	10.80	29,600	3.38	18,700	2.36	7.6
	CK5A/CK5BA030	28,200	NONE	—	11.50	—	12.00	10.45	29,600	3.24	18,700	2.30	7.6
	CK5A/CK5BA036	28,600	NONE	—	11.50	—	12.00	10.80	29,600	3.38	18,700	2.36	7.6
	CK5A/CK5BT036	28,600	NONE	—	11.50	—	12.00	10.80	29,600	3.38	18,700	2.36	7.6
	CK5A/CK5BW030	28,200	NONE	—	11.50	—	12.00	10.45	29,600	3.24	18,700	2.30	7.6
	CK5A/CK5BW036	28,600	NONE	—	11.50	—	12.00	10.80	29,600	3.38	18,700	2.36	7.6
FF1DNA030	28,600	TDR	—	12.00	—	10.55	29,400	3.32	18,800	2.32	7.5		
FF1DNE030	28,600	TDR&TXV	12.00	—	—	10.55	29,400	3.32	18,800	2.32	7.5		
PF1MN(A,B)030	28,000	TDR	—	12.00	—	10.60	29,200	3.28	18,600	2.32	7.5		
036-G	*PF1MN(A,B)042	34,200	TDR	—	12.10	—	10.80	36,000	3.36	23,000	2.40	8.0	
	CC5A/CD5AA036	34,200	NONE	—	—	12.00	10.90	36,000	3.34	23,000	2.38	8.0	
	CC5A/CD5AA042	34,200	NONE	—	—	12.00	10.90	36,000	3.34	23,000	2.38	8.0	
	CC5A/CD5AW036	34,200	NONE	—	—	12.00	10.90	36,000	3.34	23,000	2.38	8.0	
	CC5A/CD5AW042	34,200	NONE	—	—	12.00	10.75	36,000	3.26	22,400	2.30	7.8	
	CE3AA036	33,200	NONE	—	11.80	—	12.00	10.75	35,600	3.28	23,000	2.36	7.6
	CE3AA042	33,800	NONE	—	12.00	—	12.10	10.95	36,000	3.40	23,000	2.42	7.7
	CF5AA036	33,400	NONE	—	—	12.00	10.85	35,800	3.30	23,000	2.38	7.7	
	CK3BA036	34,200	NONE	—	11.50	—	12.00	10.95	36,000	3.42	23,000	2.42	8.0
	CK3BA042	34,200	NONE	—	11.50	—	12.00	10.95	36,000	3.42	23,000	2.42	8.0
	CK5A/CK5BA036	34,200	NONE	—	11.50	—	12.00	10.95	36,000	3.42	23,000	2.42	8.0
	CK5A/CK5BA042	34,200	NONE	—	11.50	—	12.00	10.95	36,000	3.42	23,000	2.42	8.0
	CK5A/CK5BE042	34,200	NONE	—	—	12.00	10.95	36,000	3.44	23,000	2.44	8.0	
	CK5A/CK5BT036	34,200	NONE	—	11.50	—	12.00	10.95	36,000	3.42	23,000	2.42	8.0
	CK5A/CK5BT042	34,200	NONE	—	11.50	—	12.00	10.95	36,000	3.42	23,000	2.42	8.0
CK5A/CK5BW036	34,200	NONE	—	11.50	—	12.00	10.95	36,000	3.42	23,000	2.42	8.0	
PF1MN(A,B)036	33,000	TDR	—	11.70	—	10.50	36,000	3.28	23,200	2.34	7.6		
042-G	*PF1MN(A,B)048	40,000	TDR	—	12.10	—	10.50	43,000	3.42	28,000	2.54	8.0	
	CC5A/CD5AA042	39,000	NONE	—	—	12.00	10.45	43,000	3.28	27,600	2.50	7.8	
	CC5A/CD5AC048	39,000	NONE	—	—	12.00	10.30	43,000	3.14	27,600	2.46	7.5	
	CC5A/CD5AW042	39,000	NONE	—	—	12.00	10.30	43,000	3.20	27,600	2.46	7.6	
	CC5A/CD5AW048	40,000	NONE	—	—	12.00	10.45	43,000	3.30	27,600	2.50	7.8	
	CD5AA048	40,000	NONE	—	—	12.00	10.50	43,000	3.32	27,600	2.50	7.8	
	CE3AA042	39,500	NONE	—	11.70	—	12.00	10.55	42,500	3.34	27,600	2.52	7.6
	CE3AA048	39,500	NONE	—	11.70	—	12.00	10.60	42,500	3.36	27,600	2.54	7.7
	CF5AA048	39,500	NONE	—	—	11.70	10.50	42,000	3.22	27,400	2.50	7.6	
	CK3BA042	39,000	NONE	—	11.50	—	12.00	10.45	43,000	3.34	27,600	2.52	7.8
	CK3BA048	40,000	NONE	—	11.50	—	12.00	10.50	43,000	3.38	27,800	2.54	7.8
	CK5A/CK5BA042	39,000	NONE	—	11.50	—	12.00	10.45	43,000	3.34	27,600	2.52	7.8
	CK5A/CK5BA048	40,000	NONE	—	11.50	—	12.00	10.50	43,000	3.38	27,800	2.54	7.8

See notes on page 9.

## COMBINATION RATINGS CONTINUED

OUTDOOR UNIT SIZE	INDOOR UNIT	ARI STANDARD RATINGS**											
		Cooling						Heating					
		TC	Factory-Supplied Enhancement	SEER			EER	High-Temp		Low-Temp		Seasonal Efficiency HSPF	
				Standard Rating	Accessory TXV†	TXV+TDR‡		TC	COP	TC	COP		
042-G	CK5A/CK5BE042	39,000	NONE	—	11.50	12.00	10.40	42,000	3.30	27,800	2.48	7.6	
	CK5A/CK5BT042	39,000	NONE	—	11.50	12.00	10.45	43,000	3.34	27,600	2.52	7.8	
	CK5A/CK5BT048	40,000	NONE	—	11.50	12.00	10.50	43,000	3.38	27,800	2.54	7.8	
	CK5A/CK5BW048	40,000	NONE	—	11.50	12.00	10.50	43,000	3.38	27,800	2.54	7.8	
	PF1MN(A,B)042	39,500	TDR	—	11.70	—	10.30	42,500	3.28	27,800	2.48	7.6	
048-G	*PF1MN(A,B)071	47,500	TDR&TXV	13.00	—	—	11.05	48,000	3.72	31,800	2.70	8.0	
	CC5A/CD5AA060	45,000	NONE	—	—	11.50	9.75	48,000	3.20	32,400	2.42	7.5	
	CC5A/CD5AW048	44,500	NONE	—	—	11.50	9.70	48,000	3.24	32,400	2.44	7.4	
	CD5AA048	44,500	NONE	—	—	11.50	9.70	48,000	3.24	32,400	2.44	7.4	
	CE3AA048	45,000	NONE	—	—	11.50	9.85	48,000	3.30	32,400	2.46	7.4	
	CE3AA060	46,000	NONE	—	—	11.80	10.05	48,000	3.40	32,600	2.52	7.4	
	CF5AA048	45,000	NONE	—	—	11.50	9.80	48,000	3.22	32,400	2.44	7.4	
	CK3BA048	45,000	NONE	—	—	11.50	9.75	48,000	3.32	32,400	2.48	7.4	
	CK3BA060	46,000	NONE	—	—	11.80	10.00	48,000	3.48	32,600	2.54	7.6	
	CK5A/CK5BA048	45,000	NONE	—	—	11.50	9.75	48,000	3.32	32,400	2.48	7.4	
	CK5A/CK5BA060	46,000	NONE	—	—	11.80	10.00	48,000	3.48	32,600	2.54	7.5	
	CK5A/CK5BT048	45,000	NONE	—	—	11.50	9.75	48,000	3.32	32,400	2.48	7.4	
	CK5A/CK5BT060	46,000	NONE	—	—	11.80	10.00	48,000	3.48	32,600	2.54	7.6	
	CK5A/CK5BW048	45,000	NONE	—	—	11.50	9.75	48,000	3.32	32,400	2.48	7.4	
	CK5A/CK5BX060	46,000	NONE	—	—	12.00	10.20	48,000	3.52	32,600	2.56	7.6	
	PF1MN(A,B)048	45,500	TDR	—	—	11.50	—	9.75	48,000	3.36	32,800	2.48	7.4
	PF1MN(A,B)060	46,000	TDR	—	—	11.60	—	9.85	48,000	3.44	33,000	2.50	7.5
	PF1MN(A,B)070	47,500	TDR	—	—	12.00	—	10.15	48,000	3.58	33,000	2.58	7.7
060-G	*PF1MN(A,B)071	56,500	TDR&TXV	12.10	—	—	10.50	56,500	3.44	36,800	2.54	8.0	
	CE3AA060	54,000	NONE	—	11.10	11.50	9.90	56,000	3.06	36,400	2.32	7.3	
	CK3BA060	56,000	NONE	—	11.00	11.50	9.80	56,000	3.24	37,200	2.40	7.6	
	CK5A/CK5BA060	54,500	NONE	—	11.00	11.50	9.70	56,000	3.08	36,800	2.32	7.2	
	CK5A/CK5BT060	54,500	NONE	—	11.00	11.50	9.70	56,000	3.08	36,800	2.32	7.2	
	CK5A/CK5BX060	56,000	NONE	—	11.00	11.50	9.80	56,000	3.24	37,200	2.40	7.6	
	PF1MN(A,B)060	54,500	TDR	—	—	11.20	—	9.65	57,000	3.12	37,000	2.34	7.4
	PF1MN(A,B)070	55,500	TDR	—	—	11.50	—	9.95	57,500	3.26	37,000	2.40	7.7

\* Outdoor section/indoor section combination tested in accordance with DOE test procedures for heat pumps. Ratings for other combinations are determined under DOE computer simulation procedures.

\*\* Ratings are net values reflecting the effects of circulating fan heat. Supplemental electric heat is not included. Ratings are based on:

**Cooling Standard:** 80°F (27°C) db, 67°F (19°C) wb indoor entering air temperature and 95°F (35°C) db air entering outdoor unit.

**High-Temperature Heating Standard:** 70°F (21°C) db indoor entering air temperature and 47°C (8°C) db 43°F (6°C) wb air entering outdoor unit.

**Low-Temperature Heating Standard:** 70°F (21°C) db indoor entering air temperature and 17°F (-9°C) db, 15°F (-10°C) wb air entering outdoor unit.

† In most cases, only 1 method should be used to achieve TDR function. Using more than 1 method in a system may cause degradation in performance. Use either the accessory Time-Delay Relay KAATD0101 TDR or a furnace equipped with TDR. All Payne furnaces are equipped with TDR.

‡ Requires hard shutoff TXV; based on computer simulation.

**COP** — Coefficient of Performance

**EER** — Energy Efficiency Ratio

**HSPF** — Heating Seasonal Performance Factor

**TC** — Total Capacity (Btuh)

**TDR** — Time-Delay Relay

**TXV** — Thermostatic Expansion Valve

**SEER** — Seasonal Energy Efficiency Ratio

## DETAILED COOLING CAPACITIES\*

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F											
		85			95			105			115		
		Capacity MBtu/h†	Sens‡	Total System kW**	Capacity MBtu/h†	Sens‡	Total System kW**	Capacity MBtu/h†	Sens‡	Total System kW**	Capacity MBtu/h†	Sens‡	Total System kW**
CFM	EWB												
<b>PH12NA018-G Outdoor Section With PF1MN(A,B)024 Indoor Section</b>													
550	72	20.9	10.4	1.56	20.0	10.1	1.75	19.1	9.8	1.97	18.1	9.5	2.20
	67	19.0	13.3	1.55	18.2	13.0	1.75	17.4	12.7	1.96	16.5	12.3	2.17
	63††	17.7	12.9	1.54	16.9	12.6	1.72	16.1	12.2	1.93	15.2	11.9	2.16
	62	17.4	16.1	1.54	16.7	15.7	1.73	15.9	15.3	1.93	15.1	14.9	2.16
	57	17.0	17.0	1.54	16.3	16.3	1.73	15.7	15.7	1.94	15.0	15.0	2.17
650	72	21.3	11.1	1.60	20.4	10.8	1.79	19.4	10.4	2.01	18.4	10.1	2.25
	67	19.5	14.4	1.59	18.6	14.1	1.79	17.7	13.7	1.98	16.7	13.4	2.21
	63††	18.1	13.9	1.58	17.3	13.6	1.77	16.4	13.3	1.97	15.5	12.9	2.20
	62	17.9	17.5	1.58	17.2	17.1	1.77	16.4	16.4	1.98	15.7	15.7	2.21
	57	17.8	17.8	1.58	17.1	17.1	1.77	16.4	16.4	1.98	15.7	15.7	2.21
750	72	21.5	11.7	1.64	20.6	11.3	1.83	19.6	11.0	2.05	18.6	10.7	2.26
	67	19.7	15.4	1.63	18.9	15.1	1.83	17.9	14.7	2.02	17.0	14.4	2.25
	63††	18.3	14.9	1.61	17.5	14.6	1.80	16.6	14.2	2.01	15.7	13.8	2.25
	62	18.4	18.4	1.62	17.7	17.7	1.81	17.0	17.0	2.02	16.2	16.2	2.25
	57	18.4	18.4	1.62	17.7	17.7	1.81	17.0	17.0	2.02	16.2	16.2	2.26
Multipliers for Determining the Performance With Other Indoor Sections													
Indoor Section	Unit Size	Cooling		Indoor Section	Unit Size	Cooling							
		Capacity	Power			Capacity	Power						
CC5A/CD5AA	018	0.95	0.99	CK5A/CK5BA	018	0.96	1.00						
	024	0.98	1.01		024	0.99	1.00						
CC5A/CD5AW	024	0.98	1.01	CK5A/CK5BW	024	0.99	1.00						
CE3AA	024	0.98	0.99	FF1DN(A,E)	018	0.96	0.97						
CF5AA	024	0.98	1.00		024	1.00	1.00						
CK3BA	024	0.99	0.99	PF1MN(A,B)	018	0.95	0.99						
	—	—	—		024	1.00	1.00						
<b>PH12NA024-G Outdoor Section With PF1MN(A,B)030 Indoor Section</b>													
700	72	25.7	12.9	1.93	24.7	12.6	2.13	23.7	12.2	2.35	22.6	11.8	2.61
	67	23.5	16.5	1.93	22.6	16.1	2.13	21.6	15.7	2.35	20.6	15.3	2.61
	63††	21.9	16.0	1.93	20.9	15.6	2.13	20.0	15.2	2.35	19.1	14.8	2.60
	62	21.5	19.9	1.93	20.6	19.4	2.13	19.8	19.0	2.35	18.9	18.5	2.60
	57	20.9	20.9	1.93	20.2	20.2	2.12	19.5	19.5	2.35	18.8	18.8	2.60
825	72	26.2	13.7	1.97	25.2	13.3	2.17	24.1	12.9	2.40	23.0	12.5	2.65
	67	24.0	17.7	1.97	23.0	17.4	2.17	22.0	17.0	2.39	20.9	16.6	2.65
	63††	22.3	17.2	1.97	21.4	16.8	2.17	20.4	16.4	2.39	19.4	16.0	2.65
	62	22.1	21.5	1.97	21.2	21.0	2.17	20.4	20.4	2.39	19.6	19.6	2.65
	57	21.9	21.9	1.97	21.1	21.1	2.17	20.3	20.3	2.39	19.6	19.6	2.65
950	72	26.6	14.3	2.01	25.5	14.0	2.21	24.4	13.6	2.44	23.2	13.2	2.70
	67	24.3	18.9	2.01	23.3	18.5	2.21	22.3	18.1	2.44	21.2	17.7	2.69
	63††	22.6	18.3	2.01	21.6	17.9	2.21	20.7	17.5	2.43	19.7	17.1	2.69
	62	22.6	22.6	2.01	21.8	21.8	2.21	21.0	21.0	2.44	20.2	20.2	2.69
	57	22.6	22.6	2.01	21.8	21.8	2.21	21.0	21.0	2.44	20.2	20.2	2.69
Multipliers for Determining the Performance With Other Indoor Sections													
Indoor Section	Unit Size	Cooling		Indoor Section	Unit Size	Cooling							
		Capacity	Power			Capacity	Power						
CC5A/CD5AA	024	0.97	1.01	CK5A/CK5BA	024	0.98	1.01						
	030	0.98	1.02		030	0.99	1.07						
CC5A/CD5AW	024	0.98	1.02	CK5A/CK5BW	024	0.98	1.01						
	030	0.98	1.02		030	0.98	1.01						
CE3AA	024	0.98	1.01	FF1DN(A,E)	024	0.98	1.01						
	030	1.00	1.02		030	1.00	1.02						
CF5AA	024	0.98	1.02	PF1MN(A,B)	024	0.99	1.00						
CK3BA	024	0.98	1.01		030	1.00	1.00						
	030	0.98	1.01		—	—	—						

See notes on page 13.

**DETAILED COOLING CAPACITIES\* Continued**

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F															
		85				95				105				115			
		CFM	EWB	Capacity MBtu/h†		Total System kW**	Capacity MBtu/h†		Total System kW**	Capacity MBtu/h†		Total System kW**	Capacity MBtu/h†		Total System kW**		
Total	Sens‡			Total	Sens‡		Total	Sens‡		Total	Sens‡						
<b>PH12NA030-G Outdoor Section With PF1MN(A,B)036 Indoor Section</b>																	
875	72	31.7	15.9	2.42	30.5	15.5	2.65	29.2	15.0	2.90	27.9	14.6	3.17				
	67	29.1	20.5	2.40	27.9	20.0	2.63	26.7	19.5	2.87	25.5	19.1	3.14				
	63††	27.1	19.9	2.39	26.0	19.4	2.61	24.8	18.9	2.85	23.6	18.4	3.12				
	62	26.7	24.8	2.39	25.6	24.3	2.60	24.6	23.8	2.85	23.5	23.2	3.12				
	57	26.1	26.1	2.38	25.2	25.2	2.60	24.3	24.3	2.84	23.4	23.4	3.12				
1050	72	32.2	16.9	2.50	31.0	16.5	2.73	29.6	16.0	2.98	28.2	15.5	3.25				
	67	29.6	22.2	2.48	28.4	21.8	2.70	27.1	21.3	2.95	25.9	20.8	3.22				
	63††	27.6	21.5	2.47	26.4	21.0	2.69	25.2	20.6	2.93	24.0	20.0	3.20				
	62	27.4	27.0	2.46	26.4	26.3	2.69	25.4	25.4	2.93	24.4	24.4	3.20				
	57	27.3	27.3	2.46	26.4	26.4	2.69	25.4	25.4	2.93	24.4	24.4	3.20				
1225	72	32.6	17.8	2.58	31.3	17.4	2.80	29.9	16.9	3.05	28.5	16.5	3.33				
	67	30.0	23.9	2.56	28.7	23.4	2.78	27.4	22.9	3.03	26.1	22.4	3.30				
	63††	27.9	23.1	2.54	26.7	22.6	2.76	25.5	22.1	3.01	24.3	21.5	3.28				
	62	28.2	28.2	2.54	27.2	27.2	2.77	26.2	26.2	3.01	25.1	25.1	3.29				
	57	28.2	28.2	2.54	27.2	27.2	2.77	26.2	26.2	3.01	25.1	25.1	3.29				
Multipliers for Determining the Performance With Other Indoor Sections																	
Indoor Section	Unit Size	Cooling		Indoor Section	Unit Size	Cooling											
		Capacity	Power			Capacity	Power										
CC5A/CD5AA	030	0.99	0.99	CK5A/CK5BA	030	0.99	1.00										
	036	1.01	0.98		036	1.01	0.98										
CC5A/CD5AW	030	0.99	0.99	CK5A/CK5BT	036	1.01	0.98										
	036	1.01	0.98		CK5A/CK5BW	030	0.99	1.00									
CE3AA	030	0.99	0.98	FF1DN(A,E)		036	1.01	0.98									
	036	1.00	0.99		030	1.01	1.00										
CF5AA	036	1.00	0.98	PF1MN(A,B)	030	0.99	0.98										
CK3BA	030	0.99	1.00		036	1.00	1.00										
	036	1.01	0.98		—	—	—										
<b>PH12NA036-G Outdoor Section With PF1MN(A,B)042 Indoor Section</b>																	
1050	72	38.2	19.3	2.86	36.8	18.8	3.13	35.2	18.2	3.43	33.6	17.6	3.77				
	67	35.1	24.8	2.83	33.8	24.3	3.10	32.3	23.7	3.40	30.8	23.1	3.73				
	63††	32.8	24.2	2.81	31.5	23.6	3.08	30.1	23.0	3.38	28.7	22.4	3.70				
	62	32.4	30.2	2.81	31.1	29.5	3.08	29.8	28.9	3.38	28.5	28.1	3.70				
	57	31.7	31.7	2.80	30.6	30.6	3.07	29.5	29.5	3.37	28.4	28.4	3.70				
1200	72	38.7	20.1	2.92	37.2	19.6	3.20	35.6	19.0	3.50	33.9	18.5	3.83				
	67	35.6	26.4	2.89	34.2	25.8	3.17	32.7	25.2	3.47	31.1	24.6	3.80				
	63††	33.2	25.6	2.87	31.9	25.0	3.15	30.5	24.4	3.44	29.0	23.8	3.77				
	62	33.0	32.1	2.87	31.8	31.3	3.14	30.5	30.4	3.44	29.2	29.2	3.77				
	57	32.7	32.7	2.87	31.6	31.6	3.14	30.5	30.5	3.44	29.2	29.2	3.77				
1350	72	39.0	20.9	2.98	37.5	20.4	3.26	35.9	19.9	3.56	34.2	19.3	3.90				
	67	35.9	27.8	2.96	34.5	27.3	3.23	33.0	26.7	3.53	31.4	26.1	3.86				
	63††	33.6	26.9	2.94	32.3	26.4	3.21	30.7	25.8	3.51	29.2	25.1	3.84				
	62	33.6	33.5	2.94	32.4	32.4	3.21	31.2	31.2	3.51	29.9	29.9	3.84				
	57	33.6	33.6	2.94	32.4	32.4	3.21	31.2	31.2	3.51	29.9	29.9	3.84				
Multipliers for Determining the Performance With Other Indoor Sections																	
Indoor Section	Unit Size	Cooling		Indoor Section	Unit Size	Cooling											
		Capacity	Power			Capacity	Power										
CC5A/CD5AA	036	1.00	0.99	CK5A/CK5BA	036	1.00	0.99										
	042	1.00	0.99		042	1.00	0.99										
CC5A/CD5AW	036	1.00	0.99	CK5A/CK5BE	042	1.00	0.99										
	042	1.00	1.01		CK5A/CK5BT	036	1.00	0.99									
CE3AA	036	0.97	0.98	CK5A/CK5BW		042	1.00	0.99									
	042	0.99	0.97		036	1.00	0.99										
CF5AA	036	0.98	0.97	PF1MN(A,B)	036	0.96	0.99										
CK3BA	036	1.00	0.99		042	1.00	1.00										
	042	1.00	0.99		—	—	—										

See notes on page 13.

**DETAILED COOLING CAPACITIES\* Continued**

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F											
		85			95			105			115		
		CFM	EWB	Capacity MBtu/h†		Total System kW**	Capacity MBtu/h†		Total System kW**	Capacity MBtu/h†		Total System kW**	
Total	Sens‡			Total	Sens‡		Total	Sens‡		Total	Sens‡		
<b>PH12NA042-G Outdoor Section With PF1MN(A,B)048 Indoor Section</b>													
1225	72	44.6	22.6	3.42	42.9	22.0	3.75	41.0	21.3	4.12	39.0	20.6	4.52
	67	41.0	29.1	3.38	39.4	28.5	3.71	37.6	27.8	4.07	35.8	27.0	4.46
	63††	38.3	28.3	3.34	36.7	27.6	3.67	35.1	26.9	4.03	33.3	26.2	4.42
	62	37.8	35.4	3.34	36.3	34.6	3.67	34.7	33.8	4.03	33.1	32.8	4.42
	57	37.0	37.0	3.33	35.8	35.8	3.66	34.4	34.4	4.02	33.0	33.0	4.42
1450	72	45.3	23.9	3.52	43.5	23.3	3.85	41.5	22.6	4.22	39.5	21.9	4.62
	67	41.7	31.5	3.48	40.0	30.8	3.81	38.2	30.1	4.17	36.2	29.3	4.57
	63††	39.0	30.5	3.45	37.4	29.8	3.78	35.6	29.1	4.13	33.8	28.3	4.53
	62	38.7	38.3	3.44	37.3	37.3	3.78	35.8	35.8	4.14	34.3	34.3	4.53
	57	38.6	38.6	3.44	37.2	37.2	3.77	35.8	35.8	4.14	34.3	34.3	4.53
1675	72	45.8	25.1	3.62	43.9	24.5	3.95	41.9	23.8	4.32	39.8	23.2	4.72
	67	42.2	33.7	3.58	40.4	33.0	3.91	38.5	32.2	4.27	36.6	31.5	4.67
	63††	39.4	32.5	3.55	37.7	31.8	3.87	35.9	31.1	4.23	34.1	30.3	4.63
	62	39.8	39.8	3.55	38.4	38.4	3.88	36.8	36.8	4.25	35.2	35.2	4.65
	57	39.8	39.8	3.55	38.4	38.4	3.88	36.8	36.8	4.25	35.3	35.3	4.65
Multipliers for Determining the Performance With Other Indoor Sections													
Indoor Section	Unit Size	Cooling		Indoor Section	Unit Size	Cooling							
		Capacity	Power			Capacity	Power						
CC5A/CD5AA	042	0.98	0.98	CK5A/CK5BA	042	0.98	0.98						
CC5A/CD5AC	048	0.98	0.99		048	1.00	1.00						
CC5A/CD5AW	042	0.98	0.99	CK5A/CK5BE	042	0.98	0.98						
	048	1.00	1.00	CK5A/CK5BT	042	0.98	0.98						
CD5AA	048	1.00	1.00		048	1.00	1.00						
CE3AA	042	0.99	0.98	CK5A/CK5BW	048	1.00	1.00						
	048	0.99	0.98	PF1MN(A,B)	042	0.99	1.01						
CF5AA	048	0.99	0.99		048	1.00	1.00						
CK3BA	042	0.98	0.98		—	—	—						
	048	1.00	1.00										
<b>PH12NA048-G Outdoor Section With PF1MN(A,B)071 Indoor Section</b>													
1400	72	53.8	27.2	3.86	51.4	26.3	4.33	49.2	25.5	4.86	47.0	24.7	5.44
	67	49.5	34.4	3.82	47.5	33.6	4.30	45.3	32.7	4.80	42.8	31.7	5.35
	63††	46.2	33.5	3.79	44.3	32.7	4.26	42.2	31.8	4.76	40.1	30.9	5.31
	62	45.4	41.4	3.78	43.6	40.5	4.25	41.5	39.5	4.75	39.5	38.6	5.30
	57	44.1	44.1	3.77	42.6	42.6	4.24	40.9	40.9	4.74	39.3	39.3	5.30
1600	72	54.7	28.5	3.91	52.3	27.6	4.39	50.0	26.9	4.92	47.4	25.9	5.47
	67	50.4	36.7	3.87	48.4	35.9	4.35	46.0	34.9	4.86	43.5	34.0	5.40
	63††	47.1	35.7	3.84	45.2	34.9	4.31	43.0	33.9	4.81	40.8	33.0	5.37
	62	46.4	44.5	3.83	44.6	43.6	4.30	42.5	42.4	4.80	40.7	40.7	5.36
	57	45.9	45.9	3.83	44.3	44.3	4.30	42.5	42.5	4.81	40.8	40.8	5.37
1800	72	55.5	29.8	3.96	52.9	29.0	4.44	50.7	28.2	4.97	47.9	27.3	5.52
	67	51.1	38.9	3.92	48.8	38.0	4.39	46.6	37.2	4.91	44.1	36.2	5.46
	63††	47.8	37.7	3.89	45.8	36.9	4.36	43.6	36.0	4.87	41.4	35.0	5.42
	62	47.4	47.2	3.88	45.7	45.7	4.36	43.8	43.8	4.86	42.0	42.0	5.43
	57	47.4	47.4	3.88	45.8	45.8	4.36	43.8	43.8	4.87	42.0	42.0	5.43
Multipliers for Determining the Performance With Other Indoor Sections													
Indoor Section	Unit Size	Cooling		Indoor Section	Unit Size	Cooling							
		Capacity	Power			Capacity	Power						
CC5A/CD5AA	060	0.95	1.07	CK5A/CK5BT	048	0.95	1.07						
CC5A/CD5AW	048	0.94	1.07		060	0.97	1.07						
CD5AA	048	0.94	1.07	CK5A/CK5BW	048	0.95	1.07						
CE3AA	048	0.95	1.06	CK5A/CK5BX	060	0.97	1.05						
	060	0.97	1.06	PF1MN(A,B)	048	0.96	1.09						
CF5AA	048	0.95	1.07		060	0.97	1.09						
CK3BA	048	0.95	1.07		070	1.00	1.09						
	060	0.97	1.07		071	1.00	1.00						
CK5A/CK5BA	048	0.95	1.07		—	—	—						
	060	0.97	1.07										

See notes on page 13.

## DETAILED COOLING CAPACITIES\* Continued

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F											
		85			95			105			115		
		Capacity MBtu/h†		Total System kW**	Capacity MBtu/h†		Total System kW**	Capacity MBtu/h†		Total System kW**	Capacity MBtu/h†		Total System kW**
CFM	EWB	Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
<b>PH12NA060-G Outdoor Section With PF1MN(A,B)071 Indoor Section</b>													
1660	72	63.3	32.5	4.95	60.6	31.6	5.48	57.9	30.6	6.06	55.0	29.6	6.68
	67	58.5	41.5	4.86	56.0	40.5	5.38	53.5	39.5	5.95	50.7	38.4	6.56
	63††	54.8	40.5	4.80	52.4	39.5	5.31	50.0	38.4	5.87	47.4	37.3	6.47
	62	54.0	50.2	4.78	51.7	49.1	5.30	49.4	47.9	5.85	46.9	46.5	6.46
	57	52.6	52.6	4.76	50.7	50.7	5.27	48.8	48.8	5.84	46.7	46.7	6.45
1750	72	63.7	33.2	4.98	61.0	32.2	5.51	58.4	31.3	6.09	55.3	30.2	6.70
	67	58.9	42.6	4.89	56.5	41.7	5.41	53.8	40.6	5.97	51.0	39.5	6.59
	63††	55.3	41.6	4.82	52.8	40.5	5.33	50.5	39.5	5.90	47.7	38.3	6.50
	62	54.4	51.6	4.81	52.2	50.4	5.32	49.9	49.2	5.89	47.4	47.4	6.49
	57	53.4	53.4	4.79	51.5	51.5	5.31	49.5	49.5	5.87	47.3	47.3	6.49
1850	72	64.1	33.8	5.00	61.5	32.9	5.54	58.5	31.9	6.11	55.7	30.9	6.74
	67	59.4	43.8	4.92	56.7	42.8	5.43	54.3	41.8	6.01	51.3	40.6	6.61
	63††	55.6	42.6	4.84	53.3	41.6	5.37	50.7	40.5	5.92	48.0	39.4	6.53
	62	54.9	53.1	4.83	52.7	51.9	5.35	50.3	50.3	5.91	48.0	48.0	6.52
	57	54.2	54.2	4.82	52.3	52.3	5.34	50.3	50.3	5.91	48.0	48.0	6.52
Multipliers for Determining the Performance With Other Indoor Sections													
Indoor Section	Unit Size	Cooling		Indoor Section	Unit Size	Cooling							
		Capacity	Power			Capacity	Power						
CE3AA	060	0.96	1.01	CK5A/CK5BX PF1MN(A,B)	060	0.99	1.06						
CK3BA	060	0.99	1.06		060	0.96	1.05						
CK5A/CK5BA	060	0.96	1.04		070	0.98	1.04						
CK5A/CK5BT	060	0.96	1.04		071	1.00	1.00						

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

\* Detailed cooling capacities are based on indoor and outdoor unit at the same elevation and connected by 25 ft of tubing. If other than 25 ft of tubing is used and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

† Total and sensible capacities are net capacities. Blower motor heat has been subtracted.

‡ Sensible capacities shown are based on 80°F (27°C) entering air at the indoor coil. For sensible capacities at other than 80°F (27°C), deduct 835 Btu/h (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80°F (27°C), or add 835 Btu/h (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80°F (27°C).

\*\* System kW is total of indoor and outdoor unit kilowatts.

†† At TVA rating indoor condition (75°edb/63°ewb). All other indoor air temperatures are at 80°edb.

# HEAT PUMP HEATING PERFORMANCE

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES °F																							
		-3			7			17			27			37			47			57			67		
		Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power
EDB	CFM	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†
<b>PH12NA018-G Outdoor Section With PF1MN(A,B)024 Indoor Section</b>																									
65	550	7.5	6.9	1.13	9.0	8.3	1.17	10.7	9.7	1.22	12.5	11.1	1.27	14.6	13.3	1.34	17.0	17.0	1.43	19.6	19.6	1.55	22.6	22.6	1.71
	650	7.6	7.0	1.14	9.1	8.4	1.18	10.8	9.9	1.22	12.7	11.2	1.27	14.8	13.5	1.33	17.2	17.2	1.42	19.8	19.8	1.54	22.8	22.8	1.67
	750	7.8	7.1	1.16	9.3	8.5	1.20	11.0	10.0	1.23	12.8	11.4	1.28	15.0	13.6	1.34	17.3	17.3	1.43	20.0	20.0	1.55	22.5	22.5	1.63
70	550	7.4	6.8	1.18	8.9	8.2	1.23	10.6	9.6	1.28	12.3	11.0	1.34	14.4	13.1	1.41	16.8	16.8	1.50	19.3	19.3	1.62	22.3	22.3	1.78
	650	7.5	6.9	1.20	9.0	8.3	1.24	10.7	9.8	1.28	12.5	11.1	1.33	14.6	13.3	1.40	17.0	17.0	1.49	19.6	19.6	1.61	22.6	22.6	1.77
	750	7.7	7.1	1.22	9.2	8.4	1.25	10.9	9.9	1.30	12.7	11.3	1.34	14.8	13.5	1.41	17.2	17.2	1.50	19.8	19.8	1.61	22.7	22.7	1.74
75	550	7.3	6.7	1.24	8.8	8.1	1.29	10.4	9.5	1.35	12.2	10.9	1.41	14.3	13.0	1.48	16.6	16.6	1.58	19.1	19.1	1.70	22.0	22.0	1.87
	650	7.4	6.8	1.25	8.9	8.2	1.30	10.6	9.7	1.35	12.4	11.0	1.40	14.5	13.2	1.47	16.8	16.8	1.56	19.4	19.4	1.68	22.3	22.3	1.84
	750	7.6	7.0	1.27	9.1	8.3	1.32	10.8	9.8	1.36	12.5	11.1	1.41	14.6	13.3	1.48	17.0	17.0	1.56	19.6	19.6	1.68	22.5	22.5	1.85
Multipliers for Determining the Performance With Other Indoor Sections																									
Indoor Section		Unit Size	Heating				Indoor Section		Unit Size	Heating															
			Capacity		Power					Capacity		Power													
CC5A/CD5AA		018	1.00		1.12		CK5A/CK5BA		018	1.00		1.02													
			024	1.00		1.06				024	1.00		0.99												
CC5A/CD5AW		024	1.00		1.06		CK5A/CK5BW		024	1.00		0.99													
CE3AA		024	0.99		1.03		FF1DN(A,E)		018	0.96		1.01													
CF5AA		024	0.99		1.03				024	1.00		1.00													
CK3BA		024	1.00		0.99		PF1MN(A,B)		018	0.96		1.03													
			—	—		—				024	1.00		1.00												
<b>PH12NA024-G Outdoor Section With PF1MN(A,B)030 Indoor Section</b>																									
65	700	9.73	8.96	1.75	12.2	11.2	1.81	14.7	13.4	1.86	17.3	15.4	1.91	20.3	18.4	1.97	23.5	23.5	2.04	27.2	27.2	2.14	31.3	31.3	2.26
	825	9.96	9.16	1.78	12.4	11.4	1.83	14.9	13.6	1.87	17.6	15.6	1.91	20.6	18.7	1.96	23.9	23.9	2.02	27.7	27.7	2.11	31.2	31.2	2.18
	950	10.2	9.35	1.81	12.6	11.6	1.85	15.1	13.8	1.88	17.8	15.8	1.92	20.8	18.9	1.96	24.1	24.1	2.01	28.0	28.0	2.10	31.1	31.1	2.14
70	700	9.43	8.68	1.81	12.0	11.0	1.87	14.5	13.2	1.93	17.1	15.2	1.99	20.0	18.2	2.06	23.3	23.3	2.14	26.9	26.9	2.25	31.0	31.0	2.39
	825	9.65	8.88	1.83	12.2	11.2	1.89	14.7	13.4	1.94	17.4	15.4	1.99	20.3	18.5	2.04	23.6	23.6	2.11	27.3	27.3	2.20	31.4	31.4	2.31
	950	9.86	9.07	1.86	12.4	11.4	1.92	14.9	13.6	1.96	17.6	15.6	2.00	20.6	18.7	2.04	23.9	23.9	2.10	27.6	27.6	2.19	31.1	31.1	2.25
75	700	9.10	8.38	1.86	11.7	10.8	1.94	14.3	13.0	2.01	16.9	15.0	2.08	19.8	18.1	2.15	23.0	23.0	2.24	26.6	26.6	2.35	30.7	30.7	2.51
	825	9.33	8.59	1.89	12.0	11.0	1.95	14.5	13.2	2.02	17.2	15.2	2.07	20.1	18.3	2.13	23.4	23.4	2.20	27.0	27.0	2.30	31.1	31.1	2.43
	950	9.54	8.78	1.92	12.2	11.2	1.98	14.7	13.4	2.03	17.4	15.4	2.08	20.3	18.5	2.13	23.6	23.6	2.19	27.3	27.3	2.28	31.3	31.3	2.38
Multipliers for Determining the Performance With Other Indoor Sections																									
Indoor Section		Unit Size	Heating				Indoor Section		Unit Size	Heating															
			Capacity		Power					Capacity		Power													
CC5A/CD5AA		024	1.00		1.06		CK5A/CK5BA		024	1.00		0.99													
			030	1.00		1.06				030	1.00		1.02												
CC5A/CD5AW		024	1.00		1.06		CK5A/CK5BW		024	1.00		0.99													
		030	1.00		1.06				030	1.00		1.02													
CE3AA		024	1.00		1.04		FF1DN(A,E)		024	1.00		1.01													
		030	1.00		1.01				030	1.00		1.00													
CF5AA		024	1.00		1.06		PF1MN(A,B)		024	1.00		1.01													
CK3BA		024	1.00		0.99				030	1.00		1.00													
			030	1.00		1.02				—	—		—												
<b>PH12NA030-G Outdoor Section With PF1MN(A,B)036 Indoor Section</b>																									
65	875	13.1	12.1	2.13	15.8	14.5	2.19	18.7	17.0	2.25	21.9	19.4	2.33	25.5	23.2	2.43	29.5	29.5	2.55	34.4	34.4	2.72	38.7	38.7	2.86
	1050	13.5	12.4	2.17	16.1	14.8	2.23	19.0	17.3	2.28	22.2	19.7	2.35	25.9	23.6	2.44	29.9	29.9	2.54	34.6	34.6	2.67	38.6	38.6	2.79
	1225	13.7	12.6	2.23	16.4	15.0	2.28	19.3	17.6	2.33	22.6	20.0	2.39	26.3	23.9	2.47	30.4	30.4	2.57	34.6	34.6	2.66	38.0	38.0	2.75
70	875	12.9	11.9	2.21	15.7	14.4	2.28	18.5	16.9	2.35	21.6	19.2	2.43	25.2	22.9	2.53	29.1	29.1	2.65	33.9	33.9	2.83	38.4	38.4	2.98
	1050	13.2	12.2	2.25	15.9	14.7	2.32	18.8	17.1	2.37	22.0	19.5	2.44	25.6	23.3	2.53	29.6	29.6	2.64	34.5	34.5	2.81	38.7	38.7	2.93
	1225	13.5	12.4	2.31	16.2	14.9	2.36	19.1	17.4	2.41	22.3	19.8	2.48	26.0	23.6	2.56	30.0	30.0	2.66	34.6	34.6	2.78	38.2	38.2	2.89
75	875	12.7	11.7	2.29	15.5	14.3	2.37	18.3	16.7	2.45	21.4	19.0	2.53	24.9	22.7	2.64	28.8	28.8	2.77	33.5	33.5	2.95	38.3	38.3	3.13
	1050	13.0	12.0	2.34	15.8	14.5	2.41	18.6	17.0	2.47	21.8	19.3	2.54	25.3	23.1	2.64	29.3	29.3	2.75	34.1	34.1	2.92	38.8	38.8	3.07
	1225	13.3	12.2	2.39	16.1	14.8	2.46	18.9	17.3	2.51	22.1	19.6	2.57	25.7	23.4	2.66	29.7	29.7	2.77	34.5	34.5	2.91	38.4	38.4	3.02
Multipliers for Determining the Performance With Other Indoor Sections																									
Indoor Section		Unit Size	Heating				Indoor Section		Unit Size	Heating															
			Capacity		Power					Capacity		Power													
CC5A/CD5AA		030	1.00		1.05		CK5A/CK5BA		030	1.00		1.01													
			036	1.00		1.00				036	1.00		0.97												
CC5A/CD5AW		030	1.00		1.05		CK5A/CK5BT		036	1.00		0.97													
		036	1.00		0.99		CK5A/CK5BW		030	1.00		1.01													
CE3AA		030	0.99		0.99		FF1DNA		030	0.99		0.97													
			036	0.99		0.99				036	0.99		0.98												
CF5AA		036	0.99		0.99		FF1DNE		030	0.99		0.99													
CK3BA		030	1.00		1.01		PF1MN(A,B)		030	0.99		0.99													
			036	1.00		0.97				036	1.00		1.00												

See notes on page 16.

## HEAT PUMP HEATING PERFORMANCE Continued

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES °F																							
		-3			7			17			27			37			47			57			67		
		Capacity MBtuh	Total Power kW†		Capacity MBtuh	Total Power kW†		Capacity MBtuh	Total Power kW†		Capacity MBtuh	Total Power kW†		Capacity MBtuh	Total Power kW†		Capacity MBtuh	Total Power kW†		Capacity MBtuh	Total Power kW†		Capacity MBtuh	Total Power kW†	
EDB	CFM	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†
<b>PH12NA036-G Outdoor Section With PF1MN(A,B)042 Indoor Section</b>																									
65	1050	16.1	14.8	2.50	19.5	17.9	2.59	23.0	20.9	2.68	26.8	23.8	2.77	31.1	28.3	2.89	36.0	36.0	3.02	42.1	42.1	3.23	48.5	48.5	3.47
	1200	16.4	15.0	2.54	19.7	18.1	2.62	23.2	21.2	2.69	27.1	24.1	2.78	31.5	28.7	2.88	36.4	36.4	3.01	42.6	42.6	3.20	49.2	49.2	3.43
	1350	16.6	15.3	2.58	20.0	18.4	2.65	23.5	21.4	2.72	27.4	24.4	2.80	31.8	29.0	2.89	36.8	36.8	3.01	43.1	43.1	3.20	49.7	49.7	3.42
70	1050	15.7	14.4	2.59	19.2	17.6	2.69	22.7	20.7	2.79	26.5	23.5	2.89	30.8	28.0	3.01	35.5	35.5	3.16	41.5	41.5	3.37	47.8	47.8	3.62
	1200	16.0	14.7	2.63	19.5	17.9	2.72	23.0	21.0	2.81	26.8	23.8	2.90	31.2	28.4	3.01	36.0	36.0	3.14	42.1	42.1	3.34	48.5	48.5	3.57
	1350	16.2	14.9	2.67	19.7	18.1	2.76	23.3	21.2	2.84	27.1	24.1	2.92	31.5	28.7	3.01	36.4	36.4	3.14	42.5	42.5	3.33	49.0	49.0	3.56
75	1050	15.2	14.0	2.69	18.8	17.3	2.79	22.5	20.5	2.91	26.2	23.3	3.02	30.4	27.7	3.15	35.1	35.1	3.30	41.0	41.0	3.51	47.1	47.1	3.77
	1200	15.5	14.3	2.73	19.1	17.6	2.82	22.7	20.7	2.93	26.5	23.6	3.02	30.8	28.0	3.14	35.6	35.6	3.28	41.5	41.5	3.48	47.8	47.8	3.72
	1350	15.8	14.5	2.77	19.4	17.8	2.86	23.0	21.0	2.95	26.8	23.8	3.04	31.1	28.3	3.14	36.0	36.0	3.27	42.0	42.0	3.46	48.4	48.4	3.70
Multipliers for Determining the Performance With Other Indoor Sections																									
Indoor Section	Unit Size	Heating		Indoor Section	Unit Size	Heating																			
		Capacity	Power			Capacity	Power																		
CC5A/CD5AA	036	1.00		CK5A/CK5BA	036	1.00																			
	042	1.00			042	0.98																			
CC5A/CD5AW	036	1.00		CK5A/CK5BE	042	1.00																			
	042	1.00			036	0.98																			
CE3AA	036	0.99		CK5A/CK5BT	042	1.00																			
	042	1.00			036	0.98																			
CF5AA	036	0.99		CK5A/CK5BW	036	1.00																			
CK3BA	036	1.00			042	1.00																			
	042	1.00				—																			
<b>PH12NA042-G Outdoor Section With PF1MN(A,B)048 Indoor Section</b>																									
65	1225	20.1	18.5	2.85	23.8	21.9	2.95	27.9	25.4	3.06	32.3	28.7	3.19	37.2	33.8	3.35	42.9	42.9	3.54	50.0	50.0	3.83	57.0	57.0	4.13
	1450	20.5	18.9	2.90	24.2	22.3	3.00	28.3	25.8	3.10	32.8	29.1	3.21	37.7	34.3	3.35	43.5	43.5	3.54	50.7	50.7	3.81	57.3	57.3	4.05
	1675	20.9	19.2	2.97	24.6	22.6	3.06	28.7	26.2	3.15	33.2	29.5	3.25	38.2	34.7	3.38	44.1	44.1	3.56	51.3	51.3	3.83	57.2	57.2	4.02
70	1225	19.8	18.2	2.95	23.5	21.6	3.08	27.6	25.1	3.20	31.9	28.3	3.33	36.8	33.4	3.49	42.3	42.3	3.70	49.3	49.3	3.99	56.5	56.5	4.35
	1450	20.2	18.6	3.01	24.0	22.0	3.12	28.0	25.5	3.23	32.4	28.8	3.35	37.3	33.9	3.49	43.0	43.0	3.68	50.1	50.1	3.96	57.1	57.1	4.25
	1675	20.6	18.9	3.08	24.3	22.4	3.18	28.4	25.9	3.28	32.8	29.2	3.39	37.8	34.4	3.52	43.5	43.5	3.70	50.7	50.7	3.98	57.4	57.4	4.22
75	1225	19.3	17.8	3.05	23.2	21.4	3.20	27.2	24.8	3.33	31.5	28.0	3.48	36.3	33.1	3.65	41.8	41.8	3.86	48.6	48.6	4.16	55.7	55.7	4.52
	1450	19.8	18.2	3.11	23.7	21.8	3.24	27.7	25.2	3.36	32.0	28.4	3.49	36.9	33.6	3.64	42.5	42.5	3.84	49.4	49.4	4.12	56.6	56.6	4.48
	1675	20.2	18.6	3.18	24.1	22.1	3.30	28.1	25.6	3.41	32.5	28.8	3.53	37.4	34.0	3.67	43.0	43.0	3.86	50.0	50.0	4.13	57.1	57.1	4.42
Multipliers for Determining the Performance With Other Indoor Sections																									
Indoor Section	Unit Size	Heating		Indoor Section	Unit Size	Heating																			
		Capacity	Power			Capacity	Power																		
CC5A/CD5AA	042	1.00		CK5A/CK5BA	042	1.00																			
	048	1.00			048	1.01																			
CC5A/CD5AC	048	1.00		CK5A/CK5BE	042	0.98																			
	042	1.00			048	1.01																			
CC5A/CD5AW	042	1.00		CK5A/CK5BT	042	1.00																			
	048	1.00			048	1.01																			
CD5AA	048	1.00		CK5A/CK5BW	048	1.00																			
CE3AA	042	0.99			042	1.03																			
	048	0.99				—																			
CF5AA	048	0.98				—																			
CK3BA	042	1.00				—																			
	048	1.00				—																			
<b>PH12NA048-G Outdoor Section With PF1MN(A,B)071 Indoor Section</b>																									
65	1400	22.0	20.3	2.91	26.6	24.4	3.03	31.2	28.5	3.15	36.2	32.1	3.26	41.9	38.2	3.40	48.5	48.5	3.58	56.2	56.2	3.80	64.9	64.9	4.09
	1600	22.3	20.5	2.91	26.8	24.6	3.02	31.5	28.7	3.12	36.5	32.4	3.22	42.4	38.5	3.34	49.0	49.0	3.50	56.8	56.8	3.70	65.0	65.0	3.90
	1800	22.5	20.7	2.92	27.0	24.8	3.02	31.7	28.9	3.11	36.7	32.6	3.20	42.7	38.9	3.31	49.4	49.4	3.45	57.2	57.2	3.64	64.1	64.1	3.77
70	1400	21.5	19.8	3.05	26.3	24.2	3.19	31.0	28.2	3.32	35.8	31.8	3.45	41.6	37.8	3.60	48.0	48.0	3.78	55.5	55.5	4.01	64.0	64.0	4.31
	1600	21.8	20.1	3.05	26.5	24.4	3.18	31.2	28.5	3.29	36.1	32.1	3.40	41.9	38.2	3.53	48.5	48.5	3.69	56.1	56.1	3.90	64.7	64.7	4.14
	1800	22.1	20.3	3.06	26.7	24.6	3.18	31.4	28.7	3.27	36.4	32.3	3.37	42.2	38.4	3.49	48.8	48.8	3.64	56.6	56.6	3.84	64.7	64.7	4.03
75	1400	21.0	19.3	3.18	25.9	23.8	3.34	30.7	28.0	3.49	35.4	31.5	3.63	41.1	37.4	3.80	47.5	47.5	3.99	54.8	54.8	4.23	63.2	63.2	4.54
	1600	21.3	19.6	3.18	26.2	24.0	3.33	30.9	28.2	3.46	35.8	31.8	3.58	41.5	37.8	3.73	47.9	47.9	3.90	55.4	55.4	4.12	65.4	65.4	4.41
	1800	21.5	19.8	3.20	26.4	24.3	3.33	31.1	28.4	3.45	36.0	32.0	3.56	41.8	38.0	3.69	48.3	48.3	3.84	55.9	55.9	4.05	64.5	64.5	4.28
Multipliers for Determining the Performance With Other Indoor Sections																									
Indoor Section	Unit Size	Heating		Indoor Section	Unit Size	Heating																			
		Capacity	Power			Capacity	Power																		
CC5A/CD5AA	060	1.00		CK5A/CK5BT	048	1.00																			
	048	1.00			060	1.07																			
CC5A/CD5AW	048	1.00		CK5A/CK5BW	048	1.00																			
	048	1.00			048	1.12																			
CE3AA	048	1.00		CK5A/CK5BX	060	1.00																			
	060	1.00			048	1.11																			
CF5AA	048	1.00		PF1MN(A,B)	060	1.00																			
CK3BA	048	1.00			070	1.04																			
	060	1.00				—																			
CK5A/CK5BA	048	1.00				—																			
	060	1.00				—																			

See notes on page 16.

# HEAT PUMP HEATING PERFORMANCE Continued

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES °F																							
		-3			7			17			27			37			47			57			67		
		Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power	Capacity MBtuh		Total Power
EDB	CFM	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†	Total	Integ*	kW†
<b>PH12NA060-G Outdoor Section With PF1MN(A,B)071 Indoor Section</b>																									
65	1660	26.6	24.5	3.87	31.6	29.1	4.01	36.8	33.5	4.13	42.4	37.7	4.27	48.8	44.4	4.45	56.7	56.7	4.68	66.2	66.2	5.01	76.4	76.4	5.41
	1750	26.8	24.6	3.87	31.7	29.2	4.00	36.9	33.6	4.12	42.5	37.8	4.25	49.0	44.6	4.41	56.9	56.9	4.64	66.5	66.5	4.96	76.4	76.4	5.35
	1850	26.9	24.7	3.87	31.8	29.2	3.99	37.0	33.8	4.10	42.6	37.9	4.22	49.1	44.7	4.38	57.1	57.1	4.60	66.8	66.8	4.91	76.7	76.7	5.29
70	1660	26.1	24.0	4.03	31.3	28.7	4.19	36.4	33.2	4.33	42.0	37.3	4.49	48.3	43.9	4.67	56.0	56.0	4.91	65.4	65.4	5.25	75.0	75.0	5.65
	1750	26.2	24.1	4.03	31.4	28.8	4.18	36.5	33.3	4.32	42.1	37.4	4.46	48.4	44.1	4.63	56.2	56.2	4.87	65.7	65.7	5.20	75.4	75.4	5.59
	1850	26.3	24.2	4.03	31.5	28.9	4.18	36.6	33.4	4.30	42.2	37.5	4.43	48.6	44.2	4.60	56.4	56.4	4.82	66.0	66.0	5.14	75.8	75.8	5.53
75	1660	25.4	23.4	4.20	30.9	28.4	4.38	36.0	32.8	4.54	41.5	36.9	4.71	47.7	43.4	4.89	55.3	55.3	5.15	64.5	64.5	5.50	74.0	74.0	5.91
	1750	25.5	23.5	4.20	31.0	28.5	4.37	36.1	32.9	4.52	41.7	37.0	4.68	47.9	43.6	4.86	55.6	55.6	5.10	64.8	64.8	5.44	74.4	74.4	5.84
	1850	25.7	23.6	4.20	31.1	28.6	4.36	36.2	33.0	4.51	41.8	37.1	4.65	48.0	43.7	4.82	55.8	55.8	5.06	65.1	65.1	5.39	74.8	74.8	5.78

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Unit Size	Heating		Indoor Section	Unit Size	Heating	
		Capacity	Power			Capacity	Power
CE3AA	060	0.99	1.11	CK5A/CK5BX	060	0.99	1.05
CK3BA	060	0.99	1.05	PF1MN(A,B)	060	1.01	1.11
CK5A/CK5BA	060	0.99	1.11		070	1.02	1.07
CK5A/CK5BT	060	0.99	1.11		071	1.00	1.00

NOTE: When the required data fall between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.  
 \* The Btuh heating capacity values shown are net "integrated" values from which the defrost effect has been subtracted. The Btuh heating from supplement heaters should be added to those values to obtain total system capacity.  
 † The kW values include the compressor, outdoor fan motor, and indoor blower motor. The kW from supplement heaters should be added to these values to obtain total system kilowatts.  
 EDB = Entering Dry Bulb

## SYSTEM DESIGN

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01-in. wc.
2. Minimum outdoor operating air temperature for cooling mode without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature for cooling mode is 115°F (46.1°C).
4. Minimum outdoor operating air temperature for heating mode is -30°F (-34.4°C).
5. Maximum outdoor operating air temperature for heating mode is 66°F (18.9°C).
6. For reliable operation, unit should be level in all horizontal planes.
7. Maximum elevation of indoor coil above or below base of outdoor unit is: indoor coil above = 50 ft, indoor coil below = 150 ft.
8. For interconnecting refrigerant tube lengths greater than 50 ft horizontal, or 20 ft vertical differential, consult Long-Line Application Guideline available from equipment distributor.
9. If ANY refrigerant tubing is buried, provide a minimum 6-in. vertical rise to the valve connections at the unit. Refrigerant tubing lengths up to 36-in. may be buried without further considerations. For buried refrigerant tubing lengths greater than 36 in., see your local distributor.
10. Use only copper wire for electric connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
11. Mixmatches of indoor coil capacity more than 1 size larger than outdoor unit capacity may result in inadequate indoor comfort.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE  
WITH INSTALLATION INSTRUCTIONS

Cancels: SS-PH12-10



Heating & Cooling