

# AIR CONDITIONER



# **BROCK**

HEATING & COOLING



BROPA16NA

**16 SEER Split-System  
Air Conditioner**

[brockhvac.com](http://brockhvac.com)



# BROPA16NA 16 Seer Split-System Air Conditioner

With R-410A Refrigerant  
2 To 5 Nominal Tons

## FEATURES AND BENEFITS

**AVAILABLE SIZES:** Nominal sizes are available from 024 through 060 to meet the needs of residential and light commercial applications.

**CERTIFICATION:** All models are listed with UL, (U.S. and Canada), and AHRI.

**ELECTRICAL RANGE:** Units offered in single phase 208/230v are 024-060.

**FAN MOTOR:** The totally enclosed fan motor provides greater reliability under adverse conditions and dependable performance for many years. The enclosed fan motor was designed for optimum efficiency. The motor was then qualified under extreme conditions to help ensure a long, reliable life.

**CABINET:** A weather protective cabinet of prepainted 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.

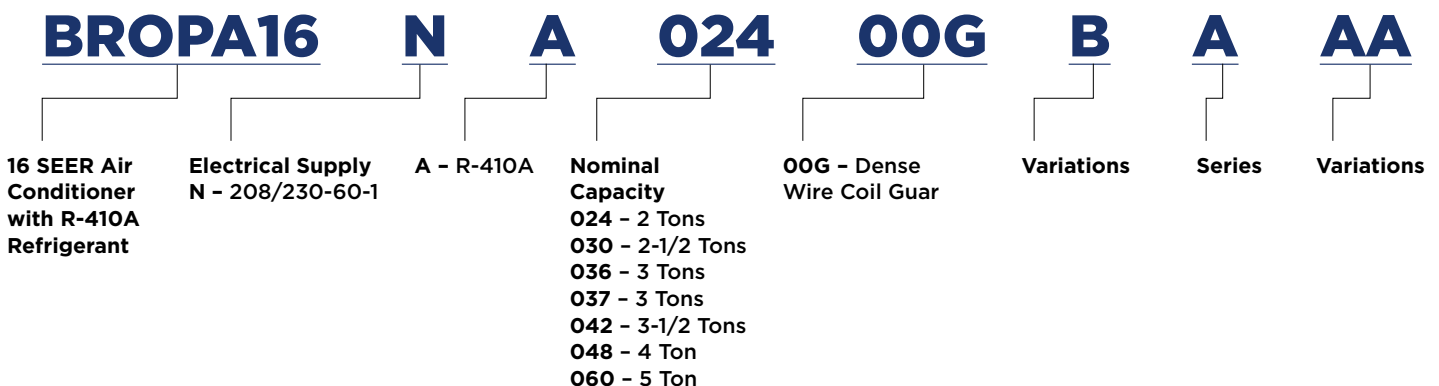
**COMPRESSOR:** Each compressor is protected with internal temperature- and current-sensitive overloads. An internal pressure relief valve provides high pressure protection to the refrigerant system. For improved serviceability, all models are equipped with a compressor terminal plug.

**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.

*NOTE: Ratings contained in this document are subject to change at any time. Always refer to the AHRI directory ([www.ahridirectory.org](http://www.ahridirectory.org)) for the most up-to-date ratings information.*

## MODEL NUMBER NOMENCLATURE



## STANDARD FEATURES & PHYSICAL DATA

### STANDARD FEATURES

| Feature                         | 024  | 030  | 036  | 037  | 042  | 048  | 060  |
|---------------------------------|------|------|------|------|------|------|------|
| R-410A Refrigerant              | X    | X    | X    | X    | X    | X    | X    |
| Maximum SEER *                  | 16.5 | 16.5 | 16.5 | 16.0 | 16.0 | 16.5 | 16.0 |
| Scroll Compressor               | X    | X    | X    | X    | X    | X    | X    |
| Field Installed Filter Drier    | X    | X    | X    | X    | X    | X    | X    |
| Front Seating Service Valves    | X    | X    | X    | X    | X    | X    | X    |
| Internal Pressure Relief Valve  | X    | X    | X    | X    | X    | X    | X    |
| Internal Thermal Overload       | X    | X    | X    | X    | X    | X    | X    |
| Long Line capability            | X    | X    | X    | X    | X    | X    | X    |
| Low Ambient capability with Kit | X    | X    | X    | X    | X    | X    | X    |
| Dense Grille                    | X    | X    | X    | X    | X    | X    | X    |

\* With approved combinations  
X = Standard

### PHYSICAL DATA

| Unit Size - Voltage, Series | 024-A  | 030-A  | 036-C  | 037-B                        | 042-B  | 048-C  | 60-C   |
|-----------------------------|--------|--------|--------|------------------------------|--------|--------|--------|
| Compressor Type             |        |        |        | Scroll                       |        |        |        |
| Refrigerant                 |        |        |        | R-410A                       |        |        |        |
| Control                     |        |        |        | TXV (R-410A Hard Shutoff)    |        |        |        |
| Charge lb (kg)              | 5.53   | 6.17   | 6.75   | 6.75                         | 8.62   | 13.0   | 14.00  |
|                             | (2.51) | (2.80) | (3.06) | (3.06)                       | (3.91) | (5.90) | (6.35) |
| Cond. Fan                   |        |        |        | Propeller Type, Direct Drive |        |        |        |
| Air Discharge               |        |        |        | Vertical                     |        |        |        |
| Air Qty (CFM)               | 2614   | 2614   | 3223   | 3810                         | 3810   | 4046   | 4000   |
| Motor HP                    | 1/10   | 1/10   | 1/12   | 1/5                          | 1/5    | 1/4    | 1/3    |
| Motor RPM                   | 1100   | 1100   | 800    | 810                          | 800    | 800    | 817    |
| Cond. Coil                  |        |        |        |                              |        |        |        |
| Face Area (Sq ft)           | 15.10  | 17.20  | 17.60  | 17.60                        | 25.15  | 25.15  | 30.15  |
| Fins per In.                | 25     | 25     | 25     | 25                           | 25     | 20     | 20     |
| Rows                        | 1      | 1      | 1      | 1                            | 1      | 2      | 2      |
| Circuits                    | 4      | 4      | 4      | 4                            | 6      | 7      | 12     |
| Valve Connect. (In. ID)     |        |        |        |                              |        |        |        |
| Vapor                       | 3/4    | 3/4    | 7/8    | 7/8                          | 7/8    | 7/8    | 7/8    |
| Liquid                      | 3/8    | 3/8    | 3/8    | 3/8                          | 3/8    | 3/8    | 3/8    |
| Refrigerant Tubes (In. OD)  |        |        |        |                              |        |        |        |
| Rated Vapor*                | 3/4    |        | 7/8    |                              |        |        | 1-1/8  |
| Max Liquid Line †           | 3/8    |        |        |                              |        |        |        |

\* Units are rated with 25 ft (7.6 m) of lineset length. See Vapor Line Sizing and Cooling Capacity Loss table when using other sizes and lengths of lineset.

Note: See unit Installation Instruction for proper installation.

† See Liquid Line Sizing For Cooling Only Systems with R-410A Refrigerant tables.

## REFRIGERANT PIPING LENGTH LIMITATIONS

### Liquid Line Sizing and Maximum Total Equivalent Lengths<sup>†</sup> for Cooling Only Systems with R-410A Refrigerant:

The maximum allowable length of a residential split system depends on the liquid line diameter and vertical separation between indoor and outdoor units. See Table below for liquid line sizing and maximum lengths:

#### Maximum Total Equivalent Length Outdoor Unit BELOW Indoor Unit

| Size  | Liquid Line Connection | Liquid Line Diam. w/ TXV | AC with R-410A Refrigerant Maximum Total Equivalent Length <sup>†</sup> : Outdoor unit BELOW Indoor Vertical Separation ft (m) |                   |                    |                    |                     |                      |                      |                      |                      |
|-------|------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------|--------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
|       |                        |                          | 0-5<br>(0-1.5)                                                                                                                 | 6-10<br>(1.8-3.0) | 11-20<br>(3.4-6.1) | 21-30<br>(6.4-9.1) | 31-40<br>(9.4-12.2) | 41-50<br>(12.5-15.2) | 51-60<br>(15.5-18.3) | 61-70<br>(18.6-21.3) | 71-80<br>(21.6-24.4) |
| 24000 | 3/8                    | 1/4                      | 75                                                                                                                             | 75                | 75                 | 50                 | 50                  | -                    | -                    | -                    | -                    |
|       |                        | 5/16                     | 250*                                                                                                                           | 250*              | 250*               | 250*               | 250*                | 225*                 | 175                  | 125                  | 100                  |
|       |                        | 3/8                      | 250*                                                                                                                           | 250*              | 250*               | 250*               | 250*                | 250*                 | 250*                 | 250*                 | 250*                 |
| 30000 | 3/8                    | 1/4                      | 30                                                                                                                             | -                 | -                  | -                  | -                   | -                    | -                    | -                    | -                    |
|       |                        | 5/16                     | 175                                                                                                                            | 225*              | 200                | 175                | 125                 | 100                  | 75                   | -                    | -                    |
|       |                        | 3/8                      | 250*                                                                                                                           | 250*              | 250*               | 250*               | 250*                | 250*                 | 250*                 | 250*                 | 250*                 |
| 36000 | 3/8                    | 5/16                     | 175                                                                                                                            | 150               | 150                | 100                | 100                 | 100                  | 75                   | -                    | -                    |
| 37000 |                        | 3/8                      | 250*                                                                                                                           | 250*              | 250*               | 250*               | 250*                | 250*                 | 250*                 | 250*                 | 250*                 |
| 42000 | 3/8                    | 5/16                     | 125                                                                                                                            | 100               | 100                | 75                 | 75                  | 50                   | -                    | -                    | -                    |
|       |                        | 3/8                      | 250*                                                                                                                           | 250*              | 250*               | 250*               | 250*                | 250*                 | 250*                 | 250*                 | 150                  |
| 48000 | 3/8                    | 3/8                      | 250*                                                                                                                           | 250*              | 250*               | 250*               | 250*                | 250*                 | 230                  | 160                  | -                    |
| 60000 | 3/8                    | 3/8                      | 250*                                                                                                                           | 250*              | 250*               | 225*               | 190                 | 150                  | 110                  | -                    | -                    |

\* Maximum actual length not to exceed 200 ft (61 m)

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

- = outside acceptable range

#### Maximum Total Equivalent Length Outdoor Unit ABOVE Indoor Unit

| Size  | Liquid Line Connection | Liquid Line Diam. w/ TXV | AC with R-410A Refrigerant Maximum Total Equivalent Length <sup>†</sup> : Outdoor unit ABOVE Indoor Vertical Separation ft (m) |                     |                      |                       |                        |                        |                        |                        |
|-------|------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
|       |                        |                          | 25<br>(7.6)                                                                                                                    | 26-50<br>(7.9-15.2) | 51-75<br>(15.5-22.9) | 76-100<br>(23.2-30.5) | 101-125<br>(30.8-38.1) | 126-150<br>(38.4-45.7) | 151-175<br>(46.0-53.3) | 176-200<br>(53.6-61.0) |
| 24000 | 3/8                    | 1/4                      | 100                                                                                                                            | 125                 | 175                  | 200                   | 225*                   | 250*                   | 250*                   | 250*                   |
|       |                        | 5/16                     | 250*                                                                                                                           | 250*                | 250*                 | 250*                  | 250*                   | 250*                   | 250*                   | 250*                   |
|       |                        | 3/8                      | 250*                                                                                                                           | 250*                | 250*                 | 250*                  | 250*                   | 250*                   | 250*                   | 250*                   |
| 30000 | 3/8                    | 1/4                      | 30                                                                                                                             | -                   | -                    | -                     | -                      | -                      | -                      | -                      |
|       |                        | 5/16                     | 250*                                                                                                                           | 250*                | 250*                 | 250*                  | 250*                   | 250*                   | 250*                   | 250*                   |
|       |                        | 3/8                      | 250*                                                                                                                           | 250*                | 250*                 | 250*                  | 250*                   | 250*                   | 250*                   | 250*                   |
| 36000 | 3/8                    | 5/16                     | 225*                                                                                                                           | 250*                | 250*                 | 250*                  | 250*                   | 250*                   | 250*                   | 250*                   |
| 37000 |                        | 3/8                      | 250*                                                                                                                           | 250*                | 250*                 | 250*                  | 250*                   | 250*                   | 250*                   | 250*                   |
| 42000 | 3/8                    | 5/16                     | 175                                                                                                                            | 200                 | 250*                 | 250*                  | 250*                   | 250*                   | 250*                   | 250*                   |
|       |                        | 3/8                      | 250*                                                                                                                           | 250*                | 250*                 | 250*                  | 250*                   | 250*                   | 250*                   | 250*                   |
| 48000 | 3/8                    | 3/8                      | 250*                                                                                                                           | 250*                | 250*                 | 250*                  | 250*                   | 250*                   | 250*                   | 250*                   |
| 60000 | 3/8                    | 3/8                      | 250*                                                                                                                           | 250*                | 250*                 | 250*                  | 250*                   | 250*                   | 250*                   | 250*                   |

\* Maximum actual length not to exceed 200 ft (61 m)

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

- = outside acceptable range

## REFRIGERANT CHARGE ADJUSTMENTS

| Liquid Line Size | R-410A Charge oz/ft (g/m)                                      |
|------------------|----------------------------------------------------------------|
| 3/8              | 0.60 (17.74)<br>(Factory charge for lineset = 9 oz / 266.16 g) |
| 5/16             | 0.40 (11.83)                                                   |
| 1/4              | 0.27 (7.98)                                                    |

Units are factory charged for 15 ft (4.6 m) of 3/8" liquid line. The factory charge for 3/8" lineset 9 oz. When using other length or diameter liquid lines, charge adjustments are required per the chart above.

### Charging Formula:

$[(\text{Lineset oz/ft} \times \text{total length}) - (\text{factory charge for lineset})]$   
= charge adjustment

**Example 1:** System has 15 ft of line set using existing 1/4" liquid line. What charge adjustment is required?  
*Formula:*  $(.27 \text{ oz/ft} \times 15\text{ft}) - (9 \text{ oz}) = (-4.95) \text{ oz.}$

Net result is to remove 4.95 oz of refrigerant from the system

**Example 2:** System has 45 ft of existing 5/16" liquid line. What is the charge adjustment?

*Formula:*  $(.40 \text{ oz/ft.} \times 45\text{ft}) - (9 \text{ oz.}) = 9 \text{ oz.}$

Net result is to add 9 oz of refrigerant to the system

**NOTE:** Conditions must be favorable for charging by subcooling method. Indoor temperature must be 70°F to 80°F (21.1°C to 26.7°C), and outdoor temperature must be 70°F to 100°F (21.1°C to 37.8°C). If outside these conditions, adjust charge for long line sets by weigh-in method.

## LONG LINE APPLICATIONS

### LONG LINE APPLICATIONS

An application is considered Long Line, when the refrigerant level in the system requires the use of accessories to maintain acceptable refrigerant management for systems reliability. See Accessory Usage Guideline table for required accessories. Defining a system as long line depends on the liquid line diameter, actual length of the tubing, and vertical separation between the indoor and outdoor units. For Air Conditioner systems, the chart below shows when an application is considered Long Line.

### AC with R-410A Refrigerant Long Line Description ft (m) Beyond these lengths, a TXV is required

| Total Length                        | Outdoor Unit Above or Below Indoor Unit |
|-------------------------------------|-----------------------------------------|
| TXV required beyond 50 ft. (15.2 m) | TXV required beyond 20 ft. (6.1 m)      |

### AC with R-410A Refrigerant Long Line Description ft (m) (Beyond these lengths, long line accessories are required)

| Liquid Line Size | Units On Same Level                          | Outdoor Below Indoor                         | Outdoor Above Indoor |
|------------------|----------------------------------------------|----------------------------------------------|----------------------|
| 1/4 + TXV        | No accessories needed within allowed lengths | No accessories needed within allowed lengths | 175 (53.3)           |
| 5/16 + TXV       | 120 (36.6)                                   | 50 (15.2) vertical or 120 (36.6) total       | 120 (36.6)           |
| 3/8 + TXV        | 80 (24.4)                                    | 35 (10.7) vertical or 80 (24.4) total        | 80 (24.4)            |

Note: See Residential Piping and Long Line Guideline for details

## VAPOR LINE SIZING AND COOLING CAPACITY LOSS

Acceptable vapor line diameters provide adequate oil return to the compressor while avoiding excessive capacity loss. The suction line diameters shown in the chart below are acceptable for AC systems with R-410A refrigerant:

### Vapor Line Sizing and Cooling Capacity Losses R-410A Refrigerant 1-Stage Air Conditioner Applications

| Unit<br>Nominal Size<br>(Btuh) | Maximum<br>Liquid Line<br>Diameters<br>(In. OD) | Vapor Line<br>Diameters<br>(In.) OD | Cooling Capacity Loss (%)                                   |                      |                       |                        |                        |                        |                        |                        |                        |
|--------------------------------|-------------------------------------------------|-------------------------------------|-------------------------------------------------------------|----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                                |                                                 |                                     | Total Equivalent Line Length ft. (m) 1-Stage AC with R-410A |                      |                       |                        |                        |                        |                        |                        |                        |
|                                |                                                 |                                     | 26-50<br>(7.9-15.2)                                         | 51-80<br>(15.5-24.4) | 81-100<br>(24.7-30.5) | 101-125<br>(30.8-38.1) | 126-150<br>(38.4-45.7) | 151-175<br>(46.0-53.3) | 176-200<br>(53.6-61.0) | 201-225<br>(61.3-68.6) | 226-250<br>(68.9-76.2) |
| 24                             | 3/8                                             | 5/8                                 | 0                                                           | 1                    | 2                     | 2                      | 3                      | 3                      | 4                      | 5                      | 5                      |
|                                |                                                 | 3/4                                 | 0                                                           | 0                    | 1                     | 1                      | 1                      | 1                      | 1                      | 2                      | 2                      |
|                                |                                                 | 7/8                                 | 0                                                           | 0                    | 0                     | 0                      | 0                      | 1                      | 1                      | 1                      | 1                      |
| 30                             | 3/8                                             | 5/8                                 | 1                                                           | 2                    | 3                     | 3                      | 4                      | 5                      | 6                      | 7                      | 8                      |
|                                |                                                 | 3/4                                 | 0                                                           | 0                    | 1                     | 1                      | 1                      | 2                      | 2                      | 2                      | 3                      |
|                                |                                                 | 7/8                                 | 0                                                           | 0                    | 0                     | 0                      | 1                      | 1                      | 1                      | 1                      | 1                      |
| 36, 37                         | 3/8                                             | 5/8                                 | 1                                                           | 2                    | 4                     | 5                      | 6                      | 8                      | 9                      | 10                     | 12                     |
|                                |                                                 | 3/4                                 | 0                                                           | 1                    | 1                     | 2                      | 2                      | 3                      | 3                      | 4                      | 4                      |
|                                |                                                 | 7/8                                 | 0                                                           | 0                    | 0                     | 1                      | 1                      | 1                      | 1                      | 2                      | 2                      |
| 42                             | 3/8                                             | 3/4                                 | 0                                                           | 1                    | 2                     | 2                      | 3                      | 4                      | 4                      | 5                      | 6                      |
|                                |                                                 | 7/8                                 | 0                                                           | 0                    | 1                     | 1                      | 1                      | 2                      | 2                      | 2                      | 3                      |
|                                |                                                 | 1-1/8                               | 0                                                           | 0                    | 0                     | 0                      | 0                      | 0                      | 0                      | 0                      | 0                      |
| 48                             | 3/8                                             | 3/4                                 | 0                                                           | 1                    | 2                     | 3                      | 4                      | 5                      | 5                      | 6                      | 7                      |
|                                |                                                 | 7/8                                 | 0                                                           | 0                    | 1                     | 1                      | 2                      | 2                      | 2                      | 3                      | 3                      |
|                                |                                                 | 1-1/8                               | 0                                                           | 0                    | 0                     | 0                      | 0                      | 0                      | 0                      | 1                      | 1                      |
| 60                             | 3/8                                             | 3/4                                 | 1                                                           | 2                    | 4                     | 5                      | 6                      | 7                      | 9                      | 10                     | 11                     |
|                                |                                                 | 7/8                                 | 0                                                           | 1                    | 2                     | 2                      | 3                      | 4                      | 4                      | 5                      | 5                      |
|                                |                                                 | 1-1/8                               | 0                                                           | 0                    | 0                     | 1                      | 1                      | 1                      | 1                      | 1                      | 1                      |

Applications in this area may be long line and may have height restrictions. See the Residential Piping and Long Line Guideline.



## ACCESSORY USAGE GUIDELINE

| Accessory                                            | Required for Low Ambient Cooling Applications<br>(Below 55° F / 12.8° C) | Required for Long Line Applications*<br>(Over 80 ft./24.38 m) | Required for Sea Coas Applications<br>(within 2 miles/3.2 km) |
|------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| Ball Bearing Fan Motor                               | Yes†                                                                     | No                                                            | No                                                            |
| Compressor Start Assist Capacitor and Relay          | Yes                                                                      | Yes                                                           | No                                                            |
| Crankcase Heater                                     | Yes                                                                      | Yes                                                           | No                                                            |
| Evaporator Freeze Thermostat                         | Yes                                                                      | No                                                            | No                                                            |
| Hard Shut-Off TXV                                    | Yes                                                                      | Yes                                                           | Yes                                                           |
| Liquid Line Solenoid Valve                           | No                                                                       | No                                                            | No                                                            |
| Motor Master® Control or Low-ambient Pressure Switch | Yes                                                                      | No                                                            | No                                                            |
| Support Feet                                         | Recommended                                                              | No                                                            | Recommended                                                   |
| Winter Start Control                                 | Yes                                                                      | No                                                            | No                                                            |

\* For tubing line sets between 80 and 200 ft. (24.38 and 60.96 m) and/or 20 ft. (6.09 m) vertical differential, refer to Residential Split-System Longline Application Guideline.

† Required for Low-Ambient Controller (full modulation feature) MotorMaster® Control.

## Accessory 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 is used.

### 2. 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 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.

### 3. Compressor Start Assist — PTC Type

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

#### Usage Guideline:

Suggested in installations with marginal power supply.

### 4. 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.

#### Usage Guideline:

- Required in low ambient cooling applications.
- Required in long line applications.
- Suggested in all commercial applications.

### 5. Cycle Protector

The cycle protector is designed to prevent compressor short cycling. This control provides an approximate 5-minute delay after power to the compressor has been interrupted for any reason, including power outage, protector control trip, thermostat jiggling, or normal cycling.

### 6. 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.

## 7. Low-Ambient Pressure Switch Kit

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 (-18°C) when properly installed.

### Usage Guideline:

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

## 8. MotorMasterr 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 -10°F (-23°C), it maintains condensing temperature at 100°F ±10°F (37.8°C ±5.5°C).

### Usage Guideline:

- A MotorMasterr 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.

## 9. Outdoor Air Temperature Sensor

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.

## 10. 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 (4.57 m) to quiet areas, bedrooms, etc.
- Suggested when unit is installed between two houses less than 10 ft (3.05 m) apart.

## 11. Support Feet

Four stick-on plastic feet that raise the unit 4 in. (101.6 mm) above the mounting pad. This allows sand, dirt, and other debris to be flushed from the unit base, minimizing corrosion.

### Usage Guideline:

- Suggested in the following applications:
  - Coastal installations.
  - Windy areas or where debris is normally circulating.
  - Rooftop installations.
  - For improved sound ratings.

## 12. Thermostatic Expansion Valve (TXV)

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. Hard shut off types 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 AHRI ratings in certain equipment combinations. Refer to combination ratings.
- Hard shut off TXV or LLS required in air conditioner long line applications.
- Required for use on all zoning systems.

## 13. 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 AHRI Unitary Directory.

## 14. Winter Start Control

This control is designed to alleviate nuisance opening of the low-pressure switch by bypassing it for the first 3 minutes of operation.



## ELECTRICAL DATA & WEIGHTED SOUND POWER LEVEL

### ELECTRICAL DATA

| Unit Size | V/PH      | Oper Volts* |     | Compr |      | Fan  |      | Max Fuse** or<br>CKT BRK AMPS |
|-----------|-----------|-------------|-----|-------|------|------|------|-------------------------------|
|           |           | Max         | Min | LRA   | RLA  | FLA  | MCA  |                               |
| 024-A     | 208/230-1 | 253         | 197 | 58.3  | 13.5 | 0.75 | 17.7 | 30                            |
| 030-A     | 208/230-1 | 253         | 197 | 64.0  | 12.8 | 0.75 | 16.8 | 25                            |
| 036-C     | 208/230-1 | 253         | 197 | 79.0  | 13.6 | 0.50 | 17.5 | 30                            |
| 037-B     | 208/230-1 | 253         | 197 | 79.0  | 13.6 | 1.20 | 18.2 | 30                            |
| 042-B     | 208/230-1 | 253         | 197 | 112.0 | 17.9 | 1.20 | 23.6 | 40                            |
| 048-C     | 208/230-1 | 253         | 197 | 109.0 | 19.9 | 1.20 | 26.1 | 40                            |
| 060-C     | 208/230-1 | 253         | 197 | 152.5 | 23.7 | 2.80 | 32.4 | 50                            |

\* Permissible limits of the voltage range at which the unit will operate satisfactorily \*\* Time-Delay fuse. FLA - Full Load Amps LRA - Locked Rotor Amps MCA - Minimum Circuit Amps RLA - Rated Load Amps NOTE: Control circuit is 24-V on all units and requires external power source. Copper wire must be used from service disconnect to unit. All motors/compressors contain internal overload protection. Complies with 2007 requirements of ASHRAE Standards 90.1

### A-WEIGHTED SOUND POWER LEVEL (dBA)

| Unit Size -<br>Voltage, Series | Standard<br>Rating (dBA) | Typical Octave Band Spectrum (dBA, without tone adjustment) |      |      |      |      |      |      |
|--------------------------------|--------------------------|-------------------------------------------------------------|------|------|------|------|------|------|
|                                |                          | 125                                                         | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
| 024-A                          | 76                       | 57.5                                                        | 64.0 | 69.0 | 71.0 | 69.0 | 64.5 | 60.0 |
| 030-A                          | 76                       | 55.0                                                        | 63.5 | 68.0 | 69.5 | 67.0 | 63.5 | 58.5 |
| 036-C                          | 76                       | 50.5                                                        | 59.5 | 64.5 | 70.5 | 62.0 | 59.5 | 54.5 |
| 037-B                          | 71                       | 49.0                                                        | 60.0 | 59.0 | 61.0 | 59.0 | 55.0 | 47.0 |
| 042-B                          | 78                       | 52.5                                                        | 62.0 | 66.0 | 73.5 | 68.0 | 62.0 | 55.5 |
| 048-C                          | 78                       | 57.5                                                        | 61.5 | 66.0 | 70.5 | 65.5 | 59.5 | 53.5 |
| 060-C                          | 74                       | 66.0                                                        | 67.0 | 68.0 | 72.0 | 64.0 | 60.0 | 57.0 |

NOTE: Tested in accordance with AHRI Standard 270-08 (not listed in AHRI).

### A-WEIGHTED SOUND POWER LEVEL (dBA) WITH SOUND SHIELD

| Unit Size -<br>Voltage, Series | Standard<br>Rating (dBA) | Typical Octave Band Spectrum (dBA, without tone adjustment) |      |      |      |      |      |      |
|--------------------------------|--------------------------|-------------------------------------------------------------|------|------|------|------|------|------|
|                                |                          | 125                                                         | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
| 024-A                          | 75                       | 58.0                                                        | 64.0 | 69.0 | 70.5 | 68.5 | 64.5 | 59.5 |
| 030-A                          | 75                       | 55.5                                                        | 63.0 | 68.0 | 69.0 | 67.0 | 63.0 | 58.5 |
| 036-C                          | 74                       | 51.5                                                        | 58.5 | 62.0 | 65.0 | 61.0 | 58.0 | 52.0 |
| 037-B                          | 69                       | 48.0                                                        | 59.0 | 57.0 | 59.0 | 56.0 | 51.0 | 40.0 |
| 042-B                          | 76                       | 53.0                                                        | 62.0 | 65.5 | 72.0 | 65.0 | 61.0 | 54.0 |
| 048-C                          | 76                       | 58.5                                                        | 61.5 | 66.0 | 69.0 | 64.0 | 58.5 | 51.0 |
| 060-C                          | 73                       | 67.0                                                        | 68.0 | 68.0 | 71.0 | 63.0 | 55.0 | 52.0 |

NOTE: Tested in accordance with AHRI Standard 270-08 (not listed in AHRI).

### CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

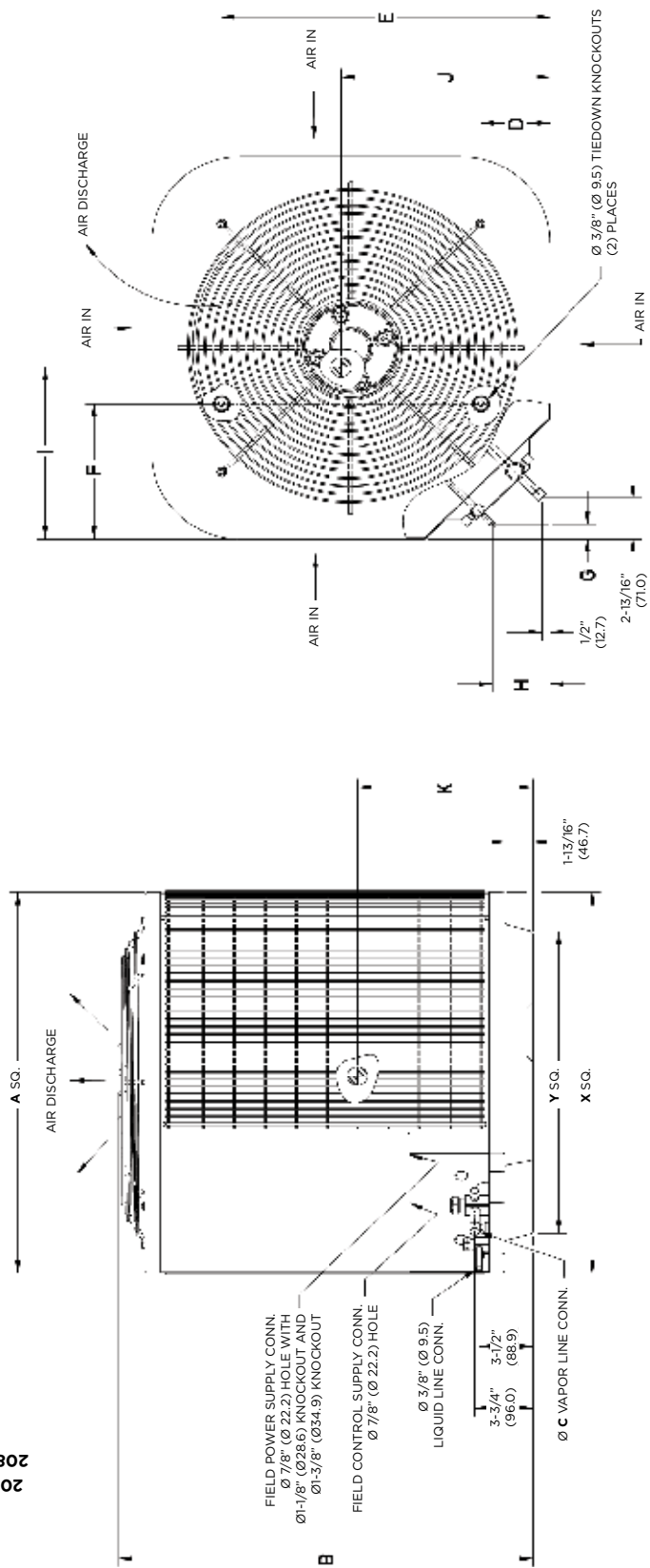
| Unit Size - Voltage, Series | 024-A    | 030-A    | 036-C    | 037-B    | 042-B   | 048-C   | 060-C   |
|-----------------------------|----------|----------|----------|----------|---------|---------|---------|
| Required Subcooling °F (°C) | 10 (5.6) | 10 (5.6) | 10 (5.6) | 11 (6.1) | 9 (5.0) | 8 (4.4) | 9 (5.0) |

## DIMENSIONS

| Unit              | Series | Electrical Characteristics |    |    |         |       |          |        |     |      |        |       |         |       |       |       |      |     |    |      |        |       |        |                  |        | Shipping Dimensions |     |                     |     |                 |         |       |         |        |
|-------------------|--------|----------------------------|----|----|---------|-------|----------|--------|-----|------|--------|-------|---------|-------|-------|-------|------|-----|----|------|--------|-------|--------|------------------|--------|---------------------|-----|---------------------|-----|-----------------|---------|-------|---------|--------|
|                   |        | A                          |    | B  |         | C     |          | D      |     | E    |        | F     |         | G     |       | H     |      | I   |    | J    |        | K     |        | Operating Weight |        | Shipping Weight     |     | Shipping L/W (Std.) |     | Shipping Height |         |       |         |        |
|                   |        | IN                         | MM | IN | MM      | IN    | MM       | IN     | MM  | IN   | MM     | IN    | MM      | IN    | MM    | IN    | MM   | IN  | MM | IN   | MM     | IN    | MM     | LBS              | KGS    | IN                  | MM  | IN                  | MM  | IN              | MM      |       |         |        |
| PAT6N/A0240CGAAAA | A      | Y                          | N  | N  | 31-3/16 | 792.5 | 28-1/4   | 718.0  | 3/4 | 19.1 | 6-9/16 | 166.1 | 24-1/16 | 626.3 | 9-1/8 | 231.3 | 5/16 | 7.9 | 3  | 76.2 | 13     | 330.2 | 12     | 304.8            | 12-1/2 | 317.5               | 142 | 64.4                | 163 | 73.9            | 32-3/16 | 817.9 | 29-7/8  | 758.5  |
| PAT6N/A03000GAAAA | A      | Y                          | N  | N  | 31-3/16 | 792.5 | 31-1/16  | 804.3  | 3/4 | 19.1 | 6-9/16 | 166.1 | 24-1/16 | 626.3 | 9-1/8 | 231.3 | 5/16 | 7.9 | 3  | 76.2 | 17     | 431.8 | 16-1/2 | 419.1            | 14-1/2 | 368.3               | 150 | 68.0                | 171 | 77.6            | 32-3/16 | 817.9 | 33-1/4  | 844.9  |
| PAT6M/A03500CGAAC | C      | Y                          | N  | N  | 35      | 889.0 | 28-11/16 | 728.7  | 7/8 | 22.2 | 6-9/16 | 166.1 | 28-7/16 | 722.8 | 9-1/8 | 231.3 | 5/16 | 7.9 | 3  | 76.2 | 16     | 406.4 | 16     | 406.4            | 13     | 330.2               | 165 | 74.8                | 182 | 82.6            | 36      | 914.9 | 30-3/8  | 771.2  |
| PAT6M/A03700GABAA | B      | Y                          | N  | N  | 35      | 889.0 | 28-11/16 | 728.7  | 7/8 | 22.2 | 6-9/16 | 166.1 | 28-7/16 | 722.8 | 9-1/8 | 231.3 | 5/16 | 7.9 | 3  | 76.2 | 16     | 406.4 | 16     | 406.4            | 13     | 330.2               | 165 | 74.8                | 182 | 82.6            | 36      | 914.9 | 30-3/8  | 771.2  |
| PAT6M/A04200GABAA | B      | Y                          | N  | N  | 35      | 889.0 | 38-7/8   | 981.8  | 7/8 | 22.2 | 6-9/16 | 166.1 | 28-7/16 | 722.8 | 9-1/8 | 231.3 | 5/16 | 7.9 | 3  | 76.2 | 16-1/2 | 419.1 | 17-1/2 | 444.5            | 17-1/2 | 444.5               | 213 | 96.6                | 234 | 106.1           | 36      | 914.9 | 40-9/16 | 1030.4 |
| PAT6M/A04800GACAA | C      | Y                          | N  | N  | 35      | 889.0 | 38-7/8   | 981.8  | 7/8 | 22.2 | 6-9/16 | 166.1 | 28-7/16 | 722.8 | 9-1/8 | 231.3 | 5/16 | 7.9 | 3  | 76.2 | 17-1/2 | 444.5 | 16-1/2 | 419.1            | 15     | 381.0               | 264 | 119.7               | 290 | 131.5           | 36      | 914.9 | 40-9/16 | 1030.4 |
| PAT6M/A0680BGACAA | C      | Y                          | N  | N  | 35      | 889.0 | 45-11/16 | 1160.5 | 7/8 | 22.2 | 6-9/16 | 166.1 | 28-7/16 | 722.8 | 9-1/8 | 231.3 | 5/16 | 7.9 | 3  | 76.2 | 17-1/8 | 435.0 | 18-3/8 | 466.7            | 21-1/4 | 559.8               | 280 | 127.0               | 318 | 144.2           | 36      | 914.9 | 47-3/8  | 1203.2 |

Y = Yes  
N = No

208-230-1-60  
208/230-3-60  
460-3-60  
575-3-60

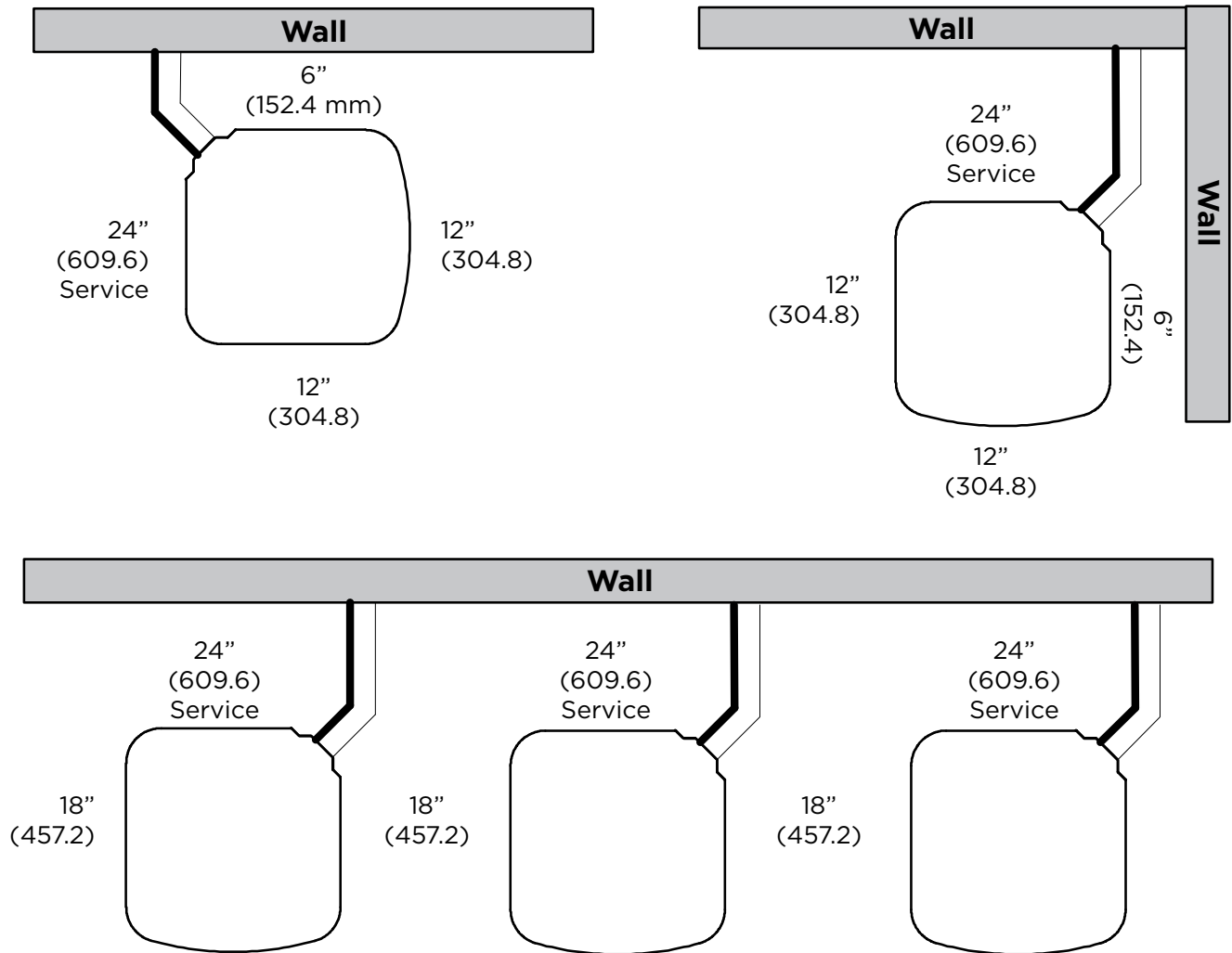


Note: All Dimensions In Inch (mm)      U.S. ECCN: Not Subject to Regulation (N.S.R.)

| Unit Size          | "X" Minimum Ground Mounting Pad Application Dimensions | "Y" Minimum Roof-Top Mounting Pad Application Dimensions |
|--------------------|--------------------------------------------------------|----------------------------------------------------------|
| -                  | 23-1/8 587.3                                           | 17-7/8 454.6                                             |
| -                  | 25-3/4 654.0                                           | 20-7/16 518.5                                            |
| 24, 30             | 31-3/16 792.5                                          | 22-15/16 583.2                                           |
| 36, 37, 42, 48, 60 | 35 889.0                                               | 26-3/4 679.7                                             |

## CLEARANCES

### Clearances (Various Examples)



Note: Numbers in ( ) = mm

IMPORTANT: When installing multiple units in an alcove, roof well, or partially enclosed area, ensure there is adequate ventilation to prevent re-circulation of discharge air.

## DETAILED COOLING CAPACITIES

| EVAPORATOR AIR<br>CFM EWB °F (°C)                                   |             | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |       |       |      |                           |       |       |       |                           |       |       |       |                           |       |       |      |
|---------------------------------------------------------------------|-------------|---------------------------------------------|-------|-------|------|---------------------------|-------|-------|-------|---------------------------|-------|-------|-------|---------------------------|-------|-------|------|
|                                                                     |             | 75 (23.9)                                   |       |       |      | 85 (29.4)                 |       |       |       | 95 (35)                   |       |       |       | 105 (40.6)                |       |       |      |
|                                                                     |             | Capacity MBtu/h†<br>Total                   | Sens† | Total | KW** | Capacity MBtu/h†<br>Total | Sens† | Total | KW**  | Capacity MBtu/h†<br>Total | Sens† | Total | KW**  | Capacity MBtu/h†<br>Total | Sens† | Total | KW** |
| <b>PA16NA024-A Outdoor Section With CNPV-3117A** Indoor Section</b> |             |                                             |       |       |      |                           |       |       |       |                           |       |       |       |                           |       |       |      |
| 700                                                                 | 72 (22.2)   | 28.21                                       | 13.70 | 1.55  | 1.74 | 25.54                     | 12.78 | 1.94  | 24.09 | 12.29                     | 2.16  | 22.56 | 11.77 | 2.41                      | 20.94 | 11.24 | 2.68 |
|                                                                     | 67 (19.4)   | 25.63                                       | 16.78 | 1.55  | 1.73 | 23.19                     | 15.85 | 1.93  | 21.87 | 15.36                     | 2.15  | 20.47 | 14.84 | 2.39                      | 18.98 | 14.29 | 2.67 |
|                                                                     | 63 (17.2)** | 23.72                                       | 16.13 | 1.55  | 1.73 | 21.46                     | 15.20 | 1.92  | 20.22 | 14.70                     | 2.14  | 18.91 | 14.18 | 2.38                      | 17.52 | 13.62 | 2.67 |
|                                                                     | 62 (16.7)   | 23.32                                       | 19.80 | 1.55  | 1.73 | 21.14                     | 18.86 | 1.92  | 20.00 | 19.96                     | 2.14  | 18.95 | 18.95 | 2.38                      | 17.82 | 17.82 | 2.67 |
|                                                                     | 57 (13.9)   | 22.68                                       | 22.68 | 1.55  | 1.73 | 20.93                     | 20.93 | 1.92  | 19.96 | 19.96                     | 2.14  | 18.92 | 18.92 | 2.38                      | 17.79 | 17.79 | 2.67 |
| 800                                                                 | 72 (22.2)   | 28.72                                       | 14.43 | 1.58  | 1.77 | 25.95                     | 13.49 | 1.98  | 24.44 | 12.99                     | 2.20  | 22.85 | 12.47 | 2.44                      | 21.17 | 11.93 | 2.72 |
|                                                                     | 67 (19.4)   | 26.16                                       | 17.95 | 1.58  | 1.77 | 23.60                     | 17.00 | 1.97  | 22.22 | 16.49                     | 2.19  | 20.76 | 15.96 | 2.43                      | 19.23 | 15.41 | 2.71 |
|                                                                     | 63 (17.2)** | 24.23                                       | 17.22 | 1.58  | 1.77 | 21.86                     | 16.27 | 1.96  | 20.58 | 15.76                     | 2.18  | 19.21 | 15.22 | 2.42                      | 17.78 | 14.66 | 2.70 |
|                                                                     | 62 (16.7)   | 23.91                                       | 21.38 | 1.58  | 1.77 | 21.85                     | 21.85 | 1.96  | 20.81 | 20.81                     | 2.18  | 19.69 | 19.69 | 2.42                      | 18.49 | 18.49 | 2.71 |
|                                                                     | 57 (13.9)   | 23.70                                       | 23.70 | 1.58  | 1.76 | 21.82                     | 21.82 | 1.96  | 20.78 | 20.78                     | 2.18  | 19.66 | 19.66 | 2.43                      | 18.46 | 18.46 | 2.71 |
| 900                                                                 | 72 (22.2)   | 29.09                                       | 15.12 | 1.62  | 1.81 | 26.23                     | 14.18 | 2.02  | 24.68 | 13.67                     | 2.24  | 23.05 | 13.15 | 2.48                      | 21.32 | 12.60 | 2.76 |
|                                                                     | 67 (19.4)   | 26.54                                       | 19.08 | 1.62  | 1.81 | 23.90                     | 18.11 | 2.01  | 22.48 | 17.59                     | 2.22  | 20.98 | 17.05 | 2.47                      | 19.42 | 16.48 | 2.75 |
|                                                                     | 63 (17.2)** | 24.61                                       | 18.27 | 1.62  | 1.80 | 22.16                     | 17.30 | 2.00  | 20.84 | 16.78                     | 2.22  | 19.45 | 16.23 | 2.46                      | 17.98 | 15.65 | 2.74 |
|                                                                     | 62 (16.7)   | 24.60                                       | 24.60 | 1.62  | 1.80 | 22.58                     | 22.58 | 2.00  | 21.48 | 21.48                     | 2.22  | 20.29 | 20.29 | 2.47                      | 19.02 | 19.02 | 2.75 |
|                                                                     | 57 (13.9)   | 24.56                                       | 24.56 | 1.62  | 1.80 | 22.55                     | 22.55 | 2.00  | 21.45 | 21.45                     | 2.22  | 20.27 | 20.27 | 2.47                      | 18.99 | 18.99 | 2.75 |
| <b>PA16NA030-A Outdoor Section With CNPV-3117A** Indoor Section</b> |             |                                             |       |       |      |                           |       |       |       |                           |       |       |       |                           |       |       |      |
| 875                                                                 | 72 (22.2)   | 34.09                                       | 16.61 | 1.91  | 2.11 | 31.00                     | 15.56 | 2.33  | 29.32 | 15.00                     | 2.59  | 27.51 | 14.40 | 2.88                      | 25.53 | 13.76 | 3.22 |
|                                                                     | 67 (19.4)   | 30.99                                       | 20.47 | 1.92  | 2.12 | 28.16                     | 19.41 | 2.34  | 26.61 | 18.84                     | 2.59  | 24.93 | 18.23 | 2.88                      | 23.10 | 17.56 | 3.22 |
|                                                                     | 63 (17.2)** | 28.76                                       | 19.68 | 1.93  | 2.12 | 26.11                     | 18.61 | 2.34  | 24.65 | 18.03                     | 2.59  | 23.07 | 17.41 | 2.88                      | 21.33 | 16.73 | 3.22 |
|                                                                     | 62 (16.7)   | 28.31                                       | 24.28 | 1.93  | 2.12 | 25.80                     | 23.16 | 2.34  | 24.56 | 24.56                     | 2.59  | 23.28 | 23.28 | 2.88                      | 21.87 | 21.87 | 3.21 |
|                                                                     | 57 (13.9)   | 27.76                                       | 27.76 | 1.93  | 2.12 | 25.69                     | 25.69 | 2.34  | 24.52 | 24.52                     | 2.59  | 23.25 | 23.25 | 2.88                      | 21.83 | 21.83 | 3.21 |
| 1000                                                                | 72 (22.2)   | 34.67                                       | 17.49 | 1.96  | 2.15 | 31.45                     | 16.42 | 2.38  | 29.71 | 15.86                     | 2.63  | 27.83 | 15.25 | 2.93                      | 25.79 | 14.60 | 3.26 |
|                                                                     | 67 (19.4)   | 31.55                                       | 21.88 | 1.97  | 2.16 | 28.60                     | 20.80 | 2.38  | 27.00 | 20.22                     | 2.64  | 25.27 | 19.60 | 2.93                      | 23.59 | 18.92 | 3.26 |
|                                                                     | 63 (17.2)** | 29.30                                       | 20.99 | 1.97  | 2.17 | 26.55                     | 19.90 | 2.39  | 25.04 | 19.31                     | 2.64  | 23.40 | 18.68 | 2.93                      | 21.63 | 17.98 | 3.26 |
|                                                                     | 62 (16.7)   | 29.03                                       | 28.77 | 1.97  | 2.16 | 26.74                     | 26.74 | 2.39  | 25.50 | 25.50                     | 2.64  | 24.14 | 24.14 | 2.93                      | 22.64 | 22.64 | 3.26 |
|                                                                     | 57 (13.9)   | 28.93                                       | 28.93 | 1.97  | 2.16 | 26.70                     | 26.70 | 2.39  | 25.46 | 25.46                     | 2.64  | 24.11 | 24.11 | 2.93                      | 22.61 | 22.61 | 3.26 |
| 1125                                                                | 72 (22.2)   | 35.09                                       | 18.33 | 2.00  | 2.20 | 31.76                     | 17.25 | 2.42  | 29.97 | 16.67                     | 2.68  | 28.04 | 16.06 | 2.97                      | 25.96 | 15.41 | 3.31 |
|                                                                     | 67 (19.4)   | 31.96                                       | 23.24 | 2.01  | 2.21 | 28.93                     | 22.14 | 2.43  | 27.29 | 21.54                     | 2.68  | 25.52 | 20.90 | 2.97                      | 23.62 | 20.20 | 3.31 |
|                                                                     | 63 (17.2)** | 29.70                                       | 22.25 | 2.02  | 2.21 | 26.87                     | 21.14 | 2.43  | 25.32 | 20.53                     | 2.69  | 23.66 | 19.88 | 2.98                      | 21.87 | 19.15 | 3.31 |
|                                                                     | 62 (16.7)   | 29.93                                       | 29.93 | 2.02  | 2.21 | 27.57                     | 27.57 | 2.43  | 26.26 | 26.26                     | 2.68  | 24.83 | 24.83 | 2.97                      | 23.26 | 23.26 | 3.31 |
|                                                                     | 57 (13.9)   | 29.89                                       | 29.89 | 2.02  | 2.21 | 27.53                     | 27.53 | 2.43  | 26.22 | 26.22                     | 2.68  | 24.80 | 24.80 | 2.97                      | 23.23 | 23.23 | 3.31 |

| EVAPORATOR AIR<br>CFM EWB                                            |             | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |
|----------------------------------------------------------------------|-------------|---------------------------------------------|---------------|---------------------------|---------------|---------------------------|---------------|---------------------------|---------------|---------------------------|---------------|---------------------------|---------------|---------------------------|---------------|---------------------------|---------------|---------------------------|---------------|---------------------------|---------------|
|                                                                      |             | 75 (23.9)                                   |               | 85 (29.4)                 |               | 95 (35)                   |               | 105 (40.6)                |               | 115 (46.1)                |               | 125 (51.7)                |               |                           |               |                           |               |                           |               |                           |               |
|                                                                      |             | Capacity MBtu/h†<br>Total                   | Sens†<br>KW** | Capacity MBtu/h†<br>Total | Sens†<br>KW** | Capacity MBtu/h†<br>Total | Sens†<br>KW** | Capacity MBtu/h†<br>Total | Sens†<br>KW** | Capacity MBtu/h†<br>Total | Sens†<br>KW** | Capacity MBtu/h†<br>Total | Sens†<br>KW** | Capacity MBtu/h†<br>Total | Sens†<br>KW** | Capacity MBtu/h†<br>Total | Sens†<br>KW** | Capacity MBtu/h†<br>Total | Sens†<br>KW** | Capacity MBtu/h†<br>Total | Sens†<br>KW** |
| <b>PPA16NA036-C Outdoor Section With CNPV-3717AL* Indoor Section</b> |             |                                             |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |
| 1050                                                                 | 72 (22.2)   | 41.22                                       | 20.26         | 2.29                      | 39.28         | 19.59                     | 2.55          | 37.17                     | 18.88         | 2.82                      | 34.93         | 18.12                     | 3.13          | 3                         | 2.59          | 17.35                     | 3.51          | 30.17                     | 16.56         | 3.97                      |               |
|                                                                      | 67 (19.4)   | 37.58                                       | 25.00         | 2.28                      | 35.82         | 24.34                     | 2.54          | 33.90                     | 23.61         | 2.81                      | 31.84         | 22.85                     | 3.11          |                           | 29.69         | 22.06                     | 3.48          | 27.48                     | 21.25         | 3.94                      |               |
|                                                                      | 63 (17.2)†† | 34.93                                       | 24.06         | 2.29                      | 33.30         | 23.40                     | 2.54          | 31.50                     | 22.67         | 2.80                      | 29.57         | 21.90                     | 3.10          |                           | 27.56         | 21.10                     | 3.47          | 25.50                     | 20.29         | 3.93                      |               |
|                                                                      | 62 (16.7)   | 34.38                                       | 29.67         | 2.29                      | 32.82         | 28.99                     | 2.54          | 31.12                     | 28.22         | 2.80                      | 29.49         | 29.47                     | 3.10          |                           | 27.85         | 27.85                     | 3.47          | 26.14                     | 26.14         | 3.93                      |               |
|                                                                      | 57 (13.9)   | 33.68                                       | 33.68         | 2.29                      | 32.41         | 32.41                     | 2.54          | 30.99                     | 30.99         | 2.80                      | 29.44         | 29.44                     | 3.10          |                           | 27.81         | 27.81                     | 3.47          | 26.11                     | 26.11         | 3.93                      |               |
| 1200                                                                 | 72 (22.2)   | 41.87                                       | 21.32         | 2.35                      | 39.86         | 20.64                     | 2.61          | 37.67                     | 19.92         | 2.89                      | 35.34         | 19.15                     | 3.20          |                           | 32.92         | 18.37                     | 3.57          | 30.43                     | 17.57         | 4.04                      |               |
|                                                                      | 67 (19.4)   | 38.23                                       | 26.72         | 2.34                      | 36.40         | 26.04                     | 2.60          | 34.40                     | 25.30         | 2.87                      | 32.27         | 24.52                     | 3.17          |                           | 30.06         | 23.72                     | 3.54          | 27.79                     | 22.89         | 4.01                      |               |
|                                                                      | 63 (17.2)†† | 35.58                                       | 25.66         | 2.35                      | 33.88         | 24.98                     | 2.60          | 32.01                     | 24.24         | 2.86                      | 30.01         | 23.45                     | 3.16          |                           | 27.94         | 22.64                     | 3.53          | 25.81                     | 21.80         | 3.99                      |               |
|                                                                      | 62 (16.7)   | 35.21                                       | 31.95         | 2.35                      | 33.76         | 33.76                     | 2.60          | 32.23                     | 32.23         | 2.86                      | 30.57         | 30.57                     | 3.16          |                           | 28.83         | 28.83                     | 3.53          | 27.00                     | 27.00         | 4.00                      |               |
|                                                                      | 57 (13.9)   | 35.07                                       | 35.07         | 2.35                      | 33.71         | 33.71                     | 2.60          | 32.18                     | 32.18         | 2.86                      | 30.53         | 30.53                     | 3.16          |                           | 28.79         | 28.79                     | 3.53          | 26.97                     | 26.97         | 4.00                      |               |
| 1350                                                                 | 72 (22.2)   | 42.35                                       | 22.34         | 2.41                      | 40.26         | 21.65                     | 2.68          | 38.01                     | 20.91         | 2.95                      | 35.61         | 20.14                     | 3.26          |                           | 33.13         | 19.35                     | 3.64          | 30.58                     | 18.54         | 4.11                      |               |
|                                                                      | 67 (19.4)   | 38.71                                       | 28.37         | 2.40                      | 36.82         | 27.67                     | 2.66          | 34.76                     | 26.92         | 2.93                      | 32.58         | 26.13                     | 3.23          |                           | 30.32         | 25.30                     | 3.60          | 28.02                     | 24.44         | 4.07                      |               |
|                                                                      | 63 (17.2)†† | 36.06                                       | 27.20         | 2.40                      | 34.30         | 26.50                     | 2.66          | 32.38                     | 25.74         | 2.92                      | 30.33         | 24.94                     | 3.22          |                           | 28.22         | 24.10                     | 3.59          | 26.07                     | 23.21         | 4.06                      |               |
|                                                                      | 62 (16.7)   | 36.27                                       | 36.27         | 2.40                      | 34.81         | 34.81                     | 2.66          | 33.19                     | 33.19         | 2.92                      | 31.44         | 31.44                     | 3.23          |                           | 29.60         | 29.60                     | 3.60          | 27.68                     | 27.68         | 4.07                      |               |
|                                                                      | 57 (13.9)   | 36.22                                       | 36.22         | 2.40                      | 34.77         | 34.77                     | 2.66          | 33.15                     | 33.15         | 2.92                      | 31.41         | 31.41                     | 3.23          |                           | 29.57         | 29.57                     | 3.60          | 27.65                     | 27.65         | 4.07                      |               |
| <b>PA16NA037-B Outdoor Section With CAP**3721AL* Indoor Section</b>  |             |                                             |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |                           |               |
| 1050                                                                 | 72 (22.2)   | 41.43                                       | 22.35         | 2.21                      | 39.69         | 21.71                     | 2.48          | 37.44                     | 20.89         | 2.75                      | 34.93         | 19.98                     | 3.05          |                           | 32.36         | 1                         | 3.40          | 29.90                     | 18.21         | 3.84                      |               |
|                                                                      | 67 (19.4)   | 38.19                                       | 27.91         | 2.21                      | 36.65         | 27.27                     | 2.48          | 34.59                     | 26.43         | 2.74                      | 32.28         | 25.50                     | 3.03          |                           | 29.91         | 24.56                     | 3.38          | 27.64                     | 23.66         | 3.81                      |               |
|                                                                      | 63 (17.2)†† | 35.71                                       | 26.94         | 2.22                      | 34.31         | 26.31                     | 2.49          | 32.39                     | 25.47         | 2.74                      | 30.23         | 24.53                     | 3.03          |                           | 28.01         | 23.58                     | 3.37          | 25.89                     | 22.68         | 3.81                      |               |
|                                                                      | 62 (16.7)   | 35.08                                       | 33.23         | 2.23                      | 33.74         | 32.59                     | 2.49          | 31.93                     | 31.76         | 2.74                      | 30.11         | 30.11                     | 3.02          |                           | 28.27         | 28.27                     | 3.37          | 26.49                     | 26.49         | 3.81                      |               |
|                                                                      | 57 (13.9)   | 34.40                                       | 34.40         | 2.23                      | 33.32         | 33.32                     | 2.49          | 31.81                     | 31.81         | 2.74                      | 30.06         | 30.06                     | 3.02          |                           | 28.23         | 28.23                     | 3.37          | 26.46                     | 26.46         | 3.81                      |               |
| 1200                                                                 | 72 (22.2)   | 41.93                                       | 23.55         | 2.27                      | 40.12         | 22.90                     | 2.54          | 37.78                     | 22.06         | 2.82                      | 35.19         | 21.14                     | 3.11          |                           | 32.56         | 20.22                     | 3.46          | 30.03                     | 19.35         | 3.90                      |               |
|                                                                      | 67 (19.4)   | 38.75                                       | 29.85         | 2.27                      | 37.13         | 29.20                     | 2.54          | 35.00                     | 28.35         | 2.80                      | 32.61         | 27.40                     | 3.09          |                           | 30.17         | 26.44                     | 3.44          | 27.86                     | 25.52         | 3.88                      |               |
|                                                                      | 63 (17.2)†† | 36.30                                       | 28.76         | 2.28                      | 34.82         | 28.12                     | 2.54          | 32.84                     | 27.26         | 2.80                      | 30.60         | 26.30                     | 3.08          |                           | 28.31         | 25.33                     | 3.43          | 26.14                     | 24.40         | 3.87                      |               |
|                                                                      | 62 (16.7)   | 35.86                                       | 35.86         | 2.28                      | 34.66         | 34.66                     | 2.54          | 33.01                     | 33.01         | 2.80                      | 31.13         | 31.13                     | 3.08          |                           | 29.17         | 29.17                     | 3.43          | 27.26                     | 27.26         | 3.87                      |               |
|                                                                      | 57 (13.9)   | 35.80                                       | 35.80         | 2.28                      | 34.61         | 34.61                     | 2.54          | 32.97                     | 32.97         | 2.80                      | 31.10         | 31.10                     | 3.08          |                           | 29.13         | 29.13                     | 3.43          | 27.23                     | 27.23         | 3.87                      |               |
| 1350                                                                 | 72 (22.2)   | 42.26                                       | 24.70         | 2.32                      | 40.39         | 24.03                     | 2.60          | 37.99                     | 23.19         | 2.88                      | 35.35         | 22.27                     | 3.17          |                           | 32.65         | 21.34                     | 3.53          | 30.07                     | 20.46         | 3.97                      |               |
|                                                                      | 67 (19.4)   | 39.14                                       | 31.75         | 2.32                      | 37.47         | 31.08                     | 2.59          | 35.28                     | 30.21         | 2.86                      | 32.84         | 29.24                     | 3.15          |                           | 30.36         | 28.25                     | 3.50          | 28.02                     | 27.25         | 3.94                      |               |
|                                                                      | 63 (17.2)†† | 36.73                                       | 30.53         | 2.33                      | 35.20         | 29.87                     | 2.60          | 33.15                     | 28.99         | 2.86                      | 30.87         | 28.01                     | 3.14          |                           | 28.54         | 27.00                     | 3.49          | 26.35                     | 25.97         | 3.93                      |               |
|                                                                      | 62 (16.7)   | 36.98                                       | 36.98         | 2.33                      | 35.69         | 35.69                     | 2.59          | 33.93                     | 33.93         | 2.85                      | 31.94         | 31.94                     | 3.14          |                           | 29.86         | 29.86                     | 3.49          | 27.84                     | 27.84         | 3.93                      |               |
|                                                                      | 57 (13.9)   | 36.94                                       | 36.94         | 2.33                      | 35.64         | 35.64                     | 2.59          | 33.89                     | 33.89         | 2.85                      | 31.90         | 31.90                     | 3.14          |                           | 29.83         | 29.83                     | 3.49          | 27.82                     | 27.82         | 3.93                      |               |

| EVAPORATOR AIR<br>CFM EWB<br>°F (°C)                         |             | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |       |              |       |                  |      |              |       |                  |       |              |      |                  |       |              |       |                  |      |              |      |                  |  |              |      |  |  |
|--------------------------------------------------------------|-------------|---------------------------------------------|-------|--------------|-------|------------------|------|--------------|-------|------------------|-------|--------------|------|------------------|-------|--------------|-------|------------------|------|--------------|------|------------------|--|--------------|------|--|--|
|                                                              |             | 75 (23.9)                                   |       |              |       | 85 (29.4)        |      |              |       | 95 (35)          |       |              |      | 105 (40.6)       |       |              |       | 115 (46.1)       |      |              |      | 125 (51.7)       |  |              |      |  |  |
|                                                              |             | Capacity MBtu/h†                            |       | Total System | KW**  | Capacity MBtu/h† |      | Total System | KW**  | Capacity MBtu/h† |       | Total System | KW** | Capacity MBtu/h† |       | Total System | KW**  | Capacity MBtu/h† |      | Total System | KW** | Capacity MBtu/h† |  | Total System | KW** |  |  |
| PA16NAO42-B Outdoor Section With CNPV-4324A** Indoor Section |             |                                             |       |              |       |                  |      |              |       |                  |       |              |      |                  |       |              |       |                  |      |              |      |                  |  |              |      |  |  |
| 1225                                                         | 72 (22.2)   | 49.58                                       | 24.05 | 2.77         | 47.31 | 23.28            | 3.07 | 44.88        | 22.46 | 3.42             | 42.30 | 21.59        | 3.80 | 39.58            | 20.70 | 4.23         | 36.71 | 19.77            | 4.70 |              |      |                  |  |              |      |  |  |
|                                                              | 67 (19.4)   | 45.17                                       | 29.64 | 2.75         | 43.10 | 28.86            | 3.05 | 40.90        | 28.04 | 3.38             | 38.55 | 27.18        | 3.76 | 36.07            | 26.27 | 4.19         | 33.47 | 25.33            | 4.66 |              |      |                  |  |              |      |  |  |
|                                                              | 63 (17.2)** | 41.97                                       | 28.52 | 2.74         | 40.06 | 27.75            | 3.03 | 38.02        | 26.93 | 3.36             | 35.83 | 26.06        | 3.74 | 33.53            | 25.16 | 4.17         | 31.10 | 24.21            | 4.64 |              |      |                  |  |              |      |  |  |
|                                                              | 62 (16.7)   | 41.32                                       | 35.16 | 2.74         | 39.49 | 34.36            | 3.03 | 37.56        | 33.49 | 3.36             | 35.65 | 35.65        | 3.74 | 33.78            | 33.78 | 4.17         | 31.76 | 31.76            | 4.64 |              |      |                  |  |              |      |  |  |
|                                                              | 57 (13.9)   | 40.45                                       | 40.45 | 2.73         | 38.96 | 38.96            | 3.03 | 37.34        | 37.34 | 3.36             | 35.60 | 35.60        | 3.74 | 33.73            | 33.73 | 4.17         | 31.72 | 31.72            | 4.64 |              |      |                  |  |              |      |  |  |
| 1400                                                         | 72 (22.2)   | 50.40                                       | 25.29 | 2.85         | 48.02 | 24.50            | 3.15 | 45.48        | 23.66 | 3.49             | 42.82 | 22.79        | 3.87 | 39.99            | 21.88 | 4.30         | 37.02 | 20.94            | 4.77 |              |      |                  |  |              |      |  |  |
|                                                              | 67 (19.4)   | 45.95                                       | 31.63 | 2.82         | 43.80 | 30.84            | 3.12 | 41.50        | 30.00 | 3.46             | 39.07 | 29.12        | 3.84 | 36.51            | 28.20 | 4.26         | 33.83 | 27.23            | 4.74 |              |      |                  |  |              |      |  |  |
|                                                              | 63 (17.2)** | 42.74                                       | 30.38 | 2.81         | 40.75 | 29.59            | 3.10 | 38.61        | 28.75 | 3.44             | 36.36 | 27.87        | 3.82 | 33.97            | 26.94 | 4.24         | 31.47 | 25.96            | 4.71 |              |      |                  |  |              |      |  |  |
|                                                              | 62 (16.7)   | 42.31                                       | 37.80 | 2.81         | 40.55 | 40.55            | 3.10 | 38.82        | 38.82 | 3.44             | 36.94 | 36.94        | 3.82 | 34.93            | 34.93 | 4.25         | 32.78 | 32.78            | 4.72 |              |      |                  |  |              |      |  |  |
|                                                              | 57 (13.9)   | 42.10                                       | 42.10 | 2.81         | 40.50 | 40.50            | 3.10 | 38.76        | 38.76 | 3.44             | 36.89 | 36.89        | 3.82 | 34.89            | 34.89 | 4.25         | 32.74 | 32.74            | 4.72 |              |      |                  |  |              |      |  |  |
| 1575                                                         | 72 (22.2)   | 50.98                                       | 26.46 | 2.92         | 48.52 | 25.66            | 3.22 | 45.91        | 24.82 | 3.56             | 43.16 | 23.93        | 3.95 | 40.25            | 23.01 | 4.37         | 37.22 | 22.06            | 4.85 |              |      |                  |  |              |      |  |  |
|                                                              | 67 (19.4)   | 46.53                                       | 33.54 | 2.90         | 44.31 | 32.73            | 3.19 | 41.95        | 31.88 | 3.53             | 39.45 | 30.98        | 3.91 | 36.83            | 30.02 | 4.34         | 34.11 | 29.02            | 4.81 |              |      |                  |  |              |      |  |  |
|                                                              | 63 (17.2)** | 43.31                                       | 32.15 | 2.88         | 41.25 | 31.35            | 3.17 | 39.06        | 30.49 | 3.51             | 36.74 | 29.58        | 3.89 | 34.30            | 28.62 | 4.31         | 31.77 | 27.60            | 4.78 |              |      |                  |  |              |      |  |  |
|                                                              | 62 (16.7)   | 43.52                                       | 43.52 | 2.88         | 41.82 | 41.82            | 3.18 | 39.96        | 39.96 | 3.52             | 37.98 | 37.98        | 3.90 | 35.86            | 35.86 | 4.33         | 33.58 | 33.58            | 4.80 |              |      |                  |  |              |      |  |  |
|                                                              | 57 (13.9)   | 43.46                                       | 43.46 | 2.88         | 41.76 | 41.76            | 3.18 | 39.91        | 39.91 | 3.52             | 37.93 | 37.93        | 3.90 | 35.81            | 35.81 | 4.33         | 33.55 | 33.55            | 4.80 |              |      |                  |  |              |      |  |  |
| PA16NAO48-C Outdoor Section With CAP-6024* Indoor Section    |             |                                             |       |              |       |                  |      |              |       |                  |       |              |      |                  |       |              |       |                  |      |              |      |                  |  |              |      |  |  |
| 400                                                          | 72 (22.2)   | 55.71                                       | 27.90 | 2.67         | 52.91 | 26.91            | 3.09 | 50.01        | 25.90 | 3.52             | 47.00 | 24.87        | 3.95 | 43.85            | 23.81 | 4.41         | 40.51 | 22.69            | 4.89 |              |      |                  |  |              |      |  |  |
|                                                              | 67 (19.4)   | 50.48                                       | 34.32 | 2.83         | 47.96 | 33.34            | 3.22 | 45.37        | 32.35 | 3.61             | 42.67 | 31.33        | 4.01 | 39.85            | 30.28 | 4.44         | 36.84 | 29.16            | 4.91 |              |      |                  |  |              |      |  |  |
|                                                              | 63 (17.2)** | 46.73                                       | 32.94 | 2.93         | 44.44 | 31.98            | 3.29 | 42.06        | 31.01 | 3.66             | 39.59 | 30.00        | 4.05 | 36.99            | 28.96 | 4.46         | 34.22 | 27.85            | 4.92 |              |      |                  |  |              |      |  |  |
|                                                              | 62 (16.7)   | 45.93                                       | 40.65 | 2.94         | 43.75 | 39.65            | 3.30 | 41.55        | 41.29 | 3.66             | 39.51 | 39.51        | 4.04 | 37.39            | 37.39 | 4.46         | 35.08 | 35.08            | 4.91 |              |      |                  |  |              |      |  |  |
|                                                              | 57 (13.9)   | 45.05                                       | 45.05 | 2.96         | 43.28 | 43.28            | 3.31 | 41.43        | 41.43 | 3.66             | 39.45 | 39.45        | 4.04 | 37.34            | 37.34 | 4.46         | 35.03 | 35.03            | 4.91 |              |      |                  |  |              |      |  |  |
| 1600                                                         | 72 (22.2)   | 56.66                                       | 29.33 | 2.72         | 53.70 | 28.32            | 3.15 | 50.67        | 27.29 | 3.59             | 47.54 | 26.24        | 4.03 | 44.26            | 25.15 | 4.49         | 40.81 | 24.02            | 4.98 |              |      |                  |  |              |      |  |  |
|                                                              | 67 (19.4)   | 51.35                                       | 36.61 | 2.88         | 48.71 | 35.62            | 3.28 | 46.00        | 34.60 | 3.68             | 43.20 | 33.56        | 4.09 | 40.27            | 32.47 | 4.53         | 37.17 | 31.32            | 5.00 |              |      |                  |  |              |      |  |  |
|                                                              | 63 (17.2)** | 47.56                                       | 35.07 | 2.99         | 45.15 | 34.09            | 3.36 | 42.68        | 33.09 | 3.74             | 40.11 | 32.06        | 4.13 | 37.41            | 30.98 | 4.55         | 34.56 | 29.83            | 5.01 |              |      |                  |  |              |      |  |  |
|                                                              | 62 (16.7)   | 47.06                                       | 46.71 | 3.00         | 45.06 | 45.06            | 3.36 | 43.04        | 43.04 | 3.73             | 40.91 | 40.91        | 4.12 | 38.62            | 38.62 | 4.54         | 36.15 | 36.15            | 5.00 |              |      |                  |  |              |      |  |  |
|                                                              | 57 (13.9)   | 46.92                                       | 46.92 | 3.00         | 44.99 | 44.99            | 3.36 | 42.98        | 42.98 | 3.73             | 40.85 | 40.85        | 4.12 | 38.57            | 8.57  | 4.54         | 36.11 | 36.11            | 5.00 |              |      |                  |  |              |      |  |  |
| 1800                                                         | 72 (22.2)   | 57.33                                       | 30.68 | 2.77         | 54.27 | 29.65            | 3.22 | 51.13        | 28.60 | 3.66             | 47.88 | 27.53        | 4.11 | 44.52            | 26.43 | 4.57         | 40.96 | 25.28            | 5.07 |              |      |                  |  |              |      |  |  |
|                                                              | 67 (19.4)   | 51.99                                       | 38.81 | 2.94         | 49.25 | 37.79            | 3.35 | 46.46        | 36.75 | 3.76             | 43.57 | 35.67        | 4.17 | 40.57            | 34.55 | 4.62         | 37.43 | 33.33            | 5.09 |              |      |                  |  |              |      |  |  |
|                                                              | 63 (17.2)** | 48.17                                       | 37.10 | 3.06         | 45.68 | 36.10            | 3.44 | 43.11        | 35.07 | 3.82             | 40.47 | 34.01        | 4.21 | 37.72            | 32.88 | 4.64         | 34.82 | 31.65            | 5.10 |              |      |                  |  |              |      |  |  |
|                                                              | 62 (16.7)   | 48.51                                       | 48.51 | 3.04         | 46.44 | 46.44            | 3.41 | 44.29        | 44.29 | 3.79             | 42.02 | 42.02        | 4.19 | 39.60            | 39.60 | 4.62         | 36.98 | 36.98            | 5.09 |              |      |                  |  |              |      |  |  |
|                                                              | 57 (13.9)   | 48.45                                       | 48.45 | 3.04         | 46.38 | 46.38            | 3.42 | 44.24        | 44.24 | 3.79             | 41.97 | 41.97        | 4.19 | 39.55            | 39.55 | 4.62         | 36.94 | 36.94            | 5.09 |              |      |                  |  |              |      |  |  |



| EVAPORATOR AIR<br>CFM EWB                                           |             | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |                   |                  |                   |                  |                   |                  |                   |                  |                   |                  |                   |                  |                   |                  |                   |                  |                   |                  |                   |
|---------------------------------------------------------------------|-------------|---------------------------------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|
|                                                                     |             | 75 (23.9)                                   |                   | 85 (29.4)        |                   | 95 (35)          |                   | 105 (40.6)       |                   | 115 (46.1)       |                   | 125 (51.7)       |                   |                  |                   |                  |                   |                  |                   |                  |                   |
|                                                                     |             | Capacity MBtu/h†                            | Total System KW** | Capacity MBtu/h† | Total System KW** | Capacity MBtu/h† | Total System KW** | Capacity MBtu/h† | Total System KW** | Capacity MBtu/h† | Total System KW** | Capacity MBtu/h† | Total System KW** | Capacity MBtu/h† | Total System KW** | Capacity MBtu/h† | Total System KW** | Capacity MBtu/h† | Total System KW** | Capacity MBtu/h† | Total System KW** |
| <b>PA16NA060-C Outdoor Section With CNPV*6124A** Indoor Section</b> |             |                                             |                   |                  |                   |                  |                   |                  |                   |                  |                   |                  |                   |                  |                   |                  |                   |                  |                   |                  |                   |
| 1500                                                                | 72 (22.2)   | 68.30                                       | 33.55             | 3.65             | 65.09             | 32.34            | 4.03              | 61.73            | 31.13             | 4.45             | 58.17             | 29.87            | 4.93              | 54.32            | 28.53             | 5.47             | 50.24             | 27.13            | 6.07              | 46.04            | 25.73             |
|                                                                     | 67 (19.4)   | 62.29                                       | 40.83             | 3.63             | 59.44             | 39.67            | 4.00              | 56.43            | 38.48             | 4.43             | 53.20             | 37.22            | 4.91              | 49.71            | 35.87             | 5.44             | 46.04             | 34.47            | 6.05              | 42.94            | 33.08             |
|                                                                     | 63 (17.2)†† | 57.89                                       | 39.38             | 3.61             | 55.33             | 38.26            | 3.99              | 52.55            | 37.08             | 4.41             | 49.46             | 35.76            | 4.88              | 46.37            | 34.49             | 5.43             | 42.94             | 33.08            | 6.03              | 43.10            | 33.10             |
|                                                                     | 62 (16.7)   | 57.02                                       | 48.07             | 3.61             | 54.51             | 46.93            | 3.98              | 51.84            | 45.72             | 4.41             | 48.85             | 44.36            | 4.88              | 45.99            | 45.61             | 5.42             | 43.10             | 43.10            | 6.04              | 43.06            | 43.06             |
|                                                                     | 57 (13.9)   | 54.94                                       | 54.94             | 3.60             | 52.94             | 52.94            | 3.98              | 50.79            | 50.79             | 4.40             | 48.36             | 48.36            | 4.88              | 45.87            | 45.87             | 5.42             | 43.06             | 43.06            | 6.04              | 43.06            | 43.06             |
| 1750                                                                | 72 (22.2)   | 68.08                                       | 34.84             | 3.74             | 66.38             | 34.24            | 4.13              | 62.80            | 32.99             | 4.55             | 59.06             | 31.70            | 5.03              | 55.02            | 30.33             | 5.57             | 50.81             | 28.92            | 6.17              | 46.61            | 27.52             |
|                                                                     | 67 (19.4)   | 63.70                                       | 43.91             | 3.73             | 60.67             | 42.72            | 4.10              | 57.50            | 41.50             | 4.53             | 54.09             | 40.20            | 5.01              | 50.47            | 38.82             | 5.55             | 46.61             | 37.36            | 6.15              | 43.56            | 35.77             |
|                                                                     | 63 (17.2)†† | 59.27                                       | 42.26             | 3.71             | 56.53             | 41.11            | 4.09              | 53.61            | 39.89             | 4.51             | 50.48             | 38.60            | 4.99              | 47.11            | 37.22             | 5.53             | 43.56             | 35.77            | 6.13              | 44.74            | 44.74             |
|                                                                     | 62 (16.7)   | 58.59                                       | 52.25             | 3.71             | 55.96             | 51.03            | 4.09              | 53.26            | 52.75             | 4.51             | 50.61             | 50.61            | 4.99              | 47.77            | 47.77             | 5.53             | 44.74             | 44.74            | 6.14              | 44.69            | 44.69             |
|                                                                     | 57 (13.9)   | 57.65                                       | 57.65             | 3.71             | 55.46             | 55.46            | 4.08              | 53.11            | 53.11             | 4.51             | 50.53             | 50.53            | 4.99              | 47.73            | 47.73             | 5.53             | 44.69             | 44.69            | 6.14              | 51.14            | 30.62             |
| 2000                                                                | 72 (22.2)   | 70.67                                       | 37.22             | 3.85             | 67.19             | 36.00            | 4.22              | 63.52            | 34.75             | 4.65             | 59.62             | 33.43            | 5.13              | 55.45            | 32.04             | 5.66             | 51.14             | 30.62            | 6.27              | 47.07            | 40.13             |
|                                                                     | 67 (19.4)   | 64.66                                       | 46.91             | 3.83             | 61.54             | 45.62            | 4.20              | 58.23            | 44.37             | 4.63             | 54.73             | 43.04            | 5.10              | 50.98            | 41.61             | 5.64             | 47.07             | 40.13            | 6.25              | 44.01            | 38.31             |
|                                                                     | 63 (17.2)†† | 60.27                                       | 45.00             | 3.81             | 57.39             | 43.79            | 4.19              | 54.36            | 42.55             | 4.61             | 51.12             | 41.23            | 5.09              | 47.65            | 39.80             | 5.63             | 44.01             | 38.31            | 6.23              | 46.01            | 46.01             |
|                                                                     | 62 (16.7)   | 60.03                                       | 59.46             | 3.81             | 57.55             | 57.55            | 4.19              | 55.01            | 55.01             | 4.61             | 52.25             | 52.25            | 5.09              | 49.23            | 49.23             | 5.64             | 46.01             | 46.01            | 6.25              | 45.94            | 45.94             |
|                                                                     | 57 (13.9)   | 59.85                                       | 59.85             | 3.81             | 57.47             | 57.47            | 4.19              | 54.94            | 54.94             | 4.61             | 52.18             | 52.18            | 5.09              | 49.18            | 49.18             | 5.63             | 45.94             | 45.94            | 6.24              |                  |                   |

† 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).

# Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per AHRI standard 210/240-2008. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

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

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

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

EWB — Entering Wet Bulb

## CONDENSER ONLY RATINGS

| SST °F (°C)        |     | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |            |            |            |           |             |             |             |
|--------------------|-----|---------------------------------------------|------------|------------|------------|-----------|-------------|-------------|-------------|
|                    |     | 55 (12.78)                                  | 65 (18.33) | 75 (23.89) | 85 (29.44) | 95 (35.0) | 105 (40.56) | 115 (46.11) | 125 (51.67) |
| <b>PA16NA024-A</b> |     |                                             |            |            |            |           |             |             |             |
| 30 (-1.11)         | TCG | 20.30                                       | 19.40      | 18.30      | 17.20      | 16.10     | 14.80       | 13.60       | 12.20       |
|                    | SDT | 66.10                                       | 75.80      | 85.30      | 94.90      | 104.40    | 114.00      | 123.40      | 132.80      |
|                    | KW  | 1.00                                        | 1.15       | 1.30       | 1.47       | 1.65      | 1.85        | 2.09        | 2.36        |
| 35 (1.67)          | TCG | 22.60                                       | 21.40      | 20.30      | 19.10      | 17.80     | 16.50       | 15.10       | 13.60       |
|                    | SDT | 67.20                                       | 76.80      | 86.30      | 95.80      | 105.30    | 114.70      | 124.10      | 133.50      |
|                    | KW  | 0.99                                        | 1.14       | 1.30       | 1.47       | 1.65      | 1.86        | 2.09        | 2.36        |
| 40 (4.44)          | TCG | 24.90                                       | 23.70      | 22.40      | 21.00      | 19.60     | 18.20       | 16.70       | 15.10       |
|                    | SDT | 68.40                                       | 77.90      | 87.30      | 96.70      | 106.10    | 115.50      | 124.80      | 134.10      |
|                    | KW  | 0.98                                        | 1.14       | 1.30       | 1.47       | 1.66      | 1.86        | 2.09        | 2.36        |
| 45 (7.22)          | TCG | 27.40                                       | 26.00      | 24.60      | 23.10      | 21.60     | 20.10       | 18.40       | 16.70       |
|                    | SDT | 69.60                                       | 79.00      | 88.30      | 97.70      | 107.00    | 116.30      | 125.60      | 134.90      |
|                    | KW  | 0.97                                        | 1.14       | 1.30       | 1.48       | 1.66      | 1.87        | 2.10        | 2.37        |
| 50 (10.0)          | TCG | 30.10                                       | 28.60      | 27.00      | 25.40      | 23.70     | 22.00       | 20.20       | 18.40       |
|                    | SDT | 70.80                                       | 80.10      | 89.40      | 98.70      | 107.90    | 117.20      | 126.40      | 135.60      |
|                    | KW  | 0.96                                        | 1.13       | 1.30       | 1.48       | 1.67      | 1.88        | 2.11        | 2.37        |
| 55 (12.78)         | TCG | 33.00                                       | 31.30      | 29.50      | 27.70      | 25.90     | 24.10       | 22.10       | 20.20       |
|                    | SDT | 72.10                                       | 81.30      | 90.50      | 99.70      | 108.90    | 118.10      | 127.30      | 136.40      |
|                    | KW  | 0.95                                        | 1.13       | 1.31       | 1.49       | 1.68      | 1.89        | 2.12        | 2.39        |
| <b>PA16NA030-A</b> |     |                                             |            |            |            |           |             |             |             |
| 30 (-1.11)         | TCG | 24.90                                       | 23.50      | 22.20      | 20.80      | 19.40     | 17.90       | 16.20       | 14.40       |
|                    | SDT | 68.10                                       | 77.50      | 87.00      | 96.40      | 105.80    | 115.10      | 124.40      | 133.60      |
|                    | KW  | 1.27                                        | 1.43       | 1.60       | 1.78       | 1.99      | 2.23        | 2.50        | 2.81        |
| 35 (1.67)          | TCG | 27.50                                       | 26.00      | 24.50      | 23.10      | 21.50     | 19.90       | 18.10       | 16.20       |
|                    | SDT | 69.40                                       | 78.70      | 88.10      | 97.40      | 106.70    | 116.00      | 125.30      | 134.40      |
|                    | KW  | 1.28                                        | 1.44       | 1.61       | 1.79       | 2.00      | 2.24        | 2.51        | 2.82        |
| 40 (4.44)          | TCG | 30.30                                       | 28.60      | 27.10      | 25.50      | 23.80     | 22.00       | 20.10       | 18.10       |
|                    | SDT | 70.70                                       | 79.90      | 89.20      | 98.50      | 107.70    | 117.00      | 126.20      | 135.30      |
|                    | KW  | 1.29                                        | 1.44       | 1.61       | 1.80       | 2.01      | 2.25        | 2.52        | 2.83        |
| 45 (7.22)          | TCG | 33.30                                       | 31.50      | 29.80      | 28.00      | 26.20     | 24.30       | 22.30       | 20.10       |
|                    | SDT | 72.00                                       | 81.20      | 90.40      | 99.60      | 108.80    | 118.00      | 127.20      | 136.30      |
|                    | KW  | 1.29                                        | 1.44       | 1.61       | 1.80       | 2.01      | 2.26        | 2.53        | 2.85        |
| 50 (10.0)          | TCG | 36.50                                       | 34.50      | 32.60      | 30.70      | 28.80     | 26.70       | 24.50       | 22.20       |
|                    | SDT | 73.50                                       | 82.50      | 91.70      | 100.80     | 110.00    | 119.20      | 128.20      | 137.20      |
|                    | KW  | 1.29                                        | 1.44       | 1.61       | 1.80       | 2.02      | 2.26        | 2.54        | 2.86        |
| 55 (12.78)         | TCG | 39.90                                       | 37.80      | 35.70      | 33.60      | 31.50     | 29.30       | 26.90       | 24.40       |
|                    | SDT | 75.00                                       | 84.00      | 93.00      | 102.10     | 111.20    | 120.30      | 129.30      | 138.20      |
|                    | KW  | 1.29                                        | 1.44       | 1.61       | 1.80       | 2.02      | 2.27        | 2.54        | 2.86        |
| <b>PA16NA036-C</b> |     |                                             |            |            |            |           |             |             |             |
| 30 (-1.11)         | TCG | 31.50                                       | 29.90      | 28.30      | 26.60      | 24.80     | 22.90       | 21.00       | 18.90       |
|                    | SDT | 68.90                                       | 78.20      | 87.50      | 96.80      | 106.20    | 115.50      | 124.90      | 134.20      |
|                    | KW  | 1.50                                        | 1.73       | 1.96       | 2.21       | 2.50      | 2.82        | 3.21        | 3.66        |
| 35 (1.67)          | TCG | 34.80                                       | 33.00      | 31.20      | 29.40      | 27.40     | 25.40       | 23.30       | 21.10       |
|                    | SDT | 70.10                                       | 79.30      | 88.60      | 97.90      | 107.20    | 116.50      | 125.80      | 135.00      |
|                    | KW  | 1.50                                        | 1.73       | 1.97       | 2.22       | 2.51      | 2.83        | 3.21        | 3.66        |
| 40 (4.44)          | TCG | 38.30                                       | 36.40      | 34.40      | 32.40      | 30.30     | 28.10       | 25.80       | 23.40       |
|                    | SDT | 71.40                                       | 80.60      | 89.80      | 99.00      | 108.20    | 117.40      | 126.70      | 135.90      |
|                    | KW  | 1.51                                        | 1.74       | 1.98       | 2.24       | 2.52      | 2.85        | 3.22        | 3.66        |
| 45 (7.22)          | TCG | 42.10                                       | 40.00      | 37.80      | 35.60      | 33.30     | 30.90       | 28.40       | 25.80       |
|                    | SDT | 72.80                                       | 81.90      | 91.00      | 100.20     | 109.40    | 118.50      | 127.70      | 136.80      |
|                    | KW  | 1.52                                        | 1.75       | 1.99       | 2.25       | 2.54      | 2.86        | 3.24        | 3.67        |
| 50 (10.0)          | TCG | 46.20                                       | 43.90      | 41.50      | 39.00      | 36.50     | 33.90       | 31.20       | 28.40       |
|                    | SDT | 74.40                                       | 83.30      | 92.40      | 101.50     | 110.50    | 119.60      | 128.70      | 137.70      |
|                    | KW  | 1.53                                        | 1.77       | 2.01       | 2.27       | 2.56      | 2.88        | 3.25        | 3.68        |
| 55 (12.78)         | TCG | 50.50                                       | 47.90      | 45.30      | 42.70      | 39.90     | 37.10       | 34.20       | 31.10       |
|                    | SDT | 76.00                                       | 84.90      | 93.80      | 102.80     | 111.80    | 120.80      | 129.80      | 138.70      |
|                    | KW  | 1.55                                        | 1.79       | 2.04       | 2.30       | 2.58      | 2.91        | 3.28        | 3.70        |

| SST °F (°C)        |     | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |            |            |            |           |             |             |             |
|--------------------|-----|---------------------------------------------|------------|------------|------------|-----------|-------------|-------------|-------------|
|                    |     | 55 (12.78)                                  | 65 (18.33) | 75 (23.89) | 85 (29.44) | 95 (35.0) | 105 (40.56) | 115 (46.11) | 125 (51.67) |
| <b>PA16NA037-B</b> |     |                                             |            |            |            |           |             |             |             |
| 30 (-1.11)         | TCG | 25.50                                       | 27.70      | 27.70      | 26.60      | 24.70     | 22.60       | 20.40       | 18.40       |
|                    | SDT | 65.40                                       | 76.40      | 86.40      | 96.00      | 105.40    | 114.70      | 124.00      | 133.40      |
|                    | KW  | 1.24                                        | 1.64       | 1.92       | 2.16       | 2.39      | 2.65        | 2.96        | 3.38        |
| 35 (1.67)          | TCG | 29.20                                       | 31.00      | 30.80      | 29.50      | 27.50     | 25.20       | 22.90       | 20.70       |
|                    | SDT | 66.80                                       | 77.50      | 87.40      | 97.00      | 106.30    | 115.50      | 124.80      | 134.20      |
|                    | KW  | 1.23                                        | 1.61       | 1.90       | 2.14       | 2.37      | 2.64        | 2.96        | 3.37        |
| 40 (4.44)          | TCG | 33.10                                       | 34.50      | 34.00      | 32.50      | 30.30     | 27.90       | 25.40       | 23.10       |
|                    | SDT | 68.20                                       | 78.70      | 88.50      | 97.90      | 107.20    | 116.40      | 125.60      | 134.90      |
|                    | KW  | 1.21                                        | 1.59       | 1.88       | 2.12       | 2.36      | 2.63        | 2.96        | 3.37        |
| 45 (7.22)          | TCG | 36.90                                       | 37.90      | 37.20      | 35.50      | 33.10     | 30.50       | 27.90       | 25.40       |
|                    | SDT | 69.50                                       | 79.80      | 89.60      | 99.00      | 108.20    | 117.30      | 126.40      | 135.70      |
|                    | KW  | 1.19                                        | 1.57       | 1.86       | 2.11       | 2.36      | 2.63        | 2.96        | 3.37        |
| 50 (10.0)          | TCG | 40.60                                       | 41.40      | 40.40      | 38.50      | 35.90     | 33.20       | 30.40       | 27.70       |
|                    | SDT | 70.70                                       | 81.00      | 90.60      | 99.90      | 109.10    | 118.10      | 127.20      | 136.40      |
|                    | KW  | 1.17                                        | 1.55       | 1.85       | 2.11       | 2.36      | 2.64        | 2.96        | 3.38        |
| 55 (12.78)         | TCG | 44.30                                       | 44.70      | 43.50      | 41.40      | 38.70     | 35.70       | 32.70       | 29.90       |
|                    | SDT | 72.00                                       | 82.10      | 91.70      | 100.90     | 109.90    | 118.90      | 128.00      | 137.10      |
|                    | KW  | 1.16                                        | 1.55       | 1.85       | 2.11       | 2.37      | 2.65        | 2.98        | 3.39        |
| <b>PA16NA042-B</b> |     |                                             |            |            |            |           |             |             |             |
| 30 (-1.11)         | TCG | 37.90                                       | 36.20      | 34.30      | 32.30      | 30.10     | 27.90       | 25.50       | 23.00       |
|                    | SDT | 69.80                                       | 79.20      | 88.70      | 98.10      | 107.40    | 116.70      | 125.90      | 135.10      |
|                    | KW  | 1.83                                        | 2.03       | 2.26       | 2.54       | 2.86      | 3.22        | 3.63        | 4.09        |
| 35 (1.67)          | TCG | 41.90                                       | 40.00      | 37.90      | 35.70      | 33.30     | 30.80       | 28.30       | 25.60       |
|                    | SDT | 71.20                                       | 80.60      | 89.90      | 99.20      | 108.40    | 117.70      | 126.80      | 136.00      |
|                    | KW  | 1.84                                        | 2.04       | 2.28       | 2.56       | 2.88      | 3.24        | 3.65        | 4.10        |
| 40 (4.44)          | TCG | 46.10                                       | 44.00      | 41.70      | 39.20      | 36.70     | 34.00       | 31.20       | 28.30       |
|                    | SDT | 72.70                                       | 81.90      | 91.20      | 100.40     | 109.60    | 118.70      | 127.80      | 136.90      |
|                    | KW  | 1.85                                        | 2.05       | 2.30       | 2.58       | 2.90      | 3.26        | 3.67        | 4.13        |
| 45 (7.22)          | TCG | 50.70                                       | 48.30      | 45.80      | 43.10      | 40.20     | 37.30       | 34.30       | 31.10       |
|                    | SDT | 74.20                                       | 83.30      | 92.50      | 101.60     | 110.80    | 119.80      | 128.90      | 137.90      |
|                    | KW  | 1.86                                        | 2.07       | 2.32       | 2.60       | 2.92      | 3.29        | 3.70        | 4.15        |
| 50 (10.0)          | TCG | 55.50                                       | 52.90      | 50.10      | 47.10      | 44.00     | 40.80       | 37.50       | 34.10       |
|                    | SDT | 75.80                                       | 84.80      | 93.90      | 103.00     | 112.00    | 121.00      | 130.00      | 138.90      |
|                    | KW  | 1.87                                        | 2.09       | 2.34       | 2.63       | 2.95      | 3.32        | 3.73        | 4.19        |
| 55 (12.78)         | TCG | 60.70                                       | 57.70      | 54.60      | 51.30      | 47.90     | 44.40       | 40.80       | 37.10       |
|                    | SDT | 77.40                                       | 86.40      | 95.40      | 104.40     | 113.40    | 122.30      | 131.20      | 140.00      |
|                    | KW  | 1.89                                        | 2.11       | 2.36       | 2.66       | 2.99      | 3.36        | 3.77        | 4.22        |
| <b>PA16NA048-C</b> |     |                                             |            |            |            |           |             |             |             |
| 30 (-1.11)         | TCG | 42.80                                       | 40.60      | 38.30      | 36.00      | 33.60     | 31.10       | 28.50       | 25.80       |
|                    | SDT | 67.80                                       | 77.20      | 86.60      | 96.00      | 105.40    | 114.70      | 124.00      | 133.30      |
|                    | KW  | 2.00                                        | 2.29       | 2.58       | 2.87       | 3.17      | 3.51        | 3.90        | 4.35        |
| 35 (1.67)          | TCG | 47.40                                       | 44.80      | 42.30      | 39.70      | 37.10     | 34.40       | 31.60       | 28.60       |
|                    | SDT | 69.00                                       | 78.30      | 87.70      | 97.00      | 106.30    | 115.60      | 124.80      | 134.10      |
|                    | KW  | 1.93                                        | 2.25       | 2.56       | 2.87       | 3.19      | 3.53        | 3.92        | 4.36        |
| 40 (4.44)          | TCG | 52.30                                       | 49.50      | 46.60      | 43.80      | 40.90     | 37.90       | 34.90       | 31.60       |
|                    | SDT | 70.40                                       | 79.60      | 88.80      | 98.00      | 107.20    | 116.50      | 125.70      | 134.80      |
|                    | KW  | 1.82                                        | 2.18       | 2.52       | 2.85       | 3.19      | 3.55        | 3.94        | 4.38        |
| 45 (7.22)          | TCG | 57.80                                       | 54.60      | 51.40      | 48.20      | 45.00     | 41.70       | 38.30       | 34.80       |
|                    | SDT | 71.80                                       | 80.80      | 90.00      | 99.10      | 108.30    | 117.40      | 126.60      | 135.70      |
|                    | KW  | 1.68                                        | 2.07       | 2.45       | 2.81       | 3.17      | 3.55        | 3.95        | 4.40        |
| 50 (10.0)          | TCG | 63.70                                       | 60.10      | 56.50      | 52.90      | 49.40     | 45.70       | 42.00       | 38.10       |
|                    | SDT | 73.20                                       | 82.20      | 91.30      | 100.30     | 109.40    | 118.50      | 127.50      | 136.50      |
|                    | KW  | 1.49                                        | 1.93       | 2.34       | 2.74       | 3.13      | 3.53        | 3.95        | 4.41        |
| 55 (12.78)         | TCG | 70.10                                       | 66.00      | 62.00      | 58.00      | 54.10     | 50.00       | 45.90       | 41.60       |
|                    | SDT | 74.70                                       | 83.70      | 92.60      | 101.60     | 110.60    | 119.60      | 128.50      | 137.40      |
|                    | KW  | 1.25                                        | 1.74       | 2.20       | 2.63       | 3.06      | 3.49        | 3.94        | 4.41        |

| SST °F (°C) |         | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |            |            |            |           |             |             |        |
|-------------|---------|---------------------------------------------|------------|------------|------------|-----------|-------------|-------------|--------|
|             |         | 55 (12.78)                                  | 65 (18.33) | 75 (23.89) | 85 (29.44) | 95 (35.0) | 105 (40.56) | 115 (46.11) |        |
| PA16NA060-C |         |                                             |            |            |            |           |             |             |        |
| 30          | (-1.11) |                                             |            |            |            |           |             |             |        |
|             | TCG     | 53.50                                       | 50.90      | 48.30      | 45.50      | 42.70     | 39.70       | 36.50       | 0.00   |
|             | SDT     | 69.90                                       | 79.30      | 88.70      | 98.10      | 107.50    | 116.80      | 126.00      | 0.00   |
|             | KW      | 2.38                                        | 2.68       | 3.01       | 3.37       | 3.79      | 4.26        | 4.79        | 0.00   |
| 35 (1.67)   | TCG     | 59.00                                       | 56.10      | 53.20      | 50.20      | 47.20     | 43.80       | 40.40       | 36.70  |
|             | SDT     | 71.30                                       | 80.60      | 90.00      | 99.30      | 108.60    | 117.80      | 127.00      | 136.10 |
|             | KW      | 2.40                                        | 2.70       | 3.03       | 3.40       | 3.82      | 4.29        | 4.82        | 5.42   |
| 40 (4.44)   | TCG     | 64.90                                       | 61.70      | 58.50      | 55.20      | 51.90     | 48.30       | 44.70       | 40.70  |
|             | SDT     | 72.80                                       | 82.00      | 91.30      | 100.50     | 109.80    | 118.90      | 128.10      | 137.10 |
|             | KW      | 2.43                                        | 2.72       | 3.05       | 3.42       | 3.85      | 4.32        | 4.86        | 5.46   |
| 45 (7.22)   | TCG     | 71.20                                       | 67.70      | 64.20      | 60.60      | 57.00     | 53.10       | 49.20       | 45.00  |
|             | SDT     | 74.40                                       | 83.60      | 92.70      | 101.90     | 111.00    | 120.10      | 129.20      | 138.20 |
|             | KW      | 2.45                                        | 2.74       | 3.07       | 3.45       | 3.87      | 4.35        | 4.89        | 5.50   |
| 50 (10.0)   | TCG     | 78.00                                       | 74.10      | 70.30      | 66.40      | 62.40     | 58.30       | 54.00       | 49.40  |
|             | SDT     | 76.20                                       | 85.30      | 94.40      | 103.40     | 112.40    | 121.40      | 130.40      | 139.30 |
|             | KW      | 2.48                                        | 2.77       | 3.11       | 3.48       | 3.90      | 4.39        | 4.93        | 5.54   |
| 55 (12.78)  | TCG     | 85.10                                       | 80.90      | 76.70      | 72.50      | 68.20     | 63.70       | 59.00       | 54.10  |
|             | SDT     | 78.00                                       | 86.90      | 95.90      | 104.90     | 113.90    | 122.80      | 131.70      | 140.40 |
|             | KW      | 2.51                                        | 2.79       | 3.13       | 3.51       | 3.94      | 4.42        | 4.97        | 5.58   |

\* AHRI listing applies only to systems shown in Combination Ratings table.

KW - Outdoor Unit Kilowatts Only.

SDT - Saturated Temperature Leaving Compressor (°F)

SST - Saturated Temperature Entering Compressor (°F/°C)

TCG - Gross Cooling Capacity (1000 Btuh)

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## GUIDE SPECIFICATIONS

### General System Description

Outdoor-mounted, air-cooled, split-system air conditioner unit suitable for ground or rooftop installation. Unit consists of a hermetic compressor, an air-cooled coil, propeller-type condenser fan, and a control box. Unit will discharge supply air upward as shown on contract drawings. Unit will be used in a refrigeration circuit to match up to a packaged fan coil or coil unit.

### Quality Assurance

- Unit will be rated in accordance with the latest edition of AHRI Standard 210.
- Unit will be certified for capacity and efficiency, and listed in the latest AHRI directory.
- Unit construction will comply with latest edition of ANSI/ASHRAE and with NEC.

- Unit will be constructed in accordance with UL standards and will carry the UL label of approval. Unit will have c-UL-us approval.
- Unit cabinet will be capable of withstanding Federal Test Method Standard No. 141 (Method 6061) 500-hr salt spray test.
- Air-cooled condenser coils will be leak tested at 150 psig and pressure tested at 450 psig.
- Unit constructed in ISO9001 approved facility.

### Delivery, Storage, and Handling

- Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

### Warranty (for inclusion by specifying engineer)

- U.S. and Canada only.

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## PRODUCTS

### Equipment

Factory assembled, single piece, air-cooled air conditioner unit. Contained within the unit enclosure is all factory wiring, piping, controls, compressor, refrigerant charge R-410A, and special features required prior to field start-up.

### Unit Cabinet

- Unit cabinet will be constructed of galvanized steel, bonderized, and coated with a powder coat paint.

### Fans

- Condenser fan will be direct-drive propeller type, discharging air upward.
- Condenser fan motors will be totally enclosed, 1-phase type with class B insulation and permanently lubricated bearings. Shafts will be corrosion resistant.
- Fan blades will be statically and dynamically balanced.
- Condenser fan openings will be equipped with coated steel wire safety guards.

### Compressor

- Compressor will be hermetically sealed.
- Compressor will be mounted on rubber vibration isolators.

### Condenser Coil

- Condenser coil will be air cooled.
- Coil will be constructed of aluminum fins mechanically bonded to copper tubes which are then cleaned, dehydrated, and sealed.

### Refrigeration Components

- Refrigeration circuit components will include liquid-line shutoff valve with sweat connections, vapor-line shutoff valve with sweat connections, system charge of R-410A refrigerant, and compressor oil.
- Unit will be equipped with filter drier for R-410A refrigerant.

### Operating Characteristics

- The capacity of the unit will meet or exceed \_\_\_\_ Btuh at a suction temperature of \_\_\_\_ °F/°C. The power consumption at full load will not exceed \_\_\_\_ kW.
- Combination of the unit and the evaporator or fan coil unit will have a total net cooling capacity of \_\_\_\_ Btuh or greater at conditions of \_\_\_\_ CFM entering air temperature at the evaporator at \_\_\_\_ °F/°C wet bulb and \_\_\_\_ °F/°C dry bulb, and air entering the unit at \_\_\_\_ °F/°C.
- The system will have a SEER of \_\_\_\_ Btuh/watt or greater at DOE conditions.

### Electrical Requirements

- Nominal unit electrical characteristics will be \_\_\_\_ v, single phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of \_\_\_\_ v to \_\_\_\_ v.
- Unit electrical power will be single point connection.
- Control circuit will be 24v.

### Special Features

- Refer to section of this literature identifying accessories and descriptions for specific features and available enhancements.

## SYSTEM DESIGN SUMMARY

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 is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. For interconnecting refrigerant tube lengths greater than 80 ft (23.4 m) and/or 35 ft (10.7 m) vertical differential, consult Residential Piping and Longline Guideline and Service Manual available from equipment distributor.
6. If any refrigerant tubing is buried, provide a 6 in. (152.4 mm) vertical rise to the valve connections at the unit. Refrigerant tubing lengths up to 36 in. (914.4 mm) may be buried without further consideration. Do not bury refrigerant lines longer than 36 in. (914.4 mm).
7. Use only copper wire for electric connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
8. Do not apply capillary tube indoor coils to these units.
9. Factory-supplied filter drier must be installed.



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