

# INSTALLATION INSTRUCTIONS

## AES Series Accessory Electric Heater and AXB Series Single Point Box For 3 thru 12-1/2 Ton PAS/E/H and PHS/E/H Series Package Units

These instructions must be read and understood completely before attempting installation.

### General

Electric heater assembly consists of:

- |                   |                         |
|-------------------|-------------------------|
| 1 - Heater module | 1 - Red Wire (10 gage)* |
| 4 - Screws        | 1 - Splicer Connector*  |
| 1 - Wiring Label  | 1 - Wire Tie*           |

Single point kit consists of:

- 1 - Single point box
- 1 - Bushing
- 5 - Screws
- 1 - Bracket and conduit drip boot assembly.

\* Supplied with electric heaters: AES001EHA, AES003EHA, AES007EHA & AES009EHA.

NOTE: Single point kit not required on standard efficiency 3 to 6 ton cooling units with MOCP of 60 and lower.

## WARNING

### Electrical shock hazard.

Installation or repairs made by unqualified persons can result in hazards to you and others. Installation must conform with local building codes or, in the absence of local codes, with National Electrical Code ANSI/NFPA 70-1996 or current edition.

The information contained in this manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.

Shut OFF electric power at unit disconnect and/or service panel before beginning the following procedures.

Failure to carefully read and follow all instructions in this manual can result in malfunction, property damage, personal injury, and/or death.

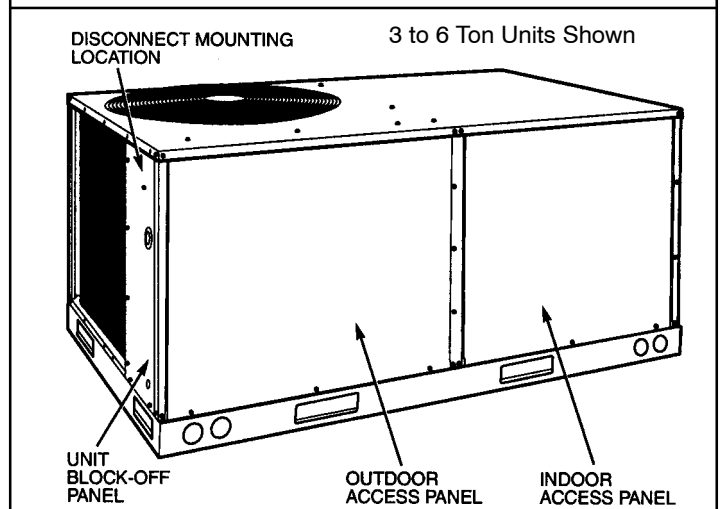
### BEFORE STARTING INSTALLATION, DISCONNECT ALL POWER TO THE UNIT.

### INSTALLATION:

1. Remove electric heater modules and single point box from packaging and inspect for damage.
2. Remove indoor and outdoor access panels. See Fig. 1.
3. Remove control box cover and center post. Save screws. See Fig. 2.
4. Remove the single point box cover. Secure single point box to the underside of the control box with 2 screws provided. See Fig. 3.
5. Secure the conduit drip boot bracket assembly to the back of the single point box with 2 of the screws provided. See Fig. 3. The channel portion of the bracket assembly extends to the top panel behind the control box. Secure all wires to bracket with field-supplied wire tie as shown in Fig. 4.

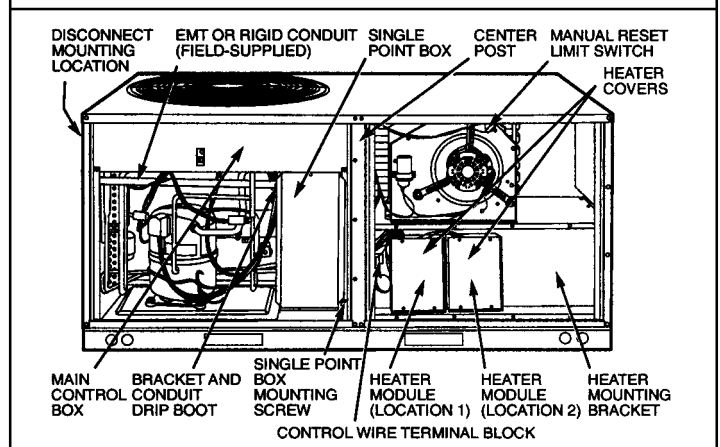
NOTE: The conduit drip boot and bracket are not used on standard efficiency 3 to 6 ton electric cooling units.

Figure 1 - Typical Access Panel Location



6. Remove heat cover(s) from heater mounting bracket. Save screws. Install single module electric heat option in location 1 (nearest the single point box). See Fig. 2.

Figure 2 - Typical Component Location



NOTE: Modules AES013, AES015, AES032, AES027, AES033, and AES036 are keyed and must be installed in location 1 even when used as part of a 2-module option. See Fig. 6.

7. Fasten heater module to heater mounting bracket with the 4 screws saved from Step 6. See Fig. 3.

NOTE: All 208/230v heaters (except AES015EHA) are factory wired for 3 phase applications but can be converted to single phase by changing one wire as described in step 8.

8. On single-phase applications, rewire the heater as follows (see Fig. 8-10):
  - a. Connect 10-gage red wire to splice connector.
  - b. Remove yellow wire from heater contactor terminal 11 and connect to splice connector.

c. Using the wire tie provided, fasten red wire to heater power wire harness near existing wire tie on heater module. This provides strain relief for the red wire.

9. Route power wires from heater module(s) through the foam bushing in the center partition and into the single point box. See Fig. 3.
10. Install bushing in hole between control box and single point box. Route unit power pigtails through bushing . See Fig. 3.
11. Refer to Tables on pages 5 to 12 to determine appropriate power wiring figure for wiring single point box.
12. Run control wires from heater module(s) to the control wire terminal block located next to the heater module(s). Connect the control wires as shown in Fig. 17

**HEAT PUMP UNITS** - The electric heat is internally wired as the second stage of heat.

**ELECTRIC COOLING UNITS** - Electric cooling units with 2 electric heater modules can be wired for one or 2 stage options as shown in Fig. 20 connect single module heater option control wire (violet) to TB4 terminal 1.

13. Replace the center post and secure the single point box to the center post with one screw. See Fig. 2.
14. Remove knockouts for appropriate size conduit from unit block-off panel and single point box. Install conduit (rigid or electro-metallic tubing) through conduit drip boot as shown in Figure 4. Drip boot will accept conduit sizes 3/4 in. to 1-1/2 inches. The drip boot eliminates the need for water-tight conduit fittings at the single point box.

**NOTE:** Supply wiring must comply with NEC (National Electric Code) and all local requirements.

15. Place adhesive-backed wiring label on flanged side of heater cover.
16. Fasten heater cover to heater module with 2 screws provided with heater. Flanges of cover should face out.
17. Set manual reset limit switch by depressing button located between the terminal on the switch. Refer to Figure 2 for switch location.
18. Close single point box cover and secure with one screw.
19. Replace control box cover, using remainder of screws saved from Step 3.
20. Replace indoor and outdoor panels with screws saved from Step 2.
21. Turn on unit power.

Figure 3 - Typical Single Point Kit Location

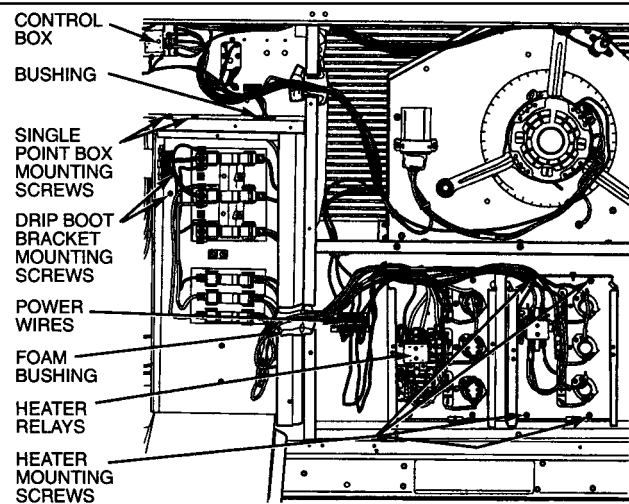


Figure 4 - Typical Conduit Installation

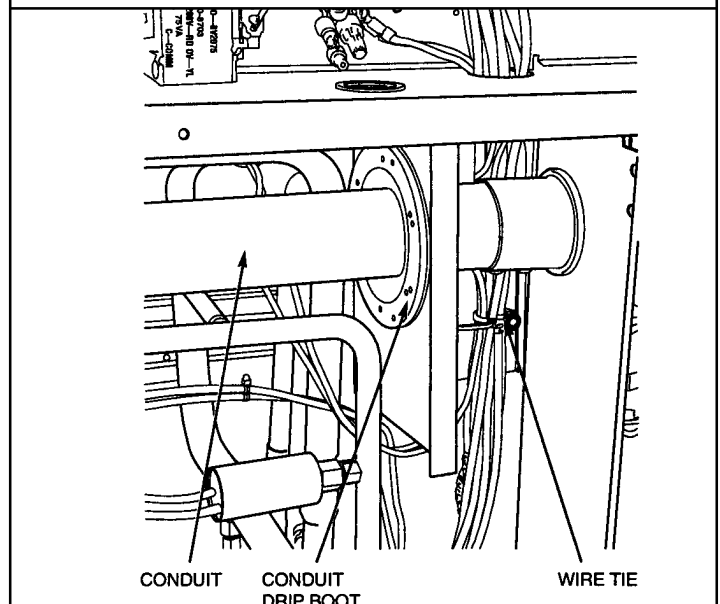


Figure 5 - Typical Module Installation

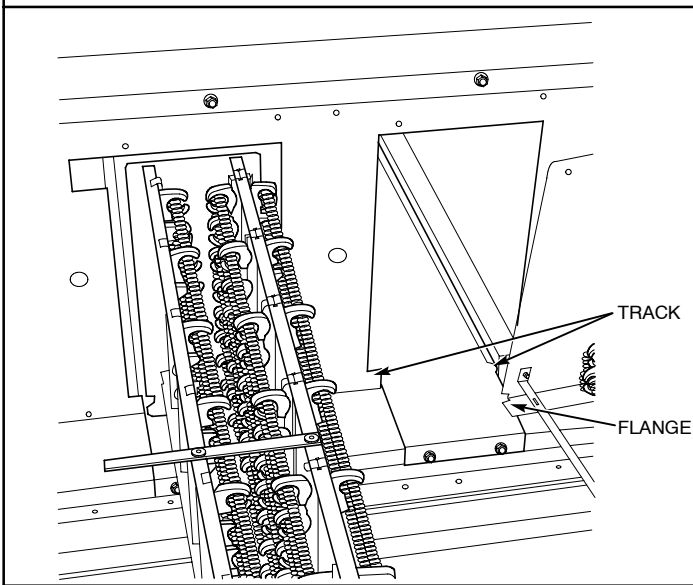


Figure 6 - Typical Electric Heat Installation

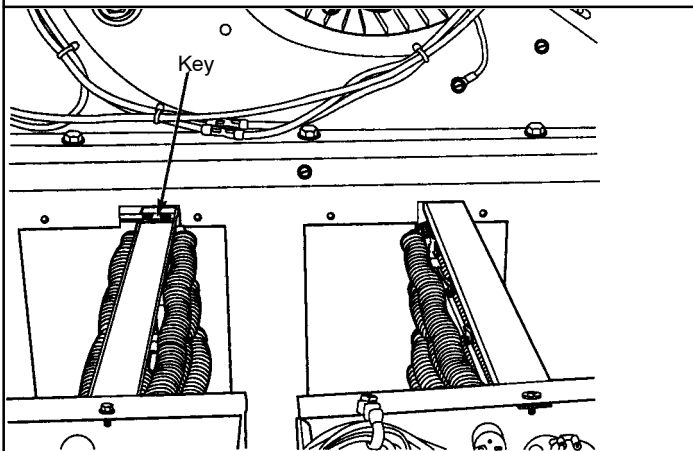


Figure 7 - Typical Three-Phase Wiring Installed

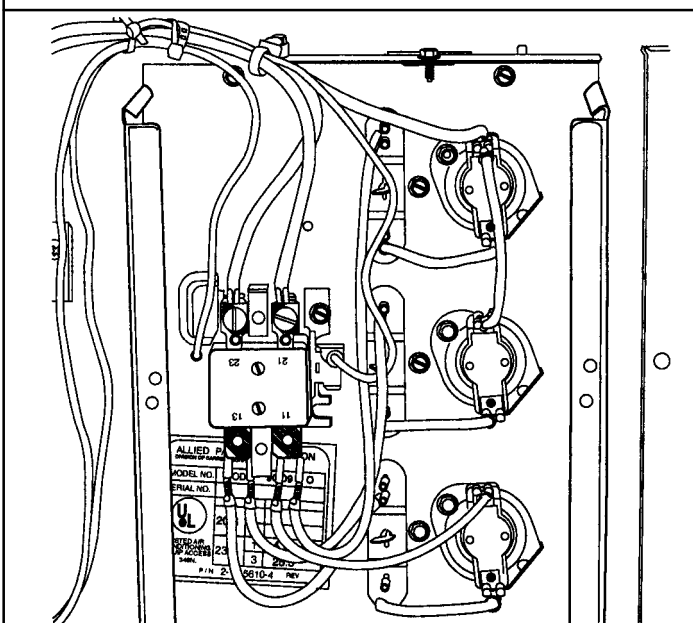


Figure 8 - Single Phase Heater Wiring

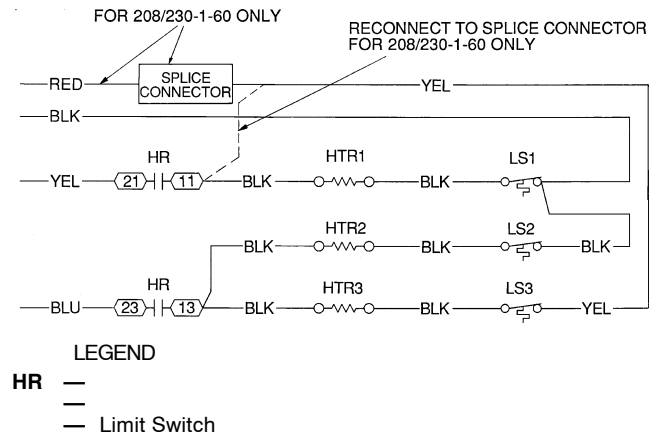
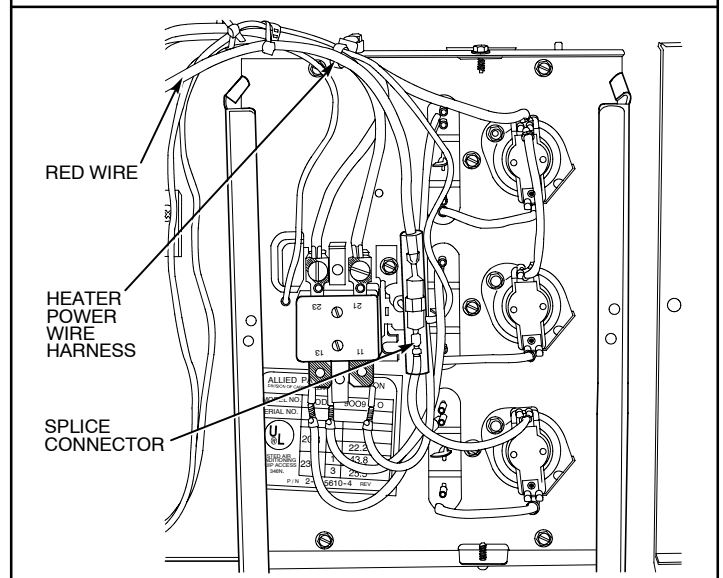
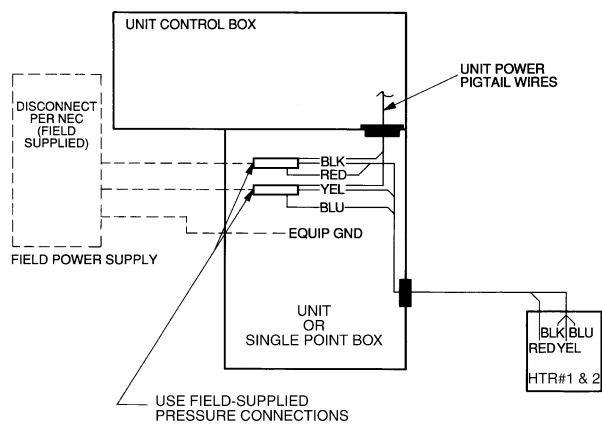


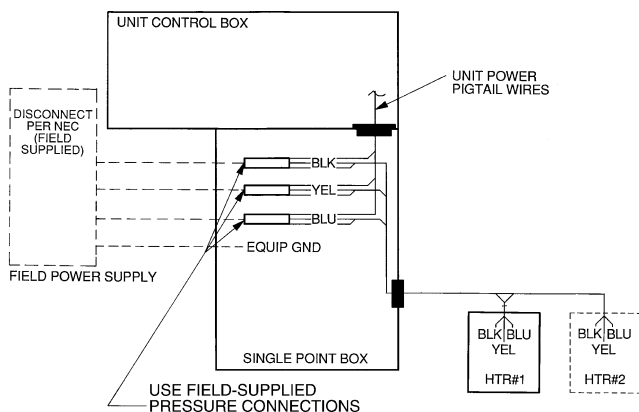
Figure 9 - Typical Single Phase Wiring Installed





NO SINGLE POINT BOX REQUIRED

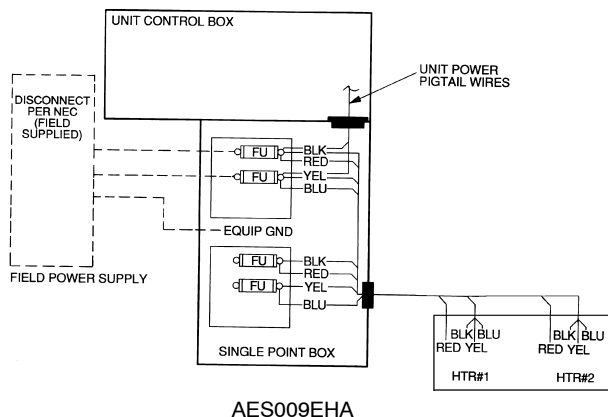
**Figure 10 - Electric Heater Power Wiring Connections - Cooling & Heat Pump Units, 208/230-1-60, Less than 60 Amps MOCP**



No Single Point Box Required

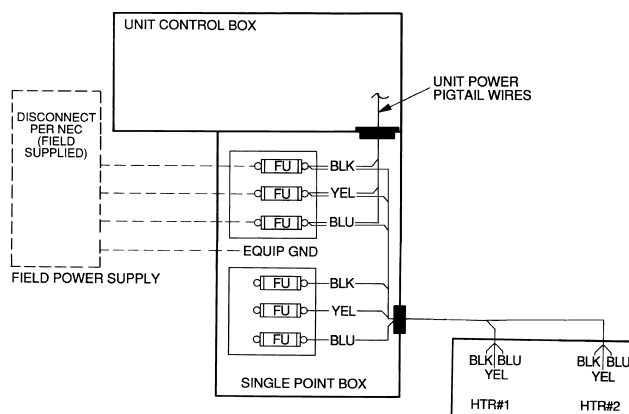
(Use Existing Space In Unit) or AES006ELA or AES024EHA

**Figure 11 - Electric Heater Power Wiring Connections Electric Cooling & Heat Pump Units, 208/230-3-60, 460-3-60, 575-3-60 Less than 60 Amps MOCP**

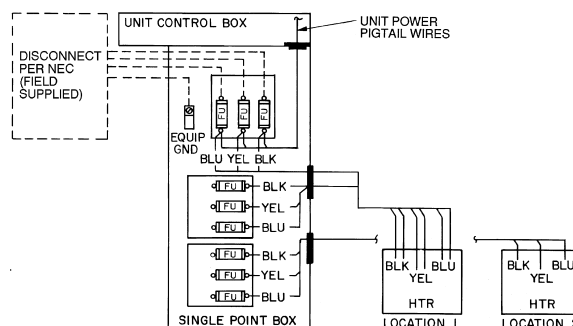


AES009EHA

**Figure 12 - Electric Heater Power Wiring Connections - Electric Cooling Units and Heat Pumps 208/230-1-60, Greater than 60 Amps MOCP**

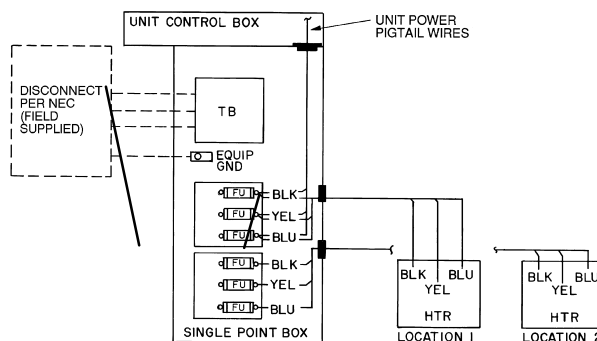


AES007EHA or  
AES008ELA or  
AES032EHA



AES013ELAHA or  
AES033EHA

**Figure 13 - Electric Heater Power Wiring Connections - Electric Cooling Units and Heat Pumps 208/230-3-60, Greater than 60 Amps MOCP**



AES011ELA or  
AES027ELA

**Figure 14 - Electric Heater Power Wiring Connections - Electric Cooling Units and Heat Pumps 460-3-60 and 575-3-60, Greater than 60 Amps MOCP**

**TABLE 1 - ELECTRICAL DATA — PAH036**

| Unit<br>Size | NOMINAL<br>V-PH-Hz | IFM<br>TYPE | CONV<br>OUTLET | Electric Heat |            | Power Supply * |        | Disconnect Size |          |
|--------------|--------------------|-------------|----------------|---------------|------------|----------------|--------|-----------------|----------|
|              |                    |             |                | Actual kW†    | FLA        | MCA            | MOCp** | FLA             | LRA      |
| <b>036</b>   | 208/230-1-60       | STD         | NO             | —/ —          | —/ —       | 25.6/ 25.6     | 30/ 30 | 25/ 25          | 101/ 101 |
|              |                    |             |                | 3.3/ 4.0      | 15.9/ 18.3 | 26.0/ 29.0     | 30/ 30 | 25/ 27          | 101/ 101 |
|              |                    |             |                | 4.9/ 5.8      | 23.5/ 27.1 | 35.5/ 40.0     | 40/ 40 | 33/ 37          | 101/ 101 |
|              |                    |             |                | 6.5/ 8.0      | 31.4/ 36.3 | 45.4/ 51.4     | 50/ 50 | 42/ 47          | 101/ 101 |
|              |                    |             |                | 7.9/ 9.6      | 37.9/ 43.1 | 53.5/ 60.0     | 60/ 60 | 49/ 55          | 101/ 101 |
|              |                    |             |                | 9.8/ 11.6     | 46.9/ 54.2 | 64.8/ 73.8     | 70/ 80 | 60/ 68          | 101/ 101 |
|              |                    |             | YES            | —/ —          | —/ —       | 31.6/ 31.6     | 35/ 35 | 30/ 30          | 106/ 106 |
|              |                    |             |                | 3.3/ 4.0      | 15.9/ 18.3 | 31.6/ 34.0     | 35/ 35 | 30/ 32          | 106/ 106 |
|              |                    |             |                | 4.9/ 5.8      | 23.5/ 27.1 | 40.5/ 45.0     | 45/ 45 | 38/ 42          | 106/ 106 |
|              |                    |             |                | 6.5/ 8.0      | 31.4/ 36.3 | 50.4/ 56.4     | 60/ 60 | 47/ 53          | 106/ 106 |
|              |                    |             |                | 7.9/ 9.6      | 37.9/ 43.1 | 58.5/ 65.0     | 60/ 70 | 55/ 61          | 106/ 106 |
|              |                    |             |                | 9.8/ 11.6     | 46.9/ 54.2 | 69.8/ 78.8     | 70/ 80 | 65/ 73          | 106/ 106 |
|              | 208/230-3-60       | STD         | NO             | —/ —          | —/ —       | 18.5/ 18.5     | 25/ 25 | 18/ 18          | 90/ 90   |
|              |                    |             |                | 3.3/ 4.0      | 9.2/ 10.6  | 18.5/ 19.4     | 25/ 25 | 18/ 18          | 90/ 90   |
|              |                    |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 23.1/ 25.7     | 25/ 30 | 21/ 24          | 90/ 90   |
|              |                    |             |                | 6.5/ 8.0      | 18.1/ 20.9 | 28.8/ 32.3     | 30/ 35 | 26/ 30          | 90/ 90   |
|              |                    |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 33.5/ 37.7     | 35/ 40 | 31/ 35          | 90/ 90   |
|              |                    |             |                | 9.8/ 14.7     | 33.4/ 38.5 | 47.8/ 54.2     | 50/ 60 | 44/ 50          | 90/ 90   |
|              |                    |             | YES            | —/ —          | —/ —       | 24.5/ 24.5     | 30/ 30 | 24/ 24          | 95/ 95   |
|              |                    |             |                | 3.3/ 4.0      | 9.2/ 10.6  | 24.5/ 24.5     | 30/ 30 | 24/ 24          | 95/ 95   |
|              |                    |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 28.1/ 30.7     | 30/ 35 | 27/ 29          | 95/ 95   |
|              |                    |             |                | 6.5/ 8.0      | 18.1/ 20.9 | 33.8/ 37.3     | 35/ 40 | 32/ 35          | 95/ 95   |
|              |                    |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 38.5/ 42.7     | 35/ 45 | 36/ 40          | 95/ 95   |
|              |                    |             |                | 9.8/ 14.7     | 33.4/ 38.5 | 52.8/ 59.2     | 50/ 60 | 50/ 55          | 95/ 95   |
|              |                    | HS          | NO             | —/ —          | —/ —       | 19.4/ 19.4     | 25/ 25 | 19/ 19          | 120/ 120 |
|              |                    |             |                | 3.3/ 4.0      | 9.2/ 10.6  | 19.4/ 20.5     | 25/ 25 | 19/ 19          | 120/ 120 |
|              |                    |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 24.2/ 26.8     | 30/ 30 | 22/ 25          | 120/ 120 |
|              |                    |             |                | 6.5/ 8.0      | 18.1/ 20.9 | 29.9/ 33.4     | 35/ 35 | 28/ 31          | 120/ 120 |
|              |                    |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 34.6/ 38.8     | 35/ 40 | 32/ 36          | 120/ 120 |
|              |                    |             |                | 9.8/ 14.7     | 33.4/ 38.5 | 48.9/ 55.4     | 50/ 60 | 45/ 51          | 120/ 120 |
|              |                    |             | YES            | —/ —          | —/ —       | 25.4/ 25.4     | 30/ 30 | 25/ 25          | 124/ 124 |
|              |                    |             |                | 3.3/ 4.0      | 9.2/ 10.6  | 25.4/ 25.5     | 30/ 30 | 25/ 25          | 124/ 124 |
|              |                    |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 29.2/ 31.8     | 35/ 35 | 28/ 30          | 124/ 124 |
|              |                    |             |                | 6.5/ 8.0      | 18.1/ 20.9 | 34.9/ 38.4     | 40/ 40 | 33/ 36          | 124/ 124 |
|              |                    |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 39.6/ 43.8     | 40/ 45 | 37/ 41          | 124/ 124 |
|              |                    |             |                | 9.8/ 14.7     | 33.4/ 38.5 | 53.9/ 60.4     | 60/ 70 | 51/ 56          | 124/ 124 |
|              | 460-3-60           | STD         | NO             | —             | —          | 9.0            | 20     | 9               | 46       |
|              |                    |             |                | 5.5           | 7.2        | 11.8           | 20     | 11              | 46       |
|              |                    |             |                | 8.1           | 10.6       | 16.0           | 20     | 15              | 46       |
|              |                    |             |                | 10.6          | 13.8       | 20.0           | 25     | 18              | 46       |
|              |                    |             |                | 12.9          | 16.8       | 23.8           | 25     | 22              | 46       |
|              |                    |             |                | —             | —          | 11.7           | 20     | 11              | 48       |
|              |                    |             | YES            | 5.5           | 7.2        | 15.1           | 20     | 13              | 48       |
|              |                    |             |                | 8.1           | 10.6       | 18.7           | 20     | 17              | 48       |
|              |                    |             |                | 10.6          | 13.8       | 22.7           | 25     | 21              | 48       |
|              |                    |             |                | 12.9          | 16.8       | 26.5           | 30     | 24              | 48       |
|              |                    |             |                | —             | —          | 9.4            | 20     | 9               | 60       |
|              |                    |             |                | 5.5           | 7.2        | 12.3           | 20     | 11              | 60       |
|              |                    | HS          | NO             | 8.1           | 10.6       | 16.5           | 20     | 15              | 60       |
|              |                    |             |                | 10.6          | 13.8       | 20.5           | 25     | 19              | 60       |
|              |                    |             |                | 12.9          | 16.8       | 24.3           | 25     | 22              | 60       |
|              |                    |             |                | —             | —          | 12.1           | 20     | 12              | 62       |
|              |                    |             | YES            | 5.5           | 7.2        | 15.6           | 20     | 14              | 63       |
|              |                    |             |                | 8.1           | 10.6       | 19.2           | 20     | 18              | 63       |
|              |                    |             |                | 10.6          | 13.8       | 23.2           | 25     | 21              | 63       |
|              |                    |             |                | 12.9          | 16.8       | 27.0           | 30     | 25              | 63       |

\*See Legend on page 12.

**TABLE 1 - ELECTRICAL DATA — PAH048**

| Unit<br>Size | NOMINAL<br>V-PH-Hz | IFM<br>TYPE | CONV<br>OUTLET | Electric Heat |            | Power Supply * |          | Disconnect Size |          |
|--------------|--------------------|-------------|----------------|---------------|------------|----------------|----------|-----------------|----------|
|              |                    |             |                | Actual kW†    | FLA        | MCA            | MOCp**   | FLA             | LRA      |
| 048          | 208/230-1-60       | STD         | NO             | — / —         | — / —      | 35.2/ 35.2     | 45/ 45   | 34/ 34          | 139/ 139 |
|              |                    |             |                | 3.3/ 4.0      | 15.9/ 18.3 | 35.2/ 35.2     | 45/ 45   | 34/ 34          | 139/ 139 |
|              |                    |             |                | 6.5/ 8.0      | 31.4/ 36.3 | 45.4/ 51.4     | 50/ 60   | 42/ 47          | 139/ 139 |
|              |                    |             |                | 9.8/ 11.6     | 46.9/ 54.2 | 64.8/ 73.8     | 70/ 80   | 60/ 68          | 139/ 139 |
|              |                    |             |                | 13.1/ 16      | 62.8/ 72.5 | 84.7/ 96.8     | 90/ 100  | 78/ 89          | 139/ 139 |
|              |                    |             |                | 16.0/ 19.3    | 75.8/ 87.5 | 100.9/115.5    | 110/ 125 | 93/ 106         | 139/ 139 |
|              |                    |             | YES            | — / —         | — / —      | 41.2/ 41.2     | 50/ 50   | 39/ 39          | 144/ 144 |
|              |                    |             |                | 3.3/ 4.0      | 15.9/ 18.3 | 41.2/ 41.2     | 50/ 50   | 39/ 39          | 144/ 144 |
|              |                    |             |                | 6.5/ 8.0      | 31.4/ 36.3 | 50.4/ 56.4     | 60/ 60   | 47/ 53          | 144/ 144 |
|              |                    |             |                | 9.8/ 11.6     | 46.9/ 54.2 | 69.8/ 78.8     | 70/ 80   | 65/ 73          | 144/ 144 |
|              |                    |             |                | 13.1/ 16      | 62.8/ 72.5 | 89.7/ 101.8    | 90/ 100  | 83/ 95          | 144/ 144 |
|              |                    |             |                | 16.0/ 19.3    | 75.8/ 87.5 | 105.9/120.5    | 110/ 125 | 98/ 112         | 144/ 144 |
|              | 208/230-3-60       | STD         | NO             | — / —         | — / —      | 22.5/ 22.5     | 30/ 30   | 22/ 22          | 106/ 106 |
|              |                    |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 23.1/ 25.7     | 30/ 30   | 22/ 24          | 106/ 106 |
|              |                    |             |                | 6.5/ 8        | 18.1/ 20.9 | 28.8/ 32.3     | 30/ 35   | 26/ 30          | 106/ 106 |
|              |                    |             |                | 12/ 14.7      | 33.4/ 38.5 | 47.8/ 54.2     | 50/ 60   | 44/ 50          | 106/ 106 |
|              |                    |             |                | 16/ 19.3      | 43.8/ 50.5 | 60.8/ 59.3     | 70/ 70   | 56/ 64          | 106/ 106 |
|              |                    |             |                | — / —         | — / —      | 28.5/ 28.5     | 35/ 35   | 27/ 27          | 111/ 111 |
|              |                    |             | YES            | 4.9/ 5.8      | 13.6/ 15.6 | 28.5/ 30.7     | 35/ 35   | 27/ 29          | 111/ 111 |
|              |                    |             |                | 6.5/ 8        | 18.1/ 20.9 | 33.8/ 37.3     | 35/ 40   | 32/ 35          | 111/ 111 |
|              |                    |             |                | 12/ 14.7      | 33.4/ 38.5 | 52.8/ 59.2     | 60/ 60   | 50/ 55          | 111/ 111 |
|              |                    |             |                | 16/ 19.3      | 43.8/ 50.5 | 65.8/ 74.3     | 70/ 80   | 62/ 69          | 111/ 111 |
|              |                    | HS          | NO             | — / —         | — / —      | 23.4/ 23.4     | 30/ 30   | 23/ 23          | 136/ 136 |
|              |                    |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 24.2/ 26.8     | 30/ 30   | 23/ 25          | 136/ 136 |
|              |                    |             |                | 6.5/ 8        | 18.1/ 20.9 | 29.9/ 33.4     | 35/ 35   | 28/ 31          | 136/ 136 |
|              |                    |             |                | 12/ 14.7      | 33.4/ 38.5 | 48.9/ 55.4     | 50/ 60   | 45/ 51          | 136/ 136 |
|              |                    |             |                | 16/ 19.3      | 43.8/ 50.5 | 62.0/ 70.4     | 70/ 80   | 57/ 65          | 136/ 136 |
|              |                    |             |                | — / —         | — / —      | 29.4/ 29.4     | 35/ 35   | 29/ 29          | 140/ 140 |
|              |                    |             | YES            | 4.9/ 5.8      | 13.6/ 15.6 | 29.4/ 31.8     | 35/ 35   | 29/ 30          | 140/ 140 |
|              |                    |             |                | 6.5/ 8        | 18.1/ 20.9 | 34.9/ 38.4     | 40/ 40   | 33/ 36          | 140/ 140 |
|              |                    |             |                | 12/ 14.7      | 33.4/ 38.5 | 53.9/ 60.4     | 60/ 70   | 51/ 56          | 140/ 140 |
|              |                    |             |                | 16/ 19.3      | 43.8/ 50.5 | 67.0/ 75.4     | 70/ 80   | 63/ 70          | 140/ 140 |
|              | 460-3-60           | STD         | NO             | —             | —          | 10.6           | 20       | 10              | 53       |
|              |                    |             |                | 5.5           | 7.2        | 11.8           | 20       | 11              | 54       |
|              |                    |             |                | 10.6          | 13.8       | 20.0           | 25       | 18              | 54       |
|              |                    |             |                | 12.9          | 16.8       | 23.8           | 25       | 22              | 54       |
|              |                    |             |                | 21.1          | 27.7       | 37.3           | 40       | 34              | 54       |
|              |                    |             | YES            | —             | —          | 13.3           | 20       | 13              | 55       |
|              |                    |             |                | 5.5           | 7.2        | 15.1           | 20       | 13              | 56       |
|              |                    |             |                | 10.6          | 13.8       | 22.7           | 25       | 21              | 56       |
|              |                    |             |                | 12.9          | 16.8       | 26.5           | 30       | 24              | 56       |
|              |                    |             |                | 21.1          | 27.7       | 40.0           | 45       | 37              | 56       |
|              |                    | HS          | NO             | —             | —          | 11.0           | 20       | 11              | 67       |
|              |                    |             |                | 5.5           | 7.2        | 12.3           | 20       | 11              | 68       |
|              |                    |             |                | 10.6          | 13.8       | 20.5           | 25       | 19              | 68       |
|              |                    |             |                | 12.9          | 16.8       | 24.3           | 25       | 22              | 68       |
|              |                    |             |                | 21.1          | 27.7       | 37.8           | 40       | 35              | 68       |
|              |                    |             | YES            | —             | —          | 13.7           | 20       | 13              | 70       |
|              |                    |             |                | 5.5           | 7.2        | 15.6           | 20       | 14              | 70       |
|              |                    |             |                | 10.6          | 13.8       | 23.2           | 25       | 21              | 70       |
|              |                    |             |                | 12.9          | 16.8       | 27.0           | 30       | 25              | 70       |
|              |                    |             |                | 21.1          | 27.7       | 40.5           | 45       | 37              | 70       |

\*See Legend on page 12.

**TABLE 1 - ELECTRICAL DATA — PAH060**

| Unit<br>Size | NOMINAL<br>V-PH-Hz | IFM<br>TYPE | CONV<br>OUTLET | Electric Heat |            | Power Supply * |          | Disconnect Size |          |
|--------------|--------------------|-------------|----------------|---------------|------------|----------------|----------|-----------------|----------|
|              |                    |             |                | Actual kW†    | FLA        | MCA            | MOCp**   | FLA             | LRA      |
| <b>060</b>   | 208/230-1-60       | STD         | NO             | — / —         | — / —      | 46.3/ 46.3     | 60/ 60   | 45/ 45          | 216/ 216 |
|              |                    |             |                | 4.9/ 5.8      | 23.5/ 27.1 | 46.3/ 46.3     | 60/ 60   | 45/ 45          | 216/ 216 |
|              |                    |             |                | 6.5/ 8.0      | 31.4/ 36.3 | 50.3/ 56.3     | 60/ 60   | 46/ 52          | 216/ 216 |
|              |                    |             |                | 8.7/ 11.6     | 46.9/ 54.2 | 69.7/ 78.7     | 70/ 80   | 64/ 72          | 216/ 216 |
|              |                    |             |                | 13.0/ 16.0    | 62.8/ 72.5 | 49.5/ 101.6    | 90/ 110  | 82/ 93          | 216/ 216 |
|              |                    |             |                | 15.8/ 19.3    | 75.8/ 87.5 | 105.8/ 120.4   | 110/ 125 | 97/ 111         | 216/ 216 |
|              |                    |             | YES            | — / —         | — / —      | 52.3/ 52.3     | 60/ 60   | 50/ 50          | 221/ 221 |
|              |                    |             |                | 4.9/ 5.8      | 23.5/ 27.1 | 52.3/ 52.3     | 60/ 60   | 50/ 50          | 221/ 221 |
|              |                    |             |                | 6.5/ 8.0      | 31.4/ 36.3 | 55.3/ 61.3     | 60/ 70   | 52/ 57          | 221/ 221 |
|              |                    |             |                | 8.7/ 11.6     | 46.9/ 54.2 | 74.7/ 83.7     | 80/ 90   | 70/ 78          | 221/ 221 |
|              |                    |             |                | 13.0/ 16.0    | 62.8/ 72.5 | 94.5/ 106.6    | 100/ 110 | 88/ 99          | 221/ 221 |
|              |                    |             |                | 15.8/ 19.3    | 75.8/ 87.5 | 110.8/ 125.4   | 125/ 150 | 103/ 116        | 221/ 221 |
|              | 208/230-3-60       | STD         | NO             | — / —         | — / —      | 28.9/ 28.9     | 35/ 35   | 28/ 28          | 168/ 168 |
|              |                    |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 28.9/ 28.9     | 35/ 35   | 28/ 28          | 168/ 168 |
|              |                    |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 34.6/ 38.8     | 35/ 35   | 32/ 36          | 168/ 168 |
|              |                    |             |                | 12.0/ 14.7    | 33.4/ 38.5 | 48.9/ 55.4     | 50/ 50   | 45/ 51          | 168/ 168 |
|              |                    |             |                | 15.8/ 19.3    | 43.8/ 50.5 | 62/ 70.4       | 70/ 70   | 57/ 65          | 168/ 168 |
|              |                    |             |                | 19.9/ 24.3    | 55.2/ 63.8 | 76.3/ 86.9     | 80/ 80   | 70/ 80          | 168/ 168 |
|              |                    |             | YES            | — / —         | — / —      | 34.9/ 34.9     | 40/ 40   | 34/ 34          | 173/ 173 |
|              |                    |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 34.9/ 34.9     | 40/ 40   | 34/ 34          | 173/ 173 |
|              |                    |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 39.6/ 43.8     | 40/ 40   | 37/ 41          | 173/ 173 |
|              |                    |             |                | 12.0/ 14.7    | 33.4/ 38.5 | 53.9/ 60.4     | 60/ 70   | 51/ 56          | 173/ 173 |
|              |                    |             |                | 15.8/ 19.3    | 43.8/ 50.5 | 67/ 75.4       | 70/ 80   | 63/ 70          | 173/ 173 |
|              |                    |             |                | 19.9/ 24.3    | 55.2/ 63.8 | 81.3/ 91.9     | 90/ 100  | 76/ 86          | 173/ 173 |
|              |                    | HS          | NO             | — / —         | — / —      | 30.6/ 30.6     | 35/ 35   | 30/ 30          | 187/ 187 |
|              |                    |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 30.6/ 30.6     | 35/ 35   | 30/ 30          | 187/ 187 |
|              |                    |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 36.7/ 40.9     | 40/ 45   | 34/ 38          | 187/ 187 |
|              |                    |             |                | 12.0/ 14.7    | 33.4/ 38.5 | 51.1/ 57.5     | 60/ 60   | 47/ 53          | 187/ 187 |
|              |                    |             |                | 15.8/ 19.3    | 43.8/ 50.5 | 64.1/ 72.5     | 70/ 80   | 59/ 67          | 187/ 187 |
|              |                    |             |                | 19.9/ 24.3    | 55.2/ 63.8 | 78.4/ 89.1     | 80/ 90   | 72/ 82          | 187/ 187 |
|              |                    |             | YES            | — / —         | — / —      | 36.6/ 36.6     | 40/ 40   | 36/ 36          | 192/ 192 |
|              |                    |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 36.6/ 36.6     | 40/ 40   | 36/ 36          | 192/ 192 |
|              |                    |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 41.7/ 45.9     | 45/ 50   | 39/ 43          | 192/ 192 |
|              |                    |             |                | 12.0/ 14.7    | 33.4/ 38.5 | 56.6/ 62.5     | 60/ 70   | 53/ 58          | 192/ 192 |
|              |                    |             |                | 15.8/ 19.3    | 43.8/ 50.5 | 69.1/ 77.5     | 70/ 80   | 65/ 72          | 192/ 192 |
|              |                    |             |                | 19.9/ 24.3    | 55.2/ 63.8 | 83.4/ 94.1     | 90/ 100  | 78/ 87          | 192/ 192 |
|              | 460-3-60           | STD         | NO             | —             | —          | 14.7           | 20       | 14              | 84       |
|              |                    |             |                | 5.5           | 7.2        | 14.7           | 20       | 10              | 84       |
|              |                    |             |                | 10.6          | 13.8       | 20.5           | 25       | 19              | 84       |
|              |                    |             |                | 12.9          | 16.8       | 24.3           | 25       | 22              | 84       |
|              |                    |             |                | 21.1          | 27.7       | 37.8           | 40       | 35              | 84       |
|              |                    |             |                | 23.4          | 30.1       | 40.8           | 45       | 38              | 84       |
|              |                    |             | YES            | —             | —          | 17.4           | 20       | 17              | 86       |
|              |                    |             |                | 5.5           | 7.2        | 17.4           | 20       | 17              | 87       |
|              |                    |             |                | 10.6          | 13.8       | 23.2           | 25       | 21              | 87       |
|              |                    |             |                | 12.9          | 16.8       | 27.0           | 30       | 25              | 87       |
|              |                    |             |                | 21.1          | 27.7       | 40.5           | 45       | 37              | 87       |
|              |                    |             |                | 23.4          | 30.1       | 43.5           | 45       | 40              | 87       |
|              |                    | HS          | NO             | —             | —          | 15.5           | 20       | 15              | 93       |
|              |                    |             |                | 5.5           | 7.2        | 15.5           | 20       | 15              | 94       |
|              |                    |             |                | 10.6          | 13.8       | 21.5           | 25       | 20              | 94       |
|              |                    |             |                | 12.9          | 16.8       | 25.3           | 30       | 23              | 94       |
|              |                    |             |                | 21.1          | 27.7       | 38.8           | 40       | 36              | 94       |
|              |                    |             |                | 23.4          | 30.1       | 41.8           | 45       | 38              | 94       |
|              |                    |             | YES            | —             | —          | 18.2           | 20       | 18              | 96       |
|              |                    |             |                | 5.5           | 7.2        | 18.2           | 20       | 18              | 96       |
|              |                    |             |                | 10.6          | 13.8       | 24.2           | 25       | 22              | 96       |
|              |                    |             |                | 12.9          | 16.8       | 28.0           | 30       | 26              | 96       |
|              |                    |             |                | 21.1          | 27.7       | 41.5           | 45       | 38              | 96       |
|              |                    |             |                | 23.4          | 30.1       | 44.5           | 45       | 41              | 96       |

\*See Legend on page 12.

**TABLE 1 - ELECTRICAL DATA — PAH072**

| Unit<br>Size | NOMINAL<br>V- PH- Hz | IFM<br>TYPE | CONV<br>OUTLET | Electric Heat |            | Power Supply * |         | Disconnect Size |          |
|--------------|----------------------|-------------|----------------|---------------|------------|----------------|---------|-----------------|----------|
|              |                      |             |                | Actual kW†    | FLA        | MCA            | MOCp**  | FLA             | LRA      |
| 072          | 208/230-3-60         | STD         | NO             | — / —         | — / —      | 32.8/ 32.8     | 40/ 40  | 32/ 32          | 200/ 200 |
|              |                      |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 32.8/ 32.8     | 40/ 40  | 32/ 32          | 200/ 200 |
|              |                      |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 34.6/ 38.8     | 40/ 40  | 32/ 36          | 200/ 200 |
|              |                      |             |                | 12.0/ 14.7    | 33.4/ 38.5 | 48.9/ 55.4     | 50/ 50  | 45/ 51          | 200/ 200 |
|              |                      |             |                | 15.8/ 19.3    | 43.8/ 50.5 | 62.0/ 70.4     | 70/ 80  | 57/ 65          | 200/ 200 |
|              |                      |             |                | 19.9/ 24.3    | 55.2/ 63.8 | 76.3/ 86.9     | 80/ 90  | 70/ 80          | 200/ 200 |
|              |                      |             | YES            | — / —         | — / —      | 38.8/ 38.8     | 45/ 45  | 37/ 37          | 205/ 205 |
|              |                      |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 38.8/ 38.8     | 45/ 45  | 37/ 37          | 205/ 205 |
|              |                      |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 39.6/ 43.8     | 45/ 45  | 37/ 41          | 205/ 205 |
|              |                      |             |                | 12.0/ 14.7    | 33.4/ 38.5 | 53.9/ 60.4     | 60/ 70  | 51/ 56          | 205/ 205 |
|              |                      |             |                | 15.8/ 19.3    | 43.8/ 50.5 | 67.0/ 75.4     | 70/ 80  | 63/ 70          | 205/ 205 |
|              |                      |             |                | 19.9/ 24.3    | 55.2/ 63.8 | 76.3/ 86.9     | 90/ 100 | 76/ 86          | 205/ 205 |
|              |                      | HS          | NO             | — / —         | — / —      | 34.5/ 34.5     | 40/ 40  | 34/ 34          | 219/ 219 |
|              |                      |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 34.5/ 34.5     | 40/ 40  | 34/ 34          | 219/ 219 |
|              |                      |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 36.7/ 40.9     | 40/ 45  | 34/ 38          | 219/ 219 |
|              |                      |             |                | 12.0/ 14.7    | 33.4/ 38.5 | 51.1/ 57.5     | 60/ 60  | 47/ 53          | 219/ 219 |
|              |                      |             |                | 15.8/ 19.3    | 43.8/ 50.5 | 64.1/ 72.5     | 70/ 80  | 59/ 67          | 219/ 219 |
|              |                      |             |                | 19.9/ 24.3    | 55.2/ 63.8 | 78.4/ 89.1     | 80/ 90  | 72/ 82          | 219/ 219 |
|              |                      |             | YES            | — / —         | — / —      | 40.5/ 40.5     | 45/ 45  | 39/ 39          | 224/ 224 |
|              |                      |             |                | 4.9/ 5.8      | 13.6/ 15.6 | 40.5/ 40.5     | 45/ 45  | 39/ 39          | 224/ 224 |
|              |                      |             |                | 7.9/ 9.6      | 21.9/ 25.3 | 41.7/ 45.9     | 45/ 50  | 39/ 43          | 224/ 224 |
|              |                      |             |                | 12.0/ 14.7    | 33.4/ 38.5 | 56.1/ 62.5     | 60/ 70  | 53/ 58          | 224/ 224 |
|              |                      |             |                | 15.8/ 19.3    | 43.8/ 50.5 | 69.1/ 77.5     | 70/ 80  | 65/ 72          | 224/ 224 |
|              |                      |             |                | 19.9/ 24.3    | 55.2/ 63.8 | 83.4/ 94.1     | 90/ 100 | 78/ 87          | 224/ 224 |
|              | 460-3-60             | STD         | NO             | —             | —          | 15.2           | 20      | 15              | 97       |
|              |                      |             |                | 5.5           | 7.2        | 15.2           | 20      | 15              | 97       |
|              |                      |             |                | 10.6          | 13.8       | 20.5           | 25      | 19              | 97       |
|              |                      |             |                | 12.9          | 16.8       | 24.3           | 25      | 22              | 97       |
|              |                      |             |                | 21.1          | 27.7       | 37.8           | 40      | 35              | 97       |
|              |                      |             |                | 23.4          | 30.7       | 41.6           | 45      | 38              | 97       |
|              |                      |             | YES            | —             | —          | 17.9           | 20      | 17              | 99       |
|              |                      |             |                | 5.5           | 7.2        | 17.9           | 20      | 17              | 99       |
|              |                      |             |                | 10.6          | 13.8       | 23.2           | 25      | 21              | 99       |
|              |                      |             |                | 12.9          | 16.8       | 27.0           | 30      | 25              | 99       |
|              |                      |             |                | 21.1          | 27.7       | 40.5           | 45      | 37              | 99       |
|              |                      |             |                | 23.4          | 30.7       | 44.3           | 45      | 41              | 99       |
|              |                      | HS          | NO             | —             | —          | 16.0           | 20      | 16              | 106      |
|              |                      |             |                | 5.5           | 7.2        | 16.0           | 20      | 16              | 107      |
|              |                      |             |                | 10.6          | 13.8       | 21.5           | 25      | 20              | 107      |
|              |                      |             |                | 12.9          | 16.8       | 25.3           | 30      | 23              | 107      |
|              |                      |             |                | 21.1          | 27.7       | 38.8           | 40      | 36              | 107      |
|              |                      |             |                | 23.4          | 30.7       | 42.6           | 45      | 39              | 107      |
|              |                      |             | YES            | —             | —          | 18.7           | 25      | 18              | 108      |
|              |                      |             |                | 5.5           | 7.2        | 18.7           | 25      | 18              | 109      |
|              |                      |             |                | 10.6          | 13.8       | 24.2           | 25      | 22              | 109      |
|              |                      |             |                | 12.9          | 16.8       | 28.0           | 30      | 26              | 109      |
|              |                      |             |                | 21.1          | 27.7       | 41.5           | 45      | 38              | 109      |
|              |                      |             |                | 23.4          | 30.7       | 45.3           | 50      | 42              | 109      |

\*See Legend on page 12.

**TABLE 1 - ELECTRICAL DATA - PAH090**

| PAH | V-PH-Hz      | IFM TYPE    | Conv. OUTLET | Electric Heater |            | Power Supply |                  |         | Disconnect Size† |         |
|-----|--------------|-------------|--------------|-----------------|------------|--------------|------------------|---------|------------------|---------|
|     |              |             |              | Nominal kW*     | FLA        | MCA          | Fuse or HACR Bkr | MOCP    | FLA              | LRA     |
|     |              |             |              |                 |            |              |                  |         |                  |         |
| 090 | 208/230-3-60 | STD         | NO           | —               | —/—        | 38.2/ 38.2   | 45/45            | —       | 40/40            | 242/242 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0 | 38.2/ 40.6   | 45/45            | —       | 40/40            | 242/242 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5 | 51.1/ 57.5   | 60/60            | —       | 47/53            | 242/242 |
|     |              |             |              | 18.6/24.8       | 51.7/ 59.7 | 74.0/ 84.0   | —                | 80/90   | 68/77            | 242/242 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0 | 92.8/105.6   | —                | 100/110 | 85/97            | 242/242 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0 | 119.9/136.9  | —                | 125/150 | 110/126          | 242/242 |
|     |              | STD         | YES          | —               | —/—        | 44.2/ 44.2   | 50/50            | —       | 46/46            | 247/247 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0 | 44.2/ 45.6   | 50/50            | —       | 46/46            | 247/247 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5 | 56.1/ 62.5   | —                | 60/70   | 53/58            | 247/247 |
|     |              |             |              | 18.6/24.8       | 51.7/ 59.7 | 79.0/ 89.0   | —                | 80/90   | 74/83            | 247/247 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0 | 97.8/110.6   | —                | 100/125 | 91/103           | 247/247 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0 | 124.9/141.9  | —                | 125/150 | 116/131          | 247/247 |
|     |              | HIGH STATIC | NO           | —               | —/—        | 41.3/ 41.3   | 45/45            | —       | 44/44            | 267/267 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0 | 41.3/ 44.5   | 50/50            | —       | 44/44            | 267/267 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5 | 54.9/ 61.4   | —                | 60/70   | 51/56            | 267/267 |
|     |              |             |              | 18.6/24.8       | 51.7/ 59.7 | 77.9/ 87.8   | —                | 80/90   | 72/81            | 267/267 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0 | 96.6/109.5   | —                | 100/110 | 89/101           | 267/267 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0 | 123.7/140.8  | —                | 125/150 | 114/129          | 267/267 |
|     |              | HIGH STATIC | YES          | —               | —/—        | 47.3/ 47.3   | 50/50            | —       | 49/49            | 271/271 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0 | 47.3/ 49.5   | 60/60            | —       | 49/49            | 271/271 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5 | 59.9/ 66.4   | —                | 70/70   | 56/62            | 271/271 |
|     |              |             |              | 18.6/24.8       | 51.7/ 59.7 | 82.9/ 92.8   | —                | 90/100  | 77/86            | 271/271 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0 | 101.6/114.5  | —                | 110/125 | 94/106           | 271/271 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0 | 128.7/145.8  | —                | 150/150 | 119/135          | 271/271 |
|     | 460-3-60     | STD         | NO           | —               | —          | 19.2         | 20               | —       | 20               | 121     |
|     |              |             |              | 13.9            | 16.7       | 25.1         | 20               | —       | 23               | 121     |
|     |              |             |              | 16.5            | 19.8       | 29.1         | 20               | —       | 27               | 121     |
|     |              |             |              | 27.8            | 33.4       | 46.0         | 50               | —       | 42               | 121     |
|     |              |             |              | 33.0            | 39.7       | 53.9         | 60               | —       | 50               | 121     |
|     |              |             |              | 41.7            | 50.2       | 66.9         | —                | 70      | 62               | 121     |
|     |              | STD         | YES          | —               | —          | 21.9         | 20               | —       | 23               | 123     |
|     |              |             |              | 13.9            | 16.7       | 28.5         | 20               | —       | 26               | 123     |
|     |              |             |              | 16.5            | 19.8       | 31.8         | 35               | —       | 29               | 123     |
|     |              |             |              | 27.8            | 33.4       | 48.7         | 50               | —       | 45               | 123     |
|     |              |             |              | 33.0            | 39.7       | 56.6         | 60               | —       | 52               | 123     |
|     |              |             |              | 41.7            | 50.2       | 69.6         | —                | 70      | 64               | 123     |
|     |              | HIGH STATIC | NO           | —               | —          | 20.6         | 20               | —       | 22               | 133     |
|     |              |             |              | 13.9            | 16.7       | 26.9         | 20               | —       | 25               | 134     |
|     |              |             |              | 16.5            | 19.8       | 30.8         | 35               | —       | 28               | 134     |
|     |              |             |              | 27.8            | 33.4       | 47.8         | 50               | —       | 44               | 134     |
|     |              |             |              | 33.0            | 39.7       | 55.6         | 60               | —       | 51               | 134     |
|     |              |             |              | 41.7            | 50.2       | 68.7         | —                | 70      | 63               | 134     |
|     |              | HIGH STATIC | YES          | —               | —          | 23.3         | 20               | —       | 24               | 135     |
|     |              |             |              | 13.9            | 16.7       | 30.3         | 35               | —       | 27               | 136     |
|     |              |             |              | 16.5            | 19.8       | 33.5         | 35               | —       | 31               | 136     |
|     |              |             |              | 27.8            | 33.4       | 50.5         | 60               | —       | 46               | 136     |
|     |              |             |              | 33.0            | 39.7       | 58.3         | 60               | —       | 54               | 136     |
|     |              |             |              | 41.7            | 50.2       | 71.4         | —                | 80      | 66               | 136     |

\*NOTE: Legend and Notes for ELECTRICAL DATA are on page 12.

**TABLE 1 - ELECTRICAL DATA - PAH102**

| PAH | V-PH-Hz      | IFM TYPE    | Conv. OUTLET | Electric Heater |            | Power Supply |                  |         | Disconnect Size† |         |
|-----|--------------|-------------|--------------|-----------------|------------|--------------|------------------|---------|------------------|---------|
|     |              |             |              | Nominal kW*     | FLA        | MCA          | Fuse or HACR Bkr | MOCP    | FLA              | LRA     |
|     |              |             |              |                 |            |              |                  |         |                  |         |
| 102 | 208/230-3-60 | STD         | NO           | —               | —/—        | 40.2/ 40.2   | 45/45            | —       | 42/42            | 276/276 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0 | 40.2/ 40.6   | 45/45            | —       | 42/42            | 276/276 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5 | 51.1/ 57.5   | 60/60            | —       | 47/53            | 276/276 |
|     |              |             |              | 18.6/24.8       | 51.7/ 59.7 | 74.0/ 84.0   | —                | 80/90   | 68/77            | 276/276 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0 | 92.8/105.6   | —                | 100/110 | 85/97            | 276/276 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0 | 119.9/136.9  | —                | 110/150 | 110/126          | 276/276 |
|     |              | STD         | YES          | —               | —/—        | 46.2/ 46.2   | 50/50            | —       | 48/48            | 281/281 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0 | 46.2/ 46.2   | 50/50            | —       | 48/48            | 281/281 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5 | 56.1/ 62.5   | —                | 60/70   | 53/58            | 281/281 |
|     |              |             |              | 18.6/24.8       | 51.7/ 59.7 | 79.0/ 89.0   | —                | 80/90   | 74/83            | 281/281 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0 | 97.8/110.6   | —                | 100/125 | 91/103           | 281/281 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0 | 124.9/141.9  | —                | 125/150 | 116/131          | 281/281 |
|     |              | HIGH STATIC | NO           | —               | —/—        | 43.3/ 43.3   | 50/50            | —       | 46/46            | 301/301 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0 | 43.3/ 44.5   | 50/50            | —       | 46/46            | 301/301 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5 | 54.9/ 61.4   | —                | 60/70   | 51/56            | 301/301 |
|     |              |             |              | 18.6/24.8       | 51.7/ 59.7 | 77.9/ 87.8   | —                | 80/90   | 72/81            | 301/301 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0 | 96.6/109.5   | —                | 100/110 | 89/101           | 301/301 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0 | 123.7/140.8  | —                | 125/150 | 114/129          | 301/301 |
|     |              | HIGH STATIC | YES          | —               | —/—        | 49.3/ 49.3   | 60/60            | —       | 51/51            | 305/305 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0 | 49.3/ 49.5   | 60/60            | —       | 51/51            | 305/305 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5 | 59.9/ 66.4   | —                | 70/70   | 56/62            | 305/305 |
|     |              |             |              | 18.6/24.8       | 51.7/ 59.7 | 82.9/ 92.8   | —                | 90/100  | 77/86            | 305/305 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0 | 101.6/114.5  | —                | 110/125 | 94/106           | 305/305 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0 | 128.7/145.8  | —                | 150/150 | 119/135          | 305/305 |
|     | 460-3-60     | STD         | NO           | —               | —          | 21.5         | 20               | —       | 23               | 143     |
|     |              |             |              | 13.9            | 16.7       | 25.1         | 20               | —       | 23               | 143     |
|     |              |             |              | 16.5            | 19.8       | 29.1         | 20               | —       | 27               | 143     |
|     |              |             |              | 27.8            | 33.4       | 46.0         | 50               | —       | 42               | 143     |
|     |              |             |              | 33.0            | 39.7       | 53.9         | 60               | —       | 50               | 143     |
|     |              |             |              | 41.7            | 50.2       | 66.9         | —                | 70      | 62               | 143     |
|     |              | STD         | YES          | —               | —          | 24.2         | 20               | —       | 25               | 145     |
|     |              |             |              | 13.9            | 16.7       | 28.5         | 20               | —       | 26               | 145     |
|     |              |             |              | 16.5            | 19.8       | 31.8         | 35               | —       | 29               | 145     |
|     |              |             |              | 27.8            | 33.4       | 48.7         | 50               | —       | 45               | 145     |
|     |              |             |              | 33.0            | 39.7       | 56.6         | 60               | —       | 52               | 145     |
|     |              |             |              | 41.7            | 50.2       | 69.6         | —                | 70      | 64               | 145     |
|     |              | HIGH STATIC | NO           | —               | —          | 22.9         | 20               | —       | 24               | 155     |
|     |              |             |              | 13.9            | 16.7       | 26.9         | 20               | —       | 25               | 156     |
|     |              |             |              | 16.5            | 19.8       | 30.8         | 35               | —       | 28               | 156     |
|     |              |             |              | 27.8            | 33.4       | 47.8         | 50               | —       | 44               | 156     |
|     |              |             |              | 33.0            | 39.7       | 55.6         | 60               | —       | 51               | 156     |
|     |              |             |              | 41.7            | 50.2       | 68.7         | —                | 70      | 63               | 156     |
|     |              | HIGH STATIC | YES          | —               | —          | 25.6         | 20               | —       | 27               | 157     |
|     |              |             |              | 13.9            | 16.7       | 30.3         | 35               | —       | 27               | 158     |
|     |              |             |              | 16.5            | 19.8       | 33.5         | 35               | —       | 31               | 158     |
|     |              |             |              | 27.8            | 33.4       | 50.5         | 60               | —       | 46               | 158     |
|     |              |             |              | 33.0            | 39.7       | 58.3         | 60               | —       | 54               | 158     |
|     |              |             |              | 41.7            | 50.2       | 71.4         | —                | 80      | 66               | 158     |

\* Legend and Notes for ELECTRICAL DATA are on page 12.

**TABLE 1 - ELECTRICAL DATA - PAH120**

| PAH | V-PH-Hz      | IFM TYPE    | Conv. OUTLET | Electric Heater |             | Power Supply |                  |         | Disconnect Size† |         |
|-----|--------------|-------------|--------------|-----------------|-------------|--------------|------------------|---------|------------------|---------|
|     |              |             |              | Nominal kW*     | FLA         | MCA          | Fuse or HACR Bkr | MOCP    | FLA              | LRA     |
|     |              |             |              |                 |             |              |                  |         |                  |         |
| 120 | 208/230-3-60 | STD         | NO           | —               | —/—         | 53.0/ 53.0   | 60/60            | —       | 56/56            | 341/341 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0  | 53.0/ 53.0   | 60/60            | —       | 56/56            | 341/341 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5  | 54.9/ 61.4   | —                | 60/70   | 56/56            | 341/341 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0  | 96.6/109.5   | —                | 100/110 | 89/101           | 341/341 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0  | 123.7/140.8  | —                | 125/150 | 114/129          | 341/341 |
|     |              |             |              | 37.5/50.0       | 104.2/120.3 | 143.5/133.5  | —                | 150/150 | 132/151          | 341/341 |
|     |              | STD         | YES          | —               | —/—         | 59.0/ 59.0   | 70/70            | —       | 61/61            | 345/345 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0  | 59.0/ 59.0   | —                | 70/70   | 61/61            | 345/345 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5  | 59.9/ 66.4   | —                | 70/70   | 61/62            | 345/345 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0  | 101.6/114.5  | —                | 110/125 | 94/106           | 345/345 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0  | 128.7/145.8  | —                | 150/150 | 119/135          | 345/345 |
|     |              |             |              | 37.5/50.0       | 104.2/120.3 | 148.5/137.5  | —                | 150/150 | 138/156          | 345/345 |
|     |              | HIGH STATIC | NO           | —               | —/—         | 57.4/ 57.4   | 70/70            | —       | 61/61            | 364/364 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0  | 57.4/ 57.4   | —                | 70/70   | 61/61            | 364/364 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5  | 60.4/ 66.9   | —                | 70/80   | 61/62            | 364/364 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0  | 102.1/115.0  | —                | 110/125 | 94/106           | 364/364 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0  | 129.2/146.3  | —                | 150/150 | 119/135          | 364/364 |
|     |              |             |              | 37.5/50.0       | 104.2/120.3 | 149.0/139.0  | —                | 150/175 | 137/156          | 364/364 |
|     |              | HIGH STATIC | YES          | —               | —/—         | 63.4/ 63.4   | 70/70            | —       | 66/66            | 369/369 |
|     |              |             |              | 7.8/10.4        | 21.7/ 25.0  | 63.4/ 63.4   | —                | 70/70   | 66/66            | 369/369 |
|     |              |             |              | 12.0/16.0       | 33.4/ 38.5  | 65.4/ 71.9   | —                | 80/80   | 66/67            | 369/369 |
|     |              |             |              | 24.0/32.0       | 66.7/ 77.0  | 107.1/120.0  | —                | 110/125 | 99/111           | 369/369 |
|     |              |             |              | 31.8/42.4       | 88.4/102.0  | 134.2/151.3  | —                | 150/175 | 124/140          | 369/369 |
|     |              |             |              | 37.5/50.0       | 104.2/120.3 | 154.0/143.0  | —                | 175/175 | 143/161          | 369/369 |
|     | 460-3-60     | STD         | NO           | —               | —           | 24.9         | 20               | —       | 26               | 170     |
|     |              |             |              | 13.9            | 16.7        | 26.9         | 20               | —       | 26               | 171     |
|     |              |             |              | 16.5            | 19.8        | 30.8         | 35               | —       | 28               | 171     |
|     |              |             |              | 33.0            | 39.7        | 55.6         | 60               | —       | 51               | 171     |
|     |              |             |              | 41.7            | 50.2        | 68.7         | —                | 70      | 63               | 171     |
|     |              |             |              | 50.0            | 60.1        | 66.1         | —                | 80      | 75               | 171     |
|     |              | STD         | YES          | —               | —           | 27.6         | 20               | —       | 29               | 172     |
|     |              |             |              | 13.9            | 16.7        | 30.3         | 35               | —       | 29               | 173     |
|     |              |             |              | 16.5            | 19.8        | 33.5         | 35               | —       | 31               | 173     |
|     |              |             |              | 33.0            | 39.7        | 58.3         | 60               | —       | 54               | 173     |
|     |              |             |              | 41.7            | 50.2        | 71.4         | —                | 80      | 66               | 173     |
|     |              |             |              | 50.0            | 60.1        | 70.1         | —                | 80      | 77               | 173     |
|     |              | HIGH STATIC | NO           | —               | —           | 27.5         | 20               | —       | 29               | 182     |
|     |              |             |              | 13.9            | 16.7        | 30.1         | 35               | —       | 29               | 182     |
|     |              |             |              | 16.5            | 19.8        | 34.1         | 40               | —       | 31               | 182     |
|     |              |             |              | 33.0            | 39.7        | 58.9         | 60               | —       | 54               | 182     |
|     |              |             |              | 41.7            | 50.2        | 71.9         | —                | 80      | 66               | 182     |
|     |              |             |              | 50.0            | 60.1        | 69.4         | —                | 80      | 78               | 182     |
|     |              | HIGH STATIC | YES          | —               | —           | 30.2         | 35               | —       | 32               | 184     |
|     |              |             |              | 13.9            | 16.7        | 33.5         | 40               | —       | 32               | 184     |
|     |              |             |              | 16.5            | 19.8        | 36.8         | 40               | —       | 34               | 184     |
|     |              |             |              | 33.0            | 39.7        | 61.6         | —                | 70      | 57               | 184     |
|     |              |             |              | 41.7            | 50.2        | 74.6         | —                | 80      | 69               | 184     |
|     |              |             |              | 50.0            | 60.1        | 73.4         | —                | 80      | 80               | 184     |

\* Legend and Notes for ELECTRICAL DATA are on page 12.

## LEGEND

FLA - Full Load Amps  
HACR - Heating, Air Conditioning and Refrigeration  
IFM - Indoor-Fan Motor  
LRA - Locked Rotor Amps  
MCA - Minimum Circuit Amps  
MOCP - Maximum Overcurrent Protection  
NEC - National Electrical Code  
OFM - Outdoor-Fan Motor  
RLA - Rated Load Amps



\*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, or 480 v.

If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

†Heaters are field installed only.

\*\*Fuse or HACR circuit breaker.

††Electrical disconnect cannot be used if electric heater is installed.

### NOTES:

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

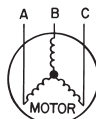
### 2. Unbalanced 3-Phase Supply Voltage

Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

% Voltage Imbalance

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

Example: Supply voltage is 460-3-60



AB = 452 v

BC = 464 v

AC = 455 v

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

Determine maximum deviation from average voltage.

(AB) 457 - 452 = 5 v

(BC) 464 - 457 = 7 v

(AC) 457 - 455 = 2 v

Maximum deviation is 7 v.

Determine percent of voltage imbalance.

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

$$= 1.53\%$$

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

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

**TABLE 2 - ELECTRIC HEATER USAGE - PAH**

| UNIT PAH | VOLTAGE                       | ACCESSORY KW     | ACCESSORY HEATER PART NUMBER | SINGLE POINT BOX PACKAGE NO. |
|----------|-------------------------------|------------------|------------------------------|------------------------------|
| 036      | 208/230/240<br>(Single phase) | 3.3/ 4.0/ 4.4    | AES001EHA                    | -                            |
|          |                               | 4.9/ 5.8/ 6.5    | AES007EHA                    | -                            |
|          |                               | 6.5/ 8.0/ 8.7    | AES003EHA                    | -†                           |
|          |                               | 7.9/ 9.6/ 10.5   | AES009EHA                    | -                            |
|          |                               | 9.8/ 11.6/ 13.0  | AES007EHA                    | AXB004SPA                    |
|          | 208/230/240<br>(Three phase)  | 3.3/ 4.0/ 4.4    | AES001EHA                    | -                            |
|          |                               | 4.9/ 5.8/ 6.5    | AES007EHA                    | -                            |
|          |                               | 6.5/ 8.0/ 8.7    | AES003EHA                    | -                            |
|          |                               | 7.9/ 9.6/ 10.5   | AES009EHA                    | -                            |
|          |                               | 12.0/ 14.7/ 16.0 | AES015EHA                    | -**                          |
|          | 460/480<br>(Three phase)      | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                               | 8.1/ 8.8         | AES008ELA                    | -                            |
|          |                               | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                               | 12.9/ 14.0       | AES013ELA                    | -                            |
| 048      | 208/230/240<br>(Single phase) | 3.3/ 4.0/ 4.4    | AES001EHA                    | -                            |
|          |                               | 6.5/ 8.0/ 8.7    | AES003EHA                    | -                            |
|          |                               | 9.8/ 11.6/ 13.0  | AES007EHA                    | AXB004SPA                    |
|          |                               | 13.1/ 16.0/ 17.4 | AES003EHA                    | AXB004SPA                    |
|          |                               | 16.0/ 19.3/ 21.0 | AES009EHA                    | AXB004SPA                    |
|          | 208/230/240<br>(Three phase)  | 4.9/ 5.8/ 6.5    | AES007EHA                    | -                            |
|          |                               | 6.5/ 8.0/ 8.7    | AES003EHA                    | -                            |
|          |                               | 12.0/ 14.7/ 16.0 | AES015EHA                    | -**                          |
|          |                               | 16.0/ 19.3/ 21.0 | AES009EHA                    | AXB002SPA                    |
|          | 460/480<br>(Three phase)      | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                               | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                               | 12.9/ 14.0       | AES013ELA                    | -                            |
|          |                               | 21.1/ 23.0       | AES011ELA                    | -                            |
| 060      | 208/230/240<br>(Single phase) | 4.9/ 5.8/ 6.5    | AES007EHA                    | -                            |
|          |                               | 6.5/ 8.0/ 8.7    | AES003EHA                    | -                            |
|          |                               | 9.8/ 11.6/ 13.0  | AES007EHA                    | AXB004SPA                    |
|          |                               | 13.1/ 16.0/ 17.4 | AES003EHA                    | AXB004SPA                    |
|          |                               | 16.0/ 19.3/ 21.0 | AES009EHA                    | AXB004SPA                    |
|          | 208/230/240<br>(Three phase)  | 4.9/ 5.8/ 6.5    | AES007EHA                    | -                            |
|          |                               | 7.9/ 9.6/ 10.5   | AES009EHA                    | -                            |
|          |                               | 12.0/ 14.7/ 16.0 | AES015EHA                    | -**                          |
|          |                               | 16.0/ 19.3/ 21.0 | AES009EHA                    | AXB002SPA                    |
|          |                               | 20.0/ 24.3/ 26.5 | AES009EHA+AES015EHA          | AXB002SPA                    |
|          | 460/480<br>(Three phase)      | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                               | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                               | 12.9/ 14.0       | AES013ELA                    | -                            |
|          |                               | 21.1/ 23.0       | AES011ELA                    | -                            |
|          |                               | 23.4/ 25.5       | AES011ELA+AES013ELA          | -                            |
| 072      | 208/230/240<br>(Three phase)  | 4.9/ 5.8/ 6.5    | AES007EHA                    | -                            |
|          |                               | 7.8/ 9.6/ 10.5   | AES009EHA                    | -                            |
|          |                               | 12.0/ 14.7/ 16.0 | AES015EHA                    | -**                          |
|          |                               | 15.8/ 19.3/ 21.0 | AES009EHA                    | AXB002SPA                    |
|          |                               | 19.9/ 24.3/ 26.5 | AES009EHA+AES015EHA          | AXB002SPA                    |
|          | 460/480<br>(Three phase)      | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                               | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                               | 12.9/ 14.0       | AES013ELA                    | -                            |
|          |                               | 21.1/ 23.0       | AES011ELA                    | -                            |
|          |                               | 23.4/ 25.5       | AES011ELA+AES013ELA          | -                            |

See next page for notes.

**TABLE 2 - ELECTRIC HEATER USAGE - PAH (CONT.)**

| UNIT PAH   | VOLTAGE                       | ACCESSORY kW                                                                                   | ACCESSORY HEATER PART NUMBER                                                      | SINGLE POINT BOX PACKAGE NO.                                  |
|------------|-------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------|
| <b>090</b> | 208/230/240<br>(3Three phase) | 7.8/ 9.6/ 10.4<br>12.0/ 14.7/ 16.0<br>18.6/ 22.8/ 24.8<br>24.0/ 29.4/ 32.0<br>31.8/ 39.0/ 42.4 | AES010EHA<br>AES016EHA<br>AES024EHA<br>AES032EHA<br>AES032EHA+AES010EHA           | AXB006SPA<br>AXB006SPA<br>AXB007SPA<br>AXB007SPA<br>AXB009SPA |
|            | 460/480<br>(Three phase)      | 12.8/ 13.9<br>15.2/ 16.5<br>25.6/ 27.8<br>30.4/ 33.0<br>38.4/ 41.7                             | AES014ELA<br>AES016ELA<br>AES027ELA<br>AES033ELA<br>AES027ELA+AES014ELA           | AXB006SPA<br>AXB006SPA<br>AXB006SPA<br>AXB006SPA<br>AXB008SPA |
| <b>102</b> | 208/230/240<br>(Three phase)  | 7.8/ 9.6/ 10.4<br>12.0/ 14.7/ 16.0<br>18.6/ 22.8/ 24.8<br>24.0/ 29.4/ 32.0<br>31.8/ 39.0/ 42.4 | AES010EHA<br>AES016EHA<br>AES024EHA<br>AES032EHA<br>AES032EHA+AES010EHA           | AXB011SPA<br>AXB011SPA<br>AXB012SPA<br>AXB012SPA<br>AXB015SPA |
|            | 460/480<br>(Three phase)      | 12.8/ 13.9<br>15.2/ 16.5<br>25.6/ 27.8<br>30.4/ 33.0<br>38.4/ 41.7                             | AES014ELA<br>AES016ELA<br>AES027ELA<br>AES033ELA<br>AES027ELA+AES014ELA           | AXB011SPA<br>AXB011SPA<br>AXB011SPA<br>AXB011SPA<br>AXB014SPA |
| <b>120</b> | 208/230/240<br>(Three phase)  | 7.8/ 9.6/ 10.4<br>12.0/ 14.7/ 16.0<br>24.0/ 29.4/ 32.0<br>31.8/ 38.9/ 42.4<br>37.5/ 46.0/ 50.0 | AES010EHA<br>AES016EHA<br>AES032EHA<br>AES032EHA+AES010EHA<br>AES016EHA+AES032EHA | AXB011SPA<br>AXB012SPA<br>AXB012SPA<br>AXB015SPA<br>AXB015SPA |
|            | 460/480<br>(Three phase)      | 12.8/ 13.9<br>15.2/ 16.5<br>30.4/ 33.0<br>38.4/ 41.7<br>46.0/ 50.0                             | AES014ELA<br>AES016ELA<br>AES033ELA<br>AES027ELA+AES014ELA<br>AES016ELA+AES033ELA | AXB011SPA<br>AXB011SPA<br>AXB011SPA<br>AXB014SPA<br>AXB014SPA |

†AXB004SPA on units with convenience outlet

\*\* AXB002SPA on high static units with convenience outlet

**NOTES:**

1. Some units require two heater packages to provide kW indicated
2. The rated heater voltage is 240, 480, and 575 v.  
If power distribution voltage varies from rated heater voltage, heater kW will vary accordingly
3. To determine heater kW at voltages other than those shown in table, use the following formula:  
Heater kW new = Heater kW rated x (unit power distribution voltage/rated heater voltage)<sup>2</sup>  
As an example:  
For a 16 kW heater rated at 240 v with a power distribution voltage of 215 v  
kW new = 16 kW (215/240)<sup>2</sup>  
kW new = 12.8 kW (rating at 215 v)

**TABLE 3- ELECTRICAL DATA — PAE036**

| PAE<br>UNIT<br>SIZE | NOMINAL<br>V-PH-Hz | IFM<br>TYPE | ELECTRIC HEAT |           | POWER SUPPLY |         | DISCONNECT<br>SIZE† |         |
|---------------------|--------------------|-------------|---------------|-----------|--------------|---------|---------------------|---------|
|                     |                    |             | Nominal<br>kW | FLA       | MCA          | MOCPS*  | FLA                 | LRA     |
| 036                 | 208/230-1-60       | STD         | —/—           | —/—       | 25.2/25.2    | 30/30   | 24/24               | 106/106 |
|                     |                    |             | 3.3/4.4       | 15.9/18.3 | 25.2/27.3    | 30/30   | 24/25               | 106/106 |
|                     |                    |             | 4.9/6.5       | 23.5/27.1 | 33.7/38.2    | 35/40   | 31/35               | 106/106 |
|                     |                    |             | 6.5/8.7       | 31.4/36.3 | 43.6/49.7    | 45/50   | 40/46               | 106/106 |
|                     |                    |             | 7.9/10.5      | 37.9/43.6 | 51.8/59.1    | 60/60   | 48/54               | 106/106 |
|                     |                    |             | 9.8/13.0      | 46.9/54.2 | 63.0/72.1    | 70/80** | 58/66               | 106/106 |
|                     |                    | ALT         | —/—           | —/—       | 26.6/26.6    | 35/35   | 26/26               | 111/111 |
|                     |                    |             | 3.3/4.4       | 15.9/18.3 | 26.6/29.0    | 35/35   | 26/27               | 111/111 |
|                     |                    |             | 4.9/6.5       | 23.5/27.1 | 35.5/40.0    | 40/40   | 33/37               | 111/111 |
|                     |                    |             | 6.5/8.7       | 31.4/36.3 | 45.4/51.4    | 50/60   | 42/47               | 111/111 |
|                     |                    |             | 7.9/10.5      | 37.9/43.6 | 53.5/60.8    | 60/70** | 49/58               | 111/111 |
|                     |                    |             | 9.8/13.0      | 46.9/54.2 | 64.8/73.8    | 70/80** | 60/68               | 111/111 |
|                     | 208/230-3-60       | STD         | —/—           | —/—       | 17.7/17.7    | 25/25   | 17/17               | 85/ 85  |
|                     |                    |             | 3.3/ 4.4      | 9.2/10.6  | 17.7/17.7    | 25/25   | 17/17               | 85/ 85  |
|                     |                    |             | 4.9/ 6.5      | 13.6/15.6 | 21.3/23.9    | 25/25   | 20/22               | 85/ 85  |
|                     |                    |             | 6.5/ 8.7      | 18.1/20.9 | 27.0/30.5    | 30/35   | 25/28               | 85/ 85  |
|                     |                    |             | 7.9/10.5      | 21.9/25.3 | 31.7/35.9    | 35/40   | 29/33               | 85/ 85  |
|                     |                    |             | 12.2/16.0     | 33.4/38.4 | 46.1/52.4    | 50/60   | 42/48               | 85/ 85  |
|                     |                    | ALT         | —/—           | —/—       | 19.1/19.1    | 25/25   | 19/19               | 90/ 90  |
|                     |                    |             | 3.3/ 4.4      | 9.2/10.6  | 19.1/19.4    | 25/25   | 19/19               | 90/ 90  |
|                     |                    |             | 4.9/ 6.5      | 13.6/15.6 | 23.1/25.7    | 25/30   | 21/24               | 90/ 90  |
|                     |                    |             | 6.5/ 8.7      | 18.1/20.9 | 28.8/32.3    | 30/35   | 26/30               | 90/ 90  |
|                     |                    |             | 7.9/10.5      | 21.9/25.3 | 33.5/37.7    | 35/40   | 31/35               | 90/ 90  |
|                     |                    |             | 12.3/16.0     | 33.4/38.4 | 47.8/54.2    | 50/60   | 44/50               | 90/ 90  |
|                     |                    | HIGH        | —/—           | —/—       | 19.4/19.4    | 25/25   | 19/19               | 109/109 |
|                     |                    |             | 3.3/ 4.4      | 9.2/10.6  | 19.4/19.7    | 25/25   | 19/19               | 109/109 |
|                     |                    |             | 4.9/ 6.5      | 13.6/15.6 | 23.4/26.0    | 30/30   | 22/24               | 109/109 |
|                     |                    |             | 6.5/ 8.7      | 18.1/20.9 | 29.2/32.7    | 30/35   | 27/30               | 109/109 |
|                     |                    |             | 7.9/10.5      | 21.9/25.3 | 33.9/38.1    | 35/40   | 31/35               | 109/109 |
|                     |                    |             | 12.3/16.0     | 33.4/38.4 | 48.2/54.6    | 50/60   | 44/50               | 109/109 |
|                     | 460-3-60           | STD         | —             | —         | 7.6          | 15      | 7                   | 44      |
|                     |                    |             | 6.0           | 7.2       | 10.6         | 15      | 10                  | 45      |
|                     |                    |             | 8.8           | 10.6      | 14.9         | 15      | 14                  | 45      |
|                     |                    |             | 11.5          | 13.8      | 18.9         | 20      | 17                  | 45      |
|                     |                    |             | 14.0          | 16.8      | 22.7         | 25      | 21                  | 45      |
|                     |                    | ALT         | —             | —         | 8.4          | 15      | 8                   | 48      |
|                     |                    |             | 6.0           | 7.2       | 11.6         | 15      | 11                  | 48      |
|                     |                    |             | 8.8           | 10.6      | 15.9         | 20      | 15                  | 48      |
|                     |                    |             | 11.5          | 13.8      | 19.9         | 20      | 18                  | 48      |
|                     |                    |             | 14.0          | 16.8      | 23.7         | 25      | 22                  | 48      |
|                     |                    | HIGH        | —             | —         | 8.9          | 15      | 9                   | 57      |
|                     |                    |             | 6.0           | 7.2       | 12.3         | 15      | 11                  | 57      |
|                     |                    |             | 8.8           | 10.6      | 16.5         | 20      | 15                  | 57      |
|                     |                    |             | 11.5          | 13.8      | 20.5         | 25      | 19                  | 57      |
|                     |                    |             | 14.0          | 16.8      | 24.3         | 25      | 22                  | 57      |
|                     | 575-3-60           | STD         | -             | -         | 5.5          | 15      | 6                   | 34      |
|                     |                    | ALT         | -             | -         | 6.0          | 15      | 7                   | 37      |
|                     |                    | HIGH        | -             | -         | 6.3          | 15      | 7                   | 56      |

\* Legend and Notes for ELECTRICAL DATA are on page 19.

**TABLE 3- ELECTRICAL DATA — PAE048**

| PAE<br>UNIT<br>SIZE | NOMINAL<br>V-PH-Hz | IFM<br>TYPE | ELECTRIC HEAT |           | POWER SUPPLY |           | DISCONNECT<br>SIZE† |         |
|---------------------|--------------------|-------------|---------------|-----------|--------------|-----------|---------------------|---------|
|                     |                    |             | Nominal<br>kW | FLA       | MCA          | MOCP*     | FLA                 | LRA     |
| 048                 | 208/230-1-60       | STD         | —/—           | —/—       | 34.0/34.0    | 40/40     | 32/32               | 129/12/ |
|                     |                    |             | 3.3/4.4       | 15.9/18.3 | 34.0/34.0    | 40/40     | 32/32               | 129/12/ |
|                     |                    |             | 6.5/8.7       | 31.436.3  | 43.6/49.7    | 45/5080** | 40/46               | 129/12/ |
|                     |                    |             | 9.3/13.0      | 46.954.2  | 63.0/72.1    | 70/100**  | 58/66               | 129/12/ |
|                     |                    |             | 13.1/17.4     | 62.872.5  | 82.9/95.0    | 90/125**  | 76/87               | 129/12/ |
|                     |                    |             | 15.8/21.0     | 75.887.5  | 99.2/113.8   | 100/45    | 91/105              | 129/12/ |
|                     |                    | ALT         | —/—           | —/—       | 35.4/35.4    | 45/45     | 34/34               | 133/133 |
|                     |                    |             | 3.3/4.4       | 15.9/18.3 | 35.4/35.4    | 45/60     | 34/34               | 133/133 |
|                     |                    |             | 6.5/8.7       | 31.4/36.3 | 45.4/51.4    | 50/80**   | 42/47               | 133/133 |
|                     |                    |             | 9.3/13.0      | 46.9/54.2 | 64.8/73.8    | 70/100*   | 60/68               | 133/133 |
|                     |                    |             | 13.1/17.4     | 62.8/72.5 | 84.7/96.8    | 90/125**  | 78/89               | 133/133 |
|                     |                    |             | 15.8/21.0     | 75.8/87.5 | 100.9/115.5  | 110/      | 93/106              | 133/133 |
|                     | 208/230-3-60       | STD         | —/—           | —/—       | 24.2/24.2    | 30/30     | 23/23               | 101/101 |
|                     |                    |             | 4.9/6.5       | 13.6/15.6 | 24.2/24.2    | 30/30     | 23/23               | 101/101 |
|                     |                    |             | 6.5/8.7       | 18.1/20.9 | 27.0/30.5    | 30/35     | 25/28               | 101/101 |
|                     |                    |             | 12.0/16.0     | 33.4/38.4 | 46.1/52.4    | 50/60     | 42/48               | 101/101 |
|                     |                    |             | 15.8/21.0     | 43.8/50.5 | 59.1/67.5    | 60/70**   | 54/62               | 101/101 |
|                     |                    |             | —/—           | —/—       | 25.6/25.6    | 30/30     | 25/25               | 105/105 |
|                     |                    | ALT         | 4.9/6.5       | 13.6/15.6 | 25.6/25.7    | 30/30     | 25/25               | 105/105 |
|                     |                    |             | 6.5/8.7       | 18.1/20.9 | 28.8/32.3    | 30/35     | 26/30               | 105/105 |
|                     |                    |             | 12.0/16.0     | 33.4/38.4 | 47.8/54.2    | 50/60     | 44/50               | 105/105 |
|                     |                    |             | 15.8/21.0     | 43.8/50.5 | 60.8/69.3    | 70/70**   | 56/64               | 105/105 |
|                     |                    |             | —/—           | —/—       | 25.9/25.9    | 30/30     | 25/25               | 124/124 |
|                     |                    |             | 4.9/6.5       | 13.6/15.6 | 25.9/26.0    | 30/30     | 25/25               | 124/124 |
|                     |                    | HIGH        | 6.5/8.7       | 18.1/20.9 | 29.2/32.7    | 30/35     | 27/30               | 124/124 |
|                     |                    |             | 12.0/16.0     | 33.4/38.4 | 48.2/54.6    | 50/60     | 44/50               | 124/124 |
|                     |                    |             | 15.8/21.0     | 43.8/50.5 | 61.2/69.6    | 70/70**   | 56/64               | 124/124 |
|                     | 460-3-60           | STD         | —             | —         | 13.0         | 20        | 13                  | 51      |
|                     |                    |             | 6.0           | 7.2       | 13.0         | 20        | 13                  | 51      |
|                     |                    |             | 11.5          | 13.8      | 19.5         | 20        | 18                  | 51      |
|                     |                    |             | 14.0          | 16.8      | 23.3         | 25        | 21                  | 51      |
|                     |                    |             | 23.0          | 27.7      | 36.8         | 40        | 34                  | 51      |
|                     |                    | ALT         | —             | —         | 13.3         | 20        | 13                  | 53      |
|                     |                    |             | 6.0           | 7.2       | 13.3         | 20        | 13                  | 53      |
|                     |                    |             | 11.5          | 13.8      | 19.9         | 20        | 18                  | 53      |
|                     |                    |             | 14.0          | 16.8      | 23.7         | 25        | 22                  | 53      |
|                     |                    |             | 23.0          | 27.7      | 37.2         | 40        | 34                  | 53      |
|                     |                    | HIGH        | —             | —         | 13.8         | 20        | 13                  | 62      |
|                     |                    |             | 6.0           | 7.2       | 13.8         | 20        | 13                  | 62      |
|                     |                    |             | 11.5          | 13.8      | 20.5         | 25        | 19                  | 62      |
|                     |                    |             | 14.0          | 16.8      | 24.3         | 25        | 22                  | 62      |
|                     |                    |             | 23.0          | 27.7      | 37.8         | 40        | 35                  | 62      |
|                     | 575-3-60           | STD         | -             | -         | 9.2          | 15        | 10                  | 41      |
|                     |                    | ALT         | -             | -         | 9.3          | 15        | 10                  | 42      |
|                     |                    | HIGH        | -             | -         | 9.7          | 15        | 10                  | 49      |

\* Legend and Notes for ELECTRICAL DATA are on page 19.

**TABLE 3- ELECTRICAL DATA — PAE060**

| PAE<br>UNIT<br>SIZE | NOMINAL<br>V-PH-Hz | IFM<br>TYPE | ELECTRIC HEAT |           | POWER SUPPLY |           | DISCONNECT<br>SIZE† |         |
|---------------------|--------------------|-------------|---------------|-----------|--------------|-----------|---------------------|---------|
|                     |                    |             | Nominal<br>kW | FLA       | MCA          | MOCP*     | FLA                 | LRA     |
| 060                 | 208/230-1-60       | STD         | —/—           | -/-       | 43.3/43.3    | 60/60     | 42/42               | 161/161 |
|                     |                    |             | 3.3/4.4       | 15.9/18.3 | 43.3/43.3    | 60/60     | 42/42               | 161/161 |
|                     |                    |             | 6.5/8.7       | 31.436.3  | 46.6/52.7    | 50/60     | 43/48               | 161/161 |
|                     |                    |             | 9.3/13.0      | 46.954.2  | 66.0/75.1    | 70/80**   | 61/69               | 161/161 |
|                     |                    |             | 13.1/17.4     | 62.872.5  | 85.9/98.0    | 90/100**  | 79/90               | 161/161 |
|                     |                    |             | 15.8/21.0     | 75.887.5  | 102.2/116.8  | 110/125** | 94/107              | 161/161 |
|                     |                    | ALT         | —/—           | -/-       | 44.0/44.0    | 60/60     | 42/42               | 184/184 |
|                     |                    |             | 3.3/4.4       | 15.9/18.3 | 44.0/44.0    | 60/60     | 42/42               | 184/184 |
|                     |                    |             | 6.5/8.7       | 31.4/36.3 | 47.5/53.6    | 50/60     | 44/49               | 184/184 |
|                     |                    |             | 9.3/13.0      | 46.9/54.2 | 56.9/76.0    | 70/80**   | 62/70               | 184/184 |
|                     |                    |             | 13.1/17.4     | 62.8/72.5 | 86.8/98.9    | 90/100**  | 82/91               | 184/184 |
|                     |                    |             | 15.8/21.0     | 75.8/87.5 | 103.0/117.6  | 110/125** | 95/108              | 184/184 |
|                     | 208/230-3-60       | STD         | —/—           | —/—       | 27.3/27.3    | 35/35     | 27/2957             | 128/128 |
|                     |                    |             | 4.9/6.5       | 13.6/15.6 | 27.3/27.3    | 35/35     | 27/27               | 128/128 |
|                     |                    |             | 7.9/10.5      | 21.9/25.3 | 34.7/38.9    | 40/40     | 32/36               | 128/128 |
|                     |                    |             | 12.0/16.0     | 33.4/38.4 | 49.1/55.4    | 50/60     | 45/51               | 128/128 |
|                     |                    |             | 15.8/21.0     | 43.8/50.5 | 62.1/70.5    | 70/80**   | 57/65               | 128/128 |
|                     |                    |             | 19.9/26.5     | 55.2/63.8 | 76.4/87.1    | 80/90**   | 70/80               | 128/128 |
|                     |                    | ALT         | —/—           | —/—       | 26.6/26.6    | 35/35     | 26/26               | 148/148 |
|                     |                    |             | 4.9/6.5       | 13.6/15.6 | 26.6/26.6    | 35/35     | 26/26               | 148/148 |
|                     |                    |             | 7.9/10.5      | 21.9/25.3 | 33.9/38.1    | 35/40     | 31/35               | 148/148 |
|                     |                    |             | 12.0/16.0     | 33.4/38.4 | 48.2/54.6    | 50/60     | 44/50               | 148/148 |
|                     |                    |             | 15.8/21.0     | 43.8/50.5 | 61.2/69.6    | 70/70**   | 56/64               | 148/148 |
|                     |                    |             | 19.9/26.5     | 55.2/63.8 | 75.6/86.2    | 80/90**   | 70/79               | 148/148 |
|                     |                    | HIGH        | —/—           | —/—       | 28.9/28.9    | 35/35     | 29/29               | 174/174 |
|                     |                    |             | 4.9/6.5       | 13.6/15.6 | 28.9/28.9    | 35/35     | 29/29               | 174/174 |
|                     |                    |             | 7.9/10.5      | 21.9/25.3 | 36.7/40.9    | 40/45     | 34/38               | 174/174 |
|                     |                    |             | 12.0/16.0     | 33.4/38.4 | 51.1/57.4    | 60/60     | 47/53               | 174/174 |
|                     |                    |             | 15.8/21.0     | 43.8/50.5 | 64.1/72.5    | 70/80**   | 59/67               | 174/174 |
|                     |                    |             | 19.9/26.5     | 55.2/63.8 | 78.4/89.1    | 80/90**   | 72/82               | 174/174 |
|                     | 460-3-60           | STD         | —             | —         | 13.2         | 20        | 13                  | 71      |
|                     |                    |             | 6.0           | 7.2       | 13.2         | 20        | 13                  | 72      |
|                     |                    |             | 11.5          | 13.8      | 21.2         | 25        | 19                  | 72      |
|                     |                    |             | 14.0          | 16.8      | 24.9         | 25        | 23                  | 72      |
|                     |                    |             | 23.0          | 27.7      | 38.5         | 40        | 35                  | 72      |
|                     |                    |             | 25.0          | 30.1      | 41.5         | 45        | 38                  | 72      |
|                     |                    | ALT         | —             | —         | 13.5         | 20        | 13                  | 81      |
|                     |                    |             | 6.0           | 7.2       | 13.5         | 20        | 13                  | 81      |
|                     |                    |             | 11.5          | 13.8      | 21.5         | 25        | 20                  | 81      |
|                     |                    |             | 14.0          | 16.8      | 25.3         | 30        | 23                  | 81      |
|                     |                    |             | 23.0          | 27.7      | 38.8         | 40        | 36                  | 81      |
|                     |                    |             | 25.0          | 30.1      | 41.8         | 45        | 38                  | 81      |
|                     |                    | HIGH        | —             | —         | 13.5         | 20        | 13                  | 93      |
|                     |                    |             | 6.0           | 7.2       | 13.5         | 20        | 13                  | 94      |
|                     |                    |             | 11.5          | 13.8      | 21.5         | 25        | 20                  | 94      |
|                     |                    |             | 14.0          | 16.8      | 25.3         | 30        | 23                  | 94      |
|                     |                    |             | 23.0          | 27.7      | 38.8         | 40        | 36                  | 94      |
|                     |                    |             | 25.0          | 30.1      | 41.8         | 45        | 38                  | 94      |
|                     | 575-3-60           | STD         | -             | -         | 9.7          | 15        | 11                  | 58      |
|                     |                    | ALT         | -             | -         | 9.9          | 15        | 11                  | 65      |
|                     |                    | HIGH        | -             | -         | 9.9          | 15        | 11                  | 75      |

\*Legend and Notes for ELECTRICAL DATA are on page 19.

**TABLE 3 - ELECTRICAL DATA — PAE072-090**

| UNIT SIZE | NOMINAL V-PH-Hz | IFM TYPE | ELECTRIC HEAT                                                      |                                                                      | POWER SUPPLY                                                                      |                                                                    | DISCONNECT SIZE*                                          |                                                                |
|-----------|-----------------|----------|--------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------|
|           |                 |          | Nominal kW                                                         | FLA                                                                  | MCA                                                                               | MOCPT†                                                             | FLA                                                       | LRA                                                            |
| 6 Tons    | 208/230-3-60    | STD      | —/—<br>4.9/ 6.5<br>7.9/10.5<br>12.0/16.0<br>15.8/21.0<br>19.9/26.5 | —/—<br>13.6/15.6<br>21.9/25.3<br>33.4/38.4<br>43.8/50.5<br>55.2/63.8 | 32.4/32.4<br>32.4/32.4<br>33.9/38.1<br>48.2/54.6<br>61.2/69.6<br>75.6/86.2        | 40/40<br>40/40<br>35/40<br>50/60<br>70/70**<br>80/90**             | 31/31<br>31/31<br>31/35<br>44/50<br>56/64<br>70/79        | 180/180<br>180/180<br>180/180<br>180/180<br>180/180<br>180/180 |
|           |                 |          | —/—<br>4.9/ 6.5<br>7.9/10.5<br>12.0/16.0<br>15.8/21.0<br>19.9/26.5 | —/—<br>13.6/15.6<br>21.9/25.3<br>33.4/38.4<br>43.8/50.5<br>55.2/63.8 | 34.7/34.7<br>34.7/34.7<br>36.7/40.9<br>51.1/57.4<br>64.1/72.5<br>78.4/89.1        | 40/40<br>40/40<br>40/45<br>60/60<br>70/80**<br>80/90**             | 34/34<br>34/34<br>34/38<br>47/53<br>59/67<br>72/82        | 205/205<br>205/205<br>205/205<br>205/205<br>205/205<br>205/205 |
|           |                 | HIGH     | —/—<br>4.9/ 6.5<br>7.9/10.5<br>12.0/16.0<br>15.8/21.0<br>19.9/26.5 | —/—<br>13.6/15.6<br>21.9/25.3<br>33.4/38.4<br>43.8/50.5<br>55.2/63.8 | 34.7/34.7<br>34.7/34.7<br>36.7/40.9<br>51.1/57.4<br>64.1/72.5<br>78.4/89.1        | 40/40<br>40/40<br>40/45<br>60/60<br>70/80**<br>80/90**             | 34/34<br>34/34<br>34/38<br>47/53<br>59/67<br>72/82        | 205/205<br>205/205<br>205/205<br>205/205<br>205/205<br>205/205 |
|           |                 | STD      | —<br>6.0<br>11.5<br>14.0<br>23.0<br>25.5                           | —<br>7.2<br>13.8<br>16.8<br>27.7<br>30.7                             | 15.4<br>15.4<br>20.5<br>24.3<br>37.8<br>41.6                                      | 20<br>20<br>25<br>25<br>40<br>45                                   | 15<br>15<br>19<br>22<br>35<br>38                          | 90<br>90<br>90<br>90<br>90<br>90                               |
|           |                 | HIGH     | —<br>6.0<br>11.5<br>14.0<br>23.0<br>25.5                           | —<br>7.2<br>13.8<br>16.8<br>27.7<br>30.7                             | 16.2<br>16.2<br>21.5<br>25.3<br>38.8<br>42.6                                      | 20<br>20<br>25<br>30<br>40<br>45                                   | 16<br>16<br>20<br>23<br>36<br>39                          | 103<br>103<br>103<br>103<br>103<br>103                         |
|           |                 | 575-3-60 | —<br>—                                                             | —<br>—                                                               | 11.4<br>11.9                                                                      | 15<br>15                                                           | 12<br>13                                                  | 75<br>86                                                       |
|           |                 |          | —<br>—                                                             | —<br>—                                                               | 11.4<br>11.9                                                                      | 15<br>15                                                           | 12<br>13                                                  | 75<br>86                                                       |
| 7½ Tons   | 208/230-3-60    | STD      | —/—<br>7.8/10.4<br>12/16<br>18.4/24.8<br>24/32<br>31.8/42.4        | —/—<br>21.7/25<br>33.4/38.5<br>51.7/59.7<br>66.7/77<br>88.4/102      | 40.1/ 40.1<br>40.1/ 40.1<br>48.9/ 55.4<br>71.9/ 81.8<br>90.6/103.5<br>117.7/134.8 | 45/ 45<br>45/ 45<br>50/ 60<br>80/ 90**<br>100/110**<br>125/150**   | 42/ 42<br>42/ 42<br>45/ 51<br>66/ 75<br>83/ 95<br>108/124 | 229/229<br>229/229<br>229/229<br>229/229<br>229/229<br>229/229 |
|           |                 |          | —/—<br>7.8/10.4<br>12/16<br>18.6/24.8<br>24/32<br>31.8/42.4        | —/—<br>21.7/25<br>33.4/38.5<br>51.7/59.7<br>66.7/77<br>88.4/102      | 40.1/ 40.1<br>40.1/ 40.1<br>48.9/ 55.4<br>71.9/ 81.8<br>90.6/103.5<br>117.7/134.8 | 45/ 45<br>45/ 45<br>50/ 60<br>80/ 90**<br>100/110**<br>125/150**   | 42/ 42<br>42/ 42<br>45/ 51<br>66/ 75<br>83/ 95<br>108/124 | 229/229<br>229/229<br>229/229<br>229/229<br>229/229<br>229/229 |
|           |                 |          | —/—<br>7.8/10.4<br>12/16<br>18.6/24.8<br>24/32<br>32.3/42.4        | —/—<br>21.7/25<br>33.4/38.5<br>51.7/59.7<br>66.7/77<br>88.4/102      | 44.9/ 44.9<br>44.9/ 44.9<br>54.9/ 61.4<br>77.9/ 87.8<br>96.6/109.5<br>123.7/140.8 | 50/ 50<br>50/ 50<br>60/ 70**<br>80/ 90**<br>100/110**<br>125/150** | 48/ 48<br>48/ 48<br>51/ 56<br>72/ 81<br>89/101<br>114/129 | 273/273<br>273/273<br>273/273<br>273/273<br>273/273<br>273/273 |
|           |                 | ALT      | —/—<br>7.8/10.4<br>12/16<br>18.6/24.8<br>24/32<br>31.8/42.4        | —/—<br>21.7/25<br>33.4/38.5<br>51.7/59.7<br>66.7/77<br>88.4/102      | 40.1/ 40.1<br>40.1/ 40.1<br>48.9/ 55.4<br>71.9/ 81.8<br>90.6/103.5<br>117.7/134.8 | 45/ 45<br>45/ 45<br>50/ 60<br>80/ 90**<br>100/110**<br>125/150**   | 42/ 42<br>42/ 42<br>45/ 51<br>66/ 75<br>83/ 95<br>108/124 | 229/229<br>229/229<br>229/229<br>229/229<br>229/229<br>229/229 |
|           |                 |          | —/—<br>7.8/10.4<br>12/16<br>18.6/24.8<br>24/32<br>32.3/42.4        | —/—<br>21.7/25<br>33.4/38.5<br>51.7/59.7<br>66.7/77<br>88.4/102      | 44.9/ 44.9<br>44.9/ 44.9<br>54.9/ 61.4<br>77.9/ 87.8<br>96.6/109.5<br>123.7/140.8 | 50/ 50<br>50/ 50<br>60/ 70**<br>80/ 90**<br>100/110**<br>125/150** | 48/ 48<br>48/ 48<br>51/ 56<br>72/ 81<br>89/101<br>114/129 | 273/273<br>273/273<br>273/273<br>273/273<br>273/273<br>273/273 |
|           |                 |          | —/—<br>7.8/10.4<br>12/16<br>18.6/24.8<br>24/32<br>32.3/42.4        | —/—<br>21.7/25<br>33.4/38.5<br>51.7/59.7<br>66.7/77<br>88.4/102      | 44.9/ 44.9<br>44.9/ 44.9<br>54.9/ 61.4<br>77.9/ 87.8<br>96.6/109.5<br>123.7/140.8 | 50/ 50<br>50/ 50<br>60/ 70**<br>80/ 90**<br>100/110**<br>125/150** | 48/ 48<br>48/ 48<br>51/ 56<br>72/ 81<br>89/101<br>114/129 | 273/273<br>273/273<br>273/273<br>273/273<br>273/273<br>273/273 |
|           |                 |          | —/—<br>7.8/10.4<br>12/16<br>18.6/24.8<br>24/32<br>32.3/42.4        | —/—<br>21.7/25<br>33.4/38.5<br>51.7/59.7<br>66.7/77<br>88.4/102      | 44.9/ 44.9<br>44.9/ 44.9<br>54.9/ 61.4<br>77.9/ 87.8<br>96.6/109.5<br>123.7/140.8 | 50/ 50<br>50/ 50<br>60/ 70**<br>80/ 90**<br>100/110**<br>125/150** | 48/ 48<br>48/ 48<br>51/ 56<br>72/ 81<br>89/101<br>114/129 | 273/273<br>273/273<br>273/273<br>273/273<br>273/273<br>273/273 |
|           |                 | HIGH     | —/—<br>7.8/10.4<br>12/16<br>18.6/24.8<br>24/32<br>32.3/42.4        | —/—<br>21.7/25<br>33.4/38.5<br>51.7/59.7<br>66.7/77<br>88.4/102      | 44.9/ 44.9<br>44.9/ 44.9<br>54.9/ 61.4<br>77.9/ 87.8<br>96.6/109.5<br>123.7/140.8 | 50/ 50<br>50/ 50<br>60/ 70**<br>80/ 90**<br>100/110**<br>125/150** | 48/ 48<br>48/ 48<br>51/ 56<br>72/ 81<br>89/101<br>114/129 | 273/273<br>273/273<br>273/273<br>273/273<br>273/273<br>273/273 |
|           |                 |          | —/—<br>7.8/10.4<br>12/16<br>18.6/24.8<br>24/32<br>32.3/42.4        | —/—<br>21.7/25<br>33.4/38.5<br>51.7/59.7<br>66.7/77<br>88.4/102      | 44.9/ 44.9<br>44.9/ 44.9<br>54.9/ 61.4<br>77.9/ 87.8<br>96.6/109.5<br>123.7/140.8 | 50/ 50<br>50/ 50<br>60/ 70**<br>80/ 90**<br>100/110**<br>125/150** | 48/ 48<br>48/ 48<br>51/ 56<br>72/ 81<br>89/101<br>114/129 | 273/273<br>273/273<br>273/273<br>273/273<br>273/273<br>273/273 |
|           |                 |          | —/—<br>7.8/10.4<br>12/16<br>18.6/24.8<br>24/32<br>32.3/42.4        | —/—<br>21.7/25<br>33.4/38.5<br>51.7/59.7<br>66.7/77<br>88.4/102      | 44.9/ 44.9<br>44.9/ 44.9<br>54.9/ 61.4<br>77.9/ 87.8<br>96.6/109.5<br>123.7/140.8 | 50/ 50<br>50/ 50<br>60/ 70**<br>80/ 90**<br>100/110**<br>125/150** | 48/ 48<br>48/ 48<br>51/ 56<br>72/ 81<br>89/101<br>114/129 | 273/273<br>273/273<br>273/273<br>273/273<br>273/273<br>273/273 |
|           |                 |          | —/—<br>7.8/10.4<br>12/16<br>18.6/24.8<br>24/32<br>32.3/42.4        | —/—<br>21.7/25<br>33.4/38.5<br>51.7/59.7<br>66.7/77<br>88.4/102      | 44.9/ 44.9<br>44.9/ 44.9<br>54.9/ 61.4<br>77.9/ 87.8<br>96.6/109.5<br>123.7/140.8 | 50/ 50<br>50/ 50<br>60/ 70**<br>80/ 90**<br>100/110**<br>125/150** | 48/ 48<br>48/ 48<br>51/ 56<br>72/ 81<br>89/101<br>114/129 | 273/273<br>273/273<br>273/273<br>273/273<br>273/273<br>273/273 |
|           | 460-3-60        | STD      | —<br>13.9<br>16.5<br>27.8<br>33<br>41.7                            | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                            | 18.4<br>24.1<br>28.1<br>45.0<br>52.9<br>65.9                                      | 20<br>25<br>30<br>50<br>60<br>70**                                 | 19<br>22<br>26<br>41<br>49<br>61                          | 108<br>108<br>108<br>108<br>108<br>108                         |
|           |                 |          | —<br>13.9<br>16.5<br>27.8<br>33<br>41.7                            | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                            | 18.4<br>24.1<br>28.1<br>45.0<br>52.9<br>65.9                                      | 20<br>25<br>30<br>50<br>60<br>70**                                 | 19<br>22<br>26<br>41<br>49<br>61                          | 108<br>108<br>108<br>108<br>108<br>108                         |
|           |                 |          | —<br>13.9<br>16.5<br>27.8<br>33<br>41.7                            | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                            | 18.4<br>24.1<br>28.1<br>45.0<br>52.9<br>65.9                                      | 20<br>25<br>30<br>50<br>60<br>70**                                 | 19<br>22<br>26<br>41<br>49<br>61                          | 108<br>108<br>108<br>108<br>108<br>108                         |
|           |                 |          | —<br>13.9<br>16.5<br>27.8<br>33<br>41.7                            | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                            | 18.4<br>24.1<br>28.1<br>45.0<br>52.9<br>65.9                                      | 20<br>25<br>30<br>50<br>60<br>70**                                 | 19<br>22<br>26<br>41<br>49<br>61                          | 108<br>108<br>108<br>108<br>108<br>108                         |
|           |                 |          | —<br>13.9<br>16.5<br>27.8<br>33<br>41.7                            | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                            | 18.4<br>24.1<br>28.1<br>45.0<br>52.9<br>65.9                                      | 20<br>25<br>30<br>50<br>60<br>70**                                 | 19<br>22<br>26<br>41<br>49<br>61                          | 108<br>108<br>108<br>108<br>108<br>108                         |
|           |                 | ALT      | —<br>13.9<br>16.5<br>27.8<br>33<br>41.7                            | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                            | 18.4<br>24.1<br>28.1<br>45.0<br>52.9<br>65.9                                      | 20<br>25<br>30<br>50<br>60<br>70**                                 | 19<br>22<br>26<br>41<br>49<br>61                          | 108<br>108<br>108<br>108<br>108<br>108                         |
|           |                 |          | —<br>13.9<br>16.5<br>27.8<br>33<br>41.7                            | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                            | 18.4<br>24.1<br>28.1<br>45.0<br>52.9<br>65.9                                      | 20<br>25<br>30<br>50<br>60<br>70**                                 | 19<br>22<br>26<br>41<br>49<br>61                          | 108<br>108<br>108<br>108<br>108<br>108                         |
|           |                 |          | —<br>13.9<br>16.5<br>27.8<br>33<br>41.7                            | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                            | 18.4<br>24.1<br>28.1<br>45.0<br>52.9<br>65.9                                      | 20<br>25<br>30<br>50<br>60<br>70**                                 | 19<br>22<br>26<br>41<br>49<br>61                          | 108<br>108<br>108<br>108<br>108<br>108                         |
|           |                 |          | —<br>13.9<br>16.5<br>27.8<br>33<br>41.7                            | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                            | 18.4<br>24.1<br>28.1<br>45.0<br>52.9<br>65.9                                      | 20<br>25<br>30<br>50<br>60<br>70**                                 | 19<br>22<br>26<br>41<br>49<br>61                          | 108<br>108<br>108<br>108<br>108<br>108                         |
|           | 575-3-60        | STD      | —<br>17<br>34                                                      | —<br>17.1<br>34.1                                                    | 14.9<br>23.9<br>45.3                                                              | 20<br>25<br>40                                                     | 16<br>22<br>42                                            | 97<br>97<br>97                                                 |
|           |                 |          | —<br>17<br>34                                                      | —<br>17.1<br>34.1                                                    | 14.9<br>23.9<br>45.3                                                              | 20<br>25<br>40                                                     | 16<br>22<br>42                                            | 97<br>97<br>97                                                 |
|           |                 |          | —<br>17<br>34                                                      | —<br>17.1<br>34.1                                                    | 14.9<br>23.9<br>45.3                                                              | 20<br>25<br>40                                                     | 16<br>22<br>42                                            | 97<br>97<br>97                                                 |
|           |                 | ALT      | —<br>17<br>34                                                      | —<br>17.1<br>34.1                                                    | 14.9<br>23.9<br>45.3                                                              | 20<br>25<br>40                                                     | 16<br>22<br>42                                            | 97<br>97<br>97                                                 |
|           |                 |          | —<br>17<br>34                                                      | —<br>17.1<br>34.1                                                    | 14.9<br>23.9<br>45.3                                                              | 20<br>25<br>40                                                     | 16<br>22<br>42                                            | 97<br>97<br>97                                                 |
|           |                 |          | —<br>17<br>34                                                      | —<br>17.1<br>34.1                                                    | 14.9<br>23.9<br>45.3                                                              | 20<br>25<br>40                                                     | 16<br>22<br>42                                            | 97<br>97<br>97                                                 |
|           |                 | HIGH     | —<br>17<br>34                                                      | —<br>17.1<br>34.1                                                    | 16.7<br>26.1<br>47.5                                                              | 20<br>30<br>45                                                     | 18<br>24<br>44                                            | 114<br>114<br>114                                              |
|           |                 |          | —<br>17<br>34                                                      | —<br>17.1<br>34.1                                                    | 16.7<br>26.1<br>47.5                                                              | 20<br>30<br>45                                                     | 18<br>24<br>44                                            | 114<br>114<br>114                                              |
|           |                 |          | —<br>17<br>34                                                      | —<br>17.1<br>34.1                                                    | 16.7<br>26.1<br>47.5                                                              | 20<br>30<br>45                                                     | 18<br>24<br>44                                            | 114<br>114<br>114                                              |

\*Legend and Notes for ELECTRICAL DATA are on page 19.

TABLE 3 - ELECTRICAL DATA — PAE102

| UNIT SIZE  | NOMINAL V-PH-Hz | IFM TYPE | ELECTRIC HEAT |           | POWER SUPPLY |           | DISCONNECT SIZE* |         |
|------------|-----------------|----------|---------------|-----------|--------------|-----------|------------------|---------|
|            |                 |          | Nominal kW    | FLA       | MCA          | MOCP†     | FLA              | LRA     |
| 8 1/2 Tons | 208/230-3-60    | STD      | —/—           | —/—       | 44.3/ 44.3   | 50/ 50    | 46/ 46           | 272/272 |
|            |                 |          | 7.8/10.4      | 21.7/25   | 44.3/ 44.3   | 50/ 50    | 46/ 46           | 272/272 |
|            |                 |          | 12/16         | 33.4/38.5 | 48.9/ 55.4   | 50/ 60    | 46/ 51           | 272/272 |
|            |                 |          | 18.6/24.8     | 51.7/59.7 | 71.9/ 81.8   | 80/ 90**  | 66/ 75           | 272/272 |
|            |                 |          | 24/32         | 66.7/77   | 90.6/103.5   | 100/110** | 83/ 95           | 272/272 |
|            |                 |          | 31.8/42.4     | 88.4/102  | 117.7/134.8  | 125/150** | 108/124          | 272/272 |
|            |                 | HIGH     | —/—           | —/—       | 49.1/ 49.1   | 60/ 60    | 52/ 52           | 316/316 |
|            |                 |          | 7.8/10.4      | 21.7/25   | 49.1/ 49.1   | 60/ 60    | 52/ 52           | 316/316 |
|            |                 |          | 12/16         | 33.4/38.5 | 54.9/ 61.4   | 60/ 70**  | 52/ 56           | 316/316 |
|            |                 |          | 18.6/24.8     | 51.7/59.7 | 77.9/ 87.8   | 80/ 90**  | 72/ 81           | 316/316 |
|            |                 |          | 24/32         | 66.7/77   | 96.6/109.5   | 100/110** | 89/101           | 316/316 |
|            |                 |          | 31.8/42.4     | 88.4/102  | 123.7/140.8  | 125/150** | 114/129          | 316/316 |
|            | 460-3-60        | STD      | —             | —         | 21.0         | 25        | 22               | 149     |
|            |                 |          | 13.9          | 16.7      | 24.1         | 25        | 22               | 149     |
|            |                 |          | 16.5          | 19.8      | 28.1         | 30        | 26               | 149     |
|            |                 |          | 27.8          | 33.4      | 45.0         | 50        | 41               | 149     |
|            |                 |          | 33            | 39.7      | 52.9         | 60        | 49               | 149     |
|            |                 |          | 41.7          | 50.2      | 65.9         | 70**      | 61               | 149     |
|            |                 | HIGH     | —             | —         | 23.2         | 30        | 24               | 171     |
|            |                 |          | 13.9          | 16.7      | 26.9         | 30        | 25               | 171     |
|            |                 |          | 16.5          | 19.8      | 30.8         | 35        | 28               | 171     |
|            |                 |          | 27.8          | 33.4      | 47.8         | 50        | 44               | 171     |
|            |                 |          | 33            | 39.7      | 55.6         | 60        | 51               | 171     |
|            |                 |          | 41.7          | 50.2      | 68.7         | 70**      | 63               | 171     |
|            | 575-3-60        | STD      | —             | —         | 16.7         | 20        | 17               | 109     |
|            |                 |          | 17            | 17.1      | 23.9         | 25        | 22               | 109     |
|            |                 | HIGH     | —             | —         | 18.5         | 25        | 19               | 126     |
|            |                 |          | 17            | 17.1      | 26.1         | 30        | 24               | 126     |

LEGEND

FLA - Full Load Amps  
HACR - Heating, Air Conditioning and Refrigeration  
LRA - Locked Rotor Amps  
MCA - Minimum Circuit Amps  
MOCP - Maximum Overcurrent Protection  
NEC - National Electrical Code

\*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, or 480 v.  
If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

†Heaters are field installed only.

\*\*Fuse or HACR circuit breaker.

††Electrical disconnect cannot be used if electric heater is installed.

NOTES:

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

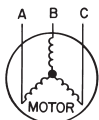
2. **Unbalanced 3-Phase Supply Voltage**

Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

% Voltage Imbalance

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

Example: Supply voltage is 460-3-60



AB = 452 v

BC = 464 v

AC = 455 v

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

Determine maximum deviation from average voltage.

(AB) 457 - 452 = 5 v

(BC) 464 - 457 = 7 v

(AC) 457 - 455 = 2 v

Maximum deviation is 7 v.

Determine percent of voltage imbalance.

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

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

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

3. For units with power exhaust: If a single power source is to be used, size wire to include power exhaust MCA and MOCP. Check MCA and MOCP when power exhaust is powered through the unit (must be in accordance with NEC and/or local codes). Determine the new MCA including the power exhaust using the following formula.  
MCA New = MCA unit only + MCA of Power Exhaust.

MCA New = 28.9 amps + 1.6 amps = 30.5 amps.

If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 35 amps. The MCA New is below 35, therefore the MOCP is acceptable. IF "MCA New" is larger than the published MOCP, raise the MOCP to the next larger size. For separate power, the MOCP for the power exhaust will be 15 amps per NEC.

**TABLE 3 - ELECTRICAL DATA — PAE120-150**

| UNIT<br>SIZE | NOMINAL<br>V-PH-Hz | IFM<br>TYPE | ELECTRIC HEAT                                             |                                                                    | POWER SUPPLY                                                                       |                                                                                    | DISCONNECT<br>SIZE*                                                                 |                                                                         |                                                                |                                                                |                                        |
|--------------|--------------------|-------------|-----------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------|
|              |                    |             | Nominal<br>kW                                             | FLA                                                                | MCA                                                                                | MOCPT†                                                                             | FLA                                                                                 | LRA                                                                     |                                                                |                                                                |                                        |
| 10 Tons      | 208/230-3-60       | STD         | —/—<br>7.8/10.4<br>12/16<br>24/32<br>31.8/42.4<br>37.6/50 | —/—<br>21.7/25<br>33.4/ 38.5<br>66.7/77<br>88.4/102<br>104.2/120.3 | 44.6/ 44.6<br>44.6/ 44.6<br>48.9/ 55.4<br>90.6/103.5<br>117.7/134.8<br>137.5/157.6 | 50/ 50<br>50/ 50<br>50/ 60<br>100/110**<br>125/150**<br>150/175**                  | 47/ 47<br>47/ 47<br>47/ 51<br>83/ 95<br>108/124<br>127/145                          | 297/297<br>297/297<br>297/297<br>297/297<br>297/297<br>297/297          |                                                                |                                                                |                                        |
|              |                    |             | ALT                                                       | —/—<br>7.8/10.4<br>12/16<br>24/32<br>31.8/42.4<br>37.6/50          | —/—<br>21.7/25<br>33.4/ 38.5<br>66.7/77<br>88.4/102<br>104.2/120.3                 | 46.3/ 46.3<br>46.3/ 46.3<br>51.1/ 57.5<br>92.8/105.6<br>119.9/136.9<br>139.7/159.7 | 60/ 60<br>60/ 60<br>60/ 60<br>100/110**<br>125/150**<br>150/175**                   | 49/ 49<br>49/ 49<br>49/ 53<br>85/ 97<br>110/126<br>128/147              | 316/316<br>316/316<br>316/316<br>316/316<br>316/316<br>316/316 |                                                                |                                        |
|              |                    |             |                                                           | HIGH                                                               | —/—<br>7.8/10.4<br>12/16<br>22.9/32<br>31.8/42.4<br>37.6/50                        | —/—<br>21.7/25<br>33.4/ 38.5<br>66.7/77<br>88.4/102<br>104.2/120.3                 | 53.8/ 53.8<br>53.8/ 53.8<br>60.4/ 66.9<br>102.1/115.0<br>129.2/146.3<br>149.0/169.1 | 60/ 60<br>60/ 60<br>70/ 80**<br>110/125**<br>150/150**<br>150/175**     | 57/ 57<br>57/ 57<br>57/ 62<br>94/106<br>119/135<br>137/156     | 364/364<br>364/364<br>364/364<br>364/364<br>364/364<br>364/364 |                                        |
|              |                    | 460-3-60    |                                                           |                                                                    | STD                                                                                | —<br>16.5<br>27.8<br>33<br>41.7<br>50                                              | —<br>19.8<br>33.4<br>39.7<br>50.2<br>60.1                                           | 22.0<br>28.1<br>45.0<br>52.9<br>65.9<br>78.4                            | 25<br>30<br>40<br>60<br>70**<br>80**                           | 23<br>26<br>41<br>49<br>61<br>72                               | 149<br>149<br>149<br>149<br>149<br>149 |
|              |                    |             | ALT                                                       |                                                                    |                                                                                    | —<br>16.5<br>27.8<br>33<br>41.7<br>50                                              | —<br>19.8<br>33.4<br>39.7<br>50.2<br>60.1                                           | 22.8<br>29.1<br>46.0<br>53.9<br>66.9<br>79.4                            | 25<br>30<br>45<br>60<br>70**<br>80**                           | 24<br>27<br>42<br>50<br>62<br>73                               | 188<br>188<br>188<br>188<br>188<br>188 |
|              |                    |             |                                                           | HIGH                                                               |                                                                                    | —<br>16.5<br>27.8<br>33<br>41.7<br>50                                              | —<br>19.8<br>33.4<br>39.7<br>50.2<br>60.1                                           | 26.8<br>34.1<br>51.0<br>58.9<br>71.9<br>84.4                            | 30<br>40<br>60<br>60<br>80**<br>90**                           | 29<br>31<br>47<br>54<br>66<br>78                               | 182<br>182<br>182<br>182<br>182<br>182 |
|              |                    |             |                                                           |                                                                    | 575-3-60                                                                           | STD                                                                                | —<br>17<br>34<br>51                                                                 | —<br>17.1<br>34.1<br>51.2                                               | 17.4<br>23.9<br>45.3<br>66.6                                   | 20<br>25<br>40<br>70**                                         | 18<br>22<br>42<br>61                   |
|              |                    |             | ALT                                                       |                                                                    |                                                                                    |                                                                                    | —<br>17<br>34<br>51                                                                 | —<br>17.1<br>34.1<br>51.2                                               | 18.0<br>24.7<br>46.1<br>67.4                                   | 20<br>25<br>45<br>70**                                         | 19<br>23<br>42<br>62                   |
|              |                    |             |                                                           | HIGH                                                               |                                                                                    |                                                                                    | —<br>17<br>34<br>51                                                                 | —<br>17.1<br>34.1<br>51.2                                               | 21.2<br>28.7<br>50.1<br>71.4                                   | 25<br>35<br>50<br>80**                                         | 23<br>26<br>46<br>66                   |
|              | 208/230-3-60       | STD         |                                                           |                                                                    | —/—<br>7.8/10.4<br>12/16<br>24/32<br>31.8/42.4<br>37.6/50                          | —/—<br>21.7/25<br>33.4/ 38.5<br>66.7/77<br>88.4/102<br>104.2/120.3                 | 56.2/ 56.2<br>56.2/ 56.2<br>56.2/ 61.4<br>96.6/109.5<br>123.7/140.8<br>143.5/163.6  | 70/ 70**<br>70/ 70**<br>70/ 70**<br>100/110**<br>125/150**<br>150/175** | 59/ 59<br>59/ 59<br>59/ 59<br>89/101<br>114/129<br>132/151     | 359/359<br>359/359<br>359/359<br>359/359<br>359/359<br>359/359 |                                        |
|              |                    |             | ALT                                                       |                                                                    | —/—<br>7.8/10.4<br>12/16<br>24/32<br>31.8/42.4<br>37.6/50                          | —/—<br>21.7/25<br>33.4/ 38.5<br>66.7/77<br>88.4/102<br>104.2/120.3                 | 60.6/ 60.6<br>60.6/ 60.6<br>60.6/ 66.9<br>102.1/115.0<br>129.2/146.3<br>149.0/169.1 | 70/ 70**<br>70/ 70**<br>70/ 80**<br>110/125**<br>150/150**<br>150/175** | 64/ 64<br>64/ 64<br>64/ 64<br>94/106<br>119/135<br>137/156     | 378/378<br>378/378<br>378/378<br>378/378<br>378/378<br>378/378 |                                        |
|              |                    | 460-3-60    |                                                           | STD                                                                | —<br>16.5<br>27.8<br>33<br>41.7<br>50                                              | —<br>19.8<br>33.4<br>39.7<br>50.2<br>60.1                                          | 26.5<br>30.8<br>47.8<br>55.6<br>68.7<br>81.2                                        | 30<br>35<br>45<br>60<br>70**<br>90**                                    | 28<br>28<br>44<br>51<br>63<br>75                               | 174<br>174<br>174<br>174<br>174<br>174                         |                                        |
|              |                    |             | ALT                                                       |                                                                    | —<br>16.5<br>27.8<br>33<br>41.7<br>50                                              | —<br>19.8<br>33.4<br>39.7<br>50.2<br>60.1                                          | 29.1<br>34.1<br>51.0<br>58.9<br>71.9<br>84.4                                        | 35<br>40<br>60<br>60<br>80**<br>90**                                    | 31<br>31<br>47<br>54<br>66<br>78                               | 213<br>213<br>213<br>213<br>213<br>213                         |                                        |
|              |                    |             |                                                           | 575-3-60                                                           | STD                                                                                | —<br>17<br>34<br>51                                                                | —<br>17.1<br>34.1<br>51.2                                                           | 21.6<br>26.1<br>47.5<br>68.8                                            | 25<br>30<br>45<br>70**                                         | 23<br>24<br>44<br>63                                           | 127<br>127<br>127<br>127               |
|              |                    | ALT         | —<br>17<br>34<br>51                                       |                                                                    |                                                                                    | —<br>17.1<br>34.1<br>51.2                                                          | 23.7<br>28.7<br>50.1<br>71.4                                                        | 30<br>35<br>50<br>80**                                                  | 25<br>26<br>46<br>66                                           | 159<br>159<br>159<br>159                                       |                                        |

\* Legend and Notes for ELECTRICAL DATA are on page 19.

**TABLE 4 - ELECTRIC HEATER USAGE - PAE**

| UNIT PAE | VOLTAGE                      | ACCESSORY KW                                                                                   | ACCESSORY HEATER PART NUMBER                                                      | SINGLE POINT BOX PACKAGE NO.                                  |
|----------|------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------|
| 036      | 208/230/240<br>(Three phase) | 3.3/ 4.0/ 4.4<br>4.9/ 5.8/ 6.5<br>6.5/ 8.0/ 8.7<br>7.9/ 9.6/ 10.5<br>12.0/ 14.7/ 16.0          | AES001EHA<br>AES007EHA<br>AES003EHA<br>AES009EHA<br>AES015EHA                     | -<br>-<br>-<br>-<br>-                                         |
|          | 460/480<br>(Three phase)     | 5.5/ 6.0<br>8.1/ 8.8<br>10.6/ 11.5<br>12.9/ 14.0                                               | AES006ELA<br>AES008ELA<br>AES011ELA<br>AES013ELA                                  | -<br>-<br>-<br>-                                              |
| 048      | 208/230/240<br>(Three phase) | 4.9/ 5.8/ 6.5<br>6.5/ 8.0/ 8.7<br>12.0/ 14.7/ 16.0<br>16.0/ 19.3/ 21.0                         | AES007EHA<br>AES003EHA<br>AES015EHA<br>AES009EHA                                  | -<br>-<br>-<br>AXB002SPA                                      |
|          | 460/480<br>(Three phase)     | 5.5/ 6.0<br>10.6/ 11.5<br>12.9/ 14.0<br>21.1/ 23.0                                             | AES006ELA<br>AES011ELA<br>AES013ELA<br>AES011ELA                                  | -<br>-<br>-<br>-                                              |
| 060      | 208/230/240<br>(Three phase) | 4.9/ 5.8/ 6.5<br>7.9/ 9.6/ 10.5<br>12.0/ 14.7/ 16.0<br>16.0/ 19.3/ 21.0<br>20.0/ 24.3/ 26.5    | AES007EHA<br>AES009EHA<br>AES015EHA<br>AES009EHA+AES009EHA<br>AES009EHA+AES015EHA | -<br>-<br>-<br>-<br>AXB002SPA<br>AXB002SPA**                  |
|          | 460/480<br>(Three phase)     | 5.5/ 6.0<br>10.6/ 11.5<br>12.9/ 14.0<br>21.1/ 23.0<br>23.4/ 25.5                               | AES006ELA<br>AES011ELA<br>AES013ELA<br>AES011ELA<br>AES011ELA+AES013ELA           | -<br>-<br>-<br>-<br>-                                         |
| 072      | 208/230/240<br>(Three phase) | 4.9/ 5.8/ 6.5<br>7.8/ 9.6/ 10.5<br>12.0/ 14.7/ 16.0<br>15.8/ 19.3/ 21.0<br>19.9/ 24.3/ 26.5    | AES007EHA<br>AES009EHA<br>AES015EHA<br>AES009EHA+AES009EHA<br>AES009EHA+AES015EHA | -<br>-<br>-<br>AXB002SPA**<br>AXB002SPA**                     |
|          | 460/480<br>(Three phase)     | 5.5/ 6.0<br>10.6/ 11.5<br>12.9/ 14.0<br>21.1/ 23.0<br>23.4/ 25.5                               | AES006ELA<br>AES011ELA<br>AES013ELA<br>AES011ELA<br>AES011ELA+AES013ELA           | -<br>-<br>-<br>-<br>-                                         |
| 090      | 208/230/240<br>(Three phase) | 7.8/ 9.6/ 10.4<br>12.0/ 14.7/ 16.0<br>18.6/ 22.8/ 24.8<br>24.0/ 29.4/ 32.0<br>31.8/ 39.0/ 42.4 | AES010EHA<br>AES016EHA<br>AES024EHA<br>AES032EHA<br>AES032EHA+AES010EHA           | AXB006SPA<br>AXB006SPA<br>AXB007SPA<br>AXB007SPA<br>AXB009SPA |
|          | 460/480<br>(Three phase)     | 12.8/ 13.9<br>15.2/ 16.5<br>25.6/ 27.8<br>30.4/ 33.0<br>38.4/ 41.7                             | AES014ELA<br>AES016ELA<br>AES027ELA<br>AES033ELA<br>AES027ELA+AES014ELA           | AXB006SPA<br>AXB006SPA<br>AXB006SPA<br>AXB006SPA<br>AXB008SPA |
|          | 575 (Three phase)            | 17.0<br>34.0                                                                                   | AES018ESA<br>AES036ESA                                                            | AXB006SPA<br>AXB006SPA                                        |

**TABLE 4 - ELECTRIC HEATER USAGE - PAE (Cont.)**

| UNIT PAE | VOLTAGE                      | ACCESSORY kW                                                       | ACCESSORY HEATER PART NUMBER                                            | SINGLE POINT BOX PACKAGE NO.                                  |
|----------|------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------|
| 102      | 208/230/240<br>(Three phase) | 7.8/ 9.6/ 10.4                                                     | AES010EHA                                                               | AXB006SPA                                                     |
|          |                              | 12.0/ 14.7/ 16.0                                                   | AES016EHA                                                               | AXB006SPA                                                     |
|          |                              | 18.6/ 22.8/ 24.8                                                   | AES024EHA                                                               | AXB007SPA                                                     |
|          |                              | 24.0/ 29.4/ 32.0                                                   | AES032EHA                                                               | AXB007SPA                                                     |
|          |                              | 31.8/ 39.0/ 42.4                                                   | AES032EHA+AES010EHA                                                     | AXB009SPA                                                     |
|          | 460/480<br>(Three phase)     | 12.8/ 13.9<br>15.2/ 16.5<br>25.6/ 27.8<br>30.4/ 33.0<br>38.4/ 41.7 | AES014ELA<br>AES016ELA<br>AES027ELA<br>AES033ELA<br>AES027ELA+AES014ELA | AXB006SPA<br>AXB006SPA<br>AXB006SPA<br>AXB006SPA<br>AXB008SPA |
| 120      | 208/230/240<br>(Three phase) | 17.0                                                               | AES018ESA                                                               | AXB006SPA                                                     |
|          |                              | 34.0                                                               | AES036ESA                                                               | AXB006SPA                                                     |
|          |                              | 7.8/ 9.6/ 10.4                                                     | AES010EHA                                                               | AXB011SPA                                                     |
|          |                              | 12.0/ 14.7/ 16.0                                                   | AES016EHA                                                               | AXB012SPA                                                     |
|          |                              | 24.0/ 29.4/ 32.0                                                   | AES032EHA                                                               | AXB012SPA                                                     |
|          |                              | 31.8/ 38.9/ 42.4                                                   | AES032EHA+AES010EHA                                                     | AXB015SPA                                                     |
| 150      | 460/480<br>(Three phase)     | 37.5/ 46.0/ 50.0                                                   | AES016EHA+AES032EHA                                                     | AXB015SPA                                                     |
|          |                              | 12.8/ 13.9                                                         | AES014ELA                                                               | AXB011SPA                                                     |
|          |                              | 15.2/ 16.5                                                         | AES016ELA                                                               | AXB011SPA                                                     |
|          |                              | 30.4/ 33.0                                                         | AES033ELA                                                               | AXB011SPA                                                     |
|          |                              | 38.4/ 41.7                                                         | AES027ELA+AES014ELA                                                     | AXB014SPA                                                     |
|          |                              | 46.0/ 50.0                                                         | AES016ELA+AES033ELA                                                     | AXB014SPA                                                     |
| 150      | 208/230/240<br>(Three phase) | 17.0                                                               | AES018ESA                                                               | AXB011SPA                                                     |
|          |                              | 34.0                                                               | AES036ESA                                                               | AXB011SPA                                                     |
|          |                              | 51.0                                                               | AES018ESA+AES036ESA                                                     | AXB014SPA                                                     |
|          |                              | 7.8/ 9.6/ 10.5                                                     | AES010EHA                                                               | AXB012SPA                                                     |
|          |                              | 12.0/ 14.7/ 16.0                                                   | AES016EHA                                                               | AXB012SPA                                                     |
|          |                              | 24.0/ 29.4/ 32.0                                                   | AES032EHA                                                               | AXB012SPA                                                     |
| 150      | 460/480<br>(Three phase)     | 31.8/ 38.9/ 42.4                                                   | AES032EHA+AES010EHA                                                     | AXB015SPA                                                     |
|          |                              | 37.5/ 46.0/ 50.0                                                   | AES016EHA+AES032EHA                                                     | AXB015SPA                                                     |
|          |                              | 15.2/ 16.5                                                         | AES016ELA                                                               | AXB011SPA                                                     |
|          |                              | 25.6/ 27.8                                                         | AES027ELA                                                               | AXB011SPA                                                     |
|          |                              | 30.4/ 33.0                                                         | AES033ELA                                                               | AXB011SPA                                                     |
|          |                              | 38.4/ 41.7                                                         | AES027ELA+AES014ELA                                                     | AXB014SPA                                                     |
| 150      | 575 (3 phase)                | 46.0/ 50.0                                                         | AES016ELA+AES033ELA                                                     | AXB014SPA                                                     |
|          |                              | 17.0                                                               | AES018ESA                                                               | AXB011SPA                                                     |
|          |                              | 34.0                                                               | AES036ESA                                                               | AXB011SPA                                                     |
|          |                              | 51.0                                                               | AES018ESA+AES036ESA                                                     | AXB014SPA                                                     |
|          |                              |                                                                    |                                                                         |                                                               |
|          |                              |                                                                    |                                                                         |                                                               |

\*\* AXB002SPA on high static units with convenience outlet

**NOTES:**

1. Some units require two heater packages to provide kW indicated
2. The rated heater voltage is 240, 480, and 575 v.  
If power distribution voltage varies from rated heater voltage, heater kW will vary accordingly
3. To determine heater kW at voltages other than those shown in table, use the following formula:  
Heater kW new = Heater kW rated x (unit power distribution voltage/rated heater voltage)<sup>2</sup>  
As an example:  
For a 16 kW heater rated at 240 v with a power distribution voltage of 215 v  
kW new = 16 kW (215/240)<sup>2</sup>  
kW new = 12.8 kW (rating at 215 v)

**TABLE 5 - ELECTRICAL DATA — PAS036-048**

| UNIT SIZE | NOMINAL V-PH-Hz | IFM TYPE | ELECTRIC HEAT |           | POWER SUPPLY |          | DISCONNECT SIZE† |         |
|-----------|-----------------|----------|---------------|-----------|--------------|----------|------------------|---------|
|           |                 |          | Nominal kW    | FLA       | MCA          | MOCP*    | FLA              | LRA     |
| 3 Tons    | 208/230-3-60    | STD      | —/—           | —/—       | 17.7/17.7    | 25/25    | 17/17            | 85/ 85  |
|           |                 |          | 3.3/ 4.4      | 9.2/10.6  | 17.7/17.7    | 25/25    | 17/17            | 85/ 85  |
|           |                 |          | 4.9/ 6.5      | 13.6/15.6 | 21.3/23.9    | 25/25    | 20/22            | 85/ 85  |
|           |                 |          | 6.5/ 8.7      | 18.1/20.9 | 27.0/30.5    | 30/35    | 25/28            | 85/ 85  |
|           |                 |          | 7.9/10.5      | 21.9/25.3 | 31.7/35.9    | 35/40    | 29/33            | 85/ 85  |
|           |                 |          | 12.2/16.0     | 33.4/38.4 | 46.1/52.4    | 50/60    | 42/48            | 85/ 85  |
|           |                 | ALT      | —/—           | —/—       | 19.1/19.1    | 25/25    | 19/19            | 90/ 90  |
|           |                 |          | 3.3/ 4.4      | 9.2/10.6  | 19.1/19.4    | 25/25    | 19/19            | 90/ 90  |
|           |                 |          | 4.9/ 6.5      | 13.6/15.6 | 23.1/25.7    | 25/30    | 21/24            | 90/ 90  |
|           |                 |          | 6.5/ 8.7      | 18.1/20.9 | 28.8/32.3    | 30/35    | 26/30            | 90/ 90  |
|           |                 | HIGH     | —/—           | —/—       | 19.1/19.1    | 25/25    | 19/19            | 109/109 |
|           |                 |          | 3.3/ 4.4      | 9.2/10.6  | 19.4/19.7    | 25/25    | 19/19            | 109/109 |
|           |                 |          | 4.9/ 6.5      | 13.6/15.6 | 23.4/26.0    | 30/30    | 22/24            | 109/109 |
|           |                 |          | 6.5/ 8.7      | 18.1/20.9 | 29.2/32.7    | 30/35    | 27/30            | 109/109 |
|           |                 |          | 7.9/10.5      | 21.9/25.3 | 33.9/38.1    | 35/40    | 31/35            | 109/109 |
|           |                 |          | 12.3/16.0     | 33.4/38.4 | 48.2/54.6    | 50/60    | 44/50            | 109/109 |
|           | 460-3-60        | STD      | —/—           | —/—       | 7.6          | 15       | 7                | 44      |
|           |                 |          | 6.0           | 7.2       | 10.6         | 15       | 10               | 45      |
|           |                 |          | 8.8           | 10.6      | 14.9         | 15       | 14               | 45      |
|           |                 |          | 11.5          | 13.8      | 18.9         | 20       | 17               | 45      |
|           |                 |          | 14.0          | 16.8      | 22.7         | 25       | 21               | 45      |
|           |                 | ALT      | —/—           | —/—       | 8.4          | 15       | 8                | 48      |
|           |                 |          | 6.0           | 7.2       | 11.6         | 15       | 11               | 48      |
|           |                 |          | 8.8           | 10.6      | 15.9         | 20       | 15               | 48      |
|           |                 |          | 11.5          | 13.8      | 19.9         | 20       | 18               | 48      |
|           |                 | HIGH     | —/—           | —/—       | 8.9          | 15       | 9                | 57      |
|           |                 |          | 6.0           | 7.2       | 12.3         | 15       | 11               | 57      |
|           |                 |          | 8.8           | 10.6      | 16.5         | 20       | 15               | 57      |
|           |                 |          | 11.5          | 13.8      | 20.5         | 25       | 19               | 57      |
|           |                 |          | 14.0          | 16.8      | 24.3         | 25       | 22               | 57      |
|           | 575-3-60        | STD      | —             | —         | 5.5          | 15       | 6                | 34      |
|           |                 | ALT      | —             | —         | 6.0          | 15       | 7                | 37      |
|           |                 | HIGH     | —             | —         | 6.3          | 15       | 7                | 56      |
| 4 Tons    | 208/230-3-60    | STD      | —/—           | —/—       | 24.2/ 24.2   | 30/ 30   | 23/ 23           | 101/101 |
|           |                 |          | 4.9/ 6.5      | 13.6/15.6 | 24.2/ 24.2   | 30/ 30   | 23/ 23           | 101/101 |
|           |                 |          | 6.5/ 8.7      | 18.1/20.9 | 27.0/ 30.5   | 30/ 35   | 25/ 28           | 101/101 |
|           |                 |          | 12.0/16.0     | 33.4/38.4 | 46.1/ 52.4   | 50/ 60   | 42/ 48           | 101/101 |
|           |                 |          | 15.8/21.0     | 43.8/50.5 | 59.1/ 67.5   | 60/ 70** | 54/ 62           | 101/101 |
|           |                 | ALT      | —/—           | —/—       | 25.6/ 25.6   | 30/ 30   | 25/ 25           | 105/105 |
|           |                 |          | 4.9/ 6.5      | 13.6/15.6 | 25.6/ 25.7   | 30/ 30   | 25/ 25           | 105/105 |
|           |                 |          | 6.5/ 8.7      | 18.1/20.9 | 28.8/ 32.3   | 30/ 35   | 26/ 30           | 105/105 |
|           |                 |          | 12.0/16.0     | 33.4/38.4 | 47.8/ 54.2   | 50/ 60   | 44/ 50           | 105/105 |
|           |                 | HIGH     | —/—           | —/—       | 25.9/ 25.9   | 30/ 30   | 25/ 25           | 124/124 |
|           |                 |          | 4.9/ 6.5      | 13.6/15.6 | 25.9/ 26.0   | 30/ 30   | 25/ 25           | 124/124 |
|           |                 |          | 6.5/ 8.7      | 18.1/20.9 | 29.2/ 32.7   | 30/ 35   | 27/ 30           | 124/124 |
|           |                 |          | 12.0/16.0     | 33.4/38.4 | 48.2/ 54.6   | 50/ 60   | 44/ 50           | 124/124 |
|           |                 |          | 15.8/21.0     | 43.8/50.5 | 61.2/ 69.6   | 70/ 70** | 56/ 64           | 124/124 |
|           | 460-3-60        | STD      | —             | —         | 13.0         | 20       | 13               | 51      |
|           |                 |          | 6.0           | 7.2       | 13.0         | 20       | 13               | 51      |
|           |                 |          | 11.5          | 13.8      | 18.5         | 20       | 18               | 51      |
|           |                 |          | 14.0          | 16.8      | 23.3         | 25       | 21               | 51      |
|           |                 |          | 23.0          | 27.7      | 36.8         | 40       | 34               | 51      |
|           |                 | ALT      | —             | —         | 13.3         | 20       | 13               | 53      |
|           |                 |          | 6.0           | 7.2       | 13.3         | 20       | 13               | 53      |
|           |                 |          | 11.5          | 13.8      | 19.9         | 20       | 18               | 53      |
|           |                 |          | 14.0          | 16.8      | 23.7         | 25       | 22               | 53      |
|           |                 | HIGH     | —             | —         | 13.8         | 20       | 13               | 62      |
|           |                 |          | 6.0           | 7.2       | 13.8         | 20       | 13               | 62      |
|           |                 |          | 11.5          | 13.8      | 20.5         | 25       | 19               | 62      |
|           |                 |          | 14.0          | 16.8      | 24.3         | 25       | 22               | 62      |
|           |                 |          | 23.0          | 27.7      | 37.8         | 40       | 35               | 62      |
|           | 575-3-60        | STD      | —             | —         | 9.2          | 15       | 10               | 41      |
|           |                 | ALT      | —             | —         | 9.3          | 15       | 10               | 42      |
|           |                 | HIGH     | —             | —         | 9.7          | 15       | 10               | 49      |

\* Legend and Notes for ELECTRICAL DATA are on page 26.

Table 5 - ELECTRICAL DATA — PAS060

| UNIT<br>SIZE | NOMINAL<br>V-PH-Hz | IFM<br>TYPE | ELECTRIC HEAT |           | POWER SUPPLY |           | DISCONNECT<br>SIZE† |         |
|--------------|--------------------|-------------|---------------|-----------|--------------|-----------|---------------------|---------|
|              |                    |             | Nominal<br>kW | FLA       | MCA          | MOCP*     | FLA                 | LRA     |
| 5 Tons       | 208/230-1-60       | STD         | —/—           | —/—       | 43.3/ 43.3   | 60/ 60    | 42/ 42              | 161/161 |
|              |                    |             | 4.9/ 6.5      | 23.5/27.1 | 43.3/ 43.3   | 60/ 60    | 42/ 42              | 161/161 |
|              |                    |             | 6.5/ 8.7      | 31.4/36.3 | 46.6/ 52.7   | 50/ 60    | 43/ 48              | 161/161 |
|              |                    |             | 9.8/13.0      | 46.9/54.2 | 66.0/ 75.1   | 70/ 80**  | 61/ 69              | 161/161 |
|              |                    |             | 13.1/17.4     | 62.8/72.5 | 85.9/ 98.0   | 90/100**  | 79/ 90              | 161/161 |
|              |                    |             | 15.8/21.0     | 75.8/87.5 | 102.2/116.8  | 110/125** | 94/107              | 161/161 |
|              |                    | ALT         | —/—           | —/—       | 44.0/ 44.0   | 60/ 60    | 42/ 42              | 184/184 |
|              |                    |             | 4.9/ 6.5      | 23.5/27.1 | 44.0/ 44.0   | 60/ 60    | 42/ 42              | 184/184 |
|              |                    |             | 6.5/ 8.7      | 31.4/36.3 | 47.5/ 53.6   | 50/ 60    | 44/ 49              | 184/184 |
|              |                    |             | 9.8/13.0      | 46.9/54.2 | 66.9/ 76.0   | 70/ 80**  | 62/ 70              | 184/184 |
|              |                    |             | 13.1/17.4     | 62.8/72.5 | 86.8/ 98.9   | 90/100**  | 80/ 91              | 184/184 |
|              |                    |             | 15.8/21.0     | 75.8/87.5 | 103.0/117.6  | 110/125** | 95/108              | 184/184 |
|              | 208/230-3-60       | STD         | —/—           | —/—       | 27.3/ 27.3   | 35/ 35    | 27/ 27              | 128/128 |
|              |                    |             | 4.9/ 6.5      | 13.6/15.6 | 27.3/ 27.3   | 35/ 35    | 27/ 27              | 128/128 |
|              |                    |             | 7.9/10.5      | 21.9/25.3 | 34.7/ 38.9   | 40/ 40    | 32/ 36              | 128/128 |
|              |                    |             | 12.0/16.0     | 33.4/38.4 | 49.1/ 55.4   | 50/ 60    | 45/ 51              | 128/128 |
|              |                    |             | 15.8/21.0     | 43.8/50.5 | 62.1/ 70.5   | 70 80**   | 57/ 65              | 128/128 |
|              |                    |             | 19.9/26.5     | 55.2/63.8 | 76.4/ 87.1   | 80/ 90**  | 70/ 80              | 128/128 |
|              |                    | ALT         | —/—           | —/—       | 26.6/ 26.6   | 35/ 35    | 26/ 26              | 148/148 |
|              |                    |             | 4.9/ 6.5      | 13.6/15.6 | 26.6/ 26.6   | 35/ 35    | 26/ 26              | 148/148 |
|              |                    |             | 7.9/10.5      | 21.9/25.3 | 33.9/ 38.1   | 35/ 40    | 31/ 35              | 148/148 |
|              |                    |             | 12.0/16.0     | 33.4/38.4 | 48.2/ 54.6   | 50/ 60    | 44/ 50              | 148/148 |
|              |                    |             | 15.8/21.0     | 43.8/50.5 | 61.2/ 69.6   | 70/ 70**  | 56/ 64              | 148/148 |
|              |                    |             | 19.9/26.5     | 55.2/63.8 | 75.6/ 86.2   | 80/ 90**  | 70/ 79              | 148/148 |
|              |                    | HIGH        | —/—           | —/—       | 28.9/ 28.9   | 35/ 35    | 29/ 29              | 174/174 |
|              |                    |             | 4.9/ 6.5      | 13.6/15.6 | 28.9/ 28.9   | 35/ 35    | 29/ 29              | 174/174 |
|              |                    |             | 7.9/10.5      | 21.9/25.3 | 36.7/ 40.9   | 40/ 45    | 34/ 38              | 174/174 |
|              |                    |             | 12.0/16.0     | 33.4/38.4 | 51.1/ 57.4   | 60/ 60    | 47/ 53              | 174/174 |
|              |                    |             | 15.8/21.0     | 43.8/50.5 | 64.1/ 72.5   | 70/ 80**  | 59/ 67              | 174/174 |
|              |                    |             | 19.9/26.5     | 55.2/63.8 | 78.4/ 89.1   | 80/ 90**  | 72/ 82              | 174/174 |
|              | 460-3-60           | STD         | —             | —         | 13.2         | 20        | 13                  | 71      |
|              |                    |             | 6.0           | 7.2       | 13.2         | 20        | 13                  | 72      |
|              |                    |             | 11.5          | 13.8      | 21.2         | 25        | 19                  | 72      |
|              |                    |             | 14.0          | 16.8      | 24.9         | 25        | 23                  | 72      |
|              |                    |             | 23.0          | 27.7      | 38.5         | 40        | 35                  | 72      |
|              |                    |             | 25.0          | 30.1      | 41.5         | 45        | 38                  | 72      |
|              |                    | ALT         | —             | —         | 13.5         | 20        | 13                  | 81      |
|              |                    |             | 6.0           | 7.2       | 13.5         | 20        | 13                  | 81      |
|              |                    |             | 11.5          | 13.8      | 21.5         | 25        | 20                  | 81      |
|              |                    |             | 14.0          | 16.8      | 25.3         | 30        | 23                  | 81      |
|              |                    |             | 23.0          | 27.7      | 38.8         | 40        | 36                  | 81      |
|              |                    |             | 25.0          | 30.1      | 41.8         | 45        | 38                  | 81      |
|              |                    | HIGH        | —             | —         | 13.5         | 20        | 13                  | 93      |
|              |                    |             | 6.0           | 7.2       | 13.5         | 20        | 13                  | 94      |
|              |                    |             | 11.5          | 13.8      | 21.5         | 25        | 20                  | 94      |
|              |                    |             | 14.0          | 16.8      | 25.3         | 30        | 23                  | 94      |
|              |                    |             | 23.0          | 27.7      | 38.8         | 40        | 36                  | 94      |
|              |                    |             | 25.0          | 30.1      | 41.8         | 45        | 38                  | 94      |
|              | 575-3-60           | STD         | —             | —         | 9.7          | 15        | 11                  | 58      |
|              |                    | ALT         | —             | —         | 9.9          | 15        | 11                  | 65      |
|              |                    | HIGH        | —             | —         | 9.9          | 15        | 11                  | 75      |

\* Legend and Notes for ELECTRICAL DATA are on page 26.

**TABLE 5 - ELECTRICAL DATA — PAS072-102**

| UNIT SIZE | NOMINAL V-PH-Hz | IFM TYPE    | ELECTRIC HEAT                                                       |                                                                           | POWER SUPPLY                                                                      |                                                                    | DISCONNECT SIZE†                                          |                                                                |
|-----------|-----------------|-------------|---------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------|
|           |                 |             | Nominal kW                                                          | FLA                                                                       | MCA                                                                               | MOCP*                                                              | FLA                                                       | LRA                                                            |
| 6 Tons    | 208/230-3-60    | STD         | —/—<br>4.9/ 6.5<br>7.9/10.5<br>12.0/16.0<br>15.8/21.0<br>19.9/26.5  | —/—<br>13.6/15.6<br>21.9/25.3<br>33.4/38.4<br>43.8/50.5<br>55.2/63.8      | 32.4/32.4<br>32.4/32.4<br>33.9/38.1<br>48.2/54.6<br>61.2/69.6<br>75.6/86.2        | 40/40<br>40/40<br>35/40<br>50/60<br>70/70**<br>80/90**             | 31/31<br>31/31<br>31/35<br>44/50<br>56/64<br>70/79        | 180/180<br>180/180<br>180/180<br>180/180<br>180/180<br>180/180 |
|           |                 |             | —/—<br>4.9/ 6.5<br>7.9/10.5<br>12.0/16.0<br>15.8/21.0<br>19.9/26.5  | —/—<br>13.6/15.6<br>21.9/25.3<br>33.4/38.4<br>43.8/50.5<br>55.2/63.8      | 34.7/34.7<br>34.7/34.7<br>36.7/40.9<br>51.1/57.4<br>64.1/72.5<br>78.4/89.1        | 40/40<br>40/40<br>40/45<br>60/60<br>70/80**<br>80/90**             | 34/34<br>34/34<br>34/38<br>47/53<br>59/67<br>72/82        | 205/205<br>205/205<br>205/205<br>205/205<br>205/205<br>205/205 |
|           |                 | STD         | —<br>6.0<br>11.5<br>14.0<br>23.0<br>25.5                            | —<br>7.2<br>13.8<br>16.8<br>27.7<br>30.7                                  | 15.4<br>15.4<br>20.5<br>24.3<br>37.8<br>41.6                                      | 20<br>20<br>25<br>25<br>40<br>45                                   | 15<br>15<br>19<br>22<br>35<br>38                          | 90<br>90<br>90<br>90<br>90<br>90                               |
|           |                 |             | —<br>6.0<br>11.5<br>14.0<br>23.0<br>25.5                            | —<br>7.2<br>13.8<br>16.8<br>27.7<br>30.7                                  | 16.2<br>16.2<br>21.5<br>25.3<br>38.8<br>42.6                                      | 20<br>20<br>25<br>30<br>40<br>45                                   | 16<br>16<br>20<br>23<br>36<br>39                          | 103<br>103<br>103<br>103<br>103<br>103                         |
|           | 575-3-60        | STD         | —                                                                   | —                                                                         | 11.4                                                                              | 15                                                                 | 12                                                        | 75                                                             |
|           |                 | HIGH        | —                                                                   | —                                                                         | 11.9                                                                              | 15                                                                 | 13                                                        | 86                                                             |
| 7½ Tons   | 208/230-3-60    | STD AND ALT | —/—<br>7.8/10.4<br>12.0/16.0<br>18.6/24.8<br>24.0/32.0<br>31.9/42.4 | —/—<br>21.7/ 25.0<br>33.4/ 38.5<br>51.7/ 59.7<br>66.7/ 77.0<br>88.4/102.0 | 40.1/ 40.1<br>40.1/ 40.1<br>48.9/ 55.4<br>71.9/ 81.8<br>90.6/103.5<br>117.7/134.8 | 45/ 45<br>45/ 45<br>50/ 60<br>80/ 90**<br>100/110**<br>125/150**   | 42/ 42<br>42/ 42<br>45/ 51<br>66/ 75<br>83/ 95<br>108/124 | 229/229                                                        |
|           |                 |             | —/—<br>7.8/10.4<br>12.0/16.0<br>18.6/24.8<br>24.0/32.0<br>31.9/42.4 | —/—<br>21.7/ 25.0<br>33.4/ 38.5<br>51.7/ 59.7<br>66.7/ 77.0<br>88.4/102.0 | 44.9/ 44.9<br>44.9/ 44.9<br>54.9/ 61.4<br>77.9/ 87.8<br>96.6/109.5<br>123.7/140.8 | 50/ 50<br>50/ 50<br>60/ 70**<br>80/ 90**<br>100/110**<br>125/150** | 48/ 48<br>48/ 48<br>51/ 56<br>72/ 81<br>89/101<br>114/129 | 273/273                                                        |
|           | 460-3-60        | STD AND ALT | —<br>13.9<br>16.5<br>27.8<br>33.0<br>41.7                           | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                                 | 18.4<br>26.9<br>28.1<br>45.0<br>52.9<br>65.9                                      | 20<br>30<br>30<br>50<br>60<br>70**                                 | 19<br>25<br>26<br>41<br>49<br>61                          | 138                                                            |
|           |                 |             | —<br>13.9<br>16.5<br>27.8<br>33.0<br>41.7                           | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                                 | 20.6<br>26.9<br>30.8<br>47.8<br>55.6<br>68.7                                      | 25<br>30<br>35<br>50<br>60<br>70**                                 | 22<br>25<br>28<br>44<br>51<br>63                          | 130                                                            |
|           | 575-3-60        | STD AND ALT | —<br>17.0<br>34.0                                                   | —<br>17.1<br>34.1                                                         | 14.9<br>23.9<br>45.3                                                              | 20<br>25<br>50                                                     | 16<br>22<br>42                                            | 97                                                             |
|           |                 | HIGH        | —<br>17.0<br>34.0                                                   | —<br>17.1<br>34.1                                                         | 16.7<br>26.1<br>47.5                                                              | 20<br>30<br>50                                                     | 18<br>24<br>44                                            | 114                                                            |
| 8½ Tons   | 208/230-3-60    | STD         | —/—<br>7.8/10.4<br>12.0/16.0<br>18.6/24.8<br>24.0/32.0<br>31.9/42.4 | —/—<br>21.7/ 25.0<br>33.4/ 38.5<br>51.7/ 59.7<br>66.7/ 77.0<br>88.4/102.0 | 44.6/ 44.6<br>44.6/ 44.6<br>48.9/ 55.4<br>71.9/ 81.8<br>90.6/103.5<br>117.7/134.8 | 50/ 50<br>50/ 50<br>50/ 60<br>80/ 90**<br>100/110**<br>125/150**   | 47/ 47<br>47/ 47<br>47/ 51<br>66/ 75<br>83/ 95<br>108/124 | 321/321                                                        |
|           |                 |             | —/—<br>7.8/10.4<br>12.0/16.0<br>18.6/24.8<br>24.0/32.0<br>31.9/42.4 | —/—<br>21.7/ 25.0<br>33.4/ 38.5<br>51.7/ 59.7<br>66.7/ 77.0<br>88.4/102.0 | 49.4/ 49.4<br>49.4/ 49.4<br>54.9/ 61.4<br>77.9/ 87.8<br>96.6/109.5<br>123.7/140.8 | 60/ 60<br>60/ 60<br>60/ 70**<br>80/ 90**<br>100/110**<br>125/150** | 52/ 52<br>52/ 52<br>52/ 56<br>72/ 81<br>89/101<br>114/129 | 365/365                                                        |
|           | 460-3-60        | STD         | —<br>13.9<br>16.5<br>27.8<br>33.0<br>41.7                           | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                                 | 22.7<br>24.1<br>28.1<br>45.0<br>52.9<br>65.9                                      | 25<br>25<br>30<br>50<br>60<br>70**                                 | 24<br>24<br>26<br>41<br>49<br>61                          | 161                                                            |
|           |                 |             | —<br>13.9<br>16.5<br>27.8<br>33.0<br>41.7                           | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                                 | 24.9<br>26.9<br>30.8<br>47.8<br>55.6<br>68.7                                      | 30<br>30<br>35<br>50<br>60<br>70**                                 | 26<br>26<br>28<br>44<br>51<br>63                          | 184                                                            |
|           | 575-3-60        | STD         | —<br>17.0<br>34.0                                                   | —<br>17.1<br>34.1                                                         | 17.6<br>23.9<br>45.3                                                              | 20<br>25<br>50                                                     | 18<br>22<br>42                                            | 135                                                            |
|           |                 | HIGH        | —<br>17.0<br>34.0                                                   | —<br>17.1<br>34.1                                                         | 19.4<br>26.1<br>47.5                                                              | 25<br>30<br>50                                                     | 20<br>24<br>44                                            | 152                                                            |

\* Legend and Notes for ELECTRICAL DATA are on page 26.

**TABLE 5 - ELECTRICAL DATA — PAS120-150**

| UNIT SIZE | NOMINAL V-Ph-Hz | IFM TYPE | ELECTRIC HEAT |             | POWER SUPPLY |           | DISCONNECT SIZE† |         |
|-----------|-----------------|----------|---------------|-------------|--------------|-----------|------------------|---------|
|           |                 |          | Nominal kW    | FLA         | MCA          | MOCP*     | FLA              | LRA     |
| 10 Tons   | 208/230-3-60    | STD      | —/—           | —/—         | 44.2/ 44.2   | 50/ 50    | 46/ 46           | 307/307 |
|           |                 |          | 7.8/10.4      | 21.7/ 25.0  | 44.2/ 44.2   | 50/ 50    | 45/ 45           |         |
|           |                 |          | 12.0/16.0     | 33.4/ 38.5  | 48.9/ 55.4   | 60/ 60    | 45/ 51           |         |
|           |                 | ALT      | 24.0/32.0     | 66.7/ 77.0  | 90.6/103.5   | 100/110** | 83/ 95           | 326/326 |
|           |                 |          | 31.9/42.4     | 88.4/102.0  | 117.7/134.8  | 125/150** | 108/124          |         |
|           |                 |          | 37.5/50.0     | 104.2/120.3 | 137.5/157.6  | 150/175** | 127/147          |         |
|           |                 | HIGH     | —/—           | —/—         | 45.9/ 45.9   | 50/ 50    | 48/ 48           | 374/374 |
|           |                 |          | 7.8/10.4      | 21.7/ 25.0  | 45.9/ 45.9   | 50/ 50    | 47/ 47           |         |
|           |                 |          | 12.0/16.0     | 33.4/ 38.5  | 51.1/ 57.5   | 60/ 60    | 47/ 53           |         |
|           | 460-3-60        | STD      | —/—           | —/—         | 53.4/ 53.4   | 50/ 50    | 57/ 57           | 152     |
|           |                 |          | 7.8/10.4      | 21.7/ 25.0  | 53.4/ 53.4   | 60/ 60    | 56/ 56           |         |
|           |                 |          | 12.0/16.0     | 33.4/ 38.5  | 60.4/ 66.9   | 60/ 80**  | 56/ 62           |         |
|           |                 | ALT      | 24.0/32.0     | 66.7/ 77.0  | 102.1/115.0  | 110/125** | 94/106           | 191     |
|           |                 |          | 31.9/42.4     | 88.4/102.0  | 129.2/146.3  | 125/150** | 119/135          |         |
|           |                 |          | 37.5/50.0     | 104.2/120.3 | 149.0/169.0  | 150/175** | 137/156          |         |
|           |                 | HIGH     | —/—           | —/—         | 26.6         | 30        | 28               | 185     |
|           |                 |          | 16.5          | 19.8        | 34.1         | 35        | 31               |         |
|           |                 |          | 27.8          | 33.4        | 51.0         | 60        | 47               |         |
| 12½ Tons  | 208/230-3-60    | STD      | —/—           | —/—         | 65.2/ 65.2   | 80/ 80**  | 68/ 68           | 383/383 |
|           |                 |          | 7.8/10.4      | 21.7/ 25.0  | 65.2/ 65.2   | 80/ 80**  | 68/ 68           |         |
|           |                 |          | 12.0/16.0     | 33.4/ 38.5  | 65.2/ 65.2   | 70/ 70**  | 68/ 68           |         |
|           |                 | ALT      | 24.0/32.0     | 66.7/ 77.0  | 96.6/109.5   | 100/110** | 89/101           | 406/406 |
|           |                 |          | 31.9/42.4     | 88.4/102.0  | 123.7/140.8  | 125/150** | 114/129          |         |
|           |                 |          | 37.5/50.0     | 104.2/120.3 | 143.5/163.6  | 150/175** | 132/151          |         |
|           | 460-3-60        | STD      | —/—           | —/—         | 69.6/ 69.6   | 80/ 80**  | 73/ 73           | 192     |
|           |                 |          | 7.8/10.4      | 21.7/ 25.0  | 69.6/ 69.6   | 80/ 80**  | 73/ 73           |         |
|           |                 |          | 12.0/16.0     | 33.4/ 38.5  | 69.6/ 69.6   | 80/ 80**  | 73/ 73           |         |
|           |                 | ALT      | 24.0/32.0     | 66.7/ 77.0  | 102.1/115.0  | 110/125** | 94/106           | 203     |
|           |                 |          | 31.9/42.4     | 88.4/102.0  | 129.2/146.3  | 150/150** | 119/135          |         |
|           |                 |          | 37.5/50.0     | 104.2/120.3 | 149.0/169.0  | 150/175** | 137/156          |         |
|           | 575-3-60        | STD      | —/—           | —/—         | 29.6         | 40        | 31               | 153     |
|           |                 |          | 16.5          | 19.8        | 30.8         | 40        | 31               |         |
|           |                 |          | 27.8          | 33.4        | 47.8         | 50        | 44               |         |
|           |                 | ALT      | 33.0          | 39.7        | 55.6         | 60        | 51               | 162     |
|           |                 |          | 41.7          | 50.2        | 68.7         | 70**      | 63               |         |
|           |                 |          | 50.0          | 60.1        | 66.1         | 80**      | 75               |         |

**LEGEND**

- FLA — Full Load Amps
- HACR — Heating, Air Conditioning and Refrigeration
- IFM — Indoor (Evaporator) Fan Motor
- LRA — Locked Rotor Amps
- MCA — Minimum Circuit Amps
- MOCP — Maximum Overcurrent Protection
- NEC — National Electrical Code

\*Used to determine minimum disconnect per NEC.  
†Fuse or HACR circuit breaker.  
\*\*Fuse only.

**NOTES:**

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

% Voltage Imbalance

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

Example: Supply voltage is 460-3-60.  
AB = 452 v  
BC = 464 v  
AC = 455 v

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

$= \frac{1371}{3}$

$= 457$

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



Determine percent of voltage imbalance.

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

$= 1.53\%$

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

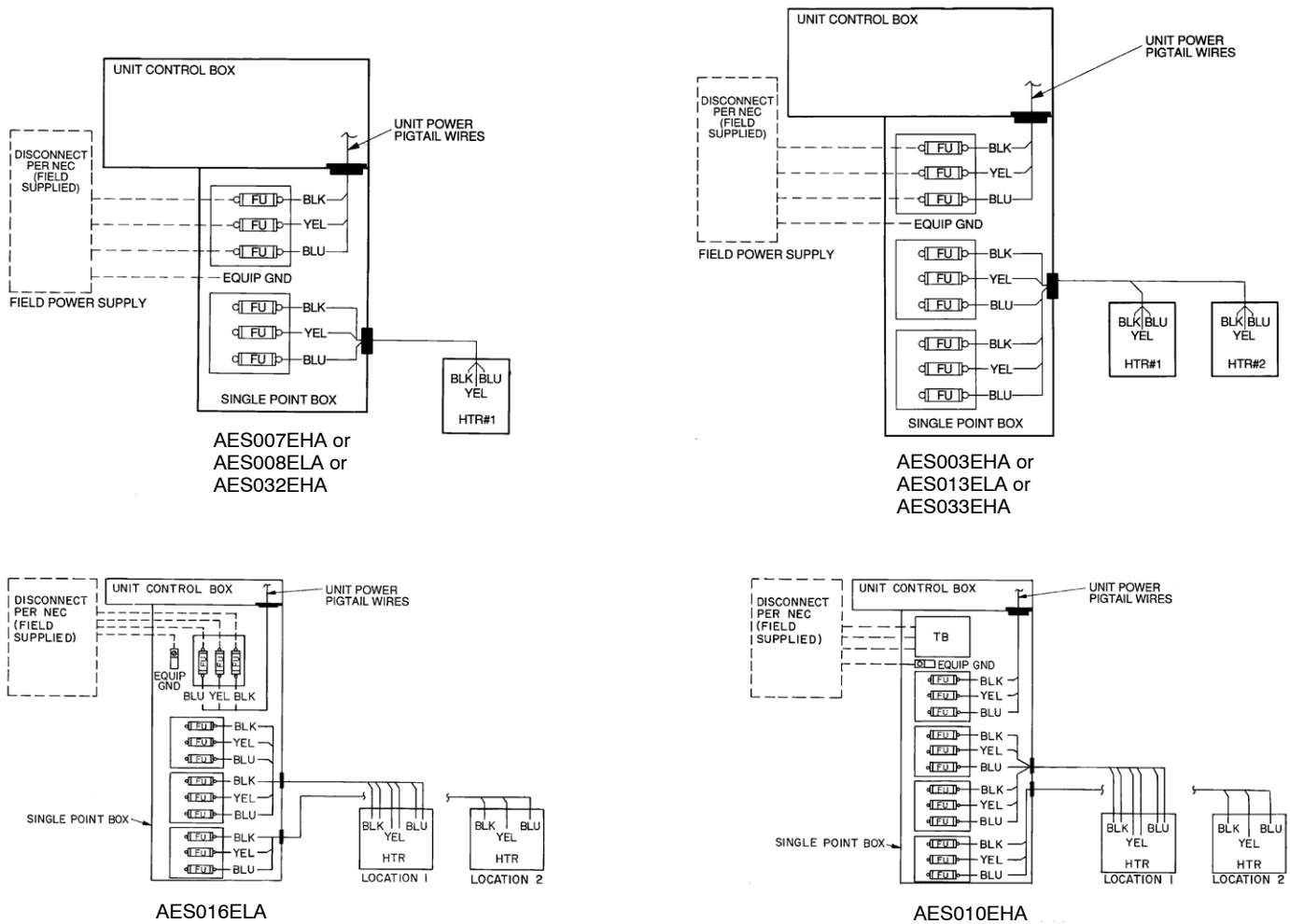
**IMPORTANT:** If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

- For units with power exhaust: If a single power source is to be used, size wire to include power exhaust MCA and MOCP. Check MCA and MOCP when power exhaust is powered through the unit (must be in accordance with NEC and/or local codes). Determine the new MCA including the power exhaust using the following formula:  
MCA New = MCA unit only + MCA of Power Exhaust  
For example, using a 7½ ton unit with MCA = 28.9 and MOCP = 35, with CRPWREXH030A00 power exhaust.  
MCA New = 28.9 amps + 1.6 amps = 30.5 amps  
If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 35 amps, the MCA New is below 35, therefore the MOCP is acceptable. If "MCA New" is larger than the published MOCP, raise the MOCP to the next larger size. For separate power, the MOCP for the power exhaust will be 15 amps per NEC.

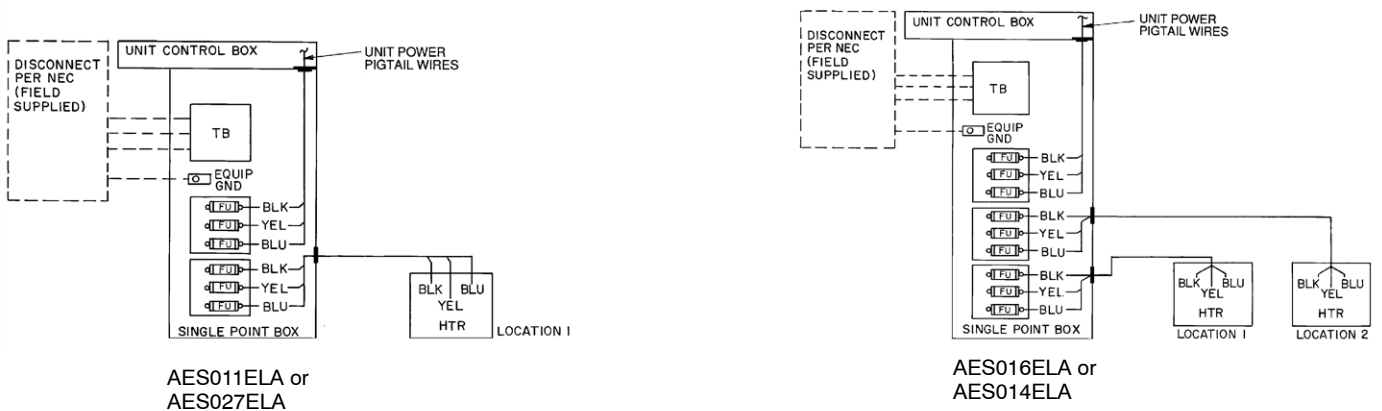
| POWER EXHAUST PART NO. | MCA (230 v) | MCA (460 v) | MCA (575 v) | MOCP (for separate power source) |
|------------------------|-------------|-------------|-------------|----------------------------------|
| DN PWREXH021A00        | N/A         | 0.9         | N/A         | 15                               |
| DN PWREXH022A00        | 3.3         | N/A         | 1.32        | 15                               |
| DN PWREXH023A00        | N/A         | 1.8         | N/A         | 15                               |
| DN PWREXH024A00        | 1.6         | N/A         | 0.64        | 15                               |
| DN PWREXH025A00        | N/A         | 0.9         | N/A         | 15                               |
| DN PWREXH026A00        | 3.3         | N/A         | 1.32        | 15                               |
| DN PWREXH027A00        | N/A         | 1.8         | N/A         | 15                               |
| DN PWREXH028A00        | 1.7         | N/A         | 0.68        | 15                               |
| DN PWREXH029A00        | N/A         | 1.0         | N/A         | 15                               |
| DN PWREXH030A00        | 1.6         | N/A         | 0.64        | 15                               |

**TABLE 6 - ELECTRIC HEATER USAGE - PAS**

| UNIT PAS   | VOLTAGE                  | ACCESSORY kW                                                                                   | ACCESSORY HEATER<br>PART NUMBER                                                    | SINGLE POINT BOX<br>PACKAGE NO.                                           |
|------------|--------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| <b>072</b> | 208/230/240<br>(3 phase) | 4.9/5.8/ 6.5<br>7.8/ 9.6/ 10.5<br>12.0/ 14.7/ 16.0<br>15.8/ 19.3/ 21.0<br>19.9/ 24.3/ 26.5     | AES007EHA<br>AES009EHA<br>AES015EHA<br>AES009EHA/AES015EHA<br>AES009EHA/AES015EHA  | -<br>-<br>-<br>AXB002SPA**<br>AXB002SPA**                                 |
|            | 460/480<br>(3 phase)     | 5.5/ 6.0<br>10.6/ 11.5<br>12.9/ 14.0<br>21.1/ 23.0<br>23.4/ 25.5                               | AES006ELA<br>AES011ELA<br>AES013ELA<br>AES011ELA/AES013ELA<br>AES011ELA/AES013ELA  | -<br>-<br>-<br>-<br>-                                                     |
| <b>090</b> | 208/230/240<br>(3 phase) | 7.8/ 9.6/ 10.4<br>12.0/ 14.7/ 16.0<br>18.6/ 22.8/ 24.8<br>24.0/ 29.4/ 32.0<br>31.8/ 39.0/ 42.4 | AES010EHA<br>AES016EHA<br>AES024EHA<br>AES032EHA<br>AES032EHA/AES010EHA            | AXB006SPA<br>AXB006SPA<br>AXB007SPA<br>AXB007SPA<br>AXB009SPA             |
|            | 460/480<br>(3 phase)     | 12.8/ 13.9<br>15.2/ 16.5<br>25.6/ 27.8<br>30.4/ 33.0<br>38.4/ 41.7                             | AES014ELA<br>AES016ELA<br>AES027ELA<br>AES033ELA<br>AES027ELA/AES014ELA            | AXB006SPA<br>AXB006SPA<br>AXB006SPA<br>AXB006SPA<br>AXB008SPA             |
| <b>102</b> | 208/230/240<br>(3 phase) | 7.8/ 9.6/ 10.4<br>12.0/ 14.7/ 16.0<br>18.6/ 22.8/ 24.8<br>24.0/ 29.4/ 32.0<br>31.8/ 39.0/ 42.4 | AES010EHA<br>AES016EHA<br>AES024EHA<br>AES032EHA<br>AES032EHA/AES010EHA            | AXB006SPA<br>AXB006SPA<br>AXB007SPA<br>AXB007SPA<br>AXB009SPA             |
|            | 460/480<br>(3 phase)     | 12.8/ 13.9<br>15.2/ 16.5<br>25.6/ 27.8<br>30.4/ 33.0<br>38.4/ 41.7                             | AES014ELA<br>AES016ELA<br>AES027ELA<br>AES033ELA<br>AES027ELA/AES014ELA            | AXB006SPA<br>AXB006SPA<br>AXB006SPA<br>AXB006SPA<br>AXB008SPA             |
| <b>120</b> | 208/230/240<br>(3 phase) | 7.8/ 9.6/ 10.4<br>12.0/ 14.7/ 16.0<br>24.0/ 29.4/ 32.0<br>31.8/ 38.9/ 42.4<br>37.5/ 46.0/ 50.0 | AES010EHA<br>AES016EHA<br>AES032EHA<br>AES032EHA/AES010EHA<br>AES016EHA/AES032EHA  | AXB011SPA<br>AXB011SPA/AXB012SPA**<br>AXB012SPA<br>AXB015SPA<br>AXB015SPA |
|            | 460/480<br>(3 phase)     | 12.8/ 13.9<br>15.2/ 16.5<br>30.4/ 33.0<br>38.4/ 41.7<br>46.0/ 50.0                             | AES014ELA<br>AES0167ELA<br>AES033ELA<br>AES027ELA/AES014ELA<br>AES016ELA/AES033ELA | AXB011SPA<br>AXB011SPA<br>AXB011SPA<br>AXB014SPA<br>AXB014SPA             |
| <b>150</b> | 208/230/240<br>(3 phase) | 7.8/ 9.6/ 10.5<br>12.0/ 14.7/ 16.0<br>24.0/ 29.4/ 32.0<br>31.8/ 38.9/ 42.4<br>37.5/ 46.0/ 50.0 | AES010EHA<br>AES016EHA<br>AES032EHA<br>AES032EHA/AES010EHA<br>AES016EHA/AES032EHA  | AXB012SPA<br>AXB012SPA<br>AXB012SPA<br>AXB015SPA<br>AXB015SPA             |
|            | 460/480<br>(3 phase)     | 12.8/ 13.9<br>15.2/ 16.5<br>30.4/ 33.0<br>38.4/ 41.7<br>46.0/ 50.0                             | AES016ELA<br>AES027ELA<br>AES033ELA<br>AES027ELA/AES014ELA<br>AES016ELA/AES033ELA  | AXB011SPA<br>AXB011SPA<br>AXB011SPA<br>AXB014SPA<br>AXB014SPA             |



**Figure 15 - Electric Heater Power Wiring Connections -  
Heat Pumps Units 208/230-3-60, Greater than 60 Amps MOC**



**Figure 16 - Electric Heater Power Wiring Connections -  
Heat Pumps Units, 460-3-60 and 575-3-60, Greater than 60 Amps MOC**

**TABLE 7 - ELECTRICAL DATA - PHH036-060 (STANDARD MOTOR)**

| UNIT SIZE               | NOMINAL<br>VOLTAGE<br>V-PH-Hz | ELECTRIC<br>HEAT* |           | POWER<br>SUPPLY |         | MINIMUM UNIT<br>DISCONNECT<br>SIZE |           |
|-------------------------|-------------------------------|-------------------|-----------|-----------------|---------|------------------------------------|-----------|
|                         |                               | kW†               | FLA       | MCA             | MOCPS** | FLA                                | LRA       |
| <b>036<br/>(3 Tons)</b> | 208/230-1-60                  | —/—               | —/—       | 25.6/ 25.6      | 30/ 30  | 25/ 25                             | 101/101   |
|                         |                               | 3.3/ 4.4          | 15.9/18.3 | 45.5/ 48.5      | 50/ 50  | 43/ 46                             | 117/120   |
|                         |                               | 4.9/ 6.5          | 23.6/27.1 | 55.1/ 59.5      | 60/ 60  | 52/ 56                             | 125/128   |
|                         |                               | 6.5/ 8.7          | 31.3/36.3 | 64.7/ 71.0      | 70/ 80  | 61/ 67                             | 133/138   |
|                         |                               | 7.9/10.5          | 38.0/43.8 | 73.1/ 80.4      | 80/ 90  | 69/ 75                             | 139/145   |
|                         |                               | 9.8/13.0          | 47.1/54.2 | 84.5/ 93.4      | 90/100  | 79/ 87                             | 148/155†† |
|                         | 208/230-3-60                  | —/—               | —/—       | 18.5/ 18.5      | 20/20   | 18/ 18                             | 90/ 90    |
|                         |                               | 3.3/ 4.4          | 9.2/10.6  | 30.0/ 31.7      | 30/35   | 29/ 30                             | 99/101    |
|                         |                               | 4.9/ 6.5          | 13.6/15.6 | 35.5/ 38.0      | 40/40   | 34/ 36                             | 104/106   |
|                         |                               | 6.5/ 8.7          | 18.0/20.9 | 41.0/ 44.6      | 45/45   | 39/ 42                             | 108/111   |
|                         |                               | 7.9/10.5          | 21.9/25.3 | 45.9/ 50.1      | 50/60   | 43/ 47                             | 112/116   |
|                         |                               | 12.0/16.0         | 33.3/38.5 | 60.1/ 66.6      | 70/70   | 57/ 63                             | 124/129   |
|                         | 460-3-60                      | —                 | —         | 9.0             | 15      | 9                                  | 46        |
|                         |                               | 6.0               | 7.2       | 18.0            | 20      | 17                                 | 53        |
|                         |                               | 8.8               | 10.6      | 22.2            | 25      | 21                                 | 57        |
|                         |                               | 11.5              | 13.8      | 26.2            | 30      | 25                                 | 60        |
|                         |                               | 14.0              | 16.8      | 30.0            | 30      | 28                                 | 63        |
|                         |                               | —                 | —         | —               | —       | —                                  | —         |
| <b>048<br/>(4 Tons)</b> | 208/230-1-60                  | —/—               | —/—       | 28.5/ 28.5      | 30/ 30  | 27/ 27                             | 122/122   |
|                         |                               | 3.3/ 4.4          | 15.9/18.3 | 48.4/ 51.4      | 50/ 60  | 46/ 49                             | 138/141   |
|                         |                               | 6.5/ 8.7          | 31.3/36.3 | 67.6/ 73.9      | 70/ 80  | 63/ 69                             | 154/159   |
|                         |                               | 9.8/13.0          | 47.1/54.2 | 87.4/ 96.2      | 90/100  | 82/ 90                             | 169/176†† |
|                         |                               | 13.1/17.4         | 63.0/72.5 | 107.2/119.1     | 110/125 | 100/111                            | 185/195†† |
|                         |                               | 15.8/21.0         | 76.0/87.5 | 123.5/137.9     | 125/150 | 115/128                            | 198/210†† |
|                         | 208/230-3-60                  | —/—               | —/—       | 21.1/21.1       | 25/25   | 21/ 21                             | 101/101   |
|                         |                               | 4.9/ 6.5          | 13.6/15.6 | 38.1/40.6       | 40/45   | 36/ 39                             | 115/117   |
|                         |                               | 6.5/ 8.7          | 18.0/20.9 | 43.6/47.2       | 45/50   | 41/ 45                             | 119/122   |
|                         |                               | 12.0/16.0         | 33.3/38.5 | 62.7/69.2       | 70/70   | 59/ 65                             | 135/140   |
|                         |                               | 15.8/21.0         | 43.9/50.5 | 76.0/84.2       | 80/90   | 71/ 79                             | 145/152   |
|                         |                               | —                 | —         | —               | —       | —                                  | —         |
|                         | 460-3-60                      | —                 | —         | 10.6            | 15      | 10                                 | 51        |
|                         |                               | 6.0               | 7.2       | 19.6            | 20      | 19                                 | 58        |
|                         |                               | 11.5              | 13.8      | 27.9            | 30      | 26                                 | 65        |
|                         |                               | 14.0              | 16.8      | 31.6            | 35      | 30                                 | 68        |
|                         |                               | 23.0              | 27.7      | 45.2            | 50      | 42                                 | 79        |
|                         |                               | —                 | —         | —               | —       | —                                  | —         |
| <b>060<br/>(5 Tons)</b> | 208/230-1-60                  | —/—               | —         | 40.4/ 40.4      | 45/ 45  | 39/ 39                             | 188/188   |
|                         |                               | 4.9/ 6.5          | 23.6/27.1 | 69.9/ 74.2      | 70/ 80  | 66/ 70                             | 211/215   |
|                         |                               | 6.5/ 8.7          | 31.3/36.3 | 79.5/ 85.7      | 80/ 90  | 75/ 81                             | 219/224†† |
|                         |                               | 9.8/16.0          | 47.1/54.2 | 99.2/108.1      | 100/110 | 93/102                             | 235/242†† |
|                         |                               | 13.1/17.4         | 63.0/72.5 | 119.1/131.0     | 125/150 | 112/123                            | 251/260†† |
|                         |                               | 15.8/21.0         | 76.0/87.5 | 135.4/149.7     | 150/150 | 127/140                            | 264/275†† |
|                         | 208/230-3-60                  | —/—               | —/—       | 28.9/ 28.9      | 30/ 30  | 28/ 28                             | 168/168   |
|                         |                               | 4.9/ 6.5          | 13.6/15.6 | 45.9/ 48.4      | 50/ 50  | 44/ 46                             | 181/183   |
|                         |                               | 7.9/10.5          | 21.9/25.3 | 56.3/ 60.6      | 60/ 70  | 53/ 57                             | 190/193   |
|                         |                               | 12.0/16.0         | 33.3/38.5 | 70.6/ 77.1      | 80/ 80  | 67/ 73                             | 201/208   |
|                         |                               | 15.8/21.0         | 43.9/50.5 | 83.8/ 92.1      | 90/100  | 79/ 86                             | 212/218†† |
|                         |                               | 19.9/26.5         | 55.2/63.8 | 97.9/108.7      | 100/110 | 92/102                             | 223/232†† |
|                         | 460-3-60                      | —                 | —         | 13.9            | 15      | 14                                 | 92        |
|                         |                               | 6.0               | 7.2       | 22.9            | 25      | 22                                 | 100       |
|                         |                               | 11.5              | 13.8      | 31.2            | 35      | 29                                 | 106       |
|                         |                               | 14.0              | 16.8      | 34.9            | 35      | 33                                 | 109       |
|                         |                               | 23.0              | 27.7      | 48.5            | 50      | 45                                 | 120       |
|                         |                               | 25.5              | 30.7      | 51.5            | 60      | 48                                 | 123       |

\* Legend and Notes for ELECTRICAL DATA are on page 32.

**TABLE 7 - ELECTRICAL DATA - PHH072-120 (STANDARD MOTOR)**

| UNIT SIZE               | NOMINAL<br>VOLTAGE<br>V-PH-Hz | ELECTRIC<br>HEAT* |             | POWER<br>SUPPLY |          | MINIMUM UNIT<br>DISCONNECT<br>SIZE |            |
|-------------------------|-------------------------------|-------------------|-------------|-----------------|----------|------------------------------------|------------|
|                         |                               | kW                | FLA         | MCA             | MOCP     | FLA                                | RLA        |
| <b>072<br/>(6 Tons)</b> | 208/230-3-60                  | —/—               | —/—         | 32.8/ 32.8      | 35/ 35   | 32/ 32                             | 200/200    |
|                         |                               | 4.9/ 6.5          | 13.6/15.6   | 49.8/ 52.3      | 50/ 60   | 47/ 50                             | 214/216    |
|                         |                               | 7.9/10.5          | 21.9/25.3   | 60.2/ 64.5      | 70/ 70   | 57/ 61                             | 222/225    |
|                         |                               | 12.0/16.0         | 33.3/38.5   | 74.5/ 81.0      | 80/ 90   | 70/ 76                             | 233/239    |
|                         |                               | 15.8/21.0         | 43.9/50.5   | 87.7/ 96.0      | 90/100   | 82/ 90                             | 244/251††  |
|                         |                               | 19.9/26.5         | 55.2/63.8   | 101.8/112.6     | 110/125  | 95/105                             | 255/264††  |
|                         | 460-3-60                      | —                 | —           | 15.2            | 20       | 15                                 | 92         |
|                         |                               | 6.0               | 7.2         | 24.2            | 25       | 23                                 | 99         |
|                         |                               | 11.5              | 13.8        | 32.5            | 35       | 31                                 | 106        |
|                         |                               | 14.0              | 16.8        | 36.2            | 40       | 34                                 | 109        |
|                         |                               | 23.0              | 27.7        | 49.8            | 50       | 47                                 | 120        |
|                         |                               | 25.5              | 30.7        | 53.6            | 60       | 50                                 | 123        |
| <b>090</b>              | 208/230-3-60                  | —                 | —           | 38.2/ 38.2      | 40/ 40†† | 40/ 40                             | 242/242    |
|                         |                               | 7.8/10.4          | 21.7/ 25.0  | 65.3/ 69.5      | 70/ 70†† | 65/ 69                             | 264/267    |
|                         |                               | 12.0/16.0         | 33.3/ 38.5  | 79.8/ 86.3      | 80/ 90   | 79/ 85                             | 275/281*** |
|                         |                               | 18.6/24.8         | 51.6/ 59.7  | 102.7/112.8     | 110/125  | 100/109                            | 294/302*** |
|                         |                               | 24.0/32.0         | 66.6/ 77.0  | 121.5/134.5     | 125/150  | 117/129                            | 309/319*** |
|                         |                               | 31.8/42.4         | 88.3/102.0  | 148.6/165.7     | 150/175  | 142/158                            | 330/344*** |
|                         | 460-3-60                      | —                 | —           | 19.2            | 20††     | 20                                 | 121        |
|                         |                               | 13.9              | 16.7        | 40.1            | 45††     | 39                                 | 138        |
|                         |                               | 16.5              | 19.8        | 44.0            | 45††     | 43                                 | 141        |
|                         |                               | 27.8              | 33.4        | 61.0            | 70       | 59                                 | 155        |
|                         |                               | 33.0              | 39.7        | 68.8            | 70       | 66                                 | 161        |
|                         |                               | 41.7              | 50.2        | 82.0            | 90       | 78                                 | 171        |
| <b>102</b>              | 208/230-3-60                  | —                 | —           | 41.3/ 41.3      | 45/ 45†† | 43/ 43                             | 276/276    |
|                         |                               | 7.8/10.4          | 21.7/ 25.0  | 68.4/ 72.5      | 70/ 80†† | 68/ 72                             | 298/301    |
|                         |                               | 12.0/16.0         | 33.3/ 38.5  | 82.9/ 89.4      | 90/ 90   | 82/ 88                             | 309/315*** |
|                         |                               | 18.6/24.8         | 51.6/ 59.7  | 105.8/115.9     | 110/125  | 103/112                            | 328/336*** |
|                         |                               | 24.0/32.0         | 66.6/ 77.0  | 124.5/137.5     | 125/150  | 120/132                            | 343/353*** |
|                         |                               | 31.8/42.4         | 88.3/102.0  | 151.7/168.8     | 175/175  | 145/161                            | 364/378*** |
|                         | 460-3-60                      | —                 | —           | 22.3            | 25††     | 23                                 | 143        |
|                         |                               | 13.9              | 16.7        | 43.2            | 45††     | 43                                 | 160        |
|                         |                               | 16.5              | 19.8        | 47.0            | 50††     | 46                                 | 163        |
|                         |                               | 27.8              | 33.4        | 64.0            | 70       | 62                                 | 177        |
|                         |                               | 33.0              | 39.7        | 71.9            | 80       | 69                                 | 183        |
|                         |                               | 41.7              | 50.2        | 85.0            | 90       | 81                                 | 193        |
| <b>120</b>              | 208/230-3-60                  | —                 | —           | 56.8/ 56.8      | 60/ 60†† | 60/ 60                             | 337/337    |
|                         |                               | 7.8/10.4          | 21.7/ 25.0  | 84.0/ 88.1      | 90/ 90   | 85/ 89                             | 358/362*** |
|                         |                               | 12.0/16.0         | 33.3/ 38.5  | 98.5/105.0      | 100/110  | 98/104                             | 370/375*** |
|                         |                               | 24.0/32.0         | 66.6/ 77.0  | 140.1/153.1     | 150/175  | 136/148                            | 403/414*** |
|                         |                               | 31.8/42.4         | 88.3/102.0  | 167.2/184.3     | 175/200  | 161/177                            | 425/439*** |
|                         |                               | 37.6/50.0         | 104.4/120.3 | 187.3/177.1     | 200/200  | 180/198                            | 441/457*** |
|                         | 460-3-60                      | —                 | —           | 28.7            | 30††     | 30                                 | 170        |
|                         |                               | 16.5              | 19.8        | 53.5            | 60††     | 53                                 | 189        |
|                         |                               | 27.8              | 33.4        | 70.5            | 80       | 69                                 | 203        |
|                         |                               | 33.0              | 39.7        | 78.3            | 80       | 76                                 | 209        |
|                         |                               | 41.7              | 50.2        | 91.5            | 100      | 88                                 | 220***     |
|                         |                               | 50.0              | 60.1        | 88.8            | 100      | 99                                 | 230***     |

\*Legend and Notes for ELECTRICAL DATA are on page 32.

**TABLE 8 - ELECTRICAL DATA - PHH036-72— (HIGH STATIC MOTOR)**

| UNIT SIZE               | NOMINAL<br>VOLTAGE<br>V-PH-Hz | ELECTRIC<br>HEAT* |           | POWER<br>SUPPLY |         | MINIMUM UNIT<br>DISCONNECT<br>SIZE |           |
|-------------------------|-------------------------------|-------------------|-----------|-----------------|---------|------------------------------------|-----------|
|                         |                               | kW†               | FLA       | MCA             | MOCP**  | FLA                                | LRA       |
| <b>036<br/>(3 Tons)</b> | 208/230-3-60                  | —/—               | —/—       | 19.4/ 19.4      | 20/20   | 19/ 19                             | 120/120   |
|                         |                               | 3.3/ 4.4          | 9.2/10.6  | 30.9/ 32.6      | 35/35   | 30/ 32                             | 129/130   |
|                         |                               | 4.9/ 6.5          | 13.6/15.6 | 36.4/ 38.9      | 40/40   | 35/ 37                             | 133/135   |
|                         |                               | 6.5/ 8.7          | 18.0/20.9 | 41.9/ 45.5      | 45/50   | 40/ 43                             | 138/141   |
|                         |                               | 7.9/10.5          | 21.9/25.3 | 46.8/ 51.0      | 50/60   | 45/ 48                             | 142/145   |
|                         |                               | 12.0/16.0         | 33.3/38.5 | 61.0/ 67.5      | 70/70   | 58/ 64                             | 153/158   |
|                         | 460-3-60                      | —                 | —         | 9.4             | 15      | 9                                  | 60        |
|                         |                               | 6.0               | 7.2       | 18.4            | 20      | 18                                 | 68        |
|                         |                               | 8.8               | 10.6      | 22.6            | 25      | 22                                 | 71        |
|                         |                               | 11.5              | 13.8      | 26.6            | 30      | 25                                 | 74        |
|                         |                               | 14.0              | 16.8      | 30.4            | 35      | 29                                 | 77        |
|                         |                               |                   |           |                 |         |                                    |           |
| <b>048<br/>(4 Tons)</b> | 208/230-3-60                  | —/—               | —/—       | 22.0/ 22.0      | 25/ 25  | 22/ 22                             | 131/131   |
|                         |                               | 4.9/ 6.5          | 13.6/15.6 | 39.0/ 41.5      | 40/ 45  | 37/ 40                             | 144/146   |
|                         |                               | 6.5/ 8.7          | 18.0/20.9 | 44.5/ 48.1      | 45/ 50  | 42/ 46                             | 149/152   |
|                         |                               | 12.0/16.0         | 33.3/38.5 | 63.6/ 70.1      | 70/ 80  | 60/ 66                             | 164/169   |
|                         |                               | 15.8/21.0         | 43.9/50.5 | 76.9/ 85.1      | 80/ 90  | 72/ 80                             | 175/181†† |
|                         |                               |                   |           |                 |         |                                    |           |
|                         | 460-3-60                      | —                 | —         | 11.0            | 15      | 11                                 | 65        |
|                         |                               | 6.0               | 7.2       | 20.0            | 20      | 19                                 | 73        |
|                         |                               | 11.5              | 13.8      | 28.3            | 30      | 27                                 | 79        |
|                         |                               | 14.0              | 16.8      | 32.0            | 35      | 30                                 | 82        |
|                         |                               | 23.0              | 27.7      | 45.6            | 50      | 43                                 | 93        |
|                         |                               |                   |           |                 |         |                                    |           |
| <b>060<br/>(5 Tons)</b> | 208/230-3-60                  | —/—               | —/—       | 30.6/ 30.6      | 35/ 35  | 30/ 30                             | 187/187   |
|                         |                               | 4.9/ 6.5          | 13.6/15.6 | 47.6/ 50.1      | 50/ 60  | 46/ 48                             | 200/202   |
|                         |                               | 7.9/10.5          | 21.9/25.3 | 58.0/ 62.3      | 60/ 70  | 55/ 59                             | 209/212   |
|                         |                               | 12.0/16.0         | 33.3/38.5 | 72.3/ 78.8      | 80/ 80  | 69/ 75                             | 220/225   |
|                         |                               | 15.8/21.0         | 43.9/50.5 | 85.5/ 93.8      | 90/100  | 81/ 88                             | 231/237** |
|                         |                               | 19.9/26.5         | 55.2/63.8 | 99.6/110.4      | 100/125 | 94/104                             | 242/251** |
|                         | 460-3-60                      | —                 | —         | 14.7            | 15      | 14                                 | 102       |
|                         |                               | 6.0               | 7.2       | 23.7            | 25      | 23                                 | 109       |
|                         |                               | 11.5              | 13.8      | 32.0            | 35      | 30                                 | 116       |
|                         |                               | 14.0              | 16.8      | 35.7            | 40      | 34                                 | 119       |
|                         |                               | 23.0              | 27.7      | 49.3            | 50      | 46                                 | 130       |
|                         |                               | 25.5              | 30.7      | 52.3            | 60      | 49                                 | 132       |
|                         |                               |                   |           |                 |         |                                    |           |
| <b>072<br/>(6 Tons)</b> | 208/230-3-60                  | —/—               | —/—       | 34.5/ 34.5      | 35/ 35  | 34/ 34                             | 219/219   |
|                         |                               | 4.9/ 6.5          | 13.6/15.6 | 51.5/ 54.0      | 60/ 60  | 49/ 52                             | 233/235   |
|                         |                               | 7.9/10.5          | 21.9/25.3 | 61.9/ 66.2      | 70/ 70  | 59/ 63                             | 241/244   |
|                         |                               | 12.0/16.0         | 33.3/38.5 | 76.2/ 82.7      | 80/ 90  | 72/ 78                             | 252/258   |
|                         |                               | 15.8/21.0         | 43.9/50.5 | 89.4/ 97.7      | 90/100  | 84/ 92                             | 263/270** |
|                         |                               | 19.9/26.5         | 55.2/63.8 | 103.5/114.3     | 110/125 | 97/107                             | 274/283** |
|                         | 460-3-60                      | —                 | —         | 16.0            | 20      | 16                                 | 107       |
|                         |                               | 6.0               | 7.2       | 25.0            | 25      | 24                                 | 114       |
|                         |                               | 11.5              | 13.8      | 33.3            | 35      | 32                                 | 120       |
|                         |                               | 14.0              | 16.8      | 37.0            | 40      | 35                                 | 123       |
|                         |                               | 23.0              | 27.7      | 50.6            | 60      | 47                                 | 134       |
|                         |                               | 25.5              | 30.7      | 54.4            | 60      | 51                                 | 137       |
|                         |                               |                   |           |                 |         |                                    |           |

\* Legend and Notes for ELECTRICAL DATA are on page 32.

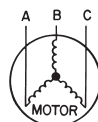
**TABLE 8 - ELECTRICAL DATA — HIGH STATIC MOTOR UNITS - PHH072-120**

| UNIT<br>PHH | NOMINAL<br>VOLTAGE<br>(V-Ph-Hz) | ELECTRIC HEAT*                                                                 |                                                                                        | POWER SUPPLY                                                                         |                                                               | MINIMUM UNIT<br>DISCONNECT<br>SIZE†                          |                                                                               |
|-------------|---------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------|
|             |                                 | kW**                                                                           | FLA                                                                                    | MCA                                                                                  | MOCP                                                          | FLA                                                          | LRA                                                                           |
| 090         | 208/230-3-60                    | —<br>7.8/10.4<br>12.0/16.0<br>18.6/24.8<br>24.0/32.0<br>31.8/42.4              | —<br>21.7/ 25.0<br>33.3/ 38.5<br>51.6/ 59.7<br>66.6/ 77.0<br>88.3/102.0                | 41.3/ 41.3<br>68.4/ 72.6<br>82.9/ 89.4<br>105.8/115.9<br>124.6/137.6<br>151.7/168.8  | 45/ 45††<br>70/ 80<br>90/ 90<br>110/125<br>125/150<br>175/175 | 44/ 44<br>69/ 73<br>82/ 88<br>103/113<br>121/132<br>145/169  | 267/267<br>288/292<br>300/305***<br>318/336***<br>333/344***<br>355/369***    |
|             | 460-3-60                        | —<br>13.9<br>16.5<br>27.8<br>33.0<br>41.7                                      | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                                              | 20.6<br>41.5<br>45.4<br>62.4<br>70.2<br>83.4                                         | 25††<br>45††<br>50††<br>70<br>80<br>90                        | 22<br>41<br>45<br>60<br>68<br>80                             | 134<br>150<br>153<br>167<br>173<br>184                                        |
| 102         | 208/230-3-60                    | —<br>7.8/10.4<br>12.0/16.0<br>18.6/24.8<br>24.0/32.0<br>31.8/42.4              | —<br>21.7/ 25.0<br>33.3/ 38.5<br>51.6/ 59.7<br>66.6/ 77.0<br>88.3/102.0                | 44.4/ 44.4<br>71.5/ 75.6<br>86.0/ 92.5<br>108.9/119.0<br>127.6/140.6<br>154.8/171.9  | 45/ 45††<br>80/ 80<br>90/100<br>110/125<br>150/150<br>175/175 | 47/ 47<br>72/ 76<br>85/ 91<br>106/116<br>124/136<br>149/164  | 301/301<br>322/326<br>334/339***<br>352/360***<br>367/378***<br>389/403***    |
|             | 460-3-60                        | —<br>13.9<br>16.5<br>27.8<br>33.0<br>41.7                                      | —<br>16.7<br>19.8<br>33.4<br>39.7<br>50.2                                              | 23.7<br>44.6<br>48.4<br>65.4<br>73.3<br>86.4                                         | 25††<br>45††<br>50††<br>70<br>80<br>90                        | 25<br>44<br>48<br>63<br>71<br>83                             | 156<br>172<br>175<br>189<br>195<br>206                                        |
| 120         | 208/230-3-60                    | —<br>7.8/10.4<br>12.0/16.0<br>18.6/24.8<br>24.0/32.0<br>31.8/42.4<br>37.5/50.0 | —<br>21.7/ 25.0<br>33.3/ 38.5<br>51.6/ 59.7<br>66.6/ 77.0<br>88.3/102.0<br>104.4/120.3 | 61.2/ 61.2<br>88.4/ 92.5<br>102.9/109.4<br>144.5/157.5<br>171.6/188.7<br>191.7/181.5 | 70/ 70<br>90/100<br>110/110<br>150/175<br>175/200<br>200/200  | 65/ 65<br>90/ 94<br>103/109<br>141/153<br>166/182<br>185/203 | 360/360<br>382/385***<br>393/399***<br>427/437***<br>448/462***<br>464/480*** |
|             | 460-3-60                        | —<br>16.5<br>27.8<br>33.0<br>41.7<br>50.0                                      | —<br>19.8<br>33.4<br>39.7<br>50.2<br>60.1                                              | 31.3<br>56.1<br>73.1<br>80.9<br>94.1<br>96.4                                         | 35††<br>60††<br>80<br>90<br>100<br>100                        | 33<br>56<br>72<br>79<br>91<br>102                            | 181<br>201<br>215<br>221<br>231***<br>241***                                  |

**LEGEND**

FLA - Full Load Amps  
HACR - Heating, Air Conditioning and Refrigeration  
IFM - Indoor-Fan Motor  
LRA - Locked Rotor Amps  
MCA - Minimum Circuit Amps  
MOCP - Maximum Overcurrent Protection  
NEC - National Electrical Code  
OFM - Outdoor-Fan Motor

Example: Supply voltage is 460-3-60



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

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

Determine maximum deviation from average voltage.

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

Maximum deviation is 7 v.

Determine percent of voltage imbalance.

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

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

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



\*Heater capacity (kW) is based on heater voltage of 208 v, 240 v, or 480 v.

If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

†Heaters are field installed only.

\*\*Fuse or HACR circuit breaker.

††Electrical disconnect cannot be used if electric heater is installed.

**NOTES:**

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

**2. Unbalanced 3-Phase Supply Voltage**

Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

$$\begin{aligned} \% \text{ Voltage Imbalance} \\ &= 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}} \end{aligned}$$

**TABLE 9 - ELECTRIC HEATER USAGE - PHH036-072**

| UNIT PHH | VOLTAGE                       | ACCESSORY KW     | ACCESSORY HEATER PART NUMBER | SINGLE POINT BOX PACKAGE NO. |
|----------|-------------------------------|------------------|------------------------------|------------------------------|
| 036      | 208/230/240<br>(Single phase) | 3.3/ 4.0/ 4.4    | AES001EHA                    | -                            |
|          |                               | 4.9/ 6.0/ 6.5    | AES007EHA                    | -                            |
|          |                               | 6.5/ 8.0/ 8.7    | AES003EHA                    | AXB004SPA                    |
|          |                               | 7.9/ 9.6/ 10.5   | AES009EHA                    | AXB004SPA                    |
|          |                               | 9.8/ 12.0/ 13.0  | AES007EHA                    | AXB005SPA                    |
|          | 208/230/240<br>(3 phase)      | 3.3/ 4.0/ 4.4    | AES001EHA                    | -                            |
|          |                               | 4.9/ 6.0/ 6.5    | AES007EHA                    | -                            |
|          |                               | 6.5/ 8.0/ 8.7    | AES003EHA                    | -                            |
|          |                               | 7.9/ 9.6/ 10.5   | AES009EHA                    | -                            |
|          |                               | 12.0/ 14.7/ 16.0 | AES015EHA                    | AXB002SPA                    |
|          | 460/480<br>(3 phase)          | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                               | 8.1/ 8.8         | AES008ELA                    | -                            |
|          |                               | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                               | 12.9/ 14.0       | AES013ELA                    | -                            |
| 048      | 208/230/240<br>(Single phase) | 3.3/ 4.0/ 4.4    | AES001EHA                    | -                            |
|          |                               | 6.5/ 8.0/ 8.7    | AES003EHA                    | AXB004SPA                    |
|          |                               | 9.8/ 12.0/ 13.0  | AES007EHA                    | AXB005SPA                    |
|          |                               | 13.1/ 16.0/ 17.4 | AES003EHA                    | AXB005SPA                    |
|          |                               | 15.8/ 19.3/ 21.0 | AES009EHA                    | AXB003SPA                    |
|          | 208/230/240<br>(3 phase)      | 4.9/ 6.0/ 6.5    | AES007EHA                    | -                            |
|          |                               | 6.5/ 8.0/ 8.7    | AES003EHA                    | -                            |
|          |                               | 12.0/ 14.7/ 16.0 | AES015EHA                    | AXB002SPA                    |
|          |                               | 15.8/ 19.3/ 21.0 | AES009EHA                    | AXB003SPA                    |
|          | 460/480<br>(3 phase)          | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                               | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                               | 12.9/ 14.0       | AES013ELA                    | -                            |
|          |                               | 21.1/23.0        | AES011ELA                    | -                            |
| 060      | 208/230/240<br>(Single phase) | 4.9/ 6.0/ 6.5    | AES007EHA                    | AXB004SPA                    |
|          |                               | 6.5/ 8.0/ 8.7    | AES003EHA                    | AXB004SPA                    |
|          |                               | 9.8/ 12.0/ 13.0  | AES007EHA                    | AXB005SPA                    |
|          |                               | 13.1/ 16.0/ 17.4 | AES003EHA                    | AXB005SPA                    |
|          |                               | 15.8/ 19.3/ 21.0 | AES009EHA                    | AXB005SPA                    |
|          | 208/230/240<br>(3 phase)      | 4.9/ 6.0/ 6.5    | AES007EHA                    | -                            |
|          |                               | 7.9/ 9.6/ 10.5   | AES009EHA                    | AXB002SPA                    |
|          |                               | 12.0/ 14.7/ 16.0 | AES015EHA                    | AXB002SPA                    |
|          |                               | 15.8/ 19.3/ 21.0 | AES009EHA                    | AXB003SPA                    |
|          |                               | 19.9/ 24.3/ 26.5 | AES009EHA+AES015EHA          | AXB002SPA                    |
|          | 460/480<br>(3 phase)          | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                               | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                               | 12.9/ 14.0       | AES013ELA                    | -                            |
|          |                               | 21.1/ 23.0       | AES011ELA                    | -                            |
|          |                               | 23.4/ 25.5       | AES011ELA+AES013ELA          | -                            |
| 072      | 208/230/240<br>(3 phase)      | 4.9/ 6.0/ 6.5    | AES007EHA                    | -                            |
|          |                               | 7.9/ 9.6/ 10.5   | AES009EHA                    | AXB002SPA                    |
|          |                               | 12.0/ 14.7/ 16.0 | AES015EHA                    | AXB002SPA                    |
|          |                               | 15.8/ 14.7/ 16.0 | AES009EHA                    | AXB003SPA                    |
|          |                               | 19.9/ 24.3/ 26.5 | AES009EHA+AES006ELA          | AXB003SPA                    |
|          | 460/480<br>(3 phase)          | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                               | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                               | 12.9/ 14.0       | AES013ELA                    | -                            |
|          |                               | 21.1/ 23.0       | AES013ELA                    | -                            |
|          |                               | 23.4/ 25.5       | AES011ELA+AES013ELA          | -                            |

**TABLE 9 - ELECTRIC HEATER USAGE - PHH090-120**

| UNIT PHH | VOLTAGE                  | ACCESSORY kW                                                                                   | ACCESSORY HEATER PART NUMBER                                                      | SINGLE POINT BOX PACKAGE NO.                                  |
|----------|--------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------|
| 090      | 208/230/240<br>(3 phase) | 7.8/ 9.6/ 10.4<br>12.0/ 14.7/ 16.0<br>18.6/ 22.8/ 24.8<br>24.0/ 29.4/ 32.0<br>31.8/ 39.0/ 42.4 | AES010EHA<br>AES016EHA<br>AES024EHA<br>AES032EHA<br>AES032EHA+AES010EHA           | AXB007SPA<br>AXB007SPA<br>AXB009SPA<br>AXB009SPA<br>AXB013SPA |
|          | 460/480<br>(3 phase)     | 12.8/ 13.9<br>15.2/ 16.5<br>25.6/ 27.8<br>30.4/ 33.0<br>38.4/ 41.7                             | AES014ELA<br>AES016ELA<br>AES027ELA<br>AES033ELA<br>AES027ELA+AES014ELA           | AXB006SPA<br>AXB006SPA<br>AXB008SPA<br>AXB008SPA<br>-         |
| 102      | 208/230/240<br>(3 phase) | 7.8/ 9.6/ 10.4<br>12.0/ 14.7/ 16.0<br>18.6/ 22.8/ 24.8<br>24.0/ 29.4/ 32.0<br>31.8/ 39.0/ 42.4 | AES010EHA<br>AES016EHA<br>AES024EHA<br>AES032EHA<br>AES032EHA+AES010EHA           | AXB012SPA<br>AXB012SPA<br>AXB015SPA<br>AXB015SPA<br>AXB017SPA |
|          | 460/480<br>(3 phase)     | 12.8/ 13.9<br>15.2/ 16.5<br>25.6/ 27.8<br>30.4/ 33.0<br>38.4/ 41.7                             | AES014ELA<br>AES016ELA<br>AES027ELA<br>AES033ELA<br>AES027ELA+AES014ELA           | AXB011SPA<br>AXB011SPA<br>AXB014SPA<br>AXB014SPA<br>AXB016SPA |
| 120      | 208/230/240<br>(3 phase) | 7.8/ 9.6/ 10.4<br>12.0/ 14.7/ 16.0<br>24.0/ 29.4/ 32.0<br>31.8/ 39.0/ 42.4<br>37.6/ 46.2/ 50.0 | AES010EHA<br>AES016EHA<br>AES032EHA<br>AES032EHA+AES010EHA<br>AES032EHA+AES016EHA | AXB012SPA<br>AXB012SPA<br>AXB015SPA<br>AXB017SPA<br>AXB017SPA |
|          | 460/480<br>(3 phase)     | 15.2/ 16.5<br>25.6/ 27.8<br>30.4/ 33.0<br>38.4/ 41.7<br>46.0/ 50.0                             | AES016ELA<br>AES027ELA<br>AES033ELA<br>AES027ELA+AES014ELA<br>AES033ELA+AES016ELA | AXB011SPA<br>AXB014SPA<br>AXB014SPA<br>AXB016SPA<br>AXB016SPA |

**NOTES:**

- Some units require two heater packages to provide kW indicated
- The rated heater voltage is 240, 480, and 575 v.  
If power distribution voltage varies from rated heater voltage, heater kW will vary accordingly
- To determine heater kW at voltages other than those shown in table, use the following formula:  

$$\text{Heater kW new} = \text{Heater kW rated} \times (\text{unit power distribution voltage} / \text{rated heater voltage})^2$$
 As an example:  
 For a 16 kW heater rated at 240 v with a power distribution voltage of 215 v  

$$\text{kW new} = 16 \text{ kW} (215/240)^2$$

$$\text{kW new} = 12.8 \text{ kW (rating at 215 v)}$$

**TABLE 10 - ELECTRICAL DATA - PHS036-048**

| UNIT<br>PHS             | V-PH-Hz      | IFM<br>TYPE    | ELECTRIC<br>HEAT* |           | POWER SUPPLY |          | DISCONNECT<br>SIZE† |            |
|-------------------------|--------------|----------------|-------------------|-----------|--------------|----------|---------------------|------------|
|                         |              |                | Nominal<br>kW**   | FLA       | MCA          | MOCP     | FLA                 | LRA        |
| <b>036</b>              | 208/230-3-60 | STD            | —                 | —         | 17.8/ 17.8   | 20/ 20†† | 17/ 17              | 86/ 86     |
|                         |              |                | 3.3/ 4.4          | 9.2/10.6  | 29.3/ 31.0   | 30/ 35†† | 28/ 30              | 95/ 97     |
|                         |              |                | 4.9/ 6.5          | 13.6/15.6 | 34.8/ 37.3   | 35/ 40†† | 33/ 35              | 100/102    |
|                         |              |                | 6.5/ 8.7          | 18.0/20.9 | 40.3/ 43.9   | 45/ 45†† | 38/ 42              | 104/107    |
|                         |              |                | 7.9/10.5          | 21.9/25.3 | 45.1/ 49.4   | 50/ 50†† | 43/ 47              | 108/111    |
|                         |              |                | 12.0/16.0         | 33.3/38.5 | 59.4/ 65.9   | 60/ 70   | 56/ 62              | 119/124    |
|                         |              | ALT            | —                 | —         | 19.2/ 19.2   | 20/ 20†† | 19/ 19              | 90/ 90     |
|                         |              |                | 3.3/ 4.4          | 9.2/10.6  | 30.7/ 32.4   | 35/ 35†† | 30/ 31              | 100/101    |
|                         |              |                | 4.9/ 6.5          | 13.6/15.6 | 36.2/ 38.7   | 40/ 40†† | 35/ 37              | 104/106    |
|                         |              |                | 6.5/ 8.7          | 18.0/20.9 | 41.7/ 45.3   | 45/ 50†† | 40/ 43              | 108/111    |
|                         |              |                | 7.9/10.5          | 21.9/25.3 | 46.5/ 50.8   | 50/ 60†† | 44/ 48              | 112/116    |
|                         |              |                | 12.0/16.0         | 33.3/38.5 | 60.8/ 67.3   | 70/ 70   | 57/ 63              | 124/129    |
|                         |              | HIGH<br>STATIC | —                 | —         | 20.1/ 20.1   | 25/ 25†† | 20/ 20              | 120/120    |
|                         |              |                | 3.3/ 4.4          | 9.2/10.6  | 31.6/ 33.3   | 35/ 35†† | 31/ 32              | 129/130    |
|                         |              |                | 4.9/ 6.5          | 13.6/15.6 | 37.1/ 39.6   | 40/ 40†† | 36/ 38              | 133/135    |
|                         |              |                | 6.5/ 8.7          | 18.0/20.9 | 42.6/ 46.2   | 45/ 50†† | 41/ 44              | 138/141    |
|                         |              |                | 7.9/10.5          | 21.9/25.3 | 47.4/ 51.7   | 50/ 60†† | 45/ 49              | 142/145    |
|                         |              |                | 12.0/16.0         | 33.3/38.5 | 61.7/ 68.2   | 70/ 70   | 58/ 64              | 153/158    |
|                         | 460-3-60     | STD            | —                 | —         | 8.1          | 15††     | 8                   | 45         |
|                         |              |                | 6.0               | 7.2       | 17.1         | 20††     | 16                  | 52         |
|                         |              |                | 8.8               | 10.6      | 21.4         | 25††     | 20                  | 55         |
|                         |              |                | 11.5              | 13.8      | 25.4         | 30††     | 24                  | 59         |
|                         |              |                | 14.0              | 16.8      | 29.1         | 30††     | 27                  | 62         |
|                         |              |                | —                 | —         | 8.9          | 15††     | 9                   | 48         |
|                         |              | ALT            | 6.0               | 7.2       | 17.9         | 20††     | 17                  | 55         |
|                         |              |                | 8.8               | 10.6      | 22.2         | 25††     | 21                  | 59         |
|                         |              |                | 11.5              | 13.8      | 26.2         | 30††     | 25                  | 62         |
|                         |              |                | 14.0              | 16.8      | 29.9         | 30††     | 28                  | 65         |
|                         |              | HIGH<br>STATIC | —                 | —         | 9.4          | 15††     | 9                   | 62         |
|                         |              |                | 6.0               | 7.2       | 18.4         | 20††     | 18                  | 70         |
|                         |              |                | 8.8               | 10.6      | 22.7         | 25††     | 22                  | 73         |
|                         |              |                | 11.5              | 13.8      | 26.7         | 30††     | 25                  | 76         |
|                         |              |                | 14.0              | 16.8      | 30.4         | 35††     | 29                  | 79         |
| <b>048<br/>(4 Tons)</b> | 208/230-1-60 | STD            | —                 | —         | 41.4/ 41.4   | 45/ 45†† | 39/ 39              | 143/143    |
|                         |              |                | 3.3/ 4.4          | 15.9/18.3 | 61.3/ 64.3   | 70/ 70   | 58/ 60              | 159/161    |
|                         |              |                | 6.5/ 8.7          | 31.3/36.3 | 80.5/ 86.8   | 90/ 90   | 75/ 81              | 174/179    |
|                         |              |                | 9.8/13.0          | 47.1/54.2 | 100.3/109.1  | 110/110  | 93/102              | 190/197    |
|                         |              |                | 13.1/17.4         | 63.0/72.5 | 120.1/132.0  | 125/150  | 112/123             | 206/215    |
|                         |              |                | 15.8/21.0         | 76.0/87.5 | 136.4/150.8  | 150/175  | 127/140             | 219/230    |
|                         |              | ALT            | —                 | —         | 42.8/ 42.8   | 45/ 45†† | 41/ 41              | 147/147    |
|                         |              |                | 3.3/ 4.4          | 15.9/18.3 | 62.7/ 65.7   | 70/ 70   | 59/ 62              | 163/166    |
|                         |              |                | 6.5/ 8.7          | 31.3/36.3 | 81.9/ 88.2   | 90/ 90   | 77/ 83              | 179/184    |
|                         |              |                | 9.8/13.0          | 47.1/54.2 | 107.7/110.5  | 110/125  | 95/103              | 194/202    |
|                         |              |                | 13.1/17.4         | 63.0/72.5 | 121.5/133.4  | 125/150  | 113/124             | 210/220    |
|                         |              |                | 15.8/21.0         | 76.0/87.5 | 137.8/152.2  | 150/175  | 128/141             | 223/235    |
|                         | 208/230-3-60 | STD            | —                 | —         | 26.0/ 26.0   | 30/ 30†† | 25/ 25              | 102/102    |
|                         |              |                | 4.9/ 6.5          | 13.6/15.6 | 43.0/ 45.5   | 45/ 50†† | 41/ 43              | 115/117    |
|                         |              |                | 6.5/ 8.7          | 18.0/20.9 | 48.5/ 52.1   | 50/ 60†† | 46/ 49              | 120/123    |
|                         |              |                | 12.0/16.0         | 33.3/38.5 | 67.6/ 74.1   | 70/ 80   | 63/ 69              | 135/140    |
|                         |              |                | 15.8/21.0         | 43.9/50.5 | 80.9/ 89.1   | 90/ 90   | 76/ 83              | 146/152    |
|                         |              | ALT            | —                 | —         | 27.4/ 27.4   | 30/ 30†† | 27/ 27              | 106/106    |
|                         |              |                | 4.9/ 6.5          | 13.6/15.6 | 44.4/ 46.9   | 45/ 50†† | 42/ 45              | 120/122    |
|                         |              |                | 6.5/ 8.7          | 18.0/20.9 | 49.9/ 53.5   | 50/ 60†† | 47/ 51              | 124/127    |
|                         |              |                | 12.0/16.0         | 33.3/38.5 | 69.0/ 75.5   | 70/ 80   | 65/ 71              | 140/145    |
|                         |              |                | 15.8/21.0         | 43.9/50.5 | 82.3/ 90.5   | 90/100   | 77/ 85              | 150/157    |
|                         |              | HIGH<br>STATIC | —                 | —         | 28.3/ 28.3   | 30/ 30†† | 28/ 28              | 136/136    |
|                         |              |                | 4.9/ 6.5          | 13.6/15.6 | 45.3/ 47.8   | 50/ 50†† | 43/ 46              | 149/151    |
|                         |              |                | 6.5/ 8.7          | 18.0/20.9 | 50.8/ 54.4   | 60/ 60†† | 48/ 52              | 154/157    |
|                         |              |                | 12.0/16.0         | 33.3/38.5 | 69.9/ 76.4   | 70/ 80   | 66/ 72              | 169/174    |
|                         |              |                | 15.8/21.0         | 43.9/50.5 | 83.2/ 91.4   | 90/100   | 78/ 86              | 180/186*** |

\*Legend and Notes for ELECTRICAL DATA are on page 39.

**TABLE 10 — ELECTRICAL DATA - PHS048-060**

| UNIT<br>PHS             | V-PH-Hz      | IFM<br>TYPE     | ELECTRIC<br>HEAT* |           | POWER SUPPLY |         | DISCONNECT<br>SIZE† |            |
|-------------------------|--------------|-----------------|-------------------|-----------|--------------|---------|---------------------|------------|
|                         |              |                 | Nominal<br>kW**   | FLA       | MCA          | MOCP    | FLA                 | LRA        |
| <b>048<br/>(cont)</b>   | 460-3-60     | STD             | —                 | —         | 13.1         | 15††    | 13                  | 56         |
|                         |              |                 | 6.0               | 7.2       | 22.1         | 25††    | 21                  | 63         |
|                         |              |                 | 11.5              | 13.8      | 30.4         | 35††    | 29                  | 70         |
|                         |              |                 | 14.0              | 16.8      | 34.1         | 35††    | 32                  | 73         |
|                         |              |                 | 23.0              | 27.7      | 47.7         | 50††    | 45                  | 84         |
|                         |              | ALT             | —                 | —         | 13.4         | 15††    | 13                  | 58         |
|                         |              |                 | 6.0               | 7.2       | 22.4         | 25††    | 21                  | 65         |
|                         |              |                 | 11.5              | 13.8      | 30.7         | 35††    | 29                  | 72         |
|                         |              |                 | 14.0              | 16.8      | 34.4         | 35††    | 32                  | 75         |
|                         |              |                 | 23.0              | 27.7      | 48.0         | 50††    | 45                  | 86         |
|                         |              | HIGH-<br>STATIC | —                 | —         | 13.9         | 15††    | 14                  | 72         |
|                         |              |                 | 6.0               | 7.2       | 22.9         | 25††    | 22                  | 80         |
|                         |              |                 | 11.5              | 13.8      | 31.2         | 35††    | 29                  | 86         |
|                         |              |                 | 14.0              | 16.8      | 34.9         | 35††    | 33                  | 89         |
|                         |              |                 | 23.0              | 27.7      | 48.5         | 50††    | 45                  | 100        |
| <b>060<br/>(5 Tons)</b> | 208/230-3-60 | STD             | —                 | —         | 26.7/26.7    | 30/30†† | 26/26               | 138/138    |
|                         |              |                 | 4.9/ 6.5          | 13.6/15.6 | 43.7/46.2    | 45/50†† | 42/44               | 152/154    |
|                         |              |                 | 7.9/10.5          | 21.9/25.3 | 54.0/58.3    | 60/60†† | 51/55               | 160/163    |
|                         |              |                 | 12.0/16.0         | 33.3/38.5 | 68.3/74.8    | 70/80   | 65/70               | 171/177    |
|                         |              |                 | 15.8/21.0         | 43.9/50.5 | 81.5/89.8    | 90/90   | 77/84               | 182/189*** |
|                         |              |                 | 19.9/26.5         | 55.2/63.8 | 95.7/106.4   | 100/110 | 90/100              | 193/202*** |
|                         |              | ALT             | —                 | —         | 26.6/26.6    | 30/30†† | 26/26               | 169/169    |
|                         |              |                 | 4.9/ 6.5          | 13.6/15.6 | 43.6/46.1    | 45/50†† | 42/44               | 182/184    |
|                         |              |                 | 7.9/10.5          | 21.9/25.3 | 53.9/58.2    | 60/60   | 51/55               | 191/194    |
|                         |              |                 | 12.0/16.0         | 33.3/38.5 | 68.2/74.7    | 70/80   | 64/70               | 202/207    |
|                         |              |                 | 15.8/21.0         | 43.9/50.5 | 81.4/89.7    | 90/90   | 77/84               | 213/219*** |
|                         |              |                 | 19.9/26.5         | 55.2/63.8 | 95.6/106.3   | 100/110 | 90/99               | 224/233*** |
|                         |              | HIGH-<br>STATIC | —                 | —         | 28.3/28.3    | 30/30†† | 28/28               | 188/188    |
|                         |              |                 | 4.9/ 6.5          | 13.6/15.6 | 45.3/47.8    | 50/50†† | 44/46               | 201/203    |
|                         |              |                 | 7.9/10.5          | 21.9/25.3 | 55.6/59.9    | 60/60†† | 53/57               | 210/213    |
|                         |              |                 | 12.0/16.0         | 33.3/38.5 | 69.9/76.4    | 70/80   | 66/72               | 221/226    |
|                         |              |                 | 15.8/21.0         | 43.9/50.5 | 83.1/91.4    | 90/100  | 79/86               | 232/238*** |
|                         |              |                 | 19.9/26.5         | 55.2/63.8 | 97.3/108.0   | 100/110 | 92/101              | 243/252*** |
|                         | 460-3-60     | STD             | —                 | —         | 13.6         | 15††    | 13                  | 67         |
|                         |              |                 | 6.0               | 7.2       | 22.6         | 25††    | 22                  | 75         |
|                         |              |                 | 11.5              | 13.8      | 30.9         | 35††    | 29                  | 81         |
|                         |              |                 | 14.0              | 16.8      | 34.6         | 35††    | 33                  | 84         |
|                         |              |                 | 23.0              | 27.7      | 48.3         | 50††    | 45                  | 95         |
|                         |              |                 | 25.5              | 30.7      | 52.0         | 60††    | 49                  | 98         |
|                         |              | ALT             | —                 | —         | 13.0         | 15††    | 13                  | 82         |
|                         |              |                 | 6.0               | 7.2       | 22.0         | 25††    | 21                  | 89         |
|                         |              |                 | 11.5              | 13.8      | 30.3         | 35††    | 29                  | 96         |
|                         |              |                 | 14.0              | 16.8      | 34.0         | 35††    | 32                  | 99         |
|                         |              |                 | 23.0              | 27.7      | 47.7         | 50††    | 45                  | 110        |
|                         |              |                 | 25.5              | 30.7      | 51.4         | 60††    | 48                  | 113        |
|                         |              | HIGH-<br>STATIC | —                 | —         | 13.8         | 15††    | 14                  | 92         |
|                         |              |                 | 6.0               | 7.2       | 22.8         | 25††    | 22                  | 99         |
|                         |              |                 | 11.5              | 13.8      | 31.1         | 35††    | 30                  | 105        |
|                         |              |                 | 14.0              | 16.8      | 34.8         | 35††    | 33                  | 108        |
|                         |              |                 | 23.0              | 27.7      | 48.5         | 50††    | 46                  | 119        |
|                         |              |                 | 25.5              | 30.7      | 52.2         | 60††    | 49                  | 122        |

\* Legend and Notes for ELECTRICAL DATA are on page 39.

**TABLE 10 — ELECTRICAL DATA - PHS072**

| UNIT<br>SIZE | NOMINAL<br>V-PH-Hz | IFM<br>TYPE | ELECTRIC HEAT*  |           | POWER SUPPLY |          | DISCONNECT<br>SIZE† |            |
|--------------|--------------------|-------------|-----------------|-----------|--------------|----------|---------------------|------------|
|              |                    |             | Nominal<br>kW** | FLA       | MCA          | MOCP     | FLA                 | LRA        |
| 6 Tons       | 208/230-3-60       | STD         | —               | —         | 35.6/ 35.6   | 40/ 40†† | 34/ 34              | 190/190    |
|              |                    |             | 4.9/ 6.5        | 13.6/15.6 | 52.6/ 55.1   | 60/ 60†† | 50/ 52              | 204/206    |
|              |                    |             | 7.9/10.5        | 21.9/25.3 | 63.0/ 67.2   | 70/ 70   | 60/ 63              | 212/215    |
|              |                    |             | 12.0/16.0       | 33.3/38.5 | 77.2/ 83.7   | 80/ 90   | 73/ 79              | 223/229    |
|              |                    |             | 15.8/21.0       | 43.9/50.5 | 90.5/ 98.7   | 100/100  | 85/ 92              | 234/241*** |
|              |                    |             | 19.9/26.5       | 55.2/63.8 | 104.6/115.3  | 110/125  | 98/108              | 245/254*** |
|              |                    | HIGH-STATIC | —               | —         | 37.3/ 37.3   | 40/ 40†† | 36/ 36              | 209/209    |
|              |                    |             | 4.9/ 6.5        | 13.6/15.6 | 54.3/ 56.8   | 60/ 60†† | 52/ 54              | 223/225    |
|              |                    |             | 7.9/10.5        | 21.9/25.3 | 64.7/ 68.9   | 70/ 70   | 62/ 65              | 231/234    |
|              |                    |             | 12.0/16.0       | 33.3/38.5 | 78.9/ 85.4   | 80/ 90   | 75/ 81              | 242/248*** |
|              |                    |             | 15.8/21.0       | 43.9/50.5 | 92.2/100.4   | 100/110  | 87/ 94              | 253/260*** |
|              |                    |             | 19.9/26.5       | 55.2/63.8 | 106.3/117.0  | 110/125  | 100/110             | 264/273*** |
|              | 460-3-60           | STD         | —               | —         | 17.6         | 20††     | 17                  | 95         |
|              |                    |             | 6.0             | 7.2       | 26.6         | 30††     | 25                  | 102        |
|              |                    |             | 11.5            | 13.8      | 34.8         | 35††     | 33                  | 109        |
|              |                    |             | 14.0            | 16.8      | 38.6         | 40††     | 36                  | 112        |
|              |                    |             | 23.0            | 27.7      | 52.2         | 60††     | 49                  | 123        |
|              |                    |             | 25.5            | 30.7      | 55.9         | 60††     | 52                  | 126        |
|              |                    | HIGH-STATIC | —               | —         | 18.4         | 20††     | 18                  | 105        |
|              |                    |             | 6.0             | 7.2       | 27.4         | 30††     | 26                  | 112        |
|              |                    |             | 11.5            | 13.8      | 35.6         | 40††     | 34                  | 118        |
|              |                    |             | 14.0            | 16.8      | 39.4         | 40††     | 37                  | 121        |
|              |                    |             | 23.0            | 27.7      | 53.0         | 60††     | 50                  | 132        |
|              |                    |             | 25.5            | 30.7      | 56.7         | 60††     | 53                  | 135        |
|              | 575-3-60           | STD         | —               | —         | 14.0         | 15††     | 14                  | 76         |
|              |                    | HIGH-STATIC | —               | —         | 14.7         | 15††     | 14                  | 84         |

\* Legend and Notes for ELECTRICAL DATA are on page 39.

**TABLE 10 — ELECTRICAL DATA - PHS090-102**

| UNIT SIZE | NOMINAL V-PH-Hz | IFM TYPE    | ELECTRIC HEAT* |            | POWER SUPPLY |          | DISCONNECT SIZE† |            |
|-----------|-----------------|-------------|----------------|------------|--------------|----------|------------------|------------|
|           |                 |             | Nominal kW**   | FLA        | MCA          | MOCP     | FLA              | LRA        |
| 7½ Tons   | 208/230-3-60    | STD         | —              | —          | 38.8/ 38.8   | 40/ 40†† | 41/ 41           | 229/229    |
|           |                 |             | 7.8/10.5       | 21.7/ 25.0 | 65.9/ 70.0   | 70/ 70   | 66/ 69           | 251/254    |
|           |                 |             | 12.0/16.0      | 33.3/ 38.5 | 80.4/ 86.9   | 90/ 90   | 79/ 85           | 262/268*** |
|           |                 |             | 18.6/24.8      | 51.6/ 59.7 | 103.3/113.4  | 110/125  | 100/109          | 281/289*** |
|           |                 |             | 24.0/32.0      | 66.6/ 77.0 | 122.0/135.0  | 125/150  | 117/129          | 296/306*** |
|           |                 |             | 31.8/42.4      | 88.3/102.0 | 149.1/166.3  | 150/175  | 142/158          | 317/331*** |
|           |                 | HIGH-STATIC | —              | —          | 43.6/ 43.6   | 45/ 45†† | 46/ 46           | 273/273    |
|           |                 |             | 7.8/10.5       | 21.7/ 25.0 | 70.7/ 74.8   | 80/ 80   | 71/ 75           | 294/298    |
|           |                 |             | 12.0/16.0      | 33.3/ 38.5 | 85.2/ 91.7   | 90/100   | 85/ 91           | 306/311*** |
|           |                 |             | 18.6/24.8      | 51.6/ 59.7 | 108.1/118.2  | 110/125  | 106/115          | 324/332*** |
|           |                 |             | 24.0/32.0      | 66.6/ 77.0 | 126.8/139.8  | 150/150  | 123/135          | 339/350*** |
|           |                 |             | 31.8/42.4      | 88.3/102.0 | 153.9/171.1  | 175/175  | 148/164          | 361/375*** |
|           | 460-3-60        | STD         | —              | —          | 19.1         | 20††     | 20               | 108        |
|           |                 |             | 14.0           | 16.7       | 40.0         | 40††     | 39               | 124        |
|           |                 |             | 16.5           | 19.8       | 43.8         | 45††     | 43               | 128        |
|           |                 |             | 27.8           | 33.4       | 60.8         | 70       | 58               | 141        |
|           |                 |             | 33.0           | 39.7       | 68.7         | 70       | 66               | 147        |
|           |                 |             | 41.7           | 50.2       | 81.8         | 90       | 78               | 158        |
|           |                 | HIGH-STATIC | —              | —          | 21.3         | 25††     | 23               | 130        |
|           |                 |             | 14.0           | 16.7       | 42.2         | 45††     | 42               | 146        |
|           |                 |             | 16.5           | 19.8       | 46.0         | 50††     | 45               | 149        |
|           |                 |             | 27.8           | 33.4       | 63.0         | 70       | 61               | 163        |
|           |                 |             | 33.0           | 39.7       | 70.9         | 80       | 68               | 169        |
|           |                 |             | 41.7           | 50.2       | 84.0         | 90       | 80               | 180***     |
| 8½ Tons   | 208/230-3-60    | STD         | —              | —          | 15.4         | 20††     | 16               | 97         |
|           |                 |             | 17.0           | 17.1       | 36.7         | 40††     | 36               | 114        |
|           |                 |             | 34.0           | 34.1       | 58.0         | 60††     | 55               | 131        |
|           |                 | HIGH-STATIC | —              | —          | 17.1         | 20††     | 18               | 114        |
|           |                 |             | 17.0           | 17.1       | 38.5         | 40††     | 38               | 132        |
|           |                 |             | 34.0           | 34.1       | 59.7         | 60††     | 57               | 149        |
|           | 460-3-60        | STD         | —              | —          | 44.6/ 44.6   | 45/ 45†† | 47/ 47           | 321/321    |
|           |                 |             | 7.8/10.5       | 21.7/ 25.0 | 71.7/ 75.9   | 80/ 80   | 72/ 75           | 343/346    |
|           |                 |             | 12.0/16.0      | 33.3/ 38.5 | 86.2/ 92.7   | 90/100   | 85/ 91           | 354/360*** |
|           |                 |             | 18.6/24.8      | 51.6/ 59.7 | 109.1/119.2  | 110/125  | 106/115          | 373/381*** |
|           |                 |             | 24.0/32.0      | 66.6/ 77.0 | 127.9/140.9  | 150/150  | 123/135          | 388/398*** |
|           |                 |             | 31.8/42.4      | 88.3/102.0 | 155.0/172.1  | 175/175  | 148/164          | 409/428*** |
|           |                 | HIGH-STATIC | —              | —          | 49.4/ 49.4   | 50/ 50†† | 52/ 52           | 365/365    |
|           |                 |             | 7.8/10.5       | 21.7/ 25.0 | 76.5/ 80.7   | 80/ 90   | 77/ 81           | 386/390*** |
|           |                 |             | 12.0/16.0      | 33.3/ 38.5 | 91.0/ 97.5   | 100/100  | 91/ 96           | 398/403*** |
|           |                 |             | 18.6/24.8      | 51.6/ 59.7 | 113.9/124.0  | 125/125  | 112/121          | 416/424*** |
|           |                 |             | 24.0/32.0      | 66.6/ 77.0 | 132.7/145.7  | 150/150  | 129/141          | 431/442*** |
|           |                 |             | 31.8/42.4      | 88.3/102.0 | 159.8/176.9  | 175/200  | 154/170          | 453/467*** |
|           | 575-3-60        | STD         | —              | —          | 22.7         | 25††     | 24               | 162        |
|           |                 |             | 14.0           | 16.7       | 43.6         | 45††     | 43               | 178        |
|           |                 |             | 16.5           | 19.8       | 47.4         | 50††     | 46               | 182        |
|           |                 |             | 27.8           | 33.4       | 64.4         | 70       | 62               | 195        |
|           |                 |             | 33.0           | 39.7       | 72.3         | 80       | 69               | 201        |
|           |                 |             | 41.7           | 50.2       | 85.4         | 90       | 81               | 212***     |
|           |                 | HIGH-STATIC | —              | —          | 24.9         | 25††     | 26               | 184        |
|           |                 |             | 14.0           | 16.7       | 45.8         | 50††     | 45               | 200        |
|           |                 |             | 16.5           | 19.8       | 49.6         | 50††     | 49               | 203        |
|           |                 |             | 27.8           | 33.4       | 66.6         | 70       | 65               | 217        |
|           |                 |             | 33.0           | 39.7       | 74.5         | 80       | 72               | 223        |
|           |                 |             | 41.7           | 50.2       | 87.6         | 90       | 84               | 234***     |
| 8½ Tons   | 460-3-60        | STD         | —              | —          | 17.6         | 20††     | 18               | 135        |
|           |                 |             | 17.0           | 17.1       | 39.0         | 40††     | 38               | 152        |
|           |                 |             | 34.0           | 34.1       | 60.2         | 70††     | 58               | 169        |
|           |                 | HIGH-STATIC | —              | —          | 19.4         | 20††     | 20               | 152        |
|           |                 |             | 17.0           | 17.1       | 40.7         | 45††     | 40               | 170        |
|           |                 |             | 34.0           | 34.1       | 62.0         | 70       | 60               | 187        |

\* Legend and Notes for ELECTRICAL DATA are on page 39.

**TABLE 10 — ELECTRICAL DATA - PHS120**

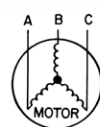
| UNIT SIZE | NOMINAL V-PH-Hz | IFM TYPE    | ELECTRIC HEAT* |             | POWER SUPPLY |          | DISCONNECT SIZE† |            |
|-----------|-----------------|-------------|----------------|-------------|--------------|----------|------------------|------------|
|           |                 |             | Nominal kW**   | FLA         | MCA          | MOC      | FLA              | LRA        |
| 10 Tons   | 208/230-3-60    | STD         | —              | —           | 47.3/ 47.3   | 50/ 50†† | 49/ 49           | 295/295    |
|           |                 |             | 7.8/10.4       | 21.7/ 25.0  | 74.4/ 78.6   | 80/ 80   | 74/ 78           | 317/320    |
|           |                 |             | 12.0/16.0      | 33.3/ 38.5  | 88.9/ 95.4   | 90/100   | 88/ 94           | 328/334*** |
|           |                 |             | 24.0/32.0      | 66.6/ 77.0  | 130.6/143.6  | 150/150  | 126/138          | 362/372*** |
|           |                 |             | 31.8/42.4      | 88.3/102.0  | 157.7/174.8  | 175/175  | 151/167          | 383/397*** |
|           |                 |             | 37.6/50.0      | 104.4/120.3 | 177.8/167.6  | 200/175  | 170/188          | 399/415*** |
|           |                 | ALT         | —              | —           | 49.0/ 49.0   | 50/ 50†† | 51/ 51           | 314/314    |
|           |                 |             | 7.8/10.4       | 21.7/ 25.0  | 76.1/ 80.8   | 80/ 90   | 76/ 80           | 336/389*** |
|           |                 |             | 12.0/16.0      | 33.3/ 38.5  | 90.6/ 97.1   | 100/100  | 90/ 96           | 347/353*** |
|           |                 |             | 24.0/32.0      | 66.6/ 77.0  | 132.3/145.3  | 150/150  | 128/140          | 381/391*** |
|           |                 |             | 31.8/42.4      | 88.3/102.0  | 159.4/176.5  | 175/200  | 153/169          | 402/416*** |
|           |                 |             | 37.6/50.0      | 104.4/120.3 | 179.5/169.3  | 200/200  | 171/190          | 418/434*** |
|           |                 | HIGH-STATIC | —              | —           | 56.5/ 56.5   | 60/ 60†† | 60/ 60           | 362/362    |
|           |                 |             | 7.8/10.4       | 21.7/ 25.0  | 83.6/ 87.8   | 90/ 90   | 85/ 89           | 384/387*** |
|           |                 |             | 12.0/16.0      | 33.3/ 38.5  | 98.1/104.6   | 100/110  | 98/104           | 395/401*** |
|           |                 |             | 24.0/32.0      | 66.6/ 77.0  | 139.8/152.8  | 150/175  | 137/149          | 429/439*** |
|           |                 |             | 31.8/42.4      | 88.3/102.0  | 166.9/184.0  | 175/200  | 162/177          | 450/464*** |
|           |                 |             | 37.6/50.0      | 104.4/120.3 | 187.0/176.8  | 200/200  | 180/198          | 466/482*** |
|           | 460-3-60        | STD         | —              | —           | 23.4         | 25††     | 24               | 143        |
|           |                 |             | 16.5           | 19.8        | 48.1         | 50††     | 47               | 163        |
|           |                 |             | 27.8           | 33.4        | 65.1         | 70       | 63               | 176        |
|           |                 |             | 33.0           | 39.7        | 73.0         | 80       | 70               | 183        |
|           |                 |             | 41.7           | 50.2        | 86.1         | 90       | 82               | 193***     |
|           |                 |             | 50.0           | 60.1        | 83.5         | 90       | 93               | 203***     |
|           |                 | ALT         | —              | —           | 24.2         | 25††     | 25               | 182        |
|           |                 |             | 16.5           | 19.8        | 48.9         | 50††     | 48               | 202        |
|           |                 |             | 27.8           | 33.4        | 65.9         | 70       | 64               | 216        |
|           |                 |             | 33.0           | 39.7        | 73.8         | 80       | 71               | 222        |
|           |                 |             | 41.7           | 50.2        | 86.9         | 90       | 83               | 233***     |
|           |                 |             | 50.0           | 60.1        | 84.3         | 90       | 94               | 243***     |
|           |                 | HIGH-STATIC | —              | —           | 28.2         | 30††     | 30               | 176        |
|           |                 |             | 16.5           | 19.8        | 52.9         | 60††     | 53               | 196        |
|           |                 |             | 27.8           | 33.4        | 69.9         | 70       | 68               | 210        |
|           |                 |             | 33.0           | 39.7        | 77.8         | 80       | 76               | 216        |
|           |                 |             | 41.7           | 50.2        | 90.9         | 100      | 88               | 227***     |
|           |                 |             | 50.0           | 60.1        | 88.3         | 100      | 99               | 237***     |
|           | 575-3-60        | STD         | —              | —           | 18.7         | 20††     | 20               | 118        |
|           |                 |             | 17.0           | 17.1        | 40.1         | 45††     | 39               | 135        |
|           |                 |             | 34.0           | 34.1        | 61.4         | 70       | 59               | 152        |
|           |                 |             | 51.0           | 51.2        | 69.9         | 70       | 78               | 169        |
|           |                 | ALT         | —              | —           | 19.4         | 20††     | 20               | 149        |
|           |                 |             | 17.0           | 17.1        | 40.7         | 45††     | 40               | 166        |
|           |                 |             | 34.0           | 34.1        | 62.0         | 70       | 60               | 183        |
|           |                 |             | 51.0           | 51.2        | 70.6         | 80       | 79               | 201***     |
|           |                 | HIGH-STATIC | —              | —           | 22.6         | 25††     | 24               | 145        |
|           |                 |             | 17.0           | 17.1        | 43.9         | 45††     | 44               | 162        |
|           |                 |             | 34.0           | 34.1        | 65.2         | 70       | 63               | 179        |
|           |                 |             | 51.0           | 51.2        | 73.8         | 80       | 83               | 196***     |

**LEGEND**

**FLA** — Full Load Amps  
**HACR** — Heating, Air Conditioning and Refrigeration  
**IFM** — Indoor Fan Motor  
**LRA** — Locked Rotor Amps  
**MCA** — Minimum Circuit Amps  
**MOC** — Maximum Overcurrent Protection  
**NEC** — National Electrical Code



Example: Supply voltage is 460-3-60.



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

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

$$= \frac{1371}{3}$$

$$= 457$$

Determine maximum deviation from average voltage.

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

Maximum deviation is 7 v.

Determine percent of voltage imbalance.

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

$$= 1.53\%$$

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

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

\*Heaters are field installed only.

†Used to determine minimum disconnect size per NEC.

\*\*Heater capacity (kW) is based on heater voltage of 208 v, 240 v and 480 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

††Fuse or HACR circuit breaker.

\*\*\*Optional disconnect switch is unavailable.

**NOTES:**

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

**2. Unbalanced 3-Phase Supply Voltage**

*Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percent of voltage imbalance.*

% Voltage Imbalance

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

**TABLE 11 - ELECTRIC HEATER USAGE - PHS036-072**

| UNIT PHS | VOLTAGE                  | ACCESSORY KW     | ACCESSORY HEATER PART NUMBER | SINGLE POINT BOX PACKAGE NO. |
|----------|--------------------------|------------------|------------------------------|------------------------------|
| 036      | 208/230/240<br>(3 phase) | 3.3/ 4.0/ 4.4    | AES001EHA                    | -                            |
|          |                          | 4.9/ 6.0/ 6.5    | AES002EHA                    | -                            |
|          |                          | 6.5/ 8.0/ 8.7    | AES003EHA                    | -                            |
|          |                          | 7.9/ 9.6/ 10.5   | AES009EHA                    | -                            |
|          |                          | 12.0/ 14.7/ 16.0 | AES015EHA                    | AXB002SPA                    |
|          | 460/480<br>(3 phase)     | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                          | 8.1/ 8.8         | AES008ELA                    | -                            |
|          |                          | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                          | 12.9/ 14.0       | AES013ELA                    | -                            |
|          |                          |                  |                              |                              |
| 048      | 208/230/240<br>(3 phase) | 4.9/ 6.0/ 6.5    | AES007EHA                    | -                            |
|          |                          | 6.5/ 8.0/ 8.7    | AES003EHA                    | -                            |
|          |                          | 12.0/ 14.7/ 16.0 | AES015EHA                    | AXB002SPA                    |
|          |                          | 15.8/ 19.3/ 21.0 | AES009EHA                    | AXB003SPA                    |
|          |                          |                  |                              |                              |
|          | 460/480<br>(3 phase)     | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                          | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                          | 12.9/ 14.0       | AES013ELA                    | -                            |
|          |                          | 21.1/ 23.0       | AES011ELA                    | -                            |
|          |                          |                  |                              |                              |
| 060      | 208/230/240<br>(3 phase) | 4.9/ 6.0/ 6.5    | AES007EHA                    | -                            |
|          |                          | 7.9/ 9.6/ 10.5   | AES009EHA                    | -††                          |
|          |                          | 12.0/ 14.7/ 16.0 | AES015EHA                    | AXB002SPA                    |
|          |                          | 15.8/ 19.3/ 21.0 | AES009EHA                    | AXB003SPA                    |
|          |                          | 19.9/ 24.3/ 26.5 | AES009EHA + AES015EHA        | AXB003SPA                    |
|          | 460/480<br>(3 phase)     | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                          | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                          | 12.9/ 14.0       | AES013ELA                    | -                            |
|          |                          | 21.1/ 23.0       | AES011ELA                    | -                            |
|          |                          | 23.4/ 25.5       | AES011ELA + AES013ELA        | -                            |
| 072      | 208/230/240<br>(3 phase) | 4.9/ 6.0/ 6.5    | AES007EHA                    | -***                         |
|          |                          | 7.9/ 9.6/ 10.5   | AES009EHA                    | AXB002SPA                    |
|          |                          | 12.0/ 14.7/ 16.0 | AES015EHA                    | AXB002SPA                    |
|          |                          | 15.8/ 19.3/ 21.0 | AES009EHA + AES009EHA        | AXB003SPA                    |
|          |                          | 19.9/ 24.3/ 26.5 | AES009EHA + AES006EHA        | AXB003SPA                    |
|          | 460/480<br>(3 phase)     | 5.5/ 6.0         | AES006ELA                    | -                            |
|          |                          | 10.6/ 11.5       | AES011ELA                    | -                            |
|          |                          | 12.9/ 14.0       | AES013ELA                    | -                            |
|          |                          | 21.1/ 23.0       | AES011ELA + AES011ELA        | -                            |
|          |                          | 23.4/ 25.5       | AES011ELA + AES013ELA        | -                            |

**TABLE 11 - ELECTRIC HEATER USAGE - PHS090-150 (CONT.)**

| UNIT PHS             | VOLTAGE                  | ACCESSORY kW     | ACCESSORY HEATER PART NUMBER | SINGLE POINT BOX PACKAGE NO. |
|----------------------|--------------------------|------------------|------------------------------|------------------------------|
| <b>090 &amp; 102</b> | 208/230/240<br>(3 phase) | 7.8/ 9.6/ 10.4   | AES010EHA                    | AXB007SPA                    |
|                      |                          | 12.0/ 14.7/ 16.0 | AES016EHA                    | AXB007SPA                    |
|                      |                          | 18.0/ 22.8/ 24.8 | AES024EHA                    | AXB009SPA                    |
|                      |                          | 24/ 29.4/ 32.0   | AES032EHA                    | AXB009SPA                    |
|                      |                          | 31.8/ 39.0/ 42.4 | AES032EHA + AES010EHA        | AXB013SPA                    |
|                      | 460/480<br>(3 phase)     | 12.8/ 13.9       | AES014ELA                    | AXB006SPA                    |
|                      |                          | 15.2/ 16.5       | AES016ELA                    | AXB006SPA                    |
|                      |                          | 25.6/ 27.8       | AES027ELA                    | AXB008SPA                    |
|                      |                          | 30.4/ 33.0       | AES033ELA                    | AXB008SPA                    |
|                      |                          | 38.4/ 41.7       | AES027ELA + AES014ELA        | AXB010SPA                    |
|                      |                          | 17               | AES018ESA                    | AXB006SPA                    |
|                      | 575 (3 phase)            | 34               | AES036ESA                    | AXB006SPA†††                 |
| <b>120</b>           | 208/230/240<br>(3 phase) | 7.8/ 9.6/ 10.4   | AES007EHA                    | AXB012SPA                    |
|                      |                          | 12.0/ 14.7/ 16.0 | AES009EHA                    | AXB012SPA                    |
|                      |                          | 24/ 29.4/ 32.0   | AES015EHA                    | AXB015SPA                    |
|                      |                          | 31.8/ 39.0/ 42.4 | AES009EHA                    | AXB017SPA                    |
|                      |                          | 37.6/ 46.2/ 50.0 | AES009EHA + AES015EHA        | AXB017SPA                    |
|                      | 460/480<br>(3 phase)     | 15.2/ 16.5       | AES016ELA                    | AXB011SPA                    |
|                      |                          | 25.6/ 27.8       | AES027ELA                    | AXB014SPA                    |
|                      |                          | 30.4/ 33.0       | AES033ELA                    | AXB014SPA                    |
|                      |                          | 38.4/ 41.7       | AES027ELA + AES014ELA        | AXB016SPA                    |
|                      |                          | 45.9/ 50.0       | AES016ELA + AES033ELA        | AXB016SPA                    |
|                      | 575 (3 phase)            | 17               | AES018ESA                    | AXB011SPA                    |
|                      |                          | 34               | AES036ESA                    | AXB014SPA                    |
|                      |                          | 51               | AES018ESA + AES036ESA        | AXB016SPA                    |

††Use AXB002SPA for units with convenience outlet.

\*\*\*Use AXB002SPA for units with high-static motor and convenience outlet.

†††Use AXB008SPA for units with an electrical convenience outlet.

**NOTES:**

1. The rated heater voltage is 240, 480, and 575 v.

If power distribution voltage varies from rated heater voltage, heater kW will vary accordingly.

2. To determine heater kW at voltages other than those shown in table, use the following formula:

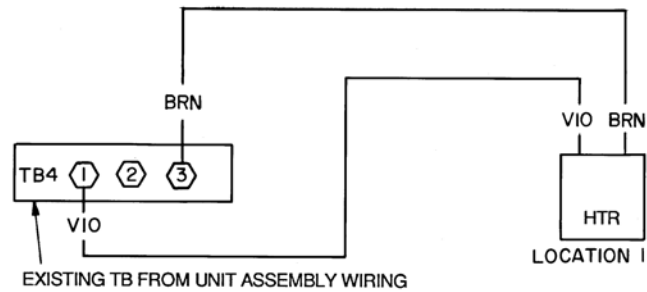
Heater kW new = Heater kW rated x (unit power distribution voltage/rated heater voltage)<sup>2</sup>

As an example:

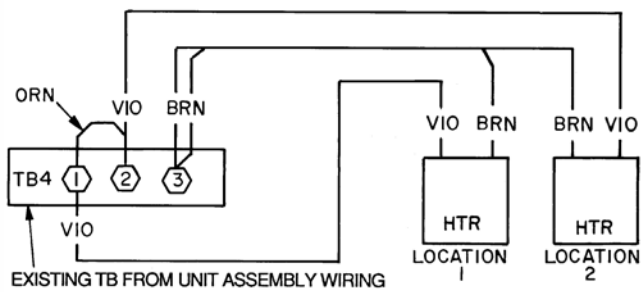
For a 16 kW heater rated at 240 v with a power distribution voltage of 215 v

kW new = 16 kW (215/240)<sup>2</sup>

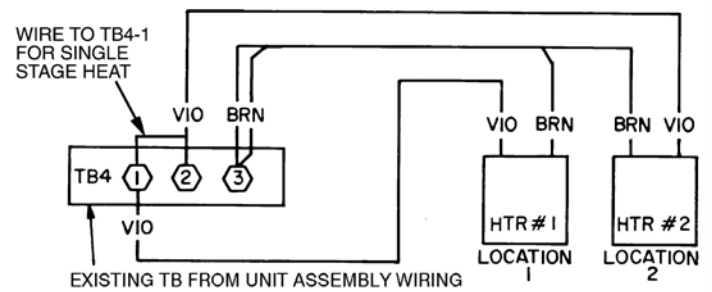
kW new = 12.8 kW (rating at 215 v)



ALL SINGLE MODULE HEAT OPTIONS



HEAT PUMP UNITS — 2-MODULE HEAT OPTIONS



ELECTRIC COOLING UNITS — 2-MODULE HEAT OPTIONS

Figure 17 - Control Wiring