

# 7AH1RE

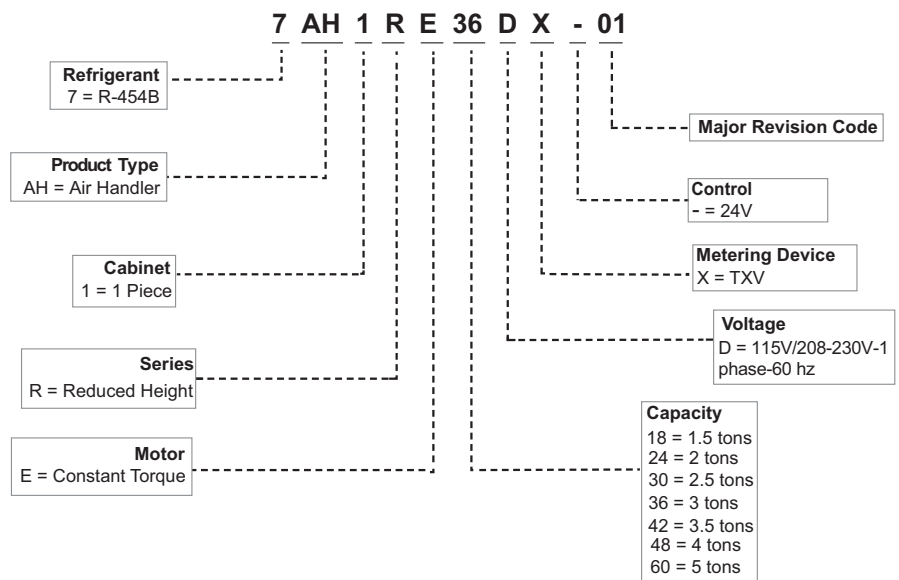
Upflow/Horizontal | Constant Torque Motor | TXV Furnished | R-454B | 60Hz

RESIDENTIAL  
PRODUCT SPECIFICATIONS

1.5 to 5 Tons  
Optional Electric Heat - 5 to 20 kW

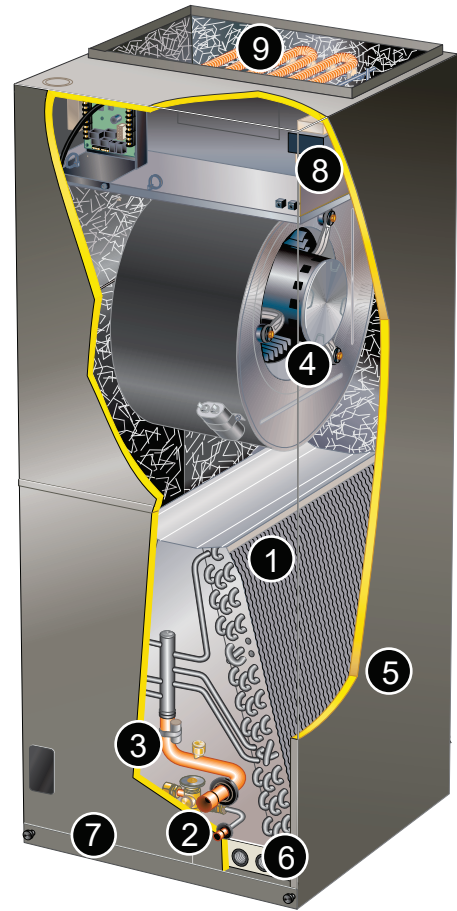


## MODEL NUMBER IDENTIFICATION



## FEATURE HIGHLIGHTS

1. Omniguard® Coil
2. Mechanical or Brazed Line Set Connections
3. Check and Expansion Valve
4. Constant Torque Blower Motor
5. Heavy Gauge Steel Cabinet
6. Anti-Microbial Dual Position Drain Pans
7. Built in Filter Rack
8. Transformer
9. Electric Heat (optional)



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## APPROVALS AND WARRANTY

### APPROVALS

- Tested with matching air conditioners and heat pump units in accordance with AHRI Standard 210/240-2023
- AHRI Certified system match-ups and expanded ratings, visit [www.alliedratings.com](http://www.alliedratings.com)
- ETL Listed to US and Canadian safety standards and components within are bonded for grounding to meet safety standards for servicing required by NEC and CEC
- Optional electric heaters are ETL listed and rated in accordance with US Department of Energy (DOE) test procedures and Federal Trade Commission (FTC) labeling regulations
- Blower performance data according to unit tests conducted in air test chamber
- Approved for installation in manufactured housing and mobile homes
- ISO 9001 Registered Manufacturing Quality System

### WARRANTY

10-years limited warranty on all parts, extended warranty available.

Warranty provides for a total of 10-years of limited warranty.

Coverage ( Standard 5-year limited parts warranty plus an additional 5-year limited extended parts warranty).

Warranty must be registered online within 60 days of installation to qualify for 10-year coverage.

Unregistered equipment defaults to 5-year coverage.

See full warranty at [www.alliedair.com](http://www.alliedair.com) for terms, conditions, and exclusions.

## FEATURES

### APPLICATIONS

- 1.5 to 5 ton nominal sizes
  - Upflow or horizontal applications
- NOTE** - Downflow applications require optional conversion kit.
- Applicable to expansion valve systems in cooling applications and check and expansion valve systems in heat pump applications
  - Wide-range R-454B check and expansion valve is factory installed
  - Optional field installed electric heaters available in several sizes for additive heating capacity

### Dual-Voltage

- Unit can operate at either 115V or 208/230V-1 phase-60hz
- Conversion to 115V is a simple wiring harness change

### REFRIGERANT SYSTEM

- 1 Omniguard® coil**
  - Enhanced aluminum alloy tube/enhanced fin coil for superior corrosion resistance
  - Aluminum tubing, hairpins, distributor and header tubes.
  - Ripple-edged aluminum fins
  - Twin coil construction assembled in a “A” configuration for large surface area
  - Provides excellent heat transfer and low air resistance for maximum efficiency
  - Precise circuiting for uniform refrigerant distribution
  - Lanced fins provide maximum exposure of fin surface to air stream
  - Axial grooved tubing provides superior heat transfer
  - Coil thoroughly factory tested under high pressure to ensure leakproof construction
- 2 Mechanical or Brazed Line Set Connections**
  - Copper refrigerant sweat connections on both liquid and suction lines for easy brazing
  - Lines extend outside of the cabinet for ease of connection
  - See dimension drawings for locations

**Braze-Free/Press Fitting Flexibility**

  - Units can accommodate braze-free or press fittings for installation versatility
- 3 R-454B Check and Expansion Valve**
  - For use with R-454B systems
  - Wide range valve with Chatleff style fitting
  - Factory installed on all models, internal to cabinet

## FEATURES

### **REFRIGERANT DETECTION SYSTEM (RDS)**

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Consists of a factory installed Refrigerant Detection System (RDS) sensor and a Refrigerant Detection System (RDS) Blower Control Board

### **Refrigerant Detection System (RDS) Air Handler Sensor**

- Sensor ensures safe operation for systems equipped with R-454B refrigerant
- Indoor sensor will detect any R-454B refrigerant

**NOTE** - Sensor must be repositioned for horizontal-right, horizontal-left, and downflow applications.

### **Blower Control Board**

- Connected to the RDS sensor
- Used as interface between indoor unit and thermostat to control system
- Ensures safe operation for systems equipped with R-454B refrigerant
- If R-454B refrigerant is detected, the refrigerant detection system will stop compressor and/or heating operation and operate the blower to reduce concentrations in the conditioned space
- Once safe levels are reached the HVAC system will resume normal operation
- Display LED - seven segment LED displays alphanumeric information related to diagnostics as well as system operation and status
- Diagnostic codes are held in non-volatile memory, immune from power interruptions
- Alarm relay can trigger an external alarm if R-454B refrigerant is detected
- Zone relay opens all zone dampers (if part of a zoning system) if R-454B refrigerant is detected
- Power is disabled to thermostat to prevent demand if R-454B refrigerant is detected
- On system start-up blower will run for five minutes and any thermostat demands are disabled

**NOTE** - Refer to the Installation Instructions for additional information

## **4 BLOWER**

### **Constant Torque Blower Motor**

- Programmable high efficiency multi-speed blower motor
- By maintaining constant torque output, blower motor can deliver more uniform (but not constant) airflow over the static pressure range
- Programmable multi-speed operation is achieved by the use of an ECM (Electronically Commutated Motor) motor
- Leadless blower motor features simple plug-in connections
- Up to nine blower speeds are available for precise airflow adjustment.
- Choice of blower speeds is available

- See blower Data tables
- Blower speed change is easily accomplished by a simple DIP switch adjustment

### **Blower Assembly**

- Each blower is statically and dynamically balanced as an assembly before installation in the unit
- Blower motor is resiliently mounted to blower assembly
- Blower slides out of cabinet for servicing

## **5 CABINET**

- Constructed of heavy gauge galvanized steel
- Pre-painted cabinet finish
- Completely insulated with foil faced fiberglass insulation
- Removable panels provide complete service access
- Filter access door for easy filter replacement
- Thumbscrews hold filter door in place
- Electrical inlets provided in sides and top of cabinet
- See dimension drawing for locations
- Plugs in cabinet for drain connections for upflow (left and right) and horizontal applications
- See dimension drawing

### **Low Leakage Cabinet**

- All models have less than 2% air leakage and meet ANSI/ASHRAE Standard 193-2010 "Method of Test for Determining the Air Tightness of HVAC Equipment"

### **Upflow/Horizontal Capability (Optional Downflow)**

- Shipped for upflow and horizontal right-hand discharge
- May be field converted to horizontal left-hand air discharge by repositioning horizontal drain pan
- Optional downflow kit required for field conversion

## **6 Anti-Microbial Dual Position Drain Pans**

- Anti-Microbial additive resists growth of mold and mildew on drain pan which improves indoor air quality and reduces drain line blockage
- Drain pans designed for upflow or horizontal applications
- Deep, corrosion resistant high temperature engineered polymer drain pans have dual pipe drains
- See dimension drawing

## **7 FILTER**

- Disposable 1 inch filter is furnished
- Filter rack furnished in cabinet for easy filter installation
- See Specifications tables for filter sizes

## **8 Transformer**

- 24 volt transformer furnished as standard
- Factory installed in the unit control box

## FEATURES

### **CABINET (Continued)**

#### Optional Accessories

#### **Downflow Conversion Kit**

- Required for field conversion to downflow position
- Kit consists of insulated drain pan drip shields, coil drip shields, seal plates and support brackets for repositioning coil and drain pan

#### **Horizontal Support Frame Kit**

- Provides support of unit in horizontal applications
- Consists of (2) 1 x 1-1/2 x 32-5/8 in. and (2) 1 x 3 x 53-7/8 in. painted heavy gauge cold rolled steel support channels with assembly and suspending holes
- Bolts and nuts furnished for field assembly
- Suspending rods must be field provided

#### **Side Return Unit Stand (Upflow Only)**

- Raises unit 16 in. above floor for side return air duct connection
- Eliminates need for wooden platform construction
- All aluminum construction
- Two adjustable frames fit all sizes

#### **Wall Hanging Bracket Kit (Upflow Only)**

- Allows unit to be hung on wall at any height
- Consists of heavy-gauge steel support brackets (one for air handler, one for wall mount)
- Screws furnished for fastening one bracket to unit
- Bolts for fastening one bracket to wall are field provided

#### **High Performance Economizer (Commercial Applications Only)**

- Designed for applications requiring outdoor air to be utilized in a commercial HVAC system
- Allows the entry of fresh outdoor air for free cooling, reducing the requirement for mechanical cooling
- Heavy gauge galvanized steel cabinet lined with thick fiberglass insulation
- Mixed air sensor, outdoor air sensor and 24VAC transformer furnished
- Approved for California Title 24 building standards
- ASHRAE 90.1-2010 compliant
- See separate Product Specifications document for additional information and available control and sensor options

### **9 OPTIONAL ELECTRIC HEAT**

- ETL listed
- Field install internal to unit cabinet
- Available in several kW sizes
- See Electric Heat tables
- Helix wound nichrome heating elements exposed directly in air stream resulting in instant heat transfer, low element temperatures and long service life
- Each element equipped with accurately located limit control with fixed temperature off setting and automatic reset
- Thermal sequencer relay brings elements on and off line, in sequence and equal increments, with time delay between each
- Heating control relay(s) furnished as standard
- Factory assembled with controls installed and wired
- Electric heat control wiring plugs into mating connector on air handler unit

#### **Circuit Breaker (CB) Models**

- All "CB" model heaters are equipped with circuit breakers for overload and short circuit protection
- Factory wired and mounted on electric heat unit
- Current sensitive and temperature actuated
- Manual reset
- Flexible plastic circuit breaker cover protects circuit breaker in areas with high humidity or unconditioned areas to prevent nuisance tripping
- Circuit breakers qualify as disconnect means at unit in many areas, eliminate the need for field provided disconnect
- Consult local electrical code in your area

#### Optional Accessories

#### **Single-Point Power Source Control Box**

- Control Box may be used with optional electric heat when single power supply is connected to multi-circuit electric heat
- Field installs external to the unit cabinet on either side or top
- Constructed of heavy gauge steel, baked enamel finish, pre-punched mounting holes, electrical inlet knockouts, and terminal strip
- Removeable cover provides easy access
- Dimensions (H x W x D) - 7 x 7 x 4 in.

## SPECIFICATIONS

| Size                        |                                      | 018         | 024         | 030         | 036         |
|-----------------------------|--------------------------------------|-------------|-------------|-------------|-------------|
| <b>Nominal Tonnage</b>      |                                      | 1.5         | 2           | 2.5         | 3           |
| <b>Refrigerant Type</b>     |                                      | R454B       | R454B       | R454B       | R454B       |
| <b>Connections</b>          | Liquid line (OD) sweat - in.         | 3/8         | 3/8         | 3/8         | 3/8         |
|                             | Suction line (OD) sweat - in.        | 3/4         | 3/4         | 3/4         | 3/4         |
|                             | Condensate drain (FPT) - in.         | (2) 3/4     | (2) 3/4     | (2) 3/4     | (2) 3/4     |
| <b>Indoor Coil</b>          | Net face area - ft. <sup>2</sup>     | 3.31        | 3.31        | 3.31        | 3.78        |
|                             | Tube diameter - in.                  | 3/8         | 3/8         | 3/8         | 3/8         |
|                             | Rows                                 | 4           | 4           | 4           | 4           |
|                             | Fins - in.                           | 15          | 15          | 15          | 15          |
| <b>Blower</b>               | HP                                   | 1/2         | 1/2         | 1/2         | 1/2         |
|                             | Wheel nominal diameter x width - in. | 10 x 8      | 10 x 8      | 10 x 8      | 10 x 8      |
|                             | Air volume range - cfm               | 143-933     | 131-1089    | 278-1279    | 448-1466    |
| <sup>1</sup> <b>Filters</b> | Size - in.                           | 15 x 20 x 1 | 15 x 20 x 1 | 15 x 20 x 1 | 15 x 20 x 1 |
| <b>Shipping Data - lbs.</b> |                                      | 134         | 134         | 134         | 144         |

## ELECTRICAL DATA

|              |   |              |              |              |              |
|--------------|---|--------------|--------------|--------------|--------------|
|              | Line voltage data (Volts-Phase-Hz)                | 115-1-60     | 115-1-60     | 115-1-60     | 115-1-60     |
| <sup>2</sup> | Maximum overcurrent protection (MOCP) amps (unit) | 15           | 15           | 15           | 15           |
| <sup>3</sup> | Minimum circuit ampacity (MCA) (unit)             | 8            | 8            | 8            | 8            |
|              | Blower Motor Full Load Amps                       | 6            | 6            | 6            | 6            |
|              | Line voltage data (Volts-Phase-Hz)                | 208/230-1-60 | 208/230-1-60 | 208/230-1-60 | 208/230-1-60 |
| <sup>2</sup> | Maximum overcurrent protection (MOCP) amps (unit) | 15           | 15           | 15           | 15           |
| <sup>3</sup> | Minimum circuit ampacity (MCA) (unit)             | 5            | 5            | 5            | 5            |
|              | Blower Motor Full Load Amps                       | 3.9          | 3.9          | 3.9          | 3.9          |

## SPECIFICATIONS

| Size                        |                                      | 042         | 048         | 060         |
|-----------------------------|--------------------------------------|-------------|-------------|-------------|
| <b>Nominal Tonnage</b>      |                                      | 3.5         | 4           | 5           |
| <b>Refrigerant Type</b>     |                                      | R-454B      | R-454B      | R-454B      |
| <b>Connections</b>          | Liquid line (OD) sweat - in.         | 3/8         | 3/8         | 3/8         |
|                             | Suction line (OD) sweat - in.        | 7/8         | 7/8         | 7/8         |
|                             | Condensate drain (FPT) - in.         | (2) 3/4     | (2) 3/4     | (2) 3/4     |
| <b>Indoor Coil</b>          | Net face area - ft. <sup>2</sup>     | 4.25        | 4.72        | 5.67        |
|                             | Tube diameter - in.                  | 3/8         | 3/8         | 3/8         |
|                             | Rows                                 | 4           | 4           | 4           |
| <b>Blower</b>               | Fins - in.                           | 15          | 15          | 15          |
|                             | HP                                   | 3/4         | 1           | 1           |
|                             | Wheel nominal diameter x width - in. | 11.5 x 10   | 11.5 x 10   | 11.5 x 10   |
|                             | Air volume range - cfm               | 552-1611    | 742-1912    | 884-2138    |
| <sup>1</sup> <b>Filters</b> | Size - in.                           | 18 x 20 x 1 | 18 x 20 x 1 | 18 x 20 x 1 |
| <b>Shipping Data - lbs.</b> |                                      | 157.5       | 164.5       | 181.5       |

## ELECTRICAL DATA

|              |   |              |              |              |
|--------------|---|--------------|--------------|--------------|
|              | Line voltage data (Volts-Phase-Hz)                | 115-1-60     | 115-1-60     | 115-1-60     |
| <sup>2</sup> | Maximum overcurrent protection (MOCP) amps (unit) | 20           | 25           | 25           |
| <sup>3</sup> | Minimum circuit ampacity (MCA) (unit)             | 11.5         | 14.5         | 14.5         |
|              | Blower Motor Full Load Amps                       | 9.0          | 11.5         | 11.5         |
|              | Line voltage data (Volts-Phase-Hz)                | 208/230-1-60 | 208/230-1-60 | 208/230-1-60 |
| <sup>2</sup> | Maximum overcurrent protection (MOCP) amps (unit) | 15           | 15           | 15           |
| <sup>3</sup> | Minimum circuit ampacity (MCA) (unit)             | 7.5          | 9.5          | 9.5          |
|              | Blower Motor Full Load Amps                       | 6.0          | 7.4          | 7.4          |

<sup>1</sup> Disposable filter.

<sup>2</sup> HACR type circuit breaker or fuse.

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

## OPTIONAL ACCESSORIES - ORDER SEPARATELY

| Description   | 018, 024, 030, 036                       | 042, 048, 060 |
|---|--|---------------|
| Downflow Conversion Kit                                   | <b>31U56</b>                             | <b>31U56</b>  |
| Electric Heat   | See Electric Heat Data Tables on page 11 |               |
| Horizontal Support Frame Kit                              | <b>56J18</b>                             | <b>56J18</b>  |
| Side Return Unit Stand (Upflow Only)                      | <b>45K32</b>                             | <b>45K32</b>  |
| Single-Point Power Source Control Box (for Electric Heat) | <b>21H39</b>                             | <b>21H39</b>  |
| Wall Hanging Bracket Kit (Upflow Only)                    | <b>45K30</b>                             | <b>45K30</b>  |
| High Performance Economizer (Commercial Only)             | <b>10U53</b>                             | <b>10U53</b>  |

## REPLACEMENT CIRCUIT BREAKERS

| Voltage            | Description    | Order Number |
|--------------------|----------------|--------------|
| 208/240V - 1 Phase | 25 amp, 2 pole | <b>41K13</b> |
|                    | 30 amp, 2 pole | <b>17K70</b> |
|                    | 35 amp, 2 pole | <b>72K07</b> |
|                    | 40 amp, 2 pole | <b>49K14</b> |
|                    | 45 amp, 2 pole | <b>17K71</b> |
|                    | 50 amp, 2 pole | <b>41K12</b> |
|                    | 60 amp, 2 pole | <b>17K72</b> |

## INSTALLATION CLEARANCES WITH ELECTRIC HEAT

|                       |               |
|-----------------------|---------------|
| Cabinet               | 0 inch (0 mm) |
| To Plenum             | 0 inch (0 mm) |
| To Outlet Duct        | 0 inch (0 mm) |
| Floor                 | 0 inch (0 mm) |
| Service / Maintenance | See Note #1   |

<sup>1</sup> Front service access - 24 inches (610 mm) minimum.

NOTE - If cabinet depth is more than 24 inches (610 mm), allow a minimum of the cabinet depth plus 2 inches (51 mm).

## BLOWER DATA

### 7AH1RE-018 PERFORMANCE

| External Static Pressure in. w.g. | Standard CFM Air Volume / Watts at Various Blower Speeds |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----------------------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                   | Tap 1  |       | Tap 2 |       | Tap 3 |       | Tap 4 |       | Tap 5 |       | Tap 6 |       | Tap 7 |       | Tap 8 |       | Tap 9 |       |
|                                   | SCFM   | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts |
| 0.10                              | 416  | 34    | 531   | 49    | 637   | 69    | 716   | 86    | 753   | 96    | 791   | 107   | 827   | 118   | 862   | 129   | 933   | 156   |
| 0.20                              | 327  | 38    | 454   | 54    | 583   | 74    | 670   | 92    | 709   | 102   | 750   | 113   | 787   | 123   | 823   | 135   | 898   | 162   |
| 0.30                              | 270  | 42    | 390   | 58    | 510   | 80    | 613   | 98    | 658   | 108   | 700   | 119   | 741   | 130   | 780   | 141   | 858   | 168   |
| 0.40                              | 202  | 46    | 348   | 62    | 458   | 84    | 546   | 105   | 591   | 115   | 640   | 127   | 692   | 137   | 734   | 148   | 816   | 175   |
| 0.50                              | 143  | 49    | 290   | 67    | 425   | 89    | 505   | 109   | 543   | 120   | 585   | 132   | 627   | 145   | 671   | 157   | 774   | 183   |
| 0.60                              | ---  | ---   | 234   | 71    | 377   | 93    | 474   | 114   | 513   | 126   | 550   | 138   | 587   | 150   | 624   | 163   | 711   | 192   |
| 0.70                              | ---  | ---   | 185   | 74    | 328   | 99    | 431   | 119   | 478   | 130   | 523   | 143   | 560   | 156   | 594   | 168   | 670   | 199   |
| 0.80                              | ---  | ---   | 132   | 77    | 279   | 103   | 387   | 124   | 435   | 135   | 483   | 148   | 529   | 161   | 568   | 174   | 640   | 205   |
| 0.90                              | ---  | ---   | ---   | ---   | 237   | 107   | 342   | 130   | 393   | 141   | 442   | 153   | 489   | 166   | 534   | 179   | 617   | 210   |
| 1.00                              | ---  | ---   | ---   | ---   | 196   | 110   | 300   | 134   | 349   | 147   | 401   | 159   | 451   | 171   | 495   | 184   | 587   | 217   |

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

### 7AH1RE-024 PERFORMANCE

| External Static Pressure in. w.g. | Standard CFM Air Volume / Watts at Various Blower Speeds |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----------------------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                   | Tap 1  |       | Tap 2 |       | Tap 3 |       | Tap 4 |       | Tap 5 |       | Tap 6 |       | Tap 7 |       | Tap 8 |       | Tap 9 |       |
|                                   | SCFM   | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts |
| 0.10                              | 527  | 49    | 633   | 69    | 787   | 108   | 857   | 130   | 888   | 142   | 927   | 157   | 966   | 173   | 1004  | 189   | 1089  | 232   |
| 0.20                              | 456  | 55    | 583   | 74    | 748   | 113   | 820   | 136   | 852   | 148   | 893   | 163   | 932   | 179   | 969   | 195   | 1057  | 238   |
| 0.30                              | 389  | 58    | 509   | 80    | 702   | 119   | 779   | 142   | 814   | 153   | 856   | 169   | 897   | 185   | 935   | 201   | 1024  | 244   |
| 0.40                              | 347  | 63    | 457   | 84    | 642   | 127   | 732   | 148   | 771   | 160   | 814   | 175   | 860   | 192   | 898   | 208   | 992   | 252   |
| 0.50                              | 291  | 67    | 423   | 89    | 583   | 133   | 668   | 157   | 715   | 169   | 769   | 183   | 817   | 200   | 858   | 215   | 958   | 259   |
| 0.60                              | 234  | 71    | 377   | 93    | 549   | 138   | 621   | 163   | 658   | 176   | 706   | 192   | 762   | 210   | 813   | 225   | 920   | 267   |
| 0.70                              | 184  | 74    | 329   | 99    | 520   | 143   | 591   | 169   | 622   | 182   | 665   | 199   | 710   | 217   | 754   | 234   | 881   | 277   |
| 0.80                              | 131  | 77    | 279   | 103   | 483   | 148   | 564   | 174   | 597   | 187   | 635   | 205   | 677   | 223   | 715   | 241   | 822   | 288   |
| 0.90                              | ---  | ---   | 236   | 107   | 444   | 154   | 530   | 179   | 569   | 193   | 613   | 210   | 652   | 229   | 687   | 247   | 783   | 295   |
| 1.00                              | ---  | ---   | 191   | 110   | 404   | 160   | 495   | 185   | 535   | 199   | 582   | 217   | 628   | 235   | 665   | 254   | 753   | 302   |

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

### 7AH1RE-030 PERFORMANCE

| External Static Pressure in. w.g. | Standard CFM Air Volume / Watts at Various Blower Speeds |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----------------------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                   | Tap 1  |       | Tap 2 |       | Tap 3 |       | Tap 4 |       | Tap 5 |       | Tap 6 |       | Tap 7 |       | Tap 8 |       | Tap 9 |       |
|                                   | SCFM   | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts |
| 0.10                              | 646  | 68    | 753   | 93    | 946   | 156   | 1020  | 188   | 1064  | 209   | 1106  | 230   | 1150  | 254   | 1190  | 280   | 1279  | 337   |
| 0.20                              | 587  | 73    | 710   | 98    | 911   | 162   | 987   | 194   | 1031  | 215   | 1076  | 237   | 1120  | 261   | 1162  | 287   | 1250  | 345   |
| 0.30                              | 514  | 79    | 650   | 104   | 873   | 167   | 951   | 200   | 999   | 221   | 1042  | 242   | 1090  | 266   | 1131  | 291   | 1223  | 352   |
| 0.40                              | 461  | 84    | 581   | 111   | 824   | 174   | 907   | 206   | 963   | 227   | 1008  | 249   | 1056  | 273   | 1098  | 297   | 1193  | 356   |
| 0.50                              | 425  | 88    | 535   | 116   | 780   | 182   | 867   | 214   | 918   | 235   | 967   | 256   | 1016  | 280   | 1061  | 305   | 1162  | 364   |
| 0.60                              | 376  | 93    | 503   | 121   | 715   | 191   | 821   | 223   | 880   | 243   | 929   | 265   | 978   | 289   | 1027  | 314   | 1127  | 372   |
| 0.70                              | 328  | 98    | 467   | 126   | 673   | 197   | 761   | 232   | 823   | 254   | 888   | 274   | 943   | 298   | 991   | 323   | 1092  | 381   |
| 0.80                              | 278  | 102   | 421   | 131   | 642   | 203   | 722   | 239   | 776   | 262   | 829   | 285   | 892   | 310   | 955   | 333   | 1060  | 390   |
| 0.90                              | 232  | 106   | 378   | 138   | 617   | 209   | 692   | 245   | 741   | 268   | 790   | 292   | 842   | 318   | 898   | 345   | 1025  | 401   |
| 1.00                              | 192  | 109   | 335   | 142   | 589   | 214   | 669   | 251   | 715   | 274   | 760   | 299   | 807   | 325   | 858   | 354   | 976   | 414   |

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

## BLOWER DATA

### 7AH1RE-036 PERFORMANCE

| External Static Pressure in. w.g. | Standard CFM Air Volume / Watts at Various Blower Speeds |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----------------------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                   | Tap 1  |       | Tap 2 |       | Tap 3 |       | Tap 4 |       | Tap 5 |       | Tap 6 |       | Tap 7 |       | Tap 8 |       | Tap 9 |       |
|                                   | SCFM   | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts |
| 0.10                              | 749  | 86    | 874   | 120   | 1115  | 212   | 1198  | 254   | 1241  | 279   | 1283  | 306   | 1326  | 333   | 1373  | 367   | 1466  | 438   |
| 0.20                              | 703  | 92    | 839   | 125   | 1078  | 221   | 1164  | 264   | 1210  | 289   | 1253  | 315   | 1297  | 343   | 1345  | 377   | 1439  | 449   |
| 0.30                              | 647  | 99    | 788   | 133   | 1052  | 227   | 1131  | 273   | 1178  | 299   | 1221  | 325   | 1264  | 354   | 1313  | 388   | 1409  | 461   |
| 0.40                              | 595  | 104   | 740   | 140   | 1017  | 235   | 1108  | 279   | 1155  | 305   | 1200  | 332   | 1239  | 363   | 1285  | 398   | 1381  | 471   |
| 0.50                              | 562  | 109   | 690   | 147   | 975   | 245   | 1075  | 288   | 1123  | 314   | 1170  | 341   | 1216  | 370   | 1268  | 404   | 1357  | 481   |
| 0.60                              | 525  | 114   | 658   | 152   | 936   | 253   | 1034  | 298   | 1087  | 324   | 1139  | 350   | 1185  | 379   | 1239  | 414   | 1338  | 487   |
| 0.70                              | 486  | 120   | 628   | 157   | 895   | 262   | 998   | 308   | 1049  | 335   | 1100  | 361   | 1152  | 390   | 1208  | 424   | 1310  | 498   |
| 0.80                              | 448  | 126   | 592   | 164   | 853   | 270   | 963   | 317   | 1016  | 344   | 1066  | 372   | 1116  | 401   | 1174  | 435   | 1280  | 508   |
| 0.90                              | 411  | 133   | 558   | 170   | 826   | 276   | 923   | 326   | 978   | 353   | 1034  | 381   | 1082  | 411   | 1141  | 446   | 1245  | 517   |
| 1.00                              | 376  | 139   | 524   | 176   | 806   | 281   | 898   | 330   | 942   | 361   | 995   | 390   | 1048  | 421   | 1110  | 457   | 1195  | 516   |

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

### 7AH1RE-042 PERFORMANCE

| External Static Pressure in. w.g. | Standard CFM Air Volume / Watts at Various Blower Speeds |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----------------------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                   | Tap 1  |       | Tap 2 |       | Tap 3 |       | Tap 4 |       | Tap 5 |       | Tap 6 |       | Tap 7 |       | Tap 8 |       | Tap 9 |       |
|                                   | SCFM   | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts |
| 0.10                              | 954  | 126   | 1067  | 162   | 1388  | 307   | 1448  | 343   | 1480  | 364   | 1522  | 392   | 1570  | 423   | 1611  | 453   | 1705  | 528   |
| 0.20                              | 897  | 136   | 1019  | 172   | 1352  | 318   | 1414  | 355   | 1447  | 376   | 1489  | 404   | 1538  | 435   | 1580  | 466   | 1675  | 543   |
| 0.30                              | 798  | 147   | 947   | 184   | 1316  | 329   | 1380  | 366   | 1414  | 387   | 1457  | 415   | 1506  | 447   | 1546  | 478   | 1646  | 555   |
| 0.40                              | 748  | 153   | 865   | 193   | 1276  | 342   | 1344  | 379   | 1379  | 400   | 1423  | 427   | 1474  | 460   | 1513  | 490   | 1616  | 568   |
| 0.50                              | 712  | 158   | 822   | 199   | 1217  | 358   | 1299  | 394   | 1338  | 415   | 1387  | 442   | 1441  | 472   | 1480  | 503   | 1585  | 582   |
| 0.60                              | 673  | 164   | 787   | 205   | 1134  | 373   | 1226  | 412   | 1275  | 432   | 1334  | 459   | 1399  | 489   | 1444  | 519   | 1553  | 595   |
| 0.70                              | 620  | 172   | 753   | 211   | 1085  | 382   | 1158  | 425   | 1197  | 448   | 1251  | 479   | 1328  | 509   | 1385  | 539   | 1518  | 611   |
| 0.80                              | 552  | 182   | 711   | 219   | 1050  | 389   | 1118  | 434   | 1152  | 457   | 1200  | 489   | 1256  | 525   | 1305  | 559   | 1460  | 632   |
| 0.90                              | 503  | 191   | 658   | 227   | 1020  | 396   | 1086  | 441   | 1118  | 465   | 1164  | 498   | 1213  | 534   | 1259  | 570   | 1381  | 653   |
| 1.00                              | 461  | 197   | 600   | 239   | 994   | 403   | 1058  | 450   | 1089  | 473   | 1134  | 507   | 1179  | 543   | 1225  | 579   | 1334  | 665   |

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

### 7AH1RE-048 PERFORMANCE

| External Static Pressure in. w.g. | Standard CFM Air Volume / Watts at Various Blower Speeds |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----------------------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                   | Tap 1  |       | Tap 2 |       | Tap 3 |       | Tap 4 |       | Tap 5 |       | Tap 6 |       | Tap 7 |       | Tap 8 |       | Tap 9 |       |
|                                   | SCFM   | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts |
| 0.10                              | 1092   | 178   | 1197  | 219   | 1617  | 450   | 1684  | 502   | 1721  | 531   | 1755  | 559   | 1790  | 590   | 1829  | 633   | 1912  | 716   |
| 0.20                              | 1030   | 190   | 1140  | 229   | 1580  | 463   | 1649  | 516   | 1688  | 546   | 1722  | 574   | 1759  | 605   | 1798  | 645   | 1884  | 730   |
| 0.30                              | 945  | 200   | 1070  | 242   | 1538  | 476   | 1611  | 530   | 1651  | 560   | 1685  | 588   | 1725  | 620   | 1767  | 659   | 1855  | 744   |
| 0.40                              | 893  | 207   | 999   | 250   | 1497  | 490   | 1572  | 544   | 1613  | 575   | 1648  | 603   | 1688  | 635   | 1736  | 673   | 1826  | 759   |
| 0.50                              | 854  | 213   | 954   | 257   | 1440  | 505   | 1519  | 559   | 1574  | 591   | 1599  | 618   | 1646  | 651   | 1704  | 687   | 1796  | 774   |
| 0.60                              | 818  | 220   | 918   | 264   | 1385  | 520   | 1468  | 575   | 1519  | 607   | 1554  | 635   | 1598  | 668   | 1669  | 704   | 1764  | 790   |
| 0.70                              | 780  | 227   | 884   | 270   | 1331  | 532   | 1414  | 590   | 1464  | 623   | 1505  | 651   | 1550  | 685   | 1628  | 722   | 1730  | 806   |
| 0.80                              | 742  | 236   | 848   | 278   | 1281  | 540   | 1366  | 603   | 1414  | 636   | 1453  | 666   | 1497  | 701   | 1575  | 741   | 1688  | 827   |
| 0.90                              | 703  | 243   | 815   | 287   | 1248  | 549   | 1321  | 611   | 1362  | 643   | 1406  | 676   | 1447  | 712   | 1521  | 756   | 1639  | 847   |
| 1.00                              | 661  | 251   | 779   | 296   | 1216  | 558   | 1293  | 621   | 1335  | 654   | 1371  | 686   | 1406  | 720   | 1453  | 762   | 1586  | 865   |

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

## BLOWER DATA

### 7AH1RE-060 PERFORMANCE

| External Static Pressure<br>in. w.g. | Air Volume / Watts at Various Blower Speeds |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--------------------------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                      | Tap 1                                       |       | Tap 2 |       | Tap 3 |       | Tap 4 |       | Tap 5 |       | Tap 6 |       | Tap 7 |       | Tap 8 |       | Tap 9 |       |
|                                      | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts | SCFM  | Watts |
| 0.10                                 | 1222  | 224   | 1348  | 279   | 1775  | 562   | 1850  | 629   | 1889  | 667   | 1921  | 700   | 1961  | 741   | 1995  | 779   | 2138  | 949   |
| 0.20                                 | 1163  | 239   | 1294  | 295   | 1751  | 578   | 1828  | 645   | 1869  | 684   | 1902  | 716   | 1942  | 757   | 1975  | 795   | 2120  | 965   |
| 0.30                                 | 1094  | 251   | 1231  | 310   | 1714  | 597   | 1796  | 665   | 1841  | 703   | 1873  | 736   | 1917  | 778   | 1950  | 815   | 2095  | 979   |
| 0.40                                 | 1023  | 263   | 1167  | 323   | 1668  | 616   | 1754  | 684   | 1802  | 723   | 1837  | 756   | 1884  | 797   | 1918  | 836   | 2047  | 976   |
| 0.50                                 | 976   | 271   | 1101  | 335   | 1614  | 637   | 1706  | 705   | 1756  | 745   | 1792  | 778   | 1841  | 819   | 1879  | 856   | 1990  | 972   |
| 0.60                                 | 952   | 278   | 1060  | 343   | 1564  | 654   | 1654  | 726   | 1705  | 767   | 1742  | 800   | 1793  | 843   | 1832  | 879   | 1920  | 967   |
| 0.70                                 | 922   | 286   | 1036  | 351   | 1516  | 670   | 1609  | 744   | 1659  | 785   | 1696  | 819   | 1745  | 864   | 1784  | 902   | 1844  | 963   |
| 0.80                                 | 884   | 295   | 1010  | 359   | 1464  | 686   | 1561  | 761   | 1613  | 803   | 1653  | 837   | 1702  | 882   | 1741  | 922   | 1778  | 959   |
| 0.90                                 | 839   | 303   | 978   | 368   | 1416  | 700   | 1514  | 778   | 1565  | 820   | 1606  | 855   | 1656  | 900   | 1700  | 940   | 1713  | 956   |
| 1.00                                 | 794   | 311   | 940   | 377   | 1381  | 711   | 1470  | 793   | 1518  | 836   | 1560  | 873   | 1611  | 917   | 1646  | 949   | 1642  | 948   |

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

**ELECTRIC HEAT DATA**

**7AH1RE-018 | SINGLE PHASE**

|               | Electric Heat Model Number  | Input |     |                   | Blower Motor Full Load Amps | <sup>2</sup> Minimum Circuit Ampacity | <sup>3</sup> Maximum Overcurrent Protection |
|---------------|---|-------|-----|-------------------|-----------------------------|---------------------------------------|---|
|               |   | Volt  | kW  | <sup>1</sup> Btuh |                             |                                       |   |
| <b>4 kW</b>   | ECB45-4 (27A08)<br>Terminal Block<br>ECB45-4CB (27A12)<br>30A Circuit Breaker     | 208   | 3.0 | 10,250            | 3.9                         | 23                                    | <sup>4</sup> 25                             |
|               |   | 220   | 3.4 | 11,450            | 3.9                         | 24                                    | <sup>4</sup> 25                             |
|               |   | 230   | 3.7 | 12,550            | 3.9                         | 25                                    | <sup>4</sup> 25                             |
|               |   | 240   | 4.0 | 13,650            | 3.9                         | 26                                    | 30  |
| <b>5 kW</b>   | ECB45-5 (27A09)<br>Terminal Block<br>ECB45-5CB (27A13)<br>30A Circuit Breaker     | 208   | 3.6 | 12,300            | 3.9                         | 27                                    | 30  |
|               |   | 220   | 4.0 | 13,800            | 3.9                         | 28                                    | 30  |
|               |   | 230   | 4.4 | 15,000            | 3.9                         | 29                                    | 30  |
|               |   | 240   | 4.8 | 16,400            | 3.9                         | 30                                    | 30  |
| <b>7.5 kW</b> | ECB45-7.5 (27A10)<br>Terminal Block<br>ECB45-7.5CB (27A14)<br>45A Circuit Breaker | 208   | 5.6 | 19,200            | 3.9                         | 39                                    | <sup>4</sup> 40                             |
|               |   | 220   | 6.3 | 21,500            | 3.9                         | 41                                    | 45  |
|               |   | 230   | 6.9 | 23,500            | 3.9                         | 42                                    | 45  |
|               |   | 240   | 7.5 | 25,600            | 3.9                         | 44                                    | 45  |
| <b>10 kW</b>  | ECB45-10 (27A11)<br>Terminal Block<br>ECB45-10CB (27A15)<br>60A Circuit Breaker   | 208   | 7.2 | 24,600            | 3.9                         | 48                                    | <sup>4</sup> 50                             |
|               |   | 220   | 8.0 | 27,500            | 3.9                         | 51                                    | 60  |
|               |   | 230   | 8.8 | 30,000            | 3.9                         | 53                                    | 60  |
|               |   | 240   | 9.6 | 32,700            | 3.9                         | 55                                    | 60  |

**NOTE - Not for 115V applications.**

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> HACR type breaker or fuse.

<sup>4</sup> **Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 7.**

**ELECTRIC HEAT DATA**

**7AH1RE-024 | SINGLE PHASE**

|               | Electric Heat Model Number  | Input |     |                   | Blower Motor Full Load Amps | <sup>2</sup> Minimum Circuit Ampacity | <sup>3</sup> Maximum Overcurrent Protection |
|---------------|---|-------|-----|-------------------|-----------------------------|---------------------------------------|---|
|               |   | Volt  | kW  | <sup>1</sup> Btuh |                             |                                       |   |
| <b>4 kW</b>   | ECB45-4 (27A08)<br>Terminal Block<br>ECB45-4CB (27A12)<br>30A Circuit Breaker     | 208   | 3.0 | 10,250            | 3.9                         | 23                                    | <sup>4</sup> 25                             |
|               |   | 220   | 3.4 | 11,450            | 3.9                         | 24                                    | <sup>4</sup> 25                             |
|               |   | 230   | 3.7 | 12,550            | 3.9                         | 25                                    | <sup>4</sup> 25                             |
|               |   | 240   | 4.0 | 13,650            | 3.9                         | 26                                    | 30  |
| <b>5 kW</b>   | ECB45-5 (27A09)<br>Terminal Block<br>ECB45-5CB (27A13)<br>30A Circuit Breaker     | 208   | 3.6 | 12,300            | 3.9                         | 27                                    | 30  |
|               |   | 220   | 4.0 | 13,800            | 3.9                         | 28                                    | 30  |
|               |   | 230   | 4.4 | 15,000            | 3.9                         | 29                                    | 30  |
|               |   | 240   | 4.8 | 16,400            | 3.9                         | 30                                    | 30  |
| <b>7.5 kW</b> | ECB45-7.5 (27A10)<br>Terminal Block<br>ECB45-7.5CB (27A14)<br>45A Circuit Breaker | 208   | 5.6 | 19,200            | 3.9                         | 39                                    | <sup>4</sup> 40                             |
|               |   | 220   | 6.3 | 21,500            | 3.9                         | 41                                    | 45  |
|               |   | 230   | 6.9 | 23,500            | 3.9                         | 42                                    | 45  |
|               |   | 240   | 7.5 | 25,600            | 3.9                         | 44                                    | 45  |
| <b>10 kW</b>  | ECB45-10 (27A11)<br>Terminal Block<br>ECB45-10CB (27A15)<br>60A Circuit Breaker   | 208   | 7.2 | 24,600            | 3.9                         | 48                                    | <sup>4</sup> 50                             |
|               |   | 220   | 8.0 | 27,500            | 3.9                         | 51                                    | 60  |
|               |   | 230   | 8.8 | 30,000            | 3.9                         | 53                                    | 60  |
|               |   | 240   | 9.6 | 32,700            | 3.9                         | 55                                    | 60  |

**NOTE - Not for 115V applications.**

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> HACR type breaker or fuse.

<sup>4</sup> **Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 7.**

**ELECTRIC HEAT DATA**

**7AH1RE-030 | SINGLE PHASE**

| Electric Heat Model Number   | Input |      |                   | Blower Motor Full Load Amps | <sup>2</sup> Minimum Circuit Ampacity |       | <sup>3</sup> Maximum Overcurrent Protection |            | Single Point Power Source             |   |
|--|-------|------|-------------------|-----------------------------|---------------------------------------|-------|---|------------|---------------------------------------|---|
|  | Volt  | kW   | <sup>1</sup> Btuh |                             | Ckt 1                                 | Ckt 2 | Ckt 1                                       | Ckt 2      | <sup>2</sup> Minimum Circuit Ampacity | <sup>3</sup> Maximum Overcurrent Protection |
| <b>4 kW</b><br>ECB45-4 (27A08)<br>Terminal Block<br>ECB45-4CB (27A12)<br>30A Circuit Breaker       | 208   | 3.0  | 10,250            | 3.9                         | 23                                    | ---   | <b>425</b>                                  | ---        | ---                                   | ---   |
|  | 220   | 3.4  | 11,450            | 3.9                         | 24                                    | ---   | <b>425</b>                                  | ---        | ---                                   | ---   |
|  | 230   | 3.7  | 12,550            | 3.9                         | 25                                    | ---   | <b>425</b>                                  | ---        | ---                                   | ---   |
|  | 240   | 4.0  | 13,650            | 3.9                         | 26                                    | ---   | 30  | ---        | ---                                   | ---   |
| <b>5 kW</b><br>ECB45-5 (27A09)<br>Terminal Block<br>ECB45-5CB (27A13)<br>30A Circuit Breaker       | 208   | 3.6  | 12,300            | 3.9                         | 27                                    | ---   | 30  | ---        | ---                                   | ---   |
|  | 220   | 4.0  | 13,800            | 3.9                         | 28                                    | ---   | 30  | ---        | ---                                   | ---   |
|  | 230   | 4.4  | 15,000            | 3.9                         | 29                                    | ---   | 30  | ---        | ---                                   | ---   |
|  | 240   | 4.8  | 16,400            | 3.9                         | 30                                    | ---   | 30  | ---        | ---                                   | ---   |
| <b>7.5 kW</b><br>ECB45-7.5 (27A10)<br>Terminal Block<br>ECB45-7.5CB (27A14)<br>45A Circuit Breaker | 208   | 5.6  | 19,200            | 3.9                         | 39                                    | ---   | <b>440</b>                                  | ---        | ---                                   | ---   |
|  | 220   | 6.3  | 21,500            | 3.9                         | 41                                    | ---   | 45  | ---        | ---                                   | ---   |
|  | 230   | 6.9  | 23,500            | 3.9                         | 42                                    | ---   | 45  | ---        | ---                                   | ---   |
|  | 240   | 7.5  | 25,600            | 3.9                         | 44                                    | ---   | 45  | ---        | ---                                   | ---   |
| <b>10 kW</b><br>ECB45-10 (27A11)<br>Terminal Block<br>ECB45-10CB (27A15)<br>60A Circuit Breaker    | 208   | 7.2  | 24,600            | 3.9                         | 48                                    | ---   | <b>450</b>                                  | ---        | ---                                   | ---   |
|  | 220   | 8.0  | 27,500            | 3.9                         | 51                                    | ---   | 60  | ---        | ---                                   | ---   |
|  | 230   | 8.8  | 30,000            | 3.9                         | 53                                    | ---   | 60  | ---        | ---                                   | ---   |
|  | 240   | 9.6  | 32,700            | 3.9                         | 55                                    | ---   | 60  | ---        | ---                                   | ---   |
| <b>12.5 kW</b><br>ECB45-12.5CB (27A16)<br>(1) 50A and<br>(1) 25A Circuit Breaker                   | 208   | 9.4  | 32,000            | 3.9                         | 42                                    | 19    | <b>445</b>                                  | <b>420</b> | 61                                    | 70  |
|  | 220   | 10.5 | 35,800            | 3.9                         | 45                                    | 20    | <b>445</b>                                  | <b>420</b> | 65                                    | 70  |
|  | 230   | 11.5 | 39,200            | 3.9                         | 46                                    | 21    | 50  | 25         | 67                                    | 70  |
|  | 240   | 12.5 | 42,600            | 3.9                         | 48                                    | 22    | 50  | 25         | 70                                    | 70  |
| <b>15 kW</b><br>ECB45-15CB (27A17)<br>(1) 60A and<br>(1) 25A Circuit Breaker                       | 208   | 10.8 | 36,900            | 3.9                         | 48                                    | 22    | <b>450</b>                                  | 25         | 70                                    | 70  |
|  | 220   | 12.1 | 41,300            | 3.9                         | 51                                    | 23    | 60  | 25         | 74                                    | 80  |
|  | 230   | 13.2 | 45,100            | 3.9                         | 53                                    | 24    | 60  | 25         | 77                                    | 80  |
|  | 240   | 14.4 | 49,100            | 3.9                         | 55                                    | 25    | 60  | 25         | 80                                    | 80  |

**NOTE - Not for 115V applications.**

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> HACR type breaker or fuse.

<sup>4</sup> **Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 7.**

**ELECTRIC HEAT DATA**

**7AH1RE-036 | SINGLE PHASE**

| Electric Heat Model Number   | Input |      |                   | Blower Motor Full Load Amps | <sup>2</sup> Minimum Circuit Ampacity |       | <sup>3</sup> Maximum Overcurrent Protection |            | Single Point Power Source             |   |
|--|-------|------|-------------------|-----------------------------|---------------------------------------|-------|---|------------|---------------------------------------|---|
|  | Volt  | kW   | <sup>1</sup> Btuh |                             | Ckt 1                                 | Ckt 2 | Ckt 1                                       | Ckt 2      | <sup>2</sup> Minimum Circuit Ampacity | <sup>3</sup> Maximum Overcurrent Protection |
| <b>4 kW</b><br>ECB45-4 (27A08)<br>Terminal Block<br>ECB45-4CB (27A12)<br>30A Circuit Breaker       | 208   | 3.0  | 10,250            | 3.9                         | 23                                    | ---   | <b>425</b>                                  | ---        | ---                                   | ---   |
|  | 220   | 3.4  | 11,450            | 3.9                         | 24                                    | ---   | <b>425</b>                                  | ---        | ---                                   | ---   |
|  | 230   | 3.7  | 12,550            | 3.9                         | 25                                    | ---   | <b>425</b>                                  | ---        | ---                                   | ---   |
|  | 240   | 4.0  | 13,650            | 3.9                         | 26                                    | ---   | 30  | ---        | ---                                   | ---   |
| <b>5 kW</b><br>ECB45-5 (27A09)<br>Terminal Block<br>ECB45-5CB (27A13)<br>30A Circuit Breaker       | 208   | 3.6  | 12,300            | 3.9                         | 27                                    | ---   | 30  | ---        | ---                                   | ---   |
|  | 220   | 4.0  | 13,800            | 3.9                         | 28                                    | ---   | 30  | ---        | ---                                   | ---   |
|  | 230   | 4.4  | 15,000            | 3.9                         | 29                                    | ---   | 30  | ---        | ---                                   | ---   |
|  | 240   | 4.8  | 16,400            | 3.9                         | 30                                    | ---   | 30  | ---        | ---                                   | ---   |
| <b>7.5 kW</b><br>ECB45-7.5 (27A10)<br>Terminal Block<br>ECB45-7.5CB (27A14)<br>45A Circuit Breaker | 208   | 5.6  | 19,200            | 3.9                         | 39                                    | ---   | <b>440</b>                                  | ---        | ---                                   | ---   |
|  | 220   | 6.3  | 21,500            | 3.9                         | 41                                    | ---   | 45  | ---        | ---                                   | ---   |
|  | 230   | 6.9  | 23,500            | 3.9                         | 42                                    | ---   | 45  | ---        | ---                                   | ---   |
|  | 240   | 7.5  | 25,600            | 3.9                         | 44                                    | ---   | 45  | ---        | ---                                   | ---   |
| <b>10 kW</b><br>ECB45-10 (27A11)<br>Terminal Block<br>ECB45-10CB (27A15)<br>60A Circuit Breaker    | 208   | 7.2  | 24,600            | 3.9                         | 48                                    | ---   | <b>450</b>                                  | ---        | ---                                   | ---   |
|  | 220   | 8.0  | 27,500            | 3.9                         | 51                                    | ---   | 60  | ---        | ---                                   | ---   |
|  | 230   | 8.8  | 30,000            | 3.9                         | 53                                    | ---   | 60  | ---        | ---                                   | ---   |
|  | 240   | 9.6  | 32,700            | 3.9                         | 55                                    | ---   | 60  | ---        | ---                                   | ---   |
| <b>12.5 kW</b><br>ECB45-12.5CB (27A16)<br>(1) 50A and<br>(1) 25A Circuit Breaker                   | 208   | 9.4  | 32,000            | 3.9                         | 42                                    | 19    | <b>445</b>                                  | <b>420</b> | 61                                    | 70  |
|  | 220   | 10.5 | 35,800            | 3.9                         | 45                                    | 20    | <b>445</b>                                  | <b>420</b> | 65                                    | 70  |
|  | 230   | 11.5 | 39,200            | 3.9                         | 46                                    | 21    | 50  | 25         | 67                                    | 70  |
|  | 240   | 12.5 | 42,600            | 3.9                         | 48                                    | 22    | 50  | 25         | 70                                    | 70  |
| <b>15 kW</b><br>ECB45-15CB (27A17)<br>(1) 60A and<br>(1) 25A Circuit Breaker                       | 208   | 10.8 | 36,900            | 3.9                         | 48                                    | 22    | <b>450</b>                                  | 25         | 70                                    | 70  |
|  | 220   | 12.1 | 41,300            | 3.9                         | 51                                    | 23    | 60  | 25         | 74                                    | 80  |
|  | 230   | 13.2 | 45,100            | 3.9                         | 53                                    | 24    | 60  | 25         | 77                                    | 80  |
|  | 240   | 14.4 | 49,100            | 3.9                         | 55                                    | 25    | 60  | 25         | 80                                    | 80  |

**NOTE - Not for 115V applications.**

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> HACR type breaker or fuse.

<sup>4</sup> **Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 7.**

**ELECTRIC HEAT DATA**

**7AH1RE-042 | SINGLE PHASE**

| Electric Heat Model Number  | Input |      |                   | Blower Motor Full Load Amps | <sup>2</sup> Minimum Circuit Ampacity |       | <sup>3</sup> Maximum Overcurrent Protection |            | Single Point Power Source             |   |
|---|-------|------|-------------------|-----------------------------|---------------------------------------|-------|---|------------|---------------------------------------|---|
|   | Volt  | kW   | <sup>1</sup> Btuh |                             | Ckt 1                                 | Ckt 2 | Ckt 1                                       | Ckt 2      | <sup>2</sup> Minimum Circuit Ampacity | <sup>3</sup> Maximum Overcurrent Protection |
| <b>4 kW</b> ECB45-4 (27A08)<br>Terminal Block<br>ECB45-4CB (27A12)<br>30A Circuit Breaker       | 208   | 3.0  | 10,250            | 6.0                         | 26                                    | ---   | 30  | ---        | ---                                   | ---   |
|   | 220   | 3.4  | 11,450            | 6.0                         | 27                                    | ---   | 30  | ---        | ---                                   | ---   |
|   | 230   | 3.7  | 12,550            | 5.8                         | 27                                    | ---   | 30  | ---        | ---                                   | ---   |
|   | 240   | 4.0  | 13,650            | 5.8                         | 28                                    | ---   | 30  | ---        | ---                                   | ---   |
| <b>5 kW</b> ECB45-5 (27A09)<br>Terminal Block<br>ECB45-5CB (27A13)<br>30A Circuit Breaker       | 208   | 3.6  | 12,300            | 6.0                         | 29                                    | ---   | 30  | ---        | ---                                   | ---   |
|   | 220   | 4.0  | 13,800            | 6.0                         | 30                                    | ---   | 30  | ---        | ---                                   | ---   |
|   | 230   | 4.4  | 15,000            | 5.8                         | 31                                    | ---   | <b>435</b>                                  | ---        | ---                                   | ---   |
|   | 240   | 4.8  | 16,400            | 5.8                         | 32                                    | ---   | <b>435</b>                                  | ---        | ---                                   | ---   |
| <b>7.5 kW</b> ECB45-7.5 (27A10)<br>Terminal Block<br>ECB45-7.5CB (27A14)<br>45A Circuit Breaker | 208   | 5.6  | 19,200            | 6.0                         | 41                                    | ---   | 45  | ---        | ---                                   | ---   |
|   | 220   | 6.3  | 21,500            | 6.0                         | 43                                    | ---   | 45  | ---        | ---                                   | ---   |
|   | 230   | 6.9  | 23,500            | 5.8                         | 45                                    | ---   | 45  | ---        | ---                                   | ---   |
|   | 240   | 7.5  | 25,600            | 5.8                         | 46                                    | ---   | <b>450</b>                                  | ---        | ---                                   | ---   |
| <b>10 kW</b> ECB45-10 (27A11)<br>Terminal Block<br>ECB45-10CB (27A15)<br>60A Circuit Breaker    | 208   | 7.2  | 24,600            | 6.0                         | 51                                    | ---   | 60  | ---        | ---                                   | ---   |
|   | 220   | 8.0  | 27,500            | 6.0                         | 53                                    | ---   | 60  | ---        | ---                                   | ---   |
|   | 230   | 8.8  | 30,000            | 5.8                         | 55                                    | ---   | 60  | ---        | ---                                   | ---   |
|   | 240   | 9.6  | 32,700            | 5.8                         | 57                                    | ---   | 60  | ---        | ---                                   | ---   |
| <b>12.5 kW</b> ECB45-12.5CB (27A16)<br>(1) 50A and<br>(1) 25A Circuit Breaker                   | 208   | 9.4  | 32,000            | 6.0                         | 45                                    | 19    | <b>445</b>                                  | <b>420</b> | 64                                    | 70  |
|   | 220   | 10.5 | 35,800            | 6.0                         | 47                                    | 20    | 50  | <b>420</b> | 67                                    | 70  |
|   | 230   | 11.5 | 39,200            | 5.8                         | 49                                    | 21    | 50  | 25         | 70                                    | 70  |
|   | 240   | 12.5 | 42,600            | 5.8                         | 51                                    | 22    | <b>460</b>                                  | 25         | 72                                    | 80  |
| <b>15 kW</b> ECB45-15CB (27A17)<br>(1) 60A and<br>(1) 25A Circuit Breaker                       | 208   | 10.8 | 36,900            | 6.0                         | 51                                    | 22    | 60  | 25         | 73                                    | 80  |
|   | 220   | 12.1 | 41,300            | 6.0                         | 53                                    | 23    | 60  | 25         | 76                                    | 80  |
|   | 230   | 13.2 | 45,100            | 5.8                         | 55                                    | 24    | 60  | 25         | 79                                    | 80  |
|   | 240   | 14.4 | 49,100            | 5.8                         | 57                                    | 25    | 60  | 25         | 82                                    | 90  |

**NOTE - Not for 115V applications.**

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> HACR type breaker or fuse.

<sup>4</sup> **Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 7.**

## ELECTRIC HEAT DATA

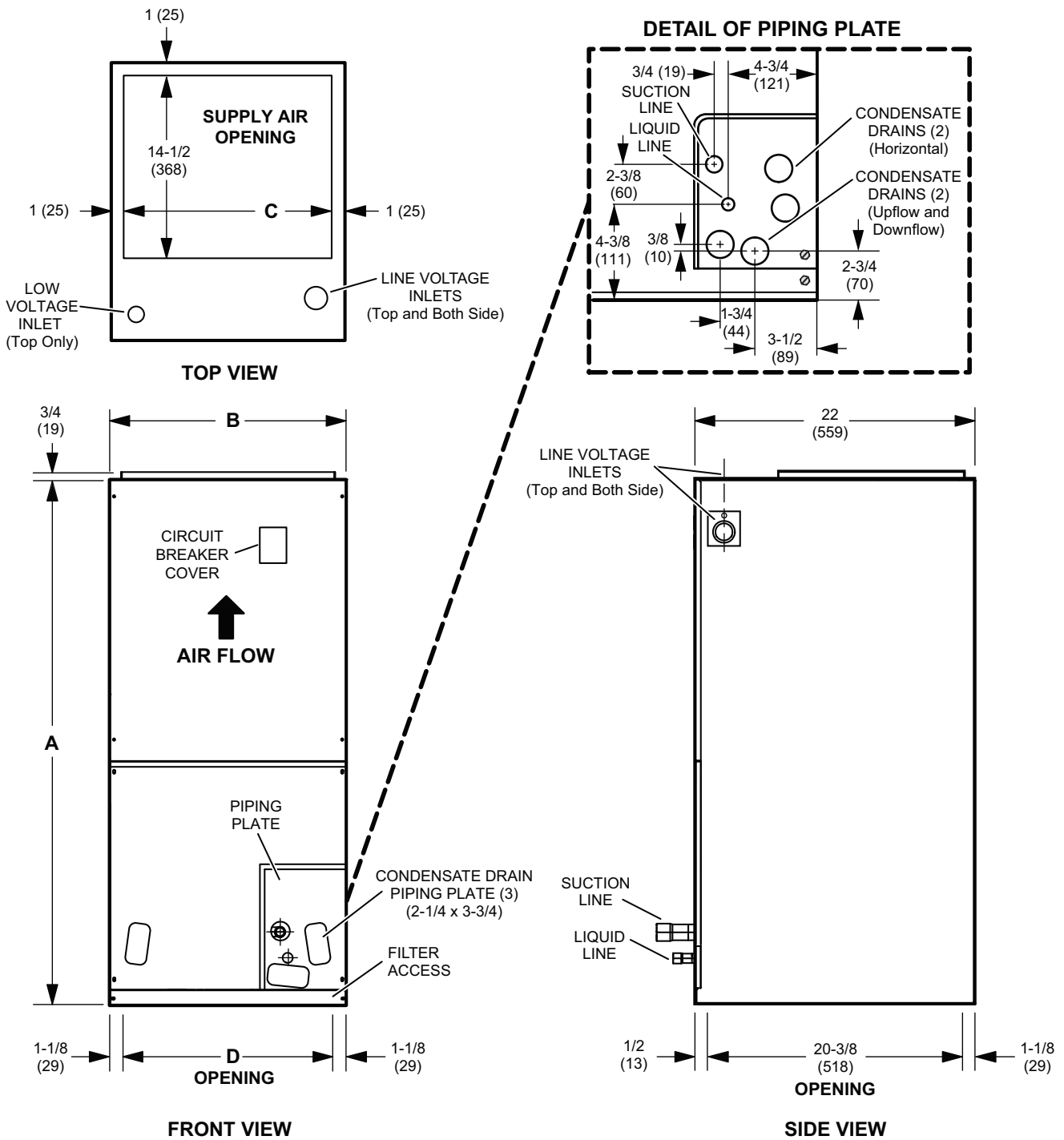
7AH1RE-048 | 7AH1RE-060 | SINGLE PHASE

| Electric Heat Model Number   | Input |      |                   | Blower Motor Full Load Amps | <sup>2</sup> Minimum Circuit Ampacity |       | <sup>3</sup> Maximum Overcurrent Protection |            | Single Point Power Source             |   |
|--|-------|------|-------------------|-----------------------------|---------------------------------------|-------|---|------------|---------------------------------------|---|
|  | Volt  | kW   | <sup>1</sup> Btuh |                             | Ckt 1                                 | Ckt 2 | Ckt 1                                       | Ckt 2      | <sup>2</sup> Minimum Circuit Ampacity | <sup>3</sup> Maximum Overcurrent Protection |
| <b>4 kW</b><br>ECB45-4 (27A08)<br>Terminal Block<br>ECB45-4CB (27A12)<br>30A Circuit Breaker       | 208   | 3.0  | 10,250            | 7.4                         | 27                                    | ---   | 30  | ---        | 27                                    | 30  |
|  | 220   | 3.4  | 11,450            | 7.4                         | 28                                    | ---   | 30  | ---        | 28                                    | 30  |
|  | 230   | 3.7  | 12,550            | 7.2                         | 29                                    | ---   | 30  | ---        | 29                                    | 30  |
|  | 240   | 4.0  | 13,650            | 7.2                         | 30                                    | ---   | 30  | ---        | 30                                    | 30  |
| <b>5 kW</b><br>ECB45-5 (27A09)<br>Terminal Block<br>ECB45-5CB (27A13)<br>30A Circuit Breaker       | 208   | 3.6  | 12,300            | 7.4                         | 31                                    | ---   | <b>435</b>                                  | ---        | 31                                    | 35  |
|  | 220   | 4.0  | 13,800            | 7.4                         | 32                                    | ---   | <b>435</b>                                  | ---        | 32                                    | 35  |
|  | 230   | 4.4  | 15,000            | 7.2                         | 33                                    | ---   | <b>435</b>                                  | ---        | 33                                    | 35  |
|  | 240   | 4.8  | 16,400            | 7.2                         | 34                                    | ---   | <b>435</b>                                  | ---        | 34                                    | 35  |
| <b>7.5 kW</b><br>ECB45-7.5 (27A10)<br>Terminal Block<br>ECB45-7.5CB (27A14)<br>45A Circuit Breaker | 208   | 5.6  | 19,200            | 7.4                         | 43                                    | ---   | 45  | ---        | 43                                    | 45  |
|  | 220   | 6.3  | 21,500            | 7.4                         | 45                                    | ---   | 45  | ---        | 45                                    | 45  |
|  | 230   | 6.9  | 23,500            | 7.2                         | 46                                    | ---   | <b>450</b>                                  | ---        | 46                                    | 50  |
|  | 240   | 7.5  | 25,600            | 7.2                         | 48                                    | ---   | <b>450</b>                                  | ---        | 48                                    | 50  |
| <b>10 kW</b><br>ECB45-10 (27A11)<br>Terminal Block<br>ECB45-10CB (27A15)<br>60A Circuit Breaker    | 208   | 7.2  | 24,600            | 7.4                         | 53                                    | ---   | 60  | ---        | 53                                    | 60  |
|  | 220   | 8.0  | 27,500            | 7.4                         | 55                                    | ---   | 60  | ---        | 55                                    | 60  |
|  | 230   | 8.8  | 30,000            | 7.2                         | 57                                    | ---   | 60  | ---        | 57                                    | 60  |
|  | 240   | 9.6  | 32,700            | 7.2                         | 59                                    | ---   | 60  | ---        | 59                                    | 60  |
| <b>12.5 kW</b><br>ECB45-12.5CB (27A16)<br>(1) 50A and<br>(1) 25A Circuit Breaker                   | 208   | 9.4  | 32,000            | 7.4                         | 47                                    | 19    | 50  | <b>420</b> | 66                                    | 70  |
|  | 220   | 10.5 | 35,800            | 7.4                         | 49                                    | 20    | 50  | <b>420</b> | 69                                    | 70  |
|  | 230   | 11.5 | 39,200            | 7.2                         | 51                                    | 21    | <b>460</b>                                  | 25         | 71                                    | 80  |
|  | 240   | 12.5 | 42,600            | 7.2                         | 52                                    | 22    | <b>460</b>                                  | 25         | 74                                    | 80  |
| <b>15 kW</b><br>ECB45-15CB (27A17)<br>(1) 60A and<br>(1) 25A Circuit Breaker                       | 208   | 10.8 | 36,900            | 7.4                         | 53                                    | 22    | 60  | 25         | 74                                    | 80  |
|  | 220   | 12.1 | 41,300            | 7.4                         | 55                                    | 23    | 60  | 25         | 78                                    | 80  |
|  | 230   | 13.2 | 45,100            | 7.2                         | 57                                    | 24    | 60  | 25         | 81                                    | 90  |
|  | 240   | 14.4 | 49,100            | 7.2                         | 59                                    | 25    | 60  | 25         | 84                                    | 90  |
| <b>20 kW</b><br>ECB45-20CB (27A18)<br>(1) 60A and<br>(1) 50A Circuit Breaker                       | 208   | 14.4 | 49,200            | 7.4                         | 53                                    | 43    | 60  | <b>445</b> | 96                                    | 100   |
|  | 220   | 16.1 | 55,000            | 7.4                         | 55                                    | 46    | 60  | 50         | 101                                   | 110   |
|  | 230   | 17.6 | 60,100            | 7.2                         | 57                                    | 48    | 60  | 50         | 105                                   | 110   |
|  | 240   | 19.2 | 65,500            | 7.2                         | 59                                    | 50    | 60  | 50         | 109                                   | 110   |

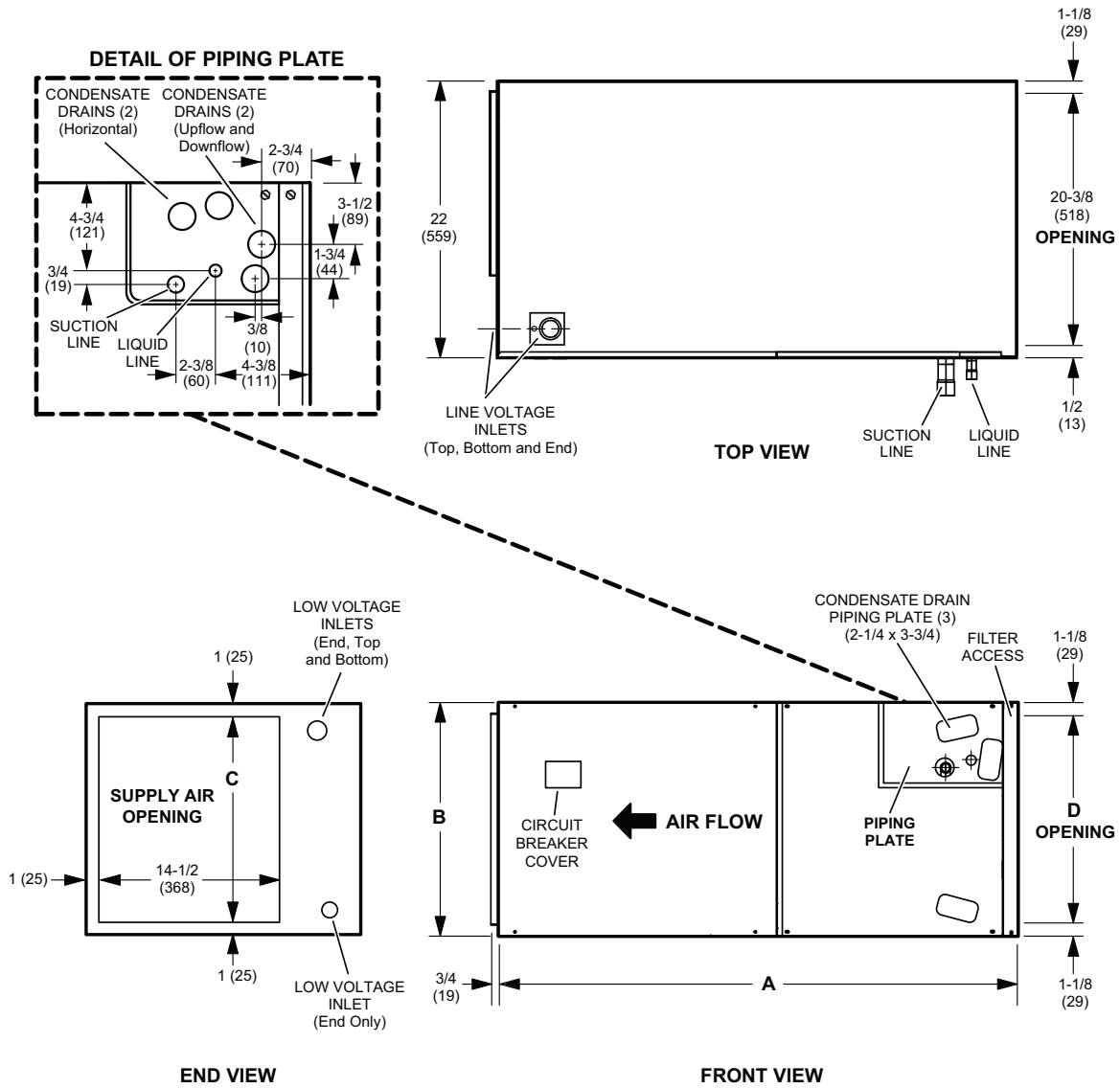
**NOTE - Not for 115V applications.**

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.<sup>3</sup> HACR type breaker or fuse.<sup>4</sup> Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 7.



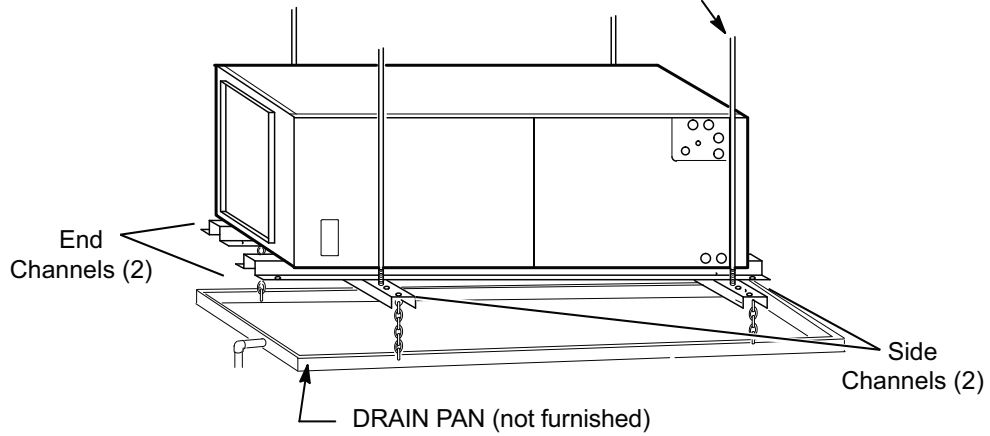
| Dimensions | 018, 024, 030 |      | 036    |      | 042    |      | 048    |      | 060    |      |
|------------|---------------|------|--------|------|--------|------|--------|------|--------|------|
|            | in.           | mm   | in.    | mm   | in.    | mm   | in.    | mm   | in.    | mm   |
| <b>A</b>   | 41-1/2        | 1054 | 43-1/2 | 1105 | 45-1/2 | 1156 | 47     | 1194 | 53-5/8 | 1362 |
| <b>B</b>   | 18-1/2        | 470  | 18-1/2 | 470  | 21-1/2 | 546  | 21-1/2 | 546  | 21-1/2 | 546  |
| <b>C</b>   | 16-1/2        | 419  | 16-1/2 | 419  | 19-1/2 | 495  | 19-1/2 | 495  | 19-1/2 | 495  |
| <b>D</b>   | 16-1/4        | 413  | 16-1/4 | 413  | 19-1/4 | 489  | 19-1/4 | 489  | 19-1/4 | 489  |



| Dimensions | 018, 024, 030 |      | 036    |      | 042    |      | 048    |      | 060    |      |
|------------|---------------|------|--------|------|--------|------|--------|------|--------|------|
|            | in.           | mm   | in.    | mm   | in.    | mm   | in.    | mm   | in.    | mm   |
| <b>A</b>   | 41-1/2        | 1054 | 43-1/2 | 1105 | 45-1/2 | 1156 | 47     | 1194 | 53-5/8 | 1362 |
| <b>B</b>   | 18-1/2        | 470  | 18-1/2 | 470  | 21-1/2 | 546  | 21-1/2 | 546  | 21-1/2 | 546  |
| <b>C</b>   | 16-1/2        | 419  | 16-1/2 | 419  | 19-1/2 | 495  | 19-1/2 | 495  | 19-1/2 | 495  |
| <b>D</b>   | 16-1/4        | 413  | 16-1/4 | 413  | 19-1/4 | 489  | 19-1/4 | 489  | 19-1/4 | 489  |

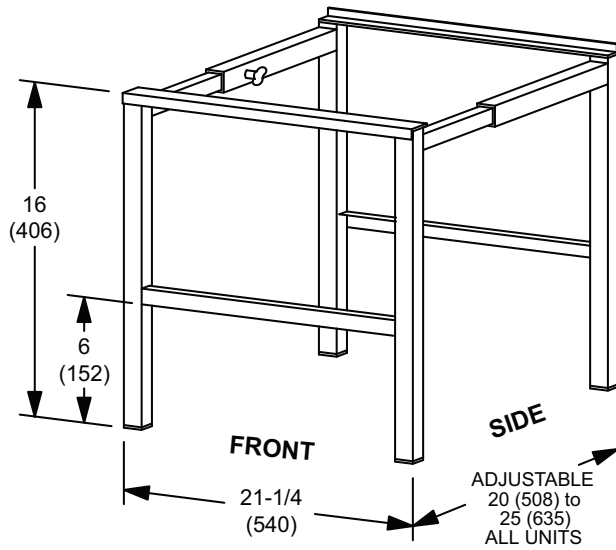
### HORIZONTAL SUPPORT FRAME KIT

Suspension Rods (Not furnished)



Includes (2) 1 x 1-1/2 x 32-5/8 in. side channels and (2) 1 x 3 x 53-7/8 in. end channels.

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