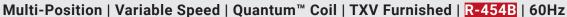
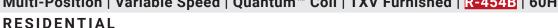
## **CBK48MVT**

### DAVE LENNOX SIGNATURE® COLLECTION





PRODUCT SPECIFICATIONS (EHB)

1.5 to 5 Tons Optional Electric Heat - 4 to 25 kW

**LENNO** 

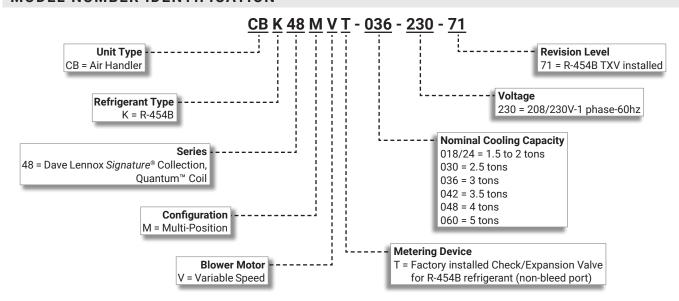








### MODEL NUMBER IDENTIFICATION



### **FEATURE HIGHLIGHTS**

- 1. Quantum™ Coil
- 2. Refrigerant Line Connections
- 3. Check and Expansion Valve
- 4. Variable Speed Blower Motor
- 5. Lennox® Communicating Control
- 6. Transformer
- 7. Heavy Gauge Steel Two-Piece Cabinet
- 8. Dual Position Drain Pans
- 9. Air Filter
- 10. Electric Heat (option)



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### APPROVALS AND WARRANTY

### **APPROVALS**

- Tested with matching air conditioners and heat pump units in the Lennox Research Laboratory environmental test room in accordance with AHRI Standard 210/240-2023
- AHRI Certified system match-ups and expanded ratings, visit www.LennoxPros.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
- All models meet UL 60335-2-40 Refrigerant Detector Requirements
- 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 Lennox air test chamber
- Approved for installation in manufactured housing and mobile homes
- ISO 9001 Registered Manufacturing Quality System

### **WARRANTY**

- · All covered components
  - · Limited ten years in residential applications
  - Limited one year in non-residential applications

**NOTE** - Refer to Lennox® Basic Limited Warranty at <a href="www.Lennox.com">www.Lennox.com</a> for additional details.

### **FEATURES**

### **APPLICATIONS**

- 1.5 to 5 ton nominal sizes
- Multi-position (upflow, downflow or horizontal) applications
- Applicable to expansion valve systems in cooling applications and check and expansion valve systems in heat pump applications
- Wide-range check and expansion valve is factory installed
- Applicable to Lennox® Smart Zoning System
- Optional field installed electric heaters available in several sizes for additive heating capacity

### **ZONING APPLICATIONS**

- Units can be used with certain zoning systems.
   Zone control panel MUST be able to interface and communicate with the variable speed motor in the unit.
- Lennox<sup>®</sup> Smart Zoning System has this capability

### **REFRIGERANT SYSTEM**

## **1** Quantum™ Coil

- · Lennox designed and fabricated 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
- Helical grooved tubing provides superior heat transfer

 Coil thoroughly factory tested under high pressure to ensure leakproof construction

### Refrigerant Line 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 Check and Expansion Valve Furnished

- For use with R-454B systems
- · Wide range valve with Chatleff style fitting
- · Factory installed on all models, internal to cabinet

#### **BLOWER**

### 4 Variable-Speed Blower Motor

- High efficiency multi-speed blower motor maintains specified air volumes up to a maximum of 0.8 in. w.g. total external static
- Multi-speed operation is achieved by the use of an ECM (Electronically Commutated Motor) motor
- Allows cooling ramping profiles (field selectable) for enhanced dehumidification



- Motor accelerates and decelerates gradually, reducing start-up and shut-down sound
- Leadless blower motor features simple plug-in connections

### **BLOWER (Continued)**

- Motor is controlled by the Lennox® Communicating Control that allows blower to operate at two of eight air volumes or speeds available
- Speeds may be field selected on Lennox®
   Communicating Control depending on size of air handler and air volume desired
- · See blower performance tables

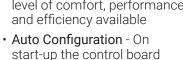
### **Blower Assembly**

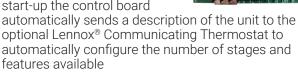
- · Lennox designed and built, direct drive blower
- Each blower is statically and dynamically balanced as an assembly before installation in the unit
- Blower motor is resiliently mounted to blower assembly
- · Blower slides out of cabinet for servicing

### **CONTROLS**

# Lennox® Communicating Control

- Advanced control communicates information about various operating parameters in the air handler to the optional Lennox<sup>®</sup> Communicating Thermostat to
- Communicating Thermostat to constantly maintain the highest level of comfort, performance and efficiency available





- Connections for connecting a conventional heating/ cooling thermostat are also provided on the board
- · Control also features:
  - Lennox Humiditrol® Whole Home Dehumidification System (EDA) compatible
  - EEPROM storage of all local configurations
  - Non-volatile memory storage of 100 alarm codes with display of last 10 codes for troubleshooting
  - Connections for optional outdoor temperature sensor (communicates temperature on RSBUS to thermostat)
  - Controls evaporator humidity by controlling blower and compressor staging on two-stage outdoor units
  - Two Stages HEAT and COOL (with four different air volume selections for each) are made by simple jumper pins on board
  - ADJUST jumper pin allows approximately 10% higher, normal or 10% lower motor speed selection within HEAT and COOL speeds selected for fine tuning air volume
  - DELAY jumper pin allows selection of blower motor dehumidification profiles during cooling mode
    - Option 1 Motor runs at 100% of capacity until demand met. Once demand is met, motor ramps down to stop.

- Option 2 Cooling When cool demand is initiated, motor ramps up to 100% and runs at 100% until demand is satisfied. Once demand is met, motor runs at 100% for 45 seconds, then ramps down to stop.
- Option 2 Heat Pump: When heat pump demand is initiated, 30 second motor on delay starts. After the motor on delays expires, motor ramps up to 100% and runs at 100% until demand is satisfied. Once demand is met, motor runs at 100% for 45 seconds, then ramps down to stop.
- Option 3 Motor runs at 82% of capacity for approximately 7.5 minutes, then 100% capacity (if needed) until demand is satisfied. Once demand is met, motor ramps down to stop.
- Option 4 Motor runs at 50% capacity for 30 seconds, then 82% capacity for approximately 7.5 minutes. If demand is not satisfied, motor runs at 100% capacity until demand is met. Once demand is met, motor runs at 50% capacity for 30 seconds, then ramps down to stop.
- 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
  - Holds up to ten diagnostic codes in order of occurrence for recall on demand
  - Port on blower door allows for easy viewing
- Dehumidification (Active or Humiditrol® Option) A jumper on the control board must be clipped to enable active dehumidification and/or operation with a Humiditrol Whole-Home Dehumidification System
  - During a call for cooling, air volume is automatically reduced, forcing humidity removal by the air conditioner or heat pump system
  - After the humidity has reached the desired set-point the cooling air volume returns to its designed rate
  - A dehumidification signal from the thermostat reduces the cooling cfm to 70% of the requested cooling cfm

**NOTE** - A humidity controlling thermostat or device is also required.

- Electric Heat Operation Control for up to three electric heat stages
- EvenHeater® Electric Heat Control Up to four electric heat stages are available when utilizing the EvenHeater® control feature furnished on the Lennox® Communicating Control
  - EVENHEAT jumper position on control board determines target discharge air temperature of 85°F, 100°F, 115°F or 130°F
  - Default setting is 85°F

**NOTE** - Optional Discharge Air Sensor is required.

### **CONTROLS** (continued)

### Lennox® Communicating Control (continued)

- Heat Pump Operation A jumper on the control board must be clipped to enable operation with a single or twostage heat pump
  - The indoor blower is started without delay when a call for heat is received
- Two-Stage Cooling Operation A jumper on the control board must be clipped to enable operation with a twostage air conditioner
  - The cooling blower speeds for first and second stage cooling will be dictated by the applicable DIP switch settings
- · Lennox System Operations Monitor Connection -Monitors outdoor unit operation. (communicating mode)
- Continuous Blower Speed Adjustable continuous blower speed is a percentage of the high cooling speed selection. There are four selectable options (via DIP switch settings) of 28%, 38% (default setting), 70% and 100%
- 6 Transformer 70VA transformer furnished as standard. Factory installed in the unit control box
  - Accessory Terminal One 24 volt humidifier output is furnished for non-powered humidifiers
  - Control board is factory installed in the unit control box

### **REFRIGERATION DETECTION SYSTEM (RDS)**

### (Part of the Lennox® Communicating Control)

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- · Plug-in connection to the RDS Coil Sensor
- Used as an 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
- · Minimum air flow if RDS initiates mitigation is factory set at 350 CFM per ton
- Once safe levels are reached the HVAC system will resume normal operation
- RDS Control test/reset button for troubleshooting
- Alarm/Zone relay interface can trigger an external alarm if R-454B refrigerant is detected and open all zone dampers (if part of a zoning system) if R-454B refrigerant is detected
- Power is disabled to non-communicating thermostats 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

### **Optional Accessories**

### S40 Smart Wi-Fi Thermostat (part of the Lennox® Residential Communicating Control System)

· Recognizes and connects to all Lennox® Communicating products to automatically configure and control

the heating/cooling system (based on userspecified settings) for the highest level of comfort, performance and efficiency



- Recognizes model and serial number information for Lennox®
- Communicating products to simplify system setup
- · Lennox Smart Room Sensors, Lennox Wireless Extenders and Lennox Smart Air Quality Monitor can be added to the system
- Smart home automation compatible with Amazon Alexa®, Google Assistant, Control4® and Building36®
- Sends service alerts and reminders
- · Lennox Smart Thermostat App features Wi-Fi remote temperature monitoring and adjustment through a home wireless network apps for smartphones or tablets
- Lennox Smart Technician App allows installer to manage systems in the home
- · Service Dashboard features online real-time monitoring and advanced diagnostics of installed Lennox® Communicating systems
- Simple easy-to-use touchscreen allows complete system configuration
- · Scheduled maintenance alerts, system warnings and troubleshooting are also displayed on thermostat screen
- Easy to read 7 inch high definition color display (measured diagonally)
- Conventional outdoor units (not Lennox® Communicating) can easily be added and controlled by the S40 Thermostat
- Installer setup screens allow quick and simple system configuration without a manual, Installer can also run tests on complete system or individual components for easy maintenance and troubleshooting
- · Serial communications bus (RSBus), with less wiring than a conventional heating/cooling system, allows system communication
- · Uses standard 4-wire unshielded thermostat wiring
- · High Definition Color Display with Subbase and wallplate furnished for easy installation

NOTE - See the Lennox® S40 Thermostat Product Specifications document in the Controls section for more information.

### **CONTROLS** (continued)

### **Optional Accessories**

### Remote Outdoor Temperature Sensor

- Allows thermostat to display outdoor temperature
- · Automatically detected when connected to thermostat

**NOTE** - Sensor is required for the **Enhanced Dehumidification** Accessory (EDA).

NOTE - Sensor is furnished as standard with Lennox® Communicating outdoor units, optional for conventional units.



- Thermostat is not furnished with unit
- See Lennox Price Book for selection

### Hot Water Heat Kit

- · Controls a third-party hot water boiler with a hot water heating coil installed downstream from the air handler
- Kit contains all necessary relays and plug-in wiring harness to control boiler

**NOTE** - This kit is only approved for use in systems using a Lennox® Communicating thermostat or a CS7500 thermostat.

#### **CABINET**



- 7 · Constructed of heavy-gauge galvanized steel
  - · Completely insulated with thick fiberglass insulation
  - Pre-painted steel cabinets have mildly textured enamel finish with primer coat on unpainted side of all panels
  - Units are shipped in one piece but may be disassembled into two separate sections for ease of installation in tight applications
  - Thick rubber gasket between sections of the two piece cabinets provides an air tight seal
  - No external screw heads on sides of cabinet for tight installations without damage to walls or woodwork
  - Removable panels provide complete service access
  - Electrical inlets provided in sides and top of cabinet
  - See dimension drawings for locations

### 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"

### Multi-Position Capability

- · Shipped for upflow and horizontal right-hand discharge
- Quickly converted to downflow or left-hand, horizontal air discharge
- Easily converts to downflow position with furnished coil support rails and filter support rack

### 8 Dual Position Microbial Drain Pans

- Designed for upflow, downflow or horizontal applications
- Deep, corrosion resistant plastic drain pans have dual pipe drains
- · Anti-Microbial additive resists growth of mold and mildew on drain pan which improves indoor air quality and reduces drain line blockage
- See dimension drawings

### **Optional Accessories**

### Downflow Combustible Flooring Floor Base (25 kW Electric Heat Applications Only)

· Base is required for models with electric heat installed in downflow position on combustible floors

### 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

**NOTE** - Economizer is not compatible with a Lennox® Communicating system.

### **FILTER**

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

## 1 OPTIONAL ELECTRIC HEAT

- ETL listed
- Field install internal to unit cabinet
- Available in several voltages and 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
- Supplemental thermal cutoff limit control, provides positive protection in case of excessive temperatures
- · Heater control relays bring elements on and off line based on input from the control board, in sequence and equal increments, with time delay between each
- Heating control relay(s) furnished as standard
- Control box and access cover constructed of heavy gauge galvanized steel
- Factory assembled with controls installed and wired
- Electric heat low voltage controls plug-in to air handler

### 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
- 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**

### Circuit Breaker Cover Kit

- Flexible plastic cover protects circuit breaker
- · Recommended in areas with high humidity or unconditioned areas to prevent nuisance tripping

### 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
- Removable cover provides easy access
- Dimensions (H x W x D) 7 x 7 x 4 in.

| SPECIFICA                 | TIONS                                 |                 |                 | 1.5 TO 3 TON    |
|---------------------------|---------------------------------------|-----------------|-----------------|-----------------|
| Size                      |                                       | 018/024         | 030             | 036             |
| Nominal Tonna             | ge                                    | 1.5 to 2        | 2.5             | 3               |
| Refrigerant Typ           | oe e                                  | R-454B          | R-454B          | R-454B          |
| Factory Installe          | ed Expansion Valve (TXV)              | 26Z70           | 26Z70           | 26Z70           |
| Connections               | Liquid line (OD) sweat - in.          | 3/8             | 3/8             | 3/8             |
|                           | Suction line (OD) sweat - in.         | 3/4             | 3/4             | 3/4             |
|                           | Condensate drain (FPT) - in.          | (2) 3/4         | (2) 3/4         | (2) 3/4         |
| Indoor                    | Net face area - ft.2                  | 4.4             | 5.0             | 5.0             |
| Coil                      | Tube diameter - in.                   | 3/8             | 3/8             | 3/8             |
|                           | Rows                                  | 3               | 3               | 3               |
|                           | Fins - in.                            | 14              | 14              | 14              |
| Blower                    | HP                                    | 1/2             | 1/2             | 3/4             |
|                           | Wheel nominal diameter x width - in.  | 10 x 8          | 11 x 8          | 11 x 8          |
|                           | Air volume range - cfm                | 365 - 1050      | 510 - 1315      | 720 - 1580      |
| <sup>1</sup> Filters      | Size - in.                            | (1) 20 x 20 x 1 | (1) 20 x 20 x 1 | (1) 20 x 20 x 1 |
| <b>Shipping Data</b>      | - lbs.                                | 141             | 154             | 159             |
| ELECTRICA                 | AL DATA                               |                 |                 |                 |
|                           | Line voltage data (Volts-Phase-Hz)    | 208/230-1-60    | 208/230-1-60    | 208/230-1-60    |
| <sup>2</sup> Maximum over | current protection (MOCP) amps (unit) | 15              | 15              | 15              |
| 3                         | Minimum circuit ampacity (MCA) (unit) | 5               | 5               | 8               |

<sup>&</sup>lt;sup>1</sup> 1 Disposable frame type filter.

<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.

| SPECIFICA                 | TIONS                                 |                 |                 | 3.5 TO 5 TON    |
|---------------------------|---------------------------------------|-----------------|-----------------|-----------------|
| Size                      |                                       | 042             | 048             | 060             |
| Nominal Tonna             | ge                                    | 3.5             | 4               | 5               |
| Refrigerant Typ           | oe e                                  | R-454B          | R-454B          | R-454B          |
| Factory Installe          | ed Expansion Valve (TXV)              | 26Z71           | 26Z71           | 26Z72           |
| Connections               | 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         |
| Indoor                    | Net face area - ft.2                  | 7.22            | 7.22            | 8.33            |
| Coil                      | Tube diameter - in.                   | 3/8             | 3/8             | 3/8             |
|                           | Rows                                  | 3               | 3               | 3               |
|                           | Fins - in.                            | 14              | 14              | 14              |
| Blower                    | HP                                    | 1               | 1               | 1               |
|                           | Wheel nominal diameter x width - in.  | 12 x 9          | 12 x 9          | 12 x 9          |
|                           | Air volume range - cfm                | 900 - 1760      | 1230 - 2200     | 1300 - 2210     |
| <sup>1</sup> Filters      | Size - in.                            | (1) 20 x 24 x 1 | (1) 20 x 24 x 1 | (1) 20 x 24 x 1 |
| Shipping Data             | - lbs.                                | 189             | 189             | 199             |
| ELECTRICA                 | AL DATA                               |                 |                 |                 |
|                           | Line voltage data (Volts-Phase-Hz)    | 208/230-1-60    | 208/230-1-60    | 208/230-1-60    |
| <sup>2</sup> Maximum over | current protection (MOCP) amps (unit) | 15              | 15              | 15              |
| 3                         | Minimum circuit ampacity (MCA) (unit) | 10              | 10              | 10              |

<sup>&</sup>lt;sup>1</sup> 1 Disposable frame type filter.

<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.

| INSTALLATION CLEAR      | ANCES WITH ELECT | RIC HEAT                              |                |  |  |  |
|-------------------------|------------------|---------------------------------------|----------------|--|--|--|
| 4 to 20kW Electric Heat |                  | 25kW Electric Heat                    |                |  |  |  |
| Cabinet                 | 0 inch (0 mm)    | Cabinet                               | 0 inch (0 mm)  |  |  |  |
| To Plenum               | 0 inch (0 mm)    | To Plenum                             | 1 inch (25 mm) |  |  |  |
| To Outlet Duct          | 0 inch (0 mm)    | To Outlet Duct within 3 feet (914 mm) | 1 inch (25 mm) |  |  |  |
| Floor                   | 0 inch (0 mm)    | Floor                                 | See Note #1    |  |  |  |
| Service / Maintenance   | See Note #2      | Service / Maintenance                 | See Note #2    |  |  |  |

<sup>1</sup> Units installed on combustible floors in the downflow position with electric heat DO require a downflow combustible flooring base.

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

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

 $<sup>^{2}\,</sup>$  2 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).

| CONTROLS - ORDER SEPARATELY   |  |
|---|--|
| Description   | Order Number                             |
| S40 Smart Wi-Fi Thermostat  | 22V24                                    |
| <sup>1</sup> Remote Outdoor Air Temperature Sensor<br>(for dual fuel and EDA) | X2658                                    |
| <sup>5</sup> Discharge Air Temperature Sensor                                 | 88K38                                    |
| OPTIONAL ACCESSORIES - ORDER SEPARA   | ATELY                                    |
| Description   | Order Number                             |
| Downflow Combustible Flooring Base  | 44K15                                    |
| Electric Heat   | See Electric Heat Data Tables on page 16 |
| Electric Heat Circuit Breaker Cover Kit                                       | 82W01                                    |
| Horizontal Support Frame Kit  | 56J18                                    |
| Hot Water Heat Kit  | 90W84                                    |
| Side Return Unit Stand (Upflow Only)  | 45K32                                    |
| Single-Point Power Source Control Box (for Electric Heat)                     | 21H39                                    |
| Wall Hanging Bracket Kit (Upflow Only)  | 45K30                                    |
| High Performance Economizer (Commercial Only)                                 | 10U53                                    |

<sup>&</sup>lt;sup>1</sup> Remote Outdoor Temperature Sensor is used with conventional (non-Lennox® Communicating) outdoor units (sensor is furnished with Lennox® Communicating outdoor units). Allows the thermostat to display outdoor temperature. Required in dual-fuel and Humiditrol® applications.

| REPLACEMENT CIRCUIT BREAKERS |                |             |  |  |  |  |  |  |
|------------------------------|----------------|-------------|--|--|--|--|--|--|
| Voltage                      | Description    | Catalog No. |  |  |  |  |  |  |
| 208/240V - 1 Phase           | 25 amp, 2 pole | 41K13       |  |  |  |  |  |  |
|                              | 30 amp, 2 pole | 17K70       |  |  |  |  |  |  |
|                              | 35 amp, 2 pole | 72K07       |  |  |  |  |  |  |
|                              | 40 amp, 2 pole | 49K14       |  |  |  |  |  |  |
|                              | 45 amp, 2 pole | 17K71       |  |  |  |  |  |  |
|                              | 50 amp, 2 pole | 41K12       |  |  |  |  |  |  |
|                              | 60 amp, 2 pole | 17K72       |  |  |  |  |  |  |
| 208/240V - 3 Phase           | 30 amp, 3 pole | 64W47       |  |  |  |  |  |  |
|                              | 35 amp, 3 pole | 41K14       |  |  |  |  |  |  |
|                              | 40 amp, 3 pole | 41K16       |  |  |  |  |  |  |
|                              | 45 amp, 3 pole | 18M86       |  |  |  |  |  |  |
|                              | 50 amp, 3 pole | 41K15       |  |  |  |  |  |  |
|                              | 60 amp, 3 pole | 41K17       |  |  |  |  |  |  |

<sup>&</sup>lt;sup>2</sup> 2 Optional for EvenHeater® electric heat operation and service diagnostics.

### CBK48MVT-018/024 BLOWER PERFORMANCE

0 through 0.80 in. w.g. External Static Pressure Range

|                   |     | Jumper Speed Positions |         |      |              |     |     |      |  |  |  |
|-------------------|-----|------------------------|---------|------|--------------|-----|-----|------|--|--|--|
| "ADJUST"          |     | "HEAT"                 | ' Speed |      | "COOL" Speed |     |     |      |  |  |  |
| Jumper<br>Setting | 1   | 2                      | 3       | 4    | 1            | 2   | 3   | 4    |  |  |  |
|                   | cfm | cfm                    | cfm     | cfm  | cfm          | cfm | cfm | cfm  |  |  |  |
| +                 | 460 | 685                    | 885     | 1050 | 460          | 685 | 885 | 1050 |  |  |  |
| NORM              | 400 | 575                    | 795     | 940  | 400          | 575 | 795 | 940  |  |  |  |
| -                 | 365 | 515                    | 715     | 830  | 365          | 515 | 715 | 830  |  |  |  |

 $<sup>{\</sup>sf NOTES-The\ effect\ of\ static\ pressure,\ filter\ and\ electric\ heater\ resistance\ is\ included\ in\ the\ air\ volumes\ listed}.$ 

First stage cooling air volume is 70% of COOL speed setting. Continuous fan speed is approximately 28%, 38%, 70% and 100% (Jumper selectable) of the same second-stage COOL speed selected, minimum 250 cfm.

 ${\sf Lennox}^{\texttt{@}} \ {\sf Smart} \ \bar{{\sf Zoning}} \ {\sf System} \ {\sf applications} \ {\sf -minimum} \ {\sf blower} \ {\sf speed} \ {\sf is} \ 250 \ {\sf cfm}.$ 

### CBK48MVT-018/024 BLOWER MOTOR WATTS

| Jumper       |       |    | Motor Watts @ Various External Static Pressures - in. wg. |     |     |     |     |     |     |     |  |  |
|--------------|-------|----|---|-----|-----|-----|-----|-----|-----|-----|--|--|
| Speed Positi | ons   | 0  | 0.1   | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 |  |  |
| "HEAT" Speed | Tap 1 | NA | 32  | 44  | 58  | 71  | 90  | 104 | 131 | 145 |  |  |
|              | Tap 2 | NA | 56  | 85  | 103 | 121 | 139 | 165 | 190 | 207 |  |  |
|              | Tap 3 | NA | 105   | 131 | 161 | 183 | 202 | 241 | 263 | 292 |  |  |
|              | Tap 4 | NA | 164   | 194 | 220 | 253 | 277 | 310 | 330 | 360 |  |  |
| "COOL" Speed | Tap 1 | NA | 32  | 44  | 58  | 71  | 90  | 104 | 131 | 145 |  |  |
|              | Tap 2 | NA | 56  | 85  | 103 | 121 | 139 | 165 | 190 | 207 |  |  |
|              | Tap 3 | NA | 105   | 131 | 161 | 183 | 202 | 241 | 263 | 292 |  |  |
|              | Tap 4 | NA | 164   | 194 | 220 | 253 | 277 | 310 | 330 | 360 |  |  |

### AT "NORM" SETTING ("Adjust" Jumper at NORM Setting)

| Jumper       |       |    | Motor Watts @ Various External Static Pressures - in. wg. |     |     |     |     |     |     |     |  |  |
|--------------|-------|----|---|-----|-----|-----|-----|-----|-----|-----|--|--|
| Speed Positi | ons   | 0  | 0.1   | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 |  |  |
| "HEAT" Speed | Tap 1 | NA | 27  | 42  | 52  | 69  | 79  | 99  | 114 | 133 |  |  |
|              | Tap 2 | NA | 44  | 59  | 77  | 95  | 117 | 137 | 152 | 183 |  |  |
|              | Tap 3 | NA | 79  | 108 | 126 | 159 | 181 | 199 | 231 | 252 |  |  |
|              | Tap 4 | NA | 117   | 145 | 167 | 197 | 228 | 254 | 273 | 313 |  |  |
| "COOL" Speed | Tap 1 | NA | 27  | 42  | 52  | 69  | 79  | 99  | 114 | 133 |  |  |
|              | Tap 2 | NA | 44  | 59  | 77  | 95  | 117 | 137 | 152 | 183 |  |  |
|              | Tap 3 | NA | 79  | 108 | 126 | 159 | 181 | 199 | 231 | 252 |  |  |
|              | Tap 4 | NA | 117   | 145 | 167 | 197 | 228 | 254 | 273 | 313 |  |  |

| Jumper       |       |    | Motor Watts @ Various External Static Pressures - in. wg. |     |     |     |     |     |     |     |  |  |
|--------------|-------|----|---|-----|-----|-----|-----|-----|-----|-----|--|--|
| Speed Positi | ons   | 0  | 0.1   | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 |  |  |
| "HEAT" Speed | Tap 1 | NA | 24  | 40  | 48  | 60  | 76  | 94  | 106 | 117 |  |  |
|              | Tap 2 | NA | 37  | 48  | 68  | 93  | 106 | 129 | 145 | 157 |  |  |
|              | Tap 3 | NA | 70  | 85  | 106 | 129 | 153 | 181 | 203 | 222 |  |  |
|              | Tap 4 | NA | 90  | 117 | 138 | 162 | 190 | 216 | 236 | 265 |  |  |
| "COOL" Speed | Tap 1 | NA | 24  | 40  | 48  | 60  | 76  | 94  | 106 | 117 |  |  |
|              | Tap 2 | NA | 37  | 48  | 68  | 93  | 106 | 129 | 145 | 157 |  |  |
|              | Tap 3 | NA | 70  | 85  | 106 | 129 | 153 | 181 | 203 | 222 |  |  |
|              | Tap 4 | NA | 90  | 117 | 138 | 162 | 190 | 216 | 236 | 265 |  |  |

### **CBK48MVT-030 BLOWER PERFORMANCE**

0 through 0.80 in. w.g. External Static Pressure Range

|                   |     | Jumper Speed Positions |         |      |              |     |      |      |  |  |  |
|-------------------|-----|------------------------|---------|------|--------------|-----|------|------|--|--|--|
| "ADJUST"          |     | "HEAT"                 | ' Speed |      | "COOL" Speed |     |      |      |  |  |  |
| Jumper<br>Setting | 1   | 2                      | 3       | 4    | 1            | 2   | 3    | 4    |  |  |  |
|                   | cfm | cfm                    | cfm     | cfm  | cfm          | cfm | cfm  | cfm  |  |  |  |
| +                 | 630 | 875                    | 1095    | 1315 | 630          | 875 | 1095 | 1315 |  |  |  |
| NORM              | 545 | 785                    | 995     | 1195 | 545          | 785 | 995  | 1195 |  |  |  |
| -                 | 510 | 700                    | 890     | 1075 | 510          | 700 | 890  | 1075 |  |  |  |

 $NOTES-The\ effect\ of\ static\ pressure,\ filter\ and\ electric\ heater\ resistance\ is\ included\ in\ the\ air\ volumes\ listed.$ 

First stage cooling air volume is 70% of COOL speed setting. Continuous fan speed is approximately 28%, 38%, 70% and 100% (Jumper selectable) of the same second-stage COOL speed selected, minimum 250 cfm.

Lennox® Smart Zoning System applications - minimum blower speed is 250 cfm.

### **CBK48MVT-030 BLOWER MOTOR WATTS**

| Jumper       |       |    | Motor Watts @ Various External Static Pressures - in. wg. |     |     |     |     |     |     |     |  |  |
|--------------|-------|----|---|-----|-----|-----|-----|-----|-----|-----|--|--|
| Speed Positi | ons   | 0  | 0.1   | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 |  |  |
| "HEAT" Speed | Tap 1 | NA | 35  | 55  | 76  | 95  | 116 | 138 | 164 | 179 |  |  |
|              | Tap 2 | NA | 80  | 100 | 122 | 148 | 171 | 194 | 214 | 239 |  |  |
|              | Tap 3 | NA | 140   | 167 | 189 | 216 | 237 | 273 | 291 | 322 |  |  |
|              | Tap 4 | NA | 231   | 262 | 295 | 328 | 355 | 377 | 412 | 441 |  |  |
| "COOL" Speed | Tap 1 | NA | 35  | 55  | 76  | 95  | 116 | 138 | 164 | 179 |  |  |
|              | Tap 2 | NA | 80  | 100 | 122 | 148 | 171 | 194 | 214 | 239 |  |  |
|              | Tap 3 | NA | 140   | 167 | 189 | 216 | 237 | 273 | 291 | 322 |  |  |
|              | Tap 4 | NA | 231   | 262 | 295 | 328 | 355 | 377 | 412 | 441 |  |  |

### AT "NORM" SETTING ("Adjust" Jumper at NORM Setting)

| Jumper       |       |    | M   | otor Watts | @ Various | External S | tatic Press | ures - in. w | g.  |     |
|--------------|-------|----|-----|------------|-----------|------------|-------------|--------------|-----|-----|
| Speed Positi | ons   | 0  | 0.1 | 0.2        | 0.3       | 0.4        | 0.5         | 0.6          | 0.7 | 0.8 |
| "HEAT" Speed | Tap 1 | NA | 36  | 48         | 61        | 80         | 92          | 114          | 124 | 139 |
|              | Tap 2 | NA | 61  | 84         | 104       | 122        | 143         | 169          | 186 | 210 |
|              | Tap 3 | NA | 109 | 134        | 153       | 178        | 203         | 231          | 254 | 281 |
|              | Tap 4 | NA | 174 | 205        | 238       | 264        | 284         | 310          | 338 | 372 |
| "COOL" Speed | Tap 1 | NA | 36  | 48         | 61        | 80         | 92          | 114          | 124 | 139 |
|              | Tap 2 | NA | 61  | 84         | 104       | 122        | 143         | 169          | 186 | 210 |
|              | Tap 3 | NA | 109 | 134        | 153       | 178        | 203         | 231          | 254 | 281 |
|              | Tap 4 | NA | 174 | 205        | 238       | 264        | 284         | 310          | 338 | 372 |

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|------------------|-------|-----------|-----------|------------|-----------|------------|-------------|--------------|-----|-----|
| Jumper           |       |           | M         | otor Watts | @ Various | External S | tatic Press | ures - in. w | g.  |     |
| Speed Positi     | ons   | 0         | 0.1       | 0.2        | 0.3       | 0.4        | 0.5         | 0.6          | 0.7 | 0.8 |
| "HEAT" Speed     | Tap 1 | NA        | 29        | 43         | 58        | 77         | 88          | 102          | 119 | 134 |
|                  | Tap 2 | NA        | 44        | 64         | 89        | 106        | 125         | 157          | 174 | 202 |
|                  | Tap 3 | NA        | 85        | 104        | 129       | 152        | 176         | 199          | 219 | 239 |
|                  | Tap 4 | NA        | 133       | 157        | 185       | 207        | 231         | 258          | 285 | 317 |
| "COOL" Speed     | Tap 1 | NA        | 29        | 43         | 58        | 77         | 88          | 102          | 119 | 134 |
|                  | Tap 2 | NA        | 44        | 64         | 89        | 106        | 125         | 157          | 174 | 202 |
|                  | Tap 3 | NA        | 85        | 104        | 129       | 152        | 176         | 199          | 219 | 239 |
|                  | Tap 4 | NA        | 133       | 157        | 185       | 207        | 231         | 258          | 285 | 317 |

### **CBK48MVT-036 BLOWER PERFORMANCE**

0 through 0.80 in. w.g. External Static Pressure Range

| "ADJUST" |     | -      |       | Jumper Spe | ed Positions |        |         |      |
|----------|-----|--------|-------|------------|--------------|--------|---------|------|
| Jumper   |     | "HEAT" | Speed |            |              | "COOL" | ' Speed |      |
| Setting  | 1   | 2      | 3     | 4          | 1            | 2      | 3       | 4    |
|          | cfm | cfm    | cfm   | cfm        | cfm          | cfm    | cfm     | cfm  |
| +        | 920 | 1255   | 1410  | 1580       | 920          | 1255   | 1410    | 1580 |
| NORM     | 815 | 1165   | 1315  | 1435       | 815          | 1165   | 1315    | 1435 |
| _        | 720 | 1010   | 1155  | 1285       | 720          | 1010   | 1155    | 1285 |

 $NOTES-The\ effect\ of\ static\ pressure,\ filter\ and\ electric\ heater\ resistance\ is\ included\ in\ the\ air\ volumes\ listed.$ 

First stage cooling air volume is 70% of COOL speed setting. Continuous fan speed is approximately 28%, 38%, 70% and 100% (Jumper selectable) of the same second-stage COOL speed selected, minimum 250 cfm.

Lennox® Smart Zoning System applications - minimum blower speed is 250 cfm.

### **CBK48MVT-036 BLOWER MOTOR WATTS**

| AT "+" (Plus) SET | TING ("A | djust" Jum | per at "+" | Setting)   |           |            |             |              |     |     |
|-------------------|----------|------------|------------|------------|-----------|------------|-------------|--------------|-----|-----|
| Jumper            |          |            | M          | otor Watts | @ Various | External S | tatic Press | ures - in. w | g.  |     |
| Speed Positi      | ons      | 0          | 0.1        | 0.2        | 0.3       | 0.4        | 0.5         | 0.6          | 0.7 | 0.8 |
| "HEAT" Speed      | Tap 1    | n/a        | 88         | 108        | 132       | 161        | 190         | 208          | 234 | 248 |
|                   | Tap 2    | n/a        | 174        | 212        | 237       | 269        | 304         | 328          | 370 | 385 |
|                   | Tap 3    | n/a        | 232        | 282        | 314       | 341        | 374         | 410          | 434 | 473 |
|                   | Tap 4    | n/a        | 332        | 365        | 409       | 438        | 480         | 520          | 546 | 576 |
| "COOL" Speed      | Tap 1    | n/a        | 88         | 108        | 132       | 161        | 190         | 208          | 234 | 248 |
|                   | Tap 2    | n/a        | 174        | 212        | 237       | 269        | 304         | 328          | 370 | 385 |
|                   | Tap 3    | n/a        | 232        | 282        | 314       | 341        | 374         | 410          | 434 | 473 |
|                   | Tap 4    | n/a        | 332        | 365        | 409       | 438        | 480         | 520          | 546 | 576 |

### AT "NORM" SETTING ("Adjust" Jumper at NORM Setting)

| Jumper       |       |     | Motor Watts @ Various External Static Pressures - in. wg. |     |     |     |     |     |     |     |  |  |  |
|--------------|-------|-----|---|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| Speed Positi | ons   | 0   | 0.1   | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 |  |  |  |
| "HEAT" Speed | Tap 1 | n/a | 70  | 89  | 113 | 137 | 155 | 188 | 199 | 233 |  |  |  |
|              | Tap 2 | n/a | 145   | 168 | 201 | 221 | 258 | 279 | 316 | 348 |  |  |  |
|              | Tap 3 | n/a | 200   | 223 | 265 | 293 | 316 | 359 | 374 | 403 |  |  |  |
|              | Tap 4 | n/a | 259   | 291 | 309 | 351 | 390 | 429 | 447 | 488 |  |  |  |
| "COOL" Speed | Tap 1 | n/a | 70  | 89  | 113 | 137 | 155 | 188 | 199 | 233 |  |  |  |
|              | Tap 2 | n/a | 145   | 168 | 201 | 221 | 258 | 279 | 316 | 348 |  |  |  |
|              | Tap 3 | n/a | 200   | 223 | 265 | 293 | 316 | 359 | 374 | 403 |  |  |  |
|              | Tap 4 | n/a | 259   | 291 | 309 | 351 | 390 | 429 | 447 | 488 |  |  |  |

| Jumper       |       |     | M   | otor Watts | @ Various | <b>External S</b> | tatic Press | ures - in. w | g.  |     |
|--------------|-------|-----|-----|------------|-----------|-------------------|-------------|--------------|-----|-----|
| Speed Positi | ons   | 0   | 0.1 | 0.2        | 0.3       | 0.4               | 0.5         | 0.6          | 0.7 | 0.8 |
| "HEAT" Speed | Tap 1 | n/a | 50  | 78         | 97        | 119               | 144         | 163          | 185 | 199 |
|              | Tap 2 | n/a | 105 | 130        | 156       | 177               | 212         | 239          | 264 | 280 |
|              | Tap 3 | n/a | 144 | 167        | 197       | 224               | 255         | 281          | 316 | 340 |
|              | Tap 4 | n/a | 191 | 229        | 253       | 283               | 310         | 339          | 366 | 398 |
| "COOL" Speed | Tap 1 | n/a | 50  | 78         | 97        | 119               | 144         | 163          | 185 | 199 |
|              | Tap 2 | n/a | 105 | 130        | 156       | 177               | 212         | 239          | 264 | 280 |
|              | Tap 3 | n/a | 144 | 167        | 197       | 224               | 255         | 281          | 316 | 340 |
|              | Tap 4 | n/a | 191 | 229        | 253       | 283               | 310         | 339          | 366 | 398 |

### **CBK48MVT-042 BLOWER PERFORMANCE**

0 through 0.80 in. w.g. External Static Pressure Range

| "ADJUST" | Jumper Speed Positions |        |       |      |      |        |         |      |  |  |  |  |
|----------|------------------------|--------|-------|------|------|--------|---------|------|--|--|--|--|
| Jumper   |                        | "HEAT" | Speed |      |      | "COOL" | ' Speed |      |  |  |  |  |
| Setting  | 1                      | 2      | 3     | 4    | 1    | 2      | 3       | 4    |  |  |  |  |
|          | cfm                    | cfm    | cfm   | cfm  | cfm  | cfm    | cfm     | cfm  |  |  |  |  |
| +        | 1100                   | 1320   | 1540  | 1760 | 1100 | 1320   | 1540    | 1760 |  |  |  |  |
| NORM     | 1000                   | 1200   | 1400  | 1600 | 1000 | 1200   | 1400    | 1600 |  |  |  |  |
| _        | 900                    | 1080   | 1260  | 1440 | 900  | 1080   | 1260    | 1440 |  |  |  |  |

 $NOTES-The\ effect\ of\ static\ pressure,\ filter\ and\ electric\ heater\ resistance\ is\ included\ in\ the\ air\ volumes\ listed.$ 

First stage cooling air volume is 70% of COOL speed setting. Continuous fan speed is approximately 28%, 38%, 70% and 100% (Jumper selectable) of the same second-stage COOL speed selected, minimum 450 cfm.

 ${\sf Lennox}^{\texttt{@}} \ {\sf Smart} \ \bar{{\sf Zoning}} \ {\sf System} \ {\sf applications} \ {\sf -minimum} \ {\sf blower} \ {\sf speed} \ {\sf is} \ {\sf 450} \ {\sf cfm}.$ 

### **CBK48MVT-042 BLOWER MOTOR WATTS**

| Jumper       |       |    | M   | otor Watts | @ Various | <b>External S</b> | tatic Press | ures - in. w | g.  |     |
|--------------|-------|----|-----|------------|-----------|-------------------|-------------|--------------|-----|-----|
| Speed Positi | ons   | 0  | 0.1 | 0.2        | 0.3       | 0.4               | 0.5         | 0.6          | 0.7 | 0.8 |
| "HEAT" Speed | Tap 1 | NA | 121 | 154        | 177       | 199               | 233         | 252          | 283 | 315 |
|              | Tap 2 | NA | 189 | 221        | 247       | 282               | 310         | 344          | 370 | 403 |
|              | Tap 3 | NA | 283 | 312        | 341       | 382               | 422         | 454          | 481 | 515 |
|              | Tap 4 | NA | 407 | 446        | 488       | 528               | 567         | 583          | 646 | 671 |
| "COOL" Speed | Tap 1 | NA | 121 | 154        | 177       | 199               | 233         | 252          | 283 | 315 |
|              | Tap 2 | NA | 189 | 221        | 247       | 282               | 310         | 344          | 370 | 403 |
|              | Tap 3 | NA | 283 | 312        | 341       | 382               | 422         | 454          | 481 | 515 |
|              | Tap 4 | NA | 407 | 446        | 488       | 528               | 567         | 583          | 646 | 671 |

| Jumper       |       |    | M   | otor Watts | @ Various | External S | tatic Press | ures - in. w | g.  |     |
|--------------|-------|----|-----|------------|-----------|------------|-------------|--------------|-----|-----|
| Speed Positi | ons   | 0  | 0.1 | 0.2        | 0.3       | 0.4        | 0.5         | 0.6          | 0.7 | 0.8 |
| "HEAT" Speed | Tap 1 | NA | 104 | 134        | 153       | 184        | 207         | 236          | 257 | 286 |
|              | Tap 2 | NA | 142 | 171        | 203       | 234        | 253         | 298          | 327 | 351 |
|              | Tap 3 | NA | 212 | 240        | 269       | 308        | 337         | 371          | 408 | 429 |
|              | Tap 4 | NA | 309 | 341        | 367       | 406        | 441         | 476          | 516 | 559 |
| "COOL" Speed | Tap 1 | NA | 104 | 134        | 153       | 184        | 207         | 236          | 257 | 286 |
|              | Tap 2 | NA | 142 | 171        | 203       | 234        | 253         | 298          | 327 | 351 |
|              | Tap 3 | NA | 212 | 240        | 269       | 308        | 337         | 371          | 408 | 429 |
|              | Tap 4 | NA | 309 | 341        | 367       | 406        | 441         | 476          | 516 | 559 |

| Jumper       |       |    | M   | lotor Watts | @ Various | <b>External S</b> | tatic Press | ures - in. w | g.  |     |
|--------------|-------|----|-----|-------------|-----------|-------------------|-------------|--------------|-----|-----|
| Speed Positi | ons   | 0  | 0.1 | 0.2         | 0.3       | 0.4               | 0.5         | 0.6          | 0.7 | 0.8 |
| "HEAT" Speed | Tap 1 | NA | 78  | 104         | 126       | 155               | 175         | 199          | 209 | 247 |
|              | Tap 2 | NA | 115 | 139         | 168       | 196               | 218         | 247          | 274 | 309 |
|              | Tap 3 | NA | 165 | 192         | 220       | 247               | 290         | 316          | 360 | 376 |
|              | Tap 4 | NA | 237 | 269         | 301       | 327               | 356         | 407          | 430 | 481 |
| "COOL" Speed | Tap 1 | NA | 78  | 104         | 126       | 155               | 175         | 199          | 209 | 247 |
|              | Tap 2 | NA | 115 | 139         | 168       | 196               | 218         | 247          | 274 | 309 |
|              | Tap 3 | NA | 165 | 192         | 220       | 247               | 290         | 316          | 360 | 376 |
|              | Tap 4 | NA | 237 | 269         | 301       | 327               | 356         | 407          | 430 | 481 |

### **CBK48MVT-048 BLOWER PERFORMANCE**

0 through 0.80 in. w.g. External Static Pressure Range

|                   |      |        |         | Jumper Spe | ed Positions |        |         |      |
|-------------------|------|--------|---------|------------|--------------|--------|---------|------|
| "ADJUST"          |      | "HEAT" | ' Speed |            |              | "COOL" | ' Speed |      |
| Jumper<br>Setting | 1    | 2      | 3       | 4          | 1            | 2      | 3       | 4    |
|                   | cfm  | cfm    | cfm     | cfm        | cfm          | cfm    | cfm     | cfm  |
| +                 | 1670 | 1870   | 2100    | 2200       | 1670         | 1870   | 2100    | 2200 |
| NORM              | 1460 | 1670   | 1870    | 2100       | 1460         | 1670   | 1870    | 2100 |
| -                 | 1230 | 1410   | 1600    | 1800       | 1230         | 1410   | 1600    | 1800 |

 $NOTES-The\ effect\ of\ static\ pressure,\ filter\ and\ electric\ heater\ resistance\ is\ included\ in\ the\ air\ volumes\ listed.$ 

First stage cooling air volume is 70% of COOL speed setting. Continuous fan speed is approximately 28%, 38%, 70% and 100% (Jumper selectable) of the same second-stage COOL speed selected, minimum 450 cfm.

 ${\sf Lennox}^{\texttt{@}} \ {\sf Smart} \ \bar{{\sf Zoning}} \ {\sf System} \ {\sf applications} \ {\sf -minimum} \ {\sf blower} \ {\sf speed} \ {\sf is} \ {\sf 450} \ {\sf cfm}.$ 

### **CBK48MVT-048 BLOWER MOTOR WATTS**

| Jumper         |            |           | N         | lotor Watts | @ Various | <b>External S</b> | tatic Press | ures - in. w | g.   |      |
|----------------|------------|-----------|-----------|-------------|-----------|-------------------|-------------|--------------|------|------|
| Speed Positi   | ions       | 0         | 0.1       | 0.2         | 0.3       | 0.4               | 0.5         | 0.6          | 0.7  | 0.8  |
| "HEAT" Speed   | Tap 1      | NA        | 335       | 374         | 399       | 436               | 495         | 518          | 572  | 611  |
|                | Tap 2      | NA        | 459       | 502         | 537       | 586               | 644         | 689          | 724  | 759  |
|                | Tap 3      | NA        | 668       | 738         | 778       | 845               | 881         | 957          | 996  | 1019 |
|                | Tap 4      | NA        | 808       | 865         | 922       | 975               | 1003        | 1025         | 1017 | 987  |
| "COOL" Speed   | Tap 1      | NA        | 335       | 374         | 399       | 436               | 495         | 518          | 572  | 611  |
|                | Tap 2      | NA        | 459       | 502         | 537       | 586               | 644         | 689          | 724  | 759  |
|                | Tap 3      | NA        | 668       | 738         | 778       | 845               | 881         | 957          | 996  | 1019 |
|                | Tap 4      | NA        | 808       | 865         | 922       | 975               | 1003        | 1025         | 1017 | 987  |
| AT "NORM" SETT | ΓING ("Adj | ust" Jump | er at NOR | M Setting)  | •         | •                 | •           | •            |      |      |
| Jumper         |            |           | IV        | lotor Watts | @ Various | Evtornal S        | tatic Proce | ures in w    | 'n   |      |

| Jumper       | •     |    | M   | otor Watts | @ Various | External S | tatic Press | ures - in. w | g.  |     |
|--------------|-------|----|-----|------------|-----------|------------|-------------|--------------|-----|-----|
| Speed Positi | ons   | 0  | 0.1 | 0.2        | 0.3       | 0.4        | 0.5         | 0.6          | 0.7 | 0.8 |
| "HEAT" Speed | Tap 1 | NA | 225 | 264        | 289       | 336        | 358         | 396          | 432 | 464 |
|              | Tap 2 | NA | 320 | 374        | 398       | 434        | 484         | 523          | 558 | 610 |
| Tap 3        |       | NA | 451 | 498        | 529       | 583        | 619         | 682          | 721 | 768 |
|              | Tap 4 | NA | 643 | 699        | 731       | 795        | 848         | 919          | 966 | 998 |
| "COOL" Speed | Tap 1 | NA | 225 | 264        | 289       | 336        | 358         | 396          | 432 | 464 |
|              | Tap 2 | NA | 320 | 374        | 398       | 434        | 484         | 523          | 558 | 610 |
| Tap 3        |       | NA | 451 | 498        | 529       | 583        | 619         | 682          | 721 | 768 |
|              | Tap 4 | NA | 643 | 699        | 731       | 795        | 848         | 919          | 966 | 998 |

| Jumper       | •     |    | M   | lotor Watts | @ Various | <b>External S</b> | tatic Press | ures - in. w | g.  |     |
|--------------|-------|----|-----|-------------|-----------|-------------------|-------------|--------------|-----|-----|
| Speed Positi | ons   | 0  | 0.1 | 0.2         | 0.3       | 0.4               | 0.5         | 0.6          | 0.7 | 0.8 |
| "HEAT" Speed | Tap 1 | NA | 146 | 178         | 207       | 227               | 265         | 299          | 317 | 359 |
|              | Tap 2 | NA | 207 | 243         | 272       | 305               | 345         | 371          | 419 | 438 |
| Tap 3        |       | NA | 290 | 347         | 383       | 412               | 447         | 486          | 525 | 548 |
|              | Tap 4 | NA | 410 | 440         | 491       | 528               | 572         | 613          | 651 | 694 |
| "COOL" Speed | Tap 1 | NA | 146 | 178         | 207       | 227               | 265         | 299          | 317 | 359 |
|              | Tap 2 | NA | 207 | 243         | 272       | 305               | 345         | 371          | 419 | 438 |
| Тар          |       | NA | 290 | 347         | 383       | 412               | 447         | 486          | 525 | 548 |
| Tap 4        |       | NA | 410 | 440         | 491       | 528               | 572         | 613          | 651 | 694 |

### **CBK48MVT-060 BLOWER PERFORMANCE**

0 through 0.80 in. w.g. External Static Pressure Range

| "ADJUST" |      | Jumper Speed Positions |       |      |      |        |         |      |  |  |  |  |  |  |
|----------|------|------------------------|-------|------|------|--------|---------|------|--|--|--|--|--|--|
| Jumper   |      | "HEAT"                 | Speed |      |      | "COOL" | ' Speed |      |  |  |  |  |  |  |
| Setting  | 1    | 2                      | 3     | 4    | 1    | 2      | 3       | 4    |  |  |  |  |  |  |
|          | cfm  | cfm                    | cfm   | cfm  | cfm  | cfm    | cfm     | cfm  |  |  |  |  |  |  |
| +        | 1695 | 1890                   | 2140  | 2210 | 1695 | 1890   | 2140    | 2210 |  |  |  |  |  |  |
| NORM     | 1525 | 1680                   | 1850  | 2075 | 1525 | 1680   | 1850    | 2075 |  |  |  |  |  |  |
| _        | 1300 | 1450                   | 1630  | 1800 | 1300 | 1450   | 1630    | 1800 |  |  |  |  |  |  |

 $NOTES - The \ effect \ of \ static \ pressure, \ filter \ and \ electric \ heater \ resistance \ is \ included \ in \ the \ air \ volumes \ listed.$ 

First stage cooling air volume is 70% of COOL speed setting. Continuous fan speed is approximately 28%, 38%, 70% and 100% (Jumper selectable) of the same second-stage COOL speed selected, minimum 450 cfm.

Lennox® Smart Zoning System applications - minimum blower speed is 450 cfm.

### **CBK48MVT-060 BLOWER MOTOR WATTS**

| AT "+" (Plus) SET | TING ("A | djust" Jum | per at "+" | Setting)   |           |            |             |              |      |      |
|-------------------|----------|------------|------------|------------|-----------|------------|-------------|--------------|------|------|
| Jumper            |          |            | M          | otor Watts | @ Various | External S | tatic Press | ures - in. w | g.   |      |
| Speed Positi      | ons      | 0          | 0.1        | 0.2        | 0.3       | 0.4        | 0.5         | 0.6          | 0.7  | 0.8  |
| "HEAT" Speed      | Tap 1    | NA         | 334        | 368        | 412       | 449        | 491         | 532          | 557  | 603  |
|                   | Tap 2    | NA         | 462        | 511        | 549       | 601        | 640         | 681          | 720  | 762  |
|                   | Tap 3    | NA         | 670        | 710        | 765       | 820        | 868         | 921          | 963  | 1005 |
|                   | Tap 4    | NA         | 757        | 810        | 853       | 909        | 961         | 1001         | 1034 | 1026 |
| "COOL" Speed      | Tap 1    | NA         | 334        | 368        | 412       | 449        | 491         | 532          | 557  | 603  |
|                   | Tap 2    | NA         | 462        | 511        | 549       | 601        | 640         | 681          | 720  | 762  |
| Tap 3             |          | NA         | 670        | 710        | 765       | 820        | 868         | 921          | 963  | 1005 |
|                   | Tap 4    | NA         | 757        | 810        | 853       | 909        | 961         | 1001         | 1034 | 1026 |

### AT "NORM" SETTING ("Adjust" Jumper at NORM Setting)

| Jumper       |       |    | M   | otor Watts | @ Various | External S | tatic Press | ures - in. w | g.  |     |
|--------------|-------|----|-----|------------|-----------|------------|-------------|--------------|-----|-----|
| Speed Positi | ons   | 0  | 0.1 | 0.2        | 0.3       | 0.4        | 0.5         | 0.6          | 0.7 | 0.8 |
| "HEAT" Speed | Tap 1 | NA | 245 | 285        | 319       | 350        | 398         | 425          | 462 | 497 |
|              | Tap 2 | NA | 330 | 368        | 414       | 443        | 469         | 505          | 558 | 600 |
| Tap 3        |       | NA | 442 | 497        | 515       | 554        | 603         | 643          | 685 | 735 |
|              | Tap 4 | NA | 600 | 653        | 701       | 752        | 798         | 842          | 889 | 935 |
| "COOL" Speed | Tap 1 | NA | 245 | 285        | 319       | 350        | 398         | 425          | 462 | 497 |
| Tap 2        |       | NA | 330 | 368        | 414       | 443        | 469         | 505          | 558 | 600 |
|              | Tap 3 | NA | 442 | 497        | 515       | 554        | 603         | 643          | 685 | 735 |
|              | Tap 4 | NA | 600 | 653        | 701       | 752        | 798         | 842          | 889 | 935 |

| A1 (Milliao) 01 |       | rajaot ea | inpor at | oottiiig,   |           |            |             |              |     |     |
|-----------------|-------|-----------|----------|-------------|-----------|------------|-------------|--------------|-----|-----|
| Jumper          |       |           | M        | lotor Watts | @ Various | External S | tatic Press | ures - in. w | g.  |     |
| Speed Positi    | ons   | 0         | 0.1      | 0.2         | 0.3       | 0.4        | 0.5         | 0.6          | 0.7 | 0.8 |
| "HEAT" Speed    | Tap 1 | NA        | 181      | 204         | 235       | 261        | 304         | 323          | 357 | 383 |
|                 | Tap 2 | NA        | 218      | 259         | 283       | 315        | 357         | 390          | 422 | 457 |
| Tap 3           |       | NA        | 300      | 333         | 365       | 395        | 443         | 476          | 527 | 559 |
| Tap 4           |       | NA        | 400      | 430         | 470       | 515        | 543         | 592          | 639 | 678 |
| "COOL" Speed    | Tap 1 | NA        | 181      | 204         | 235       | 261        | 304         | 323          | 357 | 383 |
|                 | Tap 2 | NA        | 218      | 259         | 283       | 315        | 357         | 390          | 422 | 457 |
| Tap 3           |       | NA        | 300      | 333         | 365       | 395        | 443         | 476          | 527 | 559 |
| Tap 4           |       | NA        | 400      | 430         | 470       | 515        | 543         | 592          | 639 | 678 |

| ELECTRIC HE | LECTRIC HEAT DATA  CBK48MVT-018/024   SINGLE PHASE  2Blower 3Minimum 5Movimum |                  |                |             |                |   |   |   |                 |                 |                 |  |  |
|-------------|---|------------------|----------------|-------------|----------------|---|---|---|-----------------|-----------------|-----------------|--|--|
|             | Model Number  | No. of<br>Stages | Volts<br>Input | kW<br>Input | ¹Btuh<br>Input | <sup>2</sup> Blower<br>Motor<br>Full Load<br>Amps | <sup>3</sup> Minimum<br>Circuit<br>Ampacity | <sup>5</sup> Maximum<br>Overcurrent<br>Protection |                 |                 |                 |  |  |
| 4 kW        | ECB48-4 (27A46)   | 1                | 208            | 3.0         | 10,250         | 4.0   | 23  | <sup>4</sup> 25                                   |                 |                 |                 |  |  |
| 4 lbs.      | Terminal Block<br>ECB48-4CB ( <b>27A50</b> )                                  |                  | 220            | 3.4         | 11,450         | 4.0   | 24  | <sup>4</sup> 25                                   |                 |                 |                 |  |  |
|             | 30A Circuit breaker   |                  | 230            | 3.7         | 12,550         | 4.0   | 25  | <sup>4</sup> 25                                   |                 |                 |                 |  |  |
|             |   |                  | 240            | 4.0         | 13,650         | 4.0   | 26  | 30  |                 |                 |                 |  |  |
| 5 kW        | ECB48-5 (27A47)   | 1                | 208            | 3.8         | 12,800         | 4.0   | 28  | 4 30  |                 |                 |                 |  |  |
| 4 lbs.      | Terminal Block<br>ECB48-5CB ( <b>27A51</b> )                                  |                  | 220            | 4.2         | 14,300         | 4.0   | 29  | 4 30  |                 |                 |                 |  |  |
|             | 35A Circuit breaker   |                  | 230            | 4.6         | 15,700         | 4.0   | 30  | 4 30  |                 |                 |                 |  |  |
|             |   |                  | 240            | 5.0         | 17,100         | 4.0   | 31  | 35  |                 |                 |                 |  |  |
| 6 kW        | ECB48-6 <b>(27A48)</b>  | 1                | 208            | 4.5         | 15,400         | 4.0   | 32  | 4 3 5   |                 |                 |                 |  |  |
| 4 lbs.      | Terminal Block<br>ECB48-6CB ( <b>27A52</b> )                                  |                  |                | 220         | 5.0            | 17,100  | 4.0   | 33  | <sup>4</sup> 35 |                 |                 |  |  |
|             | 40A Circuit breaker   |                  |                |             | 230            | 5.5   | 18,800                                      | 4.0   | 35              | <sup>4</sup> 35 |                 |  |  |
|             |   |                  | 240            | 6.0         | 20,500         | 4.0   | 36  | 40  |                 |                 |                 |  |  |
| 8 kW        | ECB48-8 <b>(27A49)</b>  | 2                | 208            | 6.0         | 20,500         | 4.0   | 41  | <sup>4</sup> 45                                   |                 |                 |                 |  |  |
| 5 lbs.      | Terminal Block<br>ECB48-8CB <b>(27A53)</b>                                    |                  |                |             |                | 220   | 6.7   | 22,900  | 4.0             | 43              | <sup>4</sup> 45 |  |  |
|             | 50A Circuit breaker   |                  |                | 230         | 7.3            | 25,100  | 4.0   | 45  | <sup>4</sup> 45 |                 |                 |  |  |
|             |   |                  | 240            | 8.0         | 27,300         | 4.0   | 47  | 50  |                 |                 |                 |  |  |
| 9 kW        | ECB48-9CB (27A54)   | 2                | 208            | 6.8         | 23,100         | 4.0   | 46  | 4 50  |                 |                 |                 |  |  |
| 5 lbs.      | 60A Circuit breaker   |                  | 220            | 7.6         | 25,800         | 4.0   | 48  | 4 50  |                 |                 |                 |  |  |
|             |   |                  | 230            | 8.3         | 28,200         | 4.0   | 50  | 4 50  |                 |                 |                 |  |  |
|             |   |                  | 240            | 9.0         | 30,700         | 4.0   | 52  | 60  |                 |                 |                 |  |  |

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

<sup>&</sup>lt;sup>2</sup> 2 Amps shown are for blower motor only.

<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.

<sup>4 4</sup> Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Replacement Circuit Breakers on page 9.

<sup>&</sup>lt;sup>5</sup> 5 HACR type circuit breaker or fuse.

| ELEC    | ELECTRIC HEAT DATA  CBK48MVT-030   SINGLE PHASE  3 Minimum |        |       |       |        |                                      |       |                       |                 |                          |   |   |
|---------|--|--------|-------|-------|--------|--------------------------------------|-------|-----------------------|-----------------|--------------------------|---|---|
|         | Model Number   | No. of |       |       | ¹Btuh  | <sup>2</sup> Blower<br>Motor<br>Full | Cir   | imum<br>cuit<br>acity | Overc           | imum<br>urrent<br>ection | Power                                       | e Point<br>Source                                 |
|         |  | Stages | Input | Input | Input  | Load<br>Amps                         | CkT 1 | Ckt 2                 | CkT 1           | Ckt 2                    | <sup>3</sup> Minimum<br>Circuit<br>Ampacity | <sup>5</sup> Maximum<br>Overcurrent<br>Protection |
| 4 kW    | ECB48-4 (27A46)  | 1      | 208   | 3.0   | 10,250 | 4.0                                  | 23    |                       | 425             |                          | 23  | 25  |
| 4 lbs.  | Terminal Block<br>ECB48-4CB (27A50)                        |        | 220   | 3.4   | 11,450 | 4.0                                  | 24    |                       | <sup>4</sup> 25 |                          | 24  | 25  |
|         | 30A Circuit breaker  |        | 230   | 3.7   | 12,550 | 4.0                                  | 25    |                       | <sup>4</sup> 25 |                          | 25  | 25  |
|         |  |        | 240   | 4.0   | 13,650 | 4.0                                  | 26    |                       | 30              |                          | 26  | 30  |
| 5 kW    | ECB48-5 <b>(27A47)</b>                                     | 1      | 208   | 3.8   | 12,800 | 4.0                                  | 28    |                       | 4 30            |                          | 28  | 30  |
| 4 lbs.  | Terminal Block<br>ECB48-5CB (27A51)                        |        | 220   | 4.2   | 14,300 | 4.0                                  | 29    |                       | 4 30            |                          | 29  | 30  |
|         | 35A Circuit breaker  |        | 230   | 4.6   | 15,700 | 4.0                                  | 30    |                       | ⁴ 30            |                          | 30  | 30  |
|         |  |        | 240   | 5.0   | 17,100 | 4.0                                  | 31    |                       | 35              |                          | 31  | 35  |
| 6 kW    | ECB48-6 (27A48)  | 1      | 208   | 4.5   | 15,400 | 4.0                                  | 32    |                       | <sup>4</sup> 35 |                          | 32  | 35  |
| 4 lbs.  | Terminal Block<br>ECB48-6CB (27A52)                        |        | 220   | 5.0   | 17,100 | 4.0                                  | 33    |                       | ⁴ 35            |                          | 33  | 35  |
|         | 40A Circuit breake   |        | 230   | 5.5   | 18,800 | 4.0                                  | 35    |                       | <sup>4</sup> 35 |                          | 35  | 35  |
|         |  |        | 240   | 6.0   | 20,500 | 4.0                                  | 36    |                       | 40              |                          | 36  | 40  |
| 8 kW    | ECB48-8 (27A49)  | 2      | 208   | 6.0   | 20,500 | 4.0                                  | 41    |                       | 445             |                          | 41  | 45  |
| 5 lbs.  | Terminal Block<br>ECB48-8CB (27A53)                        |        | 220   | 6.7   | 22,900 | 4.0                                  | 43    |                       | 445             |                          | 43  | 45  |
|         | 50A Circuit breaker  |        | 230   | 7.3   | 25,100 | 4.0                                  | 45    |                       | 445             |                          | 45  | 45  |
|         |  |        | 240   | 8.0   | 27,300 | 4.0                                  | 47    |                       | 50              |                          | 47  | 50  |
| 9 kW    | ECB48-9CB (27A54)  | 2      | 208   | 6.8   | 23,100 | 4.0                                  | 46    |                       | 4 50            |                          | 46  | 50  |
| 5 lbs.  | 60A Circuit breaker  |        | 220   | 7.6   | 25,800 | 4.0                                  | 48    |                       | 4 50            |                          | 48  | 50  |
|         |  |        | 230   | 8.3   | 28,200 | 4.0                                  | 50    |                       | <sup>4</sup> 50 |                          | 50  | 50  |
|         |  |        | 240   | 9.0   | 30,700 | 4.0                                  | 52    |                       | 60              |                          | 52  | 60  |
| 12.5 kW | ECB48-12.5CB (27A55)                                       | 2      | 208   | 9.4   | 32,000 | 4.0                                  | 24    | 38                    | <sup>4</sup> 25 | 4 40                     | 61  | 70  |
| 10 lbs. | (1) 30A and<br>(1) 45A Circuit breaker                     |        | 220   | 10.5  | 35,800 | 4.0                                  | 25    | 40                    | <sup>4</sup> 25 | 4 40                     | 65  | 70  |
|         | (1)  |        | 230   | 11.5  | 39,200 | 4.0                                  | 26    | 42                    | 30              | 45                       | 67  | 70  |
|         |  |        | 240   | 12.5  | 42,600 | 4.0                                  | 27    | 44                    | 30              | 45                       | 71  | 80  |
| 15 kW   | ECB48-15CB (27A56)   | 2      | 208   | 11.3  | 38,400 | 4.0                                  | 28    | 45                    | 430             | 445                      | 73  | 80  |
| 12 lbs. | (1) 35A and<br>(1) 60A Circuit breaker                     |        | 220   | 12.6  | 43,000 | 4.0                                  | 29    | 48                    | 4 30            | <sup>4</sup> 50          | 77  | 80  |
|         | (-)  |        | 230   | 13.8  | 47,000 | 4.0                                  | 30    | 50                    | 430             | <sup>4</sup> 50          | 80  | 80  |
|         |  |        | 240   | 15.0  | 51,200 | 4.0                                  | 31    | 52                    | 35              | 60                       | 83  | 90  |

 $<sup>^{\</sup>scriptsize 1}$  1 Electric heater capacity only - does not include additional blower motor heat capacity.

<sup>&</sup>lt;sup>2</sup> 2 Amps shown are for blower motor only.

<sup>&</sup>lt;sup>3</sup> 3 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>&</sup>lt;sup>4</sup> 4 Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Replacement Circuit Breakers on page 9.

 $<sup>^{\</sup>rm 5}\,$  5 HACR type circuit breaker or fuse.

| ELECTRIC HEAT DATA  CBK48MVT-036   SIN |  |        |       |       |        |                              |       | SINGL                 | E PHASE         |                          |   |   |
|--|--|--------|-------|-------|--------|------------------------------|-------|-----------------------|-----------------|--------------------------|---|---|
|  | Model Number                                 | No. of |       | kW    | ¹Btuh  | <sup>2</sup> Blower<br>Motor | Cir   | imum<br>cuit<br>acity | Overc           | imum<br>urrent<br>ection |   | le Point<br>r Source                              |
|  | woder number                                 | Stages | Input | Input | Input  | Full Load<br>Amps            | Ckt 1 | Ckt 2                 | Ckt 1           | Ckt 2                    | <sup>3</sup> Minimum<br>Circuit<br>Ampacity | <sup>5</sup> Maximum<br>Overcurrent<br>Protection |
| 4 kW                                   | ECB48-4 (27A46)                              | 1      | 208   | 3.0   | 10,250 | 5.9                          | 25    |                       | 4 25            |                          | 25  | 25  |
| 4 lbs.                                 | Terminal Block<br>ECB48-4CB (27A50)          |        | 220   | 3.4   | 11,450 | 5.9                          | 26    |                       | 30              |                          | 26  | 30  |
|  | 35A Circuit breaker                          |        | 230   | 3.7   | 12,550 | 5.9                          | 27    |                       | 30              |                          | 27  | 30  |
|  |  |        | 240   | 4.0   | 13,650 | 5.9                          | 28    |                       | 30              |                          | 28  | 30  |
| 5 kW                                   | ECB48-5 (27A47)                              | 1      | 208   | 3.8   | 12,800 | 5.9                          | 30    |                       | 4 30            |                          | 30  | 30  |
| 4 lbs.                                 | Terminal Block<br>ECB48-5CB (27A51)          |        | 220   | 4.2   | 14,300 | 5.9                          | 31    |                       | 35              |                          | 31  | 35  |
|  | 35A Circuit breaker                          |        | 230   | 4.6   | 15,700 | 5.9                          | 32    |                       | 35              |                          | 32  | 35  |
|  |  |        | 240   | 5.0   | 17,100 | 5.9                          | 33    |                       | 35              |                          | 33  | 35  |
| 6 kW                                   | ECB48-6 (27A48)                              | 1      | 208   | 4.5   | 15,400 | 5.9                          | 34    |                       | 4 35            |                          | 34  | 35  |
| 4 lbs.                                 | Terminal Block<br>ECB48-6CB (27A52)          |        | 220   | 5.0   | 17,100 | 5.9                          | 36    |                       | 40              |                          | 36  | 40  |
|  | 40A Circuit breaker                          |        | 230   | 5.5   | 18,800 | 5.9                          | 37    |                       | 40              |                          | 37  | 40  |
|  |  |        | 240   | 6.0   | 20,500 | 5.9                          | 39    |                       | 40              |                          | 39  | 40  |
| 8 kW                                   | ECB48-8 (27A49)                              | 2      | 208   | 6.0   | 20,500 | 5.9                          | 43    |                       | 445             |                          | 43  | 45  |
| 5 lbs.                                 | Terminal Block<br>ECB48-8CB (27A53)          |        | 220   | 6.7   | 22,900 | 5.9                          | 46    |                       | 50              |                          | 46  | 50  |
|  | 50A Circuit breaker                          |        | 230   | 7.3   | 25,100 | 5.9                          | 47    |                       | 50              |                          | 47  | 50  |
|  |  |        | 240   | 8.0   | 27,300 | 5.9                          | 49    |                       | 50              |                          | 49  | 50  |
| 9 kW                                   | ECB48-9CB (27A54)                            | 2      | 208   | 6.8   | 23,100 | 5.9                          | 48    |                       | <sup>4</sup> 50 |                          | 48  | 50  |
| 5 lbs.                                 | 60A Circuit breaker                          |        | 220   | 7.6   | 25,800 | 5.9                          | 50    |                       | 4 50            |                          | 50  | 60  |
|  |  |        | 230   | 8.3   | 28,200 | 5.9                          | 52    |                       | 60              |                          | 52  | 60  |
|  |  |        | 240   | 9.0   | 30,700 | 5.9                          | 54    |                       | 60              |                          | 54  | 60  |
|  | ECB48-12.5CB (27A55)                         | 2      | 208   | 9.4   | 32,000 | 5.9                          | 26    | 38                    | 30              | 4 40                     | 64  | 70  |
| 10 lbs.                                | (1) 30A and<br>(1) 45A Circuit breaker       |        | 220   | 10.5  | 35,800 | 5.9                          | 27    | 40                    | 30              | 4 40                     | 67  | 70  |
|  | (1) 10/10/10/10/10/10/10/10/10/10/10/10/10/1 |        | 230   | 11.5  | 39,200 | 5.9                          | 28    | 42                    | 30              | 45                       | 70  | 70  |
|  |  |        | 240   | 12.5  | 42,600 | 5.9                          | 29    | 44                    | 30              | 45                       | 72  | 80  |
| 15 kW                                  | ECB48-15CB (27A56)                           | 2      | 208   | 11.3  | 38,400 | 5.9                          | 30    | 45                    | 4 30            | <sup>4</sup> 50          | 75  | 80  |
| 12 lbs.                                | (1) 35A and (1) 60A Circuit breaker          |        | 220   | 12.6  | 43,000 | 5.9                          | 31    | 48                    | 35              | <sup>4</sup> 50          | 79  | 80  |
|  | (1) oor t on our broaker                     |        | 230   | 13.8  | 47,000 | 5.9                          | 32    | 50                    | 35              | <sup>4</sup> 50          | 82  | 90  |
|  |  |        | 240   | 15.0  | 51,200 | 5.9                          | 33    | 52                    | 35              | 60                       | 86  | 90  |
| 20 kW                                  | ECB48-20CB (27A57)                           | 2      | 208   | 15.0  | 51,200 | 5.9                          | 48    | 50                    | <sup>4</sup> 50 | <sup>4</sup> 50          | 98  | 100   |
| 19 lbs.                                | (2) 60A Circuit breaker                      |        | 220   | 16.8  | 57,300 | 5.9                          | 50    | 53                    | <sup>4</sup> 50 | 60                       | 103   | 110   |
|  |  |        | 230   | 18.4  | 62,700 | 5.9                          | 52    | 55                    | 60              | 60                       | 107   | 110   |
|  |  |        | 240   | 20.0  | 68,200 | 5.9                          | 54    | 57                    | 60              | 60                       | 112   | 125   |

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

<sup>&</sup>lt;sup>2</sup> 2 Amps shown are for blower motor only.

<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.

<sup>&</sup>lt;sup>4</sup> 4 Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Replacement Circuit Breakers on page 9.

 $<sup>^{\</sup>rm 5}~$  5 HACR type circuit breaker or fuse.

| ELEC    | TRIC HEAT DATA                  |        |       |       |        |                              |       | CBK4                 | 8MV   | Т-036           | THRE  | E PHASE   |
|---------|---------------------------------|--------|-------|-------|--------|------------------------------|-------|----------------------|---|-----------------|---|---|
|         | Model Number                    | No. of | Volts | kW    | ¹Btuh  | <sup>2</sup> Blower<br>Motor | Cir   | mum<br>cuit<br>acity | <sup>5</sup> Maximum<br>Overcurrent<br>Protection |                 | Single Point<br>Power Source                |   |
|         | Model Number                    | Stages | Input | Input | Input  | Full Load<br>Amps            | Ckt 1 | Ckt 2                | Ckt 1   | Ckt 2           | <sup>3</sup> Minimum<br>Circuit<br>Ampacity | <sup>5</sup> Maximum<br>Overcurrent<br>Protection |
| 8 kW    | ECB48-8 (27A61)                 | 1      | 208   | 6.0   | 20,500 | 5.9                          | 28    |                      | 30  |                 | 28  | 30  |
| 5 lbs.  | Terminal Block                  |        | 220   | 6.7   | 22,900 | 5.9                          | 29    |                      | 30  |                 | 29  | 30  |
|         |                                 |        | 230   | 7.3   | 25,100 | 5.9                          | 30    |                      | 30  |                 | 30  | 35  |
|         |                                 |        | 240   | 8.0   | 27,300 | 5.9                          | 31    |                      | 35  |                 | 31  | 35  |
| 10 kW   | •                               | 1      | 208   | 7.5   | 25,600 | 5.9                          | 33    |                      | 35  |                 | 33  | 35  |
| 6 lbs.  | Terminal Block                  |        | 220   | 8.4   | 28,700 | 5.9                          | 35    |                      | 35  |                 | 35  | 35  |
|         |                                 |        | 230   | 9.2   | 31,400 | 5.9                          | 36    |                      | 40  |                 | 36  | 40  |
|         |                                 |        | 240   | 10.0  | 34,100 | 5.9                          | 37    |                      | 40  |                 | 37  | 40  |
| 15 kW   | ECB48-15CB (27A63)              | 1      | 208   | 11.3  | 38,400 | 5.9                          | 46    |                      | 50  |                 | 46  | 50  |
| 12 lbs. | 50A Circuit breaker             |        | 220   | 12.6  | 43,000 | 5.9                          | 49    |                      | 50  |                 | 49  | 50  |
|         |                                 |        | 230   | 13.5  | 47,000 | 5.9                          | 51    |                      | 460   |                 | 51  | 60  |
|         |                                 |        | 240   | 15.0  | 51,200 | 5.9                          | 52    |                      | 460   |                 | 52  | 60  |
| 20 kW   | ECB48-20CB (27A64)              | 2      | 208   | 15.0  | 51,200 | 5.9                          | 33    | 26                   | 35  | <sup>4</sup> 30 | 59  | 60  |
| 19 lbs. | 19 lbs. (2) 35A Circuit breaker |        | 220   | 16.8  | 57,300 | 5.9                          | 35    | 28                   | 35  | 430             | 62  | 70  |
|         |                                 |        | 230   | 18.4  | 62,700 | 5.9                          | 36    | 29                   | <sup>4</sup> 40                                   | 430             | 65  | 70  |
|         |                                 |        | 240   | 20.0  | 68,200 | 5.9                          | 37    | 30                   | 440   | 35              | 67  | 70  |

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

<sup>&</sup>lt;sup>2</sup> 2 Amps shown are for blower motor only.

<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.

<sup>4 4</sup> Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Replacement Circuit Breakers on page 9.

 $<sup>^{\</sup>scriptscriptstyle{5}}\,$  5 HACR type circuit breaker or fuse.

| ELEC.   | TRIC HEAT DATA                         |        |       |       |        |                                   | (     | CBK48                 | вмут            | -042                     | SINGL                                       | E PHASE   |
|---------|--|--------|-------|-------|--------|-----------------------------------|-------|-----------------------|-----------------|--------------------------|---|---|
|         | Madal Newsham                          | No. of | Volts | kW    | ¹Btuh  | <sup>2</sup> Blower<br>Motor Full | Cir   | imum<br>cuit<br>acity | Overc           | imum<br>urrent<br>ection |   | le Point<br>r Source                              |
|         | Model Number                           | Stages | Input | Input | Input  | Load<br>Amps                      | Ckt 1 | Ckt 2                 | Ckt 1           | Ckt 2                    | <sup>3</sup> Minimum<br>Circuit<br>Ampacity | <sup>5</sup> Maximum<br>Overcurrent<br>Protection |
| 4 kW    | ECB48-4 (27A46)                        | 1      | 208   | 3.0   | 10,250 | 7.4                               | 27    |                       | 4 30            |                          | 27  | 30  |
| 4 lbs.  | Terminal Block<br>ECB48-4CB (27A50)    |        | 220   | 3.4   | 11,450 | 7.4                               | 28    |                       | 4 30            |                          | 28  | 30  |
|         | 35A Circuit breaker                    |        | 230   | 3.7   | 12,550 | 7.4                               | 29    |                       | 4 30            |                          | 29  | 30  |
|         |  |        | 240   | 4.0   | 13,650 | 7.4                               | 30    |                       | 4 30            |                          | 30  | 35  |
| 5 kW    | ECB48-5 (27A47)                        | 1      | 208   | 3.8   | 12,800 | 7.4                               | 32    |                       | 35              |                          | 32  | 35  |
| 4 lbs.  | Terminal Block<br>ECB48-5CB (27A51)    |        | 220   | 4.2   | 14,300 | 7.4                               | 33    |                       | 35              |                          | 33  | 35  |
|         | 35A Circuit breaker                    |        | 230   | 4.6   | 15,700 | 7.4                               | 34    |                       | 35              |                          | 34  | 35  |
|         |  |        | 240   | 5.0   | 17,100 | 7.4                               | 35    |                       | 35              |                          | 35  | 40  |
| 6 kW    | ECB48-6 (27A48)                        | 1      | 208   | 4.5   | 15,400 | 7.4                               | 36    |                       | 40              |                          | 36  | 40  |
| 4 lbs.  | Terminal Block<br>ECB48-6CB (27A52)    |        | 220   | 5.0   | 17,100 | 7.4                               | 38    |                       | 40              |                          | 38  | 40  |
|         | 40A Circuit breaker                    |        | 230   | 5.5   | 18,800 | 7.4                               | 39    |                       | 40              |                          | 39  | 40  |
|         |  |        | 240   | 6.0   | 20,500 | 7.4                               | 41    |                       | 445             |                          | 41  | 45  |
| 8 kW    | ECB48-8 (27A49)                        | 2      | 208   | 6.0   | 20,500 | 7.4                               | 45    |                       | 445             |                          | 45  | 50  |
| 5 lbs.  | Terminal Block<br>ECB48-8CB (27A53)    |        | 220   | 6.7   | 22,900 | 7.4                               | 47    |                       | 50              |                          | 47  | 50  |
|         | 50A Circuit breaker                    |        | 230   | 7.3   | 25,100 | 7.4                               | 49    |                       | 50              |                          | 49  | 50  |
|         |  |        | 240   | 8.0   | 27,300 | 7.4                               | 51    |                       | 4 60            |                          | 51  | 60  |
| 9 kW    | ECB48-9CB (27A54)                      | 2      | 208   | 6.8   | 23,100 | 7.4                               | 50    |                       | 445             |                          | 50  | 50  |
| 5 lbs.  | 60A Circuit breaker                    |        | 220   | 7.6   | 25,800 | 7.4                               | 52    |                       | 60              |                          | 52  | 60  |
|         |  |        | 230   | 8.3   | 28,200 | 7.4                               | 54    |                       | 60              |                          | 54  | 60  |
|         |  |        | 240   | 9.0   | 30,700 | 7.4                               | 56    |                       | 60              |                          | 56  | 60  |
|         | ECB48-12.5CB (27A55)                   | 2      | 208   | 9.4   | 32,000 | 7.4                               | 28    | 38                    | 30              | 440                      | 66  | 70  |
| 10 lbs. | (1) 30A and<br>(1) 45A Circuit breaker |        | 220   | 10.5  | 35,800 | 7.4                               | 29    | 40                    | 30              | 4 40                     | 69  | 70  |
|         | (1) 40/1 Official breaker              |        | 230   | 11.5  | 39,200 | 7.4                               | 30    | 42                    | 30              | 45                       | 72  | 80  |
|         |  |        | 240   | 12.5  | 42,600 | 7.4                               | 31    | 44                    | 4 35            | 45                       | 74  | 80  |
| 15 kW   | ECB48-15CB (27A56)                     | 2      | 208   | 11.3  | 38,400 | 7.4                               | 32    | 45                    | 35              | 4 50                     | 77  | 80  |
| 12 lbs. | (1) 35A and<br>(1) 60A Circuit breaker |        | 220   | 12.6  | 43,000 | 7.4                               | 33    | 48                    | 35              | <sup>4</sup> 50          | 81  | 90  |
|         | (1) 00/1 Official breaker              |        | 230   | 13.5  | 47,000 | 7.4                               | 34    | 50                    | 35              | 4 50                     | 84  | 90  |
|         |  |        | 240   | 15.0  | 51,200 | 7.4                               | 35    | 52                    | 35              | 60                       | 87  | 90  |
| 20 kW   | ECB48-20CB (27A57)                     | 2      | 208   | 15.0  | 51,200 | 7.4                               | 50    | 50                    | <sup>4</sup> 50 | 4 50                     | 100   | 100   |
| 19 lbs. | (2) 60A Circuit breaker                |        | 220   | 16.8  | 57,300 | 7.4                               | 52    | 53                    | 60              | 60                       | 105   | 110   |
|         |  |        | 230   | 18.4  | 62,700 | 7.4                               | 54    | 55                    | 60              | 60                       | 109   | 110   |
|         |  |        | 240   | 20.0  | 68,200 | 7.4                               | 56    | 57                    | 60              | 60                       | 113   | 125   |

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

<sup>&</sup>lt;sup>2</sup> 2 Amps shown are for blower motor only.

<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.

<sup>4</sup> Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Replacement Circuit Breakers on page 9.

<sup>&</sup>lt;sup>5</sup> 5 HACR type circuit breaker or fuse.

| <b>ELEC</b> | LECTRIC HEAT DATA CBK48MVT-042   THREE PHASE    |        |       |       |        |                                   |   |       |   |       |   |   |  |
|-------------|---|--------|-------|-------|--------|-----------------------------------|---|-------|---|-------|---|---|--|
|             | Model Number                                    | No. of |       | kW    | ¹Btuh  | <sup>2</sup> Blower<br>Motor Full | <sup>3</sup> Minimum<br>Circuit<br>Ampacity |       | <sup>5</sup> Maximum<br>Overcurrent<br>Protection |       | Single Point<br>Power Source                |   |  |
|             | Model Number                                    | Stages | Input | Input | Input  | Load<br>Amps                      | Ckt 1                                       | Ckt 2 | Ckt 1   | Ckt 2 | <sup>3</sup> Minimum<br>Circuit<br>Ampacity | <sup>5</sup> Maximum<br>Overcurrent<br>Protection |  |
| 8 kW        | ECB48-8 (27A61)                                 | 1      | 208   | 6.0   | 20,500 | 7.4                               | 30  |       | 35  |       | 30  | 35  |  |
| 5 lbs.      | Terminal block                                  |        | 220   | 6.7   | 22,900 | 7.4                               | 31  |       | 35  |       | 31  | 35  |  |
|             |   |        | 230   | 7.3   | 25,100 | 7.4                               | 32  |       | 35  |       | 32  | 35  |  |
|             |   |        | 240   | 8.0   | 27,300 | 7.4                               | 33  |       | 35  |       | 33  | 35  |  |
| 10 kW       | 10 kW ECB48-10 (27A62)<br>6 lbs. Terminal block | 1      | 208   | 7.5   | 25,600 | 7.4                               | 35  |       | 40  |       | 35  | 40  |  |
| 6 lbs.      |   |        | 220   | 8.4   | 28,700 | 7.4                               | 37  |       | 40  |       | 37  | 40  |  |
|             |   |        | 230   | 9.2   | 31,400 | 7.4                               | 38  |       | 40  |       | 38  | 40  |  |
|             |   |        | 240   | 10.0  | 34,100 | 7.4                               | 39  |       | 40  |       | 39  | 40  |  |
| 15 kW       | ECB48-15CB (27A63)                              | 1      | 208   | 11.3  | 38,400 | 7.4                               | 48  |       | 50  |       | 48  | 50  |  |
| 12 lbs.     | 50A Circuit breaker                             |        | 220   | 12.6  | 43,000 | 7.4                               | 51  |       | 4 60  |       | 51  | 60  |  |
|             |   |        | 230   | 13.5  | 47,000 | 7.4                               | 52  |       | 4 60  |       | 52  | 60  |  |
|             |   |        | 240   | 15.0  | 51,200 | 7.4                               | 54  |       | 4 60  |       | 54  | 60  |  |
| 20 kW       | ECB48-20CB (27A64)                              | 2      | 208   | 15.0  | 51,200 | 7.4                               | 35  | 26    | <sup>4</sup> 40                                   | 430   | 61  | 70  |  |
| 19 lbs.     | 19 lbs. (2) 35A Circuit breaker                 |        | 220   | 16.8  | 57,300 | 7.4                               | 37  | 28    | 4 40  | 430   | 64  | 70  |  |
|             |   |        | 230   | 18.4  | 62,700 | 7.4                               | 38  | 29    | <sup>4</sup> 40                                   | 430   | 67  | 70  |  |
|             |   |        | 240   | 20.0  | 68,200 | 7.4                               | 39  | 30    | 440   | 35    | 69  | 70  |  |

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

<sup>&</sup>lt;sup>2</sup> 2 Amps shown are for blower motor only.

<sup>&</sup>lt;sup>3</sup> 3 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>4 4</sup> Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Replacement Circuit Breakers on page 9.

<sup>&</sup>lt;sup>5</sup> 5 HACR type circuit breaker or fuse.

| ELEC         | TRIC HEAT DATA  | <b>\</b> |           |       | СВК4     | 8MVT-                                | 048   | AND                        | CBK   | (48N            | IVT-                       | 060   | SINGL                                       | E PHASE   |
|--------------|---|----------|-----------|-------|----------|--------------------------------------|-------|----------------------------|-------|-----------------|----------------------------|-------|---|---|
|              |   | No. of   | Volts     | kW    | ¹Btuh    | <sup>2</sup> Blower<br>Motor<br>Full | "     | linimu<br>Circuit<br>mpaci | t     | Ov              | laximi<br>ercuri<br>otecti | ent   |   | le Point<br>r Source                              |
| Model Number |   | Stages   | Input Inp | Input | ut Input | Load<br>Amps                         | Ckt 1 | Ckt 2                      | Ckt 3 | Ckt 1           | Ckt 2                      | Ckt 3 | <sup>3</sup> Minimum<br>Circuit<br>Ampacity | <sup>5</sup> Maximum<br>Overcurrent<br>Protection |
| 4 kW         | ECB48-4 (27A46)   |          | 208       | 3.0   | 10,250   | 7.4                                  | 27    |                            |       | 4 30            |                            |       | 27  | 30  |
| 4 lbs.       | Terminal Block<br>ECB48-4CB (27A50)                               |          | 220       | 3.4   | 11,450   | 7.4                                  | 28    |                            |       | 430             |                            |       | 28  | 30  |
|              | 35A Circuit breaker   |          | 230       | 3.7   | 12,550   | 7.4                                  | 29    |                            |       | 430             |                            |       | 29  | 30  |
|              |   |          | 240       | 4.0   | 13,650   | 7.4                                  | 30    |                            |       | 4 30            |                            |       | 30  | 35  |
| 5 kW         | ECB48-5 (27A47)   | 1        | 208       | 3.8   | 12,800   | 7.4                                  | 32    |                            |       | 35              |                            |       | 32  | 35  |
| 4 lbs.       | Terminal Block<br>ECB48-5CB (27A51)                               |          | 220       | 4.2   | 14,300   | 7.4                                  | 33    |                            |       | 35              |                            |       | 33  | 35  |
|              | 35A Circuit breaker   |          | 230       | 4.6   | 15,700   | 7.4                                  | 34    |                            |       | 35              |                            |       | 34  | 35  |
|              |   |          | 240       | 5.0   | 17,100   | 7.4                                  | 35    |                            |       | 35              |                            |       | 35  | 40  |
| 6 kW         | ECB48-6 (27A48)   | 1        | 208       | 4.5   | 15,400   | 7.4                                  | 36    |                            |       | 40              |                            |       | 36  | 40  |
| 4 lbs.       | Terminal Block<br>ECB48-6CB (27A52)                               |          | 220       | 5.0   | 17,100   | 7.4                                  | 38    |                            |       | 40              |                            |       | 38  | 40  |
|              | 40A Circuit breaker   |          | 230       | 5.5   | 18,800   | 7.4                                  | 39    |                            |       | 40              |                            |       | 39  | 40  |
|              |   |          | 240       | 6.0   | 20,500   | 7.4                                  | 41    |                            |       | 445             |                            |       | 41  | 45  |
| 8 kW         | ECB48-8 (27A49)   | 2        | 208       | 6.0   | 20,500   | 7.4                                  | 45    |                            |       | 445             |                            |       | 45  | 50  |
| 5 lbs.       | 5 lbs. Terminal Block<br>ECB48-8CB (27A53)<br>50A Circuit breaker |          | 220       | 6.7   | 22,900   | 7.4                                  | 47    |                            |       | 50              |                            |       | 47  | 50  |
|              |   |          | 230       | 7.3   | 25,100   | 7.4                                  | 49    |                            |       | 50              |                            |       | 49  | 50  |
|              |   |          | 240       | 8.0   | 27,300   | 7.4                                  | 51    |                            |       | 460             |                            |       | 51  | 60  |
| 9 kW         | ECB48-9CB (27A54)   |          | 208       | 6.8   | 23,100   | 7.4                                  | 50    |                            |       | 4 50            |                            |       | 50  | 50  |
| 5 lbs.       | 60A Circuit breaker   |          | 220       | 7.6   | 25,800   | 7.4                                  | 52    |                            |       | 60              |                            |       | 52  | 60  |
|              |   |          | 230       | 8.3   | 28,200   | 7.4                                  | 54    |                            |       | 60              |                            |       | 54  | 60  |
|              |   |          | 240       | 9.0   | 30,700   | 7.4                                  | 56    |                            |       | 60              |                            |       | 56  | 60  |
|              | / ECB48-12.5CB (27A55)  | 2        | 208       | 9.4   | 32,000   | 7.4                                  | 28    | 38                         |       | 30              | 440                        |       | 66  | 70  |
| 10 lbs.      | (1) 30A and<br>(1) 45A Circuit breaker                            |          | 220       | 10.5  | 35,800   | 7.4                                  | 29    | 40                         |       | 30              | 440                        |       | 69  | 70  |
|              | (1) Tort Girouit broaker  |          | 230       | 11.5  | 39,200   | 7.4                                  | 30    | 42                         |       | 30              | 45                         |       | 72  | 80  |
|              |   |          | 240       | 12.5  | 42,600   | 7.4                                  | 31    | 44                         |       | 435             | 45                         |       | 74  | 80  |
| 15 kW        | ECB48-15CB (27A56)  | 2        | 208       | 11.3  | 38,400   | 7.4                                  | 32    | 45                         |       | 35              | 4 50                       |       | 77  | 80  |
| 12 lbs.      | (1) 35A and<br>(1) 60A Circuit breaker                            |          | 220       | 12.6  | 43,000   | 7.4                                  | 33    | 48                         |       | 35              | 4 50                       |       | 81  | 90  |
|              | (1) 00/1 Onoun breaker  |          | 230       | 13.5  | 47,000   | 7.4                                  | 34    | 50                         |       | 35              | 4 50                       |       | 84  | 90  |
|              |   |          | 240       | 15.0  | 51,200   | 7.4                                  | 35    | 52                         |       | 35              | 60                         |       | 87  | 90  |
| 20 kW        | ECB48-20CB (27A57)  | 2        | 208       | 15.0  | 51,200   | 7.4                                  | 50    | 50                         |       | <sup>4</sup> 50 | 4 50                       |       | 100   | 100   |
| 19 lbs.      | (2) 60A Circuit breaker   |          | 220       | 16.8  | 57,300   | 7.4                                  | 52    | 53                         |       | 60              | 60                         |       | 105   | 110   |
|              |   |          | 230       | 18.4  | 62,700   | 7.4                                  | 54    | 55                         |       | 60              | 60                         |       | 109   | 110   |
|              |   |          | 240       | 20.0  | 68,200   | 7.4                                  | 56    | 57                         |       | 60              | 60                         |       | 113   | 125   |
| 25 kW        | ECB48-25CB (27A58)  | 3        | 208       | 18.8  | 64,100   | 7.4                                  | 47    | 38                         | 38    | 4 50            | 440                        | 440   | 122   | 125   |
| 19 lbs.      | (1) 60A and<br>(2) 45A Circuit breaker                            |          | 220       | 21.0  | 71,700   | 7.4                                  | 49    | 40                         | 40    | 4 50            | 440                        | 440   | 129   | 150   |
|              | (2) TON Circuit breaker   |          | 230       | 23.0  | 78,300   | 7.4                                  | 51    | 42                         | 42    | 60              | 45                         | 45    | 134   | 150   |
|              |   |          | 240       | 25.0  | 85,300   | 7.4                                  | 53    | 44                         | 44    | 60              | 45                         | 45    | 140   | 150   |

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

 $<sup>^{2}\,</sup>$  2 Amps shown are for blower motor only.

<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.

<sup>4 4</sup> Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Replacement Circuit Breakers on page 9.

<sup>&</sup>lt;sup>5</sup> 5 HACR type circuit breaker or fuse.

| ELEC    | TRIC HEAT DATA                      | <b>\</b> |       |             | CBK4   | -TVM8  | 048   | AND   | CBK48MVT-060   THREE PHASE                        |       |   |  |  |  |
|---------|-------------------------------------|----------|-------|-------------|--------|--|---|-------|---|-------|---|--|--|--|
|         | Model Number                        |          | Volts | kW<br>Input | ¹ Btuh | <sup>2</sup> Blower<br>Motor<br>Full<br>Load<br>Amps | <sup>3</sup> Minimum<br>Circuit<br>Ampacity |       | <sup>5</sup> Maximum<br>Overcurrent<br>Protection |       | Single Point<br>Power Source                |  |  |  |
|         |                                     |          | Input |             |        |  | Ckt 1                                       | Ckt 2 | Ckt 1   | Ckt 2 | <sup>3</sup> Minimum<br>Circuit<br>Ampacity | ⁵ Maximum<br>Overcurrent<br>Protection |  |  |
| 8 kW    | ECB48-8 (27A61)                     |          | 208   | 6.0         | 20,500 | 7.4  | 30  |       | 35  |       | 30  | 35                                     |  |  |
| 5 lbs.  | Terminal block                      |          | 220   | 6.7         | 22,900 | 7.4  | 31  |       | 35  |       | 31  | 35                                     |  |  |
|         |                                     |          | 230   | 7.3         | 25,100 | 7.4  | 32  |       | 35  |       | 32  | 35                                     |  |  |
|         |                                     |          | 240   | 8.0         | 27,300 | 7.4  | 33  |       | 35  |       | 33  | 35                                     |  |  |
| 10 kW   | ECB48-10 (27A62)                    | 1        | 208   | 7.5         | 25,600 | 7.4  | 35  |       | 40  |       | 35  | 40                                     |  |  |
| 6 lbs.  | 6 lbs. Terminal block               |          | 220   | 8.4         | 28,700 | 7.4  | 37  |       | 40  |       | 37  | 40                                     |  |  |
|         |                                     |          | 230   | 9.2         | 31,400 | 7.4  | 38  |       | 40  |       | 38  | 40                                     |  |  |
|         |                                     |          | 240   | 10.0        | 34,100 | 7.4  | 39  |       | 40  |       | 39  | 40                                     |  |  |
| 15 kW   | ECB48-15CB (27A63)                  | 1        | 208   | 11.3        | 38,400 | 7.4  | 48  |       | 50  |       | 48  | 50                                     |  |  |
| 12 lbs. | 50A Circuit breaker                 |          | 220   | 12.6        | 43,000 | 7.4  | 51  |       | 460   |       | 51  | 60                                     |  |  |
|         |                                     |          | 230   | 13.5        | 47,000 | 7.4  | 52  |       | <sup>4</sup> 60                                   |       | 52  | 60                                     |  |  |
|         |                                     |          | 240   | 15.0        | 51,200 | 7.4  | 54  |       | 460   |       | 54  | 60                                     |  |  |
| 20 kW   | ECB48-20CB (27A64)                  | 2        | 208   | 15.0        | 51,200 | 7.4  | 35  | 26    | 440   | 430   | 61  | 70                                     |  |  |
| 19 lbs. | (2) 35A Circuit breaker             |          | 220   | 16.8        | 57,300 | 7.4  | 37  | 28    | 440   | 430   | 64  | 70                                     |  |  |
|         |                                     |          | 230   | 18.4        | 62,700 | 7.4  | 38  | 29    | 440   | 430   | 67  | 70                                     |  |  |
|         |                                     |          | 240   | 20.0        | 68,200 | 7.4  | 39  | 30    | 440   | 35    | 69  | 70                                     |  |  |
| 25 kW   | ECB48-25CB (27A65)                  | 2        | 208   | 18.8        | 64,100 | 7.4  | 42  | 33    | 445   | 435   | 74  | 80                                     |  |  |
| 19 lbs. | (1) 50A and (1) 40A Circuit breaker |          | 220   | 21.0        | 71,700 | 7.4  | 44  | 34    | 445   | 435   | 78  | 80                                     |  |  |
|         | ( )                                 |          | 230   | 23.0        | 78,300 | 7.4  | 45  | 36    | 50  | 40    | 81  | 90                                     |  |  |
|         |                                     |          | 240   | 25.0        | 85,300 | 7.4  | 47  | 38    | 50  | 40    | 84  | 90                                     |  |  |

 ${\sf NOTE-Circuit\ 1\ Minimum\ Circuit\ Ampacity\ includes\ the\ Blower\ Motor\ Full\ Load\ Amps.}$ 

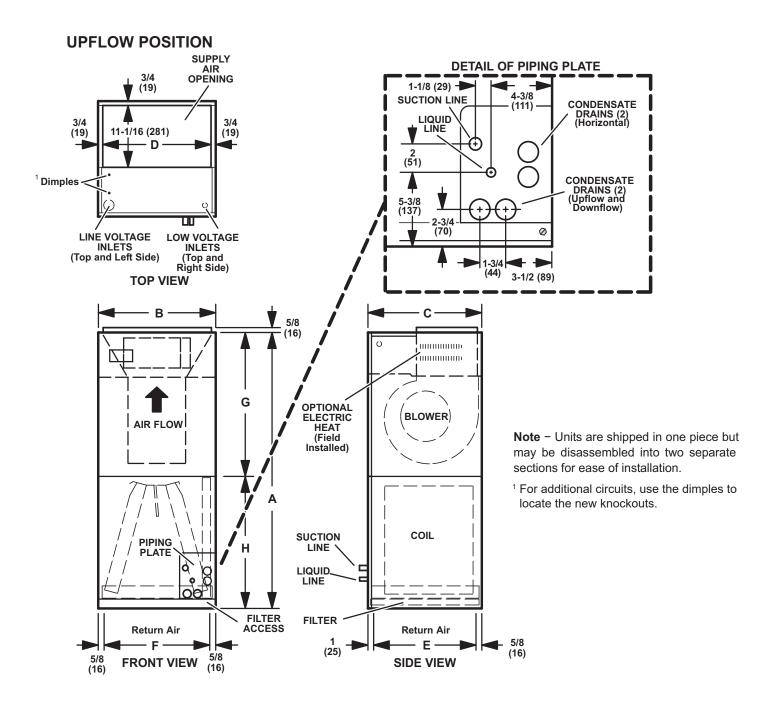
 $<sup>^{\</sup>scriptsize 1}$  1 Electric heater capacity only - does not include additional blower motor heat capacity.

 $<sup>^{2}\,</sup>$  2 Amps shown are for blower motor only.

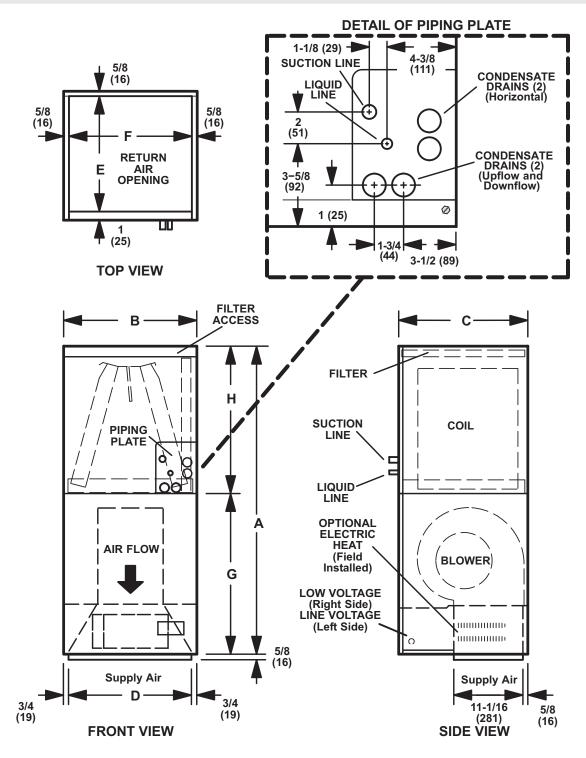
<sup>&</sup>lt;sup>3</sup> 3 Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>&</sup>lt;sup>4</sup> 4 Bold text indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size noted. See Replacement Circuit Breakers on page 9.

<sup>&</sup>lt;sup>5</sup> 5 HACR type circuit breaker or fuse.



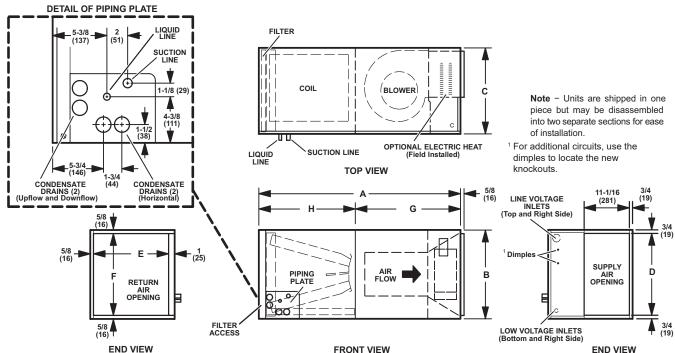
| Size       | Α      |      | В      |     | С      |     | D      |     | E  |     | F  |     | G      |     | Н      |     |
|------------|--------|------|--------|-----|--------|-----|--------|-----|----|-----|----|-----|--------|-----|--------|-----|
| Size       | in     | mm   | in     | mm  | in     | mm  | in     | mm  | in | mm  | in | mm  | in     | mm  | in     | mm  |
| 018/024    | 49-1/4 | 1251 | 21-1/4 | 540 | 20-5/8 | 524 | 19-3/4 | 502 | 19 | 483 | 20 | 508 | 24-5/8 | 625 | 24-5/8 | 625 |
| 030<br>036 | 51     | 1295 | 21-1/4 | 540 | 22-5/8 | 575 | 19-3/4 | 502 | 21 | 533 | 20 | 508 | 26-3/8 | 670 | 24-5/8 | 625 |
| 042<br>048 | 58-1/2 | 1486 | 21-1/4 | 540 | 24-5/8 | 625 | 19-3/4 | 502 | 23 | 584 | 20 | 508 | 27-7/8 | 708 | 30-5/8 | 778 |
| 060        | 62-1/2 | 1588 | 21-1/4 | 540 | 24-5/8 | 625 | 19-3/4 | 502 | 23 | 584 | 20 | 508 | 27-7/8 | 708 | 34-5/8 | 879 |



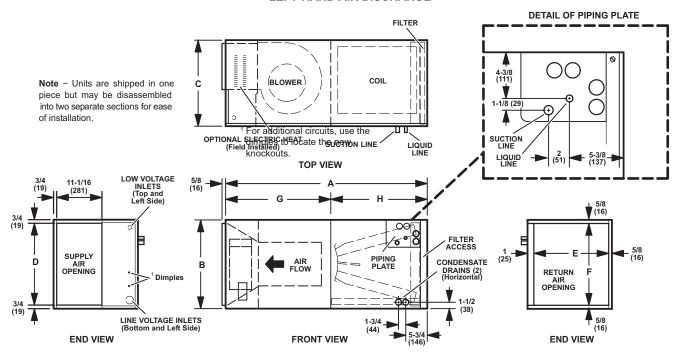
**Note** – Units are shipped in one piece but may be disassembled into two separate sections for ease of installation.

| Size       | Α      |      | В      |     | С      |     | D      |     | E  |     | F  |     | G      |     | Н      |     |
|------------|--------|------|--------|-----|--------|-----|--------|-----|----|-----|----|-----|--------|-----|--------|-----|
| Size       | in     | mm   | in     | mm  | in     | mm  | in     | mm  | in | mm  | in | mm  | in     | mm  | in     | mm  |
| 018/024    | 49-1/4 | 1251 | 21-1/4 | 540 | 20-5/8 | 524 | 19-3/4 | 502 | 19 | 483 | 20 | 508 | 24-5/8 | 625 | 24-5/8 | 625 |
| 030<br>036 | 51     | 1295 | 21-1/4 | 540 | 22-5/8 | 575 | 19-3/4 | 502 | 21 | 533 | 20 | 508 | 26-3/8 | 670 | 24-5/8 | 625 |
| 042<br>048 | 58-1/2 | 1486 | 21-1/4 | 540 | 24-5/8 | 625 | 19-3/4 | 502 | 23 | 584 | 20 | 508 | 27-7/8 | 708 | 30-5/8 | 778 |
| 060        | 62-1/2 | 1588 | 21-1/4 | 540 | 24-5/8 | 625 | 19-3/4 | 502 | 23 | 584 | 20 | 508 | 27-7/8 | 708 | 34-5/8 | 879 |

### **RIGHT-HAND AIR DISCHARGE**



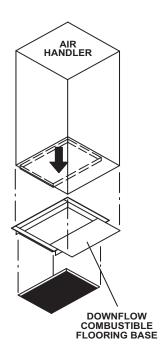
### **LEFT-HAND AIR DISCHARGE**



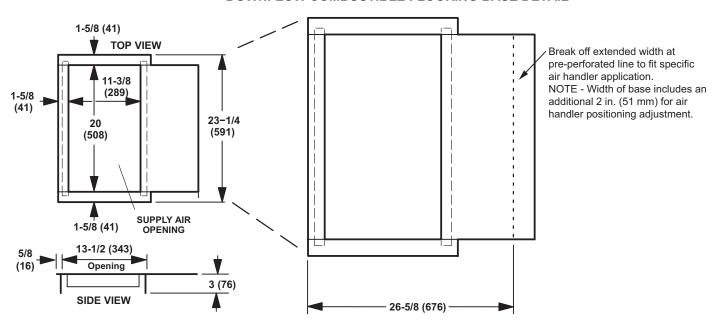
| Size       | Α      |      | В      |     | С      |     | D      |     | E  |     | F  |     | G      |     | Н      |     |
|------------|--------|------|--------|-----|--------|-----|--------|-----|----|-----|----|-----|--------|-----|--------|-----|
| Size       | in     | mm   | in     | mm  | in     | mm  | in     | mm  | in | mm  | in | mm  | in     | mm  | in     | mm  |
| 018/024    | 49-1/4 | 1251 | 21-1/4 | 540 | 20-5/8 | 524 | 19-3/4 | 502 | 19 | 483 | 20 | 508 | 24-5/8 | 625 | 24-5/8 | 625 |
| 030<br>036 | 51     | 1295 | 21-1/4 | 540 | 22-5/8 | 575 | 19-3/4 | 502 | 21 | 533 | 20 | 508 | 26-3/8 | 670 | 24-5/8 | 625 |
| 042<br>048 | 58-1/2 | 1486 | 21-1/4 | 540 | 24-5/8 | 625 | 19-3/4 | 502 | 23 | 584 | 20 | 508 | 27-7/8 | 708 | 30-5/8 | 778 |
| 060        | 62-1/2 | 1588 | 21-1/4 | 540 | 24-5/8 | 625 | 19-3/4 | 502 | 23 | 584 | 20 | 508 | 27-7/8 | 708 | 34-5/8 | 879 |

DIMENSIONS ACCESSORIES

### DOWNFLOW COMBUSTIBLE FLOORING BASE

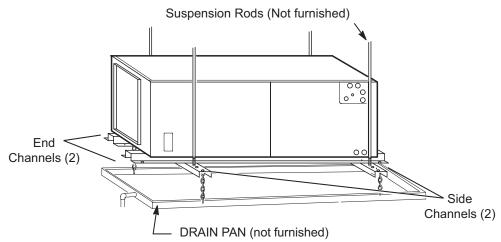


### DOWNFLOW COMBUSTIBLE FLOORING BASE DETAIL



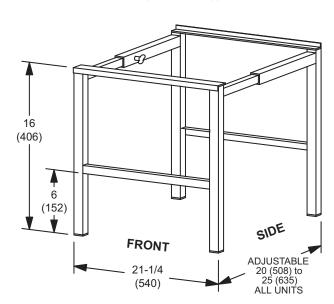
DIMENSIONS ACCESSORIES

### HORIZONTAL SUPPORT FRAME KIT



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.

### SIDE RETURN UNIT STAND (Upflow Only)



| REVISIONS      |  |  |  |  |  |  |  |
|----------------|--|--|--|--|--|--|--|
| Sections       | Description of Change                              |  |  |  |  |  |  |
| Specifications | Added Factory Installed Expansion Valve (TXV) data |  |  |  |  |  |  |









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