

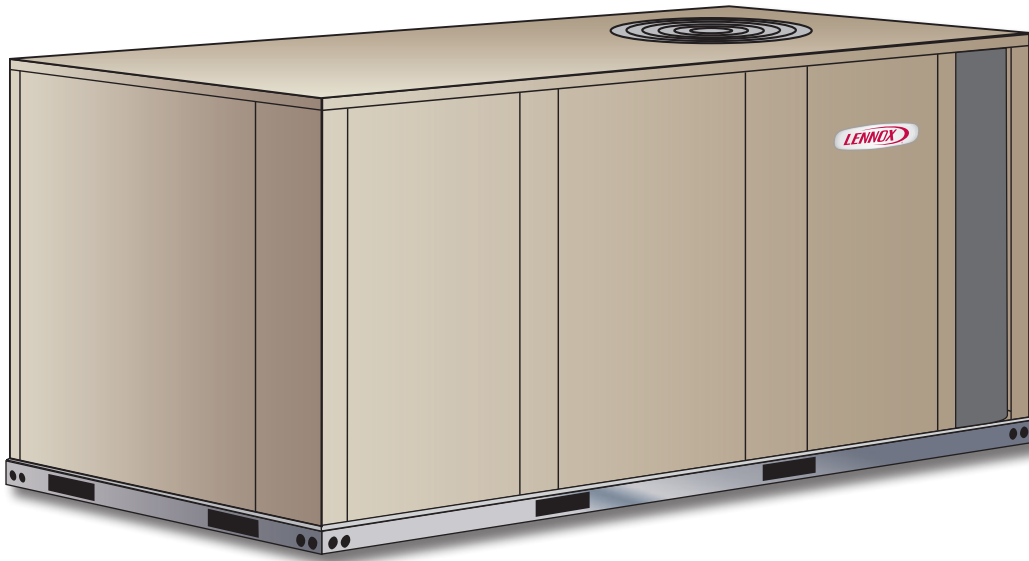


**KCB**

**Xion™ Rooftop Units  
Standard Efficiency - 60 Hz**

**COMMERCIAL  
PRODUCT SPECIFICATIONS**

Bulletin No. 210989  
February 2024  
Supersedes all previous versions



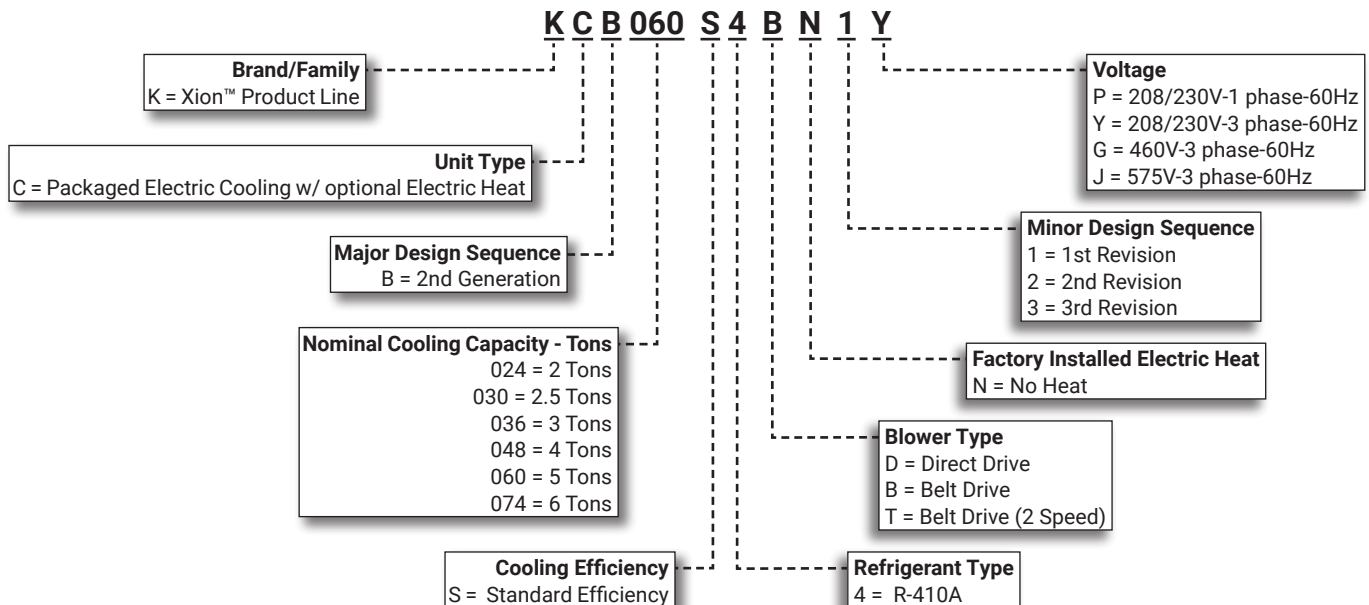
**XION**



**ASHRAE 90.1  
COMPLIANT**

**2 to 6 Tons  
Net Cooling Capacity - 24,000 to 68,000 Btuh  
Optional Electric Heat - 5 to 30 kW**

**MODEL NUMBER IDENTIFICATION**

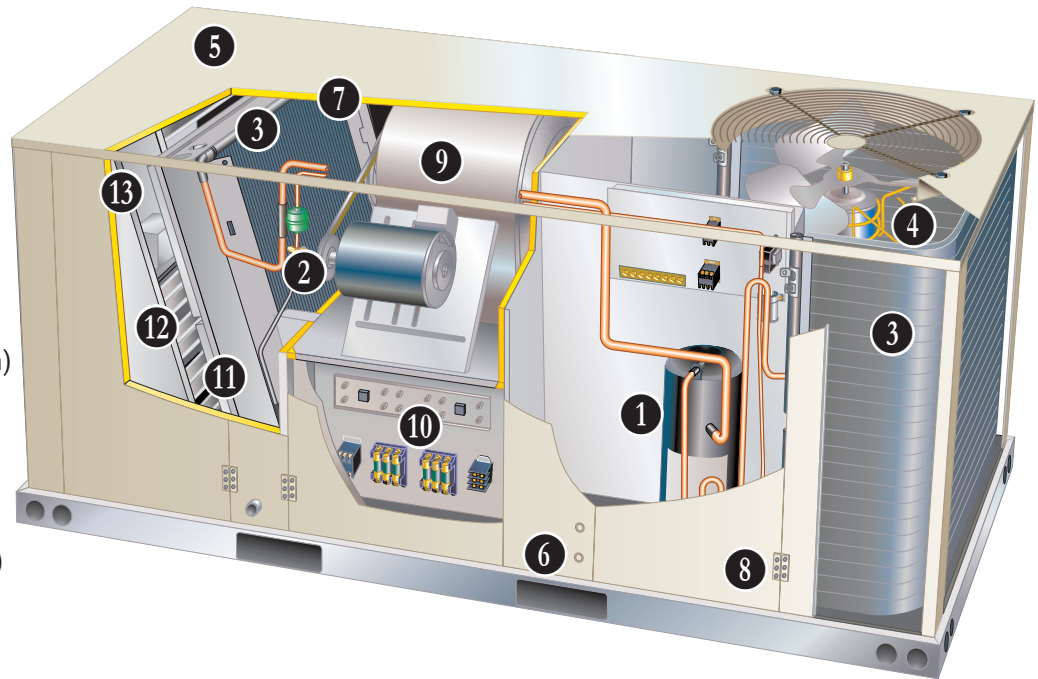


NOTE - This document applies to all KCB 2-6 Ton Xion™ products built on or after January 1st, 2023.

## FEATURE HIGHLIGHTS

Xion™ rooftop units are engineered with the right technologies and options to meet standard efficiency requirements while delivering reliable performance and year-round comfort.

1. Scroll Compressor
2. Thermal Expansion Valves
3. Environ™ Coil System
4. Outdoor Coil Fan Motors
5. Heavy Gauge Steel Cabinet
6. Power Entry
7. Fully Insulated Cabinet
8. Hinged Access Panels (option)
9. Supply Air Blower
10. Electric Heat (option)
11. Air Filters
12. Economizer (option)
13. Power Exhaust Fans (option)



## CONTENTS

Approvals And Warranty . . . . .	3
Blower Data . . . . .	23
Dimensions - Accessories . . . . .	46
Dimensions - Unit . . . . .	45
Electrical/Electric Heat Data . . . . .	34
Electric Heat Capacities . . . . .	42
Features And Benefits . . . . .	3
Humiditrol® Dehumidification System Option . . . . .	11
Humiditrol® Dehumidification System Ratings . . . . .	21
Model Number Identification . . . . .	1
Optional Conventional Temperature Control Systems . . . . .	10
Options / Accessories . . . . .	12
Outdoor Sound Data . . . . .	33
Ratings . . . . .	19
Specifications - Belt Drive Blower . . . . .	17
Specifications - Direct Drive Blower . . . . .	15
Unit Clearances . . . . .	42
Weight Data . . . . .	43

## APPROVALS AND WARRANTY

### APPROVALS

- AHRI Standard 210/240 certified (2 - 5 ton models)
- AHRI Standard 340/360 certified (6 ton models)
- ETL and CSA listed
- CSA certified energy ratings
- Unit and components are ETL, NEC, and CEC bonded for grounding to meet safety standards for servicing
- All models are ASHRAE 90.1 compliant
- All models meet DOE 2023 energy efficiency standards
- ISO 9001 Registered Manufacturing Quality System

### WARRANTY

- Compressors - Limited five years
- Environ™ Coil System - Limited three years
- High Performance Economizers (optional) - Limited five years
- All other covered components - Limited one year

## FEATURES AND BENEFITS

### COOLING SYSTEM

- Designed to maximize sensible and latent cooling performance at design conditions
- System can operate from 30°F to 125°F without any additional controls

#### R-410A Refrigerant

- Non-chlorine based
- Ozone-friendly

#### 1 Single-Stage Scroll Compressor (024 through 060 Models)

- High performance, reliability and quiet operation
- Resiliently mounted on rubber grommets for quiet operation

#### Two-Stage Scroll Compressor (074 Models)

- Two-stage scroll compressors on all models for high performance, reliability, quiet operation, and increased part-load efficiency
- Resiliently mounted on rubber grommets for quiet operation

#### Compressor Crankcase Heater

- Protects against refrigerant migration that can occur during low ambient operation or during extended off cycles

#### 2 Thermal Expansion Valve

- Ensures optimal performance throughout the application range
- Removeable element head

#### High Pressure Switch

- Protects the compressor from overload conditions such as dirty condenser coils, blocked refrigerant flow or loss of outdoor fan operation

#### Filter/Drier

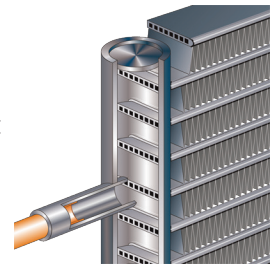
- High capacity filter/drier protects the system from dirt and moisture

### Indoor Coil Freeze Protection

- Protects the evaporator coil from damaging ice build-up due to conditions such as low/no air flow or low refrigerant charge

#### 3 Environ™ Coil System

- Condenser and evaporator coil
- Lightweight, all aluminum brazed fin construction
- Constructed of three components:
  - A flat extrusion tube
  - Fins in-between the flat extrusion tube
  - Two refrigerant manifolds



### Environ™ Coil System Features:

- Improved heat transfer performance due to high primary surface area (flat tubes) versus secondary surface (fins)
- Smaller internal volume (reduced refrigerant charge)
- High durability
- All aluminum construction
- Fewer brazed joints
- Compact design
- Reduced unit weight
- Easy maintenance/cleaning
- Mounting brackets with rubber inserts secure coil to unit providing vibration dampening and corrosion protection

## FEATURES AND BENEFITS

### COOLING SYSTEM (continued)

#### Antimicrobial Condensate Drain Pan

- Composite pan, sloped to meet drainage requirements of ASHRAE 62.1
- Antimicrobial additive resists growth of mold and mildew on drain pan, which improves indoor air quality and reduces drain line blockage
- Side or bottom drain connections
- Reversible to allow connection at back of unit

#### 4 Outdoor Coil Fan Motor

- Thermal overload protected
- Totally enclosed
- Permanently lubricated sleeve bearings (024, 030, 036 and 048 models)
- Permanently lubricated ball bearings (060 and 074 models)
- Shaft up
- Wire basket mount

#### Outdoor Coil Fan

- PVC coated fan guard furnished

### Required Selections

#### Cooling Capacity

- Specify nominal cooling capacity

### Options/Accessories

#### Factory Installed

#### Conventional Fin/Tube Condenser and Evaporator Coil Only (replaces Environ™ Coil System)

- Copper tube construction
- Enhanced rippled-edge aluminum fins
- Flared shoulder tubing connections
- Silver soldered construction

**NOTE** - Required if Humiditrol® Dehumidification System is ordered.

#### Field Installed

#### Condensate Drain Trap

- Field installed only
- Available in copper or PVC

#### Drain Pan Overflow Switch

- Monitors condensate level in drain pan
- Shuts down unit if drain becomes clogged

#### Low Ambient Kit (0°F)

- Cycles the outdoor fan while allowing compressor operation in the cooling cycle
- This intermittent fan operation allows the system to operate without icing the evaporator coil and losing capacity
- Designed for use in ambient temperatures no lower than 0°F

#### CABINET

#### 5 Construction

- Heavy-gauge steel panels
- Full perimeter heavy-gauge galvanized steel base rail
- Base rails have rigging holes
- Three sides of the base rail have forklift slots
- Raised edges around duct and power entry openings in the bottom of the unit for water protection

#### Airflow Choice

- Units are shipped in downflow (vertical) return air configuration

**NOTE** - Can be field converted to horizontal airflow configuration without any optional kits.

#### 6 Power Entry

- Electrical lines can be routed through the unit base or through horizontal access knock-outs

#### Exterior Panels

- Constructed of heavy-gauge, galvanized steel
- Textured pre-paint with polyurethane finish
- Cyclic salt fog and UV exposure up to 1,680 hours per ASTM D5894

#### 7 Insulation

- Fully insulated with non-hygroscopic fiberglass insulation (conditioned areas)
- Unit base is fully insulated
- Base insulation serves as an air seal to the roof curb, eliminating the need to add a seal during installation

#### Access Panels

- Economizer/Filter section
- Heating/Blower section
- Compressor/Controls section

**NOTE** - Optional Economizers, Power Exhaust, Outdoor Air Dampers and Barometric Relief Dampers include a filler panel for proper cabinet fit.

## FEATURES AND BENEFITS

### **CABINET (continued)**

#### Options/Accessories

#### **Factory Installed**

- 8 Hinged Access Panels
  - Tool-Less access
  - Economizer/Filter section
  - Heating/Blower section
  - Compressor/Controls section
  - Panels seal and quarter-turn latching handles provide a tight air and water seal

#### **Field Installed**

#### **Combination Coil/Hail Guards**

- Heavy gauge steel frame
- Painted to match cabinet
- Expanded metal mesh protects outdoor coil

### **CONTROLS**

#### **Unit Control**

- All control voltage is provided via a 24V (secondary) transformer with built-in circuit breaker protection
- Up to 2 heat / 2 cool staging with a third party DDC control system or thermostat
- Low voltage terminal block provides screw terminal connections for thermostat or controller wiring

#### Options/Accessories

#### **Field Installed**

#### **Smoke Detector**

- Photoelectric type
- Installed in supply air section, return air section or both sections
- Available with power board and single sensor (supply or return) or power board and two sensors (supply and return)
- Power board located in unit control compartment

#### **Commercial Control Systems**

#### **Field Installed**

#### **Thermostats**

- Control system and thermostat options see page 10

### **BLOWER**

- A wide selection of supply air blower options are available to meet a variety of air flow requirements

#### **Motor**

- Overload protected
- Ball bearings (belt drive)
- Sleeve bearings (direct drive).
- Multi-tap direct drive motors available on 024, 030, 036, 048 and 060 models
- Single Speed belt drive motor available on 036, 048, and 060 models in several different sizes to maximize air performance
- Two-speed belt drive motor (low static/high static) furnished on 074 model

#### 9 Supply Air Blower

- Forward curved blades
- Blower wheel statically and dynamically balanced
- Belt drive motors have adjustable pulley for speed change

#### Required Selections

#### **Supply Air Blower**

- Order direct drive or belt drive blower (See Blower Data Table for specifications)
- Belt Drive - Order drive kit, see Drive Kit Specifications Table

## FEATURES AND BENEFITS

### **ELECTRICAL**

#### **Marked & Color-Coded Wiring**

- All electrical wiring is color-coded and marked to identify which components it is connecting

#### **Electrical Plugs**

- Positive connection electrical plugs are used to connect common accessories or maintenance parts for easy removal or installation

### **Required Selections**

#### **Voltage Choice**

- Specify when ordering base unit

### **Options/Accessories**

#### **Factory or Field Installed**

##### **Disconnect Switch**

- Accessible from outside of unit
- Spring loaded weatherproof cover furnished

##### **GFI Service Outlets (2)**

- 115V ground fault circuit interrupter (GFCI) type options:
  - Factory installed, non-powered, field wired
  - Field installed, non-powered, field wired

##### **Field Installed**

#### **10 Electric Heat**

- Helix wound nichrome elements
- Individual element limit controls
- Wiring harness
- Unit fuse block
- See Options / Accessories tables for ordering information

##### **GFI Weatherproof Cover**

- Single-gang cover
- Heavy-duty UV-resistant polycarbonate case construction
- Hinged base cover with gasket

### **INDOOR AIR QUALITY**

#### **11 Air Filters**

- Disposable 2 inch MERV 4 filters furnished as standard

### **Options/Accessories**

#### **Field Installed**

##### **Healthy Climate® High Efficiency Air Filters**

- Disposable MERV 8, MERV 13, or MERV 16 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency 2 inch pleated filters

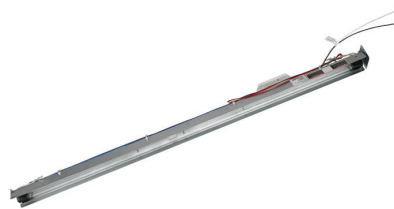
##### **Replacement Filter Media Kit With Frame (060-074 Models)**

- Replaces existing pleated filter media
- Includes washable metal mesh screen and metal frame with clip for holding replaceable non-pleated filter

#### **Indoor Air Quality (CO<sub>2</sub>) Sensors**

- Monitors CO<sub>2</sub> levels
- Reports to the Unit Controller which adjusts economizer dampers as needed

#### **Healthy Climate® UVC Germicidal Lamps**



- Germicidal lamps emit ultra-violet (UV-C) energy, which has been proven to be effective in reducing microbes such as viruses, bacteria, yeasts, and molds
- UV-C energy greatly reduces the growth and proliferation of mold and other bioaerosols (bacteria and viruses) on illuminated surfaces (particularly coil and drain pan)
- Destroys the organism or controls its ability to reproduce
- Field installed in the blower/evaporator coil section
- Magnetic safety interlock terminates power when access panels are removed
- All necessary hardware for installation is included
- Lamps operate on 110/230V-1ph power supply
- NOTE** - Step-down transformer may be ordered separately for 460V and 575V units.
- Approved by ETL

#### **Needlepoint Bipolar Ionization (NPBI) Kit**

- NPBI technology has been shown to effectively reduce harmful pathogens, pollutants, and odors
- NOTE** - Please visit [www.sciencedirect.com](http://www.sciencedirect.com) for additional information.
- Brush-type ionizer introduces a high concentration of both positive and negative ions into the air stream
- These bipolar ions are then dispersed into the occupied space through the duct system proactively reducing the airborne contaminants
- Ions travel within the building air stream and attach to particles, pathogens, and gas molecules, making them larger and easier to capture in the filtration system
- UL 2998 certified for zero ozone emission



## OPTIONS/ACCESSORIES

### ECONOMIZER

#### Field Installed

#### 12 Standard Economizer (Not for Title 24)

**NOTE** - Field Installed Economizer Does Not Include - Barometric Relief Dampers, Combination Outdoor Air/Exhaust Hood and Harness, these must be ordered separately.

#### Features:

- Gear-driven action
- Return air and outdoor air dampers
- Plug-in connections to unit
- Neoprene seals
- 24-volt, fully-modulating spring return motor
- Occupied/Unoccupied mode with field furnished setback thermostat
- Demand Control Ventilation (DCV) ready using optional CO<sub>2</sub> sensors
- Mixed Air Sensor is furnished for field installation in the rooftop unit
- Single sensible sensor is furnished with Economizer and enables economizer operation if the outdoor temperature is less than the setpoint of the control
- Barometric Relief Dampers allow relief of excess air, dampers prevent blow back and outdoor air infiltration during off cycle, bird screen furnished

**NOTE** - Barometric Relief Dampers are required when Economizer is factory installed with field installed Power Exhaust Fan option. See Power Exhaust Fan section and Options/Accessories table.

**NOTE** - Horizontal Barometric Dampers are required for horizontal Economizer applications and must be ordered separately.

#### Standard Economizer Control Module

- Standard Economizer Control Module can be adjusted to operate based on outdoor air temperatures

#### Economizer Controls:

- **Damper Minimum Position**  
Can be set lower than traditional minimum air requirements resulting in cost savings
- **IAQ Sensor** - Signals dampers to modulate and maintain 55°F when CO<sub>2</sub> is higher than the CO<sub>2</sub> setpoint
- **Demand Control Ventilation (DCV) LED** - A steady green Demand Control Ventilation LED indicates the IAQ reading is higher than setpoint and requires more fresh air
- **Free Cool LED** - A steady green LED indicates outdoor air is suitable for free cooling
  - Free Cooling runs when outdoor air temperature is lower than the set temperature on the economizer control

**NOTE:** The Free Cooling default setting for outdoor air temperature sensor is 55°F.



#### Factory or Field Installed

#### High Performance Economizer

- Approved for California Title 24 building standards
- Low leakage dampers are Air Movement and Control Association International (AMCA) Class 1A Certified - Maximum 3 cfm per sq. ft. leakage at 1 in. w.g.
- ASHRAE 90.1 compliant
- Factory installed Economizer can be ordered with two exhaust options:
  - Barometric Relief Dampers
  - No Exhaust

#### Features:

- Linked damper action
- High torque 24-volt fully-modulating spring return damper motor
- Return air and outdoor air dampers
- Plug-in connections to unit

**NOTE** - High Performance Economizers are not approved for use with differential enthalpy controls in Title 24 applications.

- Combination Outdoor Air/Exhaust Hood is furnished
- Field installed Economizer includes Barometric Relief Dampers with Combination Outdoor Air/Exhaust Hood
- Occupied/Unoccupied mode with field furnished setback thermostat
- Demand Control Ventilation (DCV) ready using optional CO<sub>2</sub> sensors
- Mixed Air Sensor is furnished for field installation in the rooftop unit

**NOTE** - Mixed Air Sensor is factory installed when Economizer is factory installed.

- Single sensible sensor is furnished with field installed Economizer and enables economizer operation if the outdoor temperature is less than the setpoint of the control
- Barometric Relief Dampers allow relief of excess air, dampers prevent blow back and outdoor air infiltration during off cycle, bird screen furnished

**NOTE** - Barometric Relief Dampers are required when Economizer is factory installed with field installed Power Exhaust Fan option. See Power Exhaust Fan section and Options/Accessories table.

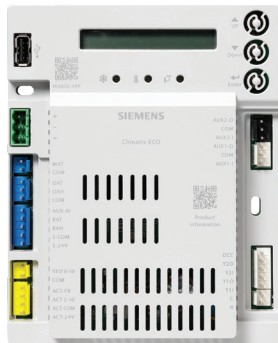
**NOTE** - Horizontal Barometric Dampers are required for horizontal Economizer applications and must be ordered separately.

## OPTIONS/ACCESSORIES

### ECONOMIZER (continued)

#### High Performance Economizer Control Module

- Provides inputs and outputs to control economizer based on parameter settings
- Free cooling based on single dry bulb temperature, or combination temperature + humidity sensors
- Automatic switchover for different control modes
- Parameter settings based on climate zone, using GPS functionality in the Climatix Mobile application
- LED indication for free cooling operation, sensor operation and damper operation
- Quick installation and easy commissioning with the **Climatix Mobile App** on a mobile device



**NOTE** - WLAN Stick is required for App connection to module(s).

- Module displays any alarm messages (fault detection and diagnostics) as an aid in troubleshooting
- RS485 port for BACnet MSTP or Modbus RTU communication
- USB port for firmware updates and WLAN connection for setup and commissioning
- QR codes on module for quick access to download Climatix Mobile App and user documentation
- User Interface for normal operation, parameter setup and alarm notifications with an LCD display and three operation buttons:
  1. **Up Button** - Move to the previous value, step or category
  2. **Down Button** - Move to the next value, step or category
  3. **Enter Button** -
    - Press to edit the current value or option
    - Press to confirm a newly selected value or option
    - Press Enter + Up to jump up one category
    - Press Enter + Down to jump down one category

**NOTE** - The Free Cooling setpoint for Title 24 applications must be set based on the Climate Zone where the system is installed. See Section 140.4 "Prescriptive Requirements for Space Conditioning Systems" of the California Energy Commission's 2013 Building Energy Efficiency Standards.

**NOTE** - Refer to Installation Instructions for complete setup information and menu parameters available.

### Field Installed

#### Single Enthalpy Temperature Control

- Outdoor air enthalpy sensor enables Economizer if the outdoor enthalpy is less than the setpoint of the control

**NOTE** - The factory installed economizer option comes preset for Single Enthalpy control but can be field converted to Single Sensible Temperature control by changing a parameter on the economizer control module.

#### Differential Enthalpy Control (Not for Title 24)

- Order one for factory installed economizer
- Order two for field installed economizer
  - One is field installed in the return air section
  - One in the outdoor air section
- Allows the economizer control board to select between outdoor air or return air, whichever has lower enthalpy

#### WLAN Stick

- Required for Climatix Mobile App usage
- Plugs into USB port on Module to provide a temporary WLAN connection for setup, commissioning and servicing

**NOTE** - Only one WLAN Stick is required and can be used on multiple modules.



## OPTIONS/ACCESSORIES

### EXHAUST

#### Field Installed

##### Horizontal Barometric Relief Dampers

- For use when unit is configured for horizontal applications with an economizer
- Allows relief of excess air
- Blade type dampers prevent blow back and outdoor air infiltration during off cycle
- Field installed in return air duct
- Exhaust hood with bird screen furnished

**NOTE** - Requires Horizontal Economizer Conversion Kit.

##### Horizontal Economizer Conversion Kit

- Insulated panel covers the bottom return air opening on the unit base to convert downflow Economizer to horizontal airflow

#### **13** Power Exhaust Fan

- Installs internal to unit for downflow applications only with Economizer option
- Provides exhaust air pressure relief
- Interlocked to run when supply air blower is operating, fan runs when outdoor air dampers are 50% open (adjustable)
- Motor is overload protected.
- 16 in. diameter fan
- 4 fan blades
- 1/3 hp motor

**NOTE** - Not available for 024 and 030 models.

**NOTE** - If Power Exhaust is field installed with a factory installed Economizer, the Economizer must be ordered with No Exhaust option. Barometric Relief Dampers must also be ordered separately for field installation.

### OUTDOOR AIR

#### Field Installed

##### Outdoor Air Dampers

- Downflow or Horizontal
- Single blade damper
- 0 to 25% (fixed) outdoor air adjustable
- Installs in unit
- Includes outdoor air hood
- Motorized model features fully modulating spring return damper motor with plug-in connection
- Manual model features a slide damper

**NOTE** - Maximum mixed air temperature in cooling mode is 100°F.

### ROOF CURBS

#### Field Installed

- Nailer strip furnished
- Mates to unit
- US National Roofing Contractors Approved
- Shipped knocked down

#### Hybrid Roof Curbs

- Downflow
- Interlocking tabs fasten corners together
- No tools required for assembly
- Can also be fastened together with furnished hardware
- Available in 8, 14, 18, and 24 inch heights

#### Adjustable Pitch Curb

- Downflow
- Fully adjustable pitch curbs (3/4 in. per foot in any direction) provide a level platform for rooftop units allowing flexible installations on roofs with uneven or sloped angles
- Interlocking tabs fasten corners together
- No tools required for assembly
- Hardware is furnished to connect upper curb with lower curb
- Available in 14 inch height

#### Adaptor Curbs (not shown)

- Curbs are regionally sourced
- Dimensions vary based upon the source

**NOTE** - Contact your local sales representative for a detailed cut sheet with applicable dimensions.

### CEILING DIFFUSERS

#### Field Installed

##### Ceiling Diffusers (Flush or Step-Down)

- White powder coat finish on diffuser face and grilles
- Insulated UL listed duct liner
- Diffuser box has collars for duct connection
- Step-down diffusers have double deflection blades
- Flush diffusers have fixed blades
- Provisions for suspending
- Internally sealed to prevent recirculation
- Removable return air grille
- Adapts to T-bar ceiling grids or plaster ceilings

##### Transitions (Supply and Return)

- Used with diffusers
- Installs in roof curb
- Galvanized steel construction
- Flanges furnished for duct connection to diffusers
- Fully insulated

## OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

### CS7500 Commercial 7-Day Programmable Thermostat



- Premium Universal Thermostat
- Full Color Touchscreen Interface
- Up To 4 Heat / 3 Cool
- Built-In Sensors For Temperature and Humidity
- Remote Sensors Options For Temperature, Discharge Air, Outdoor Air
- 5-2 or 7-Day Scheduling
- Smooth Setback Recovery
- Heat/Cool Auto-Changeover
- FDD, ASHRAE, IECC Compliant

### CS3000 Commercial 5-2 Day Programmable Thermostat



- Conventional Multi-Stage Thermostat
- Intuitive Display
- Push-Button Operation
- Up To 2 Heat / 2 Cool
- Built-In Temperature Sensor
- Remote Temperature Sensing
- Up to 5-2 Day Scheduling
- Smooth Setback Recovery
- Heat/Cool Auto-changeover

### BACnet Compatible Thermostat With Reheat



Description	Catalog No.
<b>CS7500 Commercial 7-Day Programmable Thermostat</b>	
CS7500 7-Day Thermostat	<b>24K41</b>
Sensors/	<sup>1</sup> Remote non-adjustable wall-mount 20k <b>47W36</b>
Accessories	<sup>1</sup> Remote non-adjustable wall-mount 10k <b>47W37</b>
	Remote non-adjustable discharge air (duct mount) <b>19L22</b>
	Outdoor temperature sensor <b>X2658</b>
<b>CS3000 5-2 Day Programmable Thermostat</b>	
CS3000 5-2 Day Thermostat	<b>11Y05</b>
Sensor/	Remote non-adjustable wall mount 10k averaging <b>47W37</b>
Accessories	Thermostat wall mounting plate <b>X2659</b>
<b>BACnet 7-Day Programmable Thermostat</b>	
BACnet	<sup>2</sup> 7-Day BACnet Thermostat <b>24C57</b>
Controls	<sup>3</sup> BACnet Module <b>16X70</b>
<sup>4</sup> BACnet	With Display <b>97W23</b>
Room Sensors	Without Display <b>97W24</b>
<b>Universal Thermostat Guard with Lock (clear)</b>	
Inside Dimensions (H x W x D)	5-7/8 x 8-3/8 x 3 in. <b>39P21</b>

- 7-Day Programmable
- For units with or without Humiditrol®
- BTL listed MS/TP ensures compatibility with any BACnet system
- Built-in control programs for conventional and heat pump applications
- Conventional systems up to 3-stage heat and 3-stage cool
- Heat pumps with 1 or 2 compressors and up to 2-stage auxiliary heat
- On-board temperature and humidity sensor
- Multiple configurable inputs and outputs enable advanced control strategies
- Set-up Wizard enables rapid system configuration
- No special tools required for installation or commissioning
- Seven-day (2, 4 or 6 event) occupancy scheduling per day
- Backlit 5-inch LCD touchscreen

<sup>1</sup> Remote wall-mount sensors can be applied in any of the following combinations:  
One Sensor - (1) 47W36, Two Sensors - (2) 47W37, Three Sensors - (2) 47W36 and (1) 47W37

Four Sensors - (4) 47W36, Five Sensors - (3) 47W36 and (2) 47W37

<sup>2</sup> BACnet Thermostat (24C57) will control units with and without the Humiditrol® option. If there is a mix of units equipped with and without Humiditrol on the same site, this thermostat can be used for all units if suitable.

<sup>3</sup> Not compatible with units equipped with Humiditrol® option.

<sup>4</sup> Only compatible with BACnet Module (16X72).

## HUMIDITROL® DEHUMIDIFICATION SYSTEM OPTION

### OVERVIEW

**NOTE** - Not available with Environ™ Coil System.  
Conventional Fin/Tube condenser coil must be ordered as a factory option.

- Factory installed option designed to control humidity
- Provides dehumidification on demand using ASHRAE 90.1 recommended method for comfort conditioning humidity controller
- Unit comes equipped with one row reheat coil, solenoid valve and humidity controller
- A dehumidistat or thermostat with a dehumidification output or a DDC controller with an isolated output is required to control humidity and must be located in the occupied space
- Reheat controls are located in the compressor control section of the unit for easy access

### BENEFITS

- Improves indoor air quality
- Helps prevent damage due to high humidity levels
- Improves comfort levels by reducing space humidity levels

### OPERATION

#### No Dehumidification Demand

- Unit will operate conventionally whenever there is a demand for cooling or heating and no dehumidification demand
- Free cooling is only permitted when there is no demand for dehumidification

#### Dehumidification Demand Only

- Reheat operation will initiate on a dehumidification demand and does not require a cooling demand
- Unit will operate in the dehumidification mode until the relative humidity of the conditioned space is below the setpoint
- Reheat coil is sized to provide 68°F to 75°F supply air during reheat operation

- This reduces sensible cooling capacity and extends compressor run time to control humidity when the cooling load is low
- A solenoid valve diverts hot gas from the compressor to the reheat coil
- Cooled and dehumidified air from the evaporator is reheated as it passes through the reheat coil
- De-superheated and partially condensed refrigerant continues to the outdoor condenser coil where condensing is completed
- Unit will continue to operate in this mode until the dehumidification demand is satisfied

#### Dehumidification and Cooling Demand (Thermostat/ Room Sensor Application)

##### Single speed compressor model (024 through 060)

- A two stage thermostat is required for dehumidification to operate with a single speed system
- If both a dehumidification and a Y1 cooling demand occur, the system will ignore the Y1 demand and continue to operate in dehumidification mode until the humidity setpoint is reached
- A Y2 demand will shut off dehumidification mode and normal cooling will resume until demand is satisfied

##### Two-stage compressor models (074)

- A dehumidification demand sends both the blower (if T type blower is selected) and compressor to high speed
- If both a dehumidification and a Y1 cooling demand occur, the system will ignore the Y1 demand and continue to operate in dehumidification mode
- If a Y2 cooling demand occurs along with a dehumidification demand, the system operates in full cooling mode at full cooling airflow until the Y2 cooling demand is satisfied
- Then the system will revert to the dehumidification mode if a dehumidification mode demand is present

### Options/Accessories

#### Field Installed

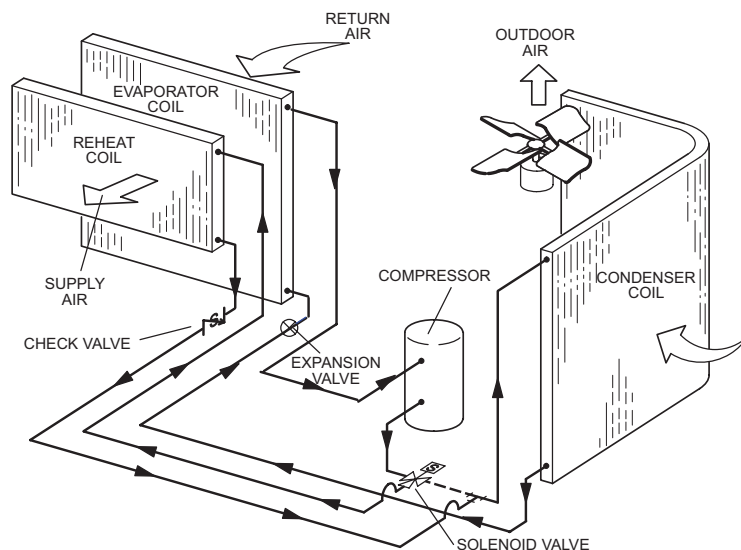
##### CS7500 Thermostat

- Dehumidification control
- Adjustable from 45-60% relative humidity
- Remotely installed in the conditioned space

**NOTE** - A dehumidistat with a dehumidification output or a DDC controller with an isolated output can be used instead (field furnished).

- See Conventional Thermostat Control Systems on page 10 for additional information

TYPICAL DEHUMIDIFICATION SCHEMATIC



## OPTIONS / ACCESSORIES

Item	Catalog No.	Unit Model No.						
		KCB 024	KCB 030	KCB 036	KCB 048	KCB 060	KCB 074	
<b>COOLING SYSTEM</b>								
Condensate Drain Trap	PVC	<b>22H54</b>	X	X	X	X	X	X
	Copper	<b>76W27</b>	X	X	X	X	X	X
<sup>1</sup> Conventional Fin/Tube Condenser/Evaporator Coils (replaces Environ™ Coil System)								
Drain Pan Overflow Switch		<b>74W42</b>	X	X	X	X	X	X
Low Ambient Kit		<b>14D89</b>	X	X	X	X	X	X
<b>BLOWER - SUPPLY AIR</b>								
Motors See Blower Data Tables for selection	Direct Drive - 0.25 hp (208/230V-1ph)	Factory	O	O				
	Direct Drive - 0.5 hp (208/230V-1ph, 208/230V-3ph, 460V-3ph, 575V-3ph)	Factory			O	O		
	Direct Drive - 0.75 hp (208/230V-1ph, 208/230V-3ph, 460V-3ph, 575V-3ph)	Factory					O	
	Belt Drive - 1.5 hp (208/230V-1ph)	Factory					O	
	Belt Drive - 1 hp (208/230V, 460V, 575V-3ph)	Factory			O	O	O	
	Belt Drive - 2 hp (208/230V, 460V, 575V-3ph)	Factory				O	O	
	Belt Drive - 1 hp (208/230V, 460V, 575V-3ph) (2-Speed)	Factory						O
	Belt Drive - 2 hp (208/230V, 460V, 575V-3ph) (2-Speed)	Factory						O
	Kit A01 - 673-1010 rpm	Factory			O			
	Kit A02 - 745-1117 rpm	Factory				O		
Kit A03 - 833-1250 rpm	Factory					O		
Kit A04 - 968-1340 rpm	Factory						O	
Kit A05 - 897-1346 rpm	Factory			O				
Kit A06 - 1071-1429 rpm	Factory				O			
Kit A07 - 1212-1548 rpm	Factory					O		
Kit A08 - 1193-1591 rpm	Factory						O	
<b>CABINET</b>								
Combination Coil/Hail Guards		<b>13R98</b>	X	X	X	X		
		<b>13T03</b>					X	X
Hinged Access Panels			O	O	O	O	O	O
<b>CONTROLS</b>								
<b>NOTE - Also see Conventional Thermostat Control Systems on page 10 for Additional Options.</b>								
Smoke Detector - Supply or Return (Power board and one sensor)		<b>21Z11</b>	X	X	X	X	X	X
Smoke Detector - Supply and Return (Power board and two sensors)		<b>21Z12</b>	X	X	X	X	X	X
<b>ELECTRICAL</b>								
Voltage 60 Hz	208/230V - 1 phase		O	O	O	O	O	
	208/230V - 3 phase				O	O	O	O
	460V - 3 phase				O	O	O	O
	575V - 3 phase				O	O	O	O
Disconnect	See Electrical/Electric Heat Tables for selection		OX	OX	OX	OX	OX	OX
GFI Service Outlets	15 amp non-powered, field-wired (208/230V, 460V only)	<b>74M70</b>	OX	OX	OX	OX	OX	OX
	<sup>2</sup> 20 amp non-powered, field-wired (208/230V, 460V, 575V)	<b>67E01</b>	X	X	X	X	X	X
	<sup>2</sup> 20 amp non-powered, field-wired (575V)	Factory	O	O	O	O	O	O
Weatherproof Cover for GFI		<b>10C89</b>	X	X	X	X	X	X

<sup>1</sup> Required if Humiditrol® Dehumidification System is ordered.

<sup>2</sup> Canada requires a minimum 20 amp circuit. Select 20 amp, non-powered, field wired GFI.

NOTE - Catalog numbers shown are for ordering optional accessories if a field installed option is available.

OX - Field Installed or Configure to Order (factory installed)

O - Configure to Order (Factory Installed)

X - Field Installed

## OPTIONS / ACCESSORIES

Item	Catalog No.	Unit Model No.					
		KCB 024	KCB 030	KCB 036	KCB 048	KCB 060	KCB 074
<b>ELECTRIC HEAT</b>							
5 kW	208/240V- 1ph	<b>12F06</b>	X	X			
7.5 kW	208/240V-1ph	<b>14W32</b>	X	X	X	X	X
	208/240V-3ph	<b>14W35</b>			X	X	X
	460V-3ph	<b>14W39</b>			X	X	X
	575V-3ph	<b>14W43</b>			X	X	X
10 kW	208/240V-1ph	<b>30W26</b>	X	X			
15 kW	208/240V-1ph	<b>14W33</b>			X	X	X
	208/240V-3ph	<b>14W36</b>			X	X	X
	460V-3ph	<b>14W40</b>			X	X	X
	575V-3ph	<b>14W44</b>			X	X	X
22.5 kW	208/240V-1ph	<b>14W34</b>				X	
	208/240V-3ph	<b>14W37</b>				X	X
	460V-3ph	<b>14W41</b>				X	X
	575V-3ph	<b>14W45</b>				X	X
30 kW	208/240V-3ph	<b>14W38</b>					X
	460V-3ph	<b>14W42</b>					X
	575V-3ph	<b>14W46</b>					X
<b>ECONOMIZER</b>							
<b>Standard Economizer (Sensible Control) (Not for Title 24)</b>							
Standard Economizer		<b>23T20</b>	OX	OX	OX	OX	OX
Barometric Relief Dampers, Combination Outdoor Air/Exhaust Hood and Harness are not furnished and must be ordered separately (see below)							
Barometric Relief Dampers, Combination Hood and Harness for Field Installed Economizer		<b>23B17</b>	X	X	X	X	X
<b>Standard Economizer Controls (Not for Title 24)</b>							
Single Enthalpy Control		<b>21Z09</b>	X	X	X	X	X
Differential Enthalpy Control (order 2)		<b>21Z09</b>	X	X	X	X	X
<b>High Performance Economizer (Sensible Control) (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)</b>							
High Performance Economizer (Includes Barometric Relief Dampers and Combination Outdoor Air/Exhaust Hood)		<b>23G22</b>	OX	OX	OX	OX	OX
Factory Installed Economizer - Enthalpy control is furnished as standard. Field programmable for Sensible Control without additional hardware							
Field Installed Economizer - Sensible Sensor is furnished as standard							
<b>High Performance Economizer Controls</b>							
Single Enthalpy Control		<b>23G26</b>	X	X	X	X	X
Differential Enthalpy Control (order 1 for factory. order 2 for field) (Not for Title 24)		<b>23G26</b>	X	X	X	X	X
<b>Economizer Accessories</b>							
WLAN Stick (For High Performance Economizer only)		<b>23K58</b>	X	X	X	X	X
Horizontal Economizer Conversion Kit		<b>17W45</b>	X	X	X	X	X
<b>POWER EXHAUST FAN</b>							
Standard Static	208/230V-1 or 3ph	<b>21Z13</b>			X	X	X
<i>NOTE - Field installed Power Exhaust Fan requires "Barometric Relief Dampers for Power Exhaust Kit" for field installation. See below.</i>	460V-3ph	<b>21Z14</b>			X	X	X
	575V-3ph	<b>21Z15</b>			X	X	X
<b>BAROMETRIC RELIEF</b>							
<sup>1</sup> Barometric Relief Dampers for Power Exhaust Kit		<b>21Z21</b>			X	X	X
<sup>2</sup> Horizontal Barometric Relief Dampers With Exhaust Hood		<b>19F01</b>	X	X	X	X	X

<sup>1</sup> Required when Economizer is factory installed with field installed Power Exhaust Fan option.

<sup>2</sup> Required when Economizer is configured for horizontal airflow.

NOTE - Catalog numbers shown are for ordering optional accessories if a field installed option is available.

OX - Field Installed or Configure to Order (factory installed)

O - Configure to Order (Factory Installed)

X - Field Installed

## OPTIONS / ACCESSORIES

Item	Catalog No.	Unit Model No.					
		KCB 024	KCB 030	KCB 036	KCB 048	KCB 060	KCB 074
<b>OUTDOOR AIR</b>							
<b>Outdoor Air Dampers With Outdoor Air Hood</b>							
Motorized	15D17	X	X	X	X	X	X
Manual	15D18	X	X	X	X	X	X
<b>HUMIDITROL® DEHUMIDIFICATION REHEAT OPTION</b>							
Humiditrol Dehumidification Option	Factory	O	O	O	O	O	O
<b>INDOOR AIR QUALITY</b>							
<b>Air Filters</b>							
Healthy Climate® High Efficiency Air Filters	MERV 8 (16 x 20 x 2)	54W20	X	X	X	X	
	MERV 13 (16 x 20 x 2)	52W37	X	X	X	X	
Order 4 per unit	MERV 16 (16 x 20 x 2)	22H13	X	X	X	X	
	MERV 8 (20 x 20 x 2)	54W21					X X
	MERV 13 (20 x 20 x 2)	52W39					X X
	MERV 16 (20 x 20 x 2)	21U40					X X
Replaceable Media Filter With Metal Mesh Frame (includes non-pleated filter media) (Order 4 per unit)	20 x 20 x 2 in.	44N60					X X
<b>Indoor Air Quality (CO<sub>2</sub>) Sensors</b>							
Sensor - Wall-mount, off-white plastic cover with LCD display		77N39	X	X	X	X	X X
Sensor - Wall-mount, off-white plastic cover, no display		23V86	X	X	X	X	X X
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting		87N54	X	X	X	X	X X
CO <sub>2</sub> Sensor Duct Mounting Kit - for downflow applications		85L43	X	X	X	X	X X
Aspiration Box - for duct mounting non-plenum rated CO <sub>2</sub> sensor (77N39)		90N43	X	X	X	X	X X
<b>Needlepoint Bipolar Ionization (NPBI)</b>							
Needlepoint Bipolar Ionization Kit		22U14	X	X	X	X	X X
<b>UVC Germicidal Lamps</b>							
<sup>2</sup> Healthy Climate® UVC Light Kit (110/230V-1ph)		21A92	X	X	X	X	X X
Step-Down Transformers	460V primary, 230V secondary	10H20	X	X	X	X	X X
	575V primary, 230V secondary	10H21	X	X	X	X	X X
<b>ROOF CURBS</b>							
<b>Hybrid Roof Curbs, Downflow</b>							
8 in. height	C1CURB70A-1	11F50	X	X	X	X	X X
14 in. height	C1CURB71A-1	11F51	X	X	X	X	X X
18 in. height	C1CURB72A-1	11F52	X	X	X	X	X X
24 in. height	C1CURB73A-1	11F53	X	X	X	X	X X
<b>Adjustable Pitch Curb</b>							
14 in. height	C1CURB55AT1	43W27	X	X	X	X	X X
<b>CEILING DIFFUSERS</b>							
Step-Down - Order one	RTD9-65S	13K60	X	X	X	X	
	RTD11-95S	13K61					X
Flush - Order one	FD9-65S	13K55	X	X	X	X	
	FD11-95S	13K56					X
Transitions (Supply and Return) - Order one	T1TRAN10AN1	17W53	X	X	X	X	
	T1TRAN20N-1	17W54					X

<sup>1</sup> A thermostat with a dehumidification output or a DDC controller with an isolated output can be used instead.

<sup>2</sup> Lamps operate on 110-230V single-phase power supply. Step-down transformer may be ordered separately for 460V and 575V units. Alternately, 110V power supply may be used to directly power the UVC ballast(s).

NOTE - Catalog numbers shown are for ordering optional accessories if a field installed option is available.

OX - Field Installed or Configure to Order (factory installed)

O - Configure to Order (Factory Installed)

X - Field Installed



**SPECIFICATIONS - DIRECT DRIVE BLOWER**

**2 TON | 2.5 TON**

General Data		Nominal Tonnage	2 Ton	2.5 Ton
		Model No.	KCB024S4D	KCB030S4D
		Efficiency Type	Standard	Standard
		Blower Type	Multi-Tap Direct Drive	Multi-Tap Direct Drive
<b>Cooling Performance</b>	Gross Cooling Capacity (Btuh)		24,600	31,000
	<sup>1</sup> Net Cooling Capacity (Btuh) 1ph		23,600	29,600
	<sup>1</sup> AHRI Rated Air Flow (cfm) 1ph		900	1050
	<sup>1</sup> SEER2 (Btuh/Watt) 1ph		13.4	13.4
	<sup>1</sup> EER2 (Btuh/Watt) 1ph		10.6	10.6
	Total Unit Power (kW) 1ph		1.9	2.4
<b><sup>2</sup> Sound Rating Number (SRN) (dBA)</b>			74	74
<b>Refrigerant Charge</b>	Refrigerant Type		R-410A	R-410A
	Environ™ Condenser and Evaporator		4 lbs. 8 oz.	3 lbs. 14 oz.
	Fin/Tube Condenser and Evaporator (Option)		10 lbs. 0 oz.	10 lbs. 8 oz.
	Fin/Tube Condenser and Evaporator With Reheat Option		9 lbs. 15 oz.	10 lbs. 7 oz.
<b>Electric Heat Available - See page 42</b>			5, 7.5, 10 kW	5, 7.5, 10 kW
<b>Compressor Type (one per unit)</b>			Scroll	Scroll
<b>Outdoor Coil Environ™ (Fin/Tube option)</b>	Net face area - sq. ft.		11.7 (15.6)	11.7 (15.6)
	Number of rows		1 (2)	1 (2)
	Fins per inch		23 (20)	23 (20)
<b>Outdoor Coil Fan</b>	Motor - (No.) HP		(1) 1/4	(1) 1/4
	Motor rpm		825	825
	Total Motor Input - watts		335	335
	Diameter - (No.) in. / No. of blades		(1) 24 - 4	(1) 24 - 4
	Total air volume - cfm		3700	3700
	<b>Indoor Coil Environ™ (Fin/Tube option)</b>	Net face area - sq. ft.		7.0 (7.8)
Number of rows			1 (2)	1 (3)
Fins per inch			20 (14)	20 (14)
Drain Connection (no.) and size - in.			(1) 1 NPT	(1) 1 NPT
Expansion device type			Balanced Port Thermostatic Expansion Valve (removable element head)	
<b>Indoor Blower</b>	Nominal Motor HP		0.25 hp	0.25 hp
	Wheel nominal diameter x width - in.		(1) 10 x 10	(1) 10 x 10
<b>Filters</b>	Type		MERV 4, Disposable	
	Number and size - in.		(4) 16 x 20 x 2	
<b>Electrical Characteristics - 60 Hz</b>			208/230V 1 phase	208/230V 1 phase

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

<sup>1</sup> AHRI Certified to AHRI Standard 210/240: 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

<sup>2</sup> Sound Rating Number (SRN) rated in accordance with test conditions included in ARI Standard 270-95.

**SPECIFICATIONS - DIRECT DRIVE BLOWER**
**3 TON | 4 TON | 5 TON**

General Data		Nominal Tonnage	3 Ton	4 Ton	5 Ton	
		Model No.	KCB036S4D	KCB048S4D	KCB060S4D	
		Efficiency Type	Standard	Standard	Standard	
		Blower Type	Multi-Tap Direct Drive	Multi-Tap Direct Drive	Multi-Tap Direct Drive	
<b>Cooling Performance</b>	Gross Cooling Capacity (Btuh)		37,300	49,700	60,900	
	<sup>1</sup> Net Cooling Capacity (Btuh) 3ph		36,000	47,500	58,500	
	<sup>1</sup> AHRI Rated Air Flow (cfm) 3ph		1150	1560	1760	
	<sup>1</sup> SEER (Btuh/Watt) - 3ph		14.0	14.0	14.0	
	<sup>1</sup> EER (Btuh/Watt) - 3ph		12.3	11.5	11.0	
	Total Unit Power (kW) 3ph		2.9	4.1	5.0	
	<sup>1</sup> Net Cooling Capacity (Btuh) 1,3ph		35,600	47,000	58,000	
	<sup>1</sup> AHRI Rated Air Flow (cfm-high/low) 1,3ph		1250	1600	1900	
	<sup>1</sup> SEER2 (Btuh/Watt) 1,3ph		13.4	13.4	13.4	
	<sup>1</sup> EER2 (Btuh/Watt) 1,3ph		10.6	10.6	10.6	
	Total Unit Power (kW) 1,3ph		3.4	4.4	5.5	
	<sup>2</sup> Sound Rating Number (SRN) (dBA)			74	74	83
	<b>Refrigerant Charge</b>	Refrigerant Type		R-410A	R-410A	R-410A
		Environ™ Condenser and Evaporator		4 lbs. 10 oz.	4 lbs. 1 oz.	4 lbs. 11 oz.
Fin/Tube Condenser and Evaporator			11 lbs. 3 oz.	9 lbs. 13 oz.	14 lbs. 3 oz.	
Fin/Tube Condenser and Evaporator With Reheat Option			12 lbs. 7 oz.	9 lbs. 13 oz.	15 lbs. 3 oz.	
<b>Electric Heat Available - See page 42</b>			7.5, 15 kW	7.5, 15 kW	7.5, 15, 22.5 kW	
<b>Compressor Type (one per unit)</b>			Scroll	Scroll	Scroll	
<b>Outdoor Coil Environ™ (Fin/Tube)</b>	Net face area - sq. ft.		14.5 (15.6)	14.5 (15.6)	17.8 (19.3)	
	Number of rows		1 (2)	1 (2)	1 (2)	
	Fins per inch		23 (20)	23 (20)	23 (20)	
<b>Outdoor Coil Fan</b>	Motor - (No.) HP		(1) 1/4	(1) 1/4	(1) 1/3	
	Motor rpm		825	825	1075	
	Total Motor Input - watts		325	325	375	
	Diameter - (No.) in. / No. of blades		(1) 24 - 4	(1) 24 - 4	(1) 24 - 3	
	Total air volume - cfm		3950	3950	4700	
<b>Indoor Coil Environ™ (Fin/Tube option)</b>	Net face area - sq. ft.		7.0 (7.8)	7.0 (7.8)	8.7 (9.7)	
	Number of rows		1 (3)	1 (3)	1 (4)	
	Fins per inch		20 (14)	20 (14)	20 (14)	
	Drain Connection (no.) and size - in.		(1) 1 NPT	(1) 1 NPT	(1) 1 NPT	
	Expansion device type		Balanced Port Thermostatic Expansion Valve (removable element head)			
<b>Indoor Blower</b>	Nominal Motor HP		0.5 hp	0.5 hp	0.75 hp	
	Wheel nominal diameter x width - in.		(1) 10 x 10	(1) 10 x 10	(1) 11 x 10	
<b>Filters</b>	Type		Disposable			
	Number and size - in.		(4) 16 x 20 x 2		(4) 20 x 20 x 2	
<b>Electrical Characteristics - 60 Hz</b>			208/230V 1 phase	208/230V 1 phase	208/230V 1 phase	
			208/230V, 460V & 575V 3 phase	208/230V, 460V & 575V 3 phase	208/230V, 460V & 575V 3 phase	

NOTE - Shaded area indicates AHRI 2023 M1 Ratings. Does not include 575V-3ph models.

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

<sup>1</sup> AHRI Certified to AHRI Standard 210/240: 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

<sup>2</sup> Sound Rating Number (SRN) rated in accordance with test conditions included in ARI Standard 270-95.

**SPECIFICATIONS - BELT DRIVE BLOWER**

**3 TON | 4 TON | 5 TON**

General Data		Nominal Tonnage Model No.	3 Ton	4 Ton	5 Ton
			KCB036S4B	KCB048S4B	KCB060S4B
		Efficiency Type Blower Type	Standard	Standard	Standard
			Single Speed Belt Drive	Single Speed Belt Drive	Single Speed Belt Drive
<b>Cooling Performance</b>	Gross Cooling Capacity (Btuh)		37,300	49,700	60,900
	<sup>1</sup> Net Cooling Capacity (Btuh) 3ph		36,000	47,500	58,500
	<sup>1</sup> AHRI Rated Air Flow (cfm) 3ph		1150	1560	1760
	<sup>1</sup> SEER (Btuh/Watt) - 3ph		14.0	14.0	14.0
	<sup>1</sup> EER (Btuh/Watt) - 3ph		12.3	11.5	11.0
	Total Unit Power (kW) 3ph		2.9	4.1	5.3
	<sup>1</sup> Net Cooling Capacity (Btuh) 1ph		---	---	58,000
	<sup>1</sup> AHRI Rated Air Flow (cfm) 1ph		---	---	1900
	<sup>1</sup> SEER2 (Btuh/Watt) 1ph		---	---	13.4
	<sup>1</sup> EER2 (Btuh/Watt) 1ph		---	---	10.6
	Total Unit Power (kW) 1ph		---	---	5.5
	<sup>2</sup> Sound Rating Number (SRN) (dBA)		74	74	83
	<b>Refrigerant Charge</b>	Refrigerant Type		R-410A	R-410A
Environ™ Condenser and Evaporator		4 lbs. 10 oz.	4 lbs. 1 oz.	4 lbs. 11 oz.	
Fin/Tube Condenser and Evaporator		11 lbs. 3 oz.	9 lbs. 13 oz.	14 lbs. 3 oz.	
Fin/Tube Condenser and Evaporator With Reheat Option		12 lbs. 7 oz.	9 lbs. 13 oz.	15 lbs. 3 oz.	
<b>Electric Heat Available - See page 42</b>			7.5, 15 kW	7.5, 15 kW	7.5, 15, 22.5 kW
<b>Compressor Type (one per unit)</b>			Scroll	Scroll	Scroll
<b>Outdoor Coil Environ™ (Fin/Tube option)</b>	Net face area - sq. ft.		14.5 (15.6)	14.5 (15.6)	17.8 (19.3)
	Number of rows		1 (2)	1 (2)	1 (2)
	Fins / inch		23 (20)	23 (20)	23 (20)
<b>Outdoor Coil Fan</b>	Motor - (No.) HP		(1) 1/4	(1) 1/4	(1) 1/3
	Motor rpm		825	825	1075
	Total Motor Input - watts		325	325	375
	Diameter - (No.) in. / No. of blades		(1) 24 - 4	(1) 24 - 4	(1) 24 - 4
	Total air volume - cfm		3950	3950	4700
	Expansion device type		Balanced Port Thermostatic Expansion Valve (removable element head)		
<sup>3</sup> <b>Indoor Blower &amp; Drive Selection</b>	Nominal Motor HP	208/230V-1ph	---	---	<sup>4</sup> 1.5 hp
		All others voltages	1 hp	1 hp	1 hp, 2 hp
	Maximum Usable Motor HP (US)	208/230V-1ph	---	---	1.7 hp
		All other voltages	1.15 hp	1.15 hp	1.15 hp, 2.3 hp
		Available Drive Kits	A01	A02	<sup>4</sup> A03
			673 - 1010 rpm	745 - 1117 rpm	833 - 1250 rpm
			A05	A06	A07
		897 - 1346 rpm	1071 - 1429 rpm	1212 - 1548 rpm	
Wheel nominal diameter x width - in.		(1) 10 x 10	(1) 10 x 10	(1) 10 x 10	
<b>Filters</b>	Type		Disposable		
	Number and size - in.		(4) 16 x 20 x 2		(4) 20 x 20 x 2
<b>Electrical Characteristics - 60 Hz</b>			208/230V 460V & 575V 3 phase	208/230V 460V & 575V 3 phase	208/230V 1 phase 208/230V 460V & 575V 3 phase

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

<sup>1</sup> AHRI Certified to AHRI Standard 210/240: 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

<sup>2</sup> Sound Rating Number (SRN) rated in accordance with test conditions included in ARI Standard 270-95.

<sup>3</sup> Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor hp required. Maximum usable hp of motors furnished are shown. In Canada, nominal motor hp is also maximum usable motor hp output. If motors of comparable hp are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

<sup>4</sup> 1.5 hp motor uses drive kit #3 only.

**SPECIFICATIONS - BELT DRIVE BLOWER**
**6 TON**

General Data		Nominal Tonnage	6 Ton
		Model No.	KCB074S4T
		Efficiency Type	Standard
		Blower Type	Two Speed Belt Drive
Cooling Performance	Gross Cooling Capacity (Btuh)		71,000
	<sup>1</sup> Net Cooling Capacity (Btuh) 3ph		68,000
	<sup>1</sup> AHRI Rated Air Flow (cfm) 3ph		2100
	<sup>1</sup> IEER		15.0
	<sup>1</sup> EER (Btuh/Watt) - 3ph		11.2
	Total Unit Power (kW) 3ph		6.1
<sup>2</sup> Sound Rating Number (SRN) (dBA)			79
Refrigerant Charge	Refrigerant Type		R-410A
	Environ™ Condenser and Evaporator		5 lbs. 5 oz.
	Fin/Tube Condenser and Evaporator		14 lbs. 8 oz.
	Fin/Tube Condenser and Evaporator With Reheat Option		14 lbs. 11 oz.
Electric Heat Available - See page 42			7.5, 15, 22.5, 30 kW
Compressor Type (one per unit)			Two-Stage Scroll
Outdoor Coil Environ™ (Fin/Tube option)	Net face area - sq. ft.		17.8 (19.3)
	Number of rows		1 (2)
	Fins / inch		23 (20)
Outdoor Coil Fan	Motor - (No.) HP		(1) 1/3
	Motor rpm		1075
	Total Motor Input - watts		375
	Diameter - (No.) in. / No. of blades		(1) 24 - 3
	Total air volume - cfm		4700
	Indoor Coil Environ™ (Fin/Tube option)	Net face area - sq. ft.	
Number of rows		1 (4)	
Fins per inch		20 (14)	
Drain Connection (no.) and size - in.		(1) 1 in. NPT	
Expansion device type		Balanced Port Thermostatic Expansion Valve (removable element head)	
<sup>3</sup> Indoor Blower & Drive Selection	Nominal Motor Output		1 hp, 2 hp
	Maximum Usable Motor Output (US Only)		1.15 hp, 2.3 hp
	Motor - Drive Kit Number		A04 968 - 1340 rpm A08 1193-1591 rpm
	Wheel Nominal Diameter x Width - in.		(1) 10 x 10
Filters	Type		Disposable
	Number and size - in.		(4) 20 x 20 x 2
Electrical Characteristics - 60 Hz			208/230V, 460V or 575V - 60 hertz - 3 phase

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

<sup>1</sup> AHRI Certified to AHRI Standard 340/360: 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

<sup>2</sup> Sound Rating Number (SRN) rated in accordance with test conditions included in ARI Standard 270-95.

<sup>3</sup> Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor hp required. Maximum usable hp of motors furnished are shown. In Canada, nominal motor hp is also maximum usable motor hp output. If motors of comparable hp are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

# RATINGS

NOTE – For Temperatures and Capacities not shown in tables, see bulletin – Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

## 2 TON - KCB024S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	640	23.2	1.31	0.69	0.84	0.99	21.7	1.49	0.7	0.86	1	20.1	1.72	0.71	0.89	1	18.4	1.97	0.73	0.92	1
	800	24.6	1.3	0.75	0.93	1	23.1	1.48	0.76	0.95	1	21.4	1.7	0.78	0.98	1	19.7	1.95	0.8	1	1
	960	25.8	1.29	0.8	1	1	24.3	1.47	0.82	1	1	22.7	1.69	0.85	1	1	21	1.94	0.88	1	1
67°F	640	24.5	1.3	0.54	0.67	0.81	23	1.48	0.54	0.68	0.82	21.4	1.71	0.54	0.69	0.85	19.7	1.96	0.54	0.71	0.88
	800	26.1	1.28	0.58	0.72	0.89	24.5	1.47	0.58	0.74	0.91	22.7	1.69	0.58	0.75	0.94	20.8	1.94	0.59	0.78	0.98
	960	27.2	1.27	0.61	0.78	0.96	25.5	1.45	0.61	0.8	0.99	23.7	1.68	0.62	0.82	1	21.6	1.93	0.63	0.86	1
71°F	640	25.7	1.29	0.41	0.53	0.65	24.2	1.47	0.4	0.53	0.66	22.6	1.7	0.39	0.53	0.67	20.8	1.95	0.38	0.54	0.68
	800	27.4	1.27	0.42	0.57	0.7	25.8	1.45	0.42	0.57	0.72	24	1.68	0.41	0.58	0.73	22.1	1.93	0.39	0.58	0.76
	960	28.6	1.25	0.44	0.6	0.76	26.9	1.44	0.43	0.61	0.77	25	1.66	0.43	0.61	0.8	22.9	1.91	0.43	0.63	0.83

## 2.5 TON - KCB030S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	800	29.2	1.66	0.7	0.85	1	28.1	1.9	0.71	0.87	1	26.3	2.21	0.73	0.9	1	24.6	2.69	0.74	0.93	1
	1000	30.7	1.66	0.76	0.95	1	29.5	1.9	0.77	0.97	1	27.7	2.21	0.79	1	1	26.1	2.69	0.81	1	1
	1200	32	1.66	0.82	1	1	30.9	1.91	0.83	1	1	29.2	2.22	0.86	1	1	27.5	2.69	0.9	1	1
67°F	800	30.9	1.66	0.55	0.68	0.82	29.7	1.91	0.55	0.69	0.83	27.9	2.22	0.56	0.7	0.86	26.2	2.69	0.56	0.72	0.89
	1000	32.3	1.67	0.59	0.74	0.92	31.1	1.91	0.59	0.75	0.93	29.2	2.22	0.6	0.77	0.96	27.3	2.68	0.61	0.79	0.99
	1200	33.3	1.67	0.6	0.8	1	32	1.92	0.62	0.81	1	30.1	2.22	0.63	0.84	1	28.2	2.7	0.65	0.87	1
71°F	800	32.5	1.67	0.41	0.54	0.66	31.3	1.91	0.41	0.54	0.67	29.5	2.22	0.41	0.55	0.68	27.7	2.69	0.41	0.56	0.7
	1000	33.9	1.67	0.44	0.58	0.73	32.6	1.92	0.43	0.58	0.73	30.7	2.23	0.43	0.59	0.75	28.8	2.69	0.43	0.59	0.77
	1200	34.8	1.68	0.44	0.61	0.78	33.5	1.92	0.44	0.6	0.8	31.5	2.23	0.44	0.63	0.83	29.7	2.69	0.44	0.64	0.85

## 3 TON - KCB036S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	960	36.5	2.01	0.69	0.85	1	34.3	2.29	0.7	0.87	1	32	2.63	0.71	0.89	1	29.5	3.05	0.72	0.92	1
	1200	38.6	2.02	0.75	0.94	1	36.3	2.3	0.77	0.97	1	33.9	2.63	0.78	1	1	31.5	3.05	0.8	1	1
	1440	40.4	2.03	0.82	1	1	38.2	2.3	0.83	1	1	36	2.63	0.86	1	1	33.6	3.04	0.89	1	1
67°F	960	39	2.02	0.54	0.67	0.81	36.8	2.3	0.54	0.68	0.83	34.4	2.63	0.54	0.69	0.85	31.8	3.04	0.54	0.7	0.88
	1200	41.1	2.03	0.57	0.73	0.9	38.8	2.31	0.58	0.74	0.93	36.3	2.63	0.58	0.76	0.96	33.6	3.04	0.59	0.78	0.99
	1440	42.7	2.04	0.61	0.79	0.99	40.2	2.31	0.62	0.81	1	37.5	2.64	0.62	0.83	1	34.9	3.05	0.63	0.86	1
71°F	960	41.4	2.03	0.4	0.53	0.65	39.1	2.31	0.4	0.53	0.65	36.7	2.63	0.38	0.53	0.67	34.1	3.04	0.38	0.53	0.68
	1200	43.7	2.05	0.42	0.56	0.71	41.3	2.32	0.41	0.57	0.72	38.7	2.64	0.41	0.57	0.74	36.1	3.04	0.4	0.58	0.75
	1440	45.3	2.06	0.43	0.6	0.77	42.8	2.33	0.43	0.61	0.79	40.1	2.65	0.43	0.61	0.81	37.3	3.04	0.42	0.63	0.83

## 4 TON - KCB048S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	1280	47.6	2.86	0.68	0.84	1	44.1	3.23	0.69	0.87	1	40.7	3.66	0.7	0.9	1	37.1	4.16	0.72	0.95	1
	1600	50.1	2.88	0.74	0.95	1	46.6	3.25	0.76	0.98	1	43.1	3.68	0.78	1	1	39.7	4.19	0.81	1	1
	1920	52.5	2.89	0.81	1	1	49.1	3.27	0.83	1	1	45.7	3.7	0.87	1	1	42.2	4.21	0.91	1	1
67°F	1280	50.9	2.88	0.53	0.66	0.8	47.3	3.26	0.53	0.67	0.83	43.8	3.69	0.53	0.68	0.86	40.1	4.19	0.53	0.7	0.9
	1600	53.6	2.89	0.56	0.72	0.91	49.7	3.27	0.57	0.73	0.94	46	3.71	0.57	0.76	0.98	42	4.21	0.58	0.79	1
	1920	55.4	2.9	0.6	0.78	1	51.4	3.29	0.6	0.81	1	47.5	3.72	0.61	0.84	1	43.3	4.22	0.63	0.88	1
71°F	1280	54.1	2.9	0.39	0.52	0.64	50.4	3.28	0.38	0.52	0.65	46.8	3.71	0.37	0.52	0.66	42.8	4.21	0.37	0.52	0.68
	1600	56.8	2.91	0.41	0.55	0.7	52.9	3.3	0.4	0.56	0.71	49.1	3.73	0.4	0.57	0.73	45	4.23	0.39	0.58	0.76
	1920	58.9	2.92	0.42	0.59	0.76	54.8	3.31	0.42	0.6	0.79	50.8	3.74	0.42	0.61	0.82	46.5	4.25	0.41	0.62	0.86

# RATINGS

NOTE – For Temperatures and Capacities not shown in tables, see bulletin – Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

## 5 TON - KCB060S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	1600	60.1	3.41	0.68	0.84	1	56.8	3.86	0.7	0.86	1	53.1	4.39	0.71	0.89	1	48.9	5	0.73	0.93	1
	2000	63.5	3.44	0.75	0.95	1	59.9	3.88	0.76	0.97	1	55.9	4.41	0.78	1	1	51.9	5.02	0.81	1	1
	2400	66.4	3.45	0.8	1	1	63.1	3.91	0.83	1	1	59.5	4.44	0.86	1	1	55.3	5.07	0.9	1	1
67°F	1600	64.3	3.44	0.53	0.66	0.81	60.8	3.89	0.54	0.67	0.82	56.9	4.42	0.54	0.69	0.85	52.5	5.04	0.55	0.7	0.89
	2000	67.8	3.46	0.58	0.72	0.9	64	3.91	0.57	0.74	0.93	59.7	4.44	0.58	0.75	0.96	55.1	5.07	0.59	0.78	1
	2400	70.3	3.47	0.6	0.78	0.99	66.3	3.92	0.61	0.81	1	61.7	4.46	0.62	0.83	1	56.8	5.08	0.63	0.88	1
71°F	1600	68.8	3.46	0.4	0.52	0.64	65.2	3.92	0.4	0.53	0.65	61.1	4.45	0.39	0.53	0.66	56.3	5.08	0.38	0.54	0.68
	2000	72.5	3.48	0.41	0.57	0.7	68.4	3.94	0.41	0.56	0.72	63.8	4.47	0.41	0.57	0.73	58.7	5.1	0.41	0.58	0.75
	2400	74.7	3.49	0.42	0.59	0.76	70.5	3.95	0.43	0.6	0.78	66	4.49	0.43	0.61	0.81	60.7	5.12	0.42	0.63	0.85

## 6 TON - KCB074S4T (PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	1200	53.3	2.3	0.68	0.81	0.92	51	2.62	0.69	0.82	0.94	48.3	2.99	0.7	0.83	0.96	45.6	3.41	0.71	0.85	0.98
	1600	57.8	2.29	0.74	0.88	1	55.2	2.61	0.75	0.9	1	52.5	2.98	0.77	0.92	1	49.3	3.4	0.78	0.95	1
	2000	61.2	2.28	0.8	0.96	1	58.2	2.6	0.81	0.98	1	55.3	2.98	0.83	1	1	52.5	3.4	0.84	1	1
67°F	1200	57.2	2.29	0.55	0.66	0.77	54.7	2.62	0.55	0.67	0.78	51.9	2.98	0.55	0.67	0.79	48.9	3.4	0.55	0.68	0.81
	1600	61.9	2.28	0.58	0.72	0.85	59.2	2.6	0.59	0.73	0.86	56.3	2.97	0.59	0.74	0.88	53	3.4	0.6	0.76	0.91
	2000	65.4	2.27	0.62	0.78	0.93	62.3	2.59	0.62	0.78	0.94	59.1	2.96	0.63	0.8	0.97	55.6	3.39	0.64	0.82	0.99
71°F	1200	61.2	2.28	0.42	0.53	0.63	58.6	2.61	0.42	0.53	0.64	55.8	2.97	0.42	0.53	0.64	52.6	3.4	0.41	0.53	0.65
	1600	66.3	2.26	0.44	0.57	0.69	63.3	2.59	0.44	0.57	0.7	60.2	2.96	0.44	0.58	0.71	56.7	3.39	0.44	0.59	0.73
	2000	69.6	2.25	0.46	0.61	0.75	66.5	2.58	0.46	0.61	0.76	63.1	2.95	0.45	0.61	0.77	59.6	3.38	0.46	0.63	0.8

## 6 TON - KCB074S4T (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	1920	68.6	4.18	0.73	0.88	1	64.9	4.71	0.75	0.9	1	60.9	5.32	0.77	0.93	1	56.8	6.02	0.79	0.96	1
	2400	72.2	4.21	0.79	0.96	1	68.1	4.74	0.81	0.99	1	63.8	5.35	0.83	1	1	60	6.05	0.86	1	1
	2880	75.2	4.24	0.85	1	1	71.6	4.78	0.87	1	1	67.6	5.39	0.9	1	1	63.4	6.09	0.94	1	1
67°F	1920	73	4.22	0.58	0.71	0.85	69	4.75	0.58	0.73	0.87	64.8	5.36	0.59	0.74	0.89	60.4	6.05	0.6	0.77	0.93
	2400	76.7	4.25	0.62	0.77	0.93	72.4	4.79	0.62	0.79	0.95	67.9	5.4	0.63	0.81	0.98	63	6.08	0.65	0.84	1
	2880	79.1	4.28	0.64	0.83	0.99	74.8	4.82	0.66	0.85	1	69.9	5.42	0.67	0.88	1	65	6.1	0.69	0.91	1
71°F	1920	77.6	4.26	0.44	0.56	0.69	73.5	4.8	0.43	0.57	0.7	69.1	5.41	0.43	0.58	0.72	64.2	6.1	0.43	0.59	0.74
	2400	81.1	4.3	0.45	0.6	0.75	76.8	4.84	0.45	0.61	0.77	72	5.45	0.45	0.62	0.79	67.1	6.13	0.45	0.64	0.81
	2880	83.7	4.33	0.47	0.64	0.8	79.2	4.87	0.46	0.65	0.83	74.2	5.47	0.48	0.66	0.85	69.2	6.15	0.48	0.68	0.89



# HUMIDITROL® DEHUMIDIFICATION SYSTEM RATINGS

## 2 TON - KCB024S4 WITH HUMIDITROL® DEHUMIDIFICATION OPERATING

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F					
63°F	640	18.4	920	.61	.78	.94	15.2	1050	.55	.76	.95	11.8	1200	.46	.74	.97	8.4	1360	.31	.68	.89				
	800	19.7	910	.67	.86	1.00	16.0	1040	.62	.85	1.00	12.2	1180	.53	.85	1.00	8.3	1350	.37	.84	.96				
	960	21.0	900	.72	.86	.99	16.5	1030	.68	.95	1.00	12.4	1170	.61	.95	1.00	8.2	1340	.48	.99	1.00				
67°F	640	20.5	920	.45	.61	.77	17.2	1050	.36	.56	.74	13.9	1200	.27	.49	.71	10.4	1360	.01	.36	.67				
	800	21.8	910	.48	.66	.83	18.1	1040	.40	.63	.82	14.3	1180	.27	.56	.81	10.3	1350	.02	.45	.81				
	960	22.7	900	.52	.72	.89	18.6	1030	.42	.70	.90	14.5	1170	.29	.63	.93	10.2	1340	.03	.54	.94				
71°F	640	22.9	920	.28	.46	.60	19.2	1050	.21	.39	.56	15.8	1200	.06	.29	.50	12.3	1360	-.18	.13	.41				
	800	24.0	910	.32	.50	.65	20.3	1040	.22	.43	.62	16.4	1180	.06	.33	.59	12.4	1350	-.22	.16	.50				
	960	25.1	900	.34	.53	.71	21.0	1030	.23	.47	.69	16.7	1170	.06	.37	.66	12.3	1340	-.25	.19	.57				

## 2.5 TON - KCB030S4 WITH HUMIDITROL® DEHUMIDIFICATION OPERATING

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F					
63°F	800	21.0	1170	.56	.73	.88	17.5	1330	.50	.69	.86	13.5	1510	.44	.69	.89	9.8	1710	.21	.59	.87				
	1000	22.3	1170	.60	.80	.96	18.5	1330	.56	.77	.96	14.4	1510	.45	.71	.90	10.0	1700	.23	.61	.86				
	1200	23.4	1170	.65	.86	.99	19.0	1330	.61	.86	.99	14.9	1500	.46	.73	1.00	10.1	1700	.20	.62	.98				
67°F	800	23.3	1180	.41	.57	.71	19.8	1340	.34	.51	.68	16.0	1510	.21	.45	.64	12.1	1710	.03	.31	.59				
	1000	24.8	1180	.42	.61	.78	20.8	1330	.35	.57	.76	16.8	1500	.24	.49	.74	12.1	1700	-.01	.36	.62				
	1200	25.9	1180	.47	.66	.80	21.6	1330	.39	.61	.83	16.8	1500	.25	.56	.83	11.9	1690	-.03	.46	.65				
71°F	800	26.1	1180	.30	.42	.56	22.7	1340	.21	.35	.51	18.8	1510	.05	.26	.45	14.7	1700	-.13	.13	.34				
	1000	27.5	1180	.27	.45	.62	23.5	1340	.19	.39	.57	19.3	1510	.05	.29	.52	14.6	1700	-.20	.14	.41				
	1200	28.4	1180	.28	.49	.66	24.1	1340	.19	.41	.62	19.5	1500	.04	.32	.58	14.5	1680	-.23	.18	.50				

## 3 TON - KCB036S4 WITH HUMIDITROL® DEHUMIDIFICATION OPERATING

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F					
63°F	960	23.7	1530	.58	.76	.94	20.4	1720	.54	.75	.95	16.7	1940	.48	.74	.98	12.7	2190	.35	.71	1.00				
	1200	24.8	1540	.64	.85	.99	21.0	1730	.61	.85	.91	16.9	1930	.56	.87	1.00	12.5	2180	.47	.88	1.00				
	1440	25.6	1550	.70	.94	1.00	21.5	1730	.68	.96	.96	17.1	1930	.64	1.00	1.00	12.6	2170	.58	.97	1.00				
67°F	960	26.4	1550	.41	.57	.73	23.0	1740	.36	.54	.71	19.4	1950	.27	.49	.70	15.6	2190	.13	.41	.68				
	1200	27.7	1560	.44	.63	.81	23.9	1750	.39	.60	.82	19.8	1950	.30	.56	.74	15.4	2190	.16	.50	.83				
	1440	28.5	1570	.47	.69	.91	24.4	1750	.42	.67	.91	19.9	1950	.33	.64	.95	15.1	2180	.18	.59	.98				
71°F	960	29.0	1570	.27	.41	.56	25.7	1760	.20	.37	.53	22.0	1970	.11	.30	.49	18.2	2200	-.03	.20	.43				
	1200	30.6	1590	.28	.44	.61	26.7	1770	.20	.40	.59	22.6	1970	.10	.34	.56	18.3	2200	-.05	.24	.51				
	1440	31.5	1600	.29	.49	.67	27.3	1780	.21	.44	.66	22.9	1970	.10	.37	.63	18.2	2200	-.08	.27	.60				

## 4 TON - KCB048S4 WITH HUMIDITROL® DEHUMIDIFICATION OPERATING

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F					
63°F	1280	35.7	2160	.58	.77	.93	29.5	2440	.54	.76	.98	23.3	2730	.46	.74	.98	17.3	3060	.32	.71	1.00				
	1600	37.4	2160	.65	.85	1.00	30.7	2430	.62	.84	1.00	23.9	2730	.52	.85	1.00	17.3	3040	.42	.84	1.00				
	1920	38.7	2160	.70	.91	1.00	31.5	2430	.65	.92	1.00	24.0	2720	.66	.96	.94	17.0	3030	.44	1.00	1.00				
67°F	1280	39.4	2180	.41	.58	.73	33.0	2460	.34	.54	.73	26.8	2760	.22	.48	.71	20.7	3090	.02	.37	.68				
	1600	41.1	2180	.45	.64	.82	34.2	2460	.37	.61	.82	27.3	2750	.29	.57	.81	20.7	3080	.02	.44	.82				
	1920	42.1	2170	.42	.71	.89	34.6	2450	.40	.69	.90	27.6	2750	.25	.61	.93	20.3	3060	.01	.55	.96				
71°F	1280	42.8	2200	.26	.43	.57	36.4	2480	.17	.36	.54	30.1	2790	.02	.27	.48	23.8	3120	-.19	.12	.41				
	1600	44.6	2200	.28	.45	.63	37.5	2480	.18	.40	.60	30.6	2780	.07	.31	.57	23.7	3110	-.24	.14	.52				
	1920	45.7	2190	.26	.49	.69	38.1	2480	.18	.43	.65	30.5	2770	.12	.37	.62	23.6	3100	-.32	.11	.58				

# HUMIDITROL® DEHUMIDIFICATION SYSTEM RATINGS

## 5 TON - KCB060S4 WITH HUMIDITROL® DEHUMIDIFICATION OPERATING

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
				75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F
cfm	kBtuh	kW				kBtuh	kW				kBtuh	kW				kBtuh	kW				
63°F	1600	42.3	2750	.50	.73	.93	35.3	3020	.45	.69	.95	27.9	3340	.33	.64	.97	19.7	3730	.12	.55	.99
	2000	44.2	2770	.60	.83	1.00	35.9	3030	.52	.85	1.00	30.1	3360	.43	.57	1.00	18.9	3720	.22	.76	.99
	2400	45.3	2780	.67	.95	.99	37.0	3040	.59	.93	.98	28.4	3340	.51	.93	.98	18.5	3720	.29	.91	1.00
67°F	1600	47.7	2800	.34	.52	.70	40.4	3060	.25	.46	.66	33.2	3380	.11	.36	.62	25.1	3770	-.12	.22	.55
	2000	49.5	2810	.40	.60	.79	41.8	3080	.28	.52	.78	33.5	3380	.16	.44	.77	24.3	3760	-.15	.31	.74
	2400	50.8	2830	.41	.66	.90	42.3	3080	.30	.59	.89	32.9	3370	.15	.56	.88	23.0	3740	-.19	.43	.88
71°F	1600	54.3	2850	.18	.28	.51	45.7	3110	.10	.28	.45	38.2	3430	-.05	.17	.39	29.9	3810	-.30	.01	.27
	2000	55.3	2860	.16	.38	.56	46.6	3110	.09	.32	.51	38.3	3420	-.07	.21	.46	29.1	3800	-.38	.03	.37
	2400	56.1	2870	.21	.42	.64	46.8	3110	.09	.35	.59	37.7	3420	-.10	.23	.55	28.1	3780	-.48	.03	.48

## 6 TON - KCB074S4 WITH HUMIDITROL® DEHUMIDIFICATION OPERATING

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
				75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F
cfm	kBtuh	kW				kBtuh	kW				kBtuh	kW				kBtuh	kW				
63°F	1920	43.6	3210	.54	.74	.93	36.3	3520	.47	.73	.95	29.1	3890	.37	.69	.96	21.3	4320	.21	.64	1.00
	2400	45.8	3250	.61	.82	1.00	37.9	3550	.54	.80	1.00	29.1	3890	.43	.87	.88	20.7	4310	.25	.87	.99
	2880	46.5	3270	.63	.95	.99	38.2	3550	.63	.95	.98	29.7	3900	.60	.95	.98	20.6	4310	.31	.97	1.00
67°F	1920	48.8	3280	.34	.52	.70	41.4	3590	.27	.48	.69	34.0	3960	.15	.40	.67	25.9	4400	-.19	.29	.64
	2400	50.7	3310	.37	.57	.81	42.7	3610	.28	.52	.79	34.0	3960	.08	.47	.76	25.5	4390	-.10	.36	.79
	2880	51.4	3320	.39	.65	.91	43.1	3620	.24	.60	.88	33.2	3950	.01	.61	.90	24.9	4380	-.15	.38	.91
71°F	1920	53.6	3330	.19	.35	.51	46.3	3650	.09	.28	.47	38.4	4030	-.04	.19	.40	30.2	4470	-.29	.05	.33
	2400	55.0	3360	.22	.38	.57	46.8	3660	.09	.31	.54	38.1	4020	-.07	.22	.47	29.1	4450	-.37	.06	.41
	2880	55.7	3370	.25	.41	.64	46.7	3660	.10	.34	.59	37.4	4020	-.10	.23	.55	26.1	4400	-.46	.25	.50

**BLOWER DATA**

**DIRECT DRIVE - 2 TON**

**KCB024S4D**

**BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.**

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, wet coil, etc.) See page 32.

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 32.

External Static Pressure (in. w.g.)	Air Volume (cfm) at Various Blower Speeds					
	208 VOLTS			230 VOLTS		
	High	Medium	Low	High	Medium	Low
<b>2 Ton Standard Efficiency (Downflow)</b>						<b>KCB024S</b>
0.0	1244	956	859	1414	1098	876
0.1	1226	934	820	1401	1092	870
0.2	1201	906	782	1379	1070	848
0.3	1180	877	727	1348	1039	819
0.4	1152	841	690	1318	1008	775
0.5	1118	812	634	1288	968	746
0.6	1090	768	579	1243	937	702
0.7	1048	725	505	1197	890	659
0.8	1006	667	431	1152	827	600
0.9	950	609	357	1076	749	528
1.0	839	493	248	986	623	468
<b>2 Ton Standard Efficiency (Horizontal)</b>						<b>KCB024S</b>
0.0	1166	910	801	1376	1071	842
0.1	1156	893	770	1342	1054	826
0.2	1136	866	734	1307	1021	808
0.3	1115	826	697	1269	982	771
0.4	1083	800	643	1232	956	734
0.5	1051	747	589	1194	903	698
0.6	1009	707	534	1137	850	662
0.7	946	668	467	1100	797	588
0.8	861	588	396	1024	744	534
0.9	736	508	319	948	652	466
1.0	560	385	237	845	549	392

**BLOWER DATA****DIRECT DRIVE - 2.5 TON****KCB030S4D****BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.**

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, wet coil, etc.) See page 32.

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 32.

External Static Pressure (in. w.g.)	Air Volume (cfm) at Various Blower Speeds					
	208 VOLTS			230 VOLTS		
	High	Medium	Low	High	Medium	Low
<b>2.5 Ton Standard Efficiency (Downflow)</b>						<b>KCB030S</b>
0.0	1199	928	838	1379	1085	877
0.1	1229	926	813	1409	1086	872
0.2	1206	928	782	1367	1094	850
0.3	1183	881	742	1350	1047	820
0.4	1159	843	686	1321	1009	783
0.5	1136	812	643	1282	981	762
0.6	1103	766	569	1242	921	705
0.7	1046	728	496	1195	888	625
0.8	953	648	432	1134	792	583
0.9	909	584	335	1037	738	492
1.0	783	465	247	926	592	411
<b>2.5 Ton Standard Efficiency (Horizontal)</b>						<b>KCB030S</b>
0.0	1152	909	801	1325	1063	838
0.1	1152	893	770	1321	1048	826
0.2	1136	866	734	1288	1021	798
0.3	1104	826	697	1260	982	771
0.4	1072	787	643	1222	942	734
0.5	1041	747	589	1175	903	698
0.6	1009	707	534	1137	850	662
0.7	946	654	467	1081	797	588
0.8	861	588	396	1024	718	535
0.9	798	508	319	911	642	468
1.0	715	443	237	846	564	394

**BLOWER DATA**

**DIRECT DRIVE - 3 TON | 4 TON**

KCB036S4D | KCB048S4D

**BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.**

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, wet coil, etc.) See page 32.

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 32.

External Static Pressure (in. w.g.)	Air Volume (cfm) at Various Blower Speeds								
	208 VOLTS			230 VOLTS			460/575 VOLTS		
	High	Medium	Low	High	Medium	Low	High	Medium	Low
<b>3 and 4 Ton Standard Efficiency (Downflow)</b>					<b>KCB036S and KCB048S</b>				
0.0	1938	1552	1119	2167	1772	1317	2136	1716	1212
0.1	1992	1586	1128	2167	1780	1315	2104	1728	1208
0.2	1915	1592	1137	2100	1792	1307	2052	1684	1197
0.3	1865	1536	1083	2043	1735	1266	1994	1647	1172
0.4	1813	1495	1033	1986	1678	1204	1918	1597	1134
0.5	1762	1444	976	1909	1621	1164	1861	1534	1096
0.6	1694	1391	899	1814	1535	1082	1765	1485	1059
0.7	1609	1331	817	1718	1478	1000	1689	1410	996
0.8	1471	1220	730	1603	1364	918	1613	1335	920
0.9	1368	1066	522	1488	1250	755	1498	1235	848
1.0	1108	869	402	1259	1021	640	1345	1036	763
<b>3 and 4 Ton Standard Efficiency (Horizontal)</b>					<b>KCB036S and KCB048S</b>				
0.0	1862	1520	1070	2082	1736	1259	2085	1745	1247
0.1	1867	1530	1069	2031	1717	1246	2070	1744	1257
0.2	1804	1485	1067	1978	1672	1227	2016	1690	1225
0.3	1741	1440	1018	1907	1627	1190	1944	1643	1192
0.4	1677	1396	968	1837	1567	1128	1890	1596	1160
0.5	1614	1329	894	1749	1492	1066	1800	1533	1111
0.6	1550	1284	844	1660	1417	1016	1727	1455	1062
0.7	1455	1195	769	1554	1327	941	1655	1377	996
0.8	1329	1106	670	1448	1237	842	1511	1283	865
0.9	1202	927	496	1307	1087	718	1403	1190	784
1.0	1012	828	385	1025	973	613	1222	1002	670

**BLOWER DATA****DIRECT DRIVE - 5 TON****KCB060S4D****BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.**

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, wet coil, etc.) See page 32.

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 32.

External Static Pressure (in. w.g.)	Air Volume (cfm) at Various Blower Speeds					
	208 VOLTS		230 VOLTS		460/575 VOLTS	
	High	Low	High	Low	High	Low
<b>5 Ton Standard Efficiency (Downflow)</b>						<b>KCB060S</b>
0.0	1883	1570	2074	1785	2074	1785
0.1	1871	1550	2050	1760	2050	1760
0.2	1855	1538	2018	1735	2018	1735
0.3	1828	1523	1986	1704	1986	1704
0.4	1786	1499	1937	1679	1937	1679
0.5	1759	1476	1905	1642	1905	1642
0.6	1718	1452	1856	1605	1856	1605
0.7	1676	1421	1791	1567	1791	1567
0.8	1622	1358	1726	1505	1726	1505
0.9	1539	1277	1628	1406	1628	1406
1.0	1399	---	1502	1300	1502	1300
<b>5 Ton Standard Efficiency (Horizontal)</b>						<b>KCB060S</b>
0.0	1852	1534	2046	1713	2046	1713
0.1	1844	1532	2024	1711	2024	1711
0.2	1831	1526	1998	1706	1998	1706
0.3	1800	1504	1954	1681	1954	1681
0.4	1769	1477	1918	1654	1918	1654
0.5	1722	1450	1865	1612	1865	1612
0.6	1674	1423	1812	1570	1812	1570
0.7	1627	1369	1742	1515	1742	1515
0.8	1565	1315	1672	1459	1672	1459
0.9	1470	1241	1530	1376	1530	1376
1.0	1323	---	1426	1242	1426	1242



**BLOWER DATA**

**BELT DRIVE (SINGLE SPEED) - 3 TON**

KCB036S4B

**BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.**

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, wet coil, etc.) See page 32.

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 32.

See page 32 for blower motors and drives.

**DOWNFLOW**

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	486	0.12	554	0.16	623	0.20	695	0.22	767	0.23	836	0.25	897	0.28	953	0.30
1000	508	0.15	576	0.19	643	0.22	713	0.24	783	0.26	848	0.28	907	0.30	961	0.33
1100	533	0.18	599	0.22	665	0.25	733	0.27	800	0.28	863	0.31	919	0.34	971	0.36
1200	560	0.21	625	0.25	689	0.28	755	0.30	820	0.32	879	0.34	932	0.37	983	0.40
1300	591	0.24	654	0.28	716	0.31	779	0.33	841	0.35	897	0.38	948	0.41	996	0.44
1400	631	0.26	690	0.30	748	0.34	807	0.36	864	0.39	916	0.42	964	0.46	1011	0.49
1500	676	0.28	729	0.33	782	0.36	835	0.40	887	0.43	935	0.47	981	0.50	1028	0.54

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	1004	0.33	1055	0.35	1106	0.37	1152	0.40	1193	0.43	1232	0.46	1269	0.49	1305	0.52
1000	1011	0.36	1062	0.38	1111	0.41	1157	0.43	1199	0.47	1238	0.50	1276	0.53	1311	0.56
1100	1020	0.39	1070	0.41	1118	0.44	1163	0.47	1206	0.51	1245	0.54	1282	0.58	1318	0.61
1200	1031	0.43	1079	0.45	1127	0.48	1171	0.52	1213	0.55	1252	0.59	1289	0.62	1324	0.66
1300	1044	0.47	1091	0.49	1137	0.53	1181	0.56	1221	0.60	1259	0.64	1296	0.68	1330	0.71
1400	1058	0.51	1105	0.54	1150	0.57	1191	0.61	1231	0.65	1268	0.69	1303	0.73	1337	0.77
1500	1074	0.56	1120	0.59	1163	0.63	1203	0.67	1241	0.71	1277	0.75	1312	0.79	1345	0.82

**HORIZONTAL**

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	485	0.11	554	0.14	627	0.16	703	0.18	780	0.21	841	0.23	888	0.27	935	0.30
1000	509	0.13	578	0.16	649	0.19	722	0.21	796	0.23	854	0.26	900	0.29	947	0.33
1100	537	0.16	605	0.19	674	0.21	744	0.24	813	0.26	868	0.29	913	0.33	959	0.36
1200	567	0.19	633	0.22	700	0.24	768	0.27	833	0.30	884	0.33	928	0.37	974	0.40
1300	599	0.22	664	0.25	729	0.28	793	0.30	853	0.33	902	0.37	945	0.41	990	0.44
1400	634	0.26	697	0.29	758	0.31	819	0.34	875	0.38	921	0.42	964	0.46	1008	0.49
1500	669	0.30	730	0.33	789	0.36	846	0.39	897	0.42	941	0.47	983	0.51	1028	0.54

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	986	0.32	1039	0.35	1090	0.37	1137	0.40	1177	0.43	1214	0.46	1248	0.49	1280	0.51
1000	997	0.35	1048	0.38	1098	0.41	1143	0.44	1184	0.47	1221	0.50	1255	0.53	1287	0.56
1100	1008	0.39	1059	0.41	1107	0.44	1150	0.47	1191	0.51	1228	0.54	1263	0.57	1295	0.60
1200	1022	0.43	1071	0.45	1117	0.48	1160	0.52	1200	0.55	1237	0.59	1271	0.62	1303	0.66
1300	1037	0.47	1085	0.50	1130	0.53	1171	0.57	1210	0.60	1246	0.64	1280	0.68	1312	0.71
1400	1054	0.52	1100	0.54	1144	0.58	1183	0.62	1221	0.66	1256	0.70	1290	0.73	1321	0.77
1500	1073	0.57	1117	0.60	1159	0.64	1197	0.67	1234	0.71	1268	0.75	1301	0.79	1332	0.83

**BLOWER DATA**

**BELT DRIVE (SINGLE SPEED) - 4 TON**

**KCB048S4B**

**BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.**

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, wet coil, etc.) See page 32.

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 32.

See page 32 for blower motors and drives.

**DOWNFLOW**

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	560	0.21	625	0.25	689	0.28	755	0.30	820	0.32	879	0.34	932	0.37	983	0.40
1300	591	0.24	654	0.28	716	0.31	779	0.33	841	0.35	897	0.38	948	0.41	996	0.44
1400	631	0.26	690	0.30	748	0.34	807	0.36	864	0.39	916	0.42	964	0.46	1011	0.49
1500	675	0.28	729	0.33	782	0.36	835	0.40	887	0.43	935	0.47	981	0.50	1028	0.54
1600	718	0.31	766	0.35	814	0.40	862	0.44	910	0.48	955	0.52	1000	0.55	1046	0.59
1700	756	0.34	799	0.39	843	0.44	887	0.49	932	0.53	976	0.57	1020	0.61	1066	0.64
1800	787	0.40	828	0.45	870	0.50	912	0.55	955	0.59	999	0.63	1043	0.67	1089	0.70
1900	815	0.46	855	0.51	897	0.57	939	0.62	981	0.66	1024	0.69	1068	0.73	1113	0.76
2000	843	0.53	884	0.59	925	0.64	968	0.68	1009	0.72	1052	0.76	1095	0.79	1138	0.83

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	1031	0.43	1079	0.45	1127	0.48	1171	0.52	1213	0.55	1252	0.59	1289	0.62	1324	0.66
1300	1044	0.47	1091	0.49	1137	0.53	1181	0.56	1221	0.60	1259	0.64	1296	0.68	1330	0.71
1400	1058	0.51	1105	0.54	1150	0.57	1191	0.61	1231	0.65	1268	0.69	1303	0.73	1337	0.77
1500	1074	0.56	1120	0.59	1163	0.63	1203	0.67	1241	0.71	1277	0.75	1312	0.79	1345	0.82
1600	1092	0.61	1137	0.65	1178	0.68	1216	0.72	1253	0.76	1288	0.80	1321	0.84	1354	0.88
1700	1112	0.67	1155	0.70	1193	0.75	1230	0.79	1265	0.83	1299	0.87	1332	0.91	1364	0.95
1800	1133	0.73	1174	0.77	1209	0.81	1244	0.85	1278	0.90	1311	0.94	1343	0.98	1375	1.02
1900	1156	0.80	1193	0.84	1226	0.89	1260	0.93	1293	0.97	1325	1.01	1356	1.06	1388	1.10
2000	1178	0.87	1213	0.92	1243	0.97	1275	1.02	1307	1.06	1339	1.10	1370	1.14	---	---

**HORIZONTAL**

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	567	0.19	633	0.22	700	0.24	768	0.27	833	0.30	884	0.33	928	0.37	974	0.40
1300	599	0.22	664	0.25	729	0.28	793	0.30	853	0.33	902	0.37	945	0.41	990	0.44
1400	634	0.26	697	0.29	758	0.31	819	0.34	875	0.38	921	0.42	964	0.46	1008	0.49
1500	669	0.30	730	0.33	789	0.36	846	0.39	897	0.42	941	0.47	983	0.51	1028	0.54
1600	705	0.34	763	0.37	819	0.40	873	0.43	921	0.48	963	0.52	1004	0.56	1048	0.59
1700	741	0.38	796	0.41	850	0.45	900	0.49	945	0.53	985	0.58	1026	0.62	1070	0.65
1800	776	0.43	829	0.46	880	0.51	927	0.55	970	0.60	1009	0.64	1050	0.68	1093	0.71
1900	812	0.48	862	0.52	910	0.57	955	0.62	996	0.66	1035	0.71	1076	0.74	1118	0.78
2000	847	0.54	895	0.59	941	0.64	984	0.69	1023	0.74	1062	0.78	1103	0.81	1144	0.85

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	1022	0.43	1071	0.45	1117	0.48	1160	0.52	1200	0.55	1237	0.59	1271	0.62	1303	0.66
1300	1037	0.47	1085	0.50	1130	0.53	1171	0.57	1210	0.60	1246	0.64	1280	0.68	1312	0.71
1400	1054	0.52	1100	0.54	1144	0.58	1183	0.62	1221	0.66	1256	0.70	1290	0.73	1321	0.77
1500	1073	0.57	1117	0.60	1159	0.64	1197	0.67	1234	0.71	1268	0.75	1301	0.79	1332	0.83
1600	1093	0.62	1136	0.66	1175	0.70	1212	0.74	1247	0.78	1281	0.82	1313	0.86	1344	0.90
1700	1114	0.68	1155	0.72	1192	0.76	1227	0.80	1262	0.85	1295	0.89	1327	0.93	1358	0.97
1800	1136	0.75	1175	0.79	1210	0.83	1245	0.88	1278	0.92	1311	0.97	1342	1.01	1373	1.05
1900	1159	0.82	1197	0.86	1229	0.92	1263	0.97	1296	1.01	1328	1.06	1359	1.10	1390	1.14
2000	1183	0.90	1218	0.95	1249	1.01	1282	1.06	1314	1.11	1346	1.15	---	---	---	---

**BLOWER DATA**

**BELT DRIVE (SINGLE SPEED) - 5 TON**

KCB060S4B

**BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.**

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, wet coil, etc.) See page 32.

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 32.

See page 32 for blower motors and drives.

**DOWNFLOW**

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	665	0.30	716	0.34	768	0.38	819	0.41	879	0.44	937	0.46	985	0.49	1022	0.52
1700	723	0.31	768	0.35	814	0.39	860	0.43	910	0.47	959	0.50	1001	0.54	1037	0.58
1800	779	0.32	818	0.37	857	0.41	897	0.46	939	0.50	980	0.55	1018	0.59	1054	0.64
1900	826	0.36	859	0.41	894	0.45	928	0.50	964	0.56	1000	0.61	1036	0.66	1072	0.70
2000	857	0.42	889	0.47	920	0.52	952	0.57	986	0.62	1020	0.68	1055	0.73	1091	0.77
2100	878	0.49	909	0.54	940	0.59	973	0.64	1006	0.70	1041	0.75	1076	0.80	1112	0.85
2200	897	0.55	929	0.61	961	0.66	994	0.72	1028	0.78	1063	0.83	1099	0.89	1134	0.93
2300	918	0.62	950	0.68	983	0.74	1017	0.80	1052	0.86	1087	0.92	1122	0.97	1157	1.02
2400	941	0.70	974	0.77	1008	0.83	1042	0.90	1077	0.96	1111	1.01	1146	1.06	1181	1.11

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	1059	0.57	1098	0.61	1138	0.65	1177	0.68	1218	0.71	1257	0.75	1290	0.79	1319	0.83
1700	1074	0.62	1113	0.66	1152	0.70	1190	0.74	1231	0.77	1268	0.80	1299	0.84	1328	0.89
1800	1091	0.68	1129	0.72	1167	0.76	1205	0.80	1244	0.83	1280	0.87	1310	0.91	1338	0.95
1900	1109	0.75	1146	0.79	1183	0.82	1221	0.86	1260	0.90	1294	0.94	1323	0.98	1349	1.02
2000	1128	0.82	1164	0.86	1201	0.89	1239	0.93	1276	0.97	1310	1.01	1336	1.06	1362	1.10
2100	1148	0.89	1185	0.93	1221	0.97	1258	1.01	1294	1.05	1325	1.09	1351	1.14	1376	1.19
2200	1170	0.97	1206	1.01	1242	1.05	1277	1.09	1311	1.14	1341	1.18	1365	1.23	1390	1.28
2300	1193	1.06	1228	1.09	1262	1.14	1295	1.19	1327	1.24	1355	1.29	1380	1.33	1406	1.37
2400	1216	1.15	1250	1.19	1282	1.24	1313	1.30	1343	1.36	1371	1.40	1396	1.44	1423	1.48

**HORIZONTAL**

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	712	0.29	758	0.32	807	0.36	855	0.39	906	0.43	955	0.46	997	0.50	1035	0.54
1700	766	0.32	808	0.36	850	0.40	892	0.44	936	0.47	978	0.51	1016	0.56	1052	0.60
1800	814	0.36	851	0.40	888	0.44	925	0.49	963	0.53	1000	0.57	1035	0.62	1071	0.66
1900	853	0.41	886	0.46	919	0.50	952	0.55	986	0.60	1021	0.64	1056	0.69	1091	0.73
2000	883	0.48	913	0.53	944	0.57	976	0.62	1009	0.67	1043	0.71	1078	0.76	1112	0.80
2100	906	0.56	936	0.60	967	0.65	999	0.70	1033	0.75	1067	0.79	1101	0.84	1135	0.88
2200	930	0.64	960	0.68	991	0.73	1024	0.78	1058	0.83	1092	0.88	1126	0.92	1160	0.96
2300	954	0.72	985	0.77	1017	0.82	1051	0.87	1085	0.92	1119	0.96	1152	1.00	1186	1.04
2400	981	0.81	1013	0.86	1046	0.91	1079	0.96	1113	1.00	1146	1.05	1180	1.09	1213	1.13

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	1071	0.58	1109	0.62	1147	0.66	1186	0.69	1225	0.72	1263	0.76	1299	0.80	1334	0.83
1700	1088	0.64	1126	0.68	1164	0.72	1202	0.75	1240	0.78	1276	0.82	1311	0.86	1345	0.90
1800	1107	0.70	1143	0.74	1181	0.78	1219	0.81	1256	0.85	1291	0.89	1324	0.93	1357	0.97
1900	1126	0.77	1163	0.81	1200	0.85	1237	0.88	1273	0.92	1306	0.96	1339	1.00	1371	1.04
2000	1148	0.84	1183	0.88	1220	0.92	1257	0.96	1291	1.00	1323	1.04	1354	1.08	1385	1.12
2100	1170	0.92	1206	0.96	1242	1.00	1277	1.04	1310	1.08	1340	1.13	1371	1.17	1401	1.21
2200	1195	1.00	1230	1.04	1265	1.08	1299	1.13	1330	1.18	1359	1.23	1388	1.27	1418	1.31
2300	1220	1.08	1254	1.13	1288	1.17	1320	1.23	1350	1.28	1378	1.34	1406	1.38	1435	1.42
2400	1245	1.18	1278	1.22	1311	1.28	1341	1.33	1370	1.40	1397	1.45	1425	1.50	1454	1.54

**BLOWER DATA**

**BELT DRIVE (TWO-SPEED) - 6 TON (DOWNFLOW)**

**KCB074S4T**

**BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.**

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, wet coil, etc.) See page 32.

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 32.

See page 32 for blower motors and drives.

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	826	0.36	859	0.41	894	0.45	928	0.50	964	0.56	1000	0.61	1036	0.66	1072	0.70
2000	857	0.42	889	0.47	920	0.52	952	0.57	986	0.62	1020	0.68	1055	0.73	1091	0.77
2100	878	0.49	909	0.54	940	0.59	973	0.64	1006	0.70	1041	0.75	1076	0.80	1112	0.85
2200	897	0.55	929	0.61	961	0.66	994	0.72	1028	0.78	1063	0.83	1099	0.89	1134	0.93
2300	918	0.62	950	0.68	983	0.74	1017	0.80	1052	0.86	1087	0.92	1122	0.97	1157	1.02
2400	941	0.70	974	0.77	1008	0.83	1042	0.90	1077	0.96	1111	1.01	1146	1.06	1181	1.11
2500	966	0.79	1000	0.86	1034	0.93	1068	1.00	1103	1.06	1137	1.11	1171	1.16	1205	1.20
2600	994	0.90	1028	0.97	1062	1.04	1096	1.10	1130	1.16	1164	1.21	1197	1.26	1231	1.30
2700	1023	1.01	1057	1.08	1091	1.15	1125	1.22	1159	1.27	1192	1.32	1225	1.37	1258	1.41
2800	1053	1.13	1088	1.21	1122	1.27	1155	1.33	1188	1.39	1221	1.43	1253	1.48	1286	1.53
2900	1085	1.26	1119	1.33	1153	1.40	1186	1.45	1218	1.51	1250	1.55	1281	1.61	1313	1.66

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	1109	0.75	1146	0.79	1183	0.82	1221	0.86	1260	0.90	1294	0.94	1323	0.98	1349	1.02
2000	1128	0.82	1164	0.86	1201	0.89	1239	0.93	1276	0.97	1310	1.01	1336	1.06	1362	1.10
2100	1148	0.89	1185	0.93	1221	0.97	1258	1.01	1294	1.05	1325	1.09	1351	1.14	1376	1.19
2200	1170	0.97	1206	1.01	1242	1.05	1277	1.09	1311	1.14	1341	1.18	1365	1.23	1390	1.28
2300	1193	1.06	1228	1.09	1262	1.14	1295	1.19	1327	1.24	1355	1.29	1380	1.33	1406	1.37
2400	1216	1.15	1250	1.19	1282	1.24	1313	1.30	1343	1.36	1371	1.40	1396	1.44	1423	1.48
2500	1240	1.24	1273	1.29	1302	1.36	1331	1.42	1360	1.48	1388	1.52	1414	1.55	1441	1.58
2600	1265	1.34	1296	1.40	1324	1.47	1352	1.54	1381	1.60	1408	1.64	1434	1.67	1460	1.70
2700	1291	1.46	1321	1.52	1347	1.60	1374	1.67	1403	1.72	1429	1.76	1455	1.79	1481	1.82
2800	1317	1.58	1346	1.66	1372	1.74	1399	1.80	1426	1.85	1451	1.89	1477	1.92	1503	1.95
2900	1343	1.72	1371	1.80	1397	1.88	1424	1.95	1450	1.99	1475	2.02	1500	2.05	1526	2.08

**BLOWER DATA**

**BELT DRIVE (TWO-SPEED) - 6 TON (HORIZONTAL)**

KCB074S4T

**BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.**

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, wet coil, etc.) See page 32.

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 32.

See page 32 for blower motors and drives.

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	853	0.41	886	0.46	919	0.50	952	0.55	986	0.60	1021	0.64	1056	0.69	1091	0.73
2000	883	0.48	913	0.53	944	0.57	976	0.62	1009	0.67	1043	0.71	1078	0.76	1112	0.80
2100	906	0.56	936	0.60	967	0.65	999	0.70	1033	0.75	1067	0.79	1101	0.84	1135	0.88
2200	930	0.64	960	0.68	991	0.73	1024	0.78	1058	0.83	1092	0.88	1126	0.92	1160	0.96
2300	954	0.72	985	0.77	1017	0.82	1051	0.87	1085	0.92	1119	0.96	1152	1.00	1186	1.04
2400	981	0.81	1013	0.86	1046	0.91	1079	0.96	1113	1.00	1146	1.05	1180	1.09	1213	1.13
2500	1010	0.91	1042	0.96	1075	1.00	1109	1.05	1142	1.09	1175	1.14	1207	1.18	1239	1.23
2600	1040	1.01	1073	1.05	1106	1.10	1139	1.14	1171	1.19	1203	1.23	1235	1.28	1266	1.33
2700	1072	1.10	1104	1.15	1137	1.20	1169	1.24	1201	1.29	1232	1.34	1263	1.40	1293	1.46
2800	1105	1.21	1137	1.25	1168	1.30	1200	1.35	1231	1.40	1261	1.46	1291	1.52	1321	1.59
2900	1138	1.32	1169	1.37	1200	1.42	1231	1.47	1261	1.53	1291	1.60	1321	1.66	1350	1.73

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	1126	0.77	1163	0.81	1200	0.85	1237	0.88	1273	0.92	1306	0.96	1339	1.00	1371	1.04
2000	1148	0.84	1183	0.88	1220	0.92	1257	0.96	1291	1.00	1323	1.04	1354	1.08	1385	1.12
2100	1170	0.92	1206	0.96	1242	1.00	1277	1.04	1310	1.08	1340	1.13	1371	1.17	1401	1.21
2200	1195	1.00	1230	1.04	1265	1.08	1299	1.13	1330	1.18	1359	1.23	1388	1.27	1418	1.31
2300	1220	1.08	1254	1.13	1288	1.17	1320	1.23	1350	1.28	1378	1.34	1406	1.38	1435	1.42
2400	1245	1.18	1278	1.22	1311	1.28	1341	1.33	1370	1.40	1397	1.45	1425	1.50	1454	1.54
2500	1271	1.28	1303	1.33	1334	1.39	1363	1.45	1391	1.52	1418	1.57	1446	1.62	1474	1.66
2600	1297	1.39	1328	1.45	1357	1.52	1385	1.58	1412	1.64	1439	1.70	1467	1.74	1495	1.78
2700	1323	1.52	1353	1.58	1382	1.65	1409	1.72	1435	1.77	1462	1.82	1490	1.86	1517	1.90
2800	1351	1.65	1380	1.72	1407	1.78	1434	1.85	1460	1.90	1486	1.95	1513	1.99	1541	2.02
2900	1379	1.79	1407	1.86	1434	1.92	1460	1.98	1485	2.04	1511	2.08	1538	2.12	1565	2.15

## BLOWER DATA

### BELT DRIVE KIT SPECIFICATIONS

Model No.	Motor HP		No. of Speeds	Drive Kits and RPM Range							
	Nominal	Maximum		A01	A02	A03	A04	A05	A06	A07	A08
036	1	1.15	1	673-1010	---	---	---	897-1346	---	---	---
048	1	1.15	1	---	745-1117	---	---	---	1071-1429	---	---
060	1	1.15	1	---	---	833-1250	---	---	---	1212-1548	---
	1.5	1.7	1	---	---	833-1250	---	---	---	---	---
	2	2.3	1	---	---	833-1250	---	---	---	1212-1548	---
074	1	1.15	1	---	---	---	968-1340	---	---	---	1193-1591
	2	2.3	2	---	---	---	968-1340	---	---	---	1193-1591

NOTE - Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor hp required. Maximum usable hp of motors furnished are shown. In Canada, nominal motor hp is also maximum usable motor hp. If motors of comparable hp are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

### OPTIONS / ACCESSORIES AIR RESISTANCE - in. w.g.

Air Volume cfm	Wet Indoor Coil			Reheat Coil		Economizer	Electric Heat	Filters		
	024-048	060	074	024-048	060, 074			MERV 8	MERV 13	MERV 16
800	0.01	0.01	0.01	0.00	0.00	0.04	0.01	0.04	0.05	0.04
1000	0.02	0.02	0.01	0.00	0.00	0.04	0.03	0.04	0.07	0.05
1200	0.03	0.04	0.02	0.01	0.00	0.04	0.06	0.04	0.07	0.05
1400	0.04	0.05	0.03	0.02	0.01	0.04	0.09	0.04	0.07	0.06
1600	0.05	0.06	0.04	0.03	0.02	0.04	0.12	0.04	0.07	0.08
1800	0.06	0.07	0.05	0.04	0.02	0.05	0.15	0.05	0.07	0.09
2000	0.08	0.09	0.06	0.04	0.03	0.05	0.18	0.05	0.08	0.10
2200	0.09	0.10	0.07	---	0.04	0.05	0.20	0.05	0.08	0.11
2400	0.10	0.12	0.08	---	0.04	0.05	0.22	0.05	0.08	0.12

### MINIMUM AIR VOLUME REQUIRED FOR ELECTRIC HEAT

Size	kW Size	Minimum CFM		
		Direct Drive	Belt Drive Downflow	Belt Drive Horizontal
024-060	5	600	N/A	N/A
	7.5	600	1,050	1,200
	10	600	N/A	N/A
	15	1100	1200	1300
	22.5	1600	1500	1600
074	30	N/A	1900	2000



## BLOWER DATA

### CEILING DIFFUSERS AIR RESISTANCE (in. w.g.)

Air Volume cfm	RTD9-65S Step-Down Diffuser			FD9-65S Flush Diffuser	RTD11-95S Step-Down Diffuser			FD11-95S Flush Diffuser
	2 Ends Open	1 Side & 2 Ends Open	All Ends & Sides Open		2 Ends Open	1 Side & 2 Ends Open	All Ends & Sides Open	
800	0.15	0.13	0.11	0.11	---	---	---	---
1000	0.19	0.16	0.14	0.14	---	---	---	---
1200	0.25	0.20	0.17	0.17	---	---	---	---
1400	0.33	0.26	0.20	0.20	---	---	---	---
1600	0.43	0.32	0.20	0.24	---	---	---	---
1800	0.56	0.40	0.30	0.30	0.13	0.11	0.09	0.09
2000	0.73	0.50	0.36	0.36	0.15	0.13	0.11	0.10
2200	0.95	0.63	0.44	0.44	0.18	0.15	0.12	0.12
2400	---	----	---	---	0.21	0.18	0.15	0.14
2600	---	----	---	---	0.24	0.21	0.18	0.17
2800	---	----	---	---	0.27	0.24	0.21	0.20
3000	---	----	---	---	0.32	0.29	0.25	0.25

### CEILING DIFFUSER AIR THROW DATA

Air Volume - cfm	<sup>1</sup> Effective Throw - ft.	
	Model No.	Model No.
	<b>RTD9-65S</b>	<b>FD9-65S</b>
800	10 - 17	14 - 18
1000	10 - 17	15 - 20
1200	11 - 18	16 - 22
1400	12 - 19	17 - 24
1600	12 - 20	18 - 25
1800	13 - 21	20 - 28
2000	14 - 23	21 - 29
2200	16 - 25	22 - 30
	<b>RTD11-95S</b>	<b>FD11-95S</b>
2600	24 - 29	19 - 24
2800	25 - 30	20 - 28
3000	27 - 33	21 - 29

<sup>1</sup> Effective throw based on terminal velocities of 75 ft. per minute.

### POWER EXHAUST FAN PERFORMANCE

Return Air System Static Pressure - in. w.g.	Air Volume Exhausted cfm
0.00	2000
0.05	1990
0.10	1924
0.15	1810
0.20	1664
0.25	1507
0.30	1350
0.35	1210

## OUTDOOR SOUND DATA

Unit Model No.	Octave Band Sound Power Levels dBA, re 10 <sup>-12</sup> Watts - Center Frequency - Hz							<sup>1</sup> Sound Rating Number (dBA)
	125	250	500	1000	2000	4000	8000	
KCB024, 030, 036, 048	62	66	70	69	66	60	50	74
KCB060	72	75	78	77	73	68	58	83
KCB074	66	71	74	73	70	65	57	79

Note - The octave sound power data does not include tonal corrections.

<sup>1</sup> Sound Rating Number according to AHRI Standard 270-95 (includes pure tone penalty). Sound Rating Number is the overall A-Weighted Sound Power Level, (LWA), dBA (100 Hz to 10,000 Hz).

**ELECTRICAL/ELECTRIC HEAT DATA** **DIRECT DRIVE - 2 TON | 2.5 TON**

Model No.		KCB024S4D	KCB030S4D
<sup>1</sup> Voltage - 60Hz		208/230V - 1 Ph	208/230V - 1 Ph
Compressor 1 (Non-Inverter)	Rated Load Amps	9.8	12.7
	Locked Rotor Amps	47	64
Outdoor Fan Motors (1)	Full Load Amps (1 Non-ECM)	1.7	1.7
Service Outlet 115V GFI (amps)		15	15
Indoor Blower Motor	Horsepower	0.25	0.25
	Type	Direct	Direct
	Full Load Amps	1.8	1.8
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit Only	25	30
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit Only	16	20

**ELECTRIC HEAT DATA**

Electric Heat Voltage				208V	240V	208V	240V
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat	5 kW		25	30	30	30
		7.5 kW		40	45	40	45
		10 kW		50	60	50	60
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit + Electric Heat	5 kW		25	29	25	29
		7.5 kW		37	42	37	42
		10 kW		48	55	48	55

**ELECTRICAL ACCESSORIES**

Disconnect	Standard Access - 0-10 kW	20W15	20W15	20W15	20W15
	Hinged Access - 0-10 kW	20W21	20W21	20W21	20W21

Disconnects - 20W15 - 80A  
20W21 - 150A

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

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

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

**ELECTRICAL/ELECTRIC HEAT DATA**

**DIRECT DRIVE | 3 TON**

Model No.		KCB036S4D			
		208/230V - 1 Ph	208/230V - 3 Ph	460V - 3 Ph	575V - 3 Ph
<sup>1</sup> Voltage - 60Hz					
Compressor 1 (Non-Inverter)	Rated Load Amps	15.3	8.7	4	3.6
	Locked Rotor Amps	70	70	31	27
Outdoor Fan Motor	Full Load Amps (1 Non-ECM)	1.7	1.7	1.1	0.7
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	2.4	1.3	1
Service Outlet 115V GFI (amps)		15	15	15	20
Indoor Blower Motor	Horsepower	0.5	0.5	0.5	0.5
	Type	Direct	Direct	Direct	Direct
	Full Load Amps	3.9	3.9	2	2
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit Only	40	25	15	15
	with (1) 0.33 HP Power Exhaust	40	25	15	15
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit Only	25	17	9	8
	with (1) 0.33 HP Power Exhaust	28	19	10	9

**ELECTRIC HEAT DATA**

Electric Heat Voltage			208V	240V	208V	240V	480V	600V
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat	<b>7.5 kW</b>	40	45	25	30	15	15
		<b>15 kW</b>	80	90	45	50	30	25
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit + Electric Heat	<b>7.5 kW</b>	39	44	25	28	14	12
		<b>15 kW</b>	73	83	44	50	26	21
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat + Power Exhaust	<b>7.5 kW</b>	45	50	30	35	20	15
		<b>15 kW</b>	80	90	50	60	30	25
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit + Electric Heat + Power Exhaust	<b>7.5 kW</b>	42	47	28	31	16	13
		<b>15 kW</b>	76	86	47	53	27	22

**ELECTRICAL ACCESSORIES**

Disconnect	Standard Access - 0-7.5 kW	20W15	20W15	20W15	20W15	20W15	20W15
		15 kW	20W15	20W16	20W15	20W15	20W15
	Hinged Access - 0-7.5 kW	20W21	20W21	20W21	20W21	20W21	20W21
	15 kW	20W21	20W22	20W21	20W21	20W21	20W21

Disconnects - 20W15 / 20W21 - 80A  
20W16 / 20W22 - 150A

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

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

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

**ELECTRICAL/ELECTRIC HEAT DATA**
**DIRECT DRIVE | 4 TON**

Model No.		KCB048S4D			
<sup>1</sup> Voltage - 60Hz		<b>208/230V - 1 Ph</b>	<b>208/230V - 3 Ph</b>	<b>460V - 3 Ph</b>	<b>575V - 3 Ph</b>
Compressor 1 (Non-Inverter)	Rated Load Amps	20	11	5.5	4.7
	Locked Rotor Amps	99	86	37	34
Outdoor Fan Motor	Full Load Amps (1 Non-ECM)	1.7	1.7	1.1	0.7
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	2.4	1.3	1
Service Outlet 115V GFI (amps)		15	15	15	20
Indoor Blower Motor	Horsepower	0.5	0.5	0.5	0.5
	Type	Direct	Direct	Direct	Direct
	Full Load Amps	3.9	3.9	2	2
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit Only	50	30	15	15
	with (1) 0.33 HP Power Exhaust	50	30	15	15
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit Only	31	20	10	9
	with (1) 0.33 HP Power Exhaust	33	22	12	10

**ELECTRIC HEAT DATA**

Electric Heat Voltage			<b>208V</b>	<b>240V</b>	<b>208V</b>	<b>240V</b>	<b>480V</b>	<b>600V</b>
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat	<b>7.5 kW</b>	50	50	30	30	15	15
		<b>15 kW</b>	80	90	45	50	30	25
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit + Electric Heat	<b>7.5 kW</b>	39	44	25	28	14	12
		<b>15 kW</b>	73	83	44	50	26	21
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat + Power Exhaust	<b>7.5 kW</b>	50	50	30	35	20	15
		<b>15 kW</b>	80	90	50	60	30	25
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit + Electric Heat + Power Exhaust	<b>7.5 kW</b>	42	47	28	31	16	13
		<b>15 kW</b>	76	86	47	53	27	22

**ELECTRICAL ACCESSORIES**

<b>Disconnect</b>	Standard Access - <b>0-7.5 kW</b>	<b>20W15</b>	<b>20W15</b>	<b>20W15</b>	<b>20W15</b>	<b>20W15</b>	<b>20W15</b>
		<b>15 kW</b>	<b>20W15</b>	<b>20W16</b>	<b>20W15</b>	<b>20W15</b>	<b>20W15</b>
	Hinged Access - <b>0-7.5 kW</b>	<b>20W21</b>	<b>20W21</b>	<b>20W21</b>	<b>20W21</b>	<b>20W21</b>	<b>20W21</b>
		<b>15 kW</b>	<b>20W21</b>	<b>20W22</b>	<b>20W21</b>	<b>20W21</b>	<b>20W21</b>

**Disconnects - 20W15 - 80A**  
**20W21 - 150A**

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

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

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

**ELECTRICAL/ELECTRIC HEAT DATA**

**DIRECT DRIVE | 5 TON**

Model No.		KCB060S4D			
		208/230V - 1 Ph	208/230V - 3 Ph	460V - 3 Ph	575V - 3 Ph
<sup>1</sup> Voltage - 60Hz					
Compressor 1 (Non-Inverter)	Rated Load Amps	24.4	16	7.8	5.7
	Locked Rotor Amps	144	110	52	39
Outdoor Fan Motor	Full Load Amps (1 Non-ECM)	1.7	1.7	0.8	0.9
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	2.4	1.3	1
Service Outlet 115V GFI (amps)		15	15	15	20
Indoor Blower Motor	Horsepower	0.75	0.75	0.75	0.75
	Type	Direct	Direct	Direct	Direct
	Full Load Amps	4.9	4.9	2.5	2.5
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit Only	60	40	20	15
	with (1) 0.33 HP Power Exhaust	60	40	20	15
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit Only	38	27	14	11
	with (1) 0.33 HP Power Exhaust	40	29	15	12

**ELECTRIC HEAT DATA**

Electric Heat Voltage			208V	240V	208V	240V	480V	600V
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit +	7.5 kW	60	60	40	40	20	15
	Electric Heat	15 kW	80	90	50	60	30	25
		22.5 kW	110	125	70	80	40	35
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit +	7.5 kW	40	46	27	29	15	13
	Electric Heat	15 kW	74	85	46	52	26	22
		22.5 kW	108	124	65	74	37	31
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit +	7.5 kW	60	60	40	40	20	15
	Electric Heat + Power Exhaust	15 kW	80	90	50	60	30	25
		22.5 kW	125	150	70	80	40	35
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit +	7.5 kW	43	49	29	32	17	14
	Electric Heat + Power Exhaust	15 kW	77	88	49	55	28	23
		22.5 kW	111	127	68	77	39	32

**ELECTRICAL ACCESSORIES**

Disconnect	Standard Access - 0-7.5 kW	22A20	22A20	22A20	22A20	22A20	22A20	
		15 kW	22A20	22A21	22A20	22A20	22A20	22A20
		22.5 kW	22A21	22A21	22A20	22A20	22A20	22A20
	Hinged Access - 0-7.5 kW	22A23	22A21	22A23	22A23	22A23	22A23	
		15 kW	22A23	22A24	22A23	22A23	22A23	22A23
		22.5 kW	22A24	22A24	22A23	22A23	22A23	22A23

Disconnects - 22A20 / 22A23 - 80A  
22A21 / 22A24 - 150A

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

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

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

**ELECTRICAL/ELECTRIC HEAT DATA**
**BELT DRIVE | 3 TON**

Model No.		KCB036S4B		
<sup>1</sup> Voltage - 60Hz		208/230V - 3 Ph	460V - 3 Ph	575V - 3 Ph
Compressor 1 (Non-Inverter)	Rated Load Amps	8.7	4	3.6
	Locked Rotor Amps	70	31	27
Outdoor Fan Motor	Full Load Amps (1 Non-ECM)	1.7	1.1	0.7
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	1.3	1
Service Outlet 115V GFI (amps)		15	15	20
Indoor Blower Motor	Horsepower	1	1	1
	Type	Belt	Belt	Belt
	Full Load Amps	4.6	2.1	1.7
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit Only	25	15	15
	with (1) 0.33 HP Power Exhaust	25	15	15
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit Only	18	9	7
	with (1) 0.33 HP Power Exhaust	20	10	8

**ELECTRIC HEAT DATA**

Electric Heat Voltage			208V	240V	480V	600V
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat	7.5 kW 15 kW	30 45	30 60	15 30	15 25
	Unit + Electric Heat	7.5 kW 15 kW	26 45	29 51	14 26	12 21
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat + Power Exhaust	7.5 kW 15 kW	30 50	35 60	20 30	15 25
	Unit + Electric Heat + Power Exhaust	7.5 kW 15 kW	29 48	32 54	16 27	13 22

**ELECTRICAL ACCESSORIES**

Disconnect	Standard Access - 0-7.5 kW	15 kW	20W15	20W15	20W15
		15 kW	20W15	20W15	20W15
	Hinged Access - 0-7.5 kW	15 kW	20W21	20W21	20W21
		15 kW	20W21	20W21	20W21

Disconnects - 20W15 - 80A  
20W21 - 150A

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

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

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

**ELECTRICAL/ELECTRIC HEAT DATA**

**BELT DRIVE | 4 TON**

Model No.		KCB048S4B		
		208/230V - 3 Ph	460V - 3 Ph	575V - 3 Ph
<sup>1</sup> Voltage - 60Hz				
Compressor 1 (Non-Inverter)	Rated Load Amps	11	5.5	4.7
	Locked Rotor Amps	86	37	34
Outdoor Fan Motor	Full Load Amps (1 Non-ECM)	1.7	1.1	0.7
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	1.3	1
Service Outlet 115V GFI (amps)		15	15	20
Indoor Blower Motor	Horsepower	1	1	1
	Type	Belt	Belt	Belt
	Full Load Amps	4.6	2.1	1.7
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit Only	30	15	15
	with (1) 0.33 HP Power Exhaust	30	15	15
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit Only	21	11	9
	with (1) 0.33 HP Power Exhaust	23	12	10

**ELECTRIC HEAT DATA**

Electric Heat Voltage			208V	240V	480V	600V
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat	<b>7.5 kW</b>	30	30	15	15
		<b>15 kW</b>	45	60	30	25
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit + Electric Heat	<b>7.5 kW</b>	26	29	14	12
		<b>15 kW</b>	45	51	26	21
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat + Power Exhaust	<b>7.5 kW</b>	30	35	20	15
		<b>15 kW</b>	50	60	30	25
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit + Electric Heat + Power Exhaust	<b>7.5 kW</b>	29	32	16	13
		<b>15 kW</b>	48	54	27	22

**ELECTRICAL ACCESSORIES**

Disconnect	Standard Access - 0-7.5 kW	20W15	20W15	20W15
	15 kW	20W15	20W15	20W15
	Hinged Access - 0-7.5 kW	20W21	20W21	20W21
	15 kW	20W21	20W21	20W21

Disconnects - 20W15 - 80A  
20W21 - 150A

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

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

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.



**ELECTRICAL/ELECTRIC HEAT DATA**

**BELT DRIVE | 5 TON**

Model No.		KCB060S4B							
<sup>1</sup> Voltage - 60Hz		<b>208/230V - 1 Ph</b>	<b>208/230V - 3 Ph</b>		<b>460V - 3 Ph</b>		<b>575V - 3 Ph</b>		
Compressor 1 (Non-Inverter)	Rated Load Amps	24.4	16		7.8		5.7		
	Locked Rotor Amps	144.2	110		52		38.9		
Outdoor Fan Motor	Full Load Amps (1 Non-ECM)	1.7	1.7		0.8		0.9		
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	2.4		1.3		1		
Service Outlet 115V GFI (amps)		15	15		15		20		
Indoor Blower Motor	Horsepower	1.5	1	2	1	2	1	2	
	Type	Belt	Belt	Belt	Belt	Belt	Belt	Belt	
	Full Load Amps	11	4.6	7.5	2.1	3.4	1.7	2.7	
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit Only	60	40	45	20	20	15	15	
	with (1) 0.33 HP Power Exhaust	60	40	45	20	20	15	15	
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit Only	44	27	30	13	14	10	11	
	with (1) 0.33 HP Power Exhaust	46	29	32	14	16	11	12	

**ELECTRIC HEAT DATA**

Electric Heat Voltage			208V	240V	208V	240V	208V	240V	480V	480V	600V	600V
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat	7.5 kW	60	60	40	40	45	45	20	20	15	15
		15 kW	90	100	45	60	50	60	30	30	25	25
		22.5 kW	125	150	70	80	70	80	40	40	30	35
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit + Electric Heat	7.5 kW	48	53	27	29	30	32	14	16	12	13
		15 kW	82	92	45	51	49	55	26	27	21	22
		22.5 kW	116	131	65	74	69	78	37	39	30	31
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat + Power Exhaust	7.5 kW	60	60	40	40	45	45	20	20	15	15
		15 kW	90	100	50	60	60	60	30	30	25	25
		22.5 kW	125	150	70	80	4 80	90	40	40	35	35
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit + Electric Heat + Power Exhaust	7.5 kW	51	56	29	32	32	35	16	18	13	14
		15 kW	85	95	48	54	52	58	27	29	22	23
		22.5 kW	119	134	68	77	72	81	39	40	31	32

**ELECTRICAL ACCESSORIES**

Disconnect	Standard Access - 0-7.5 kW	22A20	22A20	22A20	22A20	22A20
		15-22.5 kW	22A21	22A20	22A20	22A20
	Hinged Access - 0-7.5 kW	22A23	22A23	22A23	22A23	22A23
		15-22.5 kW	22A24	22A23	22A23	22A23

Disconnects - 22A20 / 22A23 - 80A  
22A21 / 22A24 - 150A

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

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

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

**ELECTRICAL/ELECTRIC HEAT DATA**
**BELT DRIVE | 6 TON**

Model No.		KCB074S4T					
<sup>1</sup> Voltage - 60Hz		208/230V - 3 Ph		460V - 3 Ph		575V - 3 Ph	
Compressor 1 (Non-Inverter)	Rated Load Amps	17.6		8.5		6.3	
	Locked Rotor Amps	136		66.1		55.3	
Outdoor Fan Motor	Full Load Amps (1 Non-ECM)	2.4		1.3		1	
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4		1.3		1	
Service Outlet 115V GFI (amps)		15		15		20	
Indoor Blower Motor	Horsepower	1	2	1	2	1	2
	Type	Belt	Belt	Belt	Belt	Belt	Belt
	Full Load Amps	4.6	7.5	2.1	3.4	1.7	2.7
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit Only	45	45	20	20	15	15
	with (1) 0.33 HP Power Exhaust	45	50	20	25	15	15
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit Only	29	32	15	16	11	12
	with (1) 0.33 HP Power Exhaust	32	32	16	17	12	13

**ELECTRIC HEAT DATA**

Electric Heat Voltage			208V	240V	208V	240V	480V	480V	600V	600V
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat	7.5 kW	45	45	45	45	20	20	15	15
		15 kW	45	60	50	60	30	30	25	25
		22.5 kW	70	80	70	80	40	40	30	35
		30 kW	90	100	90	100	50	50	40	40
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit + Electric Heat	7.5 kW	29	29	32	32	15	16	12	13
		15 kW	45	51	49	55	26	27	21	22
		22.5 kW	65	74	69	78	37	39	30	31
		30 kW	84	96	88	100	48	50	39	40
<sup>2</sup> Maximum Overcurrent Protection (MOCP)	Unit + Electric Heat + Power Exhaust	7.5 kW	45	45	50	50	20	25	15	15
		15 kW	50	60	60	60	30	30	25	25
		22.5 kW	70	80	80	90	40	40	35	35
		30 kW	90	100	100	110	50	60	40	45
<sup>3</sup> Minimum Circuit Ampacity (MCA)	Unit + Electric Heat + Power Exhaust	7.5 kW	32	32	35	35	16	18	13	14
		15 kW	48	54	52	58	27	29	22	23
		22.5 kW	68	77	72	81	39	40	31	32
		30 kW	87	99	91	103	50	51	40	41

**ELECTRICAL ACCESSORIES**

Disconnect	Standard Access - 0-22.5 kW	22A20	22A20	22A20	22A20
		30 kW	22A21	22A21	22A20
	Hinged Access - 0-22.5 kW	22A23	22A23	22A23	22A23
		30 kW	22A24	22A24	22A23

Disconnects - 22A20 / 22A23 - 80A  
22A21 / 22A24 - 150A

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

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

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

**FIELD WIRING NOTES**

- For use with copper wiring only
- Field wiring not furnished
- All wiring must conform to NEC or CEC and local electrical codes
- For specific wiring information, please refer to the installation instructions

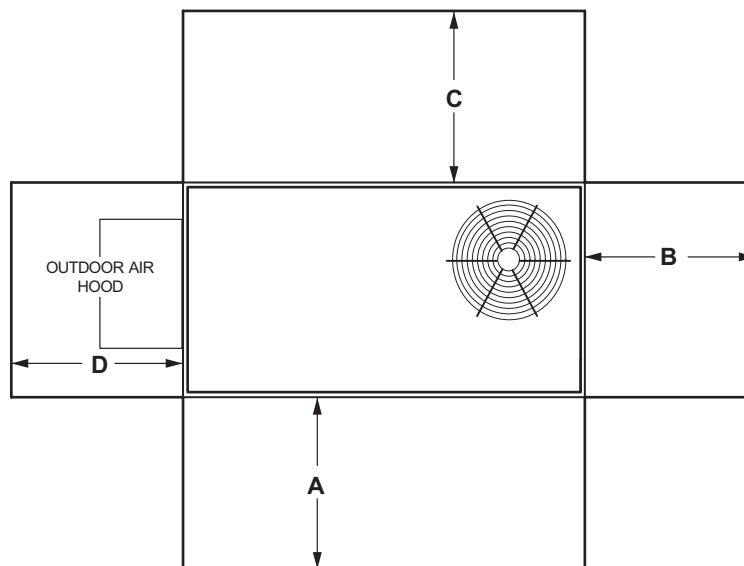
## ELECTRIC HEAT CAPACITIES

Input Voltage	5 kW			7.5 kW			10 kW		
	No of Stages	kW input	Btuh Output	No of Stages	kW input	Btuh Output	No of Stages	kW input	Btuh Output
208	1	3.8	12,800	1	5.6	19,200	1	7.5	25,600
220	1	4.2	14,300	1	6.3	21,500	1	8.4	28,700
230	1	4.6	15,700	1	6.9	23,500	1	9.2	31,400
240	1	5.0	17,100	1	7.5	25,600	1	10.0	34,200
440	---	---	---	1	6.3	21,500	---	---	---
460	---	---	---	1	6.9	23,500	---	---	---
480	---	---	---	1	7.5	25,600	---	---	---
550	---	---	---	1	6.3	21,500	---	---	---
575	---	---	---	1	6.9	23,500	---	---	---
600	---	---	---	1	7.5	25,600	---	---	---

Input Voltage	15 kW			22.5 kW			30 kW		
	No of Stages	kW input	Btuh Output	No of Stages	kW input	Btuh Output	No of Stages	kW input	Btuh Output
208	1	11.2	38,400	1	16.9	57,700	1	22.5	76,800
220	1	12.6	43,000	1	18.9	64,500	1	25.2	86,000
230	1	13.8	47,000	1	20.7	70,700	1	27.5	93,900
240	1	15.0	51,200	1	22.5	76,800	1	30.0	102,400
440	1	12.6	43,000	1	18.9	64,500	1	25.2	86,000
460	1	13.8	47,000	1	20.7	70,700	1	27.5	93,900
480	1	15.0	51,200	1	22.5	76,800	1	30.0	102,400
550	1	12.6	43,000	1	18.9	64,500	1	25.2	86,000
575	1	13.8	47,000	1	20.7	70,700	1	27.5	93,900
600	1	15.0	51,200	1	22.5	76,800	1	30.0	102,400

## UNIT CLEARANCES



<sup>1</sup> Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	36	914	36	914	36	914	36	914	Unobstructed
Minimum Operation Clearance	36	914	36	914	36	914	36	914	

NOTE - Entire perimeter of unit base requires support when elevated above the mounting surface.

<sup>1</sup> Service Clearance - Required for removal of serviceable parts.

Minimum Operation Clearance - Required clearance for proper unit operation.

## WEIGHT DATA

Model Number	Outdoor / Indoor Coil	Net		Shipping		Outdoor / Indoor Coil Options	Net		Shipping	
		lbs.	kg	lbs.	kg		lbs.	kg	lbs.	kg
024S Base Unit	Environ™ / Environ™	493	224	534	242	<sup>1</sup> Fin-Tube / Fin-Tube	535	243	576	261
024S Max. Unit	Environ™ / Environ™	597	271	638	289	<sup>1</sup> Fin-Tube / Fin-Tube	666	302	707	321
030S Base Unit	Environ™ / Environ™	510	231	551	250	<sup>1</sup> Fin-Tube / Fin-Tube	538	244	579	263
030S Max. Unit	Environ™ / Environ™	614	278	655	297	<sup>1</sup> Fin-Tube / Fin-Tube	663	301	704	319
036 Base Unit	Environ™ / Environ™	503	228	544	247	<sup>1</sup> Fin-Tube / Fin-Tube	560	254	601	273
036 Max. Unit	Environ™ / Environ™	629	285	670	304	<sup>1</sup> Fin-Tube / Fin-Tube	713	323	754	342
048 Base Unit	Environ™ / Environ™	504	229	545	247	<sup>1</sup> Fin-Tube / Fin-Tube	560	254	601	273
048 Max. Unit	Environ™ / Environ™	631	286	672	305	<sup>1</sup> Fin-Tube / Fin-Tube	714	324	755	342
060 Base Unit	Environ™ / Environ™	575	261	616	279	<sup>1</sup> Fin-Tube / <sup>1</sup> Fin-Tube	666	300	703	319
060 Max. Unit	Environ™ / Environ™	705	320	746	338	<sup>1</sup> Fin-Tube / <sup>1</sup> Fin-Tube	819	371	680	390
074 Base Unit	Environ™ / Environ™	575	261	616	279	<sup>1</sup> Fin-Tube / <sup>1</sup> Fin-Tube	662	300	703	319
074 Max. Unit	Environ™ / Environ™	676	306	717	325	<sup>1</sup> Fin-Tube / <sup>1</sup> Fin-Tube	790	358	831	377
024S Base Unit	Environ™ / Fin-Tube	502	228	543	246	---	---	---	---	---
024S Max. Unit	Environ™ / Fin-Tube	606	275	647	293	---	---	---	---	---
030S Base Unit	Environ™ / Fin-Tube	505	229	546	248	---	---	---	---	---
030S Max. Unit	Environ™ / Fin-Tube	609	276	650	295	---	---	---	---	---
036 Base Unit	Environ™ / Fin-Tube	527	239	568	258	---	---	---	---	---
036 Max. Unit	Environ™ / Fin-Tube	653	296	694	315	---	---	---	---	---
048 Base Unit	Environ™ / Fin-Tube	527	239	568	258	---	---	---	---	---
048 Max. Unit	Environ™ / Fin-Tube	654	297	695	315	---	---	---	---	---
060 Base Unit	Environ™ / Fin-Tube	620	281	661	300	---	---	---	---	---
060 Max. Unit	Environ™ / Fin-Tube	750	340	791	359	---	---	---	---	---
074 Base Unit	Environ™ / Fin-Tube	620	281	661	300	---	---	---	---	---
074 Max. Unit	Environ™ / Fin-Tube	750	340	791	359	---	---	---	---	---

<sup>1</sup> Factory option.

## WEIGHT DATA - OPTIONS / ACCESSORIES

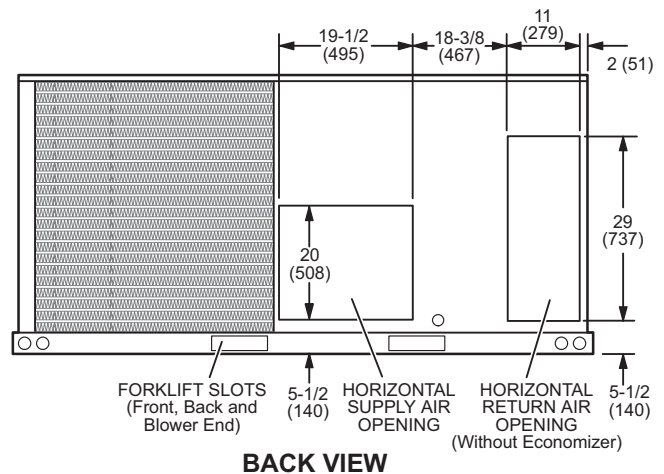
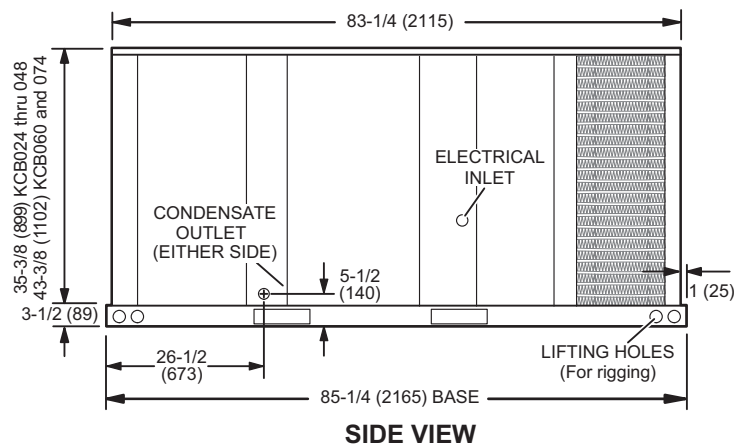
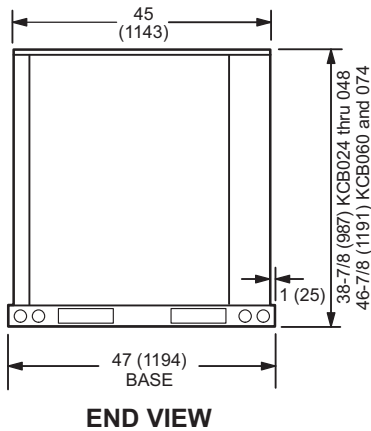
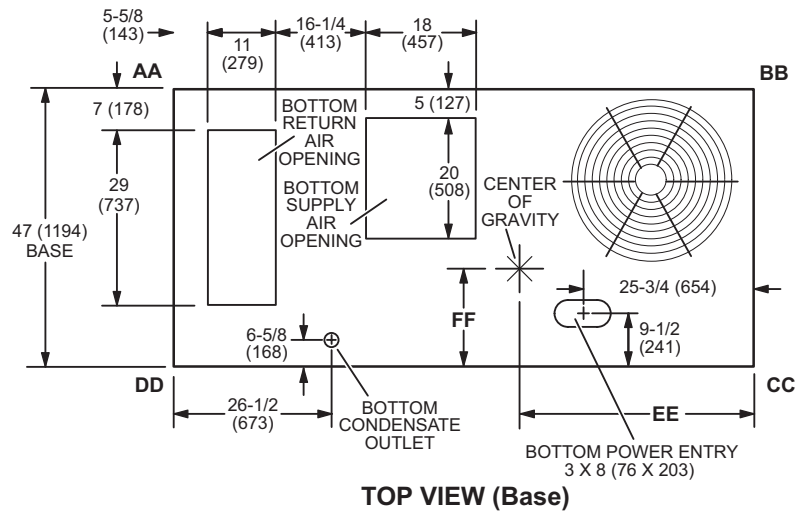
		Shipping Weights	
		lbs.	kg
<b>ECONOMIZER / OUTDOOR AIR / POWER EXHAUST</b>			
<b>Economizer</b>			
Standard Economizer only		125	57
Standard Economizer with Barometric Relief Dampers and Combination Hood		148	67
Barometric Relief Dampers, Combination Hood and Harness for Standard Economizer		23	10
High Performance Economizer - Includes Barometric Relief Dampers and Combination Hood		131	59
<b>Outdoor Air Dampers</b>			
Motorized		40	18
Manual		30	14
<b>Power Exhaust</b>		35	16
<b>ELECTRIC HEAT</b>			
5 kW		31	14
7.5 kW		31	14
10 kW		31	14
15 kW		31	14
22.5 kW		35	16
30 kW		35	16
<b>COMBINATION COIL/HAIL GUARDS</b>			
All models		30	14
<b>ROOF CURBS</b>			
<b>Hybrid Roof Curbs, Downflow</b>			
8 in. height		86	39
14 in. height		108	49
18 in. height		125	57
24 in. height		147	67
<b>Adjustable Pitch Curb, Downflow</b>			
14 in. height		147	67
<b>CEILING DIFFUSERS</b>			
Step-Down	RTD9-65S	80	36
	RTD11-95S	118	54
Flush	FD9-65S	80	36
	FD11-95S	118	54
Transitions (Supply and Return)	T1TRAN10AN1	22	10
	T1TRAN20N-1	21	10
<b>HUMIDITROL® DEHUMIDIFICATION SYSTEM</b>			
Humiditrol Dehumidification Option (Net Weight)		27	12

# DIMENSIONS - UNIT

Model No.	CORNER WEIGHTS								CENTER OF GRAVITY							
	AA		BB		CC		DD		EE		FF		FF			
	Base lbs. kg	Max. lbs. kg	Base lbs. kg	Max. lbs. kg	Base lbs. kg	Max. lbs. kg	Base lbs. kg	Max. lbs. kg	Base in. mm	Max. in. mm	Base in. mm	Max. in. mm	Base in. mm	Max. in. mm		
024	101 46	122 56	118 53	125 57	152 69	161 73	131 60	197 90	39-1/2 1003	45 1143	20-1/2 521	20-1/2 521	20-1/2 521	20-1/2 521		
030	102 46	123 56	118 54	125 57	153 69	162 74	132 60	197 90	39-1/2 1003	45 1143	20-1/2 521	20-1/2 521	20-1/2 521	20-1/2 521		
036	107 48	132 60	123 56	131 60	159 72	177 80	138 62	213 97	39-1/2 1003	45 1143	20-1/2 521	20 508	20 508	20 508		
048	107 48	132 60	123 56	131 60	159 72	177 81	138 62	213 97	39-1/2 1003	45 1143	20-1/2 521	20 508	20 508	20 508		
060	118 53	142 65	140 63	152 69	197 89	205 93	166 75	251 114	39 991	44-3/4 1137	19-1/2 495	20 508	20 508	20 508		
074	118 53	142 65	140 63	152 69	197 89	205 93	166 75	251 114	39 991	44-3/4 1137	19-1/2 495	20 508	20 508	20 508		

Base Unit - The unit with NO INTERNAL OPTIONS.

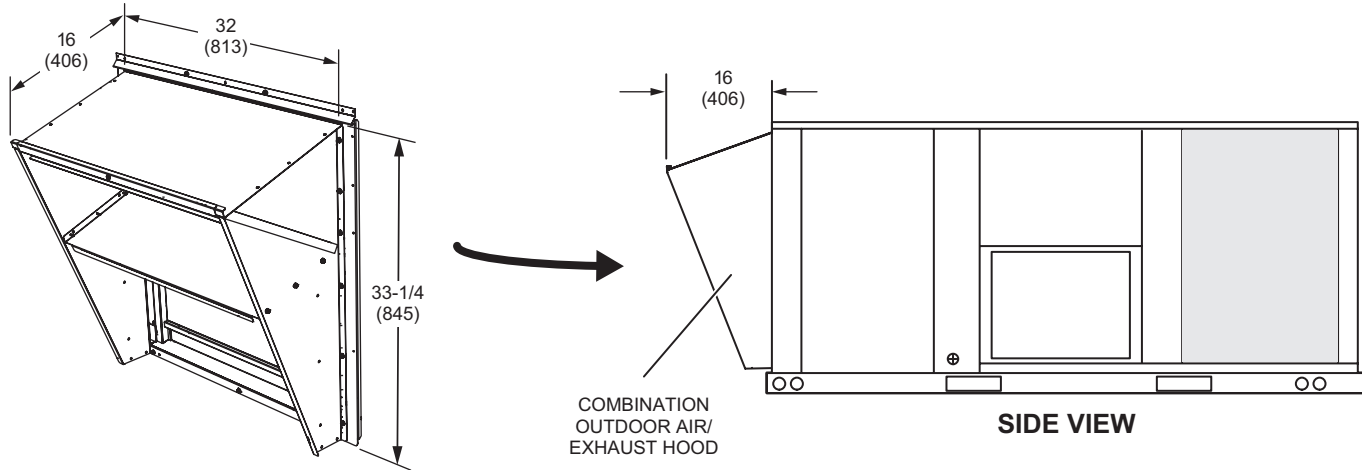
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit or high static power exhaust.



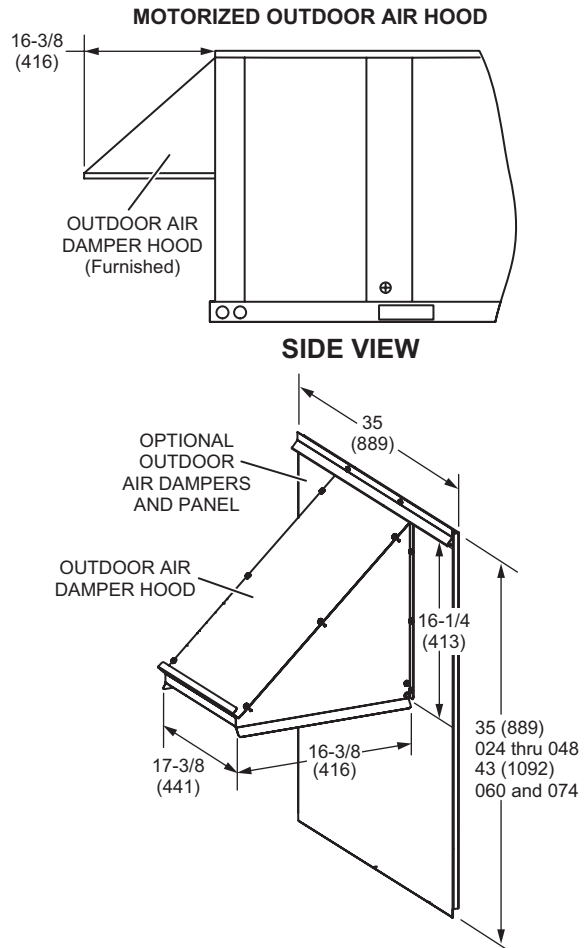
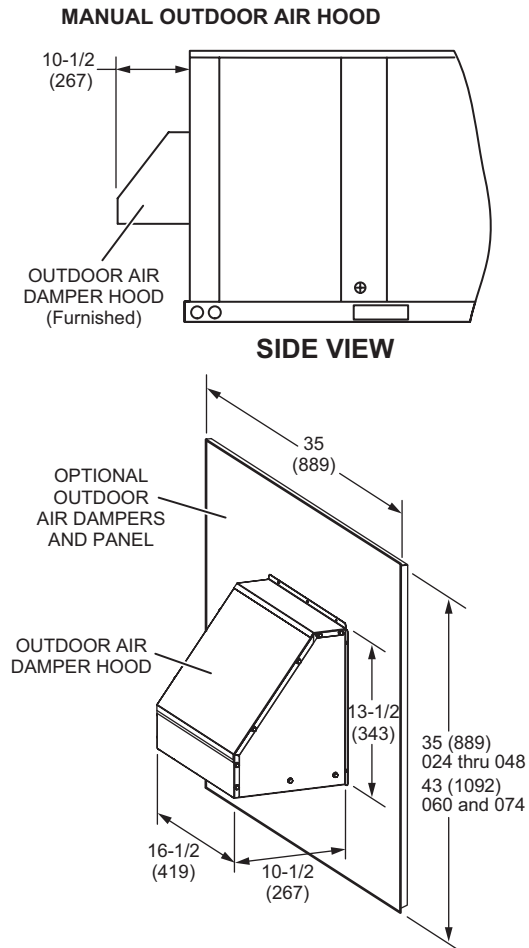
## DIMENSIONS - ACCESSORIES

### COMBINATION OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER AND BAROMETRIC RELIEF DAMPERS - DOWNFLOW APPLICATIONS

- Optional for Field Installed Standard Economizer - Order Separately
- Furnished with Factory and Field Installed High Performance Economizer



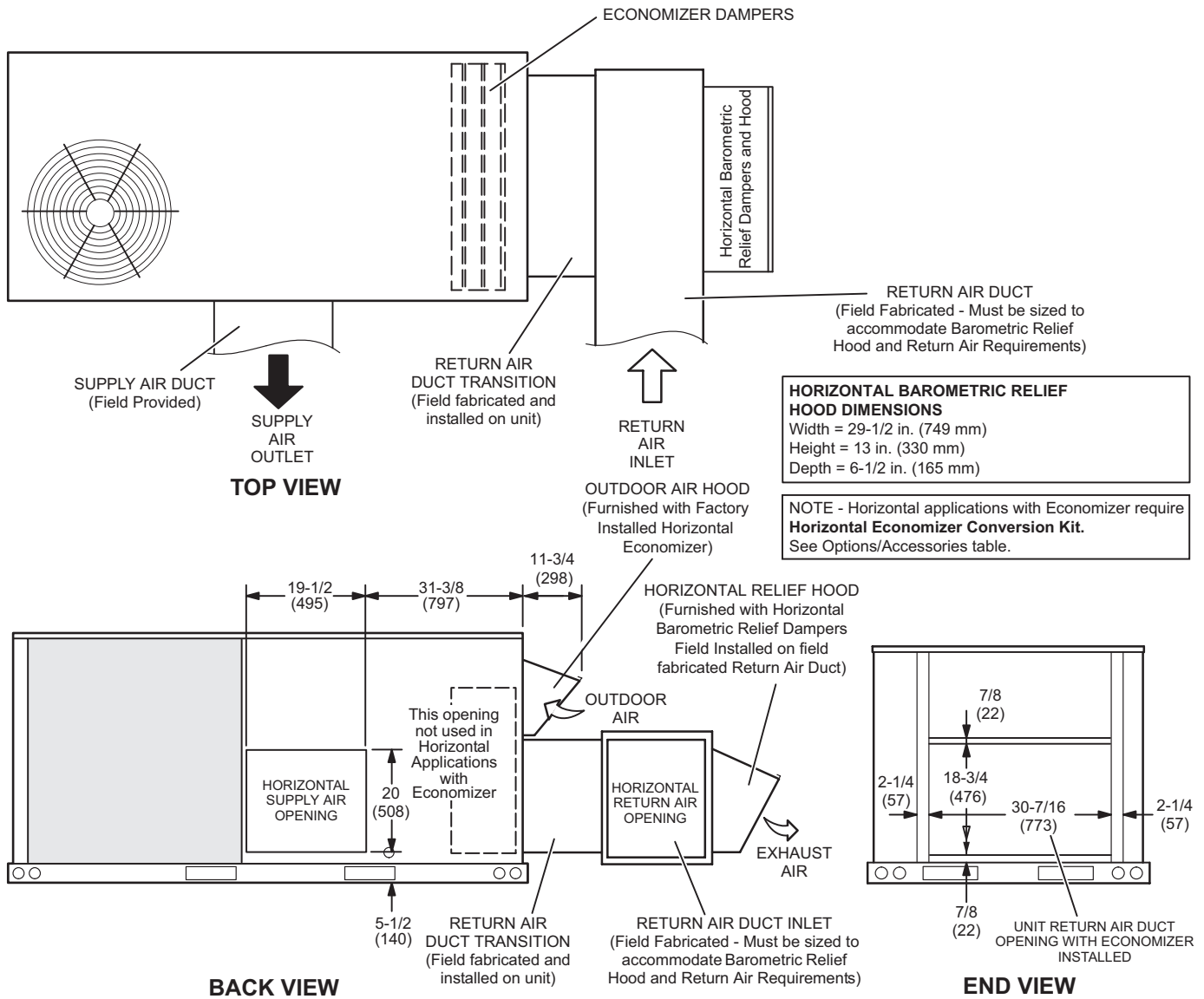
### OUTDOOR AIR DAMPER HOOD DETAIL (Downflow or Horizontal Applications)





# DIMENSIONS - ACCESSORIES

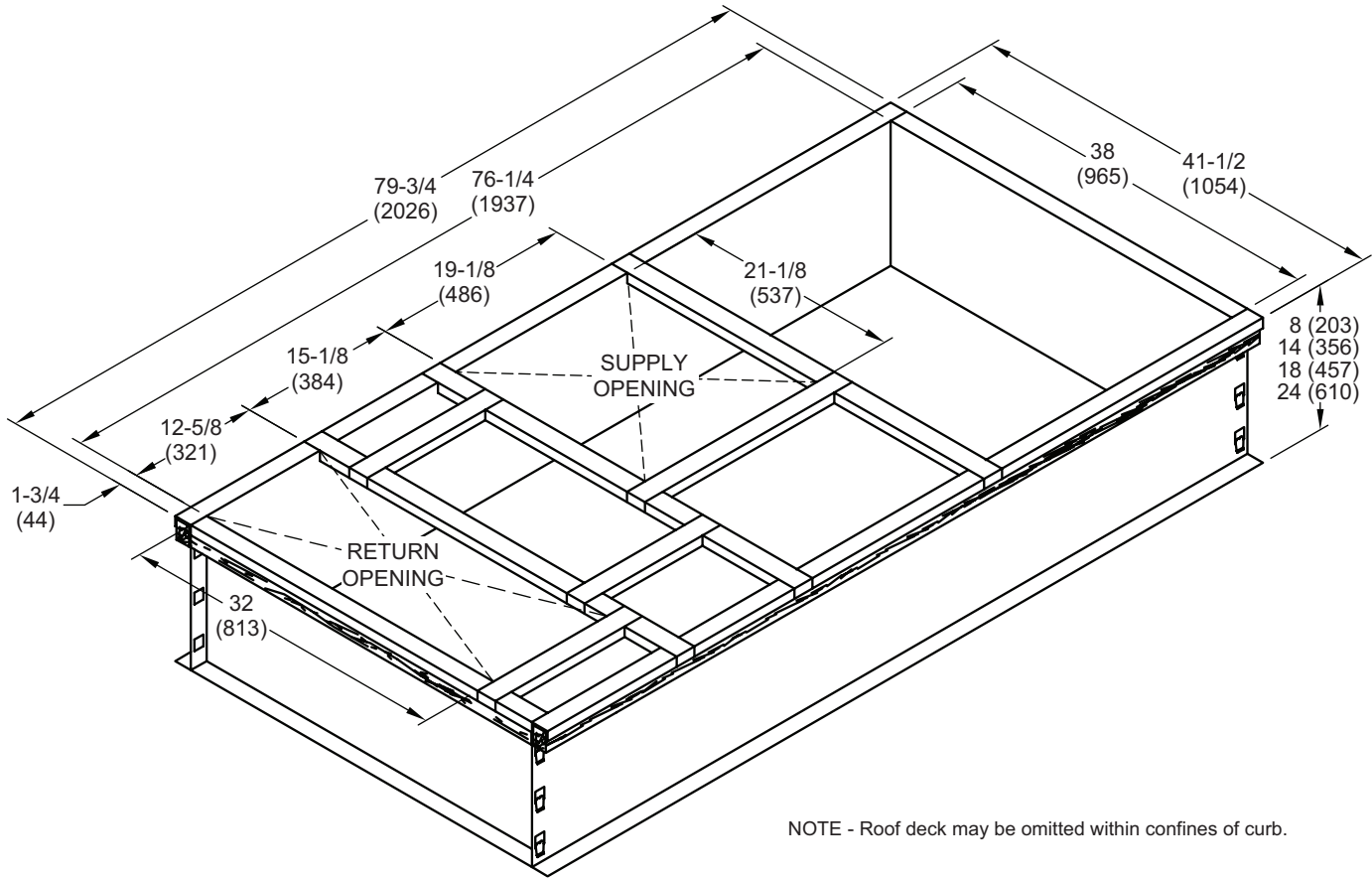
## HORIZONTAL ECONOMIZER APPLICATIONS - OUTDOOR AIR HOOD DETAIL WITH OPTIONAL ECONOMIZER DAMPERS AND OPTIONAL HORIZONTAL BAROMETRIC RELIEF DAMPERS AND HOOD



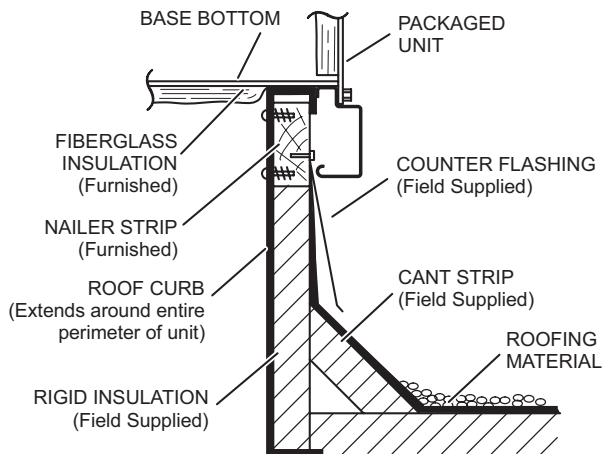
NOTE - Return Air Duct and Transition must be supported.

# DIMENSIONS - ACCESSORIES

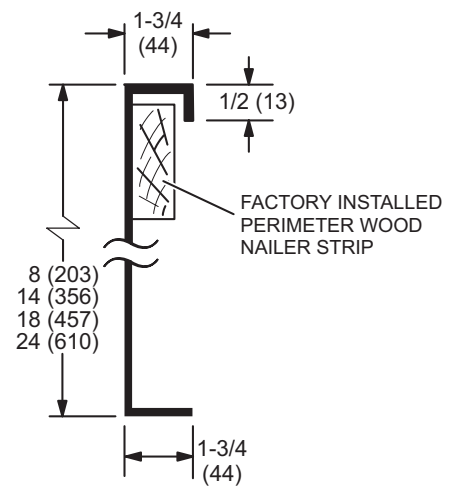
## HYBRID ROOF CURBS - DOUBLE DUCT OPENING



### TYPICAL FLASHING DETAIL FOR ROOF CURB

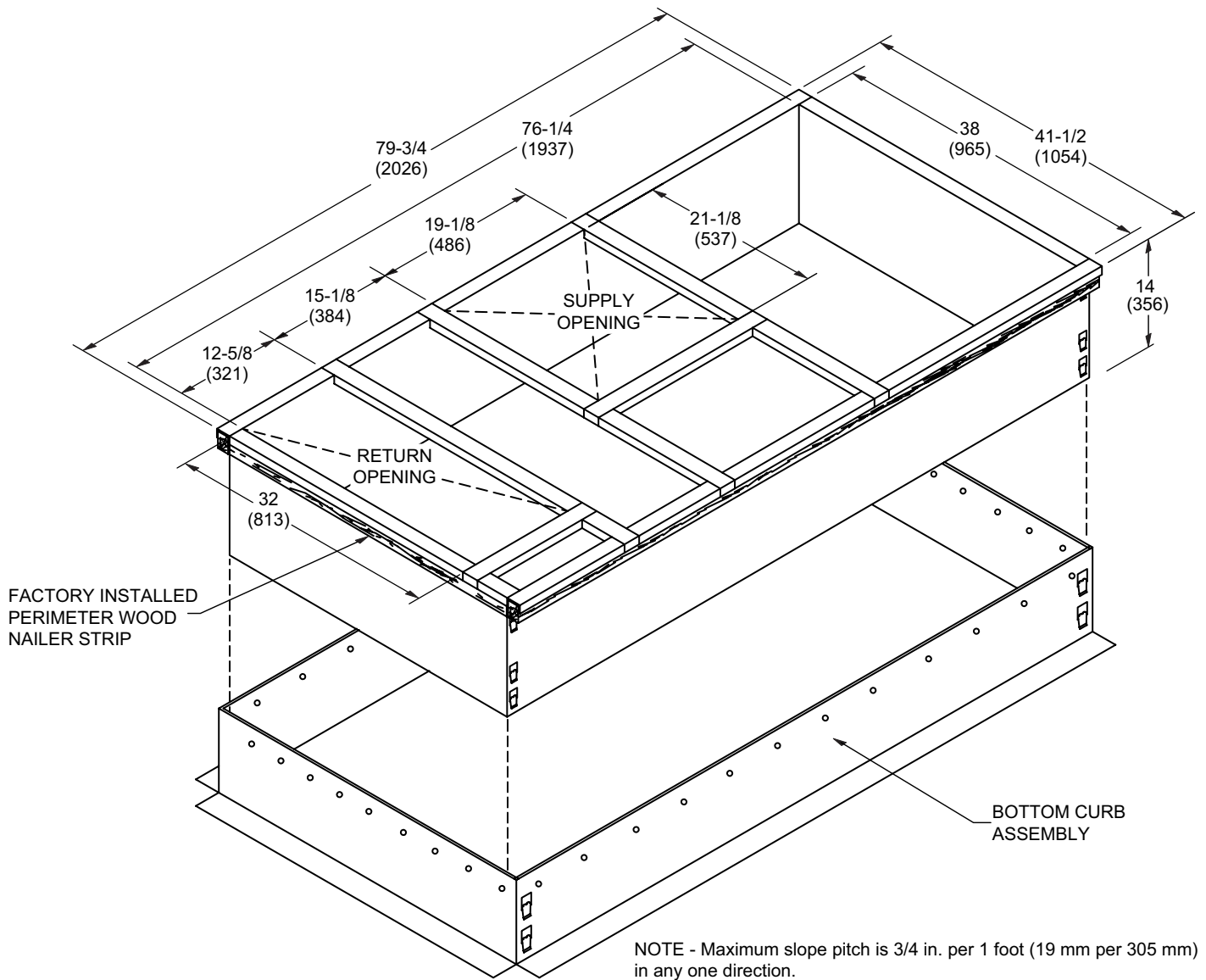


### DETAIL ROOF CURB

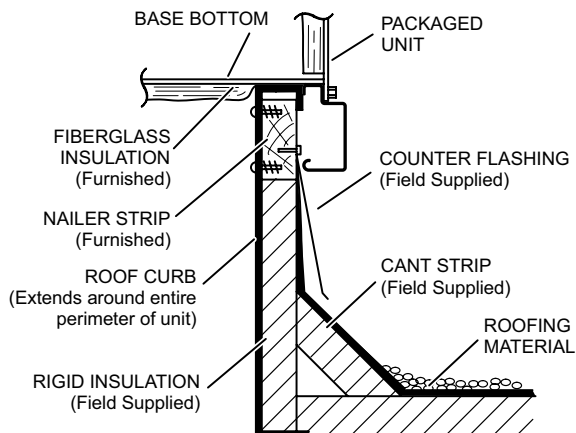


# DIMENSIONS - ACCESSORIES

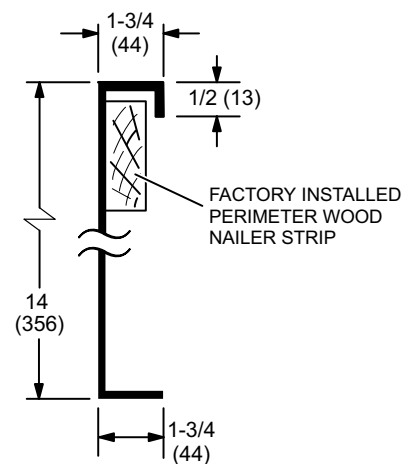
## ADJUSTABLE PITCH CURBS - DOUBLE DUCT OPENING



### TYPICAL FLASHING DETAIL FOR ROOF CURB

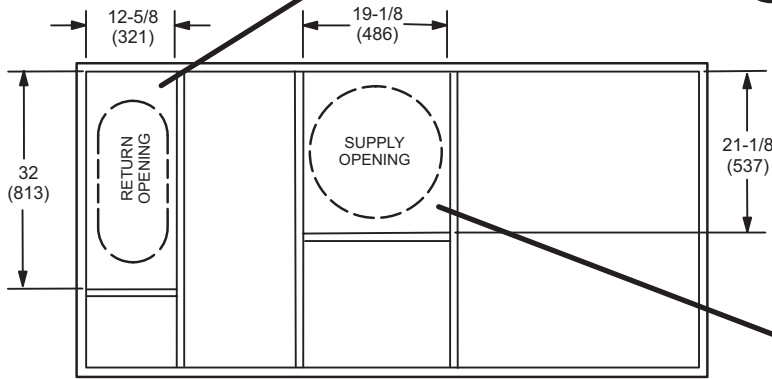


### DETAIL ROOF CURB

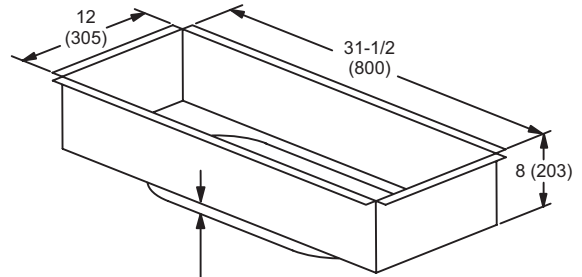


# DIMENSIONS - ACCESSORIES

## TRANSITIONS



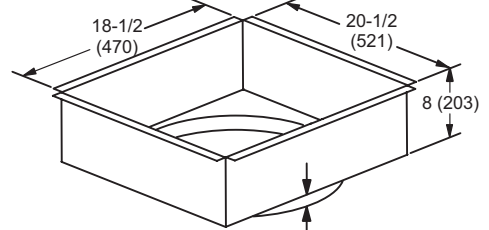
T1TRAN10AN-1 - FOR 18 INCH (457 MM) DUCT  
T1TRAN20N-1 - FOR 20 INCH (508 MM) DUCT



1-1/2 inch (38 mm) T1TRAN10AN-1  
2 inch (51mm) T1TRAN20N-1

**RETURN TRANSITION**

T1TRAN10AN-1 - FOR 18 INCH (457 MM) DUCT  
T1TRAN20N-1 - FOR 20 INCH (508 MM) DUCT



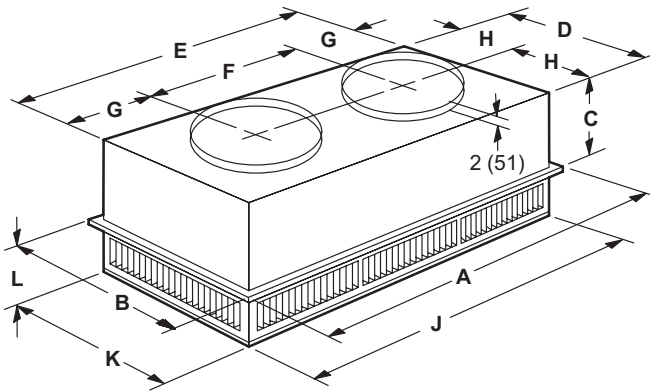
1-1/2 inch (38 mm) T1TRAN10AN-1  
2 inch (51mm) T1TRAN20N-1

**SUPPLY TRANSITION**

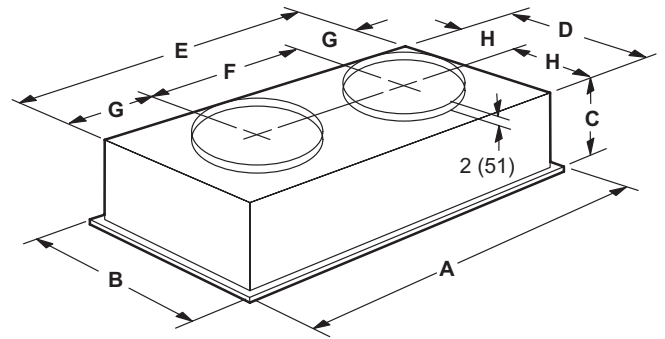
## DIMENSIONS - ACCESSORIES

### COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

#### STEP-DOWN CEILING DIFFUSER



#### FLUSH CEILING DIFFUSER



Model Number		RTD9-65S	RTD11-95S
A	in.	47-5/8	47-5/8
	mm	1159	1159
B	in.	23-5/8	29-5/8
	mm	600	752
C	in.	11-3/8	14-3/8
	mm	289	365
D	in.	21-1/2	27-1/2
	mm	546	699
E	in.	45-1/2	45-1/2
	mm	1156	1158
F	in.	22-1/2	22-1/2
	mm	572	572
G	in.	11-1/2	11-1/2
	mm	292	292
H	in.	10-3/4	13-3/4
	mm	273	349
J	in.	45-1/2	45-1/2
	mm	1156	1156
K	in.	21-1/2	27-1/2
	mm	546	699
L	in.	7-1/8	8-1/8
	mm	181	206
Duct Size	in.	18 round	20 round
	mm	457 round	508 round

Model Number		FD9-65S	FD11-95S
A	in.	47-5/8	47-5/8
	mm	1159	1159
B	in.	23-5/8	29-5/8
	mm	600	752
C	in.	13-1/2	16-5/8
	mm	343	422
D	in.	21	27
	mm	533	686
E	in.	45	45
	mm	1143	1143
F	in.	22-1/2	22-1/2
	mm	572	572
G	in.	11-1/4	11-1/4
	mm	286	286
H	in.	10-1/2	13-1/2
	mm	267	343
Duct Size	in.	18 round	20 round
	mm	457 round	508 round

## REVISIONS

Sections	Description of Change
Specifications	Updated 3-phase direct drive model AHRI ratings for 2023 M1 standard.



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