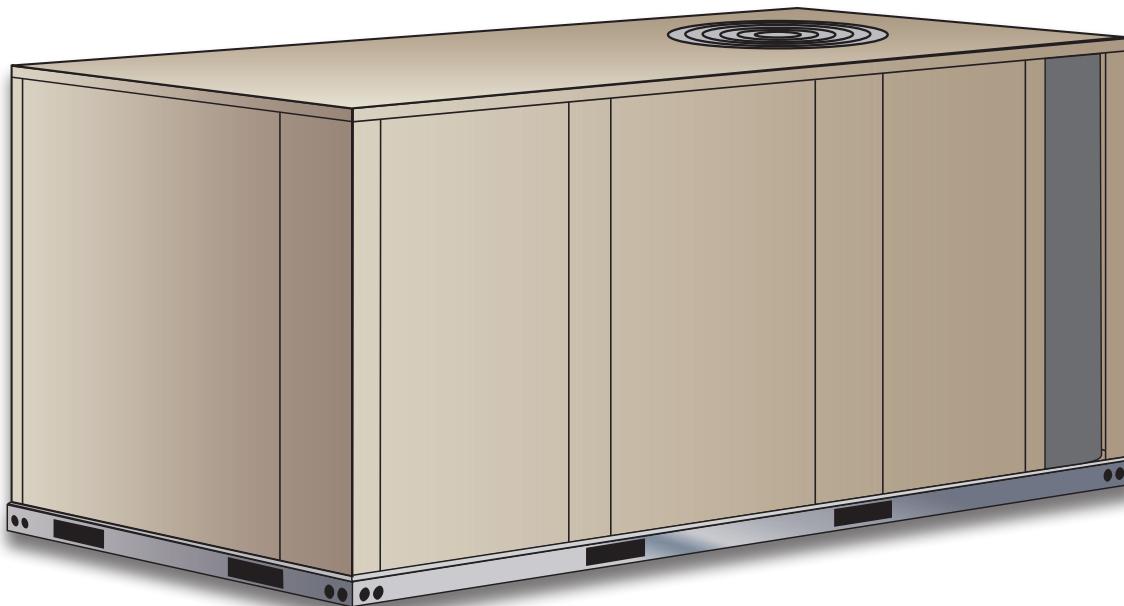


#### PRODUCT SPECIFICATIONS

Bulletin No. KCB-036-090-50HZ (08/2019)

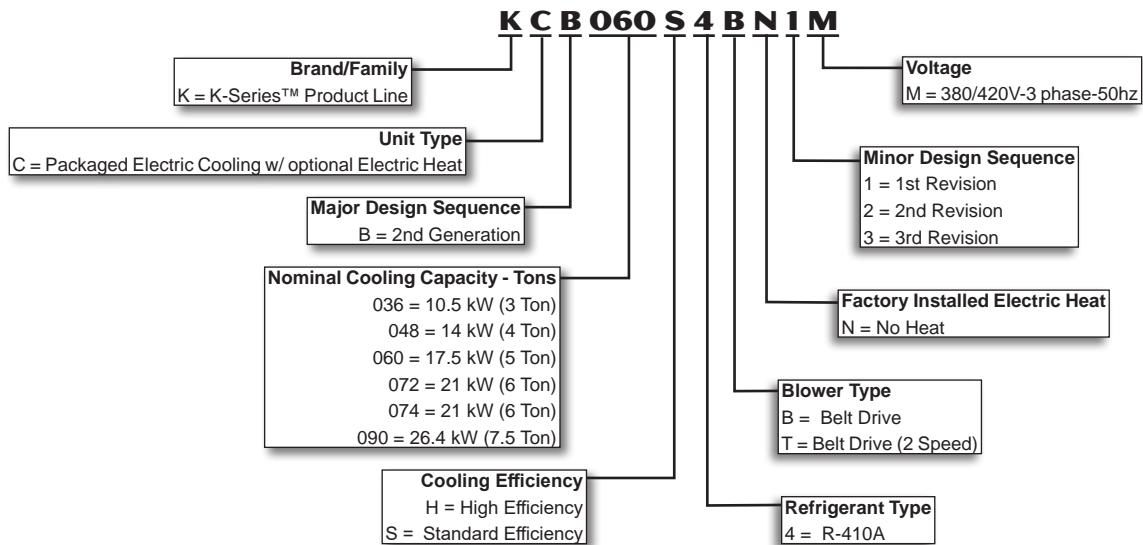


Nominal Capacity - 10.5 to 26.4 kW (3 to 7.5 Tons)

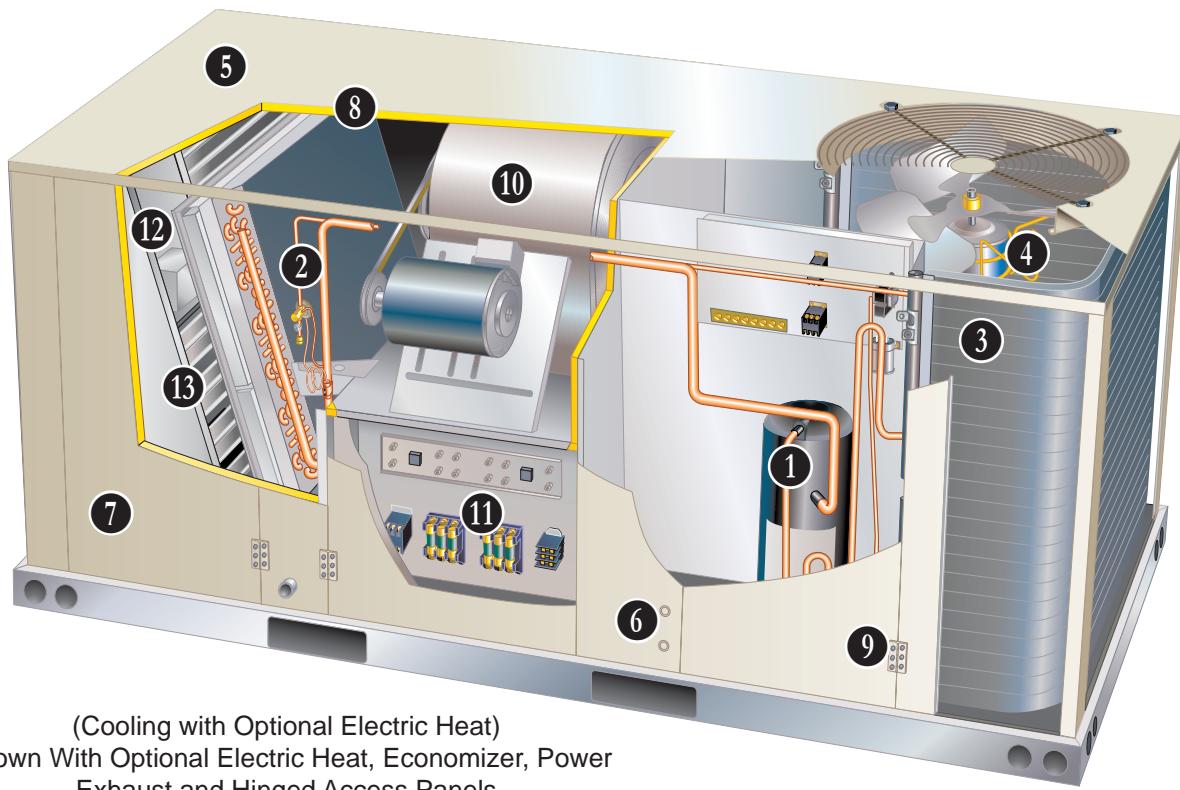
**Net Cooling Capacity - 9.1 to 22.4 kW (31 000 to 76 500 Btuh)**

**Optional Electric Heat - 5.7 to 23 kW**

#### MODEL NUMBER IDENTIFICATION



## FEATURES AND BENEFITS



K-Series™ rooftop units from Allied are the new standard for reliable, efficient rooftop units built for long-lasting performance that can significantly improve indoor environments. K-Series™ rooftop units feature:

- **R-410A Refrigerant** - Environmentally friendly.
- **Single Speed Scroll Compressor** - Furnished on 036 through 072 models.
- **Two-Stage Scroll Compressor** - Furnished on 074 and 090 models. Allows rooftop units to deliver just the necessary amount of cooling needed to meet the space's demand.
- **Eco-Last™ Coil System** - Smaller, lighter condenser coil.
- **High Pressure Switches** - Protect compressor.
- **Isolated Compressor Compartment** - Allows performance check during normal compressor operation without disrupting airflow.
- **Belt Drive Blower Motors** - Belt drive motors to maximize air performance.
- **Independent Motor Mounts** - Allows for easy and efficient service access without removing the top panel.
- **Downflow or Horizontal Airflow** - Easy field conversion.
- **Two Fork Lift Slots on Three Sides** - Easy to pick up and transport units from almost any angle.
- **Corrosion-Resistant Removable, Reversible Drain Pan** - Provides application flexibility, durability and improved serviceability.
- **Thermostatic Expansion Valves** - Provide peak cooling performance across the entire application range.
- **Common Components** - Many maintenance items are standard throughout the entire product line, reducing the need to carry different parts to the job or maintain in inventory.

## FEATURES AND BENEFITS

### CONTENTS

Blower Data . . . . .	.24
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### TESTING

Components bonded for grounding to meet safety standards for servicing required by Underwriters Laboratories (UL) and the International Electrotechnical Commission (IEC).

10.5 through 17.5 kW models cooling performance is rated at test conditions included in Air-Conditioning, Heating and Refrigeration Institute (AHRI) Standard 210/240-2008 while operating at rated voltage and air volumes.

21.0 kW and 26.4 kW models cooling performance is rated at test conditions included in Air-Conditioning, Heating and Refrigeration Institute (AHRI) Standard 340/360-2007 while operating at rated voltage and air volumes.

International Organization for Standardization (ISO) 9001 Registered Manufacturing Quality System.

### COOLING SYSTEM

Designed to maximize sensible and latent cooling performance at design conditions.

System can operate from -1°C to 52°C without any additional controls.

#### R-410A Refrigerant

Non-chlorine,  
ozone friendly,  
R-410A.

Unit pre-charged with refrigerant.  
See Specification table.

#### 1 Single Speed Scroll Compressor (036 through 072 Models)

Scroll compressors for high performance, reliability and quiet operation.

Resiliently mounted on rubber grommets for quiet operation.

#### Two-Stage Scroll Compressor (074 and 090 Models)

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

#### Compressor Crankcase Heater

Protects against refrigerant migration that can occur during low ambient operation.

#### 2 Thermal Expansion Valve

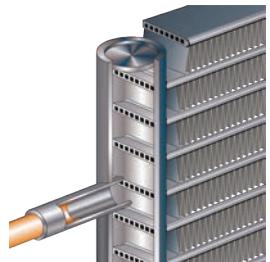
Assures optimal performance throughout the application range.

Removable element head.

#### 3 Eco-Last™ Coil System

Condenser coil features lightweight, all aluminum brazed fin construction.

Constructed of three components:



a flat extrusion tubes, fins in-between the flat extrusion tubes and two refrigerant manifolds.

Eco-Last™ 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 (reduces unit weight).
- Easy maintenance/cleaning.

Mounting brackets with rubber inserts secure coil to unit providing vibration dampening and corrosion protection.

#### Evaporator Coil

Copper tube construction, enhanced rippled-edge aluminum fins, flared shoulder tubing connections, silver soldered construction for improved heat transfer. Factory leak tested. Cross row circuiting optimizes both sensible and latent cooling capacity.

#### 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.

## FEATURES AND BENEFITS

### COOLING SYSTEM **(continued)**

#### Freezestat

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

#### Condensate Drain Pan

Plastic pan, sloped to meet drainage requirements of American Society of Heating Refrigeration and Air Conditioning Engineers 62.1.

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 (036 and 048 models) or ball bearings (060, 072, 074 and 090 models), shaft up, wire basket mount.

#### Outdoor Coil Fan

Polyvinyl chloride (PVC) coated fan guard furnished.

### Required Selections

#### Cooling Capacity

Specify nominal cooling capacity of the unit.

### Options/Accessories

#### Factory Installed

##### Conventional Fin/Tube

##### Condenser Coil (replaces Eco-Last™ Coil System)

##### (All Models except 072 and 074H)

Copper tube construction, enhanced rippled-edge aluminum fins, flared shoulder tubing connections, silver soldered construction.

### Field Installed

#### Condensate Drain Trap

Field installed only.

Available in copper or polyvinyl chloride (PVC).

#### Drain Pan Overflow Switch

Monitors condensate level in drain pan, shuts down unit if drain becomes clogged.

#### Low Ambient Kit

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 -18°C.

A crankcase heater must be installed on the compressor.

### CABINET

#### 5 Construction

Heavy-gauge steel panels and full perimeter heavy-gauge galvanized steel base rail provides structural integrity for transportation, handling, and installation.

Base rails have rigging holes. Three sides of the base rail have fork slots.

Raised edges around duct and power entry openings in the bottom of the unit provide additional protection against water entering the building.

#### Airflow Choice

Units are shipped in downflow (vertical) configuration, can be field converted to horizontal air flow configuration without the need of a kit.

#### 6 Power Entry

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

#### 7 Exterior Panels

Constructed of heavy-gauge, galvanized steel with a two-layer enamel paint finish.

### 8 Insulation

All panels adjacent to conditioned air are fully insulated with non-hygrosopic fiberglass insulation.

Unit base is fully insulated. The insulation also serves as an air seal to the roof curb, eliminating the need to add a seal during installation.

### Access Panels

Access panels are provided for the economizer/filter section, heating/blower section, and the compressor/controls section.

*NOTE - 060/074/090 models include a filler panel for proper cabinet fit for optional accessories (Economizers, Power Exhaust, Outdoor Air Dampers and Barometric Relief Dampers).*

### Options/Accessories

#### Factory Installed

##### Corrosion Protection

A completely flexible immersed coating with an electrodeposited dry film process (AST ElectroFin E-Coat). Meets Mil Spec MIL-P-53084, ASTM B117 Standard Method Salt Spray Testing.

Indoor Corrosion Protection:

- Coated coil
- Painted blower housing
- Painted base

Outdoor Corrosion Protection:

- Coated coil
- Painted base

#### 9 Hinged Access Panels

Large access panels are hinged and have quarter-turn latches for quick and easy access to maintenance areas (economizer / filter, compressor / controls, heating / blower).

#### Field Installed

##### Combination Coil/Hail Guards

Heavy gauge steel frame painted to match cabinet with expanded metal mesh to protect the outdoor coil from damage.

## FEATURES AND BENEFITS

### CONTROLS

#### Unit Control

All control voltage is provided via a 24V (secondary) transformer with built-in circuit breaker protection.

**Heat/Cool Staging** - Capable of 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.

**Night Setback Mode** - Saves energy by closing outdoor air dampers and operating supply fan on thermostat demand only.

### 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.

### 10 BLOWER

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

#### Motor

Overload protected, equipped with ball bearings.

Single Speed belt drive motors are offered on 036, 048, 060 and 072 models and are available in several different sizes to maximize air performance.

Two-speed belt drive motors (low static/high static) are available on 074S4T, 074H4T, and 090S4T models in several different sizes to maximize air performance.

#### Supply Air Blower

Forward curved blades, blower wheel is statically and dynamically balanced.

Motors have adjustable pulley for speed change.

#### Ordering Information

Specify drive kit number when base unit is ordered.

### Required Selections

#### Supply Air Blower

Order one drive kit, see Drive Kit Specifications Table.

### INDOOR AIR QUALITY

#### Air Filters

Disposable 51 mm filters furnished as standard.

### Options/Accessories

#### Field Installed

##### High Efficiency Air Filters

Disposable MERV 8 or MERV 13 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency 51 mm pleated filters.

### UVC Germicidal Lamps



Helps eliminate mold and bacterial growth on the evaporator and drain pans. Improves indoor air quality and maintains efficiency of system by reducing fouling of evaporator coil.

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

Monitors CO<sub>2</sub> levels adjusts economizer dampers as needed for Demand Control Ventilation.

### 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.

#### Unit Sub-Fuse Blocks

Furnished as standard on all units.

### Required Selections

#### Voltage Choice

Specify when ordering base unit.

### Options/Accessories

#### Field Installed

### 11 Electric Heat

Electric Heat is CE marked.

Helix wound nichrome elements, individual element limit controls, wiring harness. Unit fuse block is furnished as standard.

## OPTIONS / ACCESSORIES

### ECONOMIZER OPTIONS

#### Factory or Field Installed

#### 12 Economizer (Standard and High Performance Common Features)

Combination Outdoor Air Hood is furnished.

Factory installed Economizer can be ordered with two exhaust options:

- Barometric Relief Dampers
- No Exhaust.

Field installed Economizer includes Barometric Relief Dampers with Combination Hood.

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.*

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. Sensor is factory installed when Economizers are factory installed.

Single sensible sensor is furnished with Economizer and enables economizer operation if the outdoor temperature is less than the setpoint of the control.

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

#### Standard Economizer Features

Gear-driven action, return air and outdoor air dampers, plug-in connections to unit, neoprene seals, 24-volt, fully-modulating spring return motor.

#### Standard Economizer Control Module

The 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 13°C 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 13°C.*

#### High Performance Economizer Features

Gear-driven action, high torque 24-volt fully-modulating spring return damper motor, return air and outdoor air dampers, plug-in connections to unit, nylon bearings, enhanced neoprene blade edge seals and flexible stainless steel jamb seals to minimize air leakage.

#### High Performance Economizer Control Module

Module provides inputs and outputs to control economizer based on parameter settings.



Module automatically detects sensors by polling to determine which sensors are installed in system.

Module displays any alarm messages (fault detection and diagnostics) as an aid in troubleshooting.

Non-volatile memory retains parameter settings in case of power failure.

Keypad with four navigation buttons and LCD screen is furnished for setting economizer parameters.

- Menu Up/Exit button returns to the main menu.
- Arrow Up button moves to the previous or next parameter within the selected menu.
- Arrow Down button moves to the next parameter within the selected menu.
- Select (enter) button confirms parameter selection.

## **OPTIONS / ACCESSORIES**

### **ECONOMIZER OPTIONS (continued)**

#### **Main Menu Structure:**

- STATUS (economizer and system operation status)
- SETPOINTS (settings for various setpoint parameters)
- SYSTEM SETUP (settings/information about the system)
- ADVANCED SETUP (freeze protection, CO<sub>2</sub> settings, stage 3 delay and additional calibration settings)
- CHECKOUT (damper positions)
- ALARMS (output signal that can be configured for remote alarm monitoring)

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

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

##### **Single Enthalpy Temperature Control**

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

##### **Field Installed**

##### **Differential Enthalpy Control**

Order two Single Enthalpy Controls. One is field installed in the return air section, the other in the outdoor air section. Allows the economizer control board to select between outdoor air or return air, whichever has lower enthalpy.

##### **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.

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.

### **EXHAUST OPTIONS**

#### **Field Installed**

##### **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.

Fan is 406 mm diameter with 4 fan blades and a 0.25 kW motor.

*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 OPTIONS**

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

##### **Outdoor Air Dampers - Downflow or Horizontal**

Single blade damper, 0 to 25% (fixed) outdoor air adjustable, installs in unit.

Automatic model features fully modulating spring return damper motor with plug-in connection.

Manual model features a slide damper. Maximum mixed air temperature in cooling mode: 38°C. Outdoor Air Hood is furnished.

### **ROOF CURBS**

Nailer strip furnished, mates to unit, US National Roofing Contractors Approved, shipped knocked down.

#### **Hybrid Roof Curbs, Downflow**

Roof curb can be assembled using interlocking tabs to fasten corners together. No tools required.

Curb can also be fastened together with furnished hardware.

Available in 203, 356, 457, and 610 mm heights.

#### **Full Perimeter Curbs, Downflow (090 Models Only)**

Hybrid roof curbs can be assembled using interlocking tabs to fasten corners together. No tools required.

Hybrid roof curb can also be fastened together with furnished hardware. Available in 203, 356, 457 and 610 mm.

*NOTE - 090 models can be used on smaller 2026 mm Hybrid Roof Curbs (not full perimeter) with 400 mm overhang at condenser end of unit. See dimension drawing on page 49*

#### **Adjustable Pitch Curb**

Fully adjustable pitch curb provides a level platform for rooftop units allowing flexible installations on roofs with uneven or sloped angles.

Maximum slope is 19 mm per 300 mm in any direction.

Uses interlocking tabs to fasten corners together. No tools required.

Hardware is furnished to connect upper curb with lower curb.

Available in 356 mm height.

#### **Adaptor Curbs (not shown)**

Curbs are regionally sourced. Dimensions will vary based upon the source. Contact your local sales representative for a detailed cut sheet with applicable dimensions.

### **CEILING DIFFUSERS**

#### **Ceiling Diffusers (Flush and Step-Down)**

Diffuser face and grilles with white powder coat finish, insulated (UL listed duct liner), diffuser box with collars for duct connection, fixed blades (flush diffusers) and double deflection blades (step-down diffusers), provisions for suspending, internally sealed (prevents 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.

## OPTIONS / ACCESSORIES

Item	Model No.	Catalog No.	Unit Model Number					
			KCB 036	KCB 048	KCB 060	KCB 072	KCB 074	KCB 090
<b>COOLING SYSTEM</b>								
Condensate Drain Trap	Polyvinyl Chloride (PVC) - C1TRAP20AD2	76W26	X	X	X	X	X	X
	Copper - C1TRAP10AD2	76W27	X	X	X	X	X	X
Conventional Fin/Tube Condenser Coil (replaces Eco-Last™ Coil System)	Factory	O	O	O		¹ O	O	
Drain Pan Overflow Switch	K1SNSR71AB1-	74W42	X	X	X	X	X	X
Low Ambient Kit	K1SNSR33AN2	14D89	X	X	X	X	X	X
Efficiency		High			O	O		
		Standard	O	O	O		O	O
Refrigerant Type	R-410A	O	O	O	O	O	O	O
<b>BLOWER - SUPPLY AIR</b>								
Motors	Belt Drive - 1.5 kW Standard Efficiency	Factory	O	O	O	² O		O
	Belt Drive - 1.2 kW (2 Speed)	Factory					O	O
	Belt Drive - 2.2 kW	Factory					O	
Drive Kits	Kit A01 - T1DRKT001-1 - 561 - 842 rev/min	Factory	O					
See Blower Data Tables for selection	Kit A02 - T1DRKT002-1 - 621 - 931 rev/min	Factory		O				
	Kit A03 - T1DRKT003-1 - 694 - 1042 rev/min	Factory			O			
	Kit A04 - T1DRKT004-1 - 804 - 1117 rev/min	Factory				² O	², ⁴ O	
	Kit A05 - T1DRKT005-1 - 748 - 1122 rev/min	Factory	O					
	Kit A06 - T1DRKT006-1 - 893 - 1191 rev/min	Factory		O				
	Kit A07 - T1DRKT007-1 - 1010 - 1290 rev/min	Factory			O			
	Kit A08 - T1DRKT008-1 - 994 - 1326 rev/min	Factory				² O	², ⁴ O	
	Kit A09 - T1DRKT009-1 - 1193 - 1594 rev/min	Factory				² O	², ⁴ O	
	Kit AA02 - T1DRKT002AP1 - 527 - 729 rev/min	Factory				⁵ O	³ O	O
	Kit AA03 - T1DRKT003AP1 - 665 - 921 rev/min	Factory				⁵ O	³ O	O
	Kit AA04 - T1DRKT004AP1 - 768 - 1023 rev/min	Factory				⁵ O	³ O	O
	Kit AA05 - T1DRKT005AP4 - 921 - 1177 rev/min	Factory					O	
<b>CABINET</b>								
Combination Coil/Hail Guards	C1GARD51A-1	13R98	X	X				
	C1GARD51AT1	13T03			X	X	X	
	K1GARD50AP1	13T17						X
Hinged Access Panels	Factory	O	O	O	O	O	O	O
Corrosion Protection	Factory	O	O	O	O	O	O	O
<b>CONTROLS</b>								
NOTE - Also see Conventional Thermostat Control Systems on page 37 for Additional Options.								
Smoke Detector - Supply or Return (Power board and one sensor)	C1SNSR44AP1	53W78	X	X	X	X	X	X
Smoke Detector - Supply and Return (Power board and two sensors)	C1SNSR43AP1	53W79	X	X	X	X	X	X

<sup>1</sup> 074S models only.

<sup>2</sup> 072S and 074S Single Speed Belt Drive models only.

<sup>3</sup> 074H Two-Speed Belt Drive models only.

<sup>4</sup> 074S Two-Speed Belt Drive models only.

<sup>5</sup> 072H Single Speed Belt Drive.

NOTE - The catalog and model numbers that appear here are for ordering field installed accessories only.

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

O - Configure to Order (Factory Installed)

X - Field Installed.

## OPTIONS / ACCESSORIES

Item	Model No.	Catalog No.	Unit Model Number							
			KCB 036	KCB 048	KCB 060	KCB 072	KCB 074	KCB 090		
<b>ECONOMIZER</b>										
<b>Standard Economizer With Outdoor Air Hood (Sensible Control)</b>										
Standard Economizer - Includes Barometric Relief Dampers and Exhaust Hood	K1ECON30A-3-	14D90	OX	OX	OX	OX	OX	OX		
Standard Economizer - No Exhaust	Factory		O	O	O	O	O	O		
<b>Standard Economizer Controls</b>										
Single Enthalpy Control	C1SNSR64FF1	53W64	OX	OX	OX	OX	OX	OX		
Differential Enthalpy Control (order 2)	C1SNSR64FF1	53W64	X	X	X	X	X	X		
<b>High Performance Economizer With Outdoor Air Hood</b>										
High Performance Economizer - Includes Barometric Relief Dampers and Exhaust Hood	K1ECON32A-3	16X75	OX	OX	OX	OX	OX	OX		
<b>High Performance Economizer Controls</b>										
Single Enthalpy Control	C1SNSR60FF1	10Z75	OX	OX	OX	OX	X	OX		
Differential Enthalpy Control (order 2)	C1SNSR60FF1	10Z75	X	X	X	X	X	X		
<b>Economizer Accessories</b>										
Horizontal Economizer Conversion Kit	T1HECK00AN1	17W45	X	X	X	X	X	X		
<b>POWER EXHAUST FAN</b>										
Standard Static	380/420V-3ph - C1PWRE10A-1M	79W93	X	X	X	X	X	X		
<i>NOTE - Field installed Power Exhaust Fan requires "Barometric Relief Dampers for Power Exhaust Kit" for field installation. See below.</i>										
<b>BAROMETRIC RELIEF</b>										
<sup>1</sup> Barometric Relief Dampers for Power Exhaust Kit	C1DAMP50A-3-	19D42	X	X	X	X	X	X		
<sup>2</sup> Horizontal Barometric Relief Dampers With Exhaust Hood	LAGEDH03/15-2	19F01	X	X	X	X	X	X		
<b>OUTDOOR AIR</b>										
<b>Outdoor Air Dampers With Outdoor Air Hood</b>										
Motorized	C1DAMP21A-1	15D17	OX	OX	OX	OX	OX	OX		
Manual	C1DAMP11A-2	15D18	OX	OX	OX	OX	OX	OX		
<b>ELECTRICAL</b>										
Voltage 50 hz with neutral	380/420V – 3 phase		O	O	O	O	O	O		
<b><sup>3</sup> ELECTRIC HEAT</b>										
5.7 kW	K1EH0057AN1M	67W92	X	X	X	X	X	X		
11.5 kW	K1EH0115AN1M	67W93	X	X	X	X	X	X		
17.2 kW	K1EH0172AN1M	67W94		X	X	X	X	X		
23 kW	K1EH0230N-1M	67W95			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.

<sup>3</sup> Nominal kW at 420V-3ph-50hz.

NOTE - The catalog and model numbers that appear here are for ordering field installed accessories only.

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

O - Configure to Order (Factory Installed)

X - Field Installed.

## OPTIONS / ACCESSORIES

Item	Model No.	Catalog No.	Unit Model Number							
			KCB 036	KCB 048	KCB 060	KCB 072	KCB 074	KCB 090		
<b>INDOOR AIR QUALITY</b>										
<b>Air Filters</b>										
High Efficiency Air Filters Order 4 per unit	MERV 8 (406 x 508 x 51) - C1FLTR15A-1- MERV 13 (406 x 508 x 51) - T1FLTR40A-1-	<b>54W20</b> <b>52W37</b>	X	X						
	MERV 8 (508 x 508 x 51) - C1FLTR15D-1- MERV 13 (508 x 508 x 51) - C1FLTR40D-1-	<b>54W21</b> <b>52W39</b>			X	X	X	X		
					X	X	X	X		
<b>Indoor Air Quality (CO<sub>2</sub>) Sensors</b>										
Sensor - Wall-mount, off-white plastic cover with LCD display	C0SNSR50AE1L	<b>77N39</b>	X	X	X	X	X	X		
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting	C0SNSR53AE1L	<b>87N54</b>	X	X	X	X	X	X		
CO <sub>2</sub> Sensor Duct Mounting Kit - for downflow applications	C0MISC19AE1-	<b>85L43</b>	X	X	X	X	X	X		
Aspiration Box - for duct mounting non-plenum rated CO <sub>2</sub> sensor ( <b>77N39</b> )	C0MISC16AE1-	<b>90N43</b>	X	X	X	X	X	X		
<b>UVC Germicidal Lamps</b>										
<sup>1</sup> UVC Light Kit (220V-1ph)	E1UVCL10AN1-	<b>50W90</b>	X	X	X	X	X	X		
<b>ROOF CURBS</b>										
<b>Hybrid Roof Curbs, Downflow</b>										
203 mm height	C1CURB70A-1	<b>11F50</b>	X	X	X	X	X	<sup>2</sup> X		
356 mm height	C1CURB71A-1	<b>11F51</b>	X	X	X	X	X	<sup>2</sup> X		
457 mm height	C1CURB72A-1	<b>11F52</b>	X	X	X	X	X	<sup>2</sup> X		
610 mm height	C1CURB73A-1	<b>11F53</b>	X	X	X	X	X	<sup>2</sup> X		
<b>Hybrid Roof Curbs, Full Perimeter, Downflow</b>										
203 mm height	K1CURB70AP1	<b>11S47</b>						X		
356 mm height	K1CURB71AP1	<b>11S48</b>						X		
457 mm height	K1CURB72AP1	<b>11T01</b>						X		
610 mm height	K1CURB73AP1	<b>11T06</b>						X		
<b>Adjustable Pitch Curb, Downflow</b>										
356 mm height	C1CURB55AT1	<b>43W27</b>	X	X	X	X	X	<sup>2</sup> X		
<b>CEILING DIFFUSERS</b>										
Step-Down - Order one	RTD9-65S	<b>13K60</b>	X	X	X					
	RTD11-95S	<b>13K61</b>				X	X	X		
Flush - Order one	FD9-65S	<b>13K55</b>	X	X	X					
	FD11-95S	<b>13K56</b>				X	X	X		
Transitions (Supply and Return) - Order one	T1TRAN10AN1	<b>17W53</b>	X	X	X					
	T1TRAN20N-1	<b>17W54</b>				X	X	X		

<sup>1</sup> Lamps operate on 110-230V single-phase power supply. Step-down transformer may be ordered separately for 380/420V primary to 220V secondary units. Alternately, 220V power supply may be used to directly power the UVC ballast(s).

<sup>2</sup> 090 models will fit smaller roof curbs with overhang. See dimension drawing.

NOTE - The catalog and model numbers that appear here are for ordering field installed accessories only.

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

O - Configure to Order (Factory Installed)

X - Field Installed.

**SPECIFICATIONS**
**10.5 - 17.5 KW**

General Data	Nominal Tonnage	10.5 kW (3 Ton)	14.0 kW (4 Ton)	17.5 kW (5 Ton)
	Model No.	KCB036S4B	KCB048S4B	KCB060S4B
	Efficiency Type	Standard	Standard	Standard
	Blower Type	Single Speed Belt Drive	Single Speed Belt Drive	Single Speed Belt Drive
<b>Cooling Performance</b>	Gross Cooling Capacity - kW (Btuh)	9.5 (32 300)	12.6 (42 900)	15.8 (53 800)
	<sup>1</sup> Net Cooling Capacity - kW (Btuh)	9.1 (31 000)	12.0 (40 800)	15.0 (51 300)
	Rated Air Flow - (L/s) cfm	542 (1150)	736 (1560)	830 (1760)
	<sup>3</sup> Sound Rating Number (dB)	74	74	79
	Total Unit Power - kW	2.5	3.5	4.2
	<sup>1</sup> SEER (Btuh/Watt)	14.0	14.0	14.0
	<sup>1</sup> EER (Btuh/Watt) at 35°C (95°F)	12.5	11.6	12.0
	<sup>2</sup> EER (Btuh/Watt) at 46°C (115°F)	8.4	7.8	8.4
<b>Refrigerant Charge</b>	Refrigerant Type	R-410A	R-410A	R-410A
	Eco-Last™ Coil System	2.52 kg (5 lbs. 9 oz.)	2.55 kg (5 lbs. 10 oz.)	3.74 kg (8 lbs. 4 oz.)
	Conventional Fin/Tube Coil	4.99 kg (11 lbs. 3 oz.)	4.45 kg (9 lbs. 13 oz.)	6.46 kg (14 lbs. 4 oz.)
<b>Compressor Type (one per unit)</b>		Scroll	Scroll	Scroll
<b>Outdoor Coil Eco-Last™ (Fin/Tube)</b>	Net face area - m <sup>2</sup> (sq. ft.)	1.35 (14.5) / 1.45 (15.6)	1.35 (14.5) / 1.45 (15.6)	1.65 (17.8) / 1.79 (19.3)
	Number of rows	1 (2)	1 (2)	1 (2)
	Fins per meter (Fins per inch)	905 (23) / 787 (20)	905 (23) / 787 (20)	905 (23) / 787 (20)
<b>Outdoor Coil Fan</b>	Motor W (hp)	187 (1/4)	187 (1/4)	249 (1/3)
	Motor rev/min	690	705	900
	Total motor watts	247	247	284
	Diameter - mm (in.) / No. of blades	610 (24) - 4	610 (24) - 4	610 (24) - 3
	Total air volume - L/s (cfm)	1554 (3292)	1554 (3292)	1850 (3920)
<b>Indoor Coil</b>	Net face area - m <sup>2</sup> (sq. ft.)	0.7 (7.8)	0.7 (7.8)	0.9 (9.7)
	Number of rows	3	3	4
	Fins per meter (Fins per inch)	551 (14)	551 (14)	551 (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 power head		
<b><sup>4</sup> Indoor Blower &amp; Drive Selection</b>	Nominal Motor kW (hp)	1.5 (2)	1.5 (2)	1.5 (2)
	Maximum Usable Motor kW (hp)	1.7 (2.3)	1.7 (2.3)	1.7 (2.3)
	Drive Kit (rev/min range)	A01 - (561 - 842) A05 - (748 - 1122)	A02 - (621 - 931) A06 - (893 - 1191)	A03 - (694 - 1042) A07 - (1010 - 1290)
	Wheel nominal diameter x width - mm (in.)	254 X 254 (10 X 10)	254 X 254 (10 X 10)	254 X 254 (10 X 10)
<b>Filters</b>	Type	Disposable		
	Number and size - mm (in.)	(4) 406 x 508 x51 (16 x 20 x 2)	(4) 406 x 508 x51 (16 x 20 x 2)	(4) 508 x 508 x51 (20 x 20 x 2)
<b>Electrical Characteristics - 50 Hz</b>		380/420V - 50 hertz - 3 phase with neutral		

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

<sup>1</sup> Tested at conditions which are based on AHRI Standard 210/240; 35°C (95°F) outdoor air temperature and 27°C (80°F) dry bulb/19°C (67°F) wet bulb entering evaporator air; minimum external duct static pressure while operating at rated voltage and air volumes.

<sup>2</sup> Rated at 46°C (115°F) outdoor air temperature and 27°C (80°F) db/19°C (67°F) wb entering evaporator air (T3 Conditions).

<sup>3</sup> Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

<sup>4</sup> Using total air volume and system static pressure requirements determine from blower performance tables rev/min and motor size required. Maximum usable size of motors furnished is shown. If motors of comparable size are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

**SPECIFICATIONS**
**21 kW**

<b>General Data</b>		<b>Nominal Tonnage</b>	<b>21 kW (6 Ton)</b>	<b>21 kW (6 Ton)</b>
		<b>Model No.</b>	<b>KCB072H4B</b>	<b>KCB074S4B</b>
		<b>Efficiency Type</b>	<b>High</b>	<b>Standard</b>
		<b>Blower Type</b>	<b>Single Speed Belt Drive</b>	<b>Single Speed Belt Drive</b>
<b>Cooling Performance</b>	Gross Cooling Capacity - kW (Btuh)	18.6 (63 600)	18.0 (61 500)	
	<sup>1</sup> Net Cooling Capacity - kW (Btuh)	18.3 (62 300)	17.3 (58 900)	
	Rated Air Flow - (L/s) cfm	906 (1920)	991 (2100)	
	<sup>3</sup> Sound Rating Number (dB)	79	79	
	Total Unit Power - kW	5.1	5.2	
	<sup>1</sup> IEER (Btuh/Watt)	13.5	13.0	
	<sup>1</sup> EER (Btuh/Watt) at 35°C (95°F)	12.2	11.3	
	<sup>2</sup> EER (Btuh/Watt) at 46°C (115°F)	8.3	8.0	
<b>Refrigerant Charge</b>	Refrigerant Type	R-410A	R-410A	
	Eco-Last™ Coil System	3.4 kg (7 lbs. 8 oz.)	3.23 kg (7 lbs. 2 oz.)	
	Conventional Fin/Tube Coil	---	6.58 kg (14 lbs. 8 oz.)	
<b>Compressor Type (one per unit)</b>		Scroll (1)	Two-Stage Scroll (1)	
<b>Outdoor Coil Eco-Last™ (Fin/Tube)</b>	Net face area - m <sup>2</sup> (sq. ft.)	1.65 (17.8)	1.65 (17.8) / 1.79 (19.3)	
	Number of rows	1	1 (2)	
	Fins per meter (Fins per inch)	905 (23)	905 (23) / 787 (20)	
<b>Outdoor Coil Fan</b>	Motor W (hp)	(1) 249 (1/3)	(1) 249 (1/3)	
	Motor rev/min	900	900	
	Total motor watts	310	284	
	Diameter - mm (in.) / No. of blades	(1) 610 (24) - 3	(1) 610 (24) - 3	
	Total air volume - L/s (cfm)	1888 (4000)	1850 (3920)	
<b>Indoor Coil</b>	Net face area - m <sup>2</sup> (sq. ft.)	0.9 (9.72)	0.9 (9.72)	
	Number of rows	4	4	
	Fins per meter (Fins per inch)	551 (14)	551 (14)	
	Drain Connection (no.and size) - in.	(1) 1 in. NPT	(1) 1 in. NPT	
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head		
<b><sup>4</sup> Indoor Blower &amp; Drive Selection</b>	Nominal Motor kW (hp)	1.5 (2)	1.5 (2)	
	Maximum Usable Motor kW (hp)	1.7 (2.3)	1.7 (2.3)	
	Drive Kit (rev/min range)	<b>AA02</b> - (527 - 729) <b>AA03</b> - (665 - 921) <b>AA04</b> - (768 - 1023)	<b>A08</b> (994 - 1326) <b>A09</b> (1193 - 1594)	
	Wheel nominal diameter x width - mm (in.)	381 x 229 (15 x 9)	254 x 254 (10 x 10)	
	Type	Disposable		
<b>Filters</b>	Number and size - mm (in.)	(4) 508 x 508 x 51 (20 x 20 x 2)	(4) 508 x 508 x 51 (20 x 20 x 2)	
<b>Electrical Characteristics - 50 Hz</b>		380/420V - 50 hertz - 3 phase with neutral		

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

<sup>1</sup> Tested at conditions which are based on AHRI Standard 340/360; 35°C (95°F) outdoor air temperature and 27°C (80°F) dry bulb/19°C (67°F) wet bulb entering evaporator air; minimum external duct static pressure while operating at rated voltage and air volumes.

<sup>2</sup> Rated at 46°C (115°F) outdoor air temperature and 27°C (80°F) db/19°C (67°F) wb entering evaporator air (T3 Conditions).

<sup>3</sup> Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

<sup>4</sup> Using total air volume and system static pressure requirements determine from blower performance tables rev/min and motor size required. Maximum usable size of motors furnished is shown. If motors of comparable size are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

**SPECIFICATIONS**
**21 KW**

General Data	Nominal Tonnage	21 kW (6 Ton)	21 kW (6 Ton)
	Model No.	KCB074H4T	KCB074S4T
	Efficiency Type	High	Standard
	Blower Type	Two Speed Belt Drive	Two Speed Belt Drive
<b>Cooling Performance</b>	Gross Cooling Capacity - kW (Btuh)	18.3 (62 300)	18.0 (61 500)
	<sup>1</sup> Net Cooling Capacity - kW (Btuh)	17.5 (59 700)	17.3 (58 900)
	Rated Air Flow - (L/s) cfm	991 (2100)	991 (2100)
	<sup>3</sup> Sound Rating Number (dB)	79	79
	Total Unit Power - kW	4.9	5.2
	<sup>1</sup> IEER (Btuh/Watt)	16.2	15.0
	<sup>1</sup> EER (Btuh/Watt) at 35°C (95°F)	12.2	11.3
	<sup>2</sup> EER (Btuh/Watt) at 46°C (115°F)	8.3	8.0
<b>Refrigerant Charge</b>	Refrigerant Type	R-410A	R-410A
	Eco-Last™ Coil System	3.23 kg (7 lbs. 2 oz.)	3.23 kg (7 lbs. 2 oz.)
	Conventional Fin/Tube Coil	- - -	6.58 kg (14 lbs. 8 oz.)
<b>Compressor Type (one per unit)</b>		Two-Stage Scroll (1)	Two-Stage Scroll (1)
<b>Outdoor Coil Eco-Last™ (Fin/Tube)</b>	Net face area - m <sup>2</sup> (sq. ft.)	1.65 (17.8)	1.65 (17.8)
	Number of rows	1	1
	Fins per meter (Fins per inch)	905 (23)	905 (23)
<b>Outdoor Coil Fan</b>	Motor W (hp)	(1) 249 (1/3)	(1) 249 (1/3)
	Motor rev/min	900	900
	Total motor watts	284	284
	Diameter - mm (in.) / No. of blades	(1) 610 (24) - 3	(1) 610 (24) - 3
	Total air volume - L/s (cfm)	1848 (3900)	1848 (3900)
<b>Indoor Coil</b>	Net face area - m <sup>2</sup> (sq. ft.)	0.9 (9.72)	0.9 (9.72)
	Number of rows	4	4
	Fins per meter (Fins per inch)	551 (14)	551 (14)
	Drain Connection (no. and size) - in.	(1) 1 in. NPT	(1) 1 in. NPT
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head	
	Nominal Motor kW (hp)	1.2 (1.7)	1.2 (1.7)
<b><sup>4</sup> Indoor Blower &amp; Drive Selection</b>	Maximum Usable Motor kW (hp)	1.4 (1.9)	1.4 (1.9)
	Drive Kit (rev/min range)	<b>AA02</b> - (527 - 729) <b>AA03</b> - (665 - 921) <b>AA04</b> - (768 - 1023)	<b>A04</b> - (807 - 1117) <b>A08</b> - (994 - 1326)
	Wheel nominal diameter x width - mm (in.)	381 x 229 (15 x 9)	254 x 254 x (10 x 10)
	Type	Disposable	
<b>Filters</b>	Number and size - mm (in.)	(4) 508 x 508 x 51 (20 x 20 x 2)	(4) 508 x 508 x 51 (20 x 20 x 2)
		380/420V - 50 hertz - 3 phase with neutral	

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

<sup>1</sup> Tested at conditions which are based on AHRI Standard 340/360; 35°C (95°F) outdoor air temperature and 27°C (80°F) dry bulb/19°C (67°F) wet bulb entering evaporator air; minimum external duct static pressure while operating at rated voltage and air volumes.

<sup>2</sup> Rated at 46°C (115°F) outdoor air temperature and 27°C (80°F) db/19°C (67°F) wb entering evaporator air (T3 Conditions).

<sup>3</sup> Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

<sup>4</sup> Using total air volume and system static pressure requirements determine from blower performance tables rev/min and motor size required. Maximum usable size of motors furnished is shown. If motors of comparable size are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

**SPECIFICATIONS**
**26.4 KW**

<b>General Data</b>	<b>Nominal Tonnage</b>	<b>26.4 kW (7.5 Ton)</b>	<b>26.4 kW (7.5 Ton)</b>
	<b>Model No.</b>	<b>KCB090S4T</b>	<b>KCB090S4B</b>
	<b>Efficiency Type</b>	<b>Standard</b>	<b>Standard</b>
	<b>Blower Type</b>	<b>Two Speed Belt Drive</b>	<b>Single Speed Belt Drive</b>
<b>Cooling Performance</b>	Gross Cooling Capacity - kW (Btuh)	23.1 (79 000)	23.1 (79 000)
	<sup>1</sup> Net Cooling Capacity - kW (Btuh)	22.4 (76 500)	22.4 (76 500)
	Rated Air Flow - (L/s) cfm	2225	2225
	<sup>3</sup> Sound Rating Number (dB)	79	79
	Total Unit Power - kW	6.8	6.8
	<sup>1</sup> IEER (Btuh/Watt)	14.0	13.0
	<sup>1</sup> EER (Btuh/Watt) at 35°C (95°F)	11.3	11.3
	<sup>2</sup> EER (Btuh/Watt) at 46°C (115°F)	8.1	8.1
<b>Refrigerant Charge</b>	Refrigerant Type	R-410A	R-410A
	Eco-Last™ Coil System	4.19 kg (9 lbs. 4 oz.)	4.19 kg (9 lbs. 4 oz.)
	Conventional Fin/Tube Coil	8.11 kg (17 lbs. 14 oz.)	8.11 kg (17 lbs. 14 oz.)
<b>Compressor Type (one per unit)</b>		Two-Stage Scroll (1)	Two-Stage Scroll (1)
<b>Outdoor Coil Eco-Last™ (Fin/Tube)</b>	Net face area - m <sup>2</sup> (sq. ft.)	2.25 (24.2) / 2.57 (27.7)	2.25 (24.2) / 2.57 (27.7)
	Number of rows	1 (2)	1 (2)
	Fins per meter (Fins per inch)	905 (23) / 787 (20)	905 (23) / 787 (20)
<b>Outdoor Coil Fan</b>	Motor W (hp)	374 (1/2)	374 (1/2)
	Motor rev/min	900	900
	Total motor watts	433	433
	Diameter - mm (in.) / No. of blades	610 (24) - 4	610 (24) - 4
	Total air volume - L/s (cfm)	2085 (4420)	2085 (4420)
<b>Indoor Coil</b>	Net face area - m <sup>2</sup> (sq. ft.)	0.9 (9.7)	0.9 (9.7)
	Number of rows	4	4
	Fins per meter (Fins per inch)	551 (14)	551 (14)
	Drain Connection (no. and size) - in.	(1) 1 in. NPT	(1) 1 in. NPT
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head	
<b><sup>4</sup> Indoor Blower &amp; Drive Selection</b>	Nominal Motor kW (hp)	1.2 (1.7)	1.5 (2), 2.2 (3)
	Maximum Usable Motor kW (hp)	1.4 (1.9)	1.7 (2.3), 2.57 (3.45)
	Drive Kit (rev/min range)	AA02 - (527 - 729) AA03 - (665 - 921) AA04 - (768 - 1023)	AA02 - (527 - 729) AA03 - (665 - 921) AA04 - (768 - 1023) AA05 - (921 - 1177)
	Wheel nominal diameter x width - mm (in.)	381 x 229 (15 x 9)	381 x 229 (15 x 9)
	Type	Disposable	
<b>Filters</b>	Number and size - mm (in.)	(4) 508 x 508 x 51 (20 x 20 x 2)	(4) 508 x 508 x 51 (20 x 20 x 2)
	<b>Electrical Characteristics - 50 Hz</b>	380/420V - 50 hertz - 3 phase with neutral	

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

<sup>1</sup> Tested at conditions which are based on AHRI Standard 340/360; 35°C (95°F) outdoor air temperature and 27°C (80°F) dry bulb/19°C (67°F) wet bulb entering evaporator air; minimum external duct static pressure while operating at rated voltage and air volumes.

<sup>2</sup> Rated at 46°C (115°F) outdoor air temperature and 27°C (80°F) db/19°C (67°F) wb entering evaporator air (T3 Conditions).

<sup>3</sup> Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

<sup>4</sup> Using total air volume and system static pressure requirements determine from blower performance tables rev/min and motor size required. Maximum usable size of motors furnished is shown. If motors of comparable size 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.

### 10.5 KW - KCB036S4

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		26.7°C						35°C						43.3°C						46°C					
		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						
L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C					
17.2°C	455	9.6	1.57	0.73	0.9	1	8.7	1.9	0.75	0.94	1	7.7	2.35	0.77	0.99	1	7.4	2.53	0.8	1	1				
	565	10.1	1.58	0.8	1	1	9.3	1.91	0.82	1	1	8.4	2.35	0.86	1	1	8.1	2.53	0.9	1	1				
	680	10.8	1.59	0.87	1	1	9.9	1.92	0.91	1	1	8.9	2.35	0.97	1	1	8.6	2.53	0.99	1	1				
19.4°C	455	10.3	1.58	0.56	0.71	0.86	9.3	1.91	0.56	0.73	0.9	8.4	2.35	0.57	0.75	0.95	8.0	2.53	0.58	0.78	0.97				
	565	10.8	1.59	0.6	0.78	0.97	9.8	1.92	0.61	0.8	1	8.8	2.35	0.62	0.84	1	8.4	2.53	0.64	0.87	1				
	680	11.1	1.6	0.64	0.85	1	10.1	1.92	0.65	0.89	1	9.1	2.36	0.67	0.94	1	8.7	2.53	0.7	0.96	1				
21.7°C	455	10.9	1.59	0.41	0.55	0.69	10	1.92	0.4	0.56	0.7	9	2.35	0.39	0.56	0.72	8.6	2.53	0.39	0.58	0.75				
	565	11.5	1.6	0.43	0.6	0.76	10.4	1.93	0.43	0.6	0.77	9.4	2.36	0.42	0.62	0.8	9.0	2.52	0.42	0.63	0.85				
	680	11.8	1.62	0.45	0.64	0.83	10.8	1.94	0.45	0.65	0.86	9.7	2.36	0.44	0.67	0.91	9.3	2.53	0.45	0.69	0.94				
Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		48°C						50°C						51.7°C											
		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					Dry Bulb						
L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C					
17.2°C	455	7.2	2.69	0.79	1	1	7	2.86	0.8	1	1	6.8	3.03	0.81	1	1									
	565	7.9	2.68	0.9	1	1	7.6	2.85	0.92	1	1	7.4	3.02	0.93	1	1									
	680	8.4	2.68	1	1	1	8.1	2.84	1	1	1	7.9	3	1	1	1									
19.4°C	455	7.7	2.68	0.57	0.76	0.98	7.4	2.87	0.57	0.77	1	7.2	3.02	0.58	0.78	1									
	565	8.1	2.68	0.62	0.87	1	7.8	2.86	0.63	0.88	1	7.6	3.01	0.64	0.9	1									
	680	8.4	2.68	0.69	0.97	1	8.1	2.85	0.69	0.99	1	7.9	3	0.7	1	1									
21.7°C	455	8.4	2.68	0.38	0.56	0.74	8.1	2.85	0.37	0.56	0.74	7.8	3.01	0.37	0.56	0.75									
	565	8.8	2.67	0.41	0.62	0.84	8.4	2.84	0.41	0.63	0.85	8.2	3	0.4	0.63	0.87									
	680	9.1	2.67	0.44	0.68	0.94	8.7	2.84	0.44	0.69	0.96	8.5	3	0.44	0.7	0.98									

## RATINGS

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

### 14 KW - KCB048S4

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		26.7°C						35°C						43.3°C						46°C					
		Total Cool Cap. Input	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						
L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C					
17.2°C	605	12.7	2.23	0.71	0.9	1	11.3	2.69	0.73	0.96	1	9.9	3.25	0.76	1	1	9.5	3.45	0.81	1	1				
	755	13.4	2.24	0.78	1	1	12	2.71	0.81	1	1	10.7	3.27	0.87	1	1	10.3	3.47	0.92	1	1				
	905	14.1	2.25	0.86	1	1	12.7	2.72	0.91	1	1	11.3	3.29	0.98	1	1	10.8	3.49	1	1	1				
19.4°C	605	13.5	2.24	0.55	0.69	0.85	12.1	2.71	0.55	0.72	0.91	10.6	3.26	0.56	0.74	0.97	10.1	3.47	0.58	0.79	1				
	755	14.2	2.25	0.59	0.76	0.98	12.6	2.72	0.6	0.79	1	11.1	3.28	0.61	0.84	1	10.6	3.49	0.64	0.9	1				
	905	14.6	2.26	0.63	0.83	1	13	2.73	0.65	0.89	1	11.4	3.29	0.66	0.96	1	10.9	3.49	0.7	0.99	1				
21.7°C	605	14.4	2.25	0.4	0.54	0.67	12.9	2.72	0.39	0.54	0.7	11.4	3.29	0.38	0.55	0.72	10.9	3.49	0.38	0.58	0.77				
	755	15.1	2.26	0.43	0.58	0.74	13.5	2.74	0.41	0.6	0.77	11.9	3.3	0.4	0.61	0.81	11.4	3.51	0.41	0.65	0.87				
	905	15.5	2.27	0.44	0.62	0.81	13.9	2.75	0.44	0.65	0.86	12.2	3.31	0.43	0.66	0.93	11.7	3.52	0.44	0.71	0.97				
Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		48°C						50°C						51.7°C											
		Total Cool Cap. Input	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						
L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C					
17.2°C	605	9.2	3.62	0.78	1	1	8.8	3.81	0.79	1	1	8.5	3.97	0.81	1	1	8.2	3.97	0.81	1	1				
	755	9.9	3.65	0.91	1	1	9.6	3.83	0.94	1	1	9.2	3.99	0.96	1	1	9.0	3.99	0.96	1	1				
	905	10.5	3.67	1	1	1	10.1	3.84	1	1	1	9.8	4.01	1	1	1	9.6	4.01	1	1	1				
19.4°C	605	9.7	3.64	0.56	0.77	1	9.3	3.82	0.56	0.77	1	8.9	3.98	0.57	0.78	1	8.7	3.98	0.57	0.78	1				
	755	10.1	3.65	0.62	0.88	1	9.8	3.83	0.63	0.91	1	9.4	3.99	0.63	0.93	1	9.2	3.99	0.63	0.93	1				
	905	10.5	3.67	0.68	1	1	10.1	3.84	0.69	1	1	9.8	4.01	0.7	1	1	9.6	4.01	0.7	1	1				
21.7°C	605	10.5	3.66	0.37	0.56	0.74	10.1	3.84	0.37	0.56	0.75	9.7	4.01	0.36	0.56	0.76	10.0	4.01	0.36	0.56	0.76				
	755	10.9	3.68	0.4	0.62	0.86	10.5	3.86	0.4	0.63	0.88	10.1	4.02	0.39	0.63	0.9	10.4	4.03	0.43	0.7	1				
	905	11.2	3.69	0.43	0.68	0.98	10.8	3.87	0.43	0.69	1	10.4	4.03	0.43	0.7	1	10.2	4.03	0.43	0.7	1				

## RATINGS

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

### 17.5 KW - KCB060S4

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		26.7°C						35°C						43.3°C						46°C					
		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						
L/s	kW	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C				
17.2°C	755	15.8	2.67	0.73	0.91	1	14.4	3.21	0.74	0.94	1	12.9	3.89	0.76	1	1	12.4	4.14	0.81	1	1				
	945	16.6	2.69	0.79	1	1	15.4	3.23	0.82	1	1	14	3.92	0.87	1	1	13.4	4.17	0.91	1	1				
	1135	17.6	2.7	0.87	1	1	16.3	3.25	0.92	1	1	14.7	3.95	0.98	1	1	14.2	4.21	1	1	1				
19.4°C	755	16.9	2.69	0.56	0.71	0.86	15.5	3.23	0.56	0.72	0.9	13.8	3.92	0.57	0.74	0.95	13.3	4.18	0.58	0.79	0.98				
	945	17.7	2.7	0.6	0.77	0.97	16.2	3.24	0.61	0.79	1	14.4	3.94	0.63	0.84	1	13.9	4.19	0.66	0.89	1				
	1135	18.3	2.71	0.64	0.85	1	16.7	3.25	0.65	0.89	1	14.9	3.95	0.68	0.95	1	14.3	4.20	0.71	0.98	1				
21.7°C	755	18.1	2.71	0.42	0.55	0.68	16.6	3.25	0.41	0.55	0.7	14.8	3.95	0.4	0.56	0.72	14.2	4.20	0.41	0.58	0.76				
	945	18.8	2.72	0.41	0.58	0.74	17.3	3.26	0.43	0.6	0.77	15.5	3.96	0.42	0.62	0.82	14.9	4.22	0.43	0.65	0.87				
	1135	19.5	2.73	0.44	0.63	0.82	17.9	3.27	0.44	0.65	0.86	16	3.98	0.45	0.67	0.92	15.3	4.24	0.47	0.71	0.95				
Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		48°C						50°C						51.7°C											
		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
L/s	kW	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C				
17.2°C	755	12	4.35	0.79	1	1	11.6	4.57	0.79	1	1	11.3	4.76	0.82	1	1	11.2	4.85	0.85	1	1				
	945	13	4.39	0.91	1	1	12.5	4.60	0.94	1	1	12.1	4.8	0.95	1	1	11.9	4.94	0.96	1	1				
	1135	13.7	4.41	1	1	1	13.2	4.63	1	1	1	12.8	4.83	1	1	1	11.7	5.03	0.97	1	1				
19.4°C	755	12.8	4.38	0.58	0.77	1	12.3	4.59	0.58	0.78	1	11.8	4.78	0.58	0.79	1	11.6	4.87	0.65	0.93	1				
	945	13.4	4.40	0.64	0.88	1	12.8	4.62	0.65	0.91	1	12.3	4.81	0.65	0.93	1	11.4	4.96	0.72	0.91	1				
	1135	13.7	4.41	0.69	0.99	1	13.2	4.63	0.7	1	1	12.7	4.82	0.71	1	1	11.3	5.05	0.79	0.9	1				
21.7°C	755	13.7	4.41	0.39	0.57	0.74	13.1	4.63	0.39	0.57	0.76	12.7	4.82	0.39	0.58	0.77	12.5	4.91	0.46	0.65	0.87				
	945	14.3	4.43	0.42	0.63	0.85	13.8	4.65	0.42	0.64	0.88	13.3	4.84	0.42	0.65	0.89	13.1	5.0	0.51	0.67	0.9				
	1135	14.7	4.45	0.45	0.69	0.97	14.2	4.67	0.45	0.7	0.99	13.6	4.86	0.46	0.71	1	13.4	5.09	0.58	0.71	0.95				

## RATINGS

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

### 21 kW - KCB072H4

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		26.7°C						35°C						43.3°C						46°C					
		Total Cool Cap. Input	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						
L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C					
17.2°C	905	17.9	3.51	0.78	0.96	1.00	16.5	4.10	0.80	1.00	1.00	15.0	4.80	0.84	1.00	1.00	14.5	5.05	0.86	1.00	1.00				
	1135	19.0	3.52	0.85	1.00	1.00	17.7	4.11	0.88	1.00	1.00	16.1	4.81	0.94	1.00	1.00	15.6	5.07	0.96	1.00	1.00				
	1360	20.1	3.53	0.92	1.00	1.00	18.6	4.12	0.97	1.00	1.00	17.0	4.83	1.00	1.00	1.00	16.5	5.09	1.00	1.00	1.00				
19.4°C	905	18.9	3.52	0.62	0.78	0.90	17.4	4.11	0.63	0.81	0.93	15.7	4.81	0.64	0.84	0.98	15.1	5.07	0.66	0.86	1.00				
	1135	19.8	3.53	0.66	0.86	0.98	18.2	4.12	0.68	0.90	1.00	16.4	4.82	0.70	0.95	1.00	15.8	5.07	0.72	0.97	1.00				
	1360	20.5	3.54	0.71	0.94	1.00	18.8	4.12	0.73	0.98	1.00	17.1	4.83	0.77	1.00	1.00	16.4	5.08	0.78	1.00	1.00				
21.7°C	905	20.6	3.54	0.40	0.56	0.66	19.0	4.13	0.40	0.57	0.68	17.1	4.83	0.40	0.58	0.70	16.6	5.09	0.40	0.58	0.71				
	1135	21.5	3.55	0.42	0.60	0.71	19.8	4.13	0.42	0.62	0.74	17.9	4.84	0.42	0.63	0.78	17.3	5.10	0.42	0.65	0.80				
	1360	22.2	3.56	0.43	0.64	0.77	20.3	4.14	0.44	0.66	0.81	18.4	4.85	0.45	0.69	0.86	17.7	5.11	0.45	0.70	0.87				
Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		48°C						50°C						51.7°C											
		Total Cool Cap. Input	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						
L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C					
17.2°C	905	14.2	5.26	0.87	1.00	1.00	13.8	5.48	0.88	1.00	1.00	13.4	5.67	0.90	1.00	1.00									
	1135	15.2	5.27	0.97	1.00	1.00	14.8	5.50	0.99	1.00	1.00	14.4	5.69	1.00	1.00	1.00									
	1360	16.1	5.29	1.00	1.00	1.00	15.6	5.51	1.00	1.00	1.00	15.1	5.70	1.00	1.00	1.00									
19.4°C	905	14.7	5.26	0.66	0.88	1.00	14.2	5.49	0.67	0.89	1.00	13.7	5.67	0.67	0.91	1.00									
	1135	15.3	5.28	0.73	0.99	1.00	14.8	5.49	0.74	1.00	1.00	14.4	5.69	0.75	1.00	1.00									
	1360	16.0	5.29	0.79	1.00	1.00	15.5	5.51	0.81	1.00	1.00	15.1	5.71	0.81	1.00	1.00									
21.7°C	905	16.1	5.29	0.40	0.59	0.72	15.5	5.51	0.41	0.60	0.74	15.1	5.70	0.41	0.61	0.75									
	1135	16.7	5.31	0.42	0.66	0.81	16.2	5.53	0.43	0.67	0.82	15.7	5.72	0.43	0.67	0.84									
	1360	17.2	5.32	0.45	0.71	0.89	16.7	5.54	0.45	0.73	0.91	16.1	5.73	0.46	0.73	0.93									











## BLOWER DATA - BELT DRIVE - KCBO36 - DOWNTIME

**FOR ALL UNITS ADD:**  
1 - Any factory installed options air resistance (heat section, economizer, etc.).  
2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 36 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume										External Static - Pa (in. w.g.)										External Static - Pa (in. w.g.)																			
25 (0.10)					50 (0.20)					75 (0.30)					100 (0.40)					125 (0.50)					150 (0.60)					175 (0.70)					200 (0.80)				
L/s	cfm	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP								
425	900	486	0.09	0.12	554	0.12	0.16	623	0.15	0.20	695	0.16	0.22	767	0.17	0.23	836	0.19	0.25	897	0.21	0.28	953	0.22	0.30	961	0.25	0.33											
472	1000	508	0.11	0.15	576	0.14	0.19	643	0.16	0.22	713	0.18	0.24	783	0.19	0.26	848	0.21	0.28	907	0.22	0.30	961	0.27	0.36	971	0.34	0.44											
519	1100	533	0.13	0.18	599	0.16	0.22	665	0.19	0.25	733	0.20	0.27	800	0.21	0.28	863	0.23	0.31	919	0.25	0.34	971	0.37	0.49	983	0.30	0.40											
566	1200	560	0.16	0.21	625	0.19	0.25	689	0.21	0.28	755	0.22	0.30	820	0.24	0.32	879	0.25	0.34	932	0.28	0.37	983	0.33	0.44	996	0.37	0.49											
613	1300	591	0.18	0.24	654	0.21	0.28	716	0.23	0.31	779	0.25	0.33	841	0.26	0.35	897	0.28	0.38	948	0.31	0.41	996	0.33	0.44	1011	0.46	0.54											
661	1400	631	0.19	0.26	690	0.22	0.30	748	0.25	0.34	807	0.27	0.36	864	0.29	0.39	916	0.31	0.42	964	0.34	0.46	1011	0.37	0.49	1028	0.40	0.54											
708	1500	676	0.21	0.28	729	0.25	0.33	782	0.27	0.36	835	0.30	0.40	887	0.32	0.43	935	0.35	0.47	981	0.37	0.50	1028	0.40	0.54	1028	0.40	0.54											
Air Volume										External Static - Pa (in. w.g.)										External Static - Pa (in. w.g.)																			
225 (0.90)					250 (1.00)					275 (1.10)					300 (1.20)					325 (1.30)					350 (1.40)					375 (1.50)					400 (1.60)				
L/s	cfm	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP								
425	900	1004	0.25	0.33	1055	0.26	0.35	1106	0.28	0.37	1152	0.30	0.40	1193	0.32	0.43	1232	0.34	0.46	1269	0.37	0.49	1305	0.39	0.52	1311	0.42	0.56											
472	1000	1011	0.27	0.36	1062	0.28	0.38	1111	0.31	0.41	1157	0.32	0.43	1199	0.35	0.47	1238	0.37	0.50	1276	0.40	0.53	1311	0.46	0.61	1318	0.49	0.66											
519	1100	1020	0.29	0.39	1070	0.31	0.41	1118	0.33	0.44	1163	0.35	0.47	1206	0.38	0.51	1245	0.40	0.54	1282	0.43	0.58	1318	0.46	0.61	1324	0.49	0.66											
566	1200	1031	0.32	0.43	1079	0.34	0.45	1127	0.36	0.48	1171	0.39	0.52	1213	0.41	0.55	1252	0.44	0.59	1289	0.46	0.62	1324	0.49	0.66	1330	0.53	0.71											
613	1300	1044	0.35	0.47	1091	0.37	0.49	1137	0.40	0.53	1181	0.42	0.56	1221	0.45	0.60	1259	0.48	0.64	1296	0.51	0.68	1330	0.54	0.73	1337	0.57	0.77											
661	1400	1058	0.38	0.51	1105	0.40	0.54	1150	0.43	0.57	1191	0.46	0.61	1231	0.48	0.65	1268	0.51	0.69	1303	0.54	0.73	1337	0.57	0.77	1345	0.61	0.82											
708	1500	1074	0.42	0.56	1120	0.44	0.59	1163	0.47	0.63	1203	0.50	0.67	1241	0.53	0.71	1277	0.56	0.75	1312	0.59	0.79	1345	0.61	0.82	1345	0.61	0.82											

**BLOWER DATA - BELT DRIVE - KCB036 - HORIZONTAL**
**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 (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 36 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume	External Static - Pa (in. w.g.)						External Static - Pa (in. w.g.)						External Static - Pa (in. w.g.)						External Static - Pa (in. w.g.)						
	25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)			
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP			
425	900	485	0.08	0.11	554	0.10	0.14	627	0.12	0.16	703	0.13	0.18	780	0.16	0.21	841	0.17	0.23	888	0.20	0.27	935	0.22	0.30
472	1000	509	0.10	0.13	578	0.12	0.16	649	0.14	0.19	722	0.16	0.21	796	0.17	0.23	854	0.19	0.26	900	0.22	0.29	947	0.25	0.33
519	1100	537	0.12	0.16	605	0.14	0.19	674	0.16	0.21	744	0.18	0.24	813	0.19	0.26	868	0.22	0.29	913	0.25	0.33	959	0.27	0.36
566	1200	567	0.14	0.19	633	0.16	0.22	700	0.18	0.24	768	0.20	0.27	833	0.22	0.30	884	0.25	0.33	928	0.28	0.37	974	0.30	0.40
613	1300	599	0.16	0.22	664	0.19	0.25	729	0.21	0.28	793	0.22	0.30	853	0.25	0.33	902	0.28	0.37	945	0.31	0.41	990	0.33	0.44
661	1400	634	0.19	0.26	697	0.22	0.29	758	0.23	0.31	819	0.25	0.34	875	0.28	0.38	921	0.31	0.42	964	0.34	0.46	1008	0.37	0.49
708	1500	669	0.22	0.30	730	0.25	0.33	789	0.27	0.36	846	0.29	0.39	897	0.31	0.42	941	0.35	0.47	983	0.38	0.51	1028	0.40	0.54





## BLOWER DATA - BELT DRIVE - KCB060 - DOWNFLOW

### 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 (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 36 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume	External Static - Pa (in. w.g.)												
	25 (0.10)	50 (0.20)	75 (0.30)	100 (0.40)	125 (0.50)	150 (0.60)	175 (0.70)	200 (0.80)					
L/s	cfm	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP
755	1600	665	0.22	0.30	716	0.25	0.34	768	0.28	0.38	819	0.31	0.41
802	1700	723	0.23	0.31	768	0.26	0.35	814	0.29	0.39	860	0.32	0.43
849	1800	779	0.24	0.32	818	0.28	0.37	857	0.31	0.41	897	0.34	0.46
897	1900	826	0.27	0.36	859	0.31	0.41	894	0.34	0.45	928	0.37	0.50
944	2000	857	0.31	0.42	889	0.35	0.47	920	0.39	0.52	952	0.43	0.57
991	2100	878	0.37	0.49	909	0.40	0.54	940	0.44	0.59	973	0.48	0.64
1038	2200	897	0.41	0.55	929	0.46	0.61	961	0.49	0.66	994	0.54	0.72
1085	2300	918	0.46	0.62	950	0.51	0.68	983	0.55	0.74	1017	0.60	0.80
1133	2400	941	0.52	0.70	974	0.57	0.77	1008	0.62	0.83	1042	0.67	0.90

Air Volume	External Static - Pa (in. w.g.)												
	225 (0.90)	250 (1.00)	275 (1.10)	300 (1.20)	325 (1.30)	350 (1.40)	375 (1.50)	400 (1.60)					
L/s	cfm	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP
755	1600	1059	0.43	0.57	1098	0.46	0.61	1138	0.48	0.65	1177	0.51	0.68
802	1700	1074	0.46	0.62	1113	0.49	0.66	1152	0.52	0.70	1190	0.55	0.74
849	1800	1091	0.51	0.68	1129	0.54	0.72	1167	0.57	0.76	1205	0.60	0.80
897	1900	1109	0.56	0.75	1146	0.59	0.79	1183	0.61	0.82	1221	0.64	0.86
944	2000	1128	0.61	0.82	1164	0.64	0.86	1201	0.66	0.89	1239	0.69	0.93
991	2100	1148	0.66	0.89	1185	0.69	0.93	1221	0.72	0.97	1258	0.75	1.01
1038	2200	1170	0.72	0.97	1206	0.75	1.01	1242	0.78	1.05	1277	0.81	1.09
1085	2300	1193	0.79	1.06	1228	0.81	1.09	1262	0.85	1.14	1295	0.89	1.19
1133	2400	1216	0.86	1.15	1250	0.89	1.19	1282	0.93	1.24	1313	0.97	1.30

**BLOWER DATA - BELT DRIVE - KCB060 - HORIZONTAL**

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 36 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in. w.g.)														
L/s	cfm	25 (0.10)	50 (0.20)	75 (0.30)	100 (0.40)	125 (0.50)	150 (0.60)	175 (0.70)	200 (0.80)							
		Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP
755	1600	712	0.22	0.29	758	0.24	0.32	807	0.27	0.36	855	0.29	0.39	906	0.32	0.43
802	1700	766	0.24	0.32	808	0.27	0.36	850	0.30	0.40	892	0.33	0.44	936	0.35	0.47
849	1800	814	0.27	0.36	851	0.30	0.40	888	0.33	0.44	925	0.37	0.49	963	0.40	0.53
897	1900	853	0.31	0.41	886	0.34	0.46	919	0.37	0.50	952	0.41	0.55	986	0.45	0.60
944	2000	883	0.36	0.48	913	0.40	0.53	944	0.43	0.57	976	0.46	0.62	1009	0.50	0.67
991	2100	906	0.42	0.56	936	0.45	0.60	967	0.48	0.65	999	0.52	0.70	1033	0.56	0.75
1038	2200	930	0.48	0.64	960	0.51	0.68	991	0.54	0.73	1024	0.58	0.78	1058	0.62	0.83
1085	2300	954	0.54	0.72	985	0.57	0.77	1017	0.61	0.82	1051	0.65	0.87	1085	0.69	0.92
1133	2400	981	0.60	0.81	1013	0.64	0.86	1046	0.68	0.91	1079	0.72	0.96	1113	0.75	1.00

Air Volume		External Static - Pa (in. w.g.)														
L/s	cfm	225 (0.90)	250 (1.00)	275 (1.10)	300 (1.20)	325 (1.30)	350 (1.40)	375 (1.50)	400 (1.60)							
		Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP
755	1600	1071	0.43	0.58	1109	0.46	0.62	1147	0.49	0.66	1186	0.51	0.69	1225	0.54	0.72
802	1700	1088	0.48	0.64	1126	0.51	0.68	1164	0.54	0.72	1202	0.56	0.75	1240	0.58	0.78
849	1800	1107	0.52	0.70	1143	0.55	0.74	1181	0.58	0.78	1219	0.60	0.81	1256	0.63	0.85
897	1900	1126	0.57	0.77	1163	0.60	0.81	1200	0.63	0.85	1237	0.66	0.88	1273	0.69	0.92
944	2000	1148	0.63	0.84	1183	0.66	0.88	1220	0.69	0.92	1257	0.72	0.96	1291	0.75	1.00
991	2100	1170	0.69	0.92	1206	0.72	0.96	1242	0.75	1.00	1277	0.78	1.04	1310	0.81	1.08
1038	2200	1195	0.75	1.00	1230	0.78	1.04	1265	0.81	1.08	1299	0.84	1.13	1340	0.84	1.13
1085	2300	1220	0.81	1.08	1254	0.84	1.13	1288	0.87	1.17	1320	0.92	1.23	1350	0.95	1.28
1133	2400	1245	0.88	1.18	1278	0.91	1.22	1311	0.95	1.28	1341	0.99	1.33	1370	1.04	1.40

## BLOWER DATA - BELT DRIVE - KCB074S - DOWNFLOW

### 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 (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 36 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume      **25 (0.10)**      **50 (0.20)**      **75 (0.30)**      **100 (0.40)**      **125 (0.50)**      **150 (0.60)**      **175 (0.70)**      **200 (0.80)**

L/s	cfm	Rev/ min	kW	BHP												
897	1900	826	0.27	0.36	859	0.31	0.41	894	0.34	0.45	928	0.37	0.50	964	0.42	0.56
944	2000	857	0.31	0.42	889	0.35	0.47	920	0.39	0.52	952	0.43	0.57	986	0.46	0.62
991	2100	878	0.37	0.49	909	0.40	0.54	940	0.44	0.59	973	0.48	0.64	1006	0.52	0.70
1038	2200	897	0.41	0.55	929	0.46	0.61	961	0.49	0.66	994	0.54	0.72	1028	0.58	0.78
1085	2300	918	0.46	0.62	950	0.51	0.68	983	0.55	0.74	1017	0.60	0.80	1052	0.64	0.86
1133	2400	941	0.52	0.70	974	0.57	0.77	1008	0.62	0.83	1042	0.67	0.90	1077	0.72	0.96
1180	2500	966	0.59	0.79	1000	0.64	0.86	1034	0.69	0.93	1068	0.75	1.00	1103	0.79	1.06
1227	2600	994	0.67	0.90	1028	0.72	0.97	1062	0.78	1.04	1096	0.82	1.10	1130	0.87	1.16
1274	2700	1023	0.75	1.01	1057	0.81	1.08	1091	0.86	1.15	1125	0.91	1.22	1159	0.95	1.27
1321	2800	1053	0.84	1.13	1088	0.90	1.21	1122	0.95	1.27	1155	0.99	1.33	1188	1.04	1.39
1369	2900	1085	0.94	1.26	1119	0.99	1.33	1153	1.04	1.40	1186	1.08	1.45	1218	1.13	1.51

Air Volume      **225 (0.90)**      **250 (1.00)**      **275 (1.10)**      **300 (1.20)**      **325 (1.30)**      **350 (1.40)**      **375 (1.50)**      **400 (1.60)**

L/s	cfm	Rev/ min	kW	BHP												
897	1900	1109	0.56	0.75	1146	0.59	0.79	1183	0.61	0.82	1221	0.64	0.86	1260	0.67	0.90
944	2000	1128	0.61	0.82	1164	0.64	0.86	1201	0.66	0.89	1239	0.69	0.93	1276	0.72	0.97
991	2100	1148	0.66	0.89	1185	0.69	0.93	1221	0.72	0.97	1258	0.75	1.01	1294	0.78	1.05
1038	2200	1170	0.72	0.97	1206	0.75	1.01	1242	0.78	1.05	1277	0.81	1.09	1311	0.85	1.14
1085	2300	1193	0.79	1.06	1228	0.81	1.09	1262	0.85	1.14	1295	0.89	1.19	1327	0.93	1.24
1133	2400	1216	0.86	1.15	1250	0.89	1.19	1282	0.93	1.24	1313	0.97	1.30	1343	1.01	1.36
1180	2500	1240	0.93	1.24	1273	0.96	1.29	1302	1.01	1.36	1331	1.06	1.42	1360	1.10	1.48
1227	2600	1265	1.00	1.34	1296	1.04	1.40	1324	1.10	1.47	1352	1.15	1.54	1381	1.19	1.60
1274	2700	1291	1.09	1.46	1321	1.13	1.52	1347	1.19	1.60	1374	1.25	1.67	1403	1.28	1.72
1321	2800	1317	1.18	1.58	1346	1.24	1.66	1372	1.30	1.74	1399	1.34	1.80	1426	1.38	1.85
1369	2900	1343	1.28	1.72	1371	1.34	1.80	1397	1.40	1.88	1424	1.45	1.95	1450	1.48	1.99

**BLOWER DATA - BELT DRIVE - KCBO74S - HORIZONTAL**

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 36 for blower motors and drives and wet coil and options/accessory air resistance data.

L/s	cfm	Air Volume	External Static - Pa (in. w.g.)										200 (0.80)	
			25 (0.10)	50 (0.20)	75 (0.30)	100 (0.40)	125 (0.50)	150 (0.60)	175 (0.70)	200 (0.80)				
897	1900	853	0.31	0.41	0.886	0.34	0.46	0.919	0.37	0.50	0.952	0.41	0.55	0.986
944	2000	883	0.36	0.48	0.913	0.40	0.53	0.944	0.43	0.57	0.976	0.46	0.62	1.009
991	2100	906	0.42	0.56	0.936	0.45	0.60	0.967	0.48	0.65	0.999	0.52	0.70	1.033
1038	2200	930	0.48	0.64	0.960	0.51	0.68	0.991	0.54	0.73	1.024	0.58	0.78	1.058
1085	2300	954	0.54	0.72	0.985	0.57	0.77	1.017	0.61	0.82	1.051	0.65	0.87	1.085
1133	2400	981	0.60	0.81	1.013	0.64	0.86	1.046	0.68	0.91	1.079	0.72	0.96	1.113
1180	2500	1010	0.68	0.91	1.042	0.72	0.96	1.075	0.75	1.00	1.109	0.78	1.05	1.142
1227	2600	1040	0.75	1.01	1.073	0.78	1.05	1.106	0.82	1.10	1.139	0.85	1.14	1.171
1274	2700	1072	0.82	1.10	1.104	0.86	1.15	1.137	0.90	1.20	1.169	0.93	1.24	1.201
1321	2800	1105	0.90	1.21	1.137	0.93	1.25	1.168	0.97	1.30	1.200	1.01	1.35	1.231
1369	2900	1138	0.98	1.32	1.169	1.02	1.37	1.200	1.06	1.42	1.231	1.10	1.47	1.261

L/s	cfm	Air Volume	External Static - Pa (in. w.g.)										400 (1.60)	
			225 (0.90)	250 (1.00)	275 (1.10)	300 (1.20)	325 (1.30)	350 (1.40)	375 (1.50)	390 (1.60)				
897	1900	1126	0.57	0.77	1.163	0.60	0.81	1.200	0.63	0.85	1.237	0.66	0.88	1.273
944	2000	1148	0.63	0.84	1.183	0.66	0.88	1.220	0.69	0.92	1.257	0.72	0.96	1.323
991	2100	1170	0.69	0.92	1.206	0.72	0.96	1.242	0.75	1.00	1.277	0.78	1.04	1.354
1038	2200	1195	0.75	1.00	1.230	0.78	1.04	1.265	0.81	1.08	1.310	0.81	1.08	1.340
1085	2300	1220	0.81	1.08	1.254	0.84	1.13	1.288	0.87	1.17	1.320	0.92	1.23	1.350
1133	2400	1245	0.88	1.18	1.278	0.91	1.22	1.311	0.95	1.28	1.341	0.99	1.33	1.370
1180	2500	1271	0.95	1.28	1.303	0.99	1.33	1.334	1.04	1.39	1.363	1.08	1.45	1.391
1227	2600	1297	1.04	1.39	1.328	1.08	1.45	1.357	1.13	1.52	1.385	1.18	1.58	1.412
1274	2700	1323	1.13	1.52	1.353	1.18	1.58	1.382	1.23	1.65	1.409	1.28	1.72	1.435
1321	2800	1351	1.23	1.65	1.380	1.28	1.72	1.407	1.33	1.78	1.434	1.38	1.85	1.460
1369	2900	1379	1.34	1.79	1.407	1.39	1.86	1.434	1.43	1.92	1.460	1.48	1.98	1.485





## BLOWER DATA - BELT DRIVE - KCB090 - DOWNTIME

### 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 (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 37 for blower motors and drives and wet coil and options/accessory air resistance data.

External Static - Pa (in. w.g.)										
Air Volume			25 (0.10)		50 (0.20)		75 (0.30)		100 (0.40)	
L/s	CFM	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP
1133	2400	553	0.48	0.65	585	0.53	0.71	617	0.58	0.78
1180	2500	570	0.53	0.71	602	0.58	0.78	633	0.63	0.84
1227	2600	588	0.57	0.77	619	0.63	0.84	665	0.68	0.91
1274	2700	607	0.63	0.84	637	0.68	0.91	667	0.72	0.97
1321	2800	626	0.68	0.91	655	0.72	0.97	684	0.78	1.04
1369	2900	646	0.73	0.98	674	0.78	1.05	702	0.83	1.11
1416	3000	666	0.79	1.06	693	0.84	1.12	721	0.89	1.19
1463	3100	686	0.85	1.14	713	0.90	1.21	739	0.95	1.28
1510	3200	707	0.91	1.22	732	0.96	1.29	758	1.01	1.36
1557	3300	727	0.98	1.31	752	1.03	1.38	776	1.09	1.46
1604	3400	747	1.05	1.41	771	1.10	1.48	794	1.16	1.55
1652	3500	767	1.13	1.51	790	1.18	1.58	812	1.24	1.66
1699	3600	786	1.20	1.61	808	1.26	1.69	830	1.32	1.77

External Static - Pa (in. w.g.)										
Air Volume			275 (1.10)		300 (1.20)		325 (1.30)		350 (1.40)	
L/s	CFM	Rev/min	kW	BHP	Rev/min	kW	BHP	Rev/min	kW	BHP
1133	2400	846	0.93	1.25	870	0.96	1.29	895	0.99	1.33
1180	2500	856	0.98	1.31	880	1.01	1.35	905	1.04	1.43
1227	2600	866	1.03	1.38	891	1.06	1.42	915	1.09	1.46
1274	2700	878	1.07	1.44	902	1.10	1.48	926	1.13	1.52
1321	2800	889	1.13	1.51	913	1.16	1.55	937	1.19	1.59
1369	2900	902	1.18	1.58	925	1.22	1.63	949	1.25	1.67
1416	3000	914	1.24	1.66	938	1.28	1.71	961	1.31	1.75
1463	3100	927	1.31	1.75	950	1.34	1.79	972	1.37	1.84
1510	3200	941	1.37	1.84	963	1.40	1.88	984	1.45	1.94
1557	3300	954	1.44	1.93	976	1.48	1.98	996	1.52	2.04
1604	3400	968	1.51	2.03	989	1.55	2.08	1008	1.60	2.14
1652	3500	982	1.59	2.13	1001	1.63	2.19	1020	1.69	2.26
1699	3600	995	1.67	2.24	1014	1.72	2.30	1031	1.78	2.38



## BLOWER DATA

### BELT DRIVE KIT SPECIFICATIONS - 036-074S

Model No.	Motor kW (HP)		No. of Speeds	Drive Kits and Rev/Min Range							
	Nominal	Max		A01	A02	A03	A04	A05	A06	A07	A08
036	1.5 (2)	1.7 (2.3)	1	561 - 842	---	---	---	748 - 1122	---	---	---
048	1.5 (2)	1.7 (2.3)	1	---	621 - 931	---	---	---	893 - 1191	---	---
060	1.5 (2)	1.7 (2.3)	1	---	---	694 - 1042	---	---	---	1010 - 1290	---
074S	1.2 (1.7)	1.4 (1.9)	2	---	---	---	807 - 1117	---	---	---	994 - 1326

NOTE – Using total air volume and system static pressure requirements determine from blower performance tables rev/min and motor kW required. Maximum usable kW of motors furnished are shown. If motors of comparable kW are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

### BELT DRIVE KIT SPECIFICATIONS - 072H/074H/090S4B/090S4T

Model No.	Motor kW (HP)		No. of Speeds	Drive Kits and Rev/Min Range				
	Nominal	Max		AA02	AA03	AA04	AA05	
072H	1.5 (2)	1.7 (2.3)	1	527 - 729	665 - 921	768 - 1023	---	---
074H, 090S4T	1.2 (1.7)	1.4 (1.9)	2	527 - 729	665 - 921	768 - 1023	---	---
090S4B	1.5 (2)	1.7 (2.3)	1	527 - 729	665 - 921	768 - 1023	---	921 - 1177
	2.2 (3)	2.57 (3.45)	1	---	---	---	---	921 - 1177

NOTE – Using total air volume and system static pressure requirements determine from blower performance tables rev/min and motor kW required. Maximum usable kW of motors furnished are shown. If motors of comparable kW are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

## BLOWER DATA

### OPTIONS / ACCESSORIES AIR RESISTANCE FOR 036-074 MODELS

Air Volume		Wet Indoor Coil						Economizer	
		036-048		060		072, 074			
L/s	cfm	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.
375	800	2	0.01	2	0.01	2	0.01	10	0.04
470	1000	5	0.02	5	0.02	2	0.01	10	0.04
565	1200	7	0.03	7	0.04	5	0.02	10	0.04
660	1400	10	0.04	12	0.05	7	0.03	10	0.04
755	1600	12	0.05	15	0.06	7	0.04	10	0.04
850	1800	15	0.06	17	0.07	12	0.05	12	0.05
945	2000	20	0.08	22	0.09	15	0.06	12	0.05
1040	2200	22	0.09	25	0.10	17	0.07	12	0.05
1130	2400	25	0.10	30	0.12	20	0.08	12	0.05
1225	2600	27	0.11	30	0.13	22	0.09	15	0.06
1320	2800	30	0.13	37	0.15	25	0.10	15	0.06
1415	3000	35	0.14	40	0.16	30	0.12	15	0.06
Air Volume		Electric Heat		Filters					
				MERV 8		MERV 13			
L/s	cfm	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.
375	800	2	0.01	10	0.04	12	0.05		
470	1000	7	0.03	10	0.04	17	0.07		
565	1200	15	0.06	10	0.04	17	0.07		
660	1400	22	0.09	10	0.04	17	0.07		
755	1600	30	0.12	10	0.04	17	0.07		
850	1800	37	0.15	12	0.05	17	0.07		
945	2000	45	0.18	12	0.05	20	0.08		
1040	2200	50	0.20	12	0.05	20	0.08		
1130	2400	55	0.22	12	0.05	20	0.08		
1225	2600	60	0.24	12	0.05	20	0.08		
1320	2800	65	0.26	12	0.05	20	0.08		
1415	3000	70	0.28	12	0.05	20	0.08		

### OPTIONS / ACCESSORIES AIR RESISTANCE FOR 090 MODELS

Air Volume		Wet Indoor Coil		Economizer		Electric Heat		Filters			
								MERV 8		MERV 13	
L/s	cfm	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.
1130	2400	20	0.08	12	0.05	55	0.22	12	0.05	20	0.08
1225	2600	22	0.09	15	0.06	60	0.24	12	0.05	20	0.08
1320	2800	25	0.10	15	0.06	65	0.26	12	0.05	20	0.08
1415	3000	30	0.12	15	0.06	70	0.28	12	0.05	20	0.08
1510	3200	30	0.13	15	0.06	75	0.30	15	0.06	22	0.09
1605	3400	35	0.14	15	0.06	80	0.32	15	0.06	22	0.09
1700	3600	37	0.15	15	0.06	85	0.34	15	0.06	25	0.10

### POWER EXHAUST FAN PERFORMANCE

Return Air System Static Pressure		Air Volume Exhausted	
Pa	in. w.g.	L/s	cfm
0	0.00	787	1665
12	0.05	783	1660
25	0.10	757	1605
37	0.15	712	1510
50	0.20	654	1385
62	0.25	593	1255
75	0.30	531	1125
87	0.35	476	1010

## BLOWER DATA

### CEILING DIFFUSERS AIR RESISTANCE

Air Volume		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				
L/s	cfm	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	
375	800	37	0.15	32	0.13	27	0.11	27	0.11	---	---	---	---	---	---	
470	1000	47	0.19	40	0.16	35	0.14	35	0.14	---	---	---	---	---	---	
565	1200	62	0.25	50	0.20	42	0.17	42	0.17	---	---	---	---	---	---	
660	1400	82	0.33	65	0.26	50	0.20	50	0.20	---	---	---	---	---	---	
755	1600	107	0.43	80	0.32	50	0.20	50	0.24	---	---	---	---	---	---	
850	1800	139	0.56	99	0.40	75	0.30	75	0.30	32	0.13	27	0.11	22	0.09	
945	2000	182	0.73	124	0.50	90	0.36	90	0.36	37	0.15	32	0.13	27	0.11	
1040	2200	236	0.95	157	0.63	109	0.44	109	0.44	45	0.18	37	0.15	30	0.12	
1130	2400	---	---	---	---	---	---	---	52	0.21	45	0.18	37	0.15	35	0.14
1225	2600	---	---	---	---	---	---	---	60	0.24	52	0.21	45	0.18	42	0.17
1320	2800	---	---	---	---	---	---	---	67	0.27	60	0.24	52	0.21	50	0.20
1415	3000	---	---	---	---	---	---	---	80	0.32	72	0.29	62	0.25	62	0.25
1510	3200	---	---	---	---	---	---	---	102	0.41	92	0.37	80	0.32	77	0.31
1605	3400	---	---	---	---	---	---	---	124	0.50	112	0.45	97	0.39	92	0.37
1700	3600	---	---	---	---	---	---	---	152	0.61	134	0.54	119	0.48	109	0.44

### CEILING DIFFUSER AIR THROW DATA

Air Volume		¹ Effective Throw											
Model No.		RTD9-65S		FD9-65S		Model No.		RTD11-95S		FD11-95S			
L/s	cfm	m	ft.	m	ft.	L/s	cfm	m	ft.	m	ft.	m	ft.
375	800	3 - 5	10 - 17	4 - 5	14 - 18	1225	2600	7 - 9	24 - 29	6 - 7	19 - 24		
470	1000	3 - 5	10 - 17	5 - 6	15 - 20	1320	2800	8 - 9	25 - 30	6 - 9	20 - 28		
565	1200	3 - 5	11 - 18	5 - 7	16 - 22	1415	3000	8 - 10	27 - 33	6 - 9	21 - 29		
660	1400	4 - 6	12 - 19	5 - 7	17 - 24	1510	3200	9 - 11	28 - 35	7 - 9	22 - 29		
755	1600	4 - 6	12 - 20	5 - 8	18 - 25	1605	3400	9 - 11	30 - 37	7 - 9	22 - 30		
850	1800	4 - 6	13 - 21	6 - 9	20 - 28	1700	3600	8 - 10	25 - 33	7 - 8	22 - 24		
945	2000	4 - 7	14 - 23	6 - 9	21 - 29								
1040	2200	5 - 8	16 - 25	7 - 9	22 - 30								

<sup>¹</sup> Effective throw based on terminal velocities of 23 m per minute ( 75 ft. per minute).

## ELECTRIC HEAT CAPACITIES

Input Voltage	5.7 kW			11.5 kW			17.2 kW			23 kW		
	No of Steps	kW input	Btuh Output	No of Steps	kW input	Btuh Output	No of Steps	kW input	Btuh Output	No of Steps	kW input	Btuh Output
380	1	4.7	16 100	1	9.4	32 100	1	14.1	48 200	1	18.8	64 200
400	1	5.2	17 800	1	10.4	35 500	1	15.6	53 300	1	20.9	71 400
420	1	5.7	19 500	1	11.5	39 300	1	17.2	58 800	1	23.0	78 500

## ELECTRICAL DATA

Model No.	KCB036S4	KCB048S4	KCB060S4	KCB072H4B	
<sup>1</sup> Voltage - 50hz with Neutral (3 Ph)	380/420V	380/420V	380/420V	380/420V	
Compressor	Rated Load Amps	4	5.5	8	9.7
	Locked Rotor Amps	31	37	59	64
Outdoor Fan Motor	Full Load Amps	1.1	1.1	1.3	1.3
Power Exhaust (1) 0.25 kW	Full Load Amps	1.3	1.3	1.3	1.3
Indoor Blower Motor	kW	1.5	1.5	1.5	1.5
	Full Load Amps	3.6	3.6	3.6	3.6
<sup>2</sup> Maximum Overcurrent Protection	Unit Only	15	15	20	25
	With (1) 0.25 kW Power Exhaust	15	15	20	25
<sup>3</sup> Minimum Circuit Ampacity	Unit Only	10	12	15	18
	With (1) 0.25 kW Power Exhaust	11	13	17	19

## ELECTRIC HEAT DATA

Electric Heat Voltage	420	420	420	420
<sup>2</sup> Maximum Overcurrent Protection	Unit+ <sup>4</sup> Electric Heat	5.7 kW	15	15
		11.5 kW	25	25
		17.2 kW	---	35
		23 kW	---	45
<sup>3</sup> Minimum Circuit Ampacity	Unit+ <sup>4</sup> Electric Heat	5.7 kW	15	15
		11.5 kW	25	25
		17.2 kW	---	35
		23 kW	---	44
<sup>2</sup> Maximum Overcurrent Protection	Unit+ <sup>4</sup> Electric Heat and (1) 0.25 kW Power Exhaust	5.7 kW	20	20
		11.5 kW	30	30
		17.2 kW	---	40
		23 kW	---	50
<sup>3</sup> Minimum Circuit Ampacity	Unit+ <sup>4</sup> Electric Heat and (1) 0.25 kW Power Exhaust	5.7 kW	16	16
		11.5 kW	26	26
		17.2 kW	---	36
		23 kW	---	46

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

<sup>2</sup> Heating, Air Conditioning, Refrigeration type breaker or fuse.

<sup>3</sup> Refer to local electrical code to determine wire, fuse and disconnect size requirements.

<sup>4</sup> Nominal kW based on 420V-3ph-50hz.

## ELECTRICAL DATA

Model No.		KCB074H4T	KCB074S4B	KCB074S4T	KCB090S4T	KCB090S4B
<sup>1</sup> Voltage - 50hz with Neutral (3 Ph)		380/420V	380/420V	380/420V	380/420V	380/420V
Compressor	Rated Load Amps	8.5	8.5	8.5	12	12
	Locked Rotor Amps	66.1	66.1	66.1	94	94
Outdoor Fan Motor	Full Load Amps	1.3	1.3	1.3	1.5	1.5
Power Exhaust (1) 0.25 kW	Full Load Amps	1.3	1.3	1.3	1.3	1.3
Indoor Blower Motor	kW	1.2	1.5	1.2	1.2	1.5
	Full Load Amps	2.6	3.6	2.6	2.6	3.6
<sup>2</sup> Maximum Overcurrent Protection	Unit Only	20	20	20	30	30
	With (1) 0.25 kW Power Exhaust	20	25	20	30	30
<sup>3</sup> Minimum Circuit Ampacity	Unit Only	15	16	15	20	21
	With (1) 0.25 kW Power Exhaust	16	17	16	21	22

## ELECTRIC HEAT DATA

Electric Heat Voltage		420	420	420	420	420
<sup>2</sup> Maximum Overcurrent Protection	Unit+ <sup>4</sup> Electric Heat	5.7 kW	20	20	20	30
		11.5 kW	25	25	25	30
		17.2 kW	35	35	35	35
		23 kW	45	45	45	50
<sup>3</sup> Minimum Circuit Ampacity	Unit+ <sup>4</sup> Electric Heat	5.7 kW	15	16	15	20
		11.5 kW	23	25	23	23
		17.2 kW	33	35	33	33
		23 kW	43	44	43	44
<sup>2</sup> Maximum Overcurrent Protection	Unit+ <sup>4</sup> Electric Heat and (1) 0.25 kW Power Exhaust	5.7 kW	20	25	20	30
		11.5 kW	25	30	25	30
		17.2 kW	35	40	35	40
		23 kW	45	50	45	50
<sup>3</sup> Minimum Circuit Ampacity	Unit+ <sup>4</sup> Electric Heat and (1) 0.25 kW Power Exhaust	5.7 kW	16	17	16	21
		11.5 kW	25	26	25	25
		17.2 kW	35	36	35	35
		23 kW	45	46	45	46

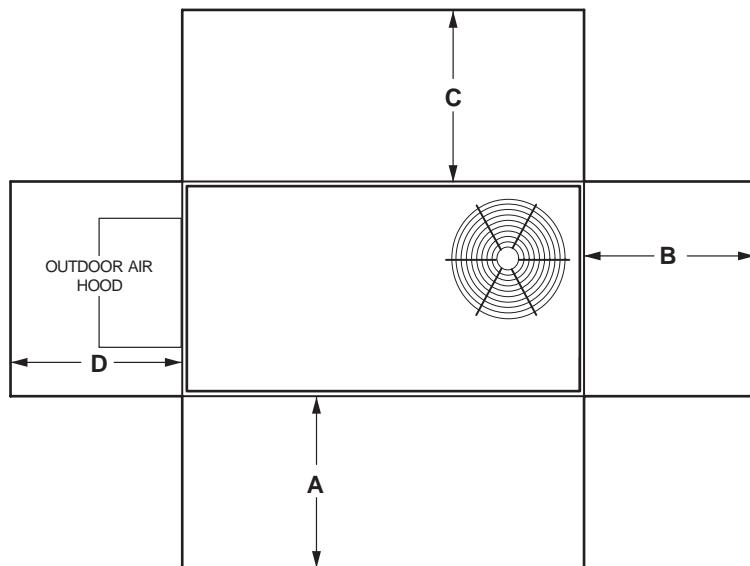
<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

<sup>2</sup> Heating, Air Conditioning, Refrigeration type breaker or fuse.

<sup>3</sup> Refer to local electrical code to determine wire, fuse and disconnect size requirements.

<sup>4</sup> Nominal kW based on 420V-3ph-50hz.

## UNIT CLEARANCES



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

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

¹ **Service Clearance** - Required for removal of serviceable parts.

**Minimum Operation Clearance** - Required clearance for proper unit operation.

## OUTDOOR SOUND DATA

Unit Model No.	Octave Band Linear Sound Power Levels dB, re 10⁻¹² Watts - Center Frequency - Hz							¹ Sound Rating Number (SRN) (dBA)
	125	250	500	1000	2000	4000	8000	
KCB036 and 048	62	66	70	69	66	60	50	74
KCB060	72	75	78	77	73	68	58	83
KCB072, 074, 090	66	71	74	73	70	65	57	79

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

¹ Sound Rating Number according to ARI Standard 270-95 (includes pure tone penalty). "SRN" is the overall A-Weighted Sound Power Level, (LWA), dB (100 Hz to 10,000 Hz).

## OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

Item	Model No.	Catalog No.	
<b>7-DAY PROGRAMMABLE THERMOSTAT - BACNET COMPATIBLE WITH REHEAT FUNCTION</b>			
	<ul style="list-style-type: none"> <li>• For units with or without <sup>1</sup> Dehumidification Option</li> <li>• BTL listed MS/TP ensures compatibility with any BACnet system</li> <li>• Built-in control programs for conventional and heat pump applications</li> <li>• Conventional systems up to 3-stage heat and 3-stage cool</li> <li>• Heat pumps with 1 or 2 compressors and up to 2-stage auxiliary heat</li> <li>• On-board temperature and humidity sensor</li> <li>• Multiple configurable inputs and outputs enable advanced control strategies</li> <li>• Set-up Wizard enables rapid system configuration</li> <li>• No special tools required for installation or commissioning</li> <li>• Seven-day (2, 4 or 6 event) occupancy scheduling per day</li> <li>• Backlit 5-inch LCD touchscreen</li> </ul>	<span style="font-size: small;">- - -</span> <b>Y8241</b>	
<small><sup>1</sup> BACnet Thermostat (Y8241) will control units with and without dehumidification. If there is a mix of units equipped with and without dehumidification on the same site, this thermostat can be used for all units if desired.</small>			
<b>BACnet Controls (no reheat capability)</b>	BACnet® Module (factory or field installed) BACnet® Room Sensor with Display (field installed) BACnet® Room Sensor without Display (field installed)	K0CTRL31A-2 K0SNSR01FF1 K0SNSR00FF1	<b>16X70</b> <b>97W23</b> <b>97W24</b>
<b>Optional Accessories</b>	Plenum Cable (RJ45/CAT5 75 ft.)	K0MISC00FF1	<b>97W25</b>

## WEIGHT DATA

Model Number	Outdoor Coil	Net		Shipping		Outdoor Coil	Net		Shipping	
		kg	lbs.	kg	lbs.		kg	lbs.	kg	lbs.
036S Base Unit	Eco-Last™	239	527	258	568	Fin/Tube	254	560	273	601
036S Max Unit	Eco-Last™	296	653	315	694	Fin/Tube	311	686	330	727
048S Base Unit	Eco-Last™	239	527	258	568	Fin/Tube	254	560	273	601
048S Max Unit	Eco-Last™	297	654	315	695	Fin/Tube	312	687	330	728
060S Base Unit	Eco-Last™	281	620	300	661	Fin/Tube	300	662	319	703
060S Max Unit	Eco-Last™	340	750	359	791	Fin/Tube	359	792	378	833
072H Base Unit	Eco-Last™	281	620	300	661	---	---	---	---	---
072H Max Unit	Eco-Last™	327	721	346	762	---	---	---	---	---
074S Base Unit	Eco-Last™	281	620	300	661	Fin/Tube	300	662	319	703
074S Max Unit	Eco-Last™	327	721	346	762	Fin/Tube	346	763	365	804
074H Base Unit	Eco-Last™	281	620	300	661	Fin/Tube	n/a	n/a	n/a	n/a
074H Max Unit	Eco-Last™	327	721	346	762	Fin/Tube	n/a	n/a	n/a	n/a
090S Base Unit	Eco-Last™	338	745	365	805	Fin/Tube	367	810	395	870
090S Max Unit	Eco-Last™	386	851	417	920	Fin/Tube	415	916	459	1012

<sup>1</sup> 074S models only.

NOTE - Max. Unit is the unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories EXTERNAL to unit.

## OPTIONS / ACCESSORIES

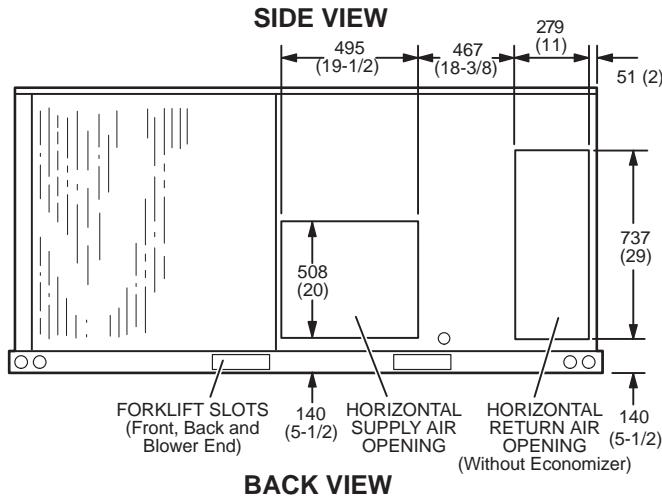
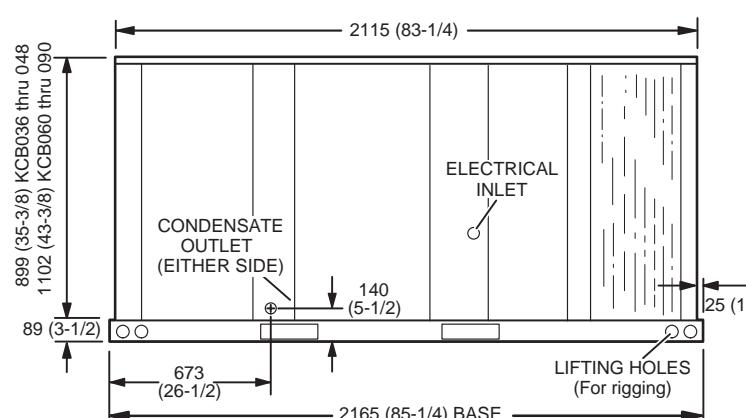
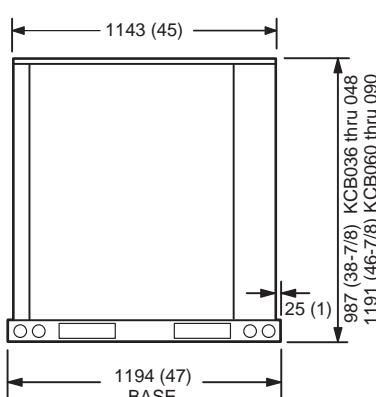
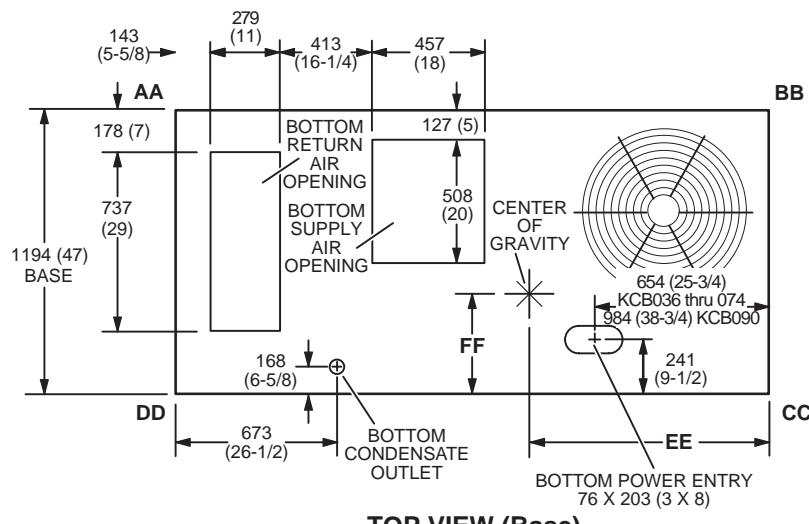
	Shipping Weights	
	kg	lbs.
<b>ECONOMIZER</b>		
<b>Economizer</b>		
Economizer, Includes Barometric Relief Dampers and Exhaust Hood	59	131
<b>OUTDOOR AIR</b>		
<b>Outdoor Air Dampers</b>		
Motorized	18	40
Manual	14	30
<b>POWER EXHAUST</b>		
Standard Static	16	35
<b>ELECTRIC HEAT</b>		
5.7 kW	14	31
11.5 kW	14	31
17.2 kW	16	35
23 kW	16	35
<b>ROOF CURBS</b>		
<b>Hybrid Roof Curb, Downflow</b>		
203 mm height	23	50
356 mm height	32	70
457 mm height	36	80
610 mm height	45	100
<b>Hybrid Curb, Full Perimeter, Downflow</b>		
203 mm height	26	57
356 mm height	27	60
457 mm height	41	91
610 mm height	52	114
<b>Adjustable Pitch Curb, Downflow</b>		
356 mm height	51	113
<b>CEILING DIFFUSERS</b>		
Step-Down		RTD9-65S
		RTD11-95S
Flush		FD9-65S
		FD11-95S
Transitions (Supply and Return)		T1TRAN10AN1
		T1TRAN20N-1
		10
		22
		10
		21

## DIMENSIONS - UNIT

Model No.	CORNER WEIGHTS								CENTER OF GRAVITY							
	AA		BB		CC		DD		EE		FF					
	Base kg	Max. lbs.	Base kg	Max. lbs.	Base kg	Max. lbs.	Base kg	Max. lbs.	Base mm	Max. in.	Base mm	Max. in.	Base mm	Max. lbs.	Base mm	Max. in.
<b>036</b>	48	107	60	132	56	123	60	131	72	159	80	177	62	138	97	213
<b>048</b>	48	107	60	132	56	123	60	131	72	159	81	177	62	138	97	213
<b>060</b>	53	118	65	142	63	140	69	152	89	197	93	205	75	166	114	251
<b>072</b>	53	118	65	142	63	140	69	152	89	197	93	205	75	166	114	251
<b>074</b>	53	118	65	142	63	140	69	152	89	197	93	205	75	166	114	251
<b>090</b>	74	164	85	187	81	179	92	203	100	221	114	252	92	203	105	231

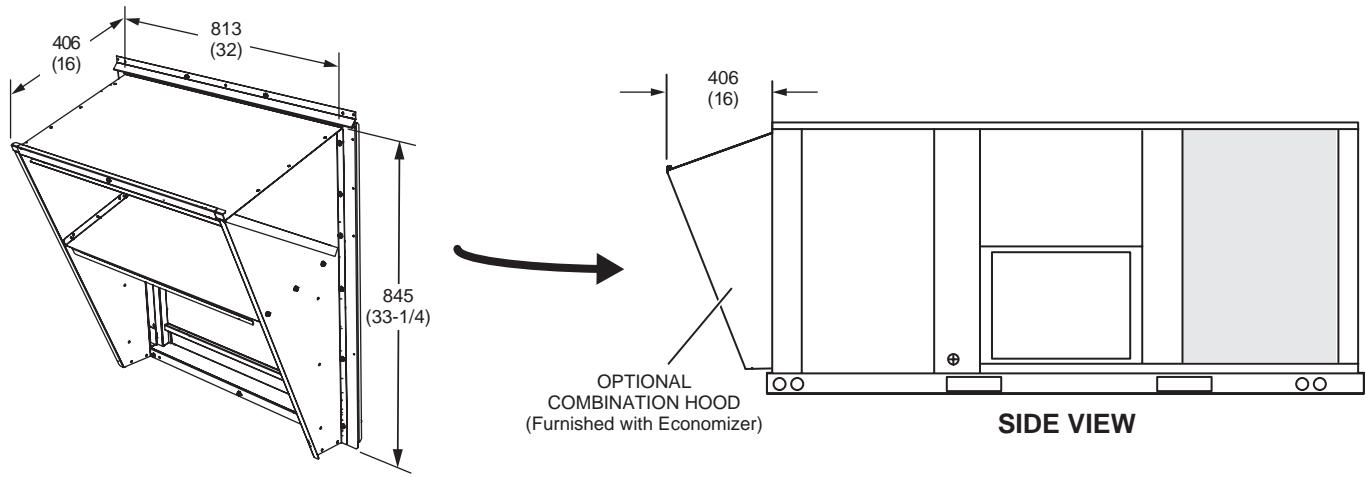
Base Unit - The unit with NO INTERNAL OPTIONS.

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.



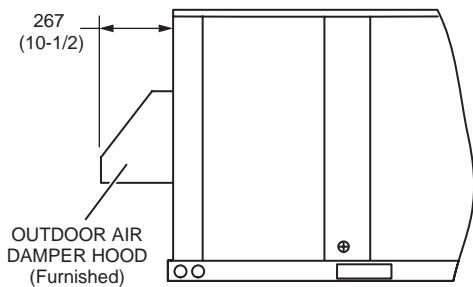
## DIMENSIONS - ACCESSORIES

### COMBINATION OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER AND BAROMETRIC RELIEF DAMPERS (Furnished With Economizer for Downflow Applications)

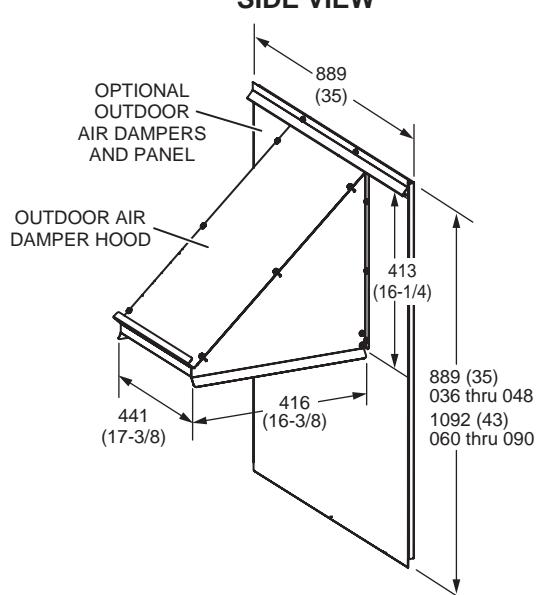
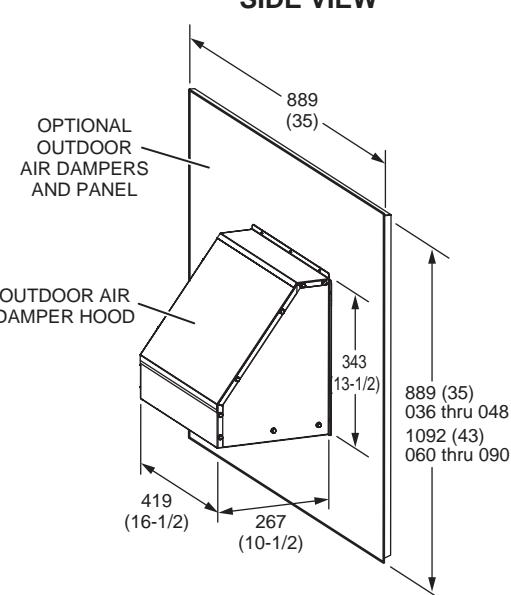
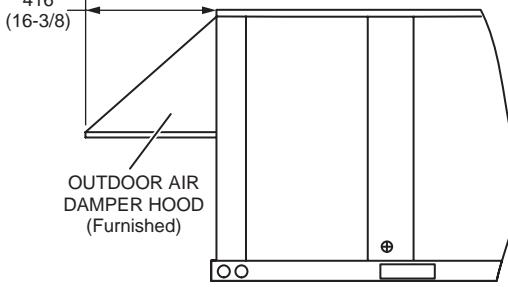


### OUTDOOR AIR DAMPER HOOD DETAIL (Downflow or Horizontal Applications)

#### MANUAL OUTDOOR AIR HOOD

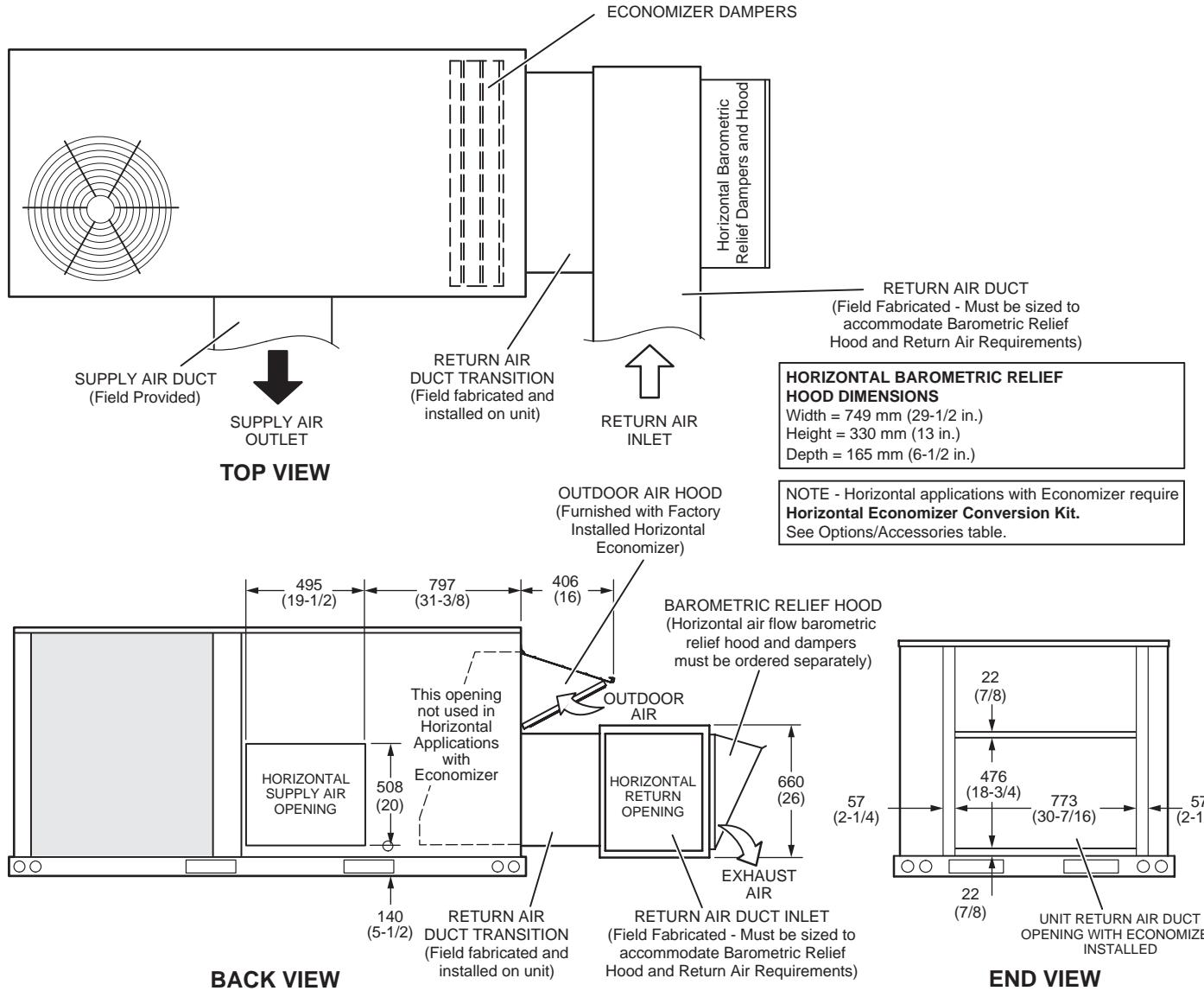


#### MOTORIZED OUTDOOR AIR HOOD



## DIMENSIONS - ACCESSORIES

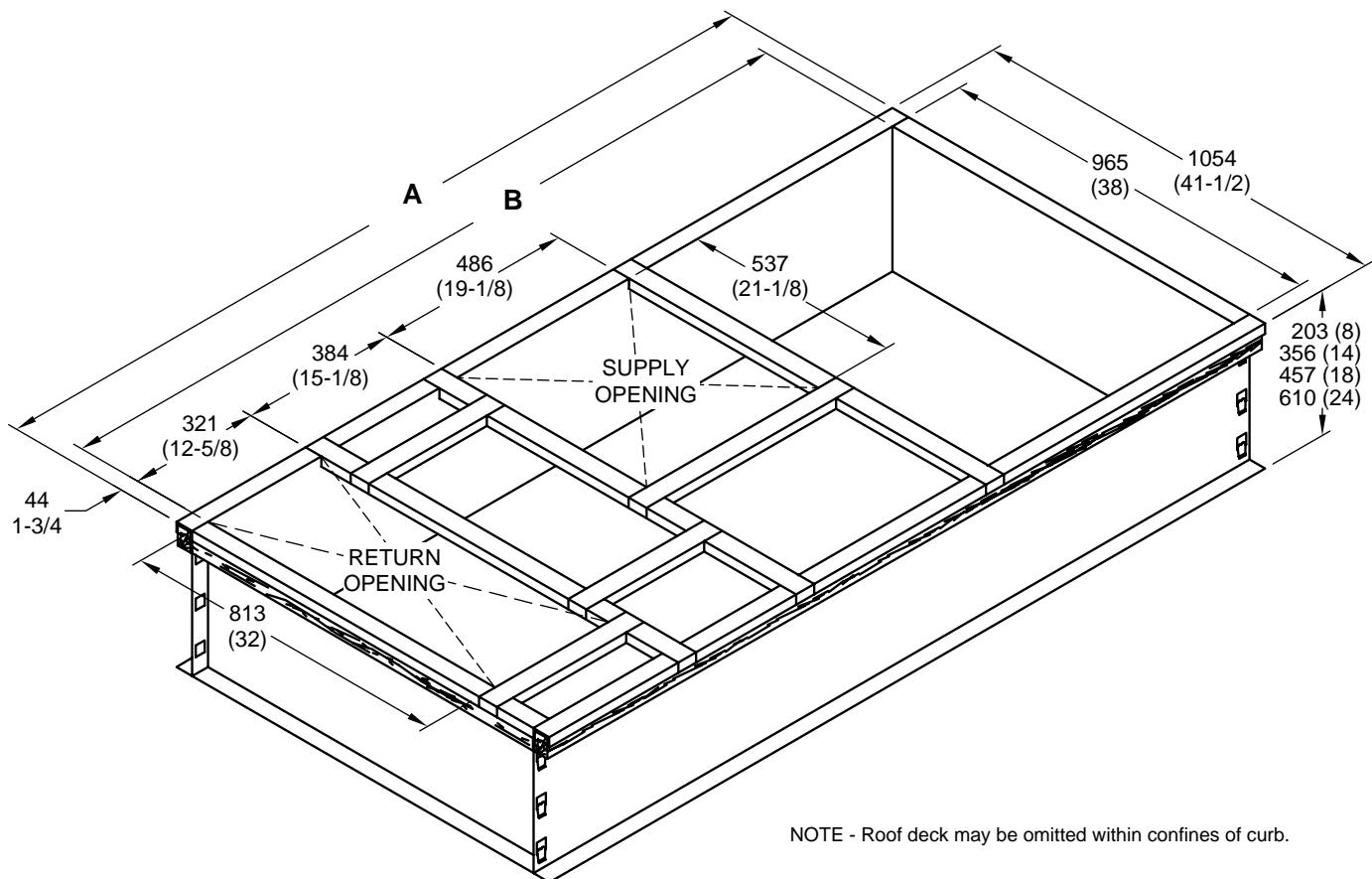
### OUTDOOR AIR HOOD DETAIL WITH OPTIONAL ECONOMIZER AND OPTIONAL BAROMETRIC RELIEF DAMPERS WITH HOOD (Horizontal Application)



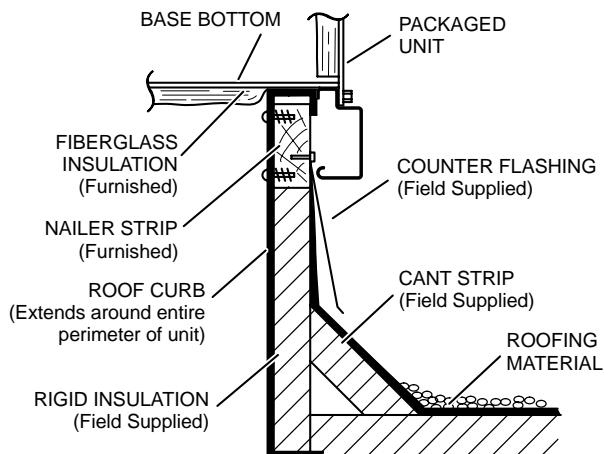
NOTE - Return Air Duct and Transition must be supported

## DIMENSIONS - ACCESSORIES

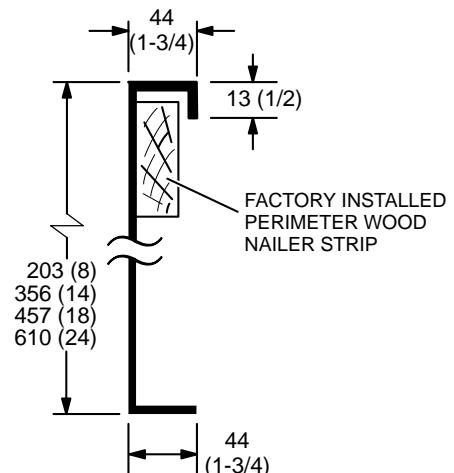
### HYBRID ROOF CURBS - DOUBLE DUCT OPENING - STANDARD AND FULL PERIMETER



**TYPICAL FLASHING DETAIL FOR ROOF CURB**



**DETAIL ROOF CURB**

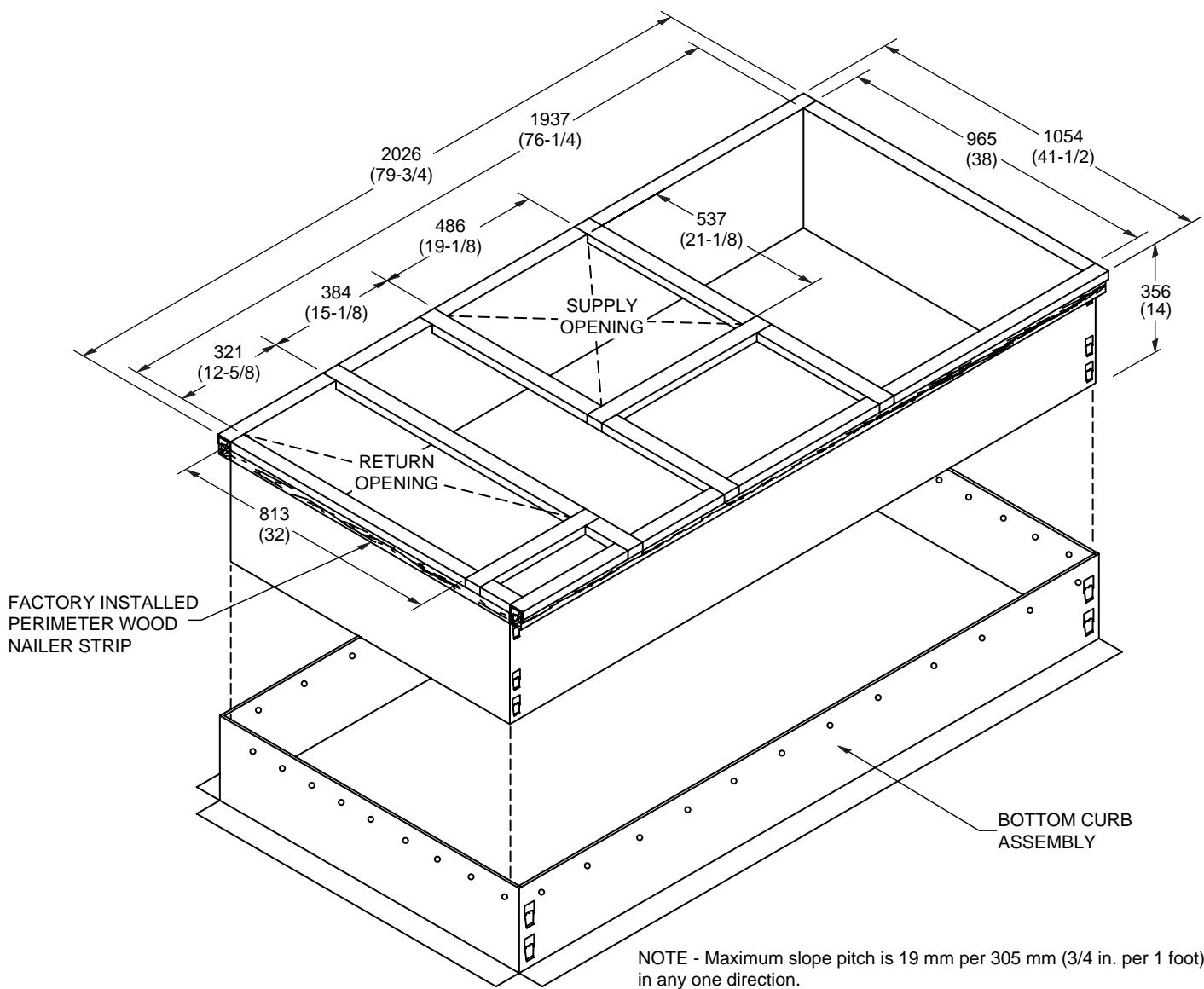


Model No.	A		B	
	mm	in.	mm	in.
Standard - 036, 048, 060, 072, 074, <sup>1</sup> 090	2026	79-3/4	1937	76-1/4
Full Perimeter - 090	2356	92-3/4	2267	89-1/4

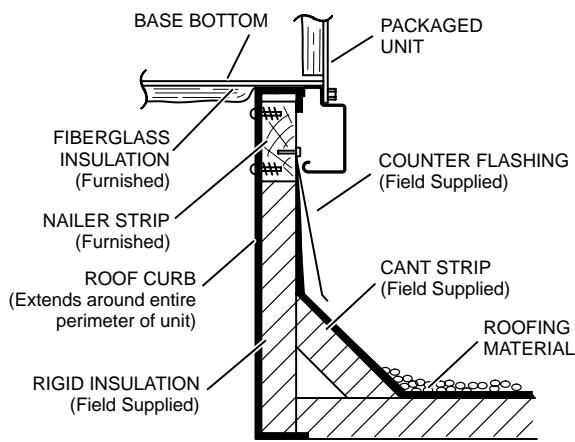
<sup>1</sup> 090 models can be used on smaller 2026 mm (79-3/4 in.) roof curbs (not full perimeter) with 400 mm (15-3/4 in.) overhang at condenser end of unit. See dimension drawing on page 49.

## DIMENSIONS - ACCESSORIES

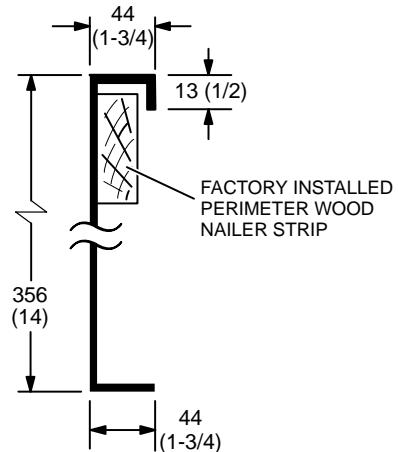
### ADJUSTABLE PITCH CURBS - DOUBLE DUCT OPENING



TYPICAL FLASHING DETAIL FOR ROOF CURB

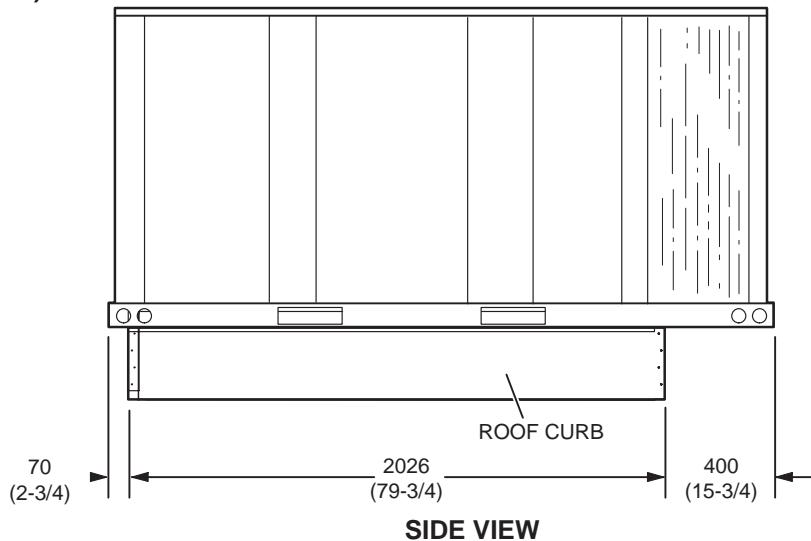


DETAIL ROOF CURB

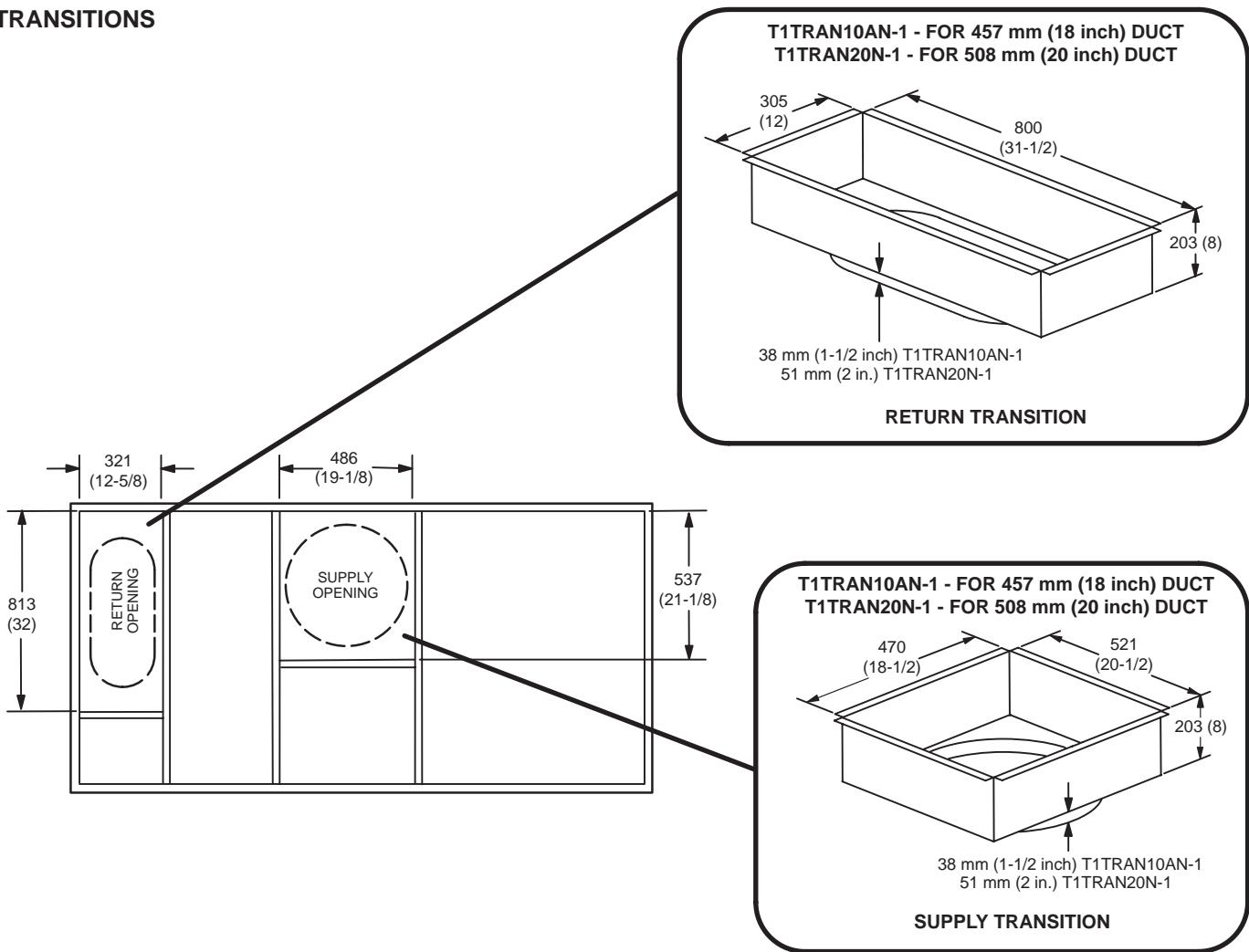


## DIMENSIONS - ACCESSORIES

**090 MODELS - SHOWING OVERHANG ON SMALLER 2026 MM LENGTH ROOF CURBS  
(Not Full Perimeter)**



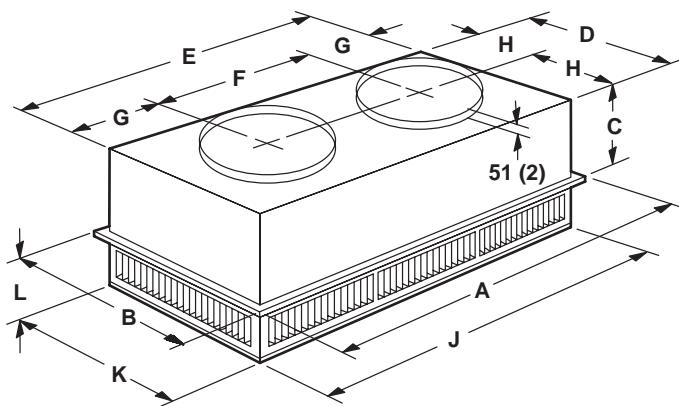
## TRANSITIONS



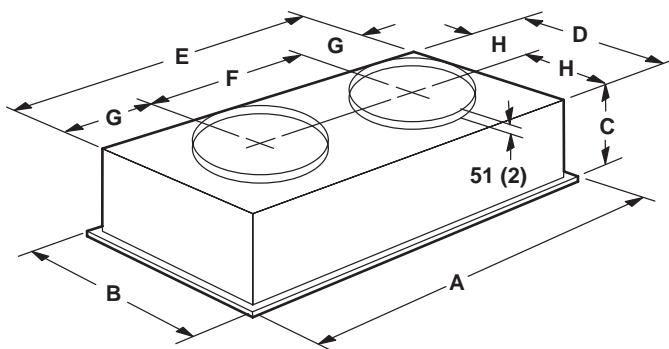
## DIMENSIONS - ACCESSORIES

### COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

#### STEP-DOWN CEILING DIFFUSER



#### FLUSH CEILING DIFFUSER



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

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



## REVISIONS

Section	Description
Dimensions - Accessories	Updated drawings to show new Economizer Combination Outdoor Air Hood. Updated drawings to show horizontal applications with Economizer and Low Profile Barometric Relief Dampers.
Optional Accessories	Removed Barometric Relief Dampers with Exhaust Hood option (74W38). Added Barometric Relief Dampers for Power Exhaust Kit. Added Horizontal Low Profile Barometric Relief Dampers with Exhaust Hood.



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