

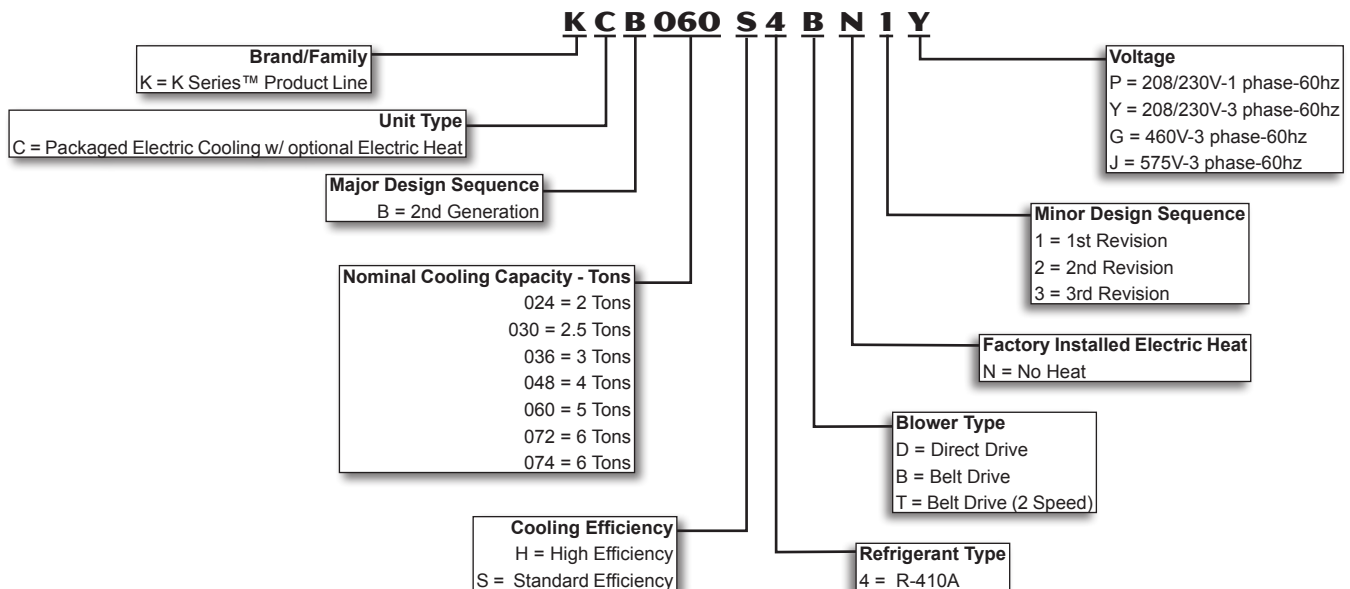
**ASHRAE 90.1
COMPLIANT**

2 to 6 Tons

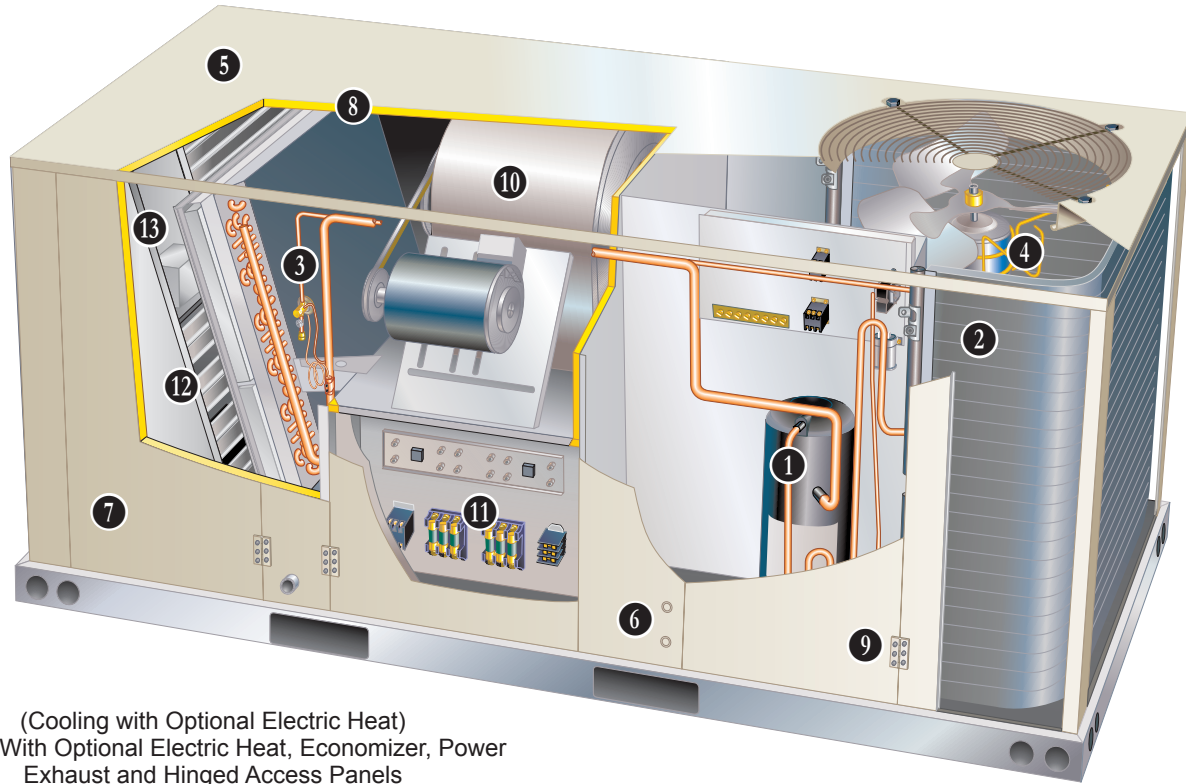
Net Cooling Capacity - 24,200 to 69,000 Btuh

Optional Electric Heat - 5 to 30 kW

MODEL NUMBER IDENTIFICATION



FEATURES AND BENEFITS



(Cooling with Optional Electric Heat)
Shown With Optional Electric Heat, Economizer, Power
Exhaust and Hinged Access Panels

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 KCB024 through 072 models.
- **Two-Stage Scroll Compressor** - Furnished on KCB074 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 with improved heat transfer.
- **High Pressure Switches** - Protect compressor.
- **Isolated Compressor Compartment** - Allows performance check during normal compressor operation without disrupting airflow.
- **Direct or Belt Drive Blower Motors** - Direct drive (024, 030, 036, 048 and 060 models); Belt drive motors (036, 048, 060, 072 and 074 models) 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

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APPROVALS

AHRI Certified to AHRI Standard 210/240-2008 (2 - 5 ton models) and AHRI Standard 340/360-2007 (6 and 7.5 ton models).

ETL listed.

CSA listed.

Components bonded for grounding to meet safety standards for servicing required by UL, ULC and National and Canadian Electrical Codes.

All models are ASHRAE 90.1 compliant.

ISO 9001 Registered Manufacturing Quality System.

WARRANTY

Limited five years on compressors.

Limited three years on the Eco-Last™ Coil System.

Limited five years Optional High Performance Economizers.

Limited one year all other covered components.

COOLING SYSTEM

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

System can operate from 30°F to 125°F without any additional controls.

R-410A Refrigerant

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

Unit is factory pre-charged with refrigerant. See Specifications Tables.

1 Single Speed Scroll Compressor (024 through 072 Models)

Scroll compressors for high performance, reliability and quiet operation.

Resiliently mounted on rubber grommets for quiet operation.

Copeland Scroll Ultra Tech™ Two-Stage Compressor (074 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

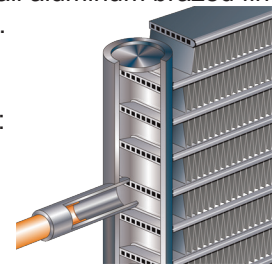
Protects against refrigerant migration that can occur during low ambient operation.

2 Eco-Last™ Coil System

Condenser coil features lightweight, all aluminum brazed fin construction.

Constructed of three components:

a flat extrusion tube, 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.

Conventional Fin/Tube Coil and Evaporator Coil

Copper tube construction, enhanced rippled-edge aluminum fins, flared shoulder tubing connections, silver soldered construction for improved heat transfer. Factory leak tested

Evaporator coil cross row circuiting with rifled tubing optimizes both sensible and latent cooling capacity.

3 Thermal Expansion Valve

Assures optimal performance throughout the application range. Removable element head.

High Pressure Switch

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

FEATURES AND BENEFITS

COOLING SYSTEM

(continued)

Filter/Drier

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

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 ASHRAE 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 bearings (024, 030, 036 and 048 models) or ball bearings (060, 072 and 074 models), shaft up, wire basket mount.

Outdoor Coil Fan

PVC coated fan guard furnished.

Required Selections

Cooling Capacity

Specify nominal cooling capacity of the unit.

Options/Accessories

Field Installed

Condensate Drain Trap

Field installed only.

Available in copper or PVC.

Drain Pan Overflow Switch

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

Low Ambient Kit

Cycles the outdoor fan while allowing compressor operation in the cooling cycle. This intermittent fan operation allows the system to operate without icing the evaporator coil and losing capacity. Designed for use in ambient temperatures no lower than 0°F. 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-hygroscopic 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 - KCB060/074 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.

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 1 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.

FEATURES AND BENEFITS

CONTROLS (continued)

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

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 (belt drive) or sleeve bearings (direct drive).

Direct drive motors are offered on 024, 030, 036, 048 and 060 models.

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 074 models in several different sizes to maximize air performance.

Supply Air Blower

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

All belt drive motors have adjustable pulley for speed change.

Ordering Information

Specify direct drive or belt drive motor.

For belt drive, specify motor horsepower and drive kit number when base unit is ordered.

Required Selections

Supply Air Blower

Order one, belt drive or direct drive (See Blower Data Table for specifications).

Order one drive kit, belt drive only, see Drive Kit Specifications Table.

INDOOR AIR QUALITY

Air Filters

Disposable 2 inch 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 2 inch 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 (CO₂) Sensor

Monitors CO₂ 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.

Required Selections

Voltage Choice

Specify when ordering base unit.

Options/Accessories

Factory or Field Installed

Disconnect Switch up to 150 Amp

Accessible from outside of unit, spring loaded weatherproof cover furnished. Main power to the unit is field connected to the disconnect which allows all power to be shut off for service. See Electrical/ Electric Heat Data tables for ordering information, page 32.

GFI Service Outlets (2)

115V ground fault circuit interrupter (GFCI) type, non-powered, field-wired.

Field Installed

11 Electric Heat

Helix wound nichrome elements, individual element limit controls, wiring harness. Unit fuse block is furnished as standard. See Options / Accessories tables for ordering information.

GFI Weatherproof Cover

Single-gang cover.

Heavy-duty UV-resistant polycarbonate case construction.

Hinged base cover with gasket.

ECONOMIZER OPTIONS

Factory or Field Installed

12 Economizer (Standard and High Performance Common Features)

Outdoor Air Hood is furnished.

Factory installed Economizer can be ordered with two exhaust options:

- Barometric Relief Dampers and Exhaust Hood.
- No Exhaust.

Field installed Economizer includes Barometric Relief Dampers with Exhaust Hood.

Barometric Relief Dampers allow relief of excess air, aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle, bird screen furnished.

Occupied/Unoccupied mode with field furnished setback thermostat.

Demand Control Ventilation (DCV) ready using optional CO₂ 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 Economizer Conversion kit is available for field installation.

Standard Economizer Features (Not for Title 24)

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 55°F when CO₂ is higher than the CO₂ setpoint.
- Demand Control Ventilation (DCV) LED - A steady green Demand Control Ventilation LED indicates the IAQ reading is higher than setpoint and requires more fresh air.
- Free Cool LED - A steady green LED indicates outdoor air is suitable for free cooling.

Free Cooling runs when outdoor air temperature is lower than the set temperature on the economizer control.

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

High Performance Economizer Features

Approved for California Title 24 building standards.

ASHRAE 90.1-2010 compliant.

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.

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

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.

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, CO₂ settings, stage 3 delay and additional calibration settings)
- CHECKOUT (damper positions)
- ALARMS (output signal that can be configured for remote alarm monitoring)

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

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

OPTIONS / ACCESSORIES

ECONOMIZER OPTIONS **(continued)**

Factory or Field Installed

Single Enthalpy Temperature Control

(Not for Title 24)

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

Field Installed

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

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 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 16 in. diameter with 4 fan blades and a 1/3 hp motor.

NOTE - Not available for 024 and 030 models.

NOTE - If Power Exhaust is field installed with a factory installed Economizer, the Economizer must be ordered with the "No Exhaust" option and the Barometric Relief Dampers with Exhaust Hood 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: 100°F.

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 8, 14, 18, and 24 inch heights.

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 3/4 in. per foot 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 14 inch 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 No.						
			KCB 024	KCB 030	KCB 036	KCB 048	KCB 060	KCB 072	KCB 074
COOLING SYSTEM									
Condensate Drain Trap	PVC - C1TRAP20AD2	76W26	X	X	X	X	X	X	X
	Copper - C1TRAP10AD2	76W27	X	X	X	X	X	X	X
Drain Pan Overflow Switch	K1SNSR71AB1-	74W42	X	X	X	X	X	X	X
Low Ambient Kit	K1SNSR33AN2	14D89	X	X	X	X	X	X	X
Efficiency	High								O
	Standard		O	O	O	O	O	O	O
Refrigerant Type	R-410A		O	O	O	O	O	O	O
BLOWER - SUPPLY AIR									
Motors	Direct Drive - 0.25 hp (208/230V-1ph)	Factory	O	O					
	Direct Drive - 0.5 hp (208/230V-1ph, 208/230V-3ph, 460V-3ph, 575V-3ph)	Factory			O	O			
	Direct Drive - 0.75 hp (208/230V-1ph, 208/230V-3ph, 460V-3ph, 575V-3ph)	Factory					O		
	Belt Drive - 0.75 hp (208/230V-1ph) Standard Efficiency	Factory			O	O	O		
	Belt Drive - 1.5 hp (208/230V-1ph) Standard Efficiency	Factory			O	O	O		
	Belt Drive - 1 hp (208/230V, 460V, 575V-3ph) Standard Efficiency	Factory			O	O	O	¹ O	¹ O
	Belt Drive - 2 hp (208/230V, 460V, 575V-3ph) Standard Efficiency	Factory			O	O	O	¹ O	¹ O
	Belt Drive - 1 hp (208/230V, 460V, 575V-3ph) (2 Speed)	Factory						² O	² O
	Belt Drive - 2 hp (208/230V, 460V, 575V-3ph) (2 Speed)	Factory						² O	² O
	Drive Kits See Blower Data Tables for selection	Kit A01 - T1DRKT001-1 - 673-1010 rpm	Factory			O			
Kit A02 - T1DRKT002-1 - 745-1117 rpm		Factory				O			
Kit A03 - T1DRKT003-1 - 833-1250 rpm		Factory					O		
Kit A04 - T1DRKT004-1 - 968-1340 rpm		Factory						¹ O	¹ O
Kit A05 - T1DRKT005-1 - 897-1346 rpm		Factory			O				
Kit A06 - T1DRKT006-1 - 1071-1429 rpm		Factory				O			
Kit A07 - T1DRKT007-1 - 1212-1548 rpm		Factory					O		
Kit A08 - T1DRKT008-1 - 1193-1591 rpm		Factory						¹ O	¹ O
Kit AA01 - T1DRKT001AP1 - 522-784 rpm		Factory						² O	³ O
Kit AA02 - T1DRKT002AP1 - 632-875 rpm		Factory						² O	² O
Kit AA03 - T1DRKT003AP1 - 798-1105 rpm	Factory						² O	² O	
CABINET									
Combination Coil/Hail Guards	C1GARD51A-1	13R98	X	X	X	X			
	C1GARD51AT1	13T03					X	X	X
Corrosion Protection			O	O	O	O	O	O	O
Hinged Access Panels			O	O	O	O	O	O	O
CONTROLS									
Commercial Controls									X
BACnet®	K0CTRL31A-1	96W14	OX	OX	OX	OX			
	K0CTRL31AP1	12B99					OX	OX	OX
BACnet® Thermostat with Display	K0SNSR01FF1	97W23	X	X	X	X	X	X	X
BACnet® Thermostat without Display	K0SNSR00FF1	97W24	X	X	X	X	X	X	X
Novar® 2051	K0CTRL30A-1	96W11	OX	OX	OX	OX			
	K0CTRL30AP1	12B98					OX	OX	OX
Plenum Cable (75 ft.)	K0MISC00FF1	97W25	X	X	X	X	X	X	X
Smoke Detector - Supply or Return (Power board and one sensor)	C1SNSR44AP1	53W78	X	X	X	X	X	X	X
Smoke Detector - Supply and Return (Power board and two sensors)	C1SNSR43AP1	53W79	X	X	X	X	X	X	X

¹ 072S and 074S Single Speed Belt Drive models only.

² 072H and 074H Two-Speed Belt Drive models only.

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 No.						
			KCB 024	KCB 030	KCB 036	KCB 048	KCB 060	KCB 072	KCB 074
ECONOMIZER									
Standard Economizer With Outdoor Air Hood (Sensible Control) (Not for Title 24)									
Standard Economizer - Includes Barometric Relief Dampers and Exhaust Hood	K1ECON30A-3-	14D90	OX	OX	OX	OX	OX	OX	OX
Standard Economizer - No Exhaust	Factory		O	O	O	O	O	O	O
Standard Economizer Controls (Not for Title 24)									
Single Enthalpy Control	C1SNSR64FF1	53W64	OX	OX	OX	OX	OX	OX	OX
Differential Enthalpy Control (order 2)	C1SNSR64FF1	53W64	X	X	X	X	X	X	X
High Performance Economizer With Outdoor Air Hood (Sensible Control) (Approved for California Title 24 Building Standards)									
High Performance Economizer - Includes Barometric Relief Dampers and Exhaust Hood	K1ECON32A-2	14D91	OX	OX	OX	OX	OX	OX	OX
High Performance Economizer Controls (Not for Title 24)									
Single Enthalpy Control	C1SNSR60FF1	10Z75	OX	OX	OX	OX	OX	OX	OX
Differential Enthalpy Control (order 2)	C1SNSR60FF1	10Z75	X	X	X	X	X	X	X
Economizer Accessories									
Horizontal Economizer Conversion Kit	T1HECK00AN1	17W45	X	X	X	X	X	X	X
OUTDOOR AIR									
Outdoor Air Dampers With Outdoor Air Hood									
Motorized	C1DAMP21A-1	15D17	OX	OX	OX	OX	OX	OX	OX
Manual	C1DAMP11A-2	15D18	OX	OX	OX	OX	OX	OX	OX
POWER EXHAUST FAN									
Standard Static <i>NOTE - Order Barometric Relief Dampers with Exhaust Hood below if unit is ordered with factory installed Standard Economizer with "No Exhaust" option</i>	208/230V-1 or 3ph - C1PWRE10A-1P	79W87			X	X	X	X	X
	460V-3ph - C1PWRE10A-1G	79W88			X	X	X	X	X
	575V-3ph - C1PWRE10A-1J	79W89			X	X	X	X	X
BAROMETRIC RELIEF									
Barometric Relief Dampers with Exhaust Hood	C1DAMP50A-1-	74W38	X	X	X	X	X	X	X
ELECTRICAL									
Voltage 60 hz	208/230V - 1 phase		O	O	O	O	O		
	208/230V - 3 phase				O	O	O	O	O
	460V - 3 phase				O	O	O	O	O
	575V - 3 phase				O	O	O	O	O
Disconnect	See Electrical/Electric Heat Tables for selection		OX	OX	OX	OX	OX	OX	OX
GFI Service Outlets	15 amp non-powered, field-wired (208/230V, 460V only) LTAGFIK10/15	74M70	OX	OX	OX	OX	OX	OX	OX
	20 amp non-powered, field-wired (575V only) C1GFCI20FF1	67E01	X	X	X	X	X	X	X
Weatherproof Cover for GFI	C1GFCI99FF1	10C89	X	X	X	X	X	X	X

¹ Required when Economizer is factory installed (no exhaust option) with field installed Power Exhaust Fan option.

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 No.						
			KCB 024	KCB 030	KCB 036	KCB 048	KCB 060	KCB 072	KCB 074
ELECTRIC HEAT									
5 kW	208/230V- 1ph - K1EH0050A-1P	12F06	X	X					
7.5 kW	208/230V-1ph - T1EH0075AN1P	14W32	X	X	X	X	X		
	208/230V-3ph - T1EH0075AN1Y	14W35			X	X	X	X	X
	460V-3ph - T1EH0075AN1G	14W39			X	X	X	X	X
	575V-3ph - T1EH0075AN1J	14W43			X	X	X	X	X
10 kW	208/230V-1ph - T1EH0100A1P	30W26	X	X					
15 kW	208/230V-1ph - T1EH0150AN1P	14W33			X	X	X		
	208/230V-3ph - T1EH0150AN1Y	14W36			X	X	X	X	X
	460V-3ph - T1EH0150AN1G	14W40			X	X	X	X	X
	575V-3ph - T1EH0150AN1J	14W44			X	X	X	X	X
22.5 kW	208/230V-1ph - T1EH0225AN1P	14W34					X		
	208/230V-3ph - T1EH0225AN1Y	14W37					X	X	X
	460V-3ph - T1EH0225AN1G	14W41					X	X	X
	575V-3ph - T1EH0225AN1J	14W45					X	X	X
30 kW	208/230V-3ph - T1EH0300N-1Y	14W38						X	X
	460V-3ph - T1EH0300N-1G	14W42						X	X
	575V-3ph - T1EH0300N-1J	14W46						X	X

INDOOR AIR QUALITY

Air Filters

High Efficiency Air Filters	MERV 8 (16 x 20 x 2) - C1FLTR15A-1-	54W20	X	X	X	X			
Order 4 per unit	MERV 13 (16 x 20 x 2) - T1FLTR40A-1-	52W37	X	X	X	X			
	MERV 8 (20 x 20 x 2) - C1FLTR15D-1-	54W21					X	X	X
	MERV 13 (20 x 20 x 2) - C1FLTR40D-1-	52W39					X	X	X

Indoor Air Quality (CO₂) Sensors

Sensor - Wall-mount, off-white plastic cover with LCD display	C0SNSR50AE1L	77N39	X	X	X	X	X	X	X
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting	C0SNSR53AE1L	87N54	X	X	X	X	X	X	X
CO ₂ Sensor Duct Mounting Kit - for downflow applications	C0MISC19AE1-	85L43	X	X	X	X	X	X	X
Aspiration Box - for duct mounting non-plenum rated CO ₂ sensor (77N39)	C0MISC16AE1-	90N43	X	X	X	X	X	X	X

UVC Germicidal Lamps

¹ UVC Light Kit (208/230v-1ph)	E1UVCL10AN1-	50W90	X	X	X	X	X	X	X
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CEILING DIFFUSERS

Step-Down - Order one	RTD9-65S	13K60	X	X	X	X	X		
	RTD11-95S	13K61						X	X
Flush - Order one	FD9-65S	13K55	X	X	X	X	X		
	FD11-95S	13K56						X	X
Transitions (Supply and Return) - Order one	T1TRAN10AN1	17W53	X	X	X	X	X		
	T1TRAN20N-1	17W54						X	X

¹ Lamps operate on 110-230V single-phase power supply. Step-down transformer may be ordered separately for 460V and 575V units. Alternately, 110V power supply may be used to directly power the UVC ballast(s).

NOTE - 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 No.						
			KCB 024	KCB 030	KCB 036	KCB 048	KCB 060	KCB 072	KCB 074
ROOF CURBS									
Hybrid Roof Curbs, Downflow									
8 in. height	C1CURB70A-1	11F50	X	X	X	X	X	X	X
14 in. height	C1CURB71A-1	11F51	X	X	X	X	X	X	X
18 in. height	C1CURB72A-1	11F52	X	X	X	X	X	X	X
24 in. height	C1CURB73A-1	11F53	X	X	X	X	X	X	X
Adjustable Pitch Curb									
14 in. height	C1CURB55AT1	43W27	X	X	X	X	X	X	X

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 - DIRECT DRIVE BLOWER
2 - 2.5 TON

General Data		Nominal Tonnage	2 Ton	2.5 Ton
		Model No.	KCB024S4D	KCB030S4D
		Efficiency Type	Standard	Standard
		Blower Type	Multi-Speed Direct Drive	Multi-Speed Direct Drive
Cooling Performance	Gross Cooling Capacity - Btuh		24,800	31,200
	¹ Net Cooling Capacity - Btuh		24,200	30,200
	AHRI Rated Air Flow - cfm		840	1010
	² Sound Rating Number (SRN) ((dBA)		74	74
	Total Unit Power - kW		1.9	2.4
	¹ SEER (Btuh/Watt)		14.0	14.0
	¹ EER (Btuh/Watt)		12.7	11.55
Refrigerant	Type		R-410A	R-410A
	Charge Furnished		4 lbs. 3 oz.	5 lbs. 1 oz.
Electric Heat Available - See page 10			5, 7.5, 10 kW	5, 7.5, 10 kW
Compressor Type (one per unit)			Scroll	Scroll
Outdoor Coil	Net face area - sq. ft.		11.7	11.7
	Number of rows		1	1
	Fins per inch		23	23
Outdoor Coil Fan	Motor - (No.) HP		(1) 1/4	(1) 1/4
	Motor rpm		825	825
	Total Motor Input - watts		250	250
	Diameter - (No.) in. / No. of blades		(1) 24 - 3	(1) 24 - 3
	Total air volume - cfm		3100	3100
Indoor Coil	Net face area - sq. ft.		7.8	7.8
	Tube diameter - in.		3/8	3/8
	Number of rows		2	3
	Fins per inch		14	14
	Drain Connection (no.) and size - in.		(1) 1 NPT	(1) 1 NPT
	Expansion device type		Balanced Port Thermostatic Expansion Valve, removable power head	
Indoor Blower	Nominal Motor HP		0.25 hp	0.25 hp
	Wheel nominal diameter x width - in.		(1) 10 x 10	(1) 10 x 10
Filters	Type		Disposable	
	Number and size - in.		(4) 16 x 20 x 2	
Electrical Characteristics - 60 Hz			208/230V 1 phase	208/230V 1 phase

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

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

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

SPECIFICATIONS - DIRECT DRIVE BLOWER
3 - 5 TON

General Data		Nominal Tonnage	3 Ton	4 Ton	5 Ton
		Model No.	KCB036S4D	KCB048S4D	KCB060S4D
		Efficiency Type	Standard	Standard	Standard
		Blower Type	Multi-Speed Direct Drive	Multi-Speed Direct Drive	Multi-Speed Direct Drive
Cooling Performance	Gross Cooling Capacity - Btuh		38,500	49,700	61,900
	¹ Net Cooling Capacity - Btuh		37,200	47,500	59,500
	AHRI Rated Air Flow - cfm		1140	1600	1760
	² Sound Rating Number (SRN)(dBA)		74	74	79
	Total Unit Power - kW		2.9	4.1	5.0
	¹ SEER (Btuh/Watt)		14.0	14.0	14.0
	¹ EER (Btuh/Watt)		12.5	11.5	11.8
Refrigerant	Type		R-410A	R-410A	R-410A
	Charge Furnished		5 lbs. 9 oz.	5 lbs. 6 oz.	6 lbs. 13 oz.
Electric Heat Available - See page 10			7.5, 15 kW	7.5, 15 kW	7.5, 15, 22.5 kW
Compressor Type (one per unit)			Scroll	Scroll	Scroll
Outdoor Coil	Net face area - sq. ft.		14.5	14.5	17.8
	Number of rows		1	1	1
	Fins per inch		23	23	23
Outdoor Coil Fan	Motor - (No.) HP		(1) 1/4	(1) 1/4	(1) 1/3
	Motor rpm		825	825	1075
	Total Motor Input - watts		250	250	370
	Diameter - (No.) in. / No. of blades		(1) 24 - 3	(1) 24 - 3	(1) 24 - 3
	Total air volume - cfm		3300	3300	4700
Indoor Coil	Net face area - sq. ft.		7.8	7.8	9.7
	Tube diameter - in.		3/8	3/8	3/8
	Number of rows		3	3	4
	Fins per inch		14	14	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		
Indoor Blower	Nominal Motor HP		0.5 hp	0.5 hp	0.75 hp
	Wheel nominal diameter x width - in.		(1) 10 x 10	(1) 10 x 10	(1) 11 x 10
Filters	Type		Disposable		
	Number and size - in.		(4) 16 x 20 x 2		(4) 20 x 20 x 2
Electrical Characteristics - 60 Hz			208/230V 1 phase	208/230V 1 phase	208/230V 1 phase
			208/230V, 460V & 575V 3 phase	208/230V, 460V & 575V 3 phase	208/230V, 460V & 575V 3 phase

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

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

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

SPECIFICATIONS - BELT DRIVE BLOWER
3 - 5 TON

General Data		Nominal Tonnage	3 Ton	4 Ton	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		
Cooling Performance	Gross Cooling Capacity - Btuh		38,500	49,700	61,900		
	¹ Net Cooling Capacity - Btuh		37,200	47,500	59,500		
	AHRI Rated Air Flow - cfm		1140	1600	1760		
	² Sound Rating Number (SRN) (dBA)		74	74	79		
	Total Unit Power - kW		2.9	4.1	5		
	¹ SEER (Btuh/Watt)		14.0	14.0	14.0		
	¹ EER (Btuh/Watt)		12.5	11.5	11.8		
Refrigerant	Type		R-410A	R-410A	R-410A		
	Charge Furnished		5 lbs. 9 oz.	5 lbs. 6 oz.	6 lbs. 13 oz.		
Electric Heat Available - See page 11			7.5, 15 kW	7.5, 15 kW	7.5, 15, 22.5 kW		
Compressor Type (one per unit)			Scroll	Scroll	Scroll		
Outdoor Coil	Net face area - sq. ft.		14.5	14.5	17.8		
	Number of rows		1	1	1		
	Fins / inch		23	23	23		
Outdoor Coil Fan	Motor - (No.) HP		(1) 1/4	(1) 1/4	(1) 1/3		
	Motor rpm		825	825	1075		
	Total Motor Input - watts		250	250	370		
	Diameter - (No.) in. / No. of blades		(1) 24 - 3	(1) 24 - 3	(1) 24 - 3		
	Total air volume - cfm		3300	3300	4700		
Indoor Coil	Net face area - sq. ft.		7.8	7.8	9.7		
	Tube diameter - in.		3/8	3/8	3/8		
	Number of rows		3	3	4		
	Fins per inch		14	14	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				
³ Indoor Blower & Drive Selection	Nominal Motor HP	208/230V-1ph	0.75 hp, 1.5 hp	0.75 hp, 1.5 hp	0.75 hp, 1.5 hp		
		All others voltages	1 hp, 2 hp	1 hp, 2 hp	1 hp, 2 hp		
	Maximum Usable Motor HP	208/230V-1ph	0.86 hp, 1.7 hp	0.86 hp, 1.7 hp	0.86 hp, 1.7 hp		
		All other voltages	1.15 hp, 2.3 hp	1.15 hp, 2.3 hp	1.15 hp, 2.3 hp		
	Available Drive Kits	A01	673 - 1010 rpm	A02	745 - 1117 rpm	A03	833 - 1250 rpm
		A05	897 - 1346 rpm	A06	1071 - 1429 rpm	A07	1212 - 1548 rpm
Wheel nominal diameter x width - in.		(1) 10 x 10	(1) 10 x 10	(1) 10 x 10			
Filters	Type		Disposable				
	Number and size - in.		(4) 16 x 20 x 2		(4) 20 x 20 x 2		
Electrical Characteristics - 60 Hz			208/230V 1 phase	208/230V, 1 phase	208/230V 1 phase		
			208/230V, 460V & 575V 3 phase	208/230V 460V & 575V 3 phase	208/230V 460V & 575V 3 phase		

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

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

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

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

SPECIFICATIONS - BELT DRIVE BLOWER
6 TON

General Data		Nominal Tonnage	6 Ton	6 Ton	6 Ton	
		Model No.	KCB072H4B	KCB074H4T	KCB074S4T	
		Efficiency Type	High	High	Standard	
		Blower Type	Single Speed Belt Drive	Two-Speed Belt Drive	Two-Speed Belt Drive	
Cooling Performance	Gross Cooling Capacity - Btuh		73,500	72,000	71,000	
	¹ Net Cooling Capacity - Btuh		72,000	69,000	68,000	
	AHRI Rated Air Flow - cfm		1920	2100	2100	
	² Sound Rating Number (SRN) (dBA)		79	79	79	
	Total Unit Power - kW		6.0	5.7	6.1	
	¹ IEER		13.5	16.0	15.0	
	¹ EER (Btuh/Watt)		12.0	12.0	11.2	
Refrigerant	Type		R-410A	R-410A	R-410A	
	Charge Furnished		7 lbs. 8 oz.	7 lbs. 2 oz.	7 lbs. 2 oz.	
Electric Heat Available - See page 10			7.5, 15, 22.5, 30 kW	7.5, 15, 22.5, 30 kW	7.5, 15, 22.5, 30 kW	
Compressor Type (one per unit)			Scroll	Two-Stage Scroll	Two-Stage Scroll	
Outdoor Coil	Net face area - sq. ft.		17.8	17.8	17.8	
	Number of rows		1	1	1	
	Fins / inch		23	23	23	
Outdoor Coil Fan	Motor - (No.) HP		(1) 1/3	(1) 1/3	(1) 1/3	
	Motor rpm		1075	1075	1075	
	Total Motor Input - watts		410	375	375	
	Diameter - (No.) in. / No. of blades		(1) 24 - 3	(1) 24 - 3	(1) 24 - 3	
	Total air volume - cfm		4800	4700	4700	
Indoor Coil	Net face area - sq. ft.		9.72	9.72	9.72	
	Tube diameter - in.		3/8	3/8	3/8	
	Number of rows		4	4	4	
	Fins per inch		14	14	14	
	Drain Connection (no.) and size - in.		(1) 1 in. NPT	(1) 1 in. NPT	(1) 1 in. NPT	
	Expansion device type		Balanced Port Thermostatic Expansion Valve, removable power head			
³ Indoor Blower & Drive Selection	Nominal Motor Output		1 hp, 2 hp	1 hp, 2 hp	1 hp, 2 hp	
	Maximum Usable Motor Output (US Only)		1.15 hp, 2.3 hp	1.15 hp, 2.3 hp	1.15 hp, 2.3 hp	
	Motor - Drive Kit Number	AA01		AA01	AA01	A04
		522-784 rpm		522-784 rpm	522-784 rpm	968 - 1340 rpm
		AA02		AA02	AA02	A08
		632-875 rpm		632-875 rpm	632-875 rpm	1193-1591 rpm
	AA03		AA03	AA03		
798-1105 rpm		798-1105 rpm	798-1105 rpm			
Wheel Nominal Diameter x Width - in.		(1) 15 x 9	(1) 15 x 9	(1) 10 x 10		
Filters	Type		Disposable			
	Number and size - in.		(4) 20 x 20 x 2	(4) 20 x 20 x 2	(4) 20 x 20 x 2	
Electrical Characteristics - 60 Hz			208/230V, 460V or 575V - 60 hertz - 3 phase			

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

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

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

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