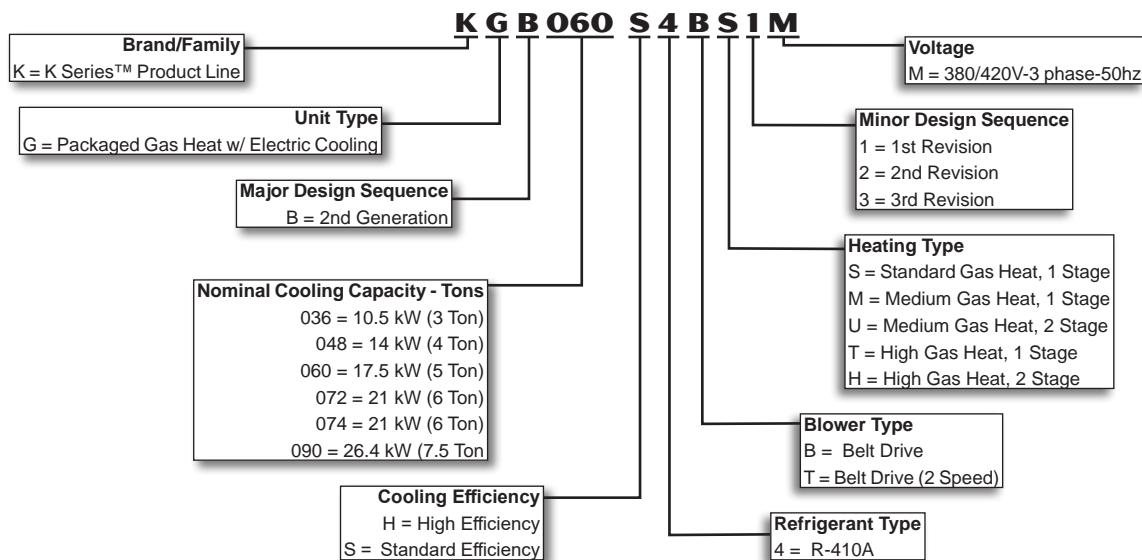


Nominal Capacity - 10.5 to 26.4 kW (3 to 7.5 Ton)

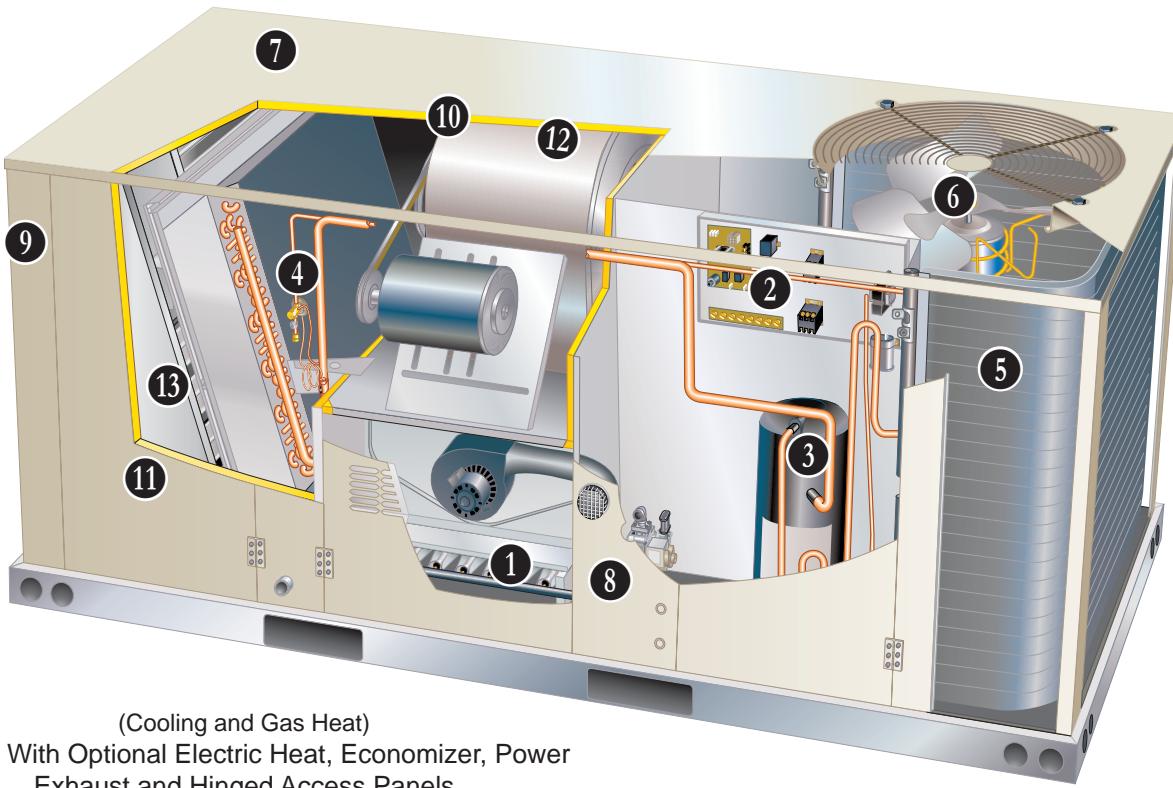
Net Cooling Capacity - 9.1 to 22.4 kW (31 000 to 76 500 Btuh)

Gas Input Heat Capacity - 16.7 to 38.7 kW (57 000 to 132 000 Btuh)

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 060 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

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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.

HEATING SYSTEM

1 Aluminized steel inshot burners, direct spark ignition, electronic flame sensor, combustion air inducer, redundant automatic single or dual stage gas valve with manual shut-off.

Heat Exchanger

Tubular construction, aluminized steel, life cycle tested.

Stainless Steel Heat Exchanger is required if mixed air temperature is below 7°C.

2 Electronic Pilot Ignition

Electronic spark igniter provides positive direct ignition of burners on each operating cycle. The system permits main gas valve to stay open only when the burners are proven to be lit. Should a loss of flame occur, the gas valve closes, shutting off the gas to the burners. Ignition module has light emitting diode (LED) to indicate status and aid in troubleshooting.

Watchguard circuit on module automatically resets ignition controls after one hour of continuous thermostat demand after unit lockout, eliminating nuisance service calls. Ignition control is factory installed in the controls section.

Limit Controls

Factory installed, redundant limit controls with fixed temperature setting.

Heat limit controls protect heat exchanger and other components from overheating.

Safety Switches

Flame roll-out switch, flame sensor and combustion air inducer proving switch protect system operation.

Required Selections

Gas Input Choice - Order one:

- Standard Gas Heat, 1 Stage - 16.7 kW
- Medium Gas Heat, 1 Stage - 27.8 kW
- Medium Gas Heat, 2 Stage - 20.8 / 27.8 kW
- High Gas Heat, 1 Stage - 38.7 kW
- High Gas Heat, 2 Stage - 29.0 / 38.7 kW

Options / Accessories

Factory Installed

Stainless Steel Heat Exchanger
Required if mixed air temperature is below 7°C.

Field Installed

Combustion Air Intake Extensions

Recommended for use with existing flue extension kits in areas where high snow areas can block intake air.

Low Temperature Vestibule Heater

Electric heater automatically controls minimum temperature in gas burner compartment when temperature is below -40°C. Allows operation of unit down to -51°C.

Propane Kits

Conversion kit to field change over units from Natural Gas to Propane.

Vertical Vent Extension Kit

Use to exhaust flue gases vertically above unit. Required when unit vent is too close to fresh air intakes per building codes. The vent kit also prevents ice formation on intake louvers.

FEATURES AND BENEFITS

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.

3 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.

4 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.

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.

5 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.



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.

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.

6 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.

FEATURES AND BENEFITS

CABINET

7 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.

8 Power/Gas Entry

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

Optional Bottom Gas Entry Kit is available.

9 Exterior Panels

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

10 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 - 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

11 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.

Bottom Gas Entry Kit

Field installed piping kit to facilitate bottom gas entry.

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.

FEATURES AND BENEFITS

12 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

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

ECONOMIZER

Factory or Field Installed

⑬ 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 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 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 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 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, CO₂ 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

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

Curbs 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 48.

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					
			KGB 036	KGB 048	KGB 060	KGB 072	KGB 074	KGB 090
COOLING SYSTEM								
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
HEATING SYSTEM								
Bottom Gas Piping Kit	T1GPKT01AN1	19W50	X	X	X	X	X	X
Low Temperature Vestibule Heater	T1CWKT01AN1G	19W54	X	X	X	X	X	X
Combustion Air Intake Extensions	T1EXTN10AN1	19W51	X	X	X	X	X	X
Gas Heat Input	Standard Gas Heat, 1 Stage - 16.7 kW	Factory	O	O	O	O	O	O
	Medium Gas Heat, 1 Stage - 27.8 kW	Factory	O	O	O	O	O	O
	Medium Gas Heat, 2 Stage - 20.8/ 27.8 kW	Factory	O	O	O	O	O	O
	High Gas Heat, 1 Stage - 38.7 kW	Factory	O	O	O	O	O	O
	High Gas Heat, 2 Stage - 29.0/38.7 kW	Factory	O	O	O	O	O	O
LPG/Propane	For one-stage models - C1PROP10AP3	14N20	X	X	X	X	X	X
Conversion Kits	For two-stage models - C1PROP20AP3	14N21	X	X	X	X	X	X
Stainless Steel Heat Exchanger			O	O	O	O	O	O
Vertical Vent Extension	C1EXTN20FF1	31W62	X	X	X	X	X	X
BLOWER - SUPPLY AIR								
Motors	Belt Drive - 1.5 kW Standard Efficiency	Factory	O	O	O	² O		O
	Belt Drive - 2.2 kW Standard Efficiency	Factory						O
	Belt Drive - 1.2 kW (2 Speed)	Factory					O	O
Drive Kits	Kit A01 - T1DRKT001-1 - 561 - 842 rev/min	Factory	O					
See Blower	Kit A02 - T1DRKT002-1 - 621 - 931 rev/min	Factory		O				
Data Tables for selection	Kit A03 - T1DRKT003-1 - 694 - 1042 rev/min	Factory			O			
	Kit A04 - T1DRKT004-1 - 807 - 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 - T1DRKT005AP1 - 921 - 1177 rev/min	Factory						O
CABINET								
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

¹ 074S models only.

² 072S and 074S Single Speed Belt Drive models only.

³ 074H Two-Speed Belt Drive models only.

⁴ 074S Two-Speed Belt Drive models only.

⁵ 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							
			KGB 036	KGB 048	KGB 060	KGB 072	KGB 074	KGB 090		
CONTROLS										
NOTE - Also see Conventional Thermostat Control Systems on page 43 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		
ECONOMIZER										
Standard Economizer With Outdoor Air Hood (Sensible Control)										
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	O		
Standard Economizer Controls										
Single Enthalpy Control	C1SNSR64FF1	53W64	OX	OX	OX	OX	OX	OX		
Differential Enthalpy Control (order 2)	C1SNSR64FF1	53W64	X	X	X	X	X	X		
High Performance Economizer With Outdoor Air Hood (Sensible Control)										
High Performance Economizer - Includes Barometric Relief Dampers and Exhaust Hood	K1ECON32A-3	16X75	OX	OX	OX	OX	OX	OX		
High Performance Economizer Controls										
Single Enthalpy Control	C1SNSR60FF1	10Z75	OX	OX	OX	OX	OX	OX		
Differential Enthalpy Control (order 2)	C1SNSR60FF1	10Z75	X	X	X	X	X	X		
Economizer Accessories										
Horizontal Economizer Conversion Kit	T1HECK00AN1	17W45	X	X	X	X	X	X		
POWER EXHAUST FAN										
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>										
1 BAROMETRIC RELIEF										
¹ Barometric Relief Dampers for Power Exhaust Kit	C1DAMP50A-3-	19D42	X	X	X	X	X	X		
² Horizontal Barometric Relief Dampers With Exhaust Hood	LAGEDH03/15-2	19F01	X	X	X	X	X	X		
OUTDOOR AIR										
Outdoor Air Dampers - Includes Outdoor Air Hood										
Motorized	C1DAMP21A-1	15D17	OX	OX	OX	OX	OX	OX		
Manual	C1DAMP11A-2	15D18	OX	OX	OX	OX	OX	OX		
ELECTRICAL										
Voltage 50 hz with neutral	380/420V - 3 phase		O	O	O	O	O	O		

¹ Required when Economizer is factory installed with field installed Power Exhaust Fan option.

² Required when Economizer is configured for horizontal airflow.

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							
			KGB 036	KGB 048	KGB 060	KGB 072	KGB 074	KGB 090		
INDOOR AIR QUALITY										
Air Filters										
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- MERV 8 (508 x 508 x 51) - C1FLTR15D-1- MERV 13 (508 x 508 x 51) - C1FLTR40D-1-	54W20 52W37 54W21 52W39	X X X X	X X X X		X X X X	X X X X			
Indoor Air Quality (CO₂) Sensors										
Sensor - Wall-mount, off-white plastic cover with LCD display	C0NSR50AE1L	77N39	X	X	X	X	X	X		
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting	C0NSR53AE1L	87N54	X	X	X	X	X	X		
CO ₂ Sensor Duct Mounting Kit - for downflow applications	C0MISC19AE1-	85L43	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		
UVC Germicidal Lamps										
¹ UVC Light Kit (220V-1ph)	E1UVCL10AN1-	50W90	X	X	X	X	X	X		
ROOF CURBS										
Hybrid Roof Curbs, Downflow										
203 mm height	C1CURB70A-1	11F50	X	X	X	X	X	² X		
356 mm height	C1CURB71A-1	11F51	X	X	X	X	X	² X		
457 mm height	C1CURB72A-1	11F52	X	X	X	X	X	² X		
610 mm height	C1CURB73A-1	11F53	X	X	X	X	X	² X		
Hybrid Roof Curbs, Full Perimeter, Downflow										
203 mm height	K1CURB70AP1	11S47						X		
356 mm height	K1CURB71AP1	11S48						X		
457 mm height	K1CURB72AP1	11T01						X		
610 mm height	K1CURB73AP1	11T06						X		
Adjustable Pitch Curb, Downflow										
356 mm height	C1CURB55AT1	43W27	X	X	X	X	X	² X		
CEILING DIFFUSERS										
Step-Down - Order one	RTD9-65S	13K60	X	X	X					
	RTD11-95S	13K61				X	X	X		
Flush - Order one	FD9-65S	13K55	X	X	X					
	FD11-95S	13K56				X	X	X		
Transitions (Supply and Return) - Order one	T1TRAN10AN1	17W53	X	X	X					
	T1TRAN20N-1	17W54				X	X	X		

¹ 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).

² 090 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 Size	10.5 kW (3 Ton)	14.0 kW (4 Ton)	17.5 kW (5 Ton)	
		Model No.	KGB036S4B	KGB048S4B	KGB060S4B	
		Efficiency Type	Standard	Standard	Standard	
		Blower Type	Single Speed Belt Drive	Single Speed Belt Drive	Single Speed Belt Drive	
Cooling Performance		Gross Cooling Capacity - kW (Btuh)	9.5 (32 300)	12.6 (42 900)	15.8 (53 800)	
		¹ Net Cooling Capacity - kW (Btuh)	9.1 (31 000)	12.0 (40 800)	15.0 (51 300)	
		AHRI Rated Air Flow - L/s (cfm)	542 (1150)	736 (1560)	830 (1760)	
		³ Sound Rating Number (dB)	74	74	79	
		Total Unit Power - kW	2.5	3.5	4.2	
		¹ SEER (Btuh/Watt)	14.0	14.0	14.0	
		¹ EER (Btuh/Watt) at 35°C (95°F)	12.5	11.6	12.0	
		² EER (Btuh/Watt) at 46°C (115°F)	8.4	7.8	8.4	
Refrigerant Charge		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)	3.09 kg (6 lbs. 13 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.)	
Gas Heating Options - See page 16		Standard (1 Stage) Medium (1 or 2 Stage)	Standard (1 Stage) Medium (1 or 2 Stage) High (1 or 2 Stage)			
Compressor Type (one per unit)		Scroll	Scroll	Scroll		
Outdoor Coil Eco-Last™ (Fin/Tube)		Net face area - m ² (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)	
Outdoor Coil Fan		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)	
Indoor Coil		Net face area - m ² (sq. ft.)	0.7 (7.8)	0.7 (7.8)	0.9 (9.7)	
		Tube diameter - in. (mm)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)	
		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			
⁴ Indoor Blower & Drive Selection		Nominal Motor Size kW (hp)	1.5 (2)	1.5 (2)	1.5 (2)	
		Maximum Usable Motor Size 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)			
Filters		Type	Disposable			
		Number and size - mm (in.)	(4) 406 x 508 x 51 (16 x 20 x 2)	(4) 406 x 508 x 51 (16 x 20 x 2)	(4) 508 x 508 x 51 (20 x 20 x 2)	
Electrical Characteristics - 50 Hz			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.

¹ 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.

² 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).

³ Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

⁴ 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.	KGB072H4B	KGB074S4B
	Efficiency Type	High	Standard
	Blower Type	Single Speed Belt Drive	Single Speed Belt Drive
Cooling Performance	Gross Cooling Capacity - kW (Btuh)	18.6 (63 600)	18.0 (61 500)
	¹ Net Cooling Capacity - kW (Btuh)	18.3 (62 300)	17.3 (58 900)
	Rated Air Flow - (L/s) cfm	906 (1920)	991 (2100)
	³ Sound Rating Number (dB)	79	79
	Total Unit Power - kW	5.1	5.2
	¹ IEER (Btuh/Watt)	13.5	13.0
	¹ EER (Btuh/Watt) at 35°C (95°F)	12.2	11.3
	² EER (Btuh/Watt) at 46°C (115°F)	8.3	8.0
Refrigerant Charge	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.)
Gas Heating Options - See page 16		Standard (1 Stage), Medium (1 or 2 Stage), High (1 or 2 Stage)	
Compressor Type (one per unit)		Scroll	Two-Stage Scroll (1)
Outdoor Coil Eco-Last™ (Fin/Tube)	Net face area - m ² (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)
Outdoor Coil Fan	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)
Indoor Coil	Net face area - m ² (sq. ft.)	0.9 (9.72)	0.9 (9.72)
	Tube diameter - mm (in.)	9.5 (3/8)	9.5 (3/8)
	Number of rows	4	4
	Fins per meter (Fins per inch)	551 (14)	551 (14)
	Drain Connection (no. and size) - in.	(1) 1 NPT	(1) 1 NPT
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head	
⁴ Indoor Blower & Drive Selection	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)	AA02 - (527 - 729) AA03 - (665 - 921) AA04 - (768 - 1023)	A08 (994 - 1326) A09 (1193 - 1594)
	Wheel nominal diameter x width - mm (in.)	381 x 229 (15 x 9)	254 x 254 (10 x 10)
	Type	Disposable	
Filters	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.

¹ 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.

² 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).

³ Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

⁴ 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 Size	21 kW (6 Ton)	21 kW (6 Ton)
		Model No.	KGB074H4T	
		Efficiency Type	High	
		Blower Type	Two Speed Belt Drive	
Cooling Performance	Gross Cooling Capacity - kW (Btu/h)	18.3 (62 300)	18.0 (61 500)	
	¹ Net Cooling Capacity - kW (Btu/h)	17.5 (59 700)	17.3 (58 900)	
	ARI Rated Air Flow - L/s (cfm)	991 (2100)	991 (2100)	
	³ Sound Rating Number (dB)	79	79	
	Total Unit Power - kW	4.9	5.2	
	¹ IEEER (Btuh/Watt)	8.3	15.0	
	¹ EER (Btuh/Watt) at 35°C (95°F)	16.2	11.3	
	² EER (Btuh/Watt) at 46°C (115°F)	12.2	8.0	
	Refrigerant Charge	R-410A	R-410A	
	Eco-Last™ Coil System	3.23 kg (7 lbs. 2 oz.)	3.23 kg (7 lbs. 2 oz.)	
Gas Heating Options - See page 16		Conventional Fin/Tube Coil	-----	
			6.58 kg (14 lbs. 8 oz.)	
Compressor Type (one per unit)			Medium (1 or 2 stage) or High (1 or 2 stage)	
			Standard (1 stage) or Medium (1 or 2 stage)	
Outdoor Coil Eco-Last™ (Fin/Tube)	Net face area - m ² (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)	
Outdoor Coil Fan	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)	
Indoor Coil	Net face area - m ² (sq. ft.)	0.9 (9.72)	0.9 (9.72)	
	Tube diameter - mm (in.)	9.5 (3/8)	9.5 (3/8)	
	Number of rows	4	4	
	Fins per meter (Fins per inch)	551 (14)	551 (14)	
	Drain Connection (no. and size) - in.	(1) 1 NPT	(1) 1 NPT	
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head		
	Nominal Motor Size kW (hp)	1.2 (1.7)	1.2 kW (1.7 hp)	
Indoor Blower & Drive Selection	Maximum Usable Motor Size kW (hp)	1.4 (1.9)	1.4 kW (1.9 hp)	
	Drive Kit (rev/min range)	AA02 - (527 - 729) AA03 - (665 - 921) AA04 - (768 - 1023)	A04 - (807 - 1117) A08 - (994 - 1326)	
	Wheel nominal diameter x width - mm (in.)	381 x 229 (15 x 9)	254 x 254 x (10 x 10)	
	Type	Disposable		
Filters	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.

¹ 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.

² 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).

³ Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

⁴ 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

General Data		Nominal Size	26.4 kW (7.5 Ton)	26.4 kW (7.5 Ton)
		Model No.	KGB090S4T	
		Efficiency Type	Standard	
		Blower Type	Two Speed Belt Drive	
Cooling Performance	Gross Cooling Capacity - kW (Btuh)	23.1 (79 000)	23.1 (79 000)	
	¹ Net Cooling Capacity - kW (Btuh)	22.4 (76 500)	22.4 (76 500)	
	ARI Rated Air Flow - L/s (cfm)	2225	2225	
	³ Sound Rating Number (dB)	79	79	
	Total Unit Power - kW	6.8	6.8	
	¹ IEEER (Btuh/Watt)	8.1	8.1	
	¹ EER (Btuh/Watt) at 35°C (95°F)	14.0	13.0	
	² EER (Btuh/Watt) at 46°C (115°F)	11.3	11.3	
Refrigerant Charge	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.)	
Gas Heating Options - See page 16		Medium (1 or 2 stage) or High (1 or 2 stage)		
Compressor Type (one per unit)		Two-Stage Scroll (1)	Two-Stage Scroll (1)	
Outdoor Coil Eco-Last™ (Fin/Tube)	Net face area - m ² (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)	
Outdoor Coil Fan	Motor W (hp)	374 (1/2)	(1) 374 (1/2)	
	Motor rev/min	900	900	
	Total motor watts	433	433	
	Diameter - mm (in.) / No. of blades	610 (24) - 4	(1) 610 (24) - 4	
	Total air volume - L/s (cfm)	2085 (4420)	2085 (4420)	
Indoor Coil	Net face area - m ² (sq. ft.)	0.9 (9.7)	0.90 (9.7)	
	Tube diameter - mm (in.)	9.5 (3/8)	9.5 (3/8)	
	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 NPT	
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head		
⁴ Indoor Blower & Drive Selection	Nominal Motor Size kW (hp)	1.2 (1.7)	1.5 kW (2 hp)	
	Maximum Usable Motor Size kW (hp)	1.4 (1.9)	1.7 kW (2.3 hp)	
	Drive Kit (rev/min range)	AA02 - (527 - 729) AA03 - (665 - 921) AA04 - (768 - 1023) AA05 - (921 - 1177)	AA02 - (527 - 729) AA03 - (665 - 921) AA04 - (768 - 1023) AA05 - (921 - 1177)	
	Nominal Motor Size kW (hp)	---	2.2 kW (3 hp)	
	Maximum Usable Motor Size kW (hp)	---	2.57 kW (3.45 hp)	
	Drive Kit (rev/min range)	---	AA05 (921 - 1177)	
	Wheel nominal diameter x width - mm (in.)	---	381 x 229 (15 x 9)	
Filters	Type	Disposable		
	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)	
Electrical Characteristics - 50 Hz		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.

¹ 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.

² 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).

³ Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

⁴ 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 - GAS HEAT

	Model No.	036, 048, 060, 072, 074	036, 048, 060, 072, 074	090	036, 048, 060, 072, 074	090	048, 060, 072, 074	090	048, 060, 072, 074	090
	Heat Input Type	Standard (1 Stage)	Medium (1 Stage)		Medium (2 Stage)		High (1 Stage)		High (2 Stage)	
Input kW (Btuh)	1st Stage	16.7 (57 000)	27.8 (95 000)		20.8 (71 000)		38.7 (132 000)		29.0 (99 000)	
	2nd Stage	---	---		27.8 (95 000)		---		38.7 (132 000)	
Output kW (Btuh)	1st Stage	13.5 (46 000)	22.3 (76 000)		16.7 (57 000)		31.1 (106 000)		23.2 (79 000)	
	2nd Stage	---	---		22.3 (76 000)		---		31.1 (106 000)	
Temperature Rise Range	1st stage	6 - 22°C (10 - 40°F)	14 - 36°C (25 - 65°F)	6 - 22°C (10 - 40°F)	11 - 28°C (20 - 50°F)	3 - 19°C (5 - 35°F)	22 - 39°C (40 - 70°F)	11 - 28°C (20 - 50°F)	14 - 31°C (25 - 55°F)	6 - 22°C (10 - 40°F)
	2nd Stage	---	---	---	14 - 36°C (25 - 65°F)	6 - 22°C (10 - 40°F)	---	---	22 - 39°C (40 - 70°F)	11 - 28°C (20 - 50°F)
¹ Thermal Efficiency	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Gas Supply Connections	1/2 in. NPT									
Recommended Gas Supply Pressure - Natural/ LPG	1.7 kPa (7.0 in. w.c.) / 2.7 kPa (11.0 in. w.c.)									

¹ Thermal Efficiency at full input.

HIGH ALTITUDE DERATE

NOTE - Units may be installed at altitudes up to 610 m (2000 ft) above sea level without any modifications. At altitudes above 610 m (2000 ft.), units must be derated to match information in the table shown. At altitudes above 1372 m (4500 ft.), unit must be derated 2% for each 305 m (1000 ft.) above sea level.

NOTE - This is the only permissible derate for these units.

Heat Input Type	Altitude Feet		Gas Manifold Pressure				Input Rate	
			kPa		in. w.g.			
	Meters	Feet	Natural Gas	LPG/ Propane	Natural Gas	LPG/ Propane	kW	Btuh
Standard (1 stage)	610 - 1372	2001 - 4500	0.58	1.73	2.3	6.9	15.5	53 000
Medium (1 stage)	610 - 1372	2001 - 4500	0.58	1.73	2.3	6.9	25.8	88 000
Medium (2 stage)	610 - 1372	2001 - 4500	0.58 / 0.33	1.73 / 0.98	2.3 / 1.3	6.9 / 3.9	25.8 / 19.3	88 000 / 66 000
High (1 stage)	610 - 1372	2001 - 4500	0.58	1.73	2.3	6.9	35.8	122 000
High (2 stage)	610 - 1372	2001 - 4500	0.58 / 0.33	1.73 / 0.98	2.3 / 1.3	6.9 / 3.9	35.8 / 27.0	122 000 / 92 000

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 - KGB036S4

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	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	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)			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	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.

14.0 KW - KGB048S4

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	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.	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 - KGB060S4

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	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	4.2	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	4.2	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	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	1	1	1	1	1				
	945	13	4.39	0.91	1	1	12.5	4.6	0.94	1	1	12.1	4.8	0.95	1	1	1	1	1	1	1				
	1135	13.7	4.41	1	1	1	13.2	4.63	1	1	1	12.8	4.83	1	1	1	1	1	1	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	1	1	1	1	1				
	945	13.4	4.4	0.64	0.88	1	12.8	4.62	0.65	0.91	1	12.3	4.81	0.65	0.93	1	1	1	1	1	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	1	1	1	1	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	1	1	1	1	1				
	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	0.9	1	1	1	1	1				
	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	1	1	1	1	1				

BLOWER DATA - BELT DRIVE - KGB090S4 - 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 38 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)	125 (0.50)	150 (0.60)
L/s	CFM	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min
11133	2400	621	0.53	0.71	652	0.57	0.76	684
11180	2500	642	0.57	0.77	673	0.61	0.82	704
111227	2600	665	0.61	0.82	694	0.66	0.88	724
111274	2700	688	0.66	0.89	716	0.70	0.94	744
11321	2800	710	0.71	0.95	738	0.76	1.02	765
11369	2900	733	0.77	1.03	759	0.82	1.10	785
11416	3000	754	0.84	1.12	779	0.89	1.19	805
11463	3100	775	0.91	1.22	800	0.96	1.29	824
11510	3200	796	0.98	1.32	820	1.04	1.39	844
11557	3300	816	1.07	1.43	840	1.12	1.50	863
11604	3400	837	1.15	1.54	860	1.20	1.61	883
11652	3500	858	1.24	1.66	881	1.29	1.73	903
11699	3600	879	1.32	1.77	901	1.37	1.84	923

External Static - Pa (in. w.g.)								
Air Volume			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
11133	2400	904	0.93	1.25	929	0.96	1.29	956
11180	2500	917	0.98	1.32	942	1.02	1.37	968
1227	2600	931	1.04	1.39	957	1.07	1.44	982
1274	2700	946	1.10	1.47	971	1.13	1.52	996
1321	2800	962	1.16	1.56	986	1.20	1.61	1011
1369	2900	978	1.23	1.65	1001	1.27	1.70	1025
14116	3000	993	1.30	1.74	1016	1.34	1.79	1039
14463	3100	1009	1.37	1.84	1031	1.42	1.90	1052
15110	3200	1024	1.45	1.94	1045	1.50	2.01	1065
15557	3300	1038	1.54	2.06	1058	1.59	2.13	1085
1604	3400	1053	1.63	2.19	1072	1.69	2.27	1091
1652	3500	1067	1.73	2.32	1085	1.80	2.41	1103
1699	3600	1081	1.84	2.46	1098	1.90	2.55	1116

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

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								

^¹ Effective throw based on terminal velocities of 23 m per minute (75 ft. per minute).

ELECTRICAL DATA

Model No.	KGB036S4	KGB048S4	KGB060S4	KGB072H4
¹ Voltage - 50hz with Neutral (3 Ph)	380/420V	380/420V	380/420V	380/420V
Compressor	Rated Load Amps	4	5.5	8
	Locked Rotor Amps	31	37	59
Outdoor Fan Motor	Full Load Amps	1.1	1.1	1.8
Power Exhaust (1) 0.25 kW	Full Load Amps	1.3	1.3	1.3
Indoor Blower Motor	kW	1.5	1.5	1.5
	Full Load Amps	3.6	3.6	3.6
² Maximum Overcurrent Protection	Unit Only	15	15	20
	With (1) 0.25 kW Power Exhaust	15	15	20
³ Minimum Circuit Ampacity	Unit Only	10	12	15
	With (1) 0.25 kW Power Exhaust	11	13	17

¹ Extremes of operating range are plus and minus 10% of line voltage.

² Heating, Air Conditioning, Refrigeration type breaker or fuse.

³ Refer to local electrical code to determine wire, fuse and disconnect size requirements.

ELECTRICAL DATA

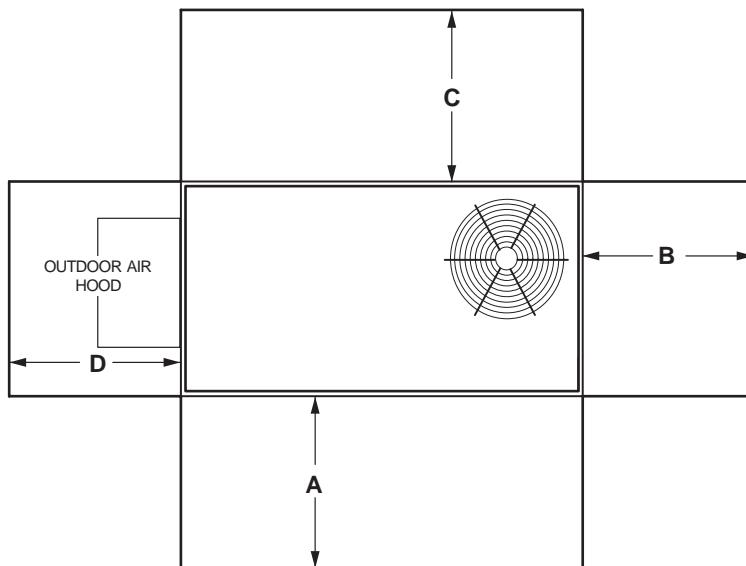
Model No.	KGB074H4T	KGB074S4B	KGB074S4T	KGB090S4T	KGB090S4B
¹ Voltage - 50hz with Neutral (3 Ph)	380/420V	380/420V	380/420V	380/420V	380/420V
Compressor	Rated Load Amps	8.5	8.5	8.5	12
	Locked Rotor Amps	66.1	66.1	66.1	94
Outdoor Fan Motor	Full Load Amps	1.3	1.3	1.3	1.5
Power Exhaust (1) 0.25 kW	Full Load Amps	1.3	1.3	1.3	1.3
Indoor Blower Motor	kW	1.2	1.5	1.2	1.2
	Full Load Amps	2.6	3.6	2.6	3.6
² Maximum Overcurrent Protection	Unit Only	20	20	20	30
	With (1) 0.25 kW Power Exhaust	20	25	20	30
³ Minimum Circuit Ampacity	Unit Only	15	16	15	20
	With (1) 0.25 kW Power Exhaust	16	17	16	21

¹ Extremes of operating range are plus and minus 10% of line voltage.

² Heating, Air Conditioning, Refrigeration type breaker or fuse.

³ Refer to local electrical code to determine wire, fuse and disconnect size requirements.

UNIT CLEARANCES



¹ Unit Clearance	A		B		C		D		Top Clearance
	mm	in.	mm	in.	mm	in.	mm	in.	
Service Clearance	914	36	914	36	914	36	914	36	Unobstructed
Clearnace to Combustibles	914	36	25	1	25	1	25	1	
Minimum Operation Clearance	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.

Clearance to Combustibles – Required clearance to combustible material.

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	
KGB036 and 048	62	66	70	69	66	60	50	74
KGB060	72	75	78	77	73	68	58	83
KGB072, 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

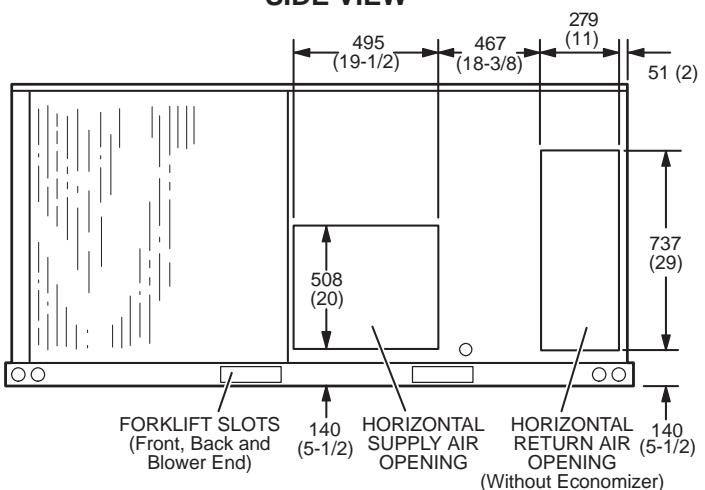
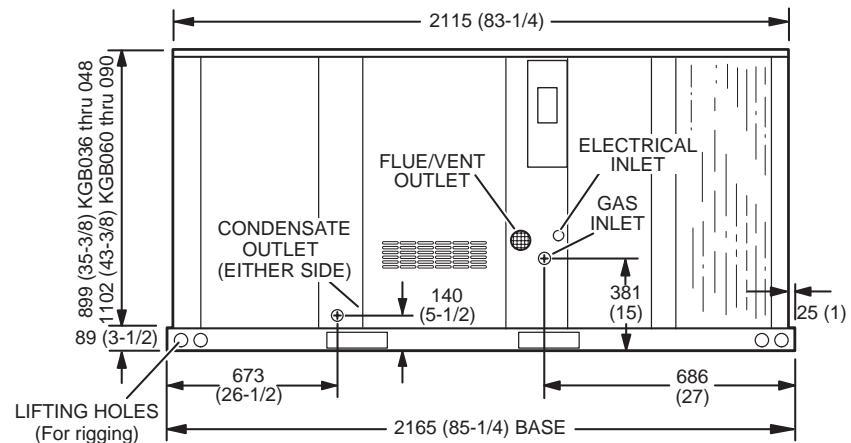
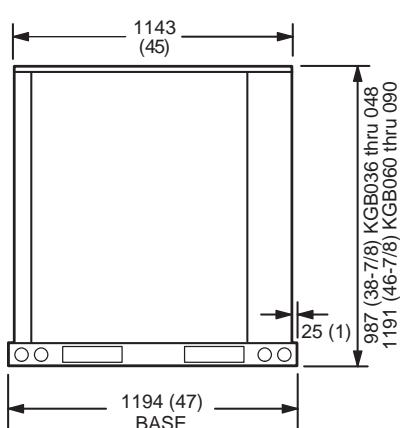
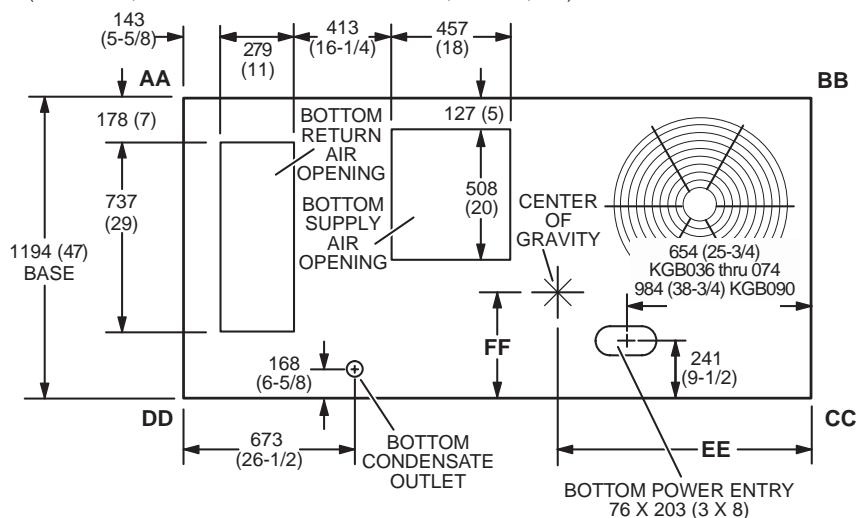
Item	Model No.	Catalog No.
7-DAY PROGRAMMABLE THERMOSTAT - BACNET COMPATIBLE WITH REHEAT FUNCTION		
	<ul style="list-style-type: none"> • For units with or without ¹ Dehumidification Option • BTL listed MS/TP ensures compatibility with any BACnet system • Built-in control programs for conventional and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

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. in.	Base mm	Max. in.
036	51	112	64	142	59	130	64	141	76	168	86	190	66	145	104	228
048	51	112	66	145	59	130	65	144	76	168	88	194	66	145	106	233
060	59	130	74	162	67	147	76	167	90	198	103	226	79	175	117	257
072	59	130	74	162	67	147	76	167	90	198	103	226	79	175	117	257
074	59	130	74	162	67	147	76	167	90	198	103	226	79	175	117	257
090	76	168	88	195	83	183	96	212	103	227	119	263	95	203	109	241

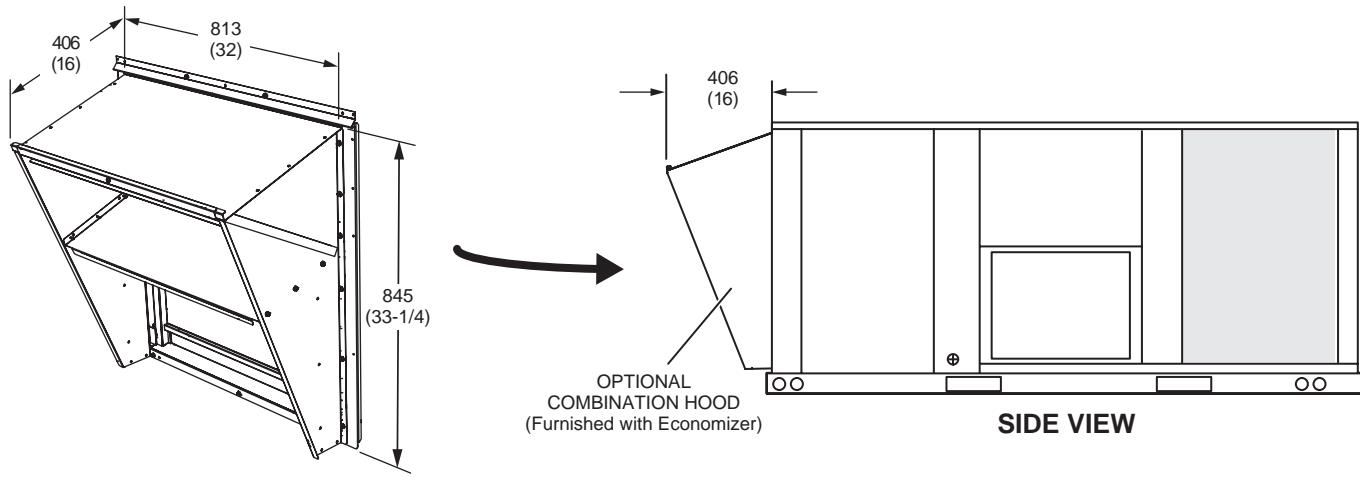
Base Unit - The unit with NO INTERNAL OPTIONS.

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.



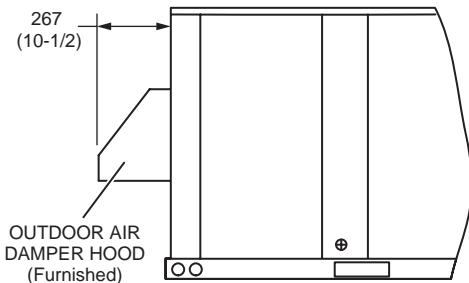
DIMENSIONS - ACCESSORIES

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

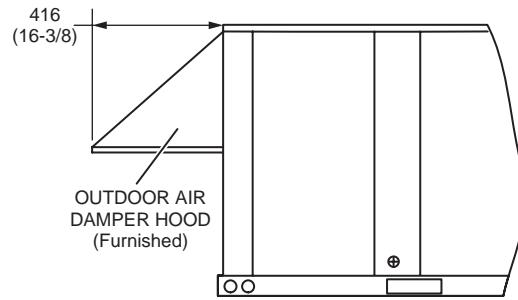


OUTDOOR AIR DAMPER HOOD DETAIL (Downflow or Horizontal Applications)

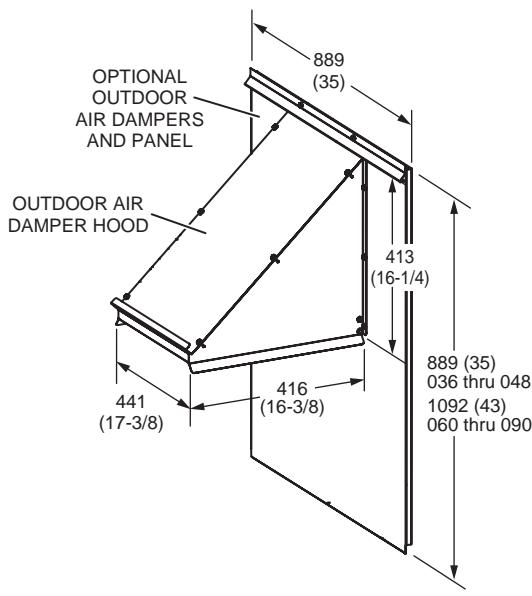
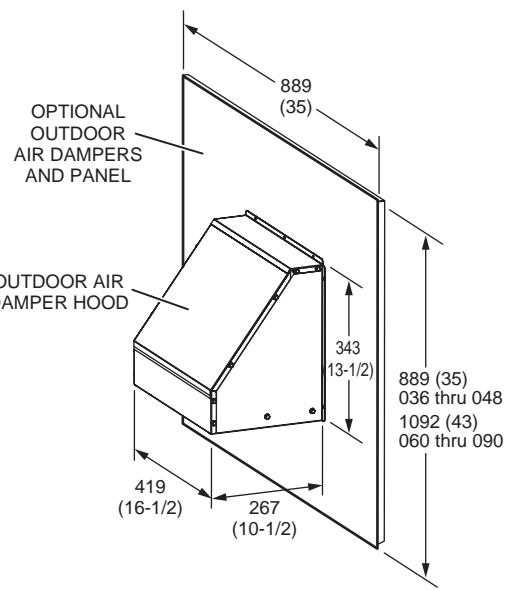
MANUAL OUTDOOR AIR HOOD



MOTORIZED OUTDOOR AIR HOOD

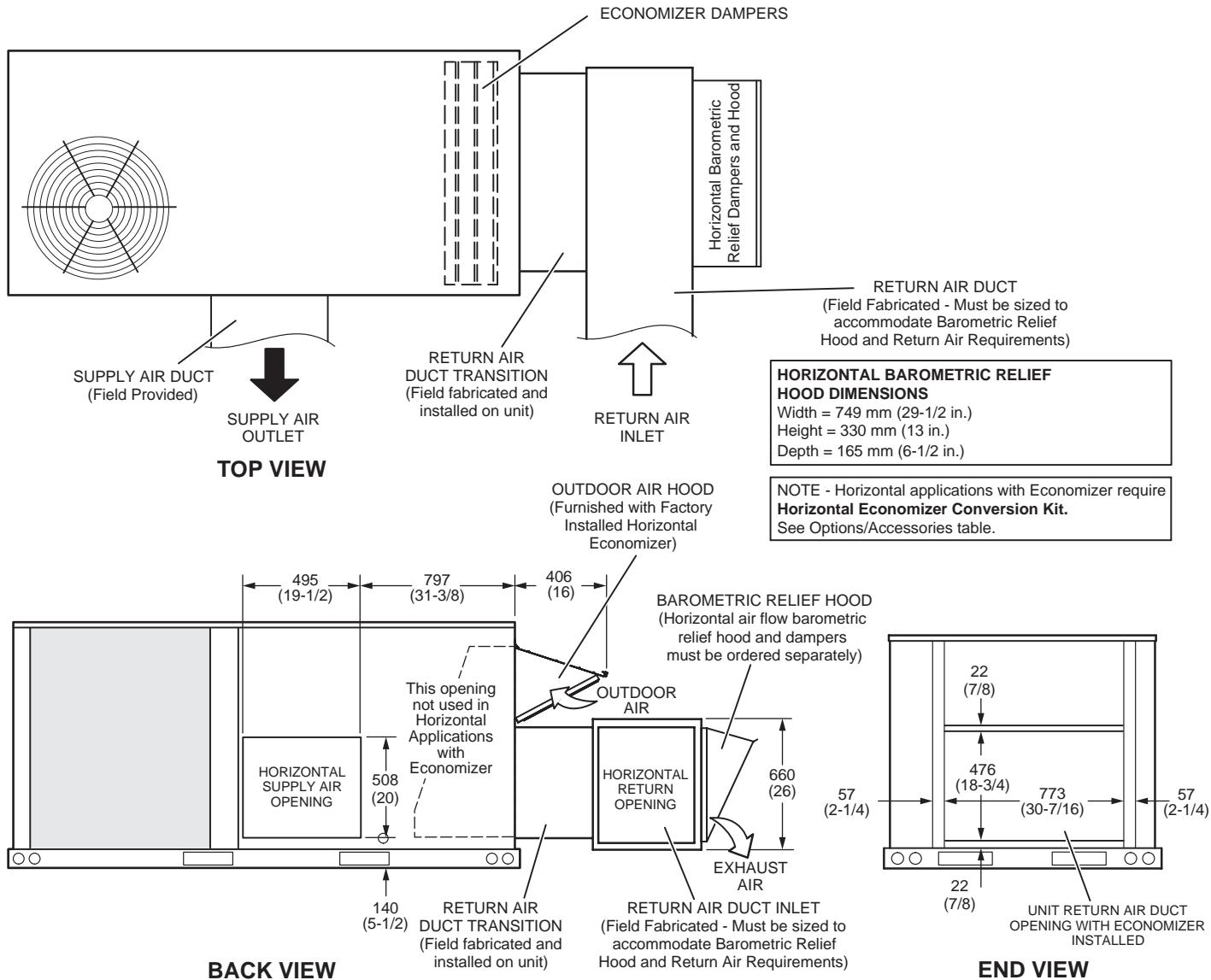


SIDE VIEW



DIMENSIONS - ACCESSORIES

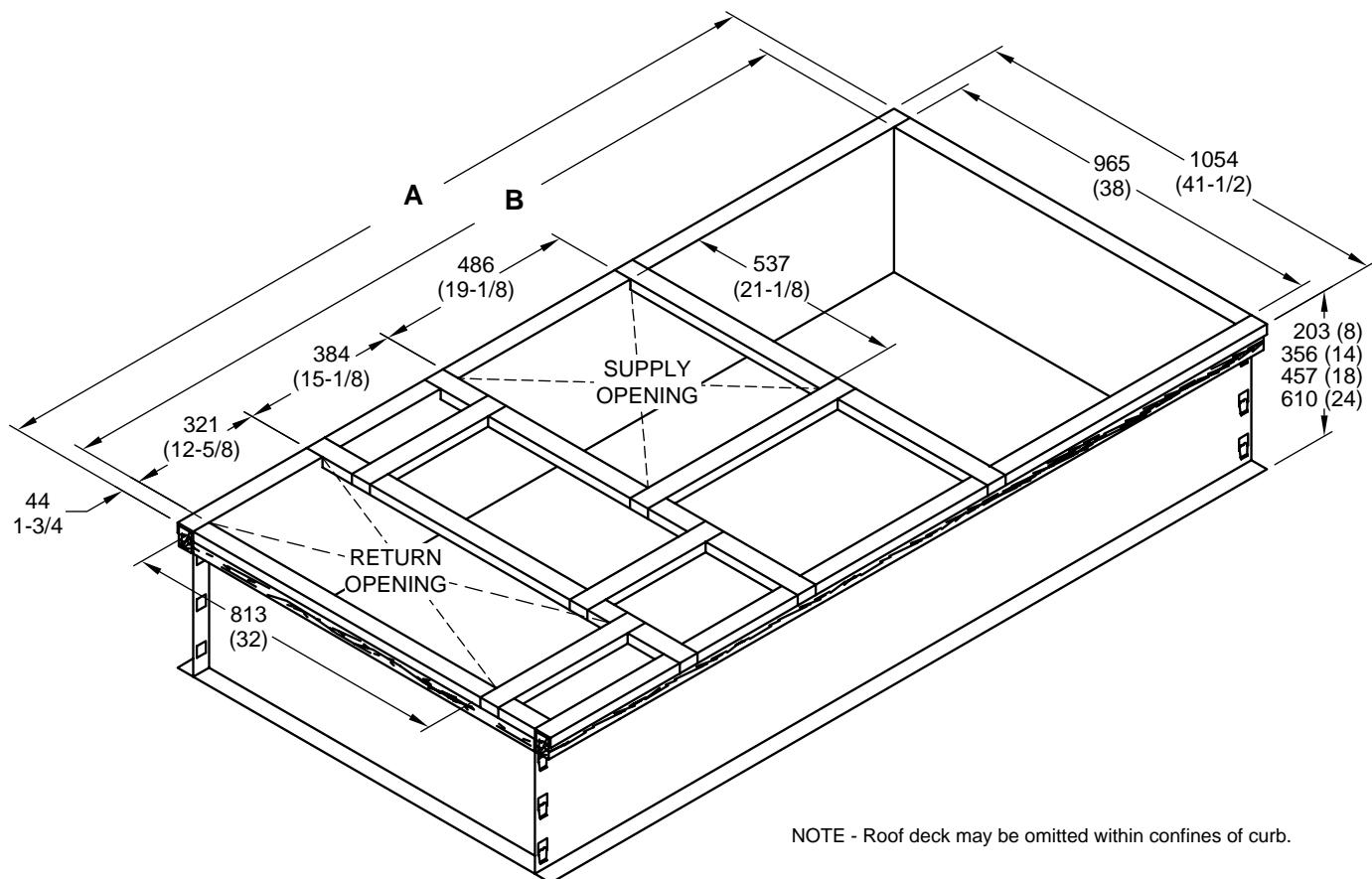
OUTDOOR AIR HOOD DETAIL WITH OPTIONAL ECONOMIZER AND OPTIONAL BAROMETRIC RELIEF DAMPERS WITH HOOD (Horizontal Application)



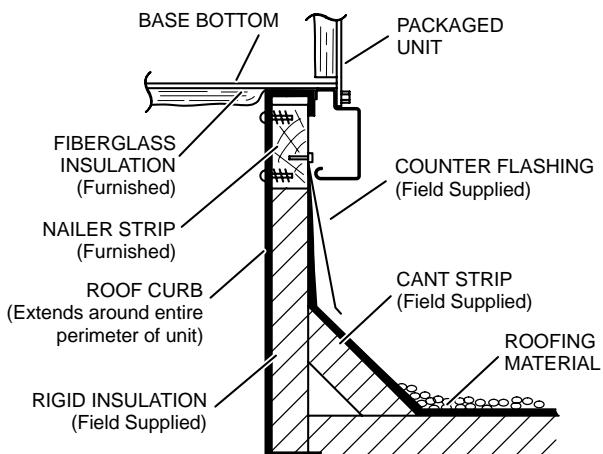
NOTE - Return Air Duct and Transition must be supported

DIMENSIONS - ACCESSORIES

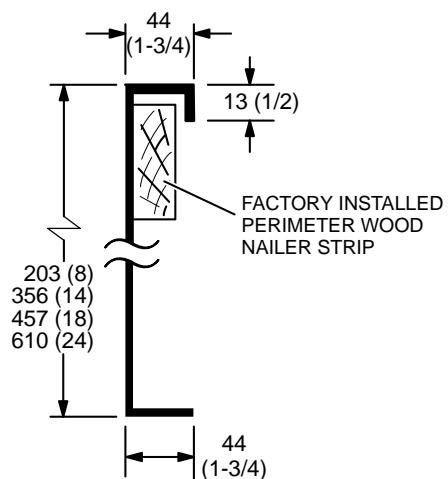
HYBRID ROOF CURBS - DOUBLE DUCT OPENING - STANDARD AND FULL PERIMETER



TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

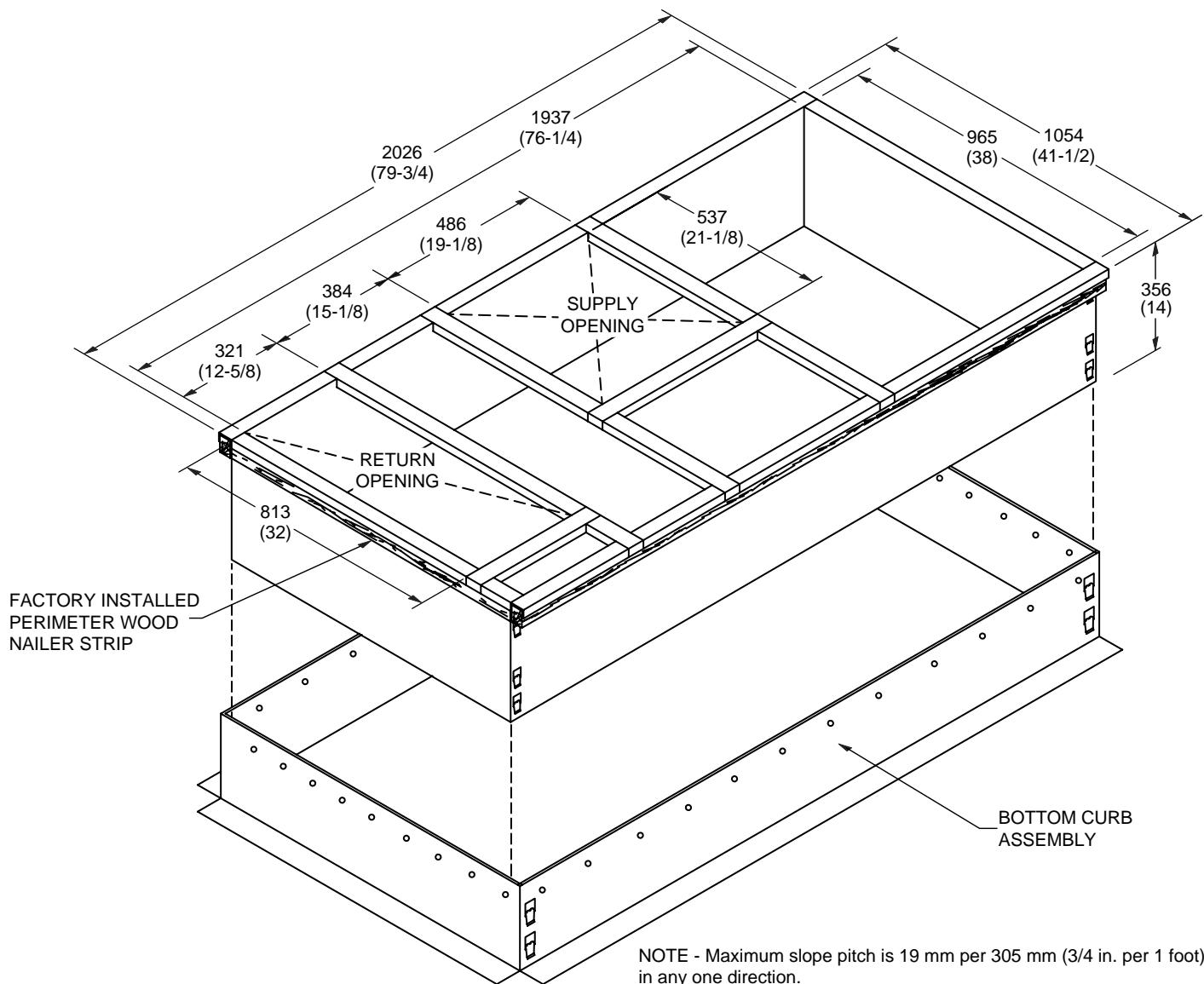


Model No.	A		B	
	mm	in.	mm	in.
Standard - 036, 048, 060, 072, 074, ¹ 090	2026	79-3/4	1937	76-1/4
Full Perimeter - 090	2356	92-3/4	2267	89-1/4

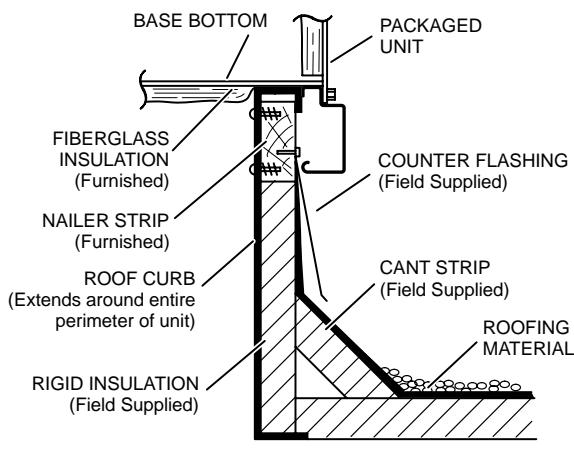
¹ 090 models can be used on smaller 2026 mm (79-3/4 in.) roof curbs (not full perimeter) with 400 mm (15-3/4 in.) overhang at condenser end of unit. See dimension drawing on page 50.

DIMENSIONS - ACCESSORIES

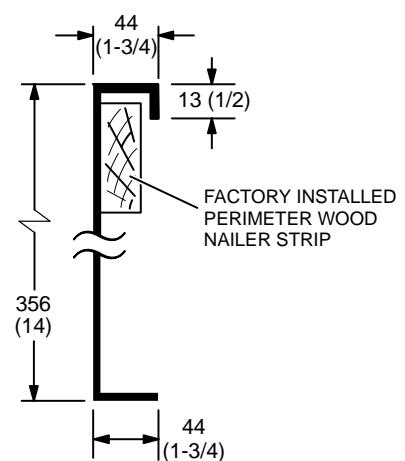
ADJUSTABLE PITCH CURBS - DOUBLE DUCT OPENING



TYPICAL FLASHING DETAIL FOR ROOF CURB

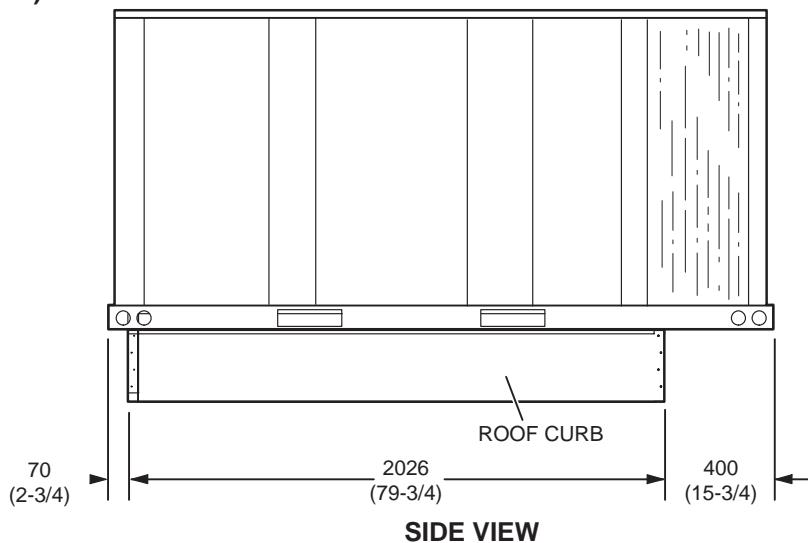


DETAIL ROOF CURB

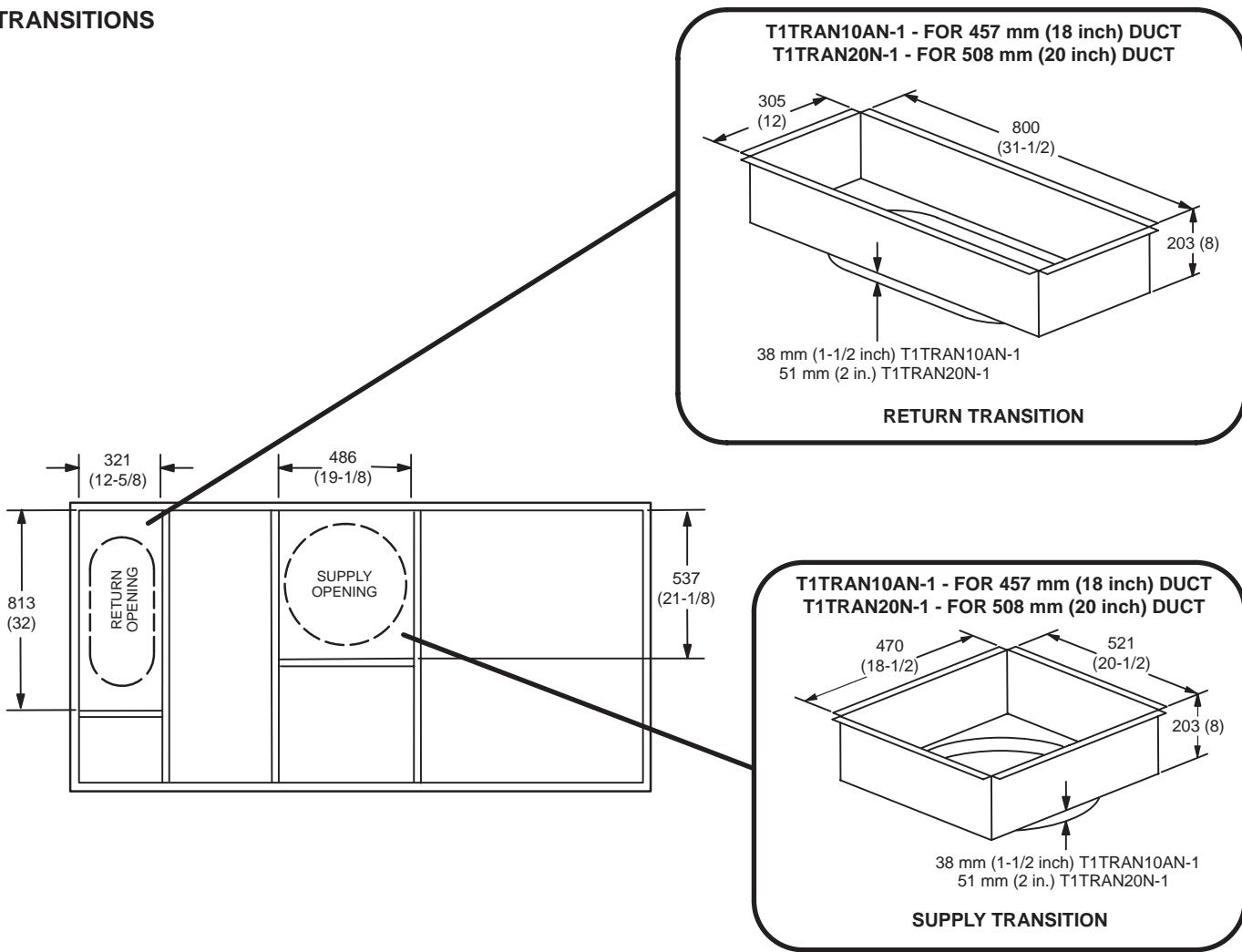


DIMENSIONS - ACCESSORIES

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



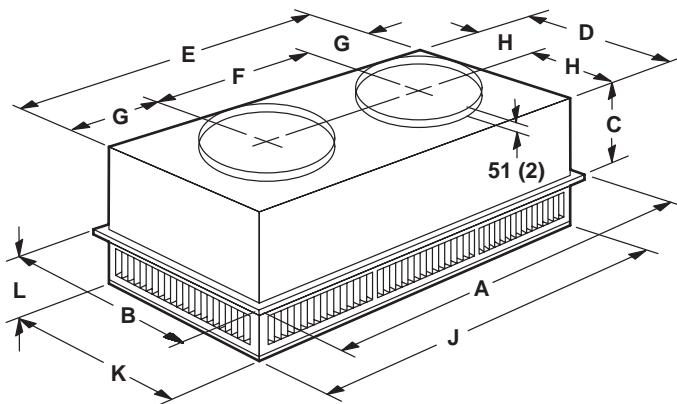
TRANSITIONS



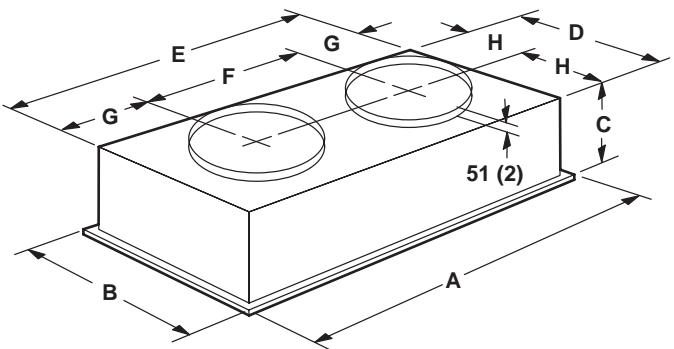
DIMENSIONS - ACCESSORIES

COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



FLUSH CEILING DIFFUSER



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

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