ALLIED™ Commercial

PACKAGED HEAT PUMP

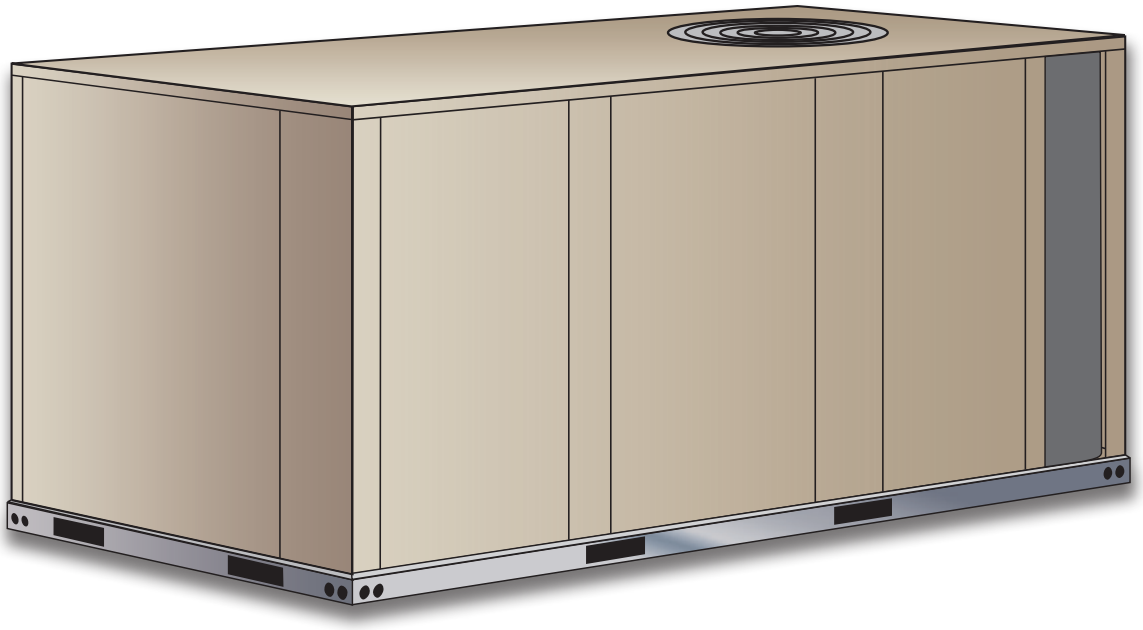
KHB

K-Series™ Rooftop Units

Standard and High Efficiency - 50 HZ

KHB-036-074 (08/2019)

PRODUCT SPECIFICATIONS



10.5 to 21 kW (3 to 6 Tons)
Net Cooling Capacity - 8.8 to 17.3 kW (30 000 to 58 900 Btuh)
Net Heating Capacity - 8.8 to 18.4 kW (30 000 to 63 000 Btuh)
Optional Electric Heat - 5.7 to 23 kW

MODEL NUMBER IDENTIFICATION

K H B 060 S 4 B N 1 M

Brand/Family
K = K-Series™ Product Line

Unit Type
H = Packaged Heat Pump w/ optional Electric Heat

Major Design Sequence
B = 2nd Generation

Nominal Cooling Capacity - Tons
036 = 10.5 kW (3 Ton)
048 = 14 kW (4 Ton)
060 = 17.5 kW (5 Ton)
074 = 21 kW (6 Ton)

Cooling Efficiency
S = Standard Efficiency
H - High Efficiency

Refrigerant Type
4 = R-410A

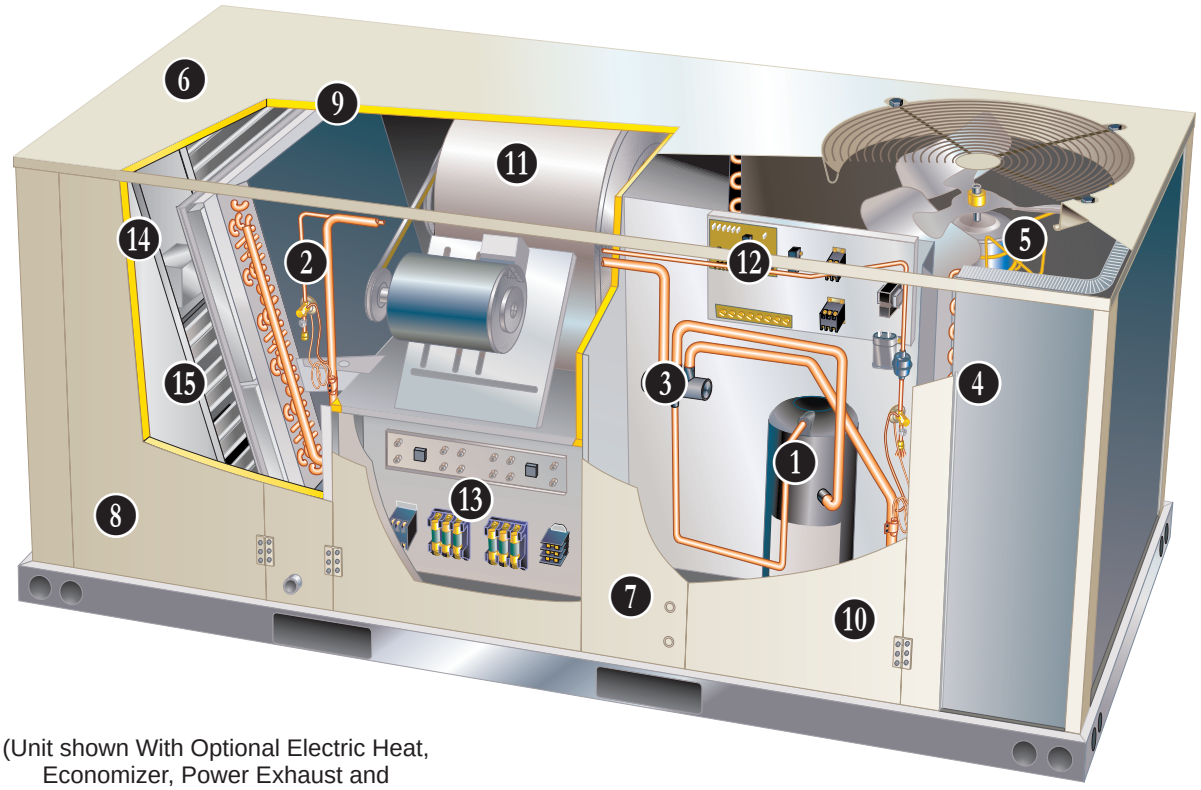
Blower Type
B = Belt Drive
T = Two Speed Belt Drive

Factory Installed Electric Heat
N = No Heat

Minor Design Sequence
1 = 1st Revision
2 = 2nd Revision
3 = 3rd Revision

Voltage
M = 380/420V-3 phase-50hz

FEATURES AND BENEFITS



(Unit 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 Scroll Compressors -** Furnished on all 036 through 060 standard efficiency models.
- **Two-Stage Scroll Compressor -** Furnished on all high efficiency models and 074 standard efficiency models. Allows rooftop units to deliver just the necessary amount of cooling needed to meet the space's demand.
- **High Pressure Switch -** Protects compressor.
- **Isolated Compressor Compartment -** Allows performance check during normal compressor operation without disrupting airflow.
- **Belt Drive Blower Motors -** Belt drive motors to maximize air performance.
- **Independent Motor Mounts -** Allows for easy and efficient service access without removing the top panel.
- **Downflow or Horizontal Airflow -** Easy field conversion.
- **Two Fork Lift Slots on Three Sides -** Easy to pick up and transport units from almost any angle.
- **Corrosion-Resistant Removable, Reversible Drain Pan -** Provides application flexibility, durability and improved serviceability.
- **Thermostatic Expansion Valves -** Provide peak cooling performance across the entire application range.
- **Common Components -** Many maintenance items are standard throughout the entire product line, reducing the need to carry different parts to the job or maintain in inventory.

FEATURES AND BENEFITS

CONTENTS

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 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.

CE MARK OPTION

(Standard Efficiency Models Only)

The CE mark has been added to our rooftop product line as a configure to order (CTO) option. This optional construction allows units to be sold into countries requiring CE marking for rooftop products.

CE marked units meet the requirements of the Machinery Directive 2006/42/EC,

Low Voltage Directive 73/23/EEC, EMC Directive 89/336/EEC, and Gas Directive 90/396/EEC. Declaration of conformity certificates will be provided for each CE marked unit on demand.

Key features of this over and above standard product features are:

- Touch-proof electrical components meeting the requirements of EN 60529.
- Branch circuits over 0.5 kW load have overcurrent protection.
- Rotary style/finger safe disconnect switch with locking handle prevents disconnect door from being opened with the power on. Padlock can be applied to lock the disconnect switch in the OFF position.
- The factory wiring has been redesigned for separation of high and low voltage circuits.

COOLING / HEATING SYSTEM

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

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

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

Unit pre-charged with refrigerant. See Specification table.

1 Single Speed Scroll Compressor (036 through 060 Standard Efficiency 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 (All High Efficiency Models and 074 Standard Efficiency 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.

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

2 Check/Thermal Expansion Valve
Assures optimal performance throughout the application range.

Removable element head.

3 Reversing Valves
4-way interchange reversing valve effects a rapid change in direction of refrigerant flow resulting in quick changeover from cooling to heating and vice versa.

FEATURES AND BENEFITS

COOLING / HEATING SYSTEM (continued)

Defrost Control
Control furnished as standard.

Anti-short cycle (5 minutes) incorporated into the board.

Diagnostic LED's furnished as an aid in troubleshooting.

Standard Efficiency Models - Provides a defrost cycle, if needed, every 30 or 60 or 90 minutes (adjustable) of compressor on" time at outdoor coil temperature below 2°C. Temperature switch mounted on outdoor coil liquid line terminates defrost cycle.

High Efficiency Models - Gives a demand defrost cycle whenever system heating performance falls below optimum levels. The sensing element on coil determines when defrost cycle is required and when to terminate cycle.

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.

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

Indoor Coil
Cross row circuiting with rifled copper tubing 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.

5 **Outdoor Coil Fan Motor**
High efficiency models have a variable speed (ECM) fan motor for energy efficient and quiet operation.

Standard efficiency models have a single speed PSC fan motor.

Thermal overload protected, totally enclosed, permanently lubricated sleeve (standard) ball bearings (high), 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

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
Designed for use in ambient temperatures no lower than -18°C. Cycles the outdoor fan while allowing compressor operation in the cooling cycle. Includes field installed pressure switch on the liquid line to determine when to operate the outdoor fan. This intermittent fan operation allows the system to operate without icing the evaporator coil and losing capacity.

Standard Efficiency Models - If the liquid line pressure drops below 1.65 MPa outdoor fan stops until main pressure switch has reset to 3.10 MPa to resume normal cooling operation.

High Efficiency Models - If the liquid line pressure drops below 1.65 MPa outdoor fan operates at 25% normal fan speed. If pressure drops below 1.24 MPa outdoor fan stops until pressure rises to 2.06 MPa, then fan operates at 25% normal fan speed unless main pressure switch has reset to 3.10 MPa to resume normal cooling operation and full fan speed operation.

CABINET

6 **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.

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

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

9 **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.

CABINET (continued)

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

NOTE - 048/060/074 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

10 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.

11 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 and 060 standard efficiency models.

Two-speed belt drive motors (low static/high static) are available on 036, 048 and 060 high efficiency models and the 074 standard efficiency model.

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

All belt drive motors have adjustable pulley for speed change.

Required Selections

Ordering Information
Specify drive kit number when base unit is ordered.

Specify motor output and drive kit number when base unit is ordered. See Drive Kit Specifications Table.

CONTROLS

12 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.

Thermostats
Control system and thermostat options, see page 34.

FEATURES AND BENEFITS

INDOOR AIR QUALITY

Air Filters
Disposable 51 mm filters furnished as standard.

Options / Accessories

Field Installed

High Efficiency Air Filters
Disposable MERV 8 or MERV 13 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency 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 (CO_2) Sensor
Monitors CO_2 levels adjusts economizer dampers as needed for Demand Control Ventilation.

ELECTRICAL

Marked & Color-Coded Wiring
All electrical wiring is color-coded and marked to identify which components it is connecting.

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

Unit Sub-Fuse Blocks
Furnished as standard on all units.

Options / Accessories

Field Installed

13 **Electric Heat**
Electric Heat is CE marked.

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

ECONOMIZER OPTIONS

Factory or Field Installed

14 Economizer
(Standard and High Performance Common Features)
Combination Outdoor Air Hood is furnished.

Factory installed Economizer can be ordered with two exhaust options:

- Barometric Relief Dampers
- No Exhaust.

Field installed Economizer includes Barometric Relief Dampers with Combination Hood.

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

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

Occupied/Unoccupied mode with field furnished setback thermostat.

Demand Control Ventilation (DCV) ready using optional CO_2 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.
- Indoor Air Quality (IAQ) Sensor - Signals dampers to modulate and maintain 13°C when CO_2 is higher than the CO_2 setpoint.
- Demand Control Ventilation (DCV) light-emitting diode (LED) - A steady green DCV 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.

ECONOMIZER OPTIONS (continued)

Main Menu Structure:

- STATUS (economizer and system operation status)
- SETPOINTS (settings for various setpoint parameters)
- SYSTEM SETUP (settings/ information about the system)
- ADVANCED SETUP (freeze protection, CO_2 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 OPTION

Field Installed

15 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, U.S. National Roofing Contractors Approved, shipped knocked down.

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

Curb can also be fastened together with furnished hardware.

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

Full Perimeter Curbs, Downflow (060H and 074 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 heights.

NOTE - 060H and 074 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 41.

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 KHB 036	KHB 048	KHB 060	KHB 074
CE MARK (STANDARD EFFICIENCY MODELS ONLY)							
CE Marked Unit				[1] O	[1] O	[1] O	[1] O
COOLING SYSTEM							
Condensate Drain Trap		Polyvinyl Chloride (PVC) - C1TRAP20AD2	**76W26**	X	X	X	O
		Copper - C1TRAP10AD2	**76W27**	X	X	X	X
Drain Pan Overflow Switch		K1SNSR71AB1-	**74W42**	X	X	X	X
Low Ambient Kit		Standard Efficiency - K1SNSR13A-2	**14D96**	X	X	X	X
		High Efficiency - K1SNSR34*A0	**15C84**	X	X	X	
Efficiency			Standard	O	O	O	O
			High	O	O	O	
Refrigerant Type			R-410A	O	O	O	O
BLOWER - SUPPLY AIR							
Motor		Belt Drive - 1.5 kW (Single-Speed)	Factory	[1] O	[1] O	[1] O	
		Belt Drive - 1.24 kW (Two-Speed)	Factory				O
		Belt Drive - 0.47 kW (Two-Speed)	Factory	[2] O	[2] O		
		Belt Drive - 0.62 kW (Two-Speed)	Factory	[2] O		[2] O	
		Belt Drive - 1.24 kW (Two-Speed)	Factory		[2] O	[2] O	
Drive Kits		Kit A01 - T1DRKT001-1 - 561 - 842 rev/min	Factory	O			
See Blower Data Tables for selection		Kit A02 - T1DRKT002-1 - 621 - 931 rev/min	Factory		O		
		Kit A03 - T1DRKT003-1 - 694 -1042 rev/min	Factory			O	
		Kit A04 - T1DRKT004-1 - 807 - 1117 rev/min	Factory				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				O
CABINET							
Combination Coil/Hail Guards		C1GARD51A-1	**13R98**	X			
		C1GARD51AT1	**13T03**		X		
		C1GARD51AT1	**13T17**			X	X
Corrosion Protection			Factory	O	O	O	O
Hinged Access Panels			Factory	O	O	O	O
CONTROLS							
NOTE - Also see Conventional Thermostat Control Systems on page 34 for Additional Options.							
Smoke Detector - Supply or Return (Power board and one sensor)		C1SNSR44AP1	**53W78**	X	X	X	X
Smoke Detector - Supply and Return (Power board and two sensors)		C1SNSR43AP1	**53W79**	X	X	X	X

[1] Standard Efficiency Models.

[2] High Efficiency Models.

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 KHB 036	KHB 048	KHB 060	KHB 074
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
Economizer - No Exhaust		Factory	O	O	O	O
Standard Economizer Controls						
Single Enthalpy Control	C1SNSR64FF1	**53W64**	OX	OX	OX	OX
Differential Enthalpy Control (order 2)	C1SNSR64FF1	**53W64**	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
High Performance Economizer - No Exhaust		Factory	O	O	O	X
High Performance Economizer Controls						
Single Enthalpy Control	C1SNSR60FF1	**10Z75**	OX	OX	OX	OX
Differential Enthalpy Control (order 2)	C1SNSR60FF1	**10Z75**	X	X	X	X
Economizer Accessories						
Horizontal Economizer Conversion Kit	T1HECK00AN1	**17W45**	X	X	X	X
POWER EXHAUST FAN						
Standard Static *NOTE - Field installed Power Exhaust Fan requires "Barometric Relief Dampers for Power Exhaust Kit" for field installation. See below.*	380/420V-3ph - C1PWRE10A-1M	**79W93**	X	X	X	X
BAROMETRIC RELIEF						
[1] Barometric Relief Dampers for Power Exhaust Kit	C1DAMP50A-3-	**19D42**	X	X	X	X
[2] Horizontal Barometric Relief Dampers With Exhaust Hood	LAGEDH03/15-2	**19F01**	X	X	X	X
OUTDOOR AIR						
Outdoor Air Dampers - Includes Outdoor Air Hood						
Manual	C1DAMP11A-2	**15D18**	OX	OX	OX	OX
Motorized	C1DAMP21A-1	**15D17**	OX	OX	OX	OX
ELECTRICAL						
Voltage 50 hz with neutral (No neutral on CE marked models)	380/420V - 3 phase		O	O	O	O
[3] ELECTRIC HEAT						
5.7 kW	K1EH0057AN1M	**67W92**	X	X	X	X
11.5 kW	K1EH0115AN1M	**67W93**	X	X	X	X
17.2 kW	K1EH0172AN1M	**67W94**			X	X
23 KW	K1EH0230N-1M	**67W95**				X

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

[2] Required when Economizer is configured for horizontal airflow.

[3] Nominal kW at 420V-3ph-50hz.

NOTE - The catalog and model numbers that appear here are for ordering field installed accessories only.
OX - Field Installed or Configure to Order (Factory installed)
O - Configure to Order (Factory Installed)
X - Field Installed.

OPTIONS / ACCESSORIES

Item		Model No.	Catalog No.	Unit Model Number KHB 036	KHB 048	KHB 060	KHB 074
INDOOR AIR QUALITY							
Air Filters							
High Efficiency Air Filters Order 4 per unit	MERV 8 (406 x 508 x 51) - C1FLTR15A-1-		**54W20**	X			
	MERV 13 (406 x 508 x 51) - T1FLTR40A-1-		**52W37**	X			
	MERV 8 (508 x 508 x 51) - C1FLTR15D-1-		**54W21**		X	X	X
	MERV 13 (508 x 508 x 51) - C1FLTR40D-1-		**52W39**		X	X	X
Indoor Air Quality (CO_2) Sensors							
Sensor - Wall-mount, off-white plastic cover with LCD display		C0SNSR50AE1L	**77N39**	X	X	X	X
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting		C0SNSR53AE1L	**87N54**	X	X	X	X
CO_2 Sensor Duct Mounting Kit - for downflow applications		C0MISC19AE1-	**85L43**	X	X	X	X
Aspiration Box - for duct mounting non-plenum rated CO_2 sensor (**77N39**)		C0MISC16AE1-	**90N43**	X	X	X	X
UVC Germicidal Lamps							
[1] UVC Light Kit (220V-1ph)		E1UVCL10AN1-	**50W90**	X	X	X	X
ROOF CURBS							
Hybrid Roof Curbs, Downflow							
203 mm height		C1CURB70A-1	**11F50**	X	X	X	X
356 mm height		C1CURB71A-1	**11F51**	X	X	X	X
457 mm height		C1CURB72A-1	**11F52**	X	X	X	X
610 mm height		C1CURB73A-1	**11F53**	X	X	X	X
Hybrid Roof Curbs, Full Perimeter, Downflow							
203 mm height		K1CURB70AP1	**11S47**			X	[2] X
356 mm height		K1CURB71AP1	**11S48**			X	[2] X
457 mm height		K1CURB72AP1	**11T01**			X	[2] X
610 mm height		K1CURB73AP1	**11T06**			X	[2] X
Adjustable Pitch Curb, Downflow							
356 mm height		C1CURB55AT1	**43W27**	X	X	X	X
CEILING DIFFUSERS							
Step-Down - Order one		RTD9-65S	**13K60**	X	X	X	
		RTD11-95S	**13K61**				X
Flush - Order one		FD9-65S	**13K55**	X	X	X	
		FD11-95S	**13K56**				X
Transitions (Supply and Return) - Order one		T1TRAN10AN1	**17W53**	X	X	X	
		T1TRAN20N-1	**17W54**				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] 060H and 074 models will fit smaller roof curbs with overhang. See dimension drawing on page 37.

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 - STANDARD EFFICIENCY

General Data		Nominal Size	10.5 kW (3 Ton)	14 kW (4 Ton)	17.5 kW (5 Ton)	21 kW (6 Ton)
		Model No.	**KHB036S4B**	**KHB048S4B**	**KHB060S4B**	**KHB074S4T**
		Efficiency Type	Standard	Standard	Standard	Standard
		Blower Type	Single Speed Belt Drive	Single Speed Belt Drive	Single Speed Belt Drive	Two-Speed Belt Drive
Cooling Performance	Gross Cooling Capacity - kW (Btuh)		9.3 (31 700)	12.3 (41 900)	15.8 (54 000)	18.0 (61 500)
	Net Cooling Capacity - kW (Btuh)		[1] 8.9 (30 300)	[1] 11.7 (39 900)	[1] 15.2 (51 800)	[2] 17.3 (58 900)
	AHRI Rated Air Flow - L/s (cfm)		565 (1200)	790 (1670)	955 (2020)	991 (2100)
	[3] Sound Rating Number (dB)		75	75	80	83
	Total Unit Power - kW		2.6	3.5	4.2	5.3
	SEER (Btuh/Watt)		[1] 13.8	[1] 14.0	[1] 14.0	- - -
	EER (Btuh/Watt)		[1] 11.6	[1] 11.3	[1] 12.2	[2] 11.1
	IEER (Btuh/Watt)		- - -	- - -	- - -	[2] 14.5
Refrigerant	Type		R-410A	R-410A	R-410A	R-410A
	Charge Furnished		5.44 kg (12 lbs. 0 oz.)	6.55 kg (14 lbs. 7 oz.)	7.26 kg (16 lbs. 0 oz.)	10.88 kg (24 lbs. 0 oz.)
Heating Performance	Total High Heating Capacity - kW (Btuh)		9.2 (31 500)	12.5 (42 500)	14.8 (50 500)	18.4 (63 000)
	Total Unit Power - kW		2.4	3.1	3.7	5.8
	COP		3.8	3.96	3.96	3.30
	Total Low Heating Capacity - kW (Btuh)		5.3 (18 200)	7.5 (25 600)	8.7 (29 800)	10.5 (36 000)
	Total Unit Power - kW		2.3	3.0	3.8	4.7
	COP		2.30	2.49	2.30	2.25
Electric Heating Options			See Electric Heat Table, page 31			
Compressor Type (one per unit)			Scroll	Scroll	Scroll	Scroll
Outdoor Coil	Net face area - m^2 (sq. ft.)		1.45 (15.6)	1.79 (19.3)	1.79 (19.3)	2.6 (28.0)
	Tube diameter - mm (in.)		9.5 (3/8)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)
	Number of rows		2	2	3	2
	Fins per meter (Fins / inch)		788 (20)	788 (20)	788 (20)	788 (20)
Outdoor Coil Fan	Motor W (HP)		187 (1/4)	187 (1/4)	249 (1/3)	374 (1/2)
	Motor rev/min		690	690	900	900
	Total motor watts		180	220	310	387
	Diameter - mm (in.) / No. of blades		610 (24) - 3	610 (24) - 3	610 (24) - 3	610 (24) - 4
	Total air volume - L/s (cfm)		1300 (2750)	1535 (3250)	1690 (3580)	2260 (4780)
Indoor Coil	Net face area - m^2 (sq. ft.)		0.7 (7.8)	0.9 (9.7)	0.9 (9.7)	0.90 (9.7)
	Tube diameter - mm (in.)		9.5 (3/8)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)
	Number of rows		3	3	4	4
	Fins per meter (Fins / inch)		552 (14)	552 (14)	552 (14)	552 (14)
	Drain Connection (no. and size) - in.		(1) 1 NPT	(1) 1 NPT	(1) 1 NPT	(1) 1 NPT
	Expansion device type		Balanced Port Thermostatic Expansion Valve, removeable power head			
[4] **Indoor Blower & Drive Selection**	Nominal Motor Output kW (hp)		1.5 (2)	1.5 (2)	1.5 (2)	1.2 (1.66)
	Maximum Usable Motor kW (hp)		1.7 (2.3)	1.7 (2.3)	1.7 (2.3)	1.4 (1.92)
	Drive Kit (rev/min range)		A01 (561 - 842) A05 (748 - 1122)	A02 (621 - 931) A06 (893 - 1191)	A03 (694 - 1042) A07 (1010 - 1290)	A04 (807 - 1117) A08 (994-1326)
	Wheel nom. 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) 508 x 508 x 51 (20 x 20 x 2)		
Electrical Characteristics - 50 hz			380/420V - 50 hertz - 3 phase with neutral (No neutral on CE marked models)			

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

[1,2] Rating test conditions are those included in Air-Conditioning, Heating and Refrigeration Institute (AHRI) Standard [1] 210/240 or [2] 340/360 while operating at rated voltage and air volumes:
Cooling Ratings - 35°C (95°F) outdoor air temperature and 27°C (80°F) dry bulb/19°C (67°F) wet bulb entering indoor coil air.
High Temperature Heating Ratings - 8°C (47°F) dry bulb/6°C (43°F) wet bulb outdoor air temperature and 21°C (70°F) entering indoor coil air.
Low Temperature Heating Ratings - –8°C (17°F) dry bulb/–9°C (15°F) wet bulb outdoor air temperature and 21°C (70°F) entering indoor coil air.

[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 - HIGH EFFICIENCY

General Data		Nominal Size	10.5 kW (3 Ton)	14 kW (4 Ton)	17.5 kW (5 Ton)
		Model No.	**KHB036H4T**	**KHB048H4T**	**KHB060H4T**
		Efficiency Type	High	High	High
		Blower Type	Two-Speed Belt Drive	Two-Speed Belt Drive	Two-Speed Belt Drive
Cooling Performance	Gross Cooling Capacity - kW (Btuh)		9.1 (31 000)	12.1 (41 400)	15.5 (53 000)
	[1] Net Cooling Capacity - kW (Btuh)		8.8 (30 000)	11.6 (39 500)	14.9 (51 000)
	AHRI Rated Air Flow - L/s (cfm)		565 (1200)	755 (1600)	850 (1800)
	[2] Sound Rating Number (dB)		75	77	77
	Total Unit Power - kW		2.5	3.3	4.2
	[1] SEER (Btuh/Watt)		15.0	15.0	15.0
	[1] EER (Btuh/Watt)		11.9	12.2	12.2
Refrigerant	Type		R-410A	R-410A	R-410A
	Charge Furnished		5.81 kg (12 lbs. 13 oz)	6.35 kg (14 lbs. 0 oz.)	9.07 (20 lbs. 0 oz.)
Heating Performance	Total High Heating Capacity - kW (Btuh)		8.8 (30 000)	11.6 (39 500)	14.6 (50 000)
	Total Unit Power - kW		2.4	3.0	3.9
	COP		3.70	3.90	3.80
	Total Low Heating Capacity - kW (Btuh)		4.8 (16 300)	6.3 (21 600)	8.3 (28 200)
	Total Unit Power - kW		2.2	2.7	3.6
	COP		2.20	2.32	2.30
Electric Heating Options			See Electric Heat Table, page 31		
Compressor Type (one per unit)			Two-Stage Scroll	Two-Stage Scroll	Two-Stage Scroll
Outdoor Coil	Net face area - m^2 (sq. ft.)		1.5 (15.6)	1.8 (19.3)	2.6 (28.0)
	Tube diameter - mm (in.)		9.5 (3/8)	9.5 (3/8)	9.5 (3/8)
	Number of rows		2	2	2
	Fins per meter (Fins / inch)		788 (20)	788 (20)	788 (20)
Outdoor Coil Fan	Motor - W (HP)		(1) 249 (1/3)	(1) 249 (1/3)	(1) 249 (1/3)
	Motor rev/min		775 / 650	850 / 700	930 / 785
	Total Motor Input - watts		190 / 120	250 / 140	280 / 200
	Diameter - mm (in.) / No. of blades		610 (24) / 3	610 (24) / 3	610 (24) / 3
	Total air volume - L/s (cfm)		1650/1400 (3500/2970)	1915/1570 (4060/3330)	1955/1595 (4140/3380)
Indoor Coil	Net face area - m^2 (sq. ft.)		0.7 (7.8)	0.9 (9.7)	0.9 (9.7)
	Tube diameter - mm (in.)		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		
[3] **Indoor Blower & Drive Selection**	Nominal Motor kW (hp)		0.47 (0.63)	0.47 (0.63)	0.62 (0.83)
	Maximum Usable Motor kW (hp)		0.54 (0.72)	0.54 (0.72)	0.71 (0.95)
	Drive Kit (rev/min range)		A01 (low 374 - 561) (high 546 - 842)	A02 (low 414 - 621) (high 621 - 931)	A03 (low 463 -694) (high 694 -1042)
	Nominal Motor kW (hp)		0.62 (0.83)	1.24 (1.66)	1.24 (1.66)
	Maximum Usable Motor kW (hp)		0.71 (0.95)	1.42 (1.91)	1.42 (1.91)
	Drive Kit (rev/min range)		A05 (low 498 - 748) (high 748 - 1122)	A06 (low 595 - 794) (high 893 - 1191)	A07 (low 673 - 860) (high 1010 - 1290)
	Wheel nom. diameter x width - mm (in.)		254 x 254 (10 x 10)		
Filters	Type		Disposable	Disposable	
	Number and size - mm (in.)		(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] Rating test conditions are those included in Air-Conditioning, Heating and Refrigeration Institute (AHRI) Standard 210/240 while operating at rated voltage and air volumes:

Cooling Ratings - 35°C (95°F) outdoor air temperature and 27°C (80°F) dry bulb/19°C (67°F) wet bulb entering indoor coil air.

High Temperature Heating Ratings - 8°C (47°F) dry bulb/6°C (43°F) wet bulb outdoor air temperature and 21°C (70°F) entering indoor coil air.

Low Temperature Heating Ratings - –8°C (17°F) dry bulb/–9°C (15°F) wet bulb outdoor air temperature and 21°C (70°F) entering indoor coil air.

[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 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.

COOLING / HEATING RATINGS - STANDARD EFFICIENCY

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 - KHB036S4 - STANDARD EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	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	9.20	1.64	0.75	0.91	1.00	8.30	1.97	0.77	0.96	1.00	7.20	2.38	0.81	1.00	1.00	6.9	2.53	0.83	1	1
	565	9.80	1.65	0.82	1.00	1.00	8.90	1.98	0.85	1.00	1.00	7.90	2.39	0.90	1.00	1.00	7.5	2.54	0.93	1	1
	680	10.30	1.66	0.89	1.00	1.00	9.30	1.99	0.93	1.00	1.00	8.30	2.40	0.99	1.00	1.00	7.9	2.55	1	1	1
19.4°C	455	9.80	1.65	0.58	0.73	0.88	8.90	1.98	0.58	0.75	0.92	7.70	2.39	0.59	0.78	0.98	7.3	2.54	0.6	0.81	0.99
	565	10.30	1.66	0.62	0.80	0.97	9.30	1.99	0.63	0.83	1.00	8.10	2.40	0.65	0.88	1.00	7.7	2.54	0.66	0.9	1
	680	10.70	1.67	0.66	0.86	1.00	9.60	2.00	0.68	0.90	1.00	8.40	2.40	0.71	0.97	1.00	8	2.55	0.73	0.99	1
21.7°C	455	10.50	1.66	0.42	0.57	0.71	9.50	1.99	0.42	0.58	0.73	8.30	2.40	0.40	0.59	0.76	7.9	2.55	0.4	0.59	0.78
	565	11.00	1.68	0.45	0.61	0.78	9.90	2.00	0.44	0.63	0.81	8.70	2.41	0.43	0.64	0.85	8.3	2.55	0.43	0.66	0.88
	680	11.30	1.69	0.47	0.66	0.84	10.20	2.01	0.46	0.68	0.88	8.90	2.41	0.46	0.70	0.94	8.5	2.56	0.47	0.72	0.97

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil														
		48°C					50°C					51.7°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb		
	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
17.2°C	455	6.7	2.65	0.84	1	1	6.4	2.78	0.86	1	1	6.20	2.90	0.86	1.00	1.00
	565	7.2	2.66	0.94	1	1	7	2.79	0.96	1	1	6.70	2.90	0.98	1.00	1.00
	680	7.7	2.67	1	1	1	7.4	2.79	1	1	1	7.20	2.91	1.00	1.00	1.00
19.4°C	455	7.1	2.66	0.6	0.82	1	6.8	2.79	0.61	0.83	1	6.50	2.90	0.61	0.83	1.00
	565	7.4	2.66	0.67	0.92	1	7.1	2.79	0.68	0.94	1	6.90	2.91	0.68	0.95	1.00
	680	7.7	2.67	0.74	1	1	7.4	2.79	0.74	1	1	7.20	2.91	0.75	1.00	1.00
21.7°C	455	7.6	2.67	0.4	0.6	0.8	7.3	2.79	0.39	0.61	0.81	7.00	2.91	0.39	0.61	0.81
	565	7.9	2.67	0.43	0.66	0.89	7.6	2.8	0.43	0.68	0.91	7.40	2.91	0.42	0.68	0.92
	680	8.2	2.68	0.46	0.73	0.98	7.9	2.8	0.46	0.74	1	7.60	2.91	0.46	0.75	1.00

10.5 KW - KHB036S4 - STANDARD EFFICIENCY - HEATING CAPACITY

Indoor Coil Air Volume 21°C Dry Bulb	Air Temperature Entering Outdoor Coil									
	18°C		7°C		-4°C		-15°C		-28°C	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
L/s	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
453	11.3	2.01	8.6	1.91	5.9	1.81	3.9	1.63	2.00	1.21
566	11.5	1.90	8.8	1.80	6.0	1.70	4.0	1.52	2.10	1.10
680	11.6	1.85	8.9	1.74	6.1	1.64	4.1	1.46	2.20	1.04

COOLING / HEATING RATINGS - STANDARD EFFICIENCY

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

14 KW - KHB048S4 - STANDARD EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	12.3	2.23	0.75	0.91	1.00	10.70	2.69	0.76	0.96	1.00	9.10	3.27	0.79	1.00	1.00	29.3	3.49	0.81	1	1
	755	13.1	2.24	0.82	1.00	1.00	11.60	2.71	0.85	1.00	1.00	10.10	3.30	0.89	1.00	1.00	32.4	3.51	0.92	1	1
	905	14	2.25	0.89	1.00	1.00	12.40	2.72	0.94	1.00	1.00	10.70	3.31	0.99	1.00	1.00	34.7	3.53	1	1	1
19.4°C	605	13.2	2.24	0.57	0.73	0.88	11.50	2.70	0.56	0.74	0.92	9.80	3.29	0.56	0.77	0.98	31.5	3.5	0.56	0.79	1
	755	13.9	2.25	0.62	0.80	0.97	12.20	2.72	0.62	0.83	1.00	10.40	3.30	0.62	0.87	1.00	33.4	3.52	0.64	0.9	1
	905	14.5	2.26	0.66	0.87	1.00	12.70	2.73	0.67	0.92	1.00	10.80	3.32	0.69	0.97	1.00	34.9	3.53	0.7	0.99	1
21.7°C	605	14.1	2.25	0.41	0.56	0.70	12.40	2.72	0.38	0.56	0.72	10.60	3.31	0.36	0.56	0.75	34.4	3.53	0.34	0.56	0.77
	755	14.9	2.27	0.44	0.61	0.78	13.10	2.74	0.42	0.62	0.81	11.20	3.32	0.39	0.63	0.85	36.1	3.54	0.39	0.64	0.88
	905	15.4	2.28	0.46	0.66	0.85	13.50	2.75	0.44	0.67	0.89	11.60	3.34	0.42	0.69	0.95	37.5	3.55	0.42	0.71	0.97

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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
17.2°C	605	28	3.66	0.82	1	1	26.6	3.84	0.83	1	1	7.40	4.01	0.84	1.00	1.00
	755	30.9	3.68	0.94	1	1	29.4	3.86	0.96	1	1	8.20	4.03	0.98	1.00	1.00
	905	33.2	3.7	1	1	1	31.6	3.89	1	1	1	8.90	4.05	1.00	1.00	1.00
19.4°C	605	29.8	3.67	0.56	0.8	1	28.3	3.86	0.56	0.81	1	7.90	4.02	0.55	0.82	1.00
	755	31.7	3.69	0.64	0.92	1	29.9	3.87	0.64	0.94	1	8.30	4.04	0.64	0.96	1.00
	905	33.3	3.7	0.71	1	1	31.7	3.89	0.72	1	1	8.90	4.05	0.73	1.00	1.00
21.7°C	605	32.7	3.7	0.34	0.56	0.78	30.9	3.88	0.33	0.56	0.79	8.60	4.04	0.31	0.56	0.80
	755	34.4	3.71	0.38	0.64	0.89	32.5	3.89	0.37	0.65	0.91	9.10	4.06	0.36	0.65	0.93
	905	35.7	3.73	0.42	0.72	0.99	33.9	3.91	0.41	0.73	1	9.50	4.07	0.41	0.73	1.00

14 KW - KHB048S4 - STANDARD EFFICIENCY - HEATING CAPACITY

Indoor Coil Air Volume 21°C Dry Bulb	Air Temperature Entering Outdoor Coil									
	18°C		7°C		-4°C		-15°C		-28°C	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
L/s	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
605	15.1	2.58	11.6	2.49	8.0	2.40	5.4	2.19	2.7	1.62
755	15.3	2.42	11.9	2.33	8.3	2.24	5.7	2.03	2.9	1.46
905	15.6	2.32	12.1	2.23	8.6	2.14	5.9	1.93	3.2	1.37

COOLING / HEATING RATINGS - STANDARD EFFICIENCY

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 - KHB060S4 - STANDARD EFFICIENCY - COOLING CAPACITY

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	15.7	2.71	0.73	0.91	1.00	14.00	3.24	0.75	0.96	1.00	12.20	3.94	0.77	1.00	1.00	11.6	4.19	0.82	1	1
	945	16.6	2.72	0.79	1.00	1.00	15.10	3.26	0.83	1.00	1.00	13.30	3.96	0.89	1.00	1.00	12.7	4.23	0.93	1	1
	1135	17.7	2.74	0.87	1.00	1.00	16.00	3.28	0.93	1.00	1.00	14.10	3.98	1.00	1.00	1.00	13.5	4.25	1	1	1
19.4°C	755	16.9	2.72	0.56	0.70	0.86	15.00	3.26	0.56	0.72	0.92	13.10	3.96	0.56	0.76	0.98	12.4	4.22	0.58	0.80	1
	945	17.7	2.73	0.60	0.77	0.98	15.80	3.27	0.61	0.80	1.00	13.70	3.97	0.62	0.86	1.00	13.0	4.24	0.65	0.90	1
	1135	18.3	2.75	0.64	0.85	1.00	16.40	3.28	0.65	0.90	1.00	14.20	3.99	0.68	0.98	1.00	13.5	4.25	0.72	1	1
21.7°C	755	18.1	2.74	0.41	0.54	0.68	16.20	3.28	0.39	0.55	0.70	14.10	3.98	0.38	0.56	0.73	13.4	4.25	0.38	0.58	0.78
	945	18.9	2.75	0.43	0.59	0.75	16.90	3.29	0.42	0.60	0.78	14.70	4.00	0.40	0.62	0.83	14.0	4.27	0.41	0.65	0.88
	1135	19.6	2.76	0.45	0.63	0.82	17.50	3.30	0.44	0.65	0.87	15.20	4.01	0.43	0.68	0.95	14.4	4.28	0.44	0.72	0.98

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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
17.2°C	755	11.1	4.41	0.84	1	1	10.8	4.64	0.85	1	1	10.30	4.84	0.84	1.00	1.00
	945	12.1	4.44	0.95	1	1	11.7	4.67	0.97	1	1	11.30	4.88	0.99	1.00	1.00
	1135	13.0	4.47	1	1	1	12.5	4.69	1	1	1	12.00	4.91	1.00	1.00	1.00
19.4°C	755	11.9	4.43	0.58	0.81	1	11.3	4.66	0.59	0.83	1	10.80	4.86	0.57	0.81	1.00
	945	12.4	4.45	0.65	0.93	1	11.9	4.68	0.66	0.95	1	11.40	4.89	0.65	0.96	1.00
	1135	13.0	4.47	0.73	1	1	12.5	4.70	0.74	1	1	12.30	4.92	1.00	1.00	1.00
21.7°C	755	12.9	4.46	0.37	0.58	0.78	12.3	4.69	0.37	0.59	0.80	11.80	4.90	0.36	0.57	0.78
	945	13.4	4.48	0.41	0.65	0.90	12.8	4.71	0.40	0.66	0.92	12.30	4.92	0.39	0.65	0.93
	1135	13.9	4.50	0.44	0.73	0.99	13.3	4.73	0.44	0.74	1	12.50	4.93	0.93	0.93	0.93

17.5 KW - KHB060S4 - STANDARD EFFICIENCY - HEATING CAPACITY

Indoor Coil Air Volume 21°C Dry Bulb	Air Temperature Entering Outdoor Coil									
	18°C		7°C		-4°C		-15°C		-28°C	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
L/s	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
755	18.3	2.94	14.0	2.91	9.6	2.86	6.4	2.73	3.2	2.00
945	18.5	2.77	14.2	2.74	9.8	2.70	6.5	2.56	3.4	1.83
1135	18.7	2.70	14.4	2.66	10.1	2.62	6.8	2.48	3.7	1.75

COOLING / HEATING RATINGS - STANDARD EFFICIENCY

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

21 kW - KHB074S4 - STANDARD EFFICIENCY - COOLING CAPACITY (1ST STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		18.1°C					24°C					29°C					35°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	565	13.5	1.82	0.74	0.88	0.97	12.9	2.10	0.75	0.90	0.99	12.3	2.38	0.76	0.91	1.00	11.5	2.75	0.78	0.94	1.00
	755	14.6	1.81	0.81	0.97	1.00	13.9	2.09	0.82	0.99	1.00	13.3	2.36	0.84	1.00	1.00	12.6	2.73	0.86	1.00	1.00
	945	15.6	1.79	0.87	1.00	1.00	15.0	2.08	0.89	1.00	1.00	14.4	2.34	0.91	1.00	1.00	13.6	2.72	0.94	1.00	1.00
19.4°C	565	14.4	1.81	0.60	0.74	0.83	13.7	2.09	0.61	0.75	0.84	13.1	2.37	0.61	0.76	0.85	12.3	2.74	0.62	0.78	0.88
	755	15.5	1.79	0.65	0.81	0.91	14.7	2.08	0.66	0.83	0.93	14.1	2.35	0.66	0.84	0.95	13.1	2.72	0.67	0.87	0.98
	945	16.3	1.78	0.69	0.88	0.99	15.4	2.07	0.70	0.90	1.00	14.7	2.34	0.71	0.92	1.00	13.8	2.72	0.73	0.95	1.00
21.7°C	565	15.8	1.79	0.42	0.55	0.63	15.1	2.07	0.42	0.55	0.64	14.4	2.34	0.40	0.55	0.64	13.5	2.72	0.40	0.56	0.65
	755	17.0	1.77	0.44	0.59	0.69	16.1	2.06	0.44	0.60	0.70	15.4	2.33	0.44	0.60	0.71	14.4	2.70	0.44	0.61	0.73
	945	17.8	1.75	0.45	0.63	0.75	16.9	2.04	0.45	0.64	0.76	16.1	2.32	0.45	0.64	0.77	15.1	2.70	0.45	0.66	0.79

21 kW - KHB074S4 - STANDARD EFFICIENCY - COOLING CAPACITY (2ND STAGE)

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C
17.2°C	905	17.6	3.29	0.80	0.96	1.00	16.3	3.97	0.83	1.00	1.00	14.9	4.79	0.86	1.00	1.00	14.4	5.11	0.88	1.00	1.00
	1135	18.8	3.32	0.87	1.00	1.00	17.4	4.00	0.90	1.00	1.00	16.0	4.83	0.95	1.00	1.00	15.4	5.13	0.96	1.00	1.00
	1360	19.8	3.34	0.93	1.00	1.00	18.3	4.02	0.97	1.00	1.00	16.7	4.85	1.00	1.00	1.00	16.2	5.15	1.00	1.00	1.00
19.4°C	905	18.6	3.31	0.64	0.80	0.91	17.1	3.99	0.66	0.84	0.95	15.5	4.82	0.68	0.87	0.99	14.9	5.12	0.69	0.89	1.00
	1135	19.5	3.33	0.69	0.88	0.99	17.8	4.01	0.71	0.91	1.00	16.1	4.83	0.73	0.96	1.00	15.6	5.14	0.75	0.98	1.00
	1360	20.1	3.35	0.73	0.94	1.00	18.4	4.02	0.75	0.98	1.00	16.8	4.85	0.79	1.00	1.00	16.2	5.15	0.81	1.00	1.00
21.7°C	905	20.2	3.35	0.43	0.58	0.68	18.6	4.03	0.42	0.60	0.71	16.9	4.85	0.43	0.61	0.74	16.2	5.16	0.43	0.62	0.75
	1135	21.0	3.37	0.44	0.63	0.74	19.3	4.05	0.45	0.65	0.77	17.5	4.87	0.45	0.67	0.81	16.9	5.17	0.45	0.68	0.82
	1360	21.7	3.39	0.46	0.67	0.80	19.8	4.06	0.46	0.69	0.83	18.0	4.89	0.47	0.72	0.88	17.3	5.19	0.47	0.73	0.89

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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
17.2°C	905	14.0	5.36	0.89	1.00	1.00	13.7	5.62	0.90	1.00	1.00	13.3	5.84	0.92	1.00	1.00
	1135	15.0	5.37	0.98	1.00	1.00	14.7	5.64	0.99	1.00	1.00	14.2	5.84	1.00	1.00	1.00
	1360	15.8	5.40	1.00	1.00	1.00	15.3	5.65	1.00	1.00	1.00	14.9	5.88	1.00	1.00	1.00
19.4°C	905	14.4	5.37	0.69	0.90	1.00	14.0	5.62	0.70	0.92	1.00	13.5	5.83	0.71	0.93	1.00
	1135	15.1	5.38	0.76	0.99	1.00	14.6	5.63	0.77	1.00	1.00	14.2	5.85	0.78	1.00	1.00
	1360	15.8	5.40	0.82	1.00	1.00	15.4	5.65	0.83	1.00	1.00	14.9	5.86	0.84	1.00	1.00
21.7°C	905	15.8	5.40	0.43	0.63	0.75	15.3	5.65	0.42	0.63	0.77	14.9	5.86	0.43	0.64	0.77
	1135	16.4	5.41	0.45	0.68	0.83	15.9	5.67	0.45	0.69	0.85	15.4	5.88	0.46	0.70	0.86
	1360	16.8	5.42	0.47	0.74	0.91	16.2	5.67	0.47	0.75	0.92	15.8	5.89	0.48	0.76	0.94

21 kW - KHB074S4 - STANDARD EFFICIENCY - HEATING CAPACITY

Indoor Coil Air Volume 21°C Dry Bulb	Air Temperature Entering Outdoor Coil									
	18°C		7°C		-4°C		-15°C		-28°C	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
L/s	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
905	21.2	4.01	17.1	3.78	13.1	3.54	8.8	3.17	4.3	2.37
1135	21.6	3.78	17.5	3.55	13.5	3.31	9.1	2.94	4.6	2.14
1360	21.9	3.64	17.8	3.40	13.7	3.17	9.4	2.80	4.9	1.99

COOLING / HEATING RATINGS - HIGH EFFICIENCY

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 - KHB036H4 - HIGH EFFICIENCY - COOLING CAPACITY (1ST STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		18.3°C					23.9°C					29.4°C					35°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	302	6.2	1.08	0.73	0.89	1	5.5	1.35	0.75	0.94	1	4.8	1.69	0.78	1	1	4.1	2.1	0.85	1	1
	378	6.6	1.07	0.79	0.99	1	5.9	1.34	0.83	1	1	5.3	1.68	0.88	1	1	4.5	2.09	0.97	1	1
	453	7	1.06	0.86	1	1	6.4	1.33	0.91	1	1	5.6	1.67	0.98	1	1	4.8	2.09	1	1	1
19.4°C	302	6.7	1.07	0.56	0.7	0.85	5.9	1.34	0.57	0.73	0.89	5.2	1.68	0.57	0.76	0.95	4.3	2.09	0.59	0.81	1
	378	7	1.06	0.6	0.77	0.95	6.3	1.33	0.61	0.8	1	5.5	1.68	0.63	0.85	1	4.6	2.09	0.66	0.94	1
	453	7.3	1.05	0.64	0.84	1	6.5	1.33	0.66	0.88	1	5.7	1.67	0.69	0.95	1	4.8	2.09	0.73	1	1
21.7°C	302	7.1	1.06	0.42	0.55	0.68	6.4	1.33	0.41	0.56	0.7	5.6	1.68	0.39	0.57	0.73	4.7	2.09	0.38	0.59	0.78
	378	7.5	1.05	0.43	0.59	0.75	6.8	1.32	0.43	0.6	0.77	5.9	1.67	0.42	0.62	0.82	5	2.09	0.42	0.66	0.9
	453	7.8	1.04	0.45	0.63	0.81	7	1.32	0.45	0.65	0.85	6.2	1.67	0.45	0.68	0.91	5.2	2.08	0.45	0.73	1

10.5 KW - KHB036H4 - HIGH EFFICIENCY - COOLING CAPACITY (2ND STAGE)

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	453	9.1	1.65	0.74	0.91	1	8.1	1.96	0.76	0.95	1	7	2.36	0.79	1	1	6.7	2.50	0.81	1.00	1.00
	566	9.6	1.67	0.81	1	1	8.7	1.97	0.84	1	1	7.7	2.37	0.88	1	1	7.3	2.51	0.91	1.00	1.00
	680	10.2	1.68	0.87	1	1	9.2	1.98	0.92	1	1	8.1	2.37	0.98	1	1	7.7	2.52	0.99	1.00	1.00
19.4°C	453	9.7	1.67	0.57	0.72	0.87	8.7	1.97	0.57	0.74	0.91	7.6	2.36	0.57	0.77	0.96	7.2	2.51	0.58	0.79	0.99
	566	10.2	1.68	0.61	0.79	0.97	9.1	1.98	0.62	0.81	1	7.9	2.37	0.63	0.86	1	7.5	2.52	0.64	0.89	1.00
	680	10.6	1.69	0.65	0.85	1	9.5	1.99	0.66	0.9	1	8.2	2.38	0.69	0.96	1	7.8	2.52	0.71	0.98	1.00
21.7°C	453	10.4	1.68	0.42	0.56	0.7	9.3	1.98	0.4	0.56	0.72	8.1	2.37	0.39	0.57	0.74	7.7	2.52	0.38	0.58	0.77
	566	10.9	1.7	0.44	0.61	0.77	9.7	1.99	0.43	0.61	0.79	8.5	2.38	0.42	0.63	0.84	8.1	2.52	0.41	0.64	0.87
	680	11.2	1.71	0.46	0.65	0.83	10.1	2	0.45	0.66	0.87	8.8	2.38	0.44	0.69	0.93	8.4	2.52	0.45	0.71	0.96

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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
17.2°C	455	6.4	2.62	0.83	1.00	1.00	6.2	2.75	0.84	1.00	1.00	5.9	2.85	0.84	1	1
	565	7.0	2.63	0.93	1.00	1.00	6.7	2.75	0.95	1.00	1.00	6.5	2.86	0.96	1	1
	680	7.4	2.63	1.00	1.00	1.00	7.2	2.75	1.00	1.00	1.00	6.9	2.86	1	1	1
19.4°C	455	6.8	2.63	0.58	0.80	1.00	6.5	2.75	0.59	0.82	1.00	6.2	2.86	0.58	0.82	1
	565	7.2	2.63	0.65	0.90	1.00	6.9	2.75	0.66	0.93	1.00	6.6	2.86	0.66	0.94	1
	680	7.5	2.63	0.72	0.99	1.00	7.2	2.76	0.73	1.00	1.00	6.9	2.86	0.73	1	1
21.7°C	455	7.4	2.63	0.38	0.58	0.78	7.1	2.76	0.37	0.58	0.79	6.8	2.87	0.36	0.58	0.79
	565	7.8	2.64	0.41	0.65	0.88	7.4	2.76	0.41	0.66	0.90	7.1	2.87	0.4	0.66	0.91
	680	8.0	2.64	0.44	0.72	0.98	7.6	2.76	0.44	0.73	0.99	7.3	2.87	0.44	0.73	1

10.5 KW - KHB036H4 - HEATING CAPACITY

Indoor Coil Air Volume 21°C Dry Bulb	Air Temperature Entering Outdoor Coil									
	18°C		7°C		-4°C		-15°C		-28°C	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
L/s	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
455	11.1	2.04	8.3	1.91	5.3	1.78	3.3	1.58	1.7	1.18
565	11.3	1.93	8.4	1.80	5.5	1.67	3.5	1.47	1.9	1.07
680	11.5	1.86	8.6	1.73	5.6	1.60	3.6	1.41	2.0	1.01

COOLING / HEATING RATINGS - HIGH EFFICIENCY

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

14 KW - KHB048H4 - HIGH EFFICIENCY - COOLING CAPACITY (1ST STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		18.3°C					23.9°C					29.4°C					35°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	422	9.3	1.13	0.74	0.88	1	8.8	1.34	0.75	0.9	1	8.2	1.58	0.76	0.93	1	7.6	1.84	0.78	0.96	1
	529	9.8	1.11	0.8	0.96	1	9.3	1.33	0.81	0.98	1	8.8	1.56	0.82	1	1	8.2	1.83	0.85	1	1
	635	10.3	1.1	0.85	1	1	9.9	1.31	0.87	1	1	9.3	1.55	0.9	1	1	8.8	1.81	0.93	1	1
19.4°C	422	9.9	1.11	0.58	0.72	0.84	9.4	1.32	0.58	0.73	0.86	8.8	1.56	0.59	0.74	0.89	8.2	1.83	0.59	0.76	0.92
	529	10.5	1.09	0.62	0.77	0.93	9.9	1.31	0.62	0.79	0.95	9.3	1.55	0.63	0.8	0.98	8.6	1.82	0.64	0.83	1
	635	10.9	1.08	0.65	0.83	0.99	10.3	1.3	0.66	0.85	1	9.7	1.54	0.67	0.87	1	9	1.81	0.68	0.9	1
21.7°C	422	10.5	1.09	0.43	0.57	0.69	10	1.31	0.43	0.57	0.7	9.4	1.55	0.43	0.57	0.71	8.8	1.81	0.43	0.58	0.73
	529	11.1	1.07	0.45	0.61	0.75	10.6	1.29	0.44	0.61	0.77	9.9	1.53	0.45	0.62	0.78	9.2	1.8	0.44	0.63	0.81
	635	11.6	1.06	0.47	0.64	0.81	11	1.28	0.47	0.65	0.83	10.3	1.53	0.46	0.66	0.85	9.6	1.79	0.47	0.68	0.88

14 KW - KHB048H4 - HIGH EFFICIENCY - COOLING CAPACITY (2ND STAGE)

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	604	12.2	2.12	0.78	0.93	1	10.8	2.54	0.8	0.96	1	9.4	3.07	0.83	1	1	9.0	3.27	0.82	1.00	1.00
	755	12.9	2.13	0.85	1	1	11.6	2.55	0.88	1	1	10.2	3.09	0.92	1	1	9.8	3.29	0.92	1.00	1.00
	906	13.6	2.14	0.91	1	1	12.3	2.56	0.94	1	1	10.8	3.1	0.99	1	1	10.3	3.30	1.00	1.00	1.00
19.4°C	604	13	2.13	0.6	0.76	0.9	11.6	2.55	0.6	0.78	0.93	10.1	3.08	0.61	0.81	0.98	9.6	3.28	0.59	0.80	0.99
	755	13.6	2.14	0.65	0.83	0.97	12.1	2.56	0.66	0.86	1	10.6	3.1	0.68	0.9	1	10.0	3.29	0.66	0.90	1.00
	906	14.1	2.14	0.69	0.89	1	12.5	2.56	0.71	0.93	1	10.9	3.1	0.74	0.98	1	10.4	3.30	0.72	0.99	1.00
21.7°C	604	13.7	2.14	0.44	0.59	0.74	12.3	2.56	0.43	0.6	0.76	10.8	3.1	0.41	0.61	0.79	10.2	3.30	0.39	0.59	0.78
	755	14.4	2.14	0.47	0.64	0.81	12.9	2.57	0.45	0.65	0.84	11.2	3.11	0.45	0.67	0.89	10.7	3.31	0.42	0.66	0.88
	906	14.9	2.15	0.48	0.69	0.88	13.3	2.58	0.48	0.71	0.91	11.6	3.12	0.48	0.74	0.96	11.0	3.32	0.45	0.72	0.98

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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
17.2°C	605	8.7	3.43	0.83	1.00	1.00	8.4	3.60	0.84	1.00	1.00	8.1	3.75	0.88	1	1
	755	9.4	3.45	0.94	1.00	1.00	9.1	3.62	0.96	1.00	1.00	8.7	3.78	0.98	1	1
	905	10.0	3.46	1.00	1.00	1.00	9.6	3.64	1.00	1.00	1.00	9.3	3.79	1	1	1
19.4°C	605	9.1	3.44	0.60	0.81	1.00	8.8	3.61	0.60	0.82	1.00	8.4	3.77	0.62	0.86	1
	755	9.6	3.46	0.66	0.92	1.00	9.2	3.62	0.67	0.94	1.00	8.9	3.78	0.7	0.96	1
	905	10.0	3.47	0.73	1.00	1.00	9.6	3.64	0.74	1.00	1.00	9.3	3.79	0.78	1	1
21.7°C	605	9.8	3.45	0.39	0.59	0.79	9.4	3.62	0.38	0.60	0.80	9.1	3.78	0.39	0.62	0.84
	755	10.2	3.46	0.42	0.66	0.90	9.8	3.64	0.42	0.67	0.92	9.5	3.8	0.43	0.7	0.95
	905	10.6	3.48	0.46	0.73	0.99	10.2	3.65	0.46	0.75	1.00	9.8	3.81	0.47	0.78	1

14 KW - KHB048H4 - HEATING CAPACITY

Indoor Coil Air Volume 21°C Dry Bulb	Air Temperature Entering Outdoor Coil									
	18°C		7°C		-4°C		-15°C		-28°C	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
L/s	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
605	14.5	2.51	10.8	2.35	6.9	2.19	4.4	1.94	2.2	1.45
755	14.8	2.38	11.1	2.22	7.2	2.07	4.7	1.81	2.5	1.32
905	15.0	2.30	11.3	2.14	7.4	1.99	4.9	1.73	2.7	1.24

COOLING / HEATING RATINGS - HIGH EFFICIENCY

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 - KHB060H4 - HIGH EFFICIENCY - COOLING CAPACITY (1ST STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		18.3°C					23.9°C					29.4°C					35°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	510	12	1.46	0.73	0.87	1	11.5	1.7	0.74	0.89	1	11	1.99	0.76	0.91	1	10.4	2.31	0.78	0.95	1
	637	12.6	1.44	0.78	0.95	1	12.2	1.69	0.79	0.97	1	11.6	1.98	0.82	1	1	11.1	2.29	0.85	1	1
	765	13.2	1.42	0.83	1	1	12.8	1.67	0.85	1	1	12.3	1.96	0.88	1	1	11.7	2.28	0.92	1	1
19.4°C	510	12.7	1.43	0.57	0.7	0.83	12.3	1.68	0.58	0.71	0.85	11.8	1.97	0.6	0.73	0.87	11.1	2.3	0.61	0.75	0.9
	637	13.4	1.42	0.61	0.76	0.91	12.9	1.67	0.62	0.77	0.93	12.3	1.96	0.62	0.79	0.96	11.6	2.28	0.65	0.82	0.99
	765	13.8	1.4	0.64	0.81	0.98	13.3	1.66	0.65	0.83	1	12.7	1.95	0.66	0.85	1	12	2.27	0.68	0.89	1
21.7°C	510	13.5	1.41	0.43	0.56	0.67	13.1	1.67	0.44	0.56	0.69	12.5	1.95	0.44	0.58	0.7	11.9	2.28	0.45	0.59	0.73
	637	14.2	1.39	0.45	0.59	0.73	13.7	1.65	0.45	0.6	0.75	13.1	1.94	0.46	0.61	0.76	12.4	2.26	0.47	0.63	0.79
	765	14.7	1.38	0.46	0.62	0.78	14.1	1.64	0.47	0.64	0.8	13.5	1.93	0.47	0.65	0.83	12.7	2.25	0.48	0.67	0.86

17.5 KW - KHB060H4 - HIGH EFFICIENCY - COOLING CAPACITY (2ND STAGE)

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	15.7	2.7	0.74	0.91	1	14.1	3.2	0.76	0.95	1	12.3	3.82	0.79	1	1	11.8	4.05	0.81	1.00	1.00
	944	16.6	2.73	0.81	1	1	15.1	3.22	0.84	1	1	13.5	3.86	0.88	1	1	12.9	4.09	0.92	1.00	1.00
	1133	17.7	2.75	0.88	1	1	16.1	3.25	0.92	1	1	14.3	3.88	0.98	1	1	13.7	4.11	1.00	1.00	1.00
19.4°C	755	16.9	2.73	0.57	0.72	0.87	15.2	3.23	0.57	0.73	0.91	13.3	3.85	0.58	0.76	0.96	12.7	4.08	0.58	0.79	0.98
	944	17.8	2.76	0.61	0.79	0.97	15.9	3.25	0.61	0.81	1	14	3.87	0.63	0.85	1	13.3	4.10	0.65	0.89	1.00
	1133	18.4	2.77	0.65	0.85	1	16.5	3.26	0.66	0.89	1	14.5	3.89	0.68	0.95	1	13.8	4.11	0.70	0.98	1.00
21.7°C	755	18.1	2.76	0.41	0.56	0.69	16.4	3.26	0.4	0.56	0.71	14.4	3.88	0.39	0.57	0.74	13.8	4.11	0.39	0.58	0.76
	944	19	2.79	0.44	0.6	0.76	17.1	3.28	0.43	0.61	0.79	15.1	3.91	0.42	0.63	0.83	14.4	4.13	0.42	0.64	0.85
	1133	19.6	2.81	0.46	0.65	0.83	17.7	3.29	0.45	0.66	0.87	15.6	3.92	0.44	0.68	0.92	14.9	4.14	0.44	0.70	0.95

Entering Wet Bulb Temperature	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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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
17.2°C	755	11.3	4.23	0.82	1.00	1.00	10.9	4.43	0.83	1.00	1.00	10.6	4.6	0.84	1	1
	945	12.4	4.27	0.93	1.00	1.00	12.0	4.46	0.94	1.00	1.00	11.5	4.63	0.96	1	1
	1135	13.2	4.30	1.00	1.00	1.00	12.7	4.49	1.00	1.00	1.00	12.3	4.66	1	1	1
19.4°C	755	12.2	4.26	0.58	0.80	1.00	11.6	4.45	0.58	0.81	1.00	11.2	4.63	0.58	0.8	1
	945	12.8	4.28	0.65	0.90	1.00	12.2	4.47	0.66	0.92	1.00	11.8	4.63	0.66	0.93	1
	1135	13.3	4.29	0.72	0.99	1.00	12.7	4.49	0.73	1.00	1.00	12.3	4.66	0.72	1	1
21.7°C	755	13.2	4.29	0.38	0.58	0.77	12.7	4.49	0.38	0.58	0.79	12.3	4.65	0.37	0.58	0.78
	945	13.9	4.31	0.41	0.65	0.87	13.3	4.50	0.41	0.65	0.89	12.8	4.67	0.41	0.65	0.9
	1135	14.3	4.32	0.44	0.71	0.97	13.8	4.52	0.45	0.72	0.99	13.2	4.69	0.45	0.72	1

17.5 KW - KHB060H4 - HEATING CAPACITY

Indoor Coil Air Volume 21°C Dry Bulb	Air Temperature Entering Outdoor Coil									
	18°C		7°C		-4°C		-15°C		-28°C	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
L/s	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
755	18.6	3.16	14.1	3.00	9.5	2.84	5.8	2.58	2.9	1.91
945	18.9	2.98	14.4	2.83	9.8	2.67	6.1	2.40	3.2	1.74
1135	19.1	2.88	14.6	2.72	10.0	2.56	6.3	2.30	3.5	1.63

BLOWER DATA - BELT DRIVE - KHB036 - 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 29 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																							
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
330	700	447	0.07	0.09	517	0.09	0.12	589	0.11	0.15	663	0.13	0.17	739	0.14	0.19	815	0.15	0.2	883	0.17	0.23	938	0.19	0.25
380	800	465	0.07	0.1	534	0.10	0.14	605	0.13	0.17	678	0.14	0.19	753	0.16	0.21	825	0.17	0.23	890	0.19	0.25	946	0.20	0.27
425	900	486	0.09	0.12	554	0.12	0.16	623	0.15	0.2	695	0.16	0.22	767	0.17	0.23	836	0.19	0.25	897	0.21	0.28	953	0.22	0.3
470	1000	508	0.11	0.15	576	0.14	0.19	643	0.16	0.22	713	0.18	0.24	783	0.19	0.26	848	0.21	0.28	907	0.22	0.3	961	0.25	0.33
520	1100	533	0.13	0.18	599	0.16	0.22	665	0.19	0.25	733	0.20	0.27	800	0.21	0.28	863	0.23	0.31	919	0.25	0.34	971	0.27	0.36
565	1200	560	0.16	0.21	625	0.19	0.25	689	0.21	0.28	755	0.22	0.3	820	0.24	0.32	879	0.25	0.34	932	0.28	0.37	983	0.30	0.4
615	1300	591	0.18	0.24	654	0.21	0.28	716	0.23	0.31	779	0.25	0.33	841	0.26	0.35	897	0.28	0.38	948	0.31	0.41	996	0.33	0.44
660	1400	631	0.19	0.26	690	0.22	0.3	748	0.25	0.34	807	0.27	0.36	864	0.29	0.39	916	0.31	0.42	964	0.34	0.46	1011	0.37	0.49
710	1500	676	0.21	0.28	729	0.25	0.33	782	0.27	0.36	835	0.30	0.4	887	0.32	0.43	935	0.35	0.47	981	0.37	0.5	1028	0.40	0.54
Air Volume		**External Static - Pa (in.w.g.)**																							
		225 (0.90)			**250 (1.00)**			**275 (1.10)**			**300 (1.20)**			**325 (1.30)**			**350 (1.40)**			**375 (1.50)**			**400 (1.60)**		
L/s	**cfm**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**
330	700	988	0.20	0.27	1039	0.22	0.29	1088	0.23	0.31	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
380	800	996	0.22	0.3	1047	0.24	0.32	1098	0.25	0.34	1144	0.27	0.36	1185	0.29	0.39	1224	0.31	0.42	- - -	- - -	- - -	- - -	- - -	- - -
425	900	1004	0.25	0.33	1055	0.26	0.35	1106	0.28	0.37	1152	0.30	0.4	1193	0.32	0.43	1232	0.34	0.46	1269	0.37	0.49	1305	0.39	0.52
470	1000	1011	0.27	0.36	1062	0.28	0.38	1111	0.31	0.41	1157	0.32	0.43	1199	0.35	0.47	1238	0.37	0.5	1276	0.40	0.53	1311	0.42	0.56
520	1100	1020	0.29	0.39	1070	0.31	0.41	1118	0.33	0.44	1163	0.35	0.47	1206	0.38	0.51	1245	0.40	0.54	1282	0.43	0.58	1318	0.46	0.61
565	1200	1031	0.32	0.43	1079	0.34	0.45	1127	0.36	0.48	1171	0.39	0.52	1213	0.41	0.55	1252	0.44	0.59	1289	0.46	0.62	1324	0.49	0.66
615	1300	1044	0.35	0.47	1091	0.37	0.49	1137	0.40	0.53	1181	0.42	0.56	1221	0.45	0.6	1259	0.48	0.64	1296	0.51	0.68	1330	0.53	0.71
660	1400	1058	0.38	0.51	1105	0.40	0.54	1150	0.43	0.57	1191	0.46	0.61	1231	0.48	0.65	1268	0.51	0.69	1303	0.54	0.73	1337	0.57	0.77
710	1500	1074	0.42	0.56	1120	0.44	0.59	1163	0.47	0.63	1203	0.50	0.67	1241	0.53	0.71	1277	0.56	0.75	1312	0.59	0.79	1345	0.61	0.82

BLOWER DATA - BELT DRIVE - KHB036 - HORIZONTAL

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.
FOR ALL UNITS ADD:
1 - Any factory installed options air resistance (heat section, economizer, etc.).
2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).
See page 29 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																							
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
330	700	445	0.06	0.08	516	0.08	0.11	591	0.10	0.13	670	0.11	0.15	753	0.12	0.16	820	0.14	0.19	870	0.16	0.22	918	0.18	0.24
380	800	463	0.07	0.09	534	0.09	0.12	608	0.10	0.14	685	0.12	0.16	766	0.13	0.18	830	0.16	0.21	878	0.18	0.24	926	0.20	0.27
425	900	485	0.08	0.11	554	0.10	0.14	627	0.12	0.16	703	0.13	0.18	780	0.16	0.21	841	0.17	0.23	888	0.20	0.27	935	0.22	0.30
470	1000	509	0.10	0.13	578	0.12	0.16	649	0.14	0.19	722	0.16	0.21	796	0.17	0.23	854	0.19	0.26	900	0.22	0.29	947	0.25	0.33
520	1100	537	0.12	0.16	605	0.14	0.19	674	0.16	0.21	744	0.18	0.24	813	0.19	0.26	868	0.22	0.29	913	0.25	0.33	959	0.27	0.36
565	1200	567	0.14	0.19	633	0.16	0.22	700	0.18	0.24	768	0.20	0.27	833	0.22	0.30	884	0.25	0.33	928	0.28	0.37	974	0.30	0.40
615	1300	599	0.16	0.22	664	0.19	0.25	729	0.21	0.28	793	0.22	0.30	853	0.25	0.33	902	0.28	0.37	945	0.31	0.41	990	0.33	0.44
660	1400	634	0.19	0.26	697	0.22	0.29	758	0.23	0.31	819	0.25	0.34	875	0.28	0.38	921	0.31	0.42	964	0.34	0.46	1008	0.37	0.49
710	1500	669	0.22	0.30	730	0.25	0.33	789	0.27	0.36	846	0.29	0.39	897	0.31	0.42	941	0.35	0.47	983	0.38	0.51	1028	0.40	0.54

Air Volume		External Static - Pa (in.w.g.)																							
		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)			375 (1.50)			400 (1.60)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
330	700	969	0.20	0.27	1021	0.22	0.29	1071	0.24	0.32	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
380	800	977	0.22	0.29	1030	0.24	0.32	1082	0.25	0.34	1128	0.28	0.37	1169	0.30	0.40	1205	0.31	0.42	- - -	- - -	- - -	- - -	- - -	- - -
425	900	986	0.24	0.32	1039	0.26	0.35	1090	0.28	0.37	1137	0.30	0.40	1177	0.32	0.43	1214	0.34	0.46	1248	0.37	0.49	1280	0.38	0.51
470	1000	997	0.26	0.35	1048	0.28	0.38	1098	0.31	0.41	114	0.33	0.44	1184	0.35	0.47	1221	0.37	0.50	1255	0.40	0.53	1287	0.42	0.56
520	1100	1008	0.29	0.39	1059	0.31	0.41	1107	0.33	0.44	1150	0.35	0.47	1191	0.38	0.51	1228	0.40	0.54	1263	0.43	0.57	1295	0.45	0.60
565	1200	1022	0.32	0.43	1071	0.34	0.45	1117	0.36	0.48	1160	0.39	0.52	1200	0.41	0.55	1237	0.44	0.59	1271	0.46	0.62	1303	0.49	0.66
615	1300	1037	0.35	0.47	1058	0.37	0.50	1130	0.40	0.53	1171	0.43	0.57	1210	0.45	0.60	1246	0.48	0.64	1280	0.51	0.68	1312	0.53	0.71
660	1400	1054	0.39	0.52	1100	0.40	0.54	1144	0.43	0.58	1183	0.46	0.62	1221	0.49	0.66	1256	0.52	0.70	1290	0.54	0.73	1321	0.57	0.77
710	1500	1073	0.43	0.57	1117	0.45	0.60	1159	0.48	0.64	1197	0.50	0.67	1234	0.53	0.71	1268	0.56	0.75	1301	0.59	0.79	1332	0.62	0.83

BLOWER DATA - BELT DRIVE - KHB048 - 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 29 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																							
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
425	900	466	0.07	0.10	525	0.10	0.14	586	0.13	0.17	646	0.15	0.20	729	0.15	0.20	821	0.14	0.19	899	0.15	0.20	953	0.17	0.23
470	1000	484	0.09	0.12	543	0.12	0.16	603	0.14	0.19	664	0.16	0.22	745	0.17	0.23	834	0.17	0.23	908	0.18	0.24	959	0.19	0.26
520	1100	505	0.11	0.15	563	0.13	0.18	622	0.16	0.22	682	0.19	0.25	762	0.19	0.26	847	0.19	0.26	917	0.20	0.27	966	0.22	0.30
565	1200	527	0.13	0.18	584	0.16	0.21	643	0.19	0.25	702	0.21	0.28	779	0.22	0.30	860	0.22	0.30	927	0.23	0.31	973	0.25	0.34
615	1300	550	0.16	0.21	607	0.19	0.25	664	0.22	0.29	722	0.24	0.32	797	0.25	0.33	875	0.25	0.34	937	0.26	0.35	981	0.28	0.38
660	1400	574	0.19	0.25	630	0.22	0.29	687	0.24	0.32	744	0.26	0.35	817	0.28	0.37	890	0.28	0.38	949	0.29	0.39	991	0.31	0.42
710	1500	603	0.21	0.28	659	0.24	0.32	714	0.27	0.36	770	0.29	0.39	839	0.31	0.41	907	0.31	0.42	962	0.33	0.44	1002	0.35	0.47
755	1600	651	0.22	0.29	703	0.25	0.33	754	0.28	0.37	806	0.31	0.41	867	0.32	0.43	927	0.34	0.45	976	0.36	0.48	1014	0.38	0.51
800	1700	708	0.22	0.30	754	0.25	0.34	800	0.28	0.38	846	0.31	0.42	898	0.34	0.46	949	0.37	0.49	992	0.40	0.53	1028	0.43	0.57
850	1800	764	0.23	0.31	804	0.27	0.36	844	0.30	0.40	884	0.34	0.45	927	0.37	0.49	970	0.40	0.54	1008	0.43	0.58	1044	0.47	0.63
900	1900	812	0.25	0.34	847	0.29	0.39	881	0.33	0.44	916	0.37	0.49	953	0.40	0.54	990	0.44	0.59	1025	0.48	0.64	1061	0.51	0.69
945	2000	857	0.31	0.42	889	0.35	0.47	920	0.39	0.52	952	0.43	0.57	986	0.46	0.62	1020	0.51	0.68	1055	0.54	0.73	1091	0.57	0.77

Air Volume		External Static - Pa (in.w.g.)																							
		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)			375 (1.50)			400 (1.60)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
425	900	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
470	1000	996	0.23	0.31	1034	0.26	0.35	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
520	1100	1001	0.25	0.34	1040	0.28	0.38	1083	0.31	0.42	1128	0.34	0.46	1176	0.37	0.49	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
565	1200	1008	0.28	0.38	1047	0.31	0.42	1089	0.34	0.46	1133	0.37	0.49	1180	0.40	0.53	1224	0.42	0.56	1261	0.45	0.60	- - -	- - -	- - -
615	1300	1017	0.31	0.42	1055	0.34	0.46	1097	0.37	0.50	1139	0.40	0.53	1184	0.43	0.57	1228	0.45	0.60	1264	0.47	0.63	1295	0.50	0.67
660	1400	1026	0.34	0.46	1065	0.37	0.50	1106	0.40	0.54	1147	0.43	0.57	1191	0.46	0.61	1233	0.48	0.64	1269	0.51	0.68	1300	0.53	0.71
710	1500	1038	0.38	0.51	1076	0.41	0.55	1117	0.44	0.59	1157	0.46	0.62	1199	0.48	0.65	1240	0.51	0.69	1275	0.54	0.72	1305	0.57	0.76
755	1600	1050	0.42	0.56	1089	0.45	0.60	1129	0.48	0.64	1168	0.50	0.67	1209	0.53	0.71	1249	0.55	0.74	1282	0.58	0.78	1312	0.61	0.82
800	1700	1065	0.46	0.61	1103	0.48	0.65	1142	0.51	0.69	1181	0.54	0.73	1221	0.57	0.76	1259	0.60	0.80	1292	0.62	0.83	1320	0.66	0.88
850	1800	1081	0.50	0.67	1118	0.53	0.71	1156	0.56	0.75	1194	0.59	0.79	1234	0.61	0.82	1271	0.64	0.86	1302	0.67	0.90	1330	0.70	0.94
900	1900	1098	0.54	0.73	1135	0.57	0.77	1172	0.60	0.81	1209	0.63	0.85	1248	0.66	0.88	1284	0.69	0.92	1314	0.72	0.97	1341	0.75	1.01
945	2000	1128	0.61	0.82	1164	0.64	0.86	1201	0.66	0.89	1239	0.69	0.93	1276	0.72	0.97	1310	0.75	1.01	1336	0.79	1.06	1362	0.82	1.10

BLOWER DATA - BELT DRIVE - KHB048 - HORIZONTAL

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

FOR ALL UNITS ADD:

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

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

See page 29 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																							
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
425	900	464	0.07	0.10	514	0.10	0.13	576	0.11	0.15	644	0.13	0.17	728	0.13	0.18	817	0.14	0.19	893	0.16	0.21	951	0.18	0.24
470	1000	482	0.09	0.12	533	0.11	0.15	595	0.13	0.17	662	0.14	0.19	744	0.16	0.21	829	0.16	0.22	902	0.18	0.24	957	0.20	0.27
520	1100	504	0.10	0.14	556	0.13	0.17	617	0.15	0.20	683	0.16	0.22	762	0.18	0.24	843	0.19	0.25	912	0.21	0.28	965	0.23	0.31
565	1200	528	0.13	0.17	581	0.15	0.20	641	0.17	0.23	706	0.19	0.25	782	0.20	0.27	859	0.22	0.29	924	0.23	0.31	974	0.25	0.34
615	1300	556	0.16	0.21	609	0.18	0.24	669	0.19	0.26	731	0.22	0.29	804	0.23	0.31	877	0.25	0.33	938	0.26	0.35	985	0.28	0.38
660	1400	592	0.18	0.24	645	0.20	0.27	702	0.22	0.30	763	0.24	0.32	830	0.26	0.35	898	0.28	0.37	953	0.29	0.39	997	0.32	0.43
710	1500	641	0.19	0.26	692	0.22	0.29	746	0.25	0.33	801	0.27	0.36	862	0.28	0.38	921	0.31	0.41	970	0.33	0.44	1011	0.36	0.48
755	1600	696	0.21	0.28	743	0.24	0.32	792	0.26	0.35	842	0.29	0.39	894	0.31	0.42	945	0.34	0.45	988	0.37	0.49	1027	0.40	0.53
800	1700	750	0.23	0.31	792	0.26	0.35	836	0.29	0.39	880	0.32	0.43	924	0.35	0.47	968	0.38	0.51	1007	0.41	0.55	1043	0.44	0.59
850	1800	799	0.26	0.35	837	0.29	0.39	875	0.32	0.43	913	0.36	0.48	952	0.39	0.52	990	0.42	0.56	1026	0.46	0.61	1061	0.48	0.65
900	1900	840	0.30	0.40	873	0.34	0.45	907	0.37	0.49	941	0.40	0.54	976	0.43	0.58	1011	0.47	0.63	1045	0.50	0.67	1080	0.54	0.72
945	2000	883	0.36	0.48	913	0.40	0.53	944	0.43	0.57	976	0.46	0.62	1009	0.50	0.67	1043	0.53	0.71	1078	0.57	0.76	1112	0.60	0.80

Air Volume		External Static - Pa (in.w.g.)																							
		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)			375 (1.50)			400 (1.60)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
425	900	995	0.21	0.28	1034	0.23	0.31	1077	0.26	0.35	1121	0.28	0.38	- - -	- - -	- - -	- - -		- - -	- - -	- - -	- - -	- - -	- - -	- - -
470	1000	999	0.23	0.31	1038	0.25	0.34	1081	0.28	0.38	1124	0.31	0.41	1168	0.33	0.44	1211	0.35	0.47	- - -	- - -	- - -	- - -	- - -	- - -
520	1100	1006	0.25	0.34	1044	0.28	0.38	1086	0.31	0.41	1129	0.33	0.44	1171	0.35	0.47	1213	0.37	0.50	1253	0.40	0.53	1293	0.42	0.56
565	1200	1014	0.28	0.38	1052	0.31	0.42	1093	0.34	0.45	1135	0.36	0.48	1176	0.38	0.51	1217	0.40	0.54	1257	0.43	0.58	1296	0.46	0.61
615	1300	1023	0.31	0.42	1061	0.34	0.46	1102	0.37	0.50	1143	0.40	0.53	1184	0.42	0.56	1224	0.44	0.59	1263	0.46	0.62	1302	0.49	0.66
660	1400	1035	0.35	0.47	1073	0.38	0.51	1112	0.40	0.54	1153	0.43	0.57	1193	0.46	0.61	1232	0.48	0.64	1271	0.50	0.67	1309	0.53	0.71
710	1500	1048	0.39	0.52	1086	0.42	0.56	1125	0.44	0.59	1164	0.47	0.63	1204	0.49	0.66	1243	0.51	0.69	1280	0.54	0.73	1317	0.57	0.77
755	1600	1063	0.43	0.57	1100	0.46	0.61	1139	0.48	0.65	1178	0.51	0.68	1216	0.53	0.71	1254	0.56	0.75	1291	0.59	0.79	1326	0.62	0.83
800	1700	1079	0.47	0.63	1116	0.50	0.67	1154	0.53	0.71	1192	0.55	0.74	1230	0.58	0.78	1267	0.60	0.81	1302	0.63	0.85	1337	0.66	0.89
850	1800	1097	0.51	0.69	1133	0.54	0.73	1171	0.57	0.77	1209	0.60	0.80	1246	0.63	0.84	1281	0.66	0.88	1315	0.69	0.92	1349	0.72	0.96
900	1900	1116	0.57	0.76	1152	0.60	0.80	1189	0.63	0.84	1226	0.65	0.87	1262	0.68	0.91	1296	0.71	0.95	1329	0.74	0.99	1361	0.77	1.03
945	2000	1148	0.63	0.84	1183	0.66	0.88	1220	0.69	0.92	1257	0.72	0.96	1291	0.75	1.00	1323	0.78	1.04	1354	0.81	1.08	1385	0.84	1.12

BLOWER DATA - BELT DRIVE - KHB060 - 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 29 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																							
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
520	1100	512	0.11	0.15	571	0.14	0.19	630	0.17	0.23	690	0.19	0.26	770	0.19	0.26	854	0.19	0.26	922	0.20	0.27	970	0.22	0.30
565	1200	535	0.13	0.18	593	0.16	0.22	651	0.19	0.26	710	0.22	0.30	788	0.22	0.30	868	0.22	0.30	933	0.23	0.31	978	0.25	0.34
615	1300	559	0.16	0.22	616	0.19	0.26	674	0.22	0.29	732	0.25	0.34	807	0.25	0.34	883	0.25	0.34	944	0.26	0.35	987	0.28	0.38
660	1400	584	0.19	0.26	641	0.22	0.29	698	0.25	0.33	755	0.28	0.37	827	0.28	0.37	899	0.28	0.38	956	0.30	0.40	997	0.32	0.43
710	1500	615	0.22	0.29	671	0.25	0.33	726	0.27	0.36	782	0.31	0.41	850	0.31	0.41	917	0.31	0.42	970	0.33	0.44	1009	0.35	0.47
755	1600	665	0.22	0.30	716	0.25	0.34	768	0.28	0.38	819	0.33	0.44	879	0.33	0.44	937	0.34	0.46	985	0.37	0.49	1022	0.39	0.52
800	1700	723	0.23	0.31	768	0.26	0.35	814	0.29	0.39	860	0.35	0.47	910	0.35	0.47	959	0.37	0.50	1001	0.40	0.54	1037	0.43	0.58
850	1800	779	0.24	0.32	818	0.28	0.37	857	0.31	0.41	897	0.37	0.50	939	0.37	0.50	980	0.41	0.55	1018	0.44	0.59	1054	0.48	0.64
900	1900	826	0.27	0.36	859	0.31	0.41	894	0.34	0.45	928	0.42	0.56	964	0.42	0.56	1000	0.46	0.61	1036	0.49	0.66	1072	0.52	0.70
945	2000	857	0.31	0.42	889	0.35	0.47	920	0.39	0.52	952	0.46	0.62	986	0.46	0.62	1020	0.51	0.68	1055	0.54	0.73	1091	0.57	0.77
990	2100	878	0.37	0.49	909	0.40	0.54	940	0.44	0.59	973	0.52	0.70	1006	0.52	0.70	1041	0.56	0.75	1076	0.60	0.80	1112	0.63	0.85
1040	2200	897	0.41	0.55	929	0.46	0.61	961	0.49	0.66	994	0.58	0.78	1028	0.58	0.78	1063	0.62	0.83	1099	0.66	0.89	1134	0.69	0.93
1085	2300	918	0.46	0.62	950	0.51	0.68	983	0.55	0.74	1017	0.64	0.86	1052	0.64	0.86	1087	0.69	0.92	1122	0.72	0.97	1157	0.76	1.02
1135	2400	941	0.52	0.70	974	0.57	0.77	1008	0.62	0.83	1042	0.72	0.96	1077	0.72	0.96	1111	0.75	1.01	1146	0.79	1.06	1181	0.83	1.11
Air Volume		**External Static - Pa (in.w.g.)**																							
		225 (0.90)			**250 (1.00)**			**275 (1.10)**			**300 (1.20)**			**325 (1.30)**			**350 (1.40)**			**375 (1.50)**			**400 (1.60)**		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
520	1100	1006	0.26	0.35	1045	0.29	0.39	1089	0.32	0.43	1134	0.34	0.46	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
565	1200	1013	0.28	0.38	1053	0.31	0.42	1095	0.34	0.46	1139	0.37	0.50	1186	0.40	0.53	1230	0.43	0.57	1266	0.45	0.60	- - -	- - -	- - -
615	1300	1022	0.31	0.42	1062	0.34	0.46	1104	0.37	0.50	1146	0.40	0.54	1192	0.43	0.57	1234	0.45	0.60	1269	0.48	0.64	1301	0.51	0.68
660	1400	1033	0.35	0.47	1072	0.38	0.51	1114	0.41	0.55	1155	0.43	0.58	1199	0.46	0.61	1240	0.48	0.65	1275	0.51	0.68	1305	0.54	0.72
710	1500	1045	0.39	0.52	1085	0.42	0.56	1125	0.45	0.60	1165	0.47	0.63	1208	0.49	0.66	1248	0.51	0.69	1281	0.54	0.73	1311	0.57	0.77
755	1600	1059	0.43	0.57	1098	0.46	0.61	1138	0.48	0.65	1177	0.51	0.68	1218	0.53	0.71	1257	0.56	0.75	1290	0.59	0.79	1319	0.62	0.83
800	1700	1074	0.46	0.62	1113	0.49	0.66	1152	0.52	0.70	1190	0.55	0.74	1231	0.57	0.77	1268	0.60	0.80	1299	0.63	0.84	1328	0.66	0.89
850	1800	1091	0.51	0.68	1129	0.54	0.72	1167	0.57	0.76	1205	0.60	0.80	1244	0.62	0.83	1280	0.65	0.87	1310	0.68	0.91	1338	0.71	0.95
900	1900	1109	0.56	0.75	1146	0.59	0.79	1183	0.61	0.82	1221	0.64	0.86	1260	0.67	0.90	1294	0.70	0.94	1323	0.73	0.98	1349	0.76	1.02
945	2000	1128	0.61	0.82	1164	0.64	0.86	1201	0.66	0.89	1239	0.69	0.93	1276	0.72	0.97	1310	0.75	1.01	1336	0.79	1.06	1362	0.82	1.10
990	2100	1148	0.66	0.89	1185	0.69	0.93	1221	0.72	0.97	1258	0.75	1.01	1294	0.78	1.05	1325	0.81	1.09	1351	0.85	1.14	1376	0.89	1.19
1040	2200	1170	0.72	0.97	1206	0.75	1.01	1242	0.78	1.05	1277	0.81	1.09	1311	0.85	1.14	1341	0.88	1.18	1365	0.92	1.23	1390	0.95	1.28
1085	2300	1193	0.79	1.06	1228	0.81	1.09	1262	0.85	1.14	1295	0.89	1.19	1327	0.93	1.24	1355	0.96	1.29	1380	0.99	1.33	1406	1.02	1.37
1135	2400	1216	0.86	1.15	1250	0.89	1.19	1282	0.93	1.24	1313	0.97	1.30	1343	1.01	1.36	1371	1.04	1.40	1396	1.07	1.44	1423	1.10	1.48

BLOWER DATA - BELT DRIVE - KHB060 - HORIZONTAL

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

FOR ALL UNITS ADD:

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

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

See page 29 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																							
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
520	1100	509	0.11	0.15	562	0.13	0.18	624	0.15	0.20	691	0.16	0.22	771	0.18	0.24	852	0.19	0.25	919	0.21	0.28	970	0.23	0.31
565	1200	535	0.13	0.18	589	0.16	0.21	650	0.17	0.23	715	0.19	0.25	792	0.20	0.27	869	0.22	0.29	932	0.24	0.32	980	0.26	0.35
615	1300	564	0.16	0.21	618	0.18	0.24	678	0.20	0.27	741	0.22	0.29	815	0.23	0.31	887	0.25	0.33	946	0.27	0.36	991	0.29	0.39
660	1400	604	0.18	0.24	657	0.20	0.27	715	0.22	0.30	775	0.25	0.33	842	0.26	0.35	908	0.28	0.37	962	0.30	0.40	1004	0.32	0.43
710	1500	656	0.19	0.26	706	0.22	0.30	760	0.25	0.33	814	0.27	0.36	874	0.29	0.39	931	0.31	0.41	979	0.34	0.45	1019	0.36	0.48
755	1600	712	0.22	0.29	758	0.24	0.32	807	0.27	0.36	855	0.29	0.39	906	0.32	0.43	955	0.34	0.46	997	0.37	0.50	1035	0.40	0.54
800	1700	766	0.24	0.32	808	0.27	0.36	850	0.30	0.40	892	0.33	0.44	936	0.35	0.47	978	0.38	0.51	1016	0.42	0.56	1052	0.45	0.60
850	1800	814	0.27	0.36	851	0.30	0.40	888	0.33	0.44	925	0.37	0.49	963	0.40	0.53	1000	0.43	0.57	1035	0.46	0.62	1071	0.49	0.66
900	1900	853	0.31	0.41	886	0.34	0.46	919	0.37	0.50	952	0.41	0.55	986	0.45	0.60	1021	0.48	0.64	1056	0.51	0.69	1091	0.54	0.73
945	2000	883	0.36	0.48	913	0.40	0.53	944	0.43	0.57	976	0.46	0.62	1009	0.50	0.67	1043	0.53	0.71	1078	0.57	0.76	1112	0.60	0.80
990	2100	906	0.42	0.56	936	0.45	0.60	967	0.48	0.65	999	0.52	0.70	1033	0.56	0.75	1067	0.59	0.79	1101	0.63	0.84	1135	0.66	0.88
1040	2200	930	0.48	0.64	960	0.51	0.68	991	0.54	0.73	1024	0.58	0.78	1058	0.62	0.83	1092	0.66	0.88	1126	0.69	0.92	1160	0.72	0.96
1085	2300	954	0.54	0.72	985	0.57	0.77	1017	0.61	0.82	1051	0.65	0.87	1085	0.69	0.92	1119	0.72	0.96	1152	0.75	1.00	1186	0.78	1.04
1135	2400	981	0.60	0.81	1013	0.64	0.86	1046	0.68	0.91	1079	0.72	0.96	1113	0.75	1.00	1180	0.78	1.05	1180	0.81	1.09	1213	0.84	1.13

Air Volume		External Static - Pa (in.w.g.)																							
		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)			375 (1.50)			400 (1.60)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
520	1100	1010	0.26	0.35	1049	0.28	0.38	1091	0.31	0.42	1134	0.34	0.45	1176	0.58	0.78	1218	0.38	0.51	1258	0.40	0.54	1297	0.43	0.57
565	1200	1019	0.28	0.38	1058	0.31	0.42	1099	0.34	0.46	1141	0.37	0.49	1182	0.39	0.52	1223	0.41	0.55	1263	0.43	0.58	1302	0.46	0.61
615	1300	1030	0.32	0.43	1068	0.35	0.47	1108	0.37	0.50	1149	0.40	0.53	1190	0.42	0.56	1230	0.44	0.59	1270	0.47	0.63	1308	0.49	0.66
660	1400	1042	0.35	0.47	1080	0.38	0.51	1120	0.41	0.55	1160	0.43	0.58	1200	0.46	0.61	1240	0.48	0.65	1278	0.51	0.68	1315	0.54	0.72
710	1500	1056	0.40	0.53	1094	0.43	0.57	1133	0.45	0.60	1172	0.47	0.63	1212	0.50	0.67	250	0.52	0.70	1288	0.55	0.74	1324	0.57	0.77
755	1600	1071	0.43	0.58	1109	0.46	0.62	1147	0.49	0.66	1186	0.51	0.69	1225	0.54	0.72	1263	0.57	0.76	1299	0.60	0.80	1334	0.62	0.83
800	1700	1088	0.48	0.64	1126	0.51	0.68	1164	0.54	0.72	1202	0.56	0.75	1240	0.58	0.78	1276	0.61	0.82	1311	0.64	0.86	1345	0.67	0.90
850	1800	1107	0.52	0.70	1143	0.55	0.74	1181	0.58	0.78	1219	0.60	0.81	1256	0.63	0.85	1290	0.66	0.89	1324	0.69	0.93	1357	0.72	0.97
900	1900	1126	0.57	0.77	1163	0.60	0.81	1200	0.63	0.85	1237	0.66	0.88	1273	0.69	0.92	1306	0.72	0.96	1339	0.75	1.00	1371	0.78	1.04
945	2000	1148	0.63	0.84	1183	0.66	0.88	1220	0.69	0.92	1257	0.72	0.96	1291	0.75	1.00	1323	0.78	1.04	1354	0.81	1.08	1385	0.84	1.12
990	2100	1170	0.69	0.92	1206	0.72	0.96	1242	0.75	1.00	1277	0.78	1.04	1310	0.81	1.08	1340	0.84	1.13	1370	0.87	1.17	1401	0.90	1.21
1040	2200	1195	0.75	1.00	1230	0.78	1.04	1265	0.81	1.08	1299	0.84	1.13	1330	0.88	1.18	1359	0.92	1.23	1388	0.95	1.27	1418	0.98	1.31
1085	2300	1220	0.81	1.08	1254	0.84	1.13	1288	0.87	1.17	1320	0.92	1.23	1350	0.95	1.28	1378	1.00	1.34	1406	1.03	1.38	1435	1.06	1.42
1135	2400	1245	0.88	1.18	1278	0.91	1.22	1311	0.95	1.28	1341	0.99	1.33	1370	1.04	1.40	1397	1.08	1.45	1425	1.12	1.50	1454	1.15	1.54

BLOWER DATA - BELT DRIVE - KHB074 - 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 29 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																							
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
895	1900	826	0.27	0.36	859	0.31	0.41	894	0.34	0.45	928	0.37	0.50	964	0.42	0.56	1000	0.46	0.61	1036	0.49	0.66	1072	0.52	0.70
945	2000	857	0.31	0.42	889	0.35	0.47	920	0.39	0.52	952	0.43	0.57	986	0.46	0.62	1020	0.51	0.68	1055	0.54	0.73	1091	0.57	0.77
990	2100	878	0.37	0.49	909	0.40	0.54	940	0.44	0.59	973	0.48	0.64	1006	0.52	0.70	1041	0.56	0.75	1076	0.60	0.80	1112	0.63	0.85
1040	2200	897	0.41	0.55	929	0.46	0.61	961	0.49	0.66	994	0.54	0.72	1028	0.58	0.78	1063	0.62	0.83	1099	0.66	0.89	1134	0.69	0.93
1085	2300	918	0.46	0.62	950	0.51	0.68	983	0.55	0.74	1017	0.60	0.80	1052	0.64	0.86	1087	0.69	0.92	1122	0.72	0.97	1157	0.76	1.02
1135	2400	941	0.52	0.70	974	0.57	0.77	1008	0.62	0.83	1042	0.67	0.90	1077	0.72	0.96	1111	0.75	1.01	1146	0.79	1.06	1181	0.83	1.11
1180	2500	966	0.59	0.79	1000	0.64	0.86	1034	0.69	0.93	1068	0.75	1.00	1103	0.79	1.06	1137	0.83	1.11	1171	0.87	1.16	1205	0.90	1.20
1225	2600	994	0.67	0.90	1028	0.72	0.97	1062	0.78	1.04	1096	0.82	1.10	1130	0.87	1.16	1164	0.90	1.21	1197	0.94	1.26	1231	0.97	1.30
1275	2700	1023	0.75	1.01	1057	0.81	1.08	1091	0.86	1.15	1125	0.91	1.22	1159	0.95	1.27	1192	0.98	1.32	1225	1.02	1.37	1258	1.05	1.41
1320	2800	1053	0.84	1.13	1088	0.90	1.21	1122	0.95	1.27	1155	0.99	1.33	1188	1.04	1.39	1221	1.07	1.43	1253	1.10	1.48	1286	1.14	1.53
1370	2900	1085	0.94	1.26	1119	0.99	1.33	1153	1.04	1.40	1186	1.08	1.45	1218	1.13	1.51	1250	1.16	1.55	1281	1.20	1.61	1313	1.24	1.66

Air Volume		External Static - Pa (in.w.g.)																							
		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)			375 (1.50)			400 (1.60)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
895	1900	1109	0.56	0.75	1146	0.59	0.79	1183	0.61	0.82	1221	0.64	0.86	1260	0.67	0.90	1294	0.70	0.94	1323	0.73	0.98	1349	0.76	1.02
945	2000	1128	0.61	0.82	1164	0.64	0.86	1201	0.66	0.89	1239	0.69	0.93	1276	0.72	0.97	1310	0.75	1.01	1336	0.79	1.06	1362	0.82	1.10
990	2100	1148	0.66	0.89	1185	0.69	0.93	1221	0.72	0.97	1258	0.75	1.01	1294	0.78	1.05	1325	0.81	1.09	1351	0.85	1.14	1376	0.89	1.19
1040	2200	1170	0.72	0.97	1206	0.75	1.01	1242	0.78	1.05	1277	0.81	1.09	1311	0.85	1.14	1341	0.88	1.18	1365	0.92	1.23	1390	0.95	1.28
1085	2300	1193	0.79	1.06	1228	0.81	1.09	1262	0.85	1.14	1295	0.89	1.19	1327	0.93	1.24	1355	0.96	1.29	1380	0.99	1.33	1406	1.02	1.37
1135	2400	1216	0.86	1.15	1250	0.89	1.19	1282	0.93	1.24	1313	0.97	1.30	1343	1.01	1.36	1371	1.04	1.40	1396	1.07	1.44	1423	1.10	1.48
1180	2500	1240	0.93	1.24	1273	0.96	1.29	1302	1.01	1.36	1331	1.06	1.42	1360	1.10	1.48	1388	1.13	1.52	1414	1.16	1.55	1441	1.18	1.58
1225	2600	1265	1.00	1.34	1296	1.04	1.40	1324	1.10	1.47	1352	1.15	1.54	1381	1.19	1.60	1408	1.22	1.64	1434	1.25	1.67	1460	1.27	1.70
1275	2700	1291	1.09	1.46	1321	1.13	1.52	1347	1.19	1.60	1374	1.25	1.67	1403	1.28	1.72	1429	1.31	1.76	1455	1.34	1.79	1481	1.36	1.82
1320	2800	1317	1.18	1.58	1346	1.24	1.66	1372	1.30	1.74	1399	1.34	1.80	1426	1.38	1.85	1451	1.41	1.89	1477	1.43	1.92	1503	1.45	1.95
1370	2900	1343	1.28	1.72	1371	1.34	1.80	1397	1.40	1.88	1424	1.45	1.95	1450	1.48	1.99	1475	1.51	2.02	1500	1.53	2.05	1526	1.55	2.08

BLOWER DATA - BELT DRIVE - KHB074 - HORIZONTAL

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

FOR ALL UNITS ADD:

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

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

See page 29 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																							
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
895	1900	853	0.31	0.41	886	0.34	0.46	919	0.37	0.50	952	0.41	0.55	986	0.45	0.60	1021	0.48	0.64	1056	0.51	0.69	1091	0.54	0.73
945	2000	883	0.36	0.48	913	0.40	0.53	944	0.43	0.57	976	0.46	0.62	1009	0.50	0.67	1043	0.53	0.71	1078	0.57	0.76	1112	0.60	0.80
990	2100	906	0.42	0.56	936	0.45	0.60	967	0.48	0.65	999	0.52	0.70	1033	0.56	0.75	1067	0.59	0.79	1101	0.63	0.84	1135	0.66	0.88
1040	2200	930	0.48	0.64	960	0.51	0.68	991	0.54	0.73	1024	0.58	0.78	1058	0.62	0.83	1092	0.66	0.88	1126	0.69	0.92	1160	0.72	0.96
1085	2300	954	0.54	0.72	985	0.57	0.77	1017	0.61	0.82	1051	0.65	0.87	1085	0.69	0.92	1119	0.72	0.96	1152	0.75	1.00	1186	0.78	1.04
1135	2400	981	0.60	0.81	1013	0.64	0.86	1046	0.68	0.91	1079	0.72	0.96	1113	0.75	1.00	1146	0.78	1.05	1180	0.81	1.09	1213	0.84	1.13
1180	2500	1010	0.68	0.91	1042	0.72	0.96	1075	0.75	1.00	1109	0.78	1.05	1142	0.81	1.09	1175	0.85	1.14	1207	0.88	1.18	1239	0.92	1.23
1225	2600	1040	0.75	1.01	1073	0.78	1.05	1106	0.82	1.10	1139	0.85	1.14	1171	0.89	1.19	1203	0.92	1.23	1235	0.95	1.28	1266	0.99	1.33
1275	2700	1072	0.82	1.10	1104	0.86	1.15	1137	0.90	1.20	1169	0.93	1.24	1201	0.96	1.29	1232	1.00	1.34	1263	1.04	1.40	1293	1.09	1.46
1320	2800	1105	0.90	1.21	1137	0.93	1.25	1168	0.97	1.30	1200	1.01	1.35	1231	1.04	1.40	1261	1.09	1.46	1291	1.13	1.52	1321	1.19	1.59
1370	2900	1138	0.98	1.32	1169	1.02	1.37	1200	1.06	1.42	1231	1.10	1.47	1261	1.14	1.53	1291	1.19	1.60	1321	1.24	1.66	1350	1.29	1.73
Air Volume		**External Static - Pa (in.w.g.)**																							
		225 (0.90)			**250 (1.00)**			**275 (1.10)**			**300 (1.20)**			**325 (1.30)**			**350 (1.40)**			**375 (1.50)**			**400 (1.60)**		
L/s	**cfm**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**	**Rev/ min**	**kW**	**BHP**
895	1900	1126	0.57	0.77	1163	0.60	0.81	1200	0.63	0.85	1237	0.66	0.88	1273	0.69	0.92	1306	0.72	0.96	1339	0.75	1.00	1371	0.78	1.04
945	2000	1148	0.63	0.84	1183	0.66	0.88	1220	0.69	0.92	1257	0.72	0.96	1291	0.75	1.00	1323	0.78	1.04	1354	0.81	1.08	1385	0.84	1.12
990	2100	1170	0.69	0.92	1206	0.72	0.96	1242	0.75	1.00	1277	0.78	1.04	1310	0.81	1.08	1340	0.84	1.13	1371	0.87	1.17	1401	0.90	1.21
1040	2200	1195	0.75	1.00	1230	0.78	1.04	1265	0.81	1.08	1299	0.84	1.13	1330	0.88	1.18	1359	0.92	1.23	1388	0.95	1.27	1418	0.98	1.31
1085	2300	1220	0.81	1.08	1254	0.84	1.13	1288	0.87	1.17	1320	0.92	1.23	1350	0.95	1.28	1378	1.00	1.34	1406	1.03	1.38	1435	1.06	1.42
1135	2400	1245	0.88	1.18	1278	0.91	1.22	1311	0.95	1.28	1341	0.99	1.33	1370	1.04	1.40	1397	1.08	1.45	1425	1.12	1.50	1454	1.15	1.54
1180	2500	1271	0.95	1.28	1303	0.99	1.33	1334	1.04	1.39	1363	1.08	1.45	1391	1.13	1.52	1418	1.17	1.57	1446	1.21	1.62	1474	1.24	1.66
1225	2600	1297	1.04	1.39	1328	1.08	1.45	1357	1.13	1.52	1385	1.18	1.58	1412	1.22	1.64	1439	1.27	1.70	1467	1.30	1.74	1495	1.33	1.78
1275	2700	1323	1.13	1.52	1353	1.18	1.58	1382	1.23	1.65	1409	1.28	1.72	1435	1.32	1.77	1462	1.36	1.82	1490	1.39	1.86	1517	1.42	1.90
1320	2800	1351	1.23	1.65	1380	1.28	1.72	1407	1.33	1.78	1434	1.38	1.85	1460	1.42	1.90	1486	1.45	1.95	1513	1.48	1.99	1541	1.51	2.02
1370	2900	1379	1.34	1.79	1407	1.39	1.86	1434	1.43	1.92	1460	1.48	1.98	1485	1.52	2.04	1511	1.55	2.08	1538	1.58	2.12	1565	1.60	2.15

BLOWER DATA

BELT DRIVE KIT SPECIFICATIONS - STANDARD EFFICIENCY - 036-074

Model No.	Motor (kW) HP		No. of Speeds	Drive Kits and Rev/Min Range							
	Nominal	Maximum		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	- - -
074	1.2 (1.66)	1.4 (1.91)	2	- - -	- - -	- - -	807 - 1117	- - -	- - -	- - -	994 - 1326

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

BELT DRIVE KIT SPECIFICATIONS - HIGH EFFICIENCY - 036-060

Model No.	Motor kW		Motor HP		No. of Speeds	Drive Kits and Rev/Min Range					
	Nom.	Max.	Nom.	Max.		A01	A02	A03	A05	A06	A07
036	0.47	0.54	0.63	0.72	2	low 374-561 high 561-842	- - -	- - -	- - -	- - -	- - -
	0.62	0.71	0.83	0.95	2	- - -	- - -	- - -	low 498-748 high 748-1122	- - -	- - -
048	0.47	0.54	0.63	0.72	2	- - -	low 414-621 high 621-931	- - -	- - -	- - -	- - -
	1.24	1.42	1.66	1.91	2	- - -	- - -	- - -	- - -	low 595-794 high 893-1191	- - -
060	0.62	0.71	0.83	0.95	2	- - -	- - -	low 463-694 high 694-1042	- - -	- - -	- - -
	1.24	1.42	1.66	1.91	2	- - -	- - -	- - -	- - -	- - -	low 673-860 high 1010-1290

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

OPTIONS / ACCESSORIES AIR RESISTANCE

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

POWER EXHAUST FAN PERFORMANCE

Return Air System Static Pressure		Air Volume Exhausted	
Pa	in. w.g.	L/s	cfm
0	0.00	944	2000
12	0.05	939	1990
25	0.10	908	1924
37	0.15	854	1810
50	0.20	785	1664
62	0.25	711	1507
75	0.30	637	1350
87	0.35	571	1210

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.	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	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	25	0.10
1040	2200	236	0.95	157	0.63	109	0.44	109	0.44	45	0.18	37	0.15	30	0.12	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

CEILING DIFFUSER AIR THROW DATA

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

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

ELECTRICAL DATA / ELECTRIC HEAT DATA - STANDARD EFFICIENCY

Model No.			KHB036S4	KHB048S4	KHB060S4	KHB074S4
[1] Voltage - 50hz with Neutral			380/420V - 3 Ph	380/420V - 3 Ph	380/420V - 3 Ph	380/420V - 3 Ph
Compressor	Rated Load Amps		4	5.5	8	8.5
	Locked Rotor Amps		31	37	59	66.1
Outdoor Fan Motor	Full Load Amps		1.1	1.1	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		1.5	1.5	1.5	1.2
	Full Load Amps		3.6	3.6	3.6	2.9
[2] Maximum Overcurrent Protection	Unit Only		15	15	20	20
	With (1) 0.25 kW Power Exhaust		15	15	20	20
[3] Minimum Circuit Ampacity	Unit Only		10	12	15	16
	With (1) 0.25 kW Power Exhaust		11	13	17	17

ELECTRIC HEAT DATA

Electric Heat Voltage			420V	420V	420V	420V
[2] Maximum Overcurrent Protection	Unit+ [4] Electric Heat	5.7 kW	20	25	30	30
		11.5 kW	30	35	35	35
		17.2 kW	- - -	- - -	45	45
		23 kW	- - -	- - -	- - -	60
[3] Minimum Circuit Ampacity	Unit+ [4] Electric Heat	5.7 kW	20	22	25	25
		11.5 kW	30	32	35	35
		17.2 kW	- - -	- - -	45	45
		23 kW	- - -	- - -	- - -	55
[2] Maximum Overcurrent Protection	Unit+ [4] Electric Heat and (1) 0.25 kW Power Exhaust	5.7 kW	25	25	30	30
		11.5 kW	35	35	40	40
		17.2 kW	- - -	- - -	50	50
		23 kW	- - -	- - -	- - -	60
[3] Minimum Circuit Ampacity	Unit+ [4] Electric Heat and (1) 0.25 kW Power Exhaust	5.7 kW	21	23	27	27
		11.5 kW	31	33	36	37
		17.2 kW	- - -	- - -	46	46
		23 kW	- - -	- - -	- - -	56

[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.

[4] Nominal kW based on 420V-3ph-50hz.

ELECTRICAL DATA / ELECTRIC HEAT DATA - HIGH EFFICIENCY

Model No.		KHB036H4		KHB048H4		KHB060H4	
[1] Voltage - 50hz with Neutral		380/420V - 3 Ph		380/420V - 3 Ph		380/420V - 3 Ph	
Compressor	Rated Load Amps	5.7		6.4		7.2	
	Locked Rotor Amps	38		41		52	
Outdoor Fan Motor	Full Load Amps	2.8		2.8		2.8	
Power Exhaust (1) 0.25 kW	Full Load Amps	1.3		1.3		1.3	
Indoor Blower Motor	kW	0.47	1.2	0.47	1.2	0.62	1.2
	Full Load Amps	1.4	2.6	1.4	2.6	1.9	2.6
[2] Maximum Overcurrent Protection	Unit Only	15	15	15	15	20	20
	With (1) 0.25 kW Power Exhaust	15	15	15	20	20	20
[3] Minimum Circuit Ampacity	Unit Only	12	13	13	14	14	15
	With (1) 0.25 kW Power Exhaust	13	14	14	15	15	16

ELECTRIC HEAT DATA

Electric Heat Voltage			420V		420V		420V	
[2] Maximum Overcurrent Protection	Unit+ [4] Electric Heat	5.7 kW	25	25	25	25	25	25
		11.5 kW	35	35	35	35	35	35
		17.2 kW	- - -	- - -	- - -	- - -	45	45
[3] Minimum Circuit Ampacity	Unit+ [4] Electric Heat	5.7 kW	22	23	23	24	24	25
		11.5 kW	32	33	32	34	34	35
		17.2 kW	- - -	- - -	- - -	- - -	44	45
[2] Maximum Overcurrent Protection	Unit+ [4] Electric Heat and (1) 0.25 kW Power Exhaust	5.7 kW	25	25	25	25	30	25
		11.5 kW	35	35	35	35	35	35
		17.2 kW	- - -	- - -	- - -	- - -	45	45
[3] Minimum Circuit Ampacity	Unit+ [4] Electric Heat and (1) 0.25 kW Power Exhaust	5.7 kW	23	24	24	25	25	30
		11.5 kW	33	34	34	35	35	40
		17.2 kW	- - -	- - -	- - -	- - -	45	50
[3] Minimum Circuit Ampacity	Unit+ [4] Electric Heat and (1) 0.25 kW Power Exhaust	5.7 kW	- - -	- - -	- - -	- - -	25	26
		11.5 kW	- - -	- - -	- - -	- - -	35	36
		17.2 kW	- - -	- - -	- - -	- - -	45	46

[2] Extremes of operating range are plus and minus 10% of line voltage.

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

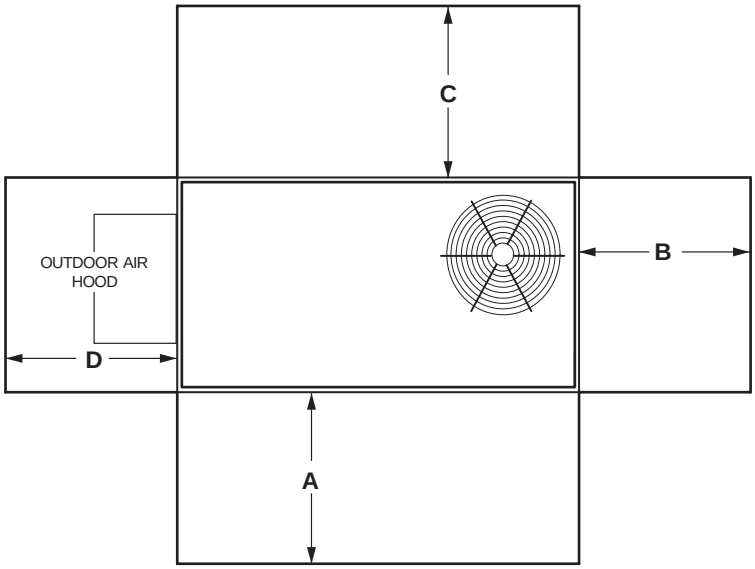
[3] Refer to local electrical code to determine wire, fuse and disconnect size requirements.

[4] Nominal kW based on 420V-3ph-50hz.

ELECTRIC HEAT CAPACITIES

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

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

OUTDOOR SOUND DATA

[1] Unit Model No.	Octave Band Sound Power Levels dBA, re 10^{-12} Watts - Center Frequency - Hz							[1] Sound Rating Number (dBA)
	125	250	500	1000	2000	4000	8000	
KHB036S	62	67	72	69	66	61	56	75
KHB048S	61	67	70	70	68	63	56	75
KHB060S	69	72	75	74	70	65	55	80
KHB074S	67	75	78	78	75	68	59	83
KHB036H	62.1	66.2	70.8	69.4	64	57.4	51.1	75
KHB048H	66.8	67.8	72.6	72.1	68	63.1	52.9	77
KHB060H	65.7	67.9	70.4	72.2	68.5	63.4	55.5	77

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

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

OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

Item		Model No.	Catalog No.
7-DAY PROGRAMMABLE THERMOSTAT - BACNET COMPATIBLE WITH REHEAT FUNCTION			
	• 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**

[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.

BACnet Controls (no reheat capability)	BACnet® Module (factory or field installed)	K0CTRL31A-2	**16X70**
	BACnet® Room Sensor with Display (field installed)	K0SNSR01FF1	**97W23**
	BACnet® Room Sensor without Display (field installed)	K0SNSR00FF1	**97W24**
Optional Accessories	Plenum Cable (RJ45/CAT5 75 ft.)	K0MISC00FF1	**97W25**

WEIGHT DATA

Model Number	Net				Shipping			
	Base		Max.		Base		Max.	
	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.
KHB036S	257	566	301	664	275	607	320	705
KHB036H	257	568	310	685	276	608	330	725
KHB048S	291	641	348	767	309	682	367	808
KHB048H	290	641	345	760	309	681	362	800
KHB060S	311	686	359	792	330	727	378	833
KHB060H	330	727	384	846	357	787	411	906
KHB074S	340	750	391	862	367	810	422	931

Base Unit - The unit with NO OPTIONS.
Max. Unit - The unit with ALL OPTIONS Installed (Economizer, etc.)

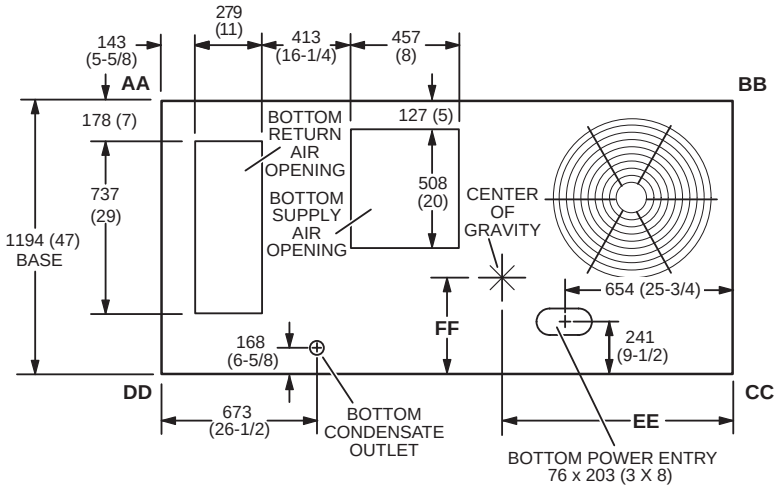
OPTIONS / ACCESSORIES

		Shipping Weights	
		kg	lbs.
ECONOMIZER			
Economizer			
Economizer, Includes Outdoor Air Hood and Barometric Relief Dampers with Hood		59	131
OUTDOOR AIR			
Outdoor Air Dampers			
Motorized		18	40
Manual		14	30
POWER EXHAUST			
Standard Static		16	35
ELECTRIC HEAT			
5.7 kW		14	31
11.5 kW		14	31
17.2 kW		16	35
23 kW		16	35
ROOF CURBS			
Hybrid Roof Curbs, Downflow			
203 mm height		23	50
356 mm height		32	70
457 mm height		36	80
610 mm height		45	100
Hybrid Curbs, Full Perimeter, Downflow			
203 mm height		26	57
356 mm height		27	60
457 mm height		41	91
610 mm height		52	114
Adjustable Pitch Curb, Downflow			
356 mm height		51	113
CEILING DIFFUSERS			
Step-Down	RTD9-65S	36	80
	RTD11-95S	54	118
Flush	FD9-65S	36	80
	FD11-95S	54	118
Transitions (Supply and Return)	T1TRAN10AN1	10	22
	T1TRAN20N-1	10	21

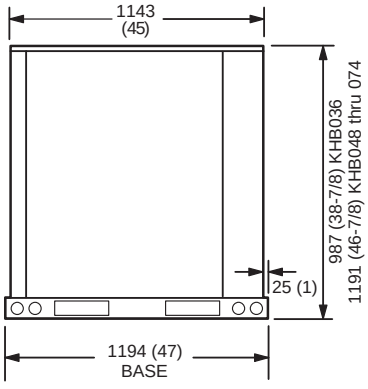
DIMENSIONS - UNIT

Model No.	CORNER WEIGHTS																CENTER OF GRAVITY							
	AA				BB				CC				DD				EE				FF			
	Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.	
	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	mm	in.	mm	in.	mm	in.	mm	in.
036S	54	119	64	140	67	149	70	153	75	165	77	170	60	133	91	201	965	38	1111	43-3/4	565	22-1/4	565	22-1/4
036H	55	122	68	150	65	144	77	170	74	164	88	193	63	138	78	171	991	39	1016	40	559	22	559	22
048S	58	128	69	153	72	159	80	177	89	197	109	239	72	158	90	198	965	38	991	39	533	21	508	20
048H	62	137	76	167	74	163	85	188	84	185	98	215	71	156	86	190	965	38	1067	42	559	22	559	22
060S	62	137	72	158	77	170	79	175	95	210	107	236	77	169	101	223	965	38	1041	41	533	21	508	20
060H	73	162	98	217	87	192	91	201	99	218	104	229	83	184	112	247	1143	45	1295	51	559	22	559	22
074S	73	160	84	185	82	180	94	208	106	233	122	269	94	207	108	239	1174	46-1/4	1174	46-1/4	521	20-1/2	521	20-1/2

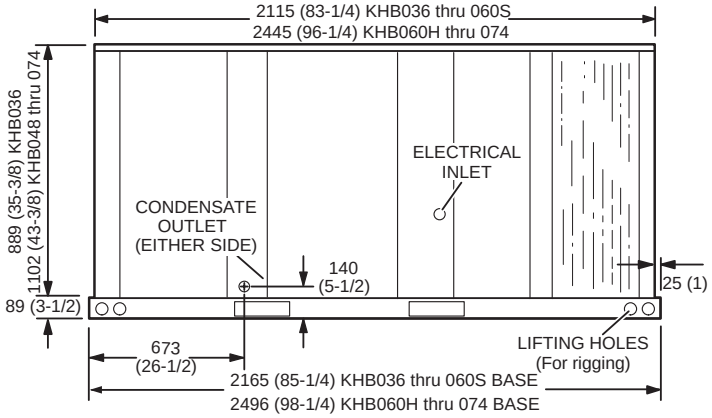
Base Unit - The unit with standard heat exchanger NO OPTIONS.
Max. Unit - The unit with ALL OPTIONS Installed (Economizer, etc.).



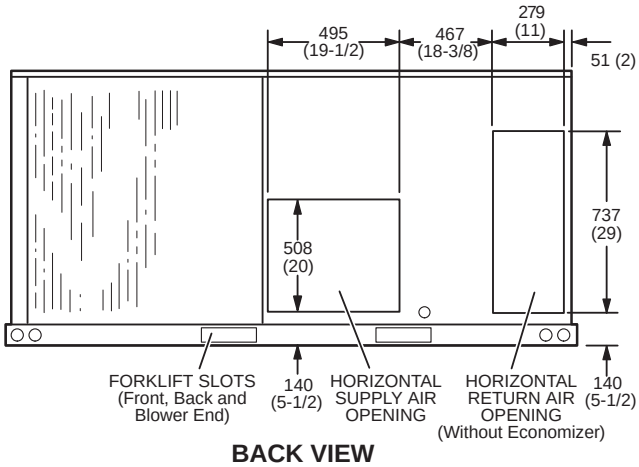
TOP VIEW (Base)



END VIEW

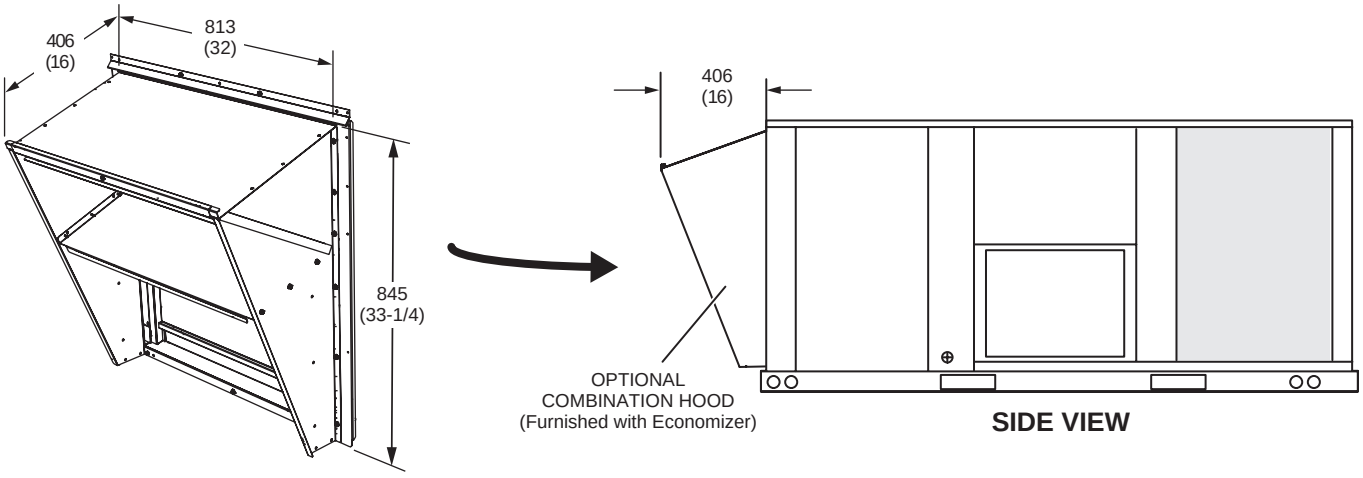


SIDE VIEW



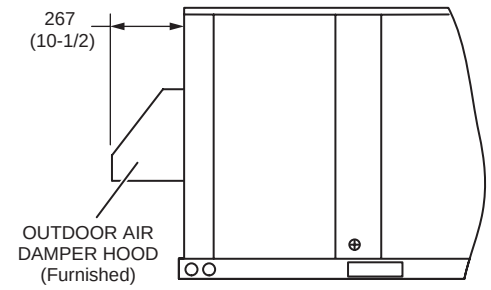
BACK VIEW

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

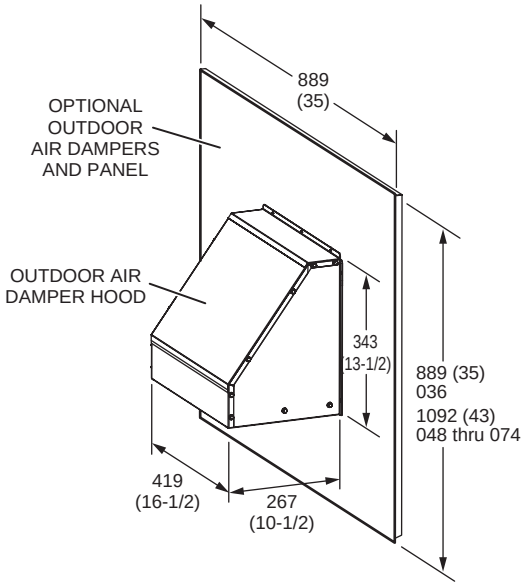


OUTDOOR AIR DAMPER HOOD DETAIL (Downflow or Horizontal Applications)

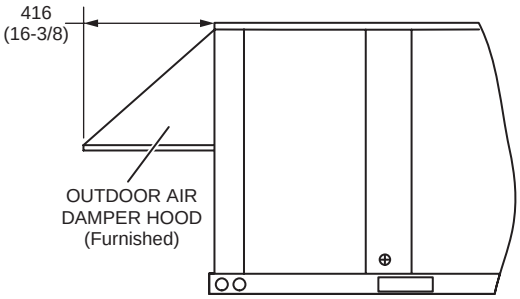
MANUAL OUTDOOR AIR HOOD



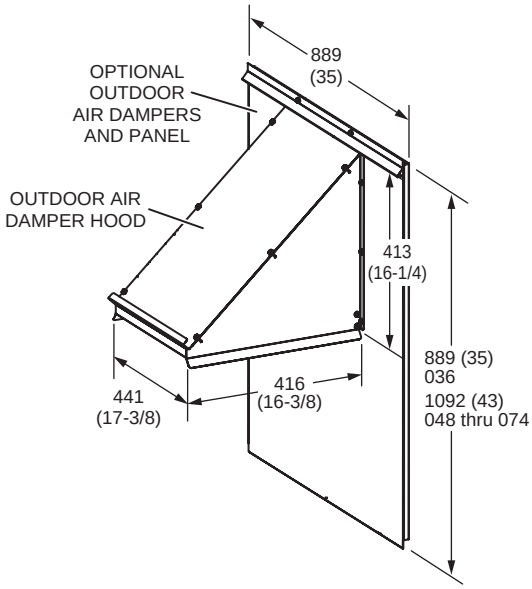
SIDE VIEW



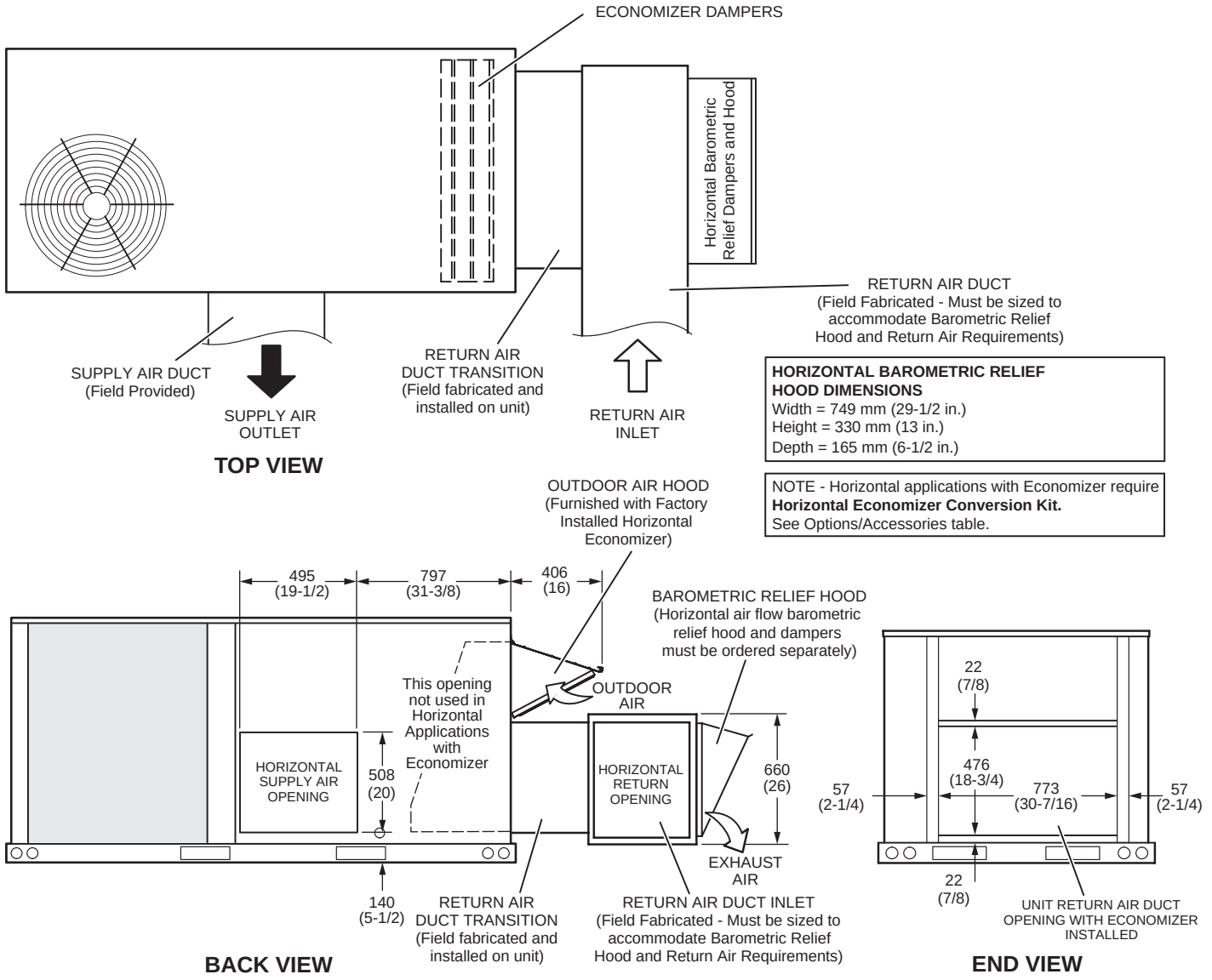
MOTORIZED OUTDOOR AIR HOOD



SIDE VIEW

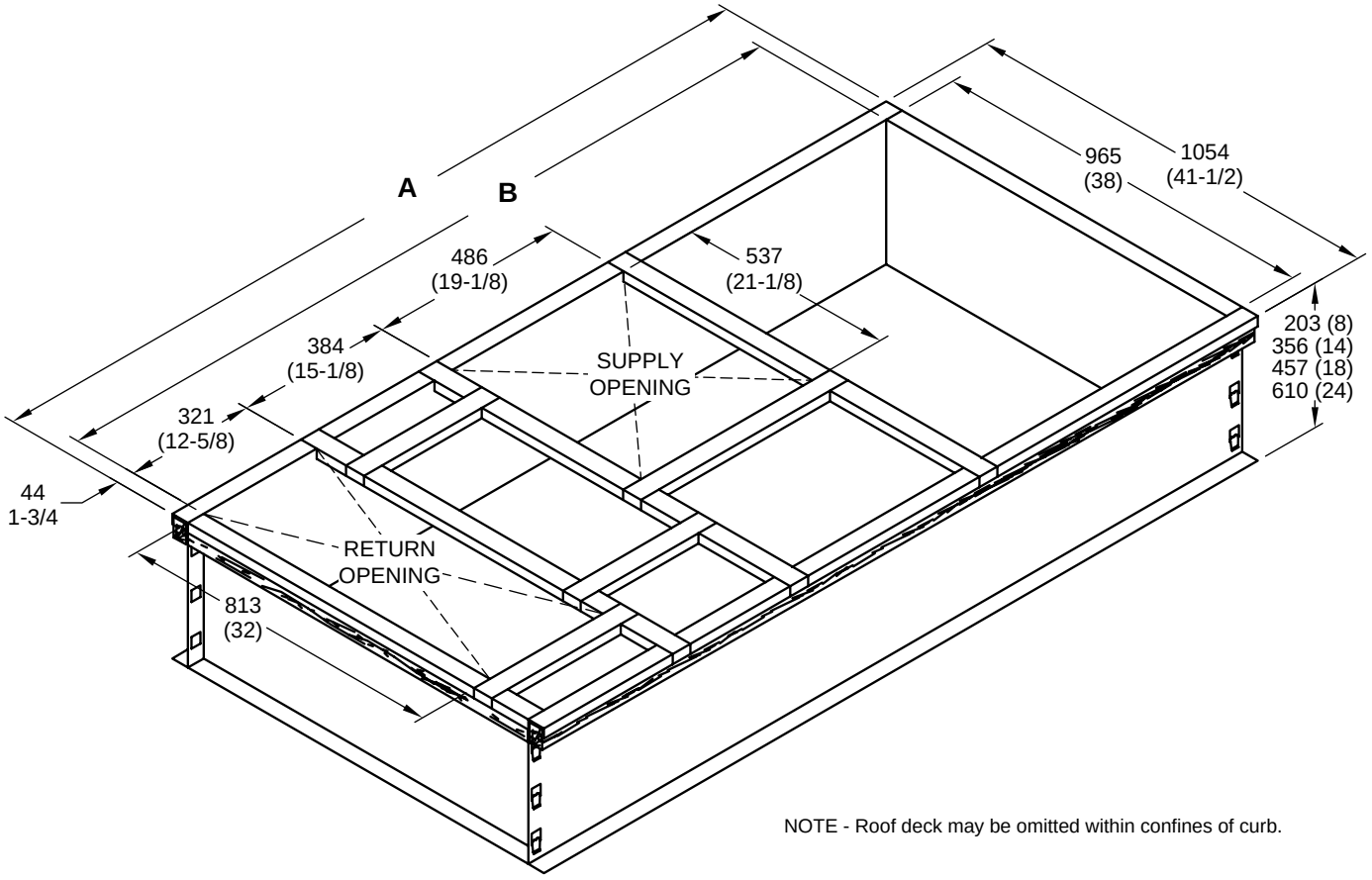


OUTDOOR AIR HOOD DETAIL WITH OPTIONAL ECONOMIZER AND OPTIONAL BAROMETRIC RELIEF DAMPERS WITH HOOD (Horizontal Application)



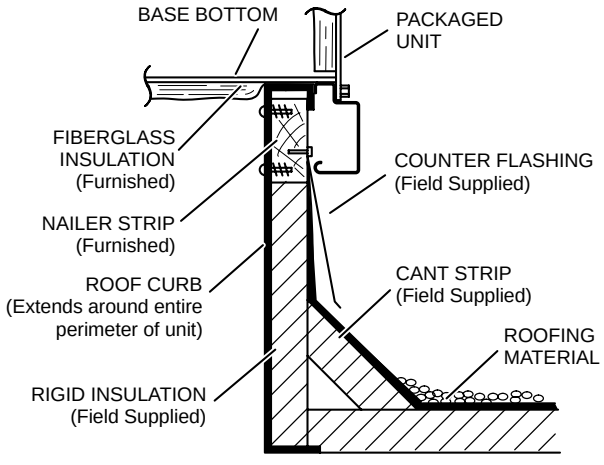
NOTE - Return Air Duct and Transition must be supported

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

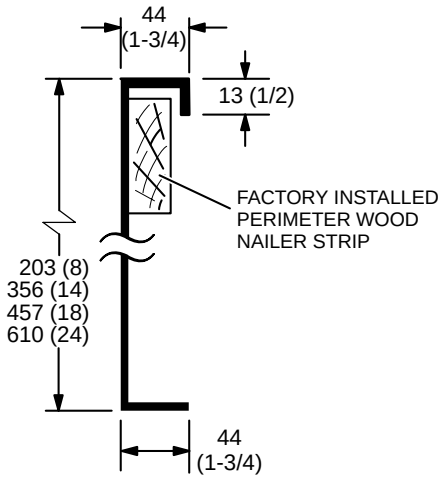


NOTE - Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

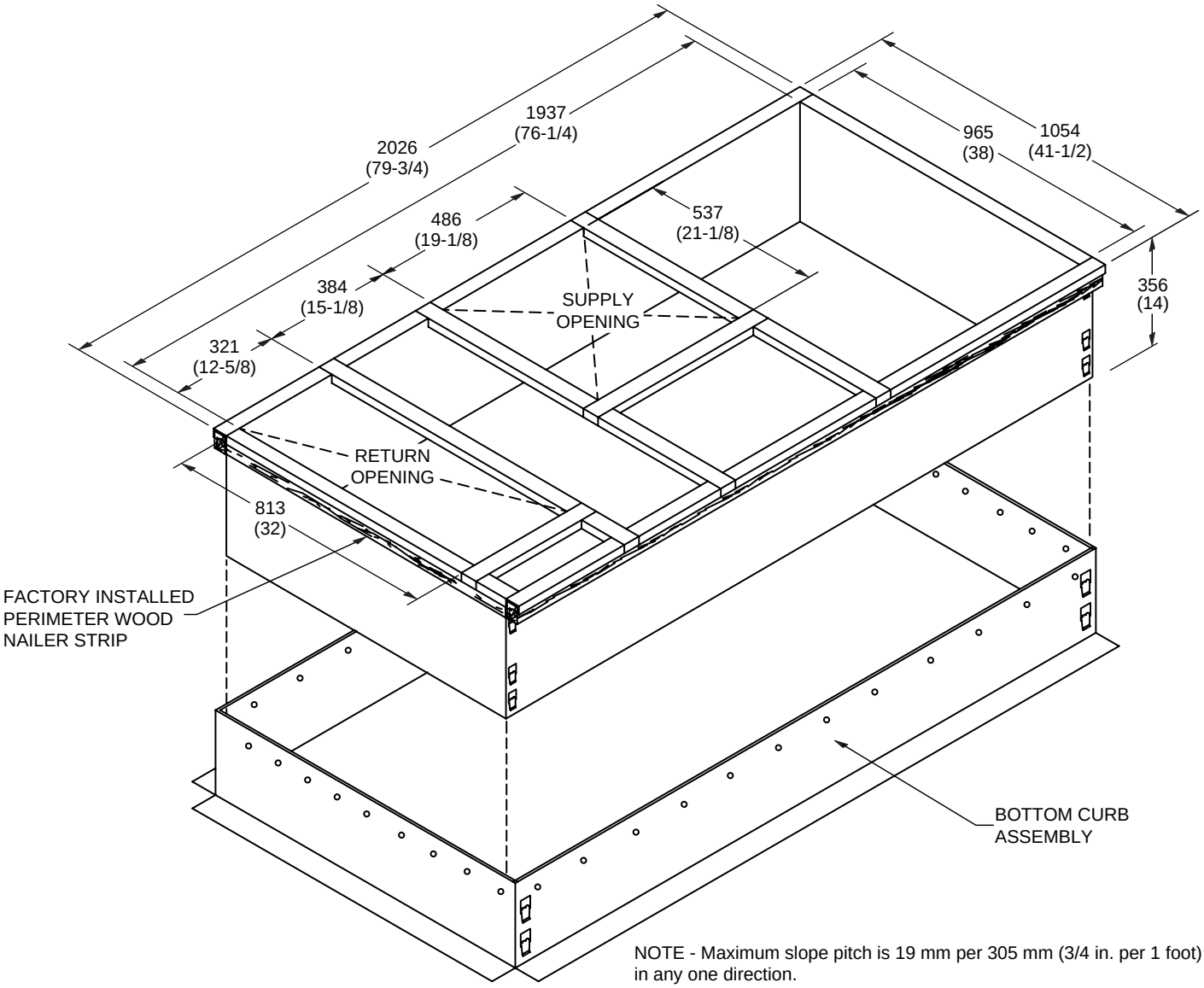


Model No.	A		B	
	mm	in.	mm	in.
Standard - 036, 048, 060S,[1] 060H,[1] 074	2026	79-3/4	1937	76-1/4
Full Perimeter - 060H, 074	2356	92-3/4	2267	89-1/4

[1] 060H and 074 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 41.

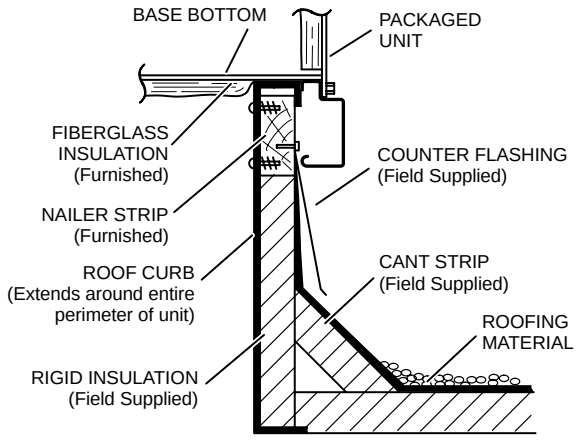
DIMENSIONS - ADJUSTABLE PITCH CURB

ADJUSTABLE PITCH CURBS - DOUBLE DUCT OPENING

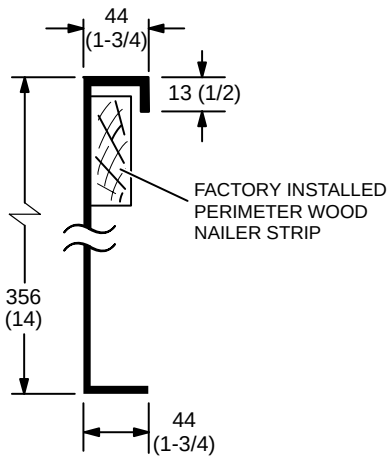


NOTE - Maximum slope pitch is 19 mm per 305 mm (3/4 in. per 1 foot) in any one direction.

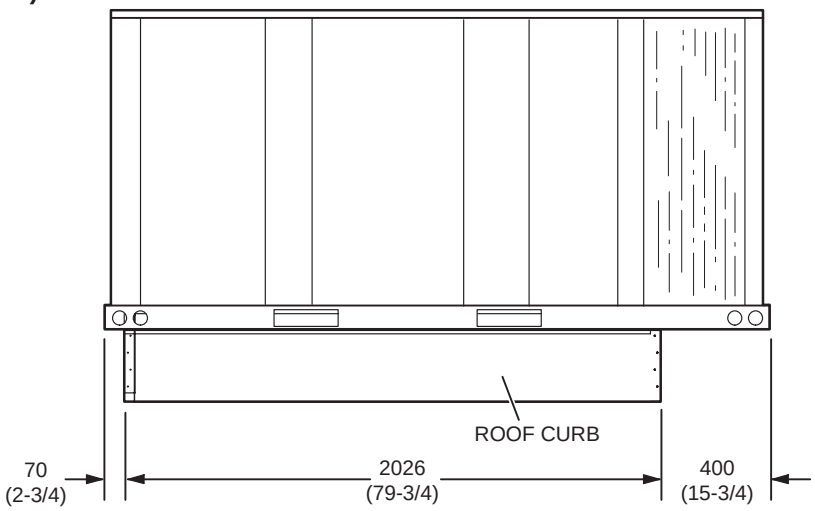
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

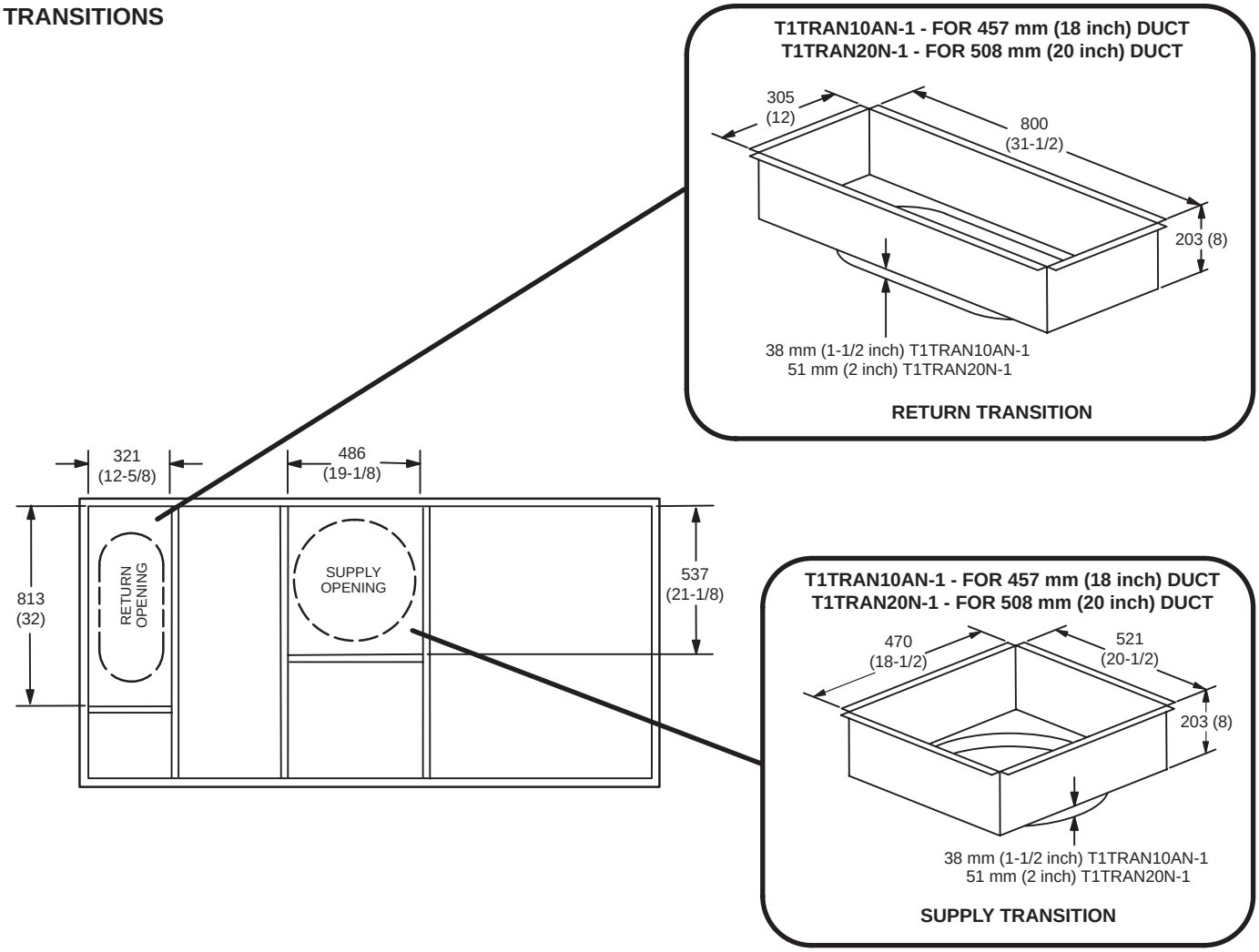


060H AND 074 MODELS - SHOWING OVERHANG ON SMALLER 2026 MM LENGTH ROOF CURBS (Not Full Perimeter)



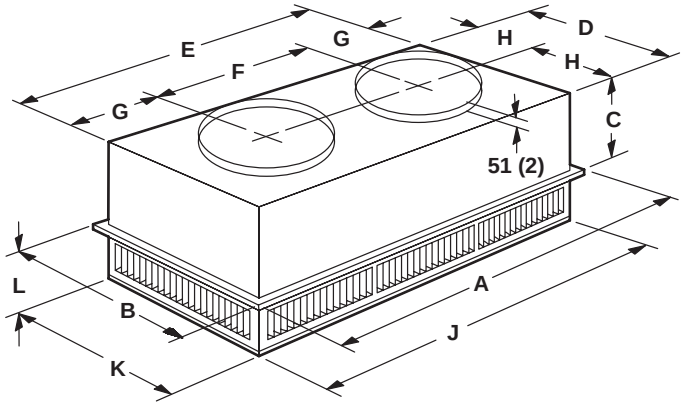
SIDE VIEW

TRANSITIONS



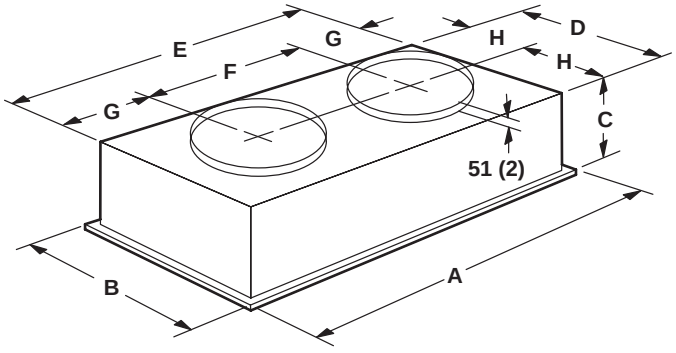
COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN 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

FLUSH CEILING DIFFUSER



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.